







MEMOIRS

*H. S. Barber*  
*recd in mail*  
*May 1, 1920*

ON THE

COLEOPTERA

BY

THOS. L. CASEY

IX

1920



PUBLISHED BY  
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*With compliments of*

*The Author*

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*Washington, D. C.*



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## I—A REVISIONAL STUDY OF THE AMERICAN PLATYNINÆ.

In his synopsis of *Platynus* and allied genera (Proc. Acad. Phila., 1854, p. 35) Dr. LeConte gave a very good historical account of the vicissitudes of meaning accorded the old generic names *Platynus*, *Anchomenus* and *Agonum* of Bonelli, by various authors, alluding especially to Brullé and Erichson, the former of whom placed all under the name *Platynus*, while the latter, as well as Lacordaire, preferred *Anchomenus* for the three united genera. The most recent European list unites them all under *Agonum*—the third and only remaining alternative. As a result of my own studies, I am disposed to regard the three genera of Bonelli as sufficiently well circumscribed and habitually differentiated among themselves to be held as valid, and have also added some other genera, a large proportion of the new names being rendered necessary by singularly isolated neotropical types; several of these were recognized by Bates as compelling the use of new generic terms, but that author has, it seems, combined too many divergent forms under his conception of the wrongly identified *Colpodes*, which, unless limited to the more characteristic species, would admit of no accurately scientific definition whatever, as a congeries of species distinct from typical *Anchomenus*. Many of the species assigned to *Colpodes* by Bates are purely and typically *Anchomenus*, where a feeble inequality in the projections at the sides of the sinus in the fourth tarsal joint frequently becomes evident. I have therefore limited the *Colpodes* of Chaudoir and Bates to those species in which the fourth anterior tarsal joint is very deeply and conspicuously bilobed, and which at the same time possess a facies of the body and character of coloration distinguishing them at least to some degree from the true *Anchomenus*. These characters are so indefinite, however, that I am forced to regard the neotropical so-called *Colpodes*, here given the name *Plocodes*, taxonomically as a subgenus of *Anchomenus*, though assigning full generic value to a few aberrant species placed under *Colpodes* by Mr. Bates.

In defining the genera of Platyninæ, a great deal of consideration must be given habitual differences and peculiarities, as in the Pterostichinæ, for radical divergencies in the structure of special organs and parts of the body are comparatively rare, while the habitual differences are so constant throughout large groups of species, as to indicate beyond doubt that this is the natural method to pursue in defining genera. The numerous species of *Agonum*, for instance, hold together remarkably well in habitus and, as a whole, present a very different appearance from *Anchomenus*, so that to unite the two would be quite repellent from the standpoint of what is known as the sense of proportion. So also the various species of *Europhilus*, which in this case are distinguished, besides habitus, by a well marked special antennal structural character, form a very consistent whole, differing greatly from *Anchomenus* and showing that they form a truly valid genus.

The Platyninæ form an extensive and important element in the Carabid fauna of the northern hemisphere, but are very much more developed in North America than in Europe. The genus *Platynus* Bon., itself, I hold to be exclusively European, our wingless species constituting three or more allied genera, of which *Rhadine* Lec., stands widely apart in general appearance from any other type of the subfamily.

The genus *Anchus*, of LeConte, is not considered in the present revision, although in my own opinion it should constitute one of the subgenera of *Anchomenus*, valid as a genus if the others are also valid. LeConte placed *Anchus* near *Atranus* as an aberrant type; in the latest European catalogue it is considered a subgenus of *Agonum* in the broad sense there given the latter genus and the type, *pusillus* Lec., is held to be a synonym of the European *obscurus* Hbst.; but I am unable to confirm this reference.\*

\* The following is a newly discovered species of *Anchus*:

***Anchus puncticeps*** n. sp.—A little larger and notably stouter than *pusillus*, piceous, shining, the elytra piceous, broadly nubilously testaceous peripherally; under surface piceo-rufous, the epipleura and legs flavate; head as in *pusillus* but a little broader, the surface with numerous rather strong punctures, almost wanting centrally; antennæ similar but a little longer; prothorax similar in general features but broader and somewhat more pubescent, the parallel sides anteriorly rather more rectilinear; elytra nearly similar and sparsely puberulent but broader, the striæ deeply impressed and smooth, the feebly convex intervals punctulate; tarsi very slender. Length (♀) 6.2 mm.; width 2.22 mm. Canada (Ontario). Levette collection.

In the present paper I have limited investigation solely to the old composite *Platynus* of our lists, the genera with fimbriate ungues being omitted. *Olisthopus*, having simple ungues as in *Platynus* but differing in having no mentum tooth, has been previously reviewed (Mem. Coleop., IV, p. 168) and is therefore also omitted. The species are extremely numerous and are probably at least a thousand in number in North America, and, so far as known to me at present, may be assigned to fifteen genera as defined below, of which five are entirely neotropical. Only incidental reference is made to the grouping of LeConte (l. c., p. 40) or to that of Zimmermann (Tr. Am. Ent. Soc., 1869, p. 244), as I preferred to work out as nearly as possible an original scheme, which by comparison with the others, will furnish additional coordinated data to aid future students of this very difficult subject. The elaboration of this review of the species of my collection has involved a great deal of hard work, and its completeness has been aided materially by a number of friends to whom I return sincere thanks in the name of future students of the various genera. Prof. Wickham sent a particularly interesting collection and Mr. Löding, of Mobile, sent some rare or local forms that I had long wanted, such as *Platynus quadrimaculatus* and *picticornis*, both very peculiar and isolated types. Mr. Knaus also sent a number of valuable specimens, and to others, among whom are Prof. Cockerell, Mr. Leng, Mr. Tom Spalding and Mr. Beutenmüller, my thanks are due for lesser but none the less appreciated favors.

The genera may be tabulated as follows:

Pubescence of the antennæ beginning on the fourth joint.....	2
Pubescence beginning on the third joint; body very small, rather convex.....	11
2—Body apterous, depressed, elongate, the legs and antennæ long and slender, the third antennal joint distinctly longer than the fourth..	3
Body winged, except in some subgenera of <i>Anchomenus</i> ; surface less depressed, generally convex.....	4
3—Elytra shining, frequently with irregular interstitial punctures, the striæ deep, the intervals convex; prothorax long, subcordiform,	

The type has been compared carefully with the same sex of *pusillus* and I have scarcely any doubt of the specific validity of *puncticeps*; *pusillus* is present in ample series in my collection from Rhode Island to Montana, and is invariably smaller and much narrower than *puncticeps*, but the head toward base frequently becomes almost as conspicuously punctate.

- much reflexed at the sides and with rounded basal angles. [Type *Feronia hypolithus* Say]..... **Platynidius**
- Elytra opaque to shining; prothorax long, subcordiform, feebly to strongly reflexed at the sides and with sharp to blunt right basal angles; facies often as in *Anophthalmus* or *Anthicus*. [Type *R. larvalis* Lec.]..... **Rhadine**
- Elytra opaque or alutaceous, finely striate, with flat intervals; prothorax not elongate, strongly and widely reflexed at the sides, with rounded or obtuse basal angles and large concave basal impressions; elytral striæ fine. [Type *Platynus chihuahuæ* Bates]..... \***Hemiplatynus**
- 4—Head with a single superciliary puncture; posterior thoracic marginal puncture wanting; prothorax relatively narrow, parallel, with almost straight sides. [Type *A. recticollis* nov.]..... \***Anacolpodes**
- Head with the usual two superciliary punctures; prothorax never so rectilinearly parallel.....5
- 5—Prothorax trapezoidal, widest at or near the base, the sides reflexed, very broadly so toward base; elytra rather inflated; antennæ long and very slender, the third and fourth joints exactly equal. [Type *Colpodes æneicauda* Bates]..... \***Trapezodera**
- Prothorax quadrate, nearly as in *Calathus*, with the sides broadly reflexed basally, the basal angles obtusely blunt or rounded; antennæ nearly as in the preceding. [Type *Anchomenus sulcatus* Dej.]... **Tanystola**
- Prothorax rather inflated at or before the middle, narrowed toward base and apex.....6
- 6—Posterior thoracic angles sharp or at any rate more or less distinctly defined; prothorax more or less cordiform; hind body evidently inflated, always very much wider than the anterior parts; legs and antennæ more or less long and slender. [Type *An. sinuatus* Dej.]..... **Anchomenus**
- Posterior thoracic angles broadly rounded, rarely becoming evident though blunt or very obtuse.....7
- 7—Posterior thoracic marginal puncture wanting; prothorax long, broadly and strongly reflexed at the sides; subbasal foveæ large, concave and smooth. [Type *M. panamense* nov.]... \***Macragonum**
- Posterior puncture distinct as usual.....8
- 8—Prothorax about as long as wide; body small to very small in size; hind body more or less inflated, oval, always much wider than the prothorax.....9
- Prothorax transverse.....10
- 9—Prothorax circularly subquadrate, more or less convex, very finely reflexed at the sides, the basal foveæ small, sharply defined, smooth and punctiform; body convex, with thick and highly polished integuments. [Type *Feronia punctiformis* Say]..... **Circinalia**
- Prothorax subcordate, the basal impressions large and concave, not definitely prolonged anteriorly, the sides extremely finely reflexed or beaded; body rather less convex. [Type *Feronia nutans* Say]..... **Micragonum**
- Prothorax nearly flat, widest before the middle as a rule, very finely reflexed at the sides, the basal impressions very feeble and in-



- definite; hind body only moderately convex. [Type *E. vixstriatus* Bates]. . . . . \***Elliptoleus**
- Prothorax parallel, with moderately, subevenly arcuate sides and subtruncate apex and base; body very small, rather slender, with thin pallid integuments. [Type *Pl. nigriceps* Lec.].. **Platynomicrus**
- 10—Body very small in size, the hind body much wider than the head and prothorax, subparallel; lustre sometimes densely sericeous. [Type *S. bembidioides* Kirby]. . . . . **Sericoda**
- Body larger and generally stouter, more oblong, the hind body never more than moderately wider than the prothorax, the latter usually transversely suboval; form more compact than in *Anchomenus* and with shorter legs and antennæ; metallic lustre highly developed in one group. [Type European]. . . . . **Agonum**
- 11—Body small, rather slender and convex, with only moderately thick integument, the head narrow; prothorax much narrower than the elytra, about as long as wide, with arcuate sides, rounded angles and rather large concave subbasal impressions, the sides very finely reflexed, sometimes more distinctly so basally; elytra oval, finely striate; legs and antennæ long and slender. [Type European].  
**Europhilus**

The genera marked by a prefixed asterisk are neotropical, none being known from above the latitudes of southern Mexico. The remainder occur for the greater part in Atlantic subarctic regions, *Anchomenus*, *Agonum* and *Sericoda* being common to the Atlantic and Pacific regions; *Tanystola* is peculiar to the latter part of the continent. As a whole, representatives of the subfamily are much less abundant and diversified in the Pacific than in the Atlantic regions.

On comparing the Platyninæ as a whole with the Pterostichinæ, the more loosely articulated body and smaller, narrower head, thinner integuments and absence of the subapical elytral marginal fold in the species of the former subfamily, are features to be especially noted, as well as the generally much smaller size of body. In most respects the Platyninæ are intermediate between the Pterostichinæ and the Lebiinæ. The elytra are, however, never so truncate at tip as in the latter subfamily and some other types of the Carabidæ, which might be thought to be closely allied.

In most of the Carabidæ, as generally well known, there is at the elytral base on each side of the scutellum, a singular modification of the striation, to which very little serious attention seems to have been given. Excepting in *Pseudomorpha*, which probably constitutes a distinct family, and a few more normal Carabids such as

*Anophthalmus*, there is, near each side of the scutellum at base, a small ocellate puncture, from which a short stria proceeds posteriorly as a rule. I have had occasion before (Mem. Col., VIII, p. 404) to allude to peculiarities of this stria, in relation to the first regular stria of the elytra in the Pogoninae. In rare instances there is no puncture of this kind and sometimes there may be a puncture but no attendant stria, as in some Evarthrids, but just now I desire more especially to call attention to the relative positions of the scutellar stria, as this short stria has been termed, and the first true stria of the elytra. As stated of the Pogonids, it is the basal part of the first regular stria which is deflexed outwardly to the ocellate puncture at or near the basal end of the second stria; this is also the invariable condition among the Platynids and most of the Lebiids, but throughout the great subfamily Harpalinae the first regular stria attains the base between the puncture and the scutellum, and the scutellar stria extends posteriorly between the first and second regular striae.

I am unable to suggest anything relating to the etiology of this singular scutellar stria and attendant ocellate puncture; they may be the last remaining vestige of some useful structure in the early stages of development; but, at the same time, some such remark applies to several other very permanent and characteristic structures of the Coleopterous wing case, which we are accustomed to pass over without speculative reasoning of any kind, such for example as the series of coarse ocellate punctures along the sides of the elytra, or the small oblique sinus near the tip of each elytron, the constancy and persistence of which characters, at the present epoch of their history, suggesting that they may be the remnants of some very important structural conditions prevailing during the earlier evolutionary stages.

#### *Platynidius* n. gen.

The species of this genus are decidedly above the average of the subfamily in size of the body and are singularly isolated in regard to facies; they probably form the closest American analogue of the true European *Platynus*, but seem to differ in many characters, such as the longer prothorax, with broadly rounded basal angles, and in the abnormal interstitial punctuation of the elytra. The

antennæ are very long and filiform, but the third joint is only slightly longer than the fourth—not so decidedly so as in *Rhadine*. The sides of the pronotum are widely and strongly reflexed, the edge slightly sinuate just before the rounded basal angles, the posterior setigerous puncture a little within the edge and well before the base. The basal foveæ are large, deeply concave, elongate, adjacent to the sides and smooth. The head is elongate-rhomboidal, the palpi long, the elytra much wider than the prothorax, elongate-suboval and but feebly convex, always shining and with more or less coarse deep striæ and convex intervals. The legs are notably long. The met-episterna are only moderately elongate and less so than might be presupposed from the very elongate hind body. The species are moderately numerous and those at hand may easily be separated as follows:

- Alternate intervals of the elytra each with two series of many rather irregular punctures, which adhere to the bounding striæ; legs pale rufous.....2
- Alternate intervals each with a single series of punctures, more sub-axially situated, very widely spaced, a little closer basally as a rule; legs black or piceous.....3
- Alternate intervals impunctate as well as the others, the regular dorsal punctures, three or four in number, being confined to the third interval as usual in the subfamily; legs dark.....4
- 2—Upper surface piceous-black throughout; under surface piceo-rufous; head three-fourths as wide as the prothorax, with prominent eyes, the front with two nubilous reddish spots; mandibles, labrum and the long slender palpi pale rufous; antennæ ferruginous, fully three-fifths as long as the body; prothorax as long as wide, widest near anterior third; base transverse, as wide as the sinuate apex; apical angles obtusely prominent; surface perfectly smooth and impunctate, the transverse impressions distinct, linear, the posterior cuspidate on the median line, which is finely impressed; elytra shorter, not more than one-half longer than wide, four-fifths wider than the prothorax; subapical sinus not very oblique and just perceptible in curvature; scutellar stria short, parallel; side margins strongly reflexed. Male with the first three anterior tarsal joints parallel and straight at the sides, oblong and equal in width; basal joints of the posterior tarsi finely striate along the sides; last abdominal segment very broadly rounded at tip, with a single puncture at each side; in the female the tarsi are simple, the last ventral still more obtusely and broadly rounded, with two or three setigerous punctures at each side. Length (♂ ♀) 13.5–15.0 mm.; width 4.8–5.3 mm. Indiana. [*Platynus erythropus* Dej.].

**hypolithus** Say

Upper surface evenly deeper black and rather more shining; general

form and structure nearly as in the preceding; prothorax similarly widest before the middle but less inflated anteriorly, so that the sides are less strongly rounded; elytra a little longer, more than one-half longer than wide in the male, as usual a little longer in the female, the broad subapical oblique sinus a little more evident; punctures of the alternate intervals more numerous but as usual sparse apically; under surface blackish-piceous. First three joints of the anterior male tarsi broader than in the preceding, the third joint less than one-half longer than wide and not nearly twice as long as wide as it is in *hypolithus*. Length ( $\sigma^7$  ♀) 14.0-15.0 mm.; width 5.1-5.5 mm. Ontario. Levette collection. .**ontariensis** n. sp.

- 3—Form narrow, elongate, more depressed than in the preceding group, piceous-black, shining, the legs nearly black; head relatively larger, nearly as wide as the prothorax, strongly rhomboidal, with moderate but prominent eyes, with the usual slender pale palpi, the antennæ three-fifths as long as the body; prothorax smaller than usual, slightly elongate, inflated anteriorly, with the sides more evidently sinuate posteriorly and the angles similarly broadly rounded, the smooth and deeply concave foveæ traceable fully to the middle; margins similarly strongly reflexed; transverse impressions fine, deep; median stria deep but obliterated submedially; base slightly narrower than the apex; elytra nearly twice as long as wide, almost twice as wide as the prothorax, the sides gradually rounding basally, the apex rapidly and narrowly oblique, distinctly sinuate; striæ smooth as usual, deeply impressed, the scutellar parallel; punctures bearing rather long fulvous setæ. Male with the first three anterior tarsal joints narrow, parallel, rapidly narrowed at base, the third one-half longer than wide; lateral groove of the posterior tarsi deep; abdomen as in *hypolithus*. Length ( $\sigma^7$  ♀) 11.5-13.0 mm.; width 3.8-4.2 mm. North Carolina (Black Mts.),—Beutenmüller. Four examples. . . . .**gracilentus** Beut.

Form much less narrow, larger in size, similar in coloration and in the shining lustre; head similarly elongate though wider and less strongly rhomboidal; front with two small indentations transversely placed between the eyes; antennæ ferruginous, even longer than in the preceding; prothorax larger, much wider than the head, barely as long as wide, the strongly reflexed sides more broadly rounded, less sinuate posteriorly; surface nearly similar, the finer median stria less evidently subinterrupted medially; base much wider, fully as wide as the apex; apical angles more obtusely rounded; elytra oval, two-thirds longer than wide, not quite twice as wide as the prothorax, subinflated posteriorly, the sides more rounded basally than in the preceding, the rather obtuse apex, sinus and fulvous setæ nearly similar. Length (♀) 14.5 mm.; width 5.15 mm. North Carolina (Black Mts.),—Beutenmüller. One example.

**enormis** n. sp.

- 4—Antennæ clear rufo-ferruginous throughout. . . . .5  
 Antennæ blackish toward base. . . . .6  
 5—Body stouter, polished, piceous-black and moderately convex; under surface and legs dark rufous; head moderately elongate and rhombi-

form, distinctly narrower than the prothorax, the eyes notably large and prominent; front with a small feeble discal indentation near each eye; superciliary punctures small but distinct; mandibles long and slender; palpi ferruginous; antennæ filiform, half as long as the body; prothorax rather convex, very smooth, not as long as wide, strongly rounded and reflexed at the sides, the latter oblique and barely subsinuate basally to the broadly rounded angles; anterior impression deep medially, the posterior feeble and rather indefinite, the median stria fine, interrupted behind the middle, attaining the base as usual; foveæ deep, smooth, scarcely traceable to the middle; base unusually narrow, not as wide as the apex and only three-fifths the maximum width; elytra (♀) one-half longer than wide, not quite twice as wide as the prothorax, subinflated posteriorly, the sides feebly arcuate basally; sinus long, moderately oblique and very feeble; striæ smooth, very deep, the scutellar coarse, subparallel; intervals strongly convex, very smooth, the third with four punctures; ocellate lateral series rather coarse; abdominal apex (♀) very obtuse, with two setigerous punctures at each side. Length (♀) 14.0 mm.; width 5.0 mm. New York (Adirondack Mts.)..... *æsoopus* n. sp.

Body very much narrower and more depressed, smooth and shining, piceous-black, the under surface and legs piceous, the tibiæ and tarsi ferruginous; head but slightly elongate, rhomboid, the eyes well developed and prominent; palpi and antennæ nearly as in the preceding; impressions of the front near the eyes barely traceable; prothorax fully as long as wide, moderately rounded and strongly reflexed at the sides, which become straight posteriorly, the angles broadly rounded; surface and impressions nearly as in the preceding, the posterior more distinct; base very much wider, fully as wide as the apex and nearly three-fourths the maximum width; elytra notably narrow, nearly four-fifths longer than wide, evidently less than twice as wide as the prothorax, the sides more rapidly rounding basally than in *æsoopus*, the striæ and intervals nearly similar, the third interval with four punctures; scutellar stria finer. Male with the first three anterior tarsal joints gradually and just visibly decreasing in width, subparallel, the third two-thirds longer than wide; male abdomen very obtuse at apex, with the usual single puncture at each side; hind tarsi as in *hypolithus* and others of the genus. Length (♂) 12.5 mm.; width 4.3 mm. New Jersey.

*rhombiceps* n. sp.

6—Dorsal punctures of the elytra three in number. Form rather narrow, moderately though evidently convex, piceous-black, shining, the legs blackish, paler distally; head slightly elongate, with unusually thick neck, barely three-fourths as wide as the prothorax; eyes very moderate and much less convex than usual; small frontal indentation at each side distinct, the pallid spots not evident; antennæ three-fifths as long as the body; prothorax slightly elongate, widest well before the middle, the sides moderately rounded, oblique posteriorly; base and apex equal, the angles broadly rounded; surface smooth but with the usual fine transverse rugulæ, the im-

pressions moderate; sides strongly reflexed, the foveæ as usual; elytra three-fifths longer than wide, nearly twice as wide as the prothorax; oblique apical sinus distinct; sides abruptly reflexed, rather gradually rounded basally, the humeral angulation distinct, the elevated sinuous basal bead strong, entire; striæ deep, smooth, the intervals strongly convex; anterior of the dorsal punctures of the third near the third, the second and third at the second, stria; three basal joints of the anterior male tarsi equal in width, parallel, the third three-fifths longer than wide. Length (♂) 13.0 mm.; width 4.7 mm. Pennsylvania. [*Platynus angustatus* Dej.].

**angustatus** Dej.

Dorsal punctures of the third interval four in number as usual in this group.....7

7—Body a little broader though longer than in *angustatus* and not quite so convex, similar in coloration and lustre; head similarly narrower than the prothorax, more rhomboidal, the neck relatively longer and not so thick, the eyes a little larger, notably more convex and prominent; frontal indentations between the eyes obsolete; antennæ very long and slender, ferruginous, piceous basally, fully two-thirds as long as the body; prothorax longer, very distinctly elongate, otherwise nearly as in *angustatus* though rather less widely reflexed at the sides and with barely traceable median stria, this being distinct in the preceding; base a little narrower, not quite as wide as the apex, the angles similarly rounded; elytra more elongate, fully three-fourths longer than wide, about twice as wide as the prothorax. otherwise nearly as in *angustatus* but with four punctures on the third interval, the first subbasal at the third stria, second submedial at basal third, the third and fourth at the second stria; anterior tarsi of the male nearly as in the preceding. Length (♂) 14.0 mm.; width 5.0 mm. Pennsylvania.....**cervicalis** n. sp.

Body smaller, still flatter, with narrower anterior parts and more intensely black coloration, very shining; legs piceous-black, the tarsi dark rufous; head much elongated, rhomboidal, only a little narrower than the prothorax, the eyes moderate but convex and prominent; tempora but feebly converging to the relatively broad neck; front without pallid spots, the minute interocular indentations distinct; antennæ long, very slender, ferruginous, piceous basally; prothorax distinctly elongate, widest near apical third, the sides strongly reflexed, broadly and moderately arcuate, feebly sinuate before the rounded basal angles; base slightly narrower than the apex, which is unusually feebly sinuate; anterior impression deep, the posterior obsolete medially, the stria rather deep; foveæ as usual; elytra nearly flat, one-half longer than wide, somewhat more than twice as wide as the prothorax, the oblique apical sinus very feeble; striæ smooth, deep, the intervals strongly convex, the third with four punctures, the anterior adhering to the third, the other three to the second, stria; ocellate sublateral punctures closer posteriorly as usual. Length (♀) 12.0 mm.; width 4.5 mm. North Carolina (Black Mts.),—Beutenmüller...**carolinensis** n. sp.

As generally in this subfamily, the close pubescence of the fourth antennal joint ends abruptly near but not at the base, defining a glabrous basal section or node of the joint, which is usually conspicuous. The remarkable difference between this structure and that seen in the small species of the genus *Europhilus* is so marked, that there could not be the slightest doubt of the generic validity of the latter.

*Angustatus* Dej., differs from all other species of *Platynidius* that I have seen, in having only three dorsal punctures, instead of the four otherwise characterizing the third group above defined. The specimen here identified as *angustatus* answers very well to the description of Dejean in the number and position of the three punctures, as well as in other characters, and it is probably typical in every way. It is not so narrow or depressed a species as *rhom-biceps*.

#### Rhadine Lec.

The rather numerous species of this genus differ so conspicuously from any other type of the subfamily in general habitus, due to their flat surfaces, very slender form of body, frequently subopaque integuments and pallid coloration in many cases, as well as in the more elongate third antennal joint, that I think there can be little or no doubt that the generic status could not very well be denied them. The basal angles of the more or less elongate prothorax are right in nearly every species, sharp and even rather prominent at times to notably blunt, the pronotal impression feeble and the foveæ shallow and smooth; the sides of the prothorax are finely reflexed in most of the species. The antennæ and legs are notably long and slender. Hind wings are wanting, the sides of the elytra more or less feebly and gradually rounding at base, the elevated elytral basal margin obtusely angulate at the humeri, forming the posterior margin of an anteriorly sloping omoplate, and the met-episterna are not or but very little longer than wide. The elytra have three to four or five minute dorsal punctures, all very close to the third stria as a rule. The species have been previously reviewed in this series (Mem. Col., IV, 1913, p. 162) and it is therefore only necessary to refer the five following to their proper places in the table there given:

**Rhadine testacea** n. sp.—Form very slender, feebly convex, pale testaceous throughout and shining; head long, three-fourths as wide as the prothorax, the eyes moderate, prominent, the tempora behind them converging and nearly straight to the rather long neck, about half as wide as the prothorax; antennæ pale, fully half as long as the body, the third joint a fourth longer than the fourth; front very smooth; prothorax barely longer than wide, strongly inflated and rounded at the sides, which become much constricted and sinuate at base, the angles acute and slightly prominent; base feebly sinuate, much narrower than the rather deeply sinuate apex; foveæ not deep but extending about to the middle; elytra very long, rather more than twice as long as wide, almost one-half wider than the prothorax, the broadly arcuate sides more broadly and strongly reflexed than usual, oblique and broadly sinuate at apex, the apical angles slightly produced and angulate; surface of each broadly concave basally, smooth, almost as shining as the pronotum; striæ finely, irregularly subpunctate, not very fine but abrupt, the intervals flat; dorsal punctures small, five in number, adhering to the inner side of the third stria; lateral foveoles numerous, forming an evenly spaced series from base to apex. Length (♀) 11.5 mm.; width 3.4 mm. Colorado (Cripple Creek).—Cockerell.

This species may be placed next after *constricta*, having very nearly the same form of prothorax, but it is smaller, much more slender, paler in color, with flat and not broadly convex strial intervals and more slender legs and antennæ; in *constricta* the dorsal punctures of the elytra are also four or five in number.

**Rhadine plumasensis** n. sp.—Form very elongate, slender, distinctly though moderately convex, shining, the elytra feebly alutaceous; color dark rufous throughout, excepting the elytra, which are piceous; head somewhat elongate, much narrower than the prothorax, the eyes moderate in size and but slightly prominent; neck three-fifths the thoracic width; front convex, smooth, the anterior impressions shallow, linear and oblique; antennæ not quite half as long as the body; prothorax distinctly elongate, the sides broadly, subevenly rounded, feebly oblique but scarcely visibly sinuate posteriorly, the basal angles distinctly more than right and with their tips blunt; base broadly sinuate, evidently narrower than the sinuate apex; anterior impression obsolete, the posterior feeble, transverse, the stria deeply impressed, not extending behind the posterior impression; sides narrowly reflexed, broadly so at the hind angles; foveæ rather indefinitely limited; elytra long, fully twice as long as wide, not quite one-half wider than the prothorax, the sides evenly arcuate, strongly but not widely reflexed, oblique and feebly sinuate at apex, the sutural angles briefly produced and sharply angulate; striæ rather fine, sharp, not punctulate, the intervals flat; dorsal punctures minute, three or four in number, situated on the third stria; lateral series of foveoles nearly as in the preceding; scutellar stria long but subobliterated; anterior tarsi of the male stout, convex and not grooved above. Length (♂) 13.0 mm.; width 4.0 mm. California (Plumas Co.).



A very distinct and rather large species, which may be placed near *jejuna* Lec., differing in its larger size and much more obsoletely sinuate sides of the prothorax at base. In *testacea* the three rows of femoral punctures, bearing very short stiff setæ, are distinctly defined; they are almost equally distinct here and are conspicuous in *jejuna*.

**Rhadine pugetana** n. sp.—Outline even more elongate than in the preceding and larger in size, not very shining, the elytra opaculate, dark red-brown, the elytra more blackish; upper surface only very feebly convex, the side margins of both pronotum and elytra strongly and sharply reflexed; head elongate, fully three-fourths as wide as the prothorax, the eyes very moderate in size though prominent; antennæ long, blackish, less so basally, three-sevenths as long as the body, the third joint one-half longer than the fourth; prothorax fully a fourth longer than wide, widest at apical third, the sides there broadly, moderately rounded, gradually oblique and very broadly, just visibly sinuate posteriorly, the angles right but with the tips bluntly rounded; base sinuate medially, distinctly narrower than the moderately sinuate apex and three-fifths the maximum width; apical angles rather broadly rounded; impressions obsolete; median stria impressed, more before and behind the middle; lateral coarse gutter finely punctulate; base longitudinally strigose; foveæ concave, indefinite, partially formed by the reflexed margin, traceable anteriorly beyond the middle, having a few punctures laterally at base; elytra very elongate, almost evenly oval, twice as long as wide, three-fourths wider than the prothorax, the sides very gradually arcuate to the base; subapical sinus long, very oblique and distinct; striæ sharply marked, slightly punctulate at apex, fine suturally, coarser externally; intervals flat, the third with four fine punctures; tarsal claws very long as usual in this section. Length (♀) 15.0 mm.; width 4.75 mm. Washington State (Wawawai),—Knaus.

The general characters of this species ally it rather closely to *plumasensis*, but it is materially larger, still more elongate, with longer third palpal joint, this being distinctly longer than the fourth in the present species, but not as long as the fourth in *plumasensis*, and in the form of the elytral tips at the suture, which in the latter species are distinctly angulate, while in *pugetana* they are narrowly rounded.

**Rhadine tenuipes** n. sp.—Very slender and depressed, testaceous in color throughout, moderately shining, the elytra alutaceous; head elongate, rhomboidal, three-fourths as wide as the prothorax, the eyes very moderate, slightly convex; neck slightly over half the thoracic width; front smooth, the oblique anterior impressions feeble and indefinite, oblique; superciliary punctures equal; between the posterior and the eye there is a rounded indentation; antennæ slender, the third

joint a third longer than the fourth; prothorax a fifth longer than wide, widest near apical third but with the sides broadly rounded, gradually converging but not distinctly sinuate basally, finely reflexed throughout; base sinuate medially, much narrower than the apex, the angles right but blunt; anterior impression obsolete, the posterior evident but broadly concave, the foveæ long, very feeble, having a few moderate punctures; median stria fine but rather deep; elytra fully twice as long as wide, almost evenly oval; sides moderately reflexed, very oblique and feebly sinuate at apex, the sutural angles prolonged, not very acutely angulate; surface nearly flat, the striæ very fine, shallow, faintly subpunctulate; intervals perfectly flat; dorsal punctures small, four in number, along the inner side of the third stria; scutellar stria long; lateral foveoles subevenly spaced; first three of the hind tarsal joints with a fine lateral stria. Length (♀) 10.8 mm.; width 3.5 mm. California (locality unrecorded).

Related to *gracilentata* Csy., but with pale elytra, flat and not very feebly convex intervals, more angulate apices and narrower and rather more elongate prothorax; in *gracilentata*, which is represented by a male, the antennæ are thicker, with the third joint two-fifths longer than the fourth, and the lateral foveoles of the elytra are less evenly spaced and alternate in size in a way not noticeable in *tenuipes*. The name *gracilentus* had been previously used by Beutenmüller for a species of *Platynus*, here referred to the genus *Platynidius*; it is not necessary to change the name, however, as the species pertain to two unquestionably distinct genera.

**Rhadine pertenuis** n. sp.—Body very slender and feebly convex, very shining and pale testaceous throughout, the elytra barely at all alutaceous; head rhomboidal, elongate as usual, barely perceptibly narrower than the prothorax, the neck two-thirds as wide as the latter; eyes moderate, scarcely prominent; posterior superciliary puncture within a small indentation; antennæ a little over half as long as the body, the third joint almost one-half longer than the fourth; prothorax slightly elongate and evidently convex, widest anteriorly but with broadly and evenly rounded sides, finely reflexed throughout and becoming distinctly sinuate at base, the angles very sharp and feebly everted; base feebly sinuate and very much narrower than the sinuate apex; anterior impression evident only medially, the posterior obsolete; foveæ small, deep, smooth, traceable by a feeble impression to before the middle; stria biabbreviated, fine but deeply and evenly impressed; elytra fully twice as long as wide, four-fifths wider than the prothorax, somewhat widest posteriorly, the sides very finely reflexed, gradually feebly arcuate basally, obliquely subsinuate at apex, the sutural angles but very slightly produced and broadly rounded; striæ very fine and feeble, faintly subpunctulate, the intervals perfectly flat, the third with three minute punctures adhering to the third stria; lateral foveoles rather unevenly

spaced; legs and tarsi very slender. Length (♀) 8.3 mm.; width 2.4 mm. Nevada (Esmeralda Co.),—Nunenmacher.

This very small and slender species may be placed near *anthicoides*, differing in the relatively more elongate third antennal joint, less narrowed thoracic base, with the sharp angles slightly everted, in the finer, less impressed and less punctulate elytral striæ and less sinuate apices and very much narrower interval between the ninth stria and the margin; in *anthicoides* the elytra are broadly and feebly concave laterally in a way not at all suggested in *pertenuis*. From *myrmecodes* Horn, this species differs in its slightly smaller size, in the relatively more elongate third antennal joint, said to be a little longer than the fourth in *myrmecodes*, in the slightly prominent basal angles of the prothorax and apparently more distinct foveæ and in the broadly rounded and not acute elytral apices.

#### Hemiplatynus n. gen.

Included under this generic term are a number of Mexican species hitherto classed as *Platynus*, but which differ materially in structure and appearance. The head is more or less elongate and rhomboidal, the prothorax not elongate or basally constricted and very widely reflexed at the sides, the elytra more or less opaque and finely striate, with flat intervals and minute dorsal punctures, about three in number, and without prolonged sutural angles; the antennæ are long and very slender, the third joint markedly longer than the fourth and the legs long and slender, with the external groove of the hind tarsi rather coarse and deep on the first three joints. There are at hand two subgeneric groups as follows:

- Prothorax large, much more than half as wide as the hind body, smooth and wholly impunctate; elytra depressed, the transverse basal carina making an acute and sharp angle with the reflexed side margin on a line which is far outside of the median line of each elytron; met-episterna barely as long as wide. . . . . I (*chihuahuae*)
- Prothorax relatively small, more oblong, rugose and punctured, much less than half as wide as the hind body; elytra more convex, the basal carina forming a much more obtuse angle with the reflexed sides, the angle on the median line of each elytron; met-episterna elongate, nearly twice as long as wide. . . . . II (*umbripennis*)

In both these groups, of which the first is subarctic and the second tropical, the external line of foveoles on each elytron is entire but rather irregularly spaced.

### Group I

#### Subgenus *Hemiplatynus* in sp.

But one species represents this group so far as known to the writer; it may be described as follows:

Body moderately ventricose, deep black, the legs black, with piceous tarsi; upper surface shining, the elytra opaque; head moderately elongate, two-thirds as wide as the prothorax, the eyes moderate in size and prominence; antennæ three-fifths as long as the body, very slender, dark piceo-rufous; prothorax fully as wide as long, widest barely before the middle, the broadly and strongly reflexed sides subevenly rounded, slightly oblique and a little straighter basally; base transversely subarcuate, fully as wide as the sinuate apex, the basal angles very broadly rounded; foveæ large, concave, but feebly prolonged anteriorly, the transverse impressions very feeble though traceable, the stria finely impressed, basally abbreviated; elytra oblong-oval, scarcely more than one-half longer than wide, three-fifths wider than the prothorax, the subevenly arcuate sides not broadly but strongly reflexed, becoming feebly sinuate apically, each apex broadly rounded; striae very fine though clearly defined, impunctate, the scutellar short; dorsal punctures moderate, three to four in number, the anterior adhering to the third, the posterior to the second stria. Length (♀) 11.0–12.0 mm.; width 4.0–4.5 mm. Mexico (Colonia Garcia, Sierra Madre Mts., Chihuahua),—Townsend. Four examples. [*Platynus chihuahua* Bates].

\**chihuahua* Bates

I assume that the specimens at hand correctly represent the Batesian species (Biol. Cent.-Amer., Vol. I, Suppl.), although the word alutaceous in regard to the elytra might better be densely opaque and the strong depression of the elytral surface could hardly be satisfied by "sat convexus."

### Group II

#### Subgenus *Stenoplatynus* nov.

I have likewise been unable to discover more than a single species of this remarkably distinct Platynoid type, and can find nothing resembling it among the writings of Mr. Bates. It may be described as follows:

Body much narrower, decidedly more convex, shining, with alutaceous elytra; color rather pale testaceous, the elytra rufo-piceous; head

rhomboidal and elongate, more than three-fourths as wide as the prothorax, the eyes well developed and rather prominent; front convex, very smooth, the anterior impressions short and shallow; antennæ very long and slender, nearly three-fourths as long as the body, the third joint a third longer than the fourth; prothorax fully as long as wide, widest just before the middle, where the sides are rounded, thence feebly converging and less arcuate to the broadly rounded apical angles and feebly converging, becoming straight, to the basal angles, which are very obtuse though with the angulation distinct; base transverse, arcuate at each side, barely as wide as the feebly sinuate apex; sides broadly, deeply and equally reflexed and sparsely punctulate throughout; surface with fine and feeble transverse rugulæ, the foveæ large, concave and rather closely punctate or subrugulose; anterior impression fine but evident, the posterior subobsolete, the stria fine, deep and subentire; elytra three-fourths longer than wide, much more than twice as wide as the prothorax and between three and four times as long, the sides moderately reflexed, distinctly more rounded at the humeri, the apices becoming oblique and very feebly sinuate; striæ rather fine but sharply defined, smooth, the intervals very indefinitely rugoso-punctulate; scutellar stria long; first three anterior tarsal joints feebly dilated, parallel and equal in width in the male. Length (♂) 10.9 mm.; width 3.5 mm. Mexico (Cuernavaca). Source unrecorded. . . . . \*umbripennis n. sp.

There is nothing figured in the "Biologia" at all resembling this species and I fail to find it in the subsequent papers of Mr. Bates; it is in no way allied to *Colpodes*, even in the broadest sense of the latter, as the small fourth tarsal joint is not deeply emarginate and is without suggestion of asymmetry. The tarsi have no suspicion of the dorsal groove of *Glyptolenus* Bates. For the latter reason it cannot be allied to *Platynus euprepes* Bates, where the tarsi are grooved above.

#### **Anacolpodes n. gen.**

A very peculiar neotropical type in regard to facies, due to the parallel and subrectilinear sides of the prothorax and deficiency in cephalic and pronotal setæ, and represented at present by only two species, justifies I think the formation of a distinct genus. The type may be described as follows:

Form ventricose, the anterior parts much narrower than the hind body, the elytra rather convex; upper surface very shining throughout, black, the legs and abdomen dark rufous; head rather more than three-fourths as wide as the prothorax, somewhat elongate and subrhomboid, the neck unusually wide, being more than two-thirds  
T. L. Casey, Mem. Col. IX, Jan. 1920.

the thoracic width; eyes moderate, rather convex; front smooth, slightly convex, the anterior impressions broad; posterior superciliary puncture deep, at a long distance from the eye, the anterior wholly obsolete; antennæ dark ferruginous, rather slender, not quite half as long as the body, the third joint nearly a third longer than the fourth; second palpal joint much thicker than the slender third and the gradually attenuate fourth; prothorax but feebly convex, oblong, slightly longer than wide, the parallel sides very feebly and broadly arcuate, straight basally, the base broad, feebly arcuate, even somewhat wider than the feebly sinuate apex; basal angles slightly more than right, with their tips slightly blunt; sides narrowly reflexed; surface smooth, the foveæ broadly, feebly concave, rather irregular, not prolonged; transverse impressions very nearly obsolete, the stria fine, even, subentire; elytra oblong-oval, much more convex than the prothorax, three-fifths longer than wide, twice the thoracic width, the rather strongly reflexed arcuate sides more rounded basally, gradually sinuously oblique apically, the tips narrowly rounded; striæ rather fine, smooth, moderately deep and sharply defined, coarse and deep at apex; intervals nearly flat, slightly convex laterad and near tip; dorsal puncture single, on the third interval near the second stria and slightly behind the middle, there being no trace of any other; met-episterna barely longer than wide; anterior tarsi ( $\sigma^7$ ) thick, subparallel, slightly grooved above, the first three joints subequal in width, the fourth scarcely narrower but more oval, slightly emarginate, second and third wider than long. Length ( $\sigma^7$ ) 9.5 mm.; width 3.7 mm. Mexico (Guerrero),—Baron.

\**recticollis* n. sp.

The species described by Mr. Bates under the name *Colpodes rectilineus* (Tr. Ent. Soc. Lond., 1891, p. 257) also evidently belongs to this genus, similarly lacking the anterior superciliary seta as well as the posterior seta at the thoracic sides, but, singularly enough, the dorsal punctures of the elytra are described as three in number and conspicuous; in *recticollis* there is no vestige of any other than the single well marked puncture on each elytron as described above. In *rectilineus*, also, the thoracic sides are said to be sinuate basally and the length is given as 11.0 mm., showing that it is an evidently larger species; at the same time some of these Baron specimens, from Guerrero, are included under *rectilineus* by Bates, this being an oversight in my opinion. Mr. Bates states that *rectilineus* is allied to *sphodroides* Chd., in the cephalic and pronotal setæ. The simply, moderately and sub-symmetrically emarginate fourth tarsal joint, shows that these species are not even closely allied to the Batesian *Colpodes*, from which they also differ greatly in habitus.

**Trapezodera** n. gen.

There are a number of species placed under *Colpodes* by Bates, which differ greatly from the normal American forms in the trapezoidal outline of the prothorax; this imparts to them a peculiarity of facies which is very striking. I have selected as typical of these, a species described by Mr. Bates under the name *Colpodes æneicauda*, but it appears that *Colpodes ignicauda*, *hemicyclicus* and perhaps some others, will also have to be included. Still other genera may have to be formed for species included under *Colpodes* by Mr. Bates, especially such as *stricticollis*, *pterostichoides* and *dyschirioides*.

In *Trapezodera*, as represented by *æneicauda*, the hind wings, instead of being absent or vestigial as in all the preceding genera, are well developed, and the slender antennæ have the third and fourth joints equal. The sides of the pronotum are widely reflexed, with the upturned basal angles evident though rather obtuse. The hind body is much wider than the anterior parts and oblong-oval, with more rapidly rounded humeri, distinct oblique apical sinus and longer deep scutellar stria. The met-episterna are notably elongate and the fourth anterior male tarsal joint is oval, with the fifth attached dorsally rather behind the middle, the sloping concavity having lobe-like prominent sides but with the apex apparently truncate; the preceding joints have two rows of inclined gelatinous plates. The mentum tooth is narrow, rounded at tip. The type may be described as follows:

Body oblong-suboval, rather strongly convex, piceo-rufous, the elytra darker and with greenish-metallic lustre, highly polished; under surface and legs rufous; head slightly elongate, two-thirds as wide as the prothorax, with very short tempora, the eyes well developed and prominent; antennæ very slender, slightly more than half as long as the body; prothorax nearly a fourth wider than long, widest far behind the middle, the sides feebly arcuate; base transverse, much wider than the apex and just visibly narrower than at basal third; apex feebly sinuate, with broadly rounded angles; sides broadly reflexed, still more widely toward base, the angles obtuse; surface with fine and feeble transverse rugulæ, moderate smooth concave foveæ and finely impressed stria, the transverse impressions very feeble; elytra three-fifths longer than wide, twice as wide as the prothorax, the sides subparallel, feebly arcuate except basally and apically; striæ not fine, smooth, moderately deep; intervals nearly flat, the third with three punctures, the first adhering to the

third, the others to the second, stria; lateral foveoles irregularly spaced; legs very moderate in length. Length ( $\sigma^7$ ) 9.5 mm.; width 3.8 mm. Mexico (Guerrero),—Baron. . . \**æneicauda* Bates

I can perceive no very good reason for naming this species *æneicauda*, but it seems to be correctly identified.

### Tanystola Mots.

*Tanystoma* Esch. (nom. præocc.)

The species of this genus are only two in number, so far as known, and were described as *Anchomenus sulcatus* and *striatus* by Dejean; they were unknown to LeConte when he drew up his synopsis in 1854. They are moderate or rather small in size, more or less convex, with oblong-oval hind body and quadrate *Calathus*-like prothorax, and are apparently apterous; they are specially distinguished by having the fourth palpal joint a little longer than the third. The mentum tooth is trapezoidal, with narrowly truncate apex, the antennæ slender, with the third joint rather distinctly longer than the fourth, the thoracic sides well reflexed, the sides of the elytra rather abruptly reflexed, gradually a little more rounded basally and with long and feeble apical sinus, and the met-episterna are very short, about as long as wide. The legs are moderate but with long and very slender tarsi, the three dilated joints of the anterior in the male evenly convex above; the claws are long and notably slender. The two known species are the following:

Body oblong, more elongate and less convex than in *striata* and larger in size, shining, dark piceous-brown in color; head well developed, scarcely longer than wide, the eyes moderate and only feebly convex; surface with a few feeble rugulæ laterally, the anterior impressions shallow; antennæ fuscous, rather long and slender, the third joint notably longer than the fourth; prothorax quadrate, only a little shorter than wide, widest before the middle but with the subparallel sides only very moderately arcuate throughout and broadly reflexed, the angles obtuse and rounded; base much wider than the rather deeply sinuate apex; transverse impressions both somewhat distinct, the stria between them moderate; foveal region closely and distinctly punctured, the punctures extending forward in the broad lateral gutters almost to the apex; foveæ very shallow and indefinite, limited externally by the more strongly reflexed basal part of the lateral margin; elytra oblong, three-fifths longer than wide, two-fifths wider than the prothorax, the sides parallel, broadly arcuate, not more rapidly so at base; apex rather obtusely rounded, with long and feeble sinus; striæ moderate, smooth, impressed, the



intervals broadly convex, the third with four to five rather strong punctures, the first near the third, the others nearer the second, stria; met-episterna not one-half longer than wide; anterior male tarsi somewhat convex, only moderately dilated. Length ( $\sigma^7$ ) 10.0 mm.; width 4.0 mm. California,—Leng.....*sulcata* Dej.

Body more oval, convex, shining, piceous-black, the anterior parts usually more rufous; under surface piceo-rufous, the legs dark rufous; head barely visibly longer than wide, three-fifths as wide as the prothorax, with short tempora and broad neck; eyes moderate in size and convexity; anterior impressions short, parallel; antennæ not quite half as long as the body, piceo-rufous, the basal joint somewhat paler; prothorax but very little wider than long, the parallel sides very evenly and rather feebly arcuate from apex to base, the latter somewhat wider than the moderately sinuate apex, transverse, broadly, feebly sinuate in median three-fifths; basal angles rounded, the apical also rounded and only very slightly prominent; transverse impressions distinct, especially the posterior, the stria rather fine but deeply impressed; foveæ broad, shallow, somewhat punctate and including a short longitudinal elevation; scutellum and scutellar striæ short; elytra oblong-oval, not or barely one-half longer than wide, fully one-half wider than the prothorax, the sides subevenly rounded; apex rather obtuse; striæ rather fine but sharply defined, nearly smooth; intervals flat, sometimes feebly convex internally in the male, the third with four punctures, the first two adjoining the third, the others the second, stria; tarsi with the fourth joint feebly emarginate and transverse at apex, the first three of the anterior in the male distinctly dilated, the second barely longer than wide. Length ( $\sigma^7$  ♀) 7.8–9.3 mm.; width 3.4–3.8 mm. California (San Francisco Bay). Six examples. [*Anchomenus striatus* Dej.].....*striata* Dej.

The general outline and other external characters, particularly the relatively large, quadrate prothorax, are strongly remindful of the Alaskan *mollis* Dej., which however is not a Platynid in the strict sense, but belongs to the genus *Pristodactyla*, and is approached closely by two species in my collection from Arkansas and Colorado. These species *sulcata* and *striata* of Dejean, are so peculiar in habitus, with prothorax recalling *Calathus* rather than *Agonum* or *Anchomenus*, that I think the genus *Tanystola* must be regarded as valid without much doubt.

#### **Anchomenus** Bon.

There is a peculiarity of habitus distinguishing the numerous species of this genus from any of the others here defined and caused principally by the reduced size of the anterior parts, when compared with the hind body, the well defined and generally rather

sharp hind thoracic angles and the usually very elongate and slender antennæ and legs. In fact the contrast in general appearance with the more parallel and compact body and rounded basal angles of *Agonum* is so great, that it becomes a matter of some surprise that the validity of the two genera should be so persistently overlooked or ignored. I know of no case which should cause any hesitation in generic assignment as between *Anchomenus* and *Agonum*, which is one of the best tests of generic validity. In the rather extensive material at hand there are, however, a number of subgeneric groups based upon various subordinate characters as follows:

- Hind wings wanting or vestigial, the sides of the elytra very gradually rounding basally; body black, without metallic coloration; dorsal elytral punctures two to four in number. . . . . 2
- Hind wings well developed, the humeri strongly rounded. . . . . 3
- 2—Body rather narrow, elongate and moderately convex; antennæ moderately short, thicker than in typical *Anchomenus*; prothorax with the sides distinctly and sharply reflexed, the basal foveæ well developed; met-episterna short to moderately long. . . . I (*districtus*)
- Body notably abbreviated; antennæ short and very thick; thoracic sides very finely margined, the basal foveæ small and feeble; surface flatter; met-episterna very short. . . . . II (*curtipennis*)
- 3—Fourth anterior tarsal joint deeply and conspicuously lobed, on the other tarsi less conspicuously bilobed or deeply emarginate, though always having the outer lobe longer than the inner; metallic coloration rather more frequent than otherwise; antennæ and legs long and slender. . . . . III (*guerrerensis*)
- Fourth tarsal joint simply emarginate throughout; antennæ and legs long and slender. . . . . 4
- 4—Body larger and stouter, never notably metallic; sides of the prothorax more or less strongly reflexed; met-episterna short to rather long; dorsal punctures three or four. . . . . IV (*sinuatus*)
- Body smaller and more slender, frequently metallic or bicolored; sides of the prothorax very finely margined; met-episterna long; dorsal punctures three to six. . . . . V (*funebri*)

The above species assigned to represent these groups only hold good for the present work, and in a general revision other older and better known forms might be chosen in some instances. *Guerrerensis* is a species which appears to represent Chaudoir's ideas of *Colpodes*, as also those of Mr. Bates, although both authors assigned many species to the genus so identified which cannot remain there. The species which forms the type of the subgenus *Plocodes*, is here described as new because I cannot identify it positively. This is not very important or conclusive, however, as the true type of

*Colpodes* is an East Indian insect, which is generically different from any of the Mexican forms hitherto assigned to *Colpodes*. There can be little or no doubt that the species of the *guerrerensis* type, whatever this may prove to be if previously described, form a mere section of *Anchomenus* as heretofore defined. In fact in *Anchomenus reflexus* Lec., there is a decided inequality of the projections of the fourth tarsal joint, but it is wholly impossible to separate this species in even a subgeneric sense from *cincticollis* Say, and other allied species. Chaudoir noticed this asymmetry of the fourth joint in *reflexus*, which he quoted under the original preoccupied name *marginatus*, and assigned it definitely to the Mexican so-called *Colpodes*, but I am sure for very inadequate reasons.

#### Group I (*districtus*)

##### Subgenus *Platynella* nov.

The rather numerous species of this group belong to a section forming part of the very composite *Colpodes* as understood by Chaudoir. They appear to be apterous, have an unusually large head, rather thick compressed antennæ, sharply triangular mentum tooth and rather slender palpi, with the last two joints subequal as a rule. The prothorax is as long as wide or longer, the sides rather strongly reflexed and sinuate basally to the usually sharp angles, the foveæ moderate and nearly always smooth, there being no pronotal punctures. The elongate-oval elytra have rather fine impunctate striæ, feebly sinuate apices and generally rounded sutural angles, and there is a sharp angle between the sinuate basal line and lateral margin. The species *Colpodes marginicollis* of Chaudoir, seems to be one of this series, but is not accurately identifiable among so many allied species; all of those at hand seem to be represented by the female alone, and the two examples of *marginicollis* known to Chaudoir were also females. The five species at hand, belonging to the fauna of southern Mexico, may be described as follows:

Tempora swollen in a peculiar manner and almost as prominent as the eyes. Body slender, rather convex; under surface and legs blackish-piceous; prosternum and coxæ paler; head and pronotum shining, blackish-piceous, the elytra blacker and opaculate; head large, five-sixths as wide as the prothorax, with broad neck, the eyes very

moderate and only slightly prominent; anterior impressions small and feeble; posterior superciliary puncture remote from the eyes; antennæ long, fully half as long as the body, fusco-ferruginous, the third joint much longer than the fourth; prothorax slightly elongate, the apex moderately sinuate, much wider than the base and with rounded angles; sides broadly arcuate, becoming broadly sinuate basally, broadly reflexed, especially at base, forming the foveal cavity, the angles right, sharp; base feebly sinuate, arcuate laterally; transverse impressions feeble, the stria sharp, impressed, subentire; elytra elongate-oval, nearly twice as long as wide, almost one-half wider than the prothorax, very oblique at apex, the sutural angles briefly divaricate and obtusely subangulate; striæ very fine; dorsal punctures four, the first on the third stria, the others on the second; met-episterna short, as wide as long; tarsi slender, the upper surface finely and uniformly, longitudinally strigilate, and the fourth joint feebly and symmetrically emarginate; posterior tarsi also with lateral groove, the fifth joint scarcely ciliate. Length (♀) 9.7 mm.; width 3.7 mm. Mexico (Tres Marias, Morelos),—Wickham.

**\*districtus** n. sp.

Tempora not tumid behind the eyes. . . . . 2  
 2—Dorsal punctures of the elytra three in number. Body elongate, rather convex, deep black throughout, the legs black, the surface shining, the elytra opaculate; head large, fully five-sixths as wide as the prothorax, with broad neck and moderate, rather prominent eyes, the tempora feebly converging and slightly arcuate behind them; posterior puncture fine and rather distant from the eyes; anterior impressions long, oblique, very feebly and vaguely impressed; palpi piceous-black; antennæ piceous, black basally, less than half as long as the body, compressed, the third joint distinctly longer than the fourth; prothorax as wide as long, the sides subparallel, broadly arcuate, becoming rapidly sinuate before the right and very sharp basal angles, moderately and subequally reflexed throughout; foveæ feebly impressed, the surface flat thence to the sides; impressions shallow, the stria fine; base rectilinearly transverse, barely narrower than the sinuate apex, the apical angles rather prominent and not rounded; elytra three-fourths longer than wide, one-half wider than the prothorax, widest a little behind the middle, the oblique apices very feebly sinuate, the sutural tips rounded; striæ fine, the intervals flat, the punctures all near the third stria; met-episterna a little longer than wide; tarsi smooth above, the anterior rather stout, parallel, the outer lobe of the fourth joint distinctly more prolonged. Length (♀) 10.5 mm.; width 4.0 mm. Mexico (Tres Marias, Morelos),—Wickham.

**\*logicus** n. sp.

Dorsal punctures two in number. . . . . 3  
 3—Head short, scarcely longer than wide, the eyes rather small and but slightly prominent, the pronotal foveæ broadly concave, merging gradually into the reflexed sides; dorsal punctures of the elytra very remotely separated, the anterior near the base. Form slightly more ventricose, black and shining, the legs and tarsi black, rather

convex, the elytra only slightly alutaceous; head not over three-fourths as wide as the prothorax, with very broad neck; tempora feebly converging and slightly arcuate; anterior impressions small and feeble; antennæ not quite half as long as the body, piceous, the third joint but little longer than the fourth; prothorax fully as wide as long, widest near the middle, the sides broadly and subequally rounded, becoming rapidly and moderately sinuate nearer the base than usual, strongly reflexed throughout; base slightly arcuate at the sides, with right and scarcely blunt angles, fully as wide as the apex, which is feebly sinuate and with roundly tipped angles; transverse impressions feeble, the stria finely impressed; elytra one-half longer than wide, two-fifths wider than the prothorax, the humeri a little less gradual than in the two preceding, the apex bluntly ogival, the sinus very feeble, the sutural angles evenly rounded; striæ moderately fine, slightly impressed, smooth; intervals not quite flat; met-episterna somewhat elongate; tarsi slender, smooth above, the fourth joint feebly and symmetrically emarginate. Length (♀) 9.0 mm.; width 3.6 mm. Mexico (Guerrero).—Baron. . . . . \*baroni n. sp.

Head elongate, with better developed and prominent eyes; pronotal foveæ linear and separated from the sides by a convex surface; dorsal punctures of the elytra less widely separated, the anterior at or slightly before the middle; body less abbreviated and less ventricose, the elytral sides more gradually rounding basally. . . . 4

4—Form moderately slender and convex, black, piceous beneath, the legs black; surface strongly shining, the elytra not opaculate; head narrower though nearly four-fifths as wide as the prothorax, the tempora rapidly converging and feebly arcuate; superciliary punctures as in the preceding species; anterior impressions moderately long, feebly impressed; antennæ piceous, less than half as long as the body, strongly compressed, the third joint distinctly longer than the fourth; prothorax as wide as long, the sides subevenly rounded and rather strongly, subequally reflexed, becoming oblique and gradually feebly sinuate basally, the angles slightly more than right, with narrowly blunt tips; base slightly arcuate throughout the width, not quite as wide as the apex, which is moderately sinuate and with blunt angles; transverse impressions distinct, the stria fine, biabbreviated; elytra three-fifths longer than wide, more than one-half wider than the prothorax, rapidly and notably obtuse at apex, the sinus long and very feeble, the tips evenly rounded; striæ smooth, rather fine, becoming coarser at tip, sharply defined; intervals virtually flat; anterior puncture at or just behind the middle; met-episterna slightly longer than wide; tarsi slender, smooth above. Length (♀) 8.8 mm.; width 3.4 mm. Mexico (Tres Marias, Morelos).—Wickham. . . . . \*morelosensis n. sp.

Form nearly as in the preceding but with the elytra less obtuse at apex, the rounded tips rather more prolonged, similar in coloration and lustre; head not so narrow and with still wider neck, more than four-fifths as wide as the prothorax, the rather long anterior impressions more oblique; antennæ nearly similar; prothorax of

different form, fully as wide as long, the well reflexed sides obtusely angulate at the middle, thence oblique and nearly straight anteriorly to the rounded and subprominent apical angles, and posteriorly for a shorter distance to the rather abruptly formed sinus, at base becoming parallel for some distance before the angles, which are slightly more than right though very sharply defined; impressions similar, the anterior deep, the posterior feeble, the stria distinct; elytra two-thirds longer than wide and fully three-fourths wider than the prothorax, the long oblique sinus very feeble; striæ fine, not coarse at tip; intervals flat; anterior puncture at or near basal two-fifths; met-episterna distinctly elongate, fully one-half longer than wide; tarsi nearly similar. Length (♀) 9.2 mm.; width 3.5 mm. Mexico (Tres Marias, Morelos),—Wickham..... \**infidus* n. sp.

Despite a few inconsistencies, such as the tarsal sculpture, swollen tempora and four dorsal punctures of *districtus*, the three punctures, broader tarsi and posteriorly inflated elytra of *logicus*, the shorter head and smaller eyes of *baroni* and the narrower head and differently placed dorsal punctures of *morelosensis* and *infidus*; these five species and probably some others already described, undoubtedly form a rather homogeneous group, especially in the general habitus of the body, and I cannot avoid the conviction that they have but little close affiliation with typical forms of the Batesian *Colpodes*.

#### Group II (*curtipennis*)

##### Subgenus *Plantyus* nov.

In this apparently very restricted subgenus the body is notably abbreviated, moderately convex, with the outer joints of the rather thick antennæ moderately compressed and with a fine longitudinal groove above and beneath, the triangular mentum tooth short and broad, the prothorax equally and feebly reflexed at the sides, the sinuate basal line and sides of the elytra forming an obtuse blunt angle at the humeri, and the met-episterna are very short, not quite as long as wide. The elytral apices and general structure otherwise are almost as in normal *Anchomenus*. The tarsi are smooth above and the fourth joint is simply sinuate at tip and bilaterally symmetric, without trace of the bilobation of the Batesian *Colpodes*. The type may be defined as follows:

Form short and stout, deep black throughout the body, legs and antennæ, the palpi black, with feebly diaphanous tip; surface shining, the elytra opaque; head but little longer than wide, three-fourths as

wide as the prothorax, the eyes well developed and prominent; posterior puncture smaller than the anterior as in the preceding group, though not much further from the eye than the anterior; palpi obtusely pointed; antennæ nearly half as long as the body, thick distally, slender basally, the third joint but little longer than the fourth; prothorax a-fourth or fifth wider than long, the sides very evenly and moderately rounded, becoming slightly sinuate toward the basal angles, which are sharp and prominent at tip; base broadly arcuate from side to side, equal in width to the moderately sinuate apex, the apical angles subprominent though blunt at tip; surface very moderately convex, virtually smooth, with feeble transverse impressions and a fine stria extending only between them; foveæ feebly impressed, distant from the sides; elytra only a third longer than wide, fully two-thirds wider than the prothorax, the sides evenly arcuate, not more so basally, the apical sinus not very long, distinct, the tips broadly rounded; striæ fine, sharp, impunctate, rather deep, the scutellar short, parallel; intervals flat; dorsal punctures three, the two anterior at the third, the posterior near the second, stria; hind tarsi finely grooved externally. Length (♂ ♀) 8.2-9.2 mm.; width 3.5-3.8 mm. Mexico (Tres Marias, Morelos),—Wickham.....\**curtipennis* n. sp.

This species would inevitably be considered an *Anchomenus*, even in the work of Mr. Bates, but I cannot identify it with anything described or cited by that author in the "Biologia" or in any subsequent work. In general appearance it resembles nothing else known to me at present.

### Group III (*guerrerensis*)

#### Subgenus *Plocodes* nov.

*Colpodes* Chaud., Bates et al., nec MacLeay

The type species here made known under this subgeneric name, cannot resemble closely the Indian genus named *Colpodes* by MacLeay, though custom at present seems to demand that almost any neotropical Platynid shall be considered a *Colpodes*. In *Colpodes*, as represented by the Javan *brunneus* MacL., the mentum is said to be edentate; the tooth in *Plocodes* is long and conspicuous. In *guerrerensis* the met-episterna are greatly elongated, the humeri strongly rounded and the hind wings well developed; the anterior tibiæ are canaliculate externally, the tarsi not medially sulcate above, the elytral tips rounded, the striæ fine and the prothorax subcordate. These characters, in the arrangement given by Chaudoir (Ann. F. 1878, p. 377), would seem to bring it near

*purpuripennis* Chd., which is from Mexico but only 7 mm. in length; the neighboring species all seem to be from South America. I have before me two species of this subgenus as follows:

Form not very slender and moderately convex, shining throughout, piceous-black, the pronotum feebly diaphanous at the sides; elytra bright metallic greenish or violaceous; legs black, the tarsi piceous; head elongate, three-fourths as wide as the prothorax, with rather large and prominent eyes, the anterior impressions short, parallel; palpi black, with pale tip; antennæ very slender, fuscous, ferruginous apically, nearly half as long as the body, the third joint evidently longer than the fourth; prothorax but slightly wider than long, the sides subevenly rounded and strongly, equally reflexed throughout, becoming feebly sinuate toward the basal angles, which are a little more than right but rather sharply defined; base transverse, equal to the moderately sinuate apex, the apical angles obtusely rounded; transverse impressions evident; foveæ deeply impressed, smooth, elongate, traceable to the middle; elytra two-thirds longer than wide, nearly twice as wide as the prothorax, parallel and nearly straight at the sides, rounding at base, oblique and feebly sinuate at apex, the tips evenly rounded; striæ rather fine but deep and groove-like, nearly smooth, rapidly becoming coarser and deeper at the apex, the scutellar long, parallel; intervals perfectly flat; surface feebly indented on the disk subapically; dorsal punctures three, the first near the third, the others near the second, stria; tarsi with the fourth joint strongly bilobed, the lobes equal on the anterior, unequal on the other tarsi; upper tarsal surface bisulcate. Length (♀) 11.5-12.5 mm.; width 4.5 mm. Mexico (Guerrero).—Baron.....\**guerrerensis* n. sp.

Form nearly similar but less convex, smaller in size, shining, deep black above, the elytra with feeble bluish lustre, the under surface piceous, with rufous abdomen, the legs rufous; head but little longer than wide, fully four-fifths as wide as the prothorax, with large and extremely prominent eyes, the impressions short and deep but attenuated and approaching the eyes posteriad; palpi long, pale, the second joint twice as thick as the two following, which are very slender, the last a little shorter than the third; antennæ long and very slender, fuscous, paler basally, two-thirds as long as the body, the fourth joint a little longer than the third or fifth; prothorax cordate, very nearly as long as wide, the sides parallel and moderately though circularly rounded from apex to near the base, where they became distinctly sinuate and thence subparallel for a short distance to the angles, which are nearly right but with the tips bluntly rounded; base transverse, about as wide as the feebly sinuate apex; margins rather narrowly reflexed; surface with fine and very feeble transverse rugulæ; transverse impressions both evident though fine, the stria fine between them; foveæ and latero-basal regions rather coarsely and sparsely punctate, the foveæ shallow; elytra oblong, fully two-thirds longer than wide, twice as



wide as the prothorax, the humeri rapidly rounded; tips rounded, the sinus long and shallow but distinct; striæ moderate, smooth, grooved, the intervals flat, the punctures three in number; metepisterna very elongate; tarsi slender, the upper surface bisulcate. Length (♀) 10.0 mm.; width 3.7 mm. Arizona (Huachuca Mts.),—Schaeffer.....**longiceps** Schf.

Of the two examples of *guerrerensis* at hand, the second has the elytra slightly though evidently less elongate than in the type and with the lustre more cupreo-violaceous. The tarsi are densely hairy beneath, the fifth joint long, wholly nude, very slender basally and inflated distally; the claws are long. In *longiceps*, a specimen of which was sent to me for description by Mr. Schaeffer, the tarsi are feebly and very inconspicuously pubescent beneath.

#### Group IV (*sinuatus*)

##### Subgenus *Anchomenus* in sp.

In deciding upon some type which may be known permanently as *Anchomenus* Bon., we encounter much uncertainty, for Dejean, Duval and others all seem to have different conceptions of what was really intended to be more essentially typical by Bonelli. In deciding upon some form which shall be truly representative of *Anchomenus*, I think we are warranted in taking some one of the species described under that name by Dejean, and *sinuatus* was there included. It seems possible, however, that in choosing *sinuatus* to play this part, we are approaching the true European *Platynus* Bon., as represented by *complanatus*, rather closely. *Anchomenus* as here understood has, however, a somewhat more convex form of body, as a rule, than might be inferred of the true *Platynus*. The outline is always somewhat ventricose, the antennæ more or less long and slender, the third joint varying from decidedly shorter to evidently longer than the fourth. The prothorax is subcordiform, with well reflexed sides, sharp though not necessarily right basal angles, except in a very few cases such as *stygicus* Lec., and distinctly impressed foveæ, and the elytra have rapidly rounding humeri, indicating well developed hind wings in all our species. So far as the described species are represented in my collection, the following scheme of arrangement might be proposed:

Third antennal joint evidently longer than the fourth; body generally deep black, with deep striæ and three dorsal punctures. [Section ANCHOMENUS in sp.].....2

- Third joint subequal in length to the fourth to a little shorter. [Section  
 PARANCHOMENUS nov.].....13
- 2—Prothorax transverse; surface only moderately convex. Black, the  
 tibiæ and tarsi piceo-rufous, shining, the elytra (♀) less polished;  
 head elongate, three-fourths as wide as the prothorax, with large  
 and remarkably prominent eyes, the anterior impressions parallel,  
 rather long and distinct; palpi obscure rufous, the last joint longer  
 than the third; antennæ piceous, black at base, slender, two-fifths  
 as long as the body, the third joint fully a third longer than the  
 fourth; prothorax nearly a third wider than long, widest before the  
 middle, the sides well reflexed, more broadly at base, subevenly  
 rounded, becoming slightly oblique and straight basally to the  
 angles, which are more than right but with the tips acutely promi-  
 nent; base feebly oblique at the sides, equal in width to the rather  
 deeply sinuate apex, the apical angles obtusely rounded; anterior  
 impression deep, the posterior obsolete, the foveæ broadly concave,  
 slightly elongate; surface with numerous fine transverse ruguliform  
 lines, finely and sparsely punctulate in the foveal region, the median  
 stria distinct and subentire; elytra oblong, parallel, three-fourths  
 longer than wide, not quite twice as wide as the prothorax, the basal  
 and lateral cariniform lines uniting in a broadly, evenly rounded arc  
 at the humeri; sides scarcely arcuate; apical sinus deep and con-  
 spicuous, the tips rounded and lobiform; striæ rather coarse, nearly  
 smooth; intervals only very slightly convex; tarsi strongly grooved  
 externally. Length (♀) 12.0 mm.; width 4.4 mm. Michigan  
 (Marquette),—Sherman.....inquisitor n. sp.
- Prothorax as long as wide or very nearly; upper surface strongly convex  
 as a rule, the elytra subequally polished in both sexes and usually  
 with very convex stria intervals.....3
- 3—Species of the Lake Superior and Atlantic regions; elytral striæ deep,  
 sulciform.....4
- Species occurring exclusively on the Pacific coast from northern sub-  
 arctic regions to southern Mexico.....7
- 4—Basal thoracic angles obtuse, with somewhat bluntly subprominent  
 tips. Rather elongate, moderately convex, deep polished black  
 throughout in both sexes; head well developed, slightly elongate,  
 rhomboidal, with rather large and prominent eyes and short, deeply  
 impressed, parallel anterior sulci; antennæ piceous, the first three  
 joints black, fully half as long as the body; prothorax a little wider  
 in the female, the sides broadly, subevenly rounded and broadly  
 reflexed, becoming gradually more oblique but scarcely at all sinu-  
 ate behind; base and apex equal, both strongly beaded, the apex  
 moderately sinuate and with rather blunt angles; anterior im-  
 pression deep, angulate, the posterior feeble, the stria fine but im-  
 pressed, not entire; foveæ large, broadly concave and more or less  
 punctate; elytra fully three-fourths longer than wide and three-  
 fourths wider than the prothorax, the apex not abruptly obtuse and  
 with broad and very distinct sinus; sides sharply reflexed, the  
 ninth stria fine, much nearer the edge than to the eighth, the ocellate  
 punctures large, irregularly spaced; striæ very deep, evidently

punctulate, the intervals very convex; second joint of the anterior male tarsi more than one-half longer than wide, gradually narrowed basally, the tarsi in part picescent. Length (♂ ♀) 11.0-14.0 mm.; width 4.2-5.0 mm. North Carolina (Southern Pines) and Arkansas. Five examples. [*Feronia decentis* Say; also *An. gagates* Dej., and *coracinus* Lec.].....**decens** Say  
 Basal thoracic angles sharp, rectangular or acute, more or less prominent.....5

5—Elytra more elongate, fully two-thirds longer than wide, feebly inflated behind the middle, the sides thence nearly straight to the rounded humeri. Body deep black and polished throughout, the tarsi black; head two-thirds as wide as the prothorax, barely elongate, the eyes rather large and prominent; anterior sulci parallel, not very long; antennæ nearly as in the preceding though barely half as long as the body; prothorax very slightly wider than long, widest before the middle, the sides rather strongly, evenly rounded and broadly reflexed, becoming sinuate and then parallel toward the basal angles, which are very sharp and somewhat everted; base strongly beaded, a little wider than the sinuate and finely, feebly beaded apex, the apical angles rather prominent and only narrowly blunt; surface with the transverse rugulæ very feeble, the impressions as in *decens*, the large foveæ deeper and more closely, strongly punctate; reflexed margins very finely and feebly punctulate throughout; elytra only one-half wider than the prothorax, the apex gradually ogival, with the oblique sinus long, very shallow and feeble; striæ deep, feebly punctulate, shallower and more evidently punctate laterally, the deep ocellate punctures more widely separated medially; intervals notably convex; tarsi long and slender, grooved as usual externally. Length (♀) 11.0 mm.; width 4.35 mm. Lake Superior (Marquette),—Sherman.

**oblongipennis** n. sp.

Elytra not more than one-half longer than wide in either sex and with more evenly arcuate sides.....6

6—Body larger, deep black and polished throughout in both sexes; head slightly elongate, not quite three-fourths as wide as the prothorax, with prominent eyes and parallel anterior sulci; palpi piceous-black, with pale tip; antennæ nearly as in the preceding, a little more (♂) to slightly less (♀) than half as long as the body; prothorax a little wider than long in both sexes, in outline nearly as in the preceding, except that the sides are more feebly sinuate and for a shorter distance basally, the angles rather abruptly and acutely prominent; surface smooth, the anterior impression always, the posterior sometimes, distinct; large and deeply concave foveæ punctate; broadly reflexed margins not distinctly punctulate; base and sinuate apex both beaded and subequal in width; elytra moderately convex, sometimes somewhat flattened above in the female, more rapidly obtuse at tip than in the preceding, the sinus very shallow; striæ deep, finely punctate, the intervals strongly convex, subequally in the sexes; second anterior male tarsal joint almost twice as long as wide, obtriangular, gradually narrowed basally throughout its

length. Length ( $\sigma^7$  ♀) 10.5–12.0 mm.; width 3.8–4.6 mm. New York, Pennsylvania, Indiana, Missouri, Iowa and Lake Superior (Bayfield and Duluth). Fifteen examples. [*An. depressus* Hald.].

**sinuatus** Dej.

Body somewhat similar in form, coloration and lustre but much smaller and with more anteriorly inflated prothorax, the sides of which are more sinuate basally; head nearly similar but with still more prominent eyes; antennæ similar in coloration but not quite so long, less than half as long as the body, the individual joints notably shorter; prothorax a little shorter than wide, as in *sinuatus* throughout, except that the sides are more inflated and more strongly rounded anteriorly, with the basal sinus longer and a little deeper, but with the sharp tips of the angles not quite so prominent; sides strongly reflexed, feebly punctulate, the large deep basal foveæ distinctly punctate; apical angles somewhat more broadly and obtusely rounded; elytra subsimilar in general form, two-thirds wider than the prothorax, the apical sinus a little less shallow; striæ not quite so deep but similarly punctate at the bottom; second joint of the anterior male tarsi of a very different outline, more oblong, with the sides more nearly parallel and much less than one-half longer than wide; hind tarsi with the outer sulcus deep. Length ( $\sigma^7$ ) 9.2–9.5 mm.; width 3.2–3.5 mm. Lake Superior (Bayfield) and Manitoba (Winnipeg),—Wickham. . . **turbidus** n. sp.

Body still smaller in size, rather more ventricose, similarly deep black and polished, the legs black but pallescent toward the coxæ; head fully three-fourths as wide as the prothorax, with moderate eyes, the frontal parts before them not much prolonged; impressions deep, dilated inwardly at the middle; palpi black, with pallid tip; antennæ rather more than half as long as the body, black, the pubescence gray, the third joint much longer than the fourth; prothorax nearly as long as wide, much narrower than in the preceding and not anteriorly inflated, parallel, the sides broadly and moderately arcuate, becoming gradually very feebly sinuate toward the angles; which are obtuse but with sharply defined and slightly prominent tips; margins strongly reflexed, only a little more so basally, the gutter punctulate to the apex, the punctures more widespread, coarser and conspicuous through the foveal region, the foveæ large, broadly impressed, with a very short linear incised part basally; impressions deep, especially the anterior, the stria broadly impressed, basally abbreviated; base even somewhat wider than the apex; elytra fully one-half longer than wide, three-fourths wider than the prothorax, oblong-oval, the sides rather arcuate, more rounded at base; subapical sinus rather long and feeble; striæ moderately coarse, feebly impressed, the punctures along the bottom very fine but evident; intervals feebly convex, the three punctures moderate. Length (♀) 9.2 mm.; width 3.4 mm. Iowa (Iowa City),—Wickham. . . . . **iowanus** n. sp.

7—Pronotum with coarse, deep and very conspicuous transverse rugæ. Body piceous-brown in color throughout, shining, the elytra (♀) very feebly alutaceous; head elongate, two-thirds as wide as the

prothorax, the eyes not very prominent; front irregularly rugose; antennæ slender, half as long as the body, pale brown, blackish basally, the second joint paler than the first or third; prothorax large, slightly wider than long, the sides evenly rounded and well reflexed, becoming gradually moderately sinuate toward the angles, which are obtuse but with bluntly prominent tips; base and apex beaded, the base broadly arcuate, more so laterally, somewhat wider than the moderately sinuate apex, the apical angles narrowly blunt; anterior impression distinct, the posterior obsolete; foveæ large, concave, rugulose though not definitely punctate; elytra three-fifths longer than wide, two-thirds wider than the prothorax, the oblique apices broadly and moderately sinuate; striæ nearly smooth, coarse, somewhat groove-like, the intervals virtually flat; met-episterna a third longer than wide; legs long; tarsi with numerous coarse fulvous hairs beneath, the fifth joint with a single fringe of coarse hairs beneath. Length' (♀) 11.0 mm.; width 4.5 mm. California (Redwood Creek, Humboldt Co.). A single example, taken by the writer. . . . . **rugulifer** n. sp.

Pronotum smooth or very nearly so, without coarse rugæ. . . . . 8

8—Prothorax widest at about the middle of the length. Body stout, rather convex, highly polished and deep black throughout; head rather elongate, with moderately prominent eyes, scarcely over three-fifths as wide as the prothorax, the anterior impressions rather long, slightly oblique; antennæ fusco-ferruginous, blacker basally, distinctly less than half as long as the body; prothorax slightly wider than long, the sides strongly rounded medially, oblique and less rounded thence anteriorly and, basally, becoming briefly sinuate near the basal angles, broadly reflexed; basal angles obtuse but sharply defined; beaded base transverse, arcuate laterally, a little wider than the distinctly sinuate and beaded apex, the apical angles bluntly prominent; anterior impression evident, the stria fine, abbreviated; foveæ elongate and moderately impressed, smooth; elytra rather short, scarcely one-half longer than wide, three-fourths wider than the prothorax, the sides evenly arcuate, scarcely at all more so at the humeri, the oblique sinus very feeble; striæ deep, smooth, becoming shallower and subpunctate laterally; intervals strongly convex; met-episterna slightly longer than wide; hind wings probably curtailed; legs only moderate in length, the tarsi sulcate externally and with numerous short thick fulvous hairs. Length (♀) 11.0 mm.; width 4.4-4.6 mm. Mexico (Guerrero),—Baron. . . . . **\*consularis** n. sp.

Prothorax widest before the middle as usual. . . . . 9

9—Sides of the prothorax rapidly and very distinctly sinuate basally. . . 10

Sides gradually and at most very feebly sinuate basally. . . . . 11

10—Body deep black, polished and notably convex; head rather elongate-rhomboidal, three-fourths as wide as the prothorax, with rather prominent eyes, the anterior sulci short, parallel; antennæ slender, fuscous, black basally; prothorax fully as long as wide if not longer, the sides broadly arcuate and widely reflexed, gradually arcuately

converging behind the middle to the posterior sinus, the angles right and very sharp; surface with some feeble transverse rugulæ, the anterior impression deep, the posterior evident though feeble, stria deeply impressed, ending at the impressions; foveæ deep, smooth, elongate, formed by the strongly reflexed sides and therefore not definitely limited; base transverse, only feebly oblique laterally, barely as wide as the moderately sinuate apex; elytra one-half longer than wide, very nearly twice as wide as the prothorax, the arcuate sides becoming barely more rounded toward the humeri; apex rather obtuse, the oblique sinus long and very feeble; striæ deep, smooth, the intervals very convex; met-episterna distinctly elongate; tarsi black. Length ( $\sigma^7$ ) 10.5 mm.; width 4.2 mm. Washington State.....**maurus** Mots.

Body larger and stouter, similarly deep black and polished throughout in both sexes; head but slightly elongate and with rather broad neck, nearly three-fourths as wide as the prothorax, the eyes moderate in size and prominence; antennæ slender, fusco-ferruginous, black basally, fully half as long as the body ( $\sigma^7$ ) or a little less ( $\text{♀}$ ); prothorax as long as wide, the sides broadly and strongly reflexed, more rounded at a little before the middle, oblique posteriorly to the moderate basal sinus; basal angles obtuse but with acutely prominent tips; base as wide as the apex, becoming obliquely arcuate at the sides; apical angles prominent but bluntly rounded at tip; surface sometimes with a few faint rugulæ, the anterior impression not very deep, the posterior obsolete; foveæ large, very deep, lineate at the bottom, smooth; elytra three-fifths longer than wide, rather inflated, with arcuate sides, becoming but little more rounded basally, the sinus oblique, long and distinct though not deep; striæ deep, smooth, the intervals strongly convex; met-episterna one-half longer than wide; second joint of the male anterior tarsi one-half longer than wide, parallel, narrowing in basal half. Length ( $\sigma^7$   $\text{♀}$ ) 11.0–12.5 mm.; width 4.2–5.2 mm. California (San Francisco). Ten specimens, taken by the writer.

**ovipennis** Mann.

11—Sides of the elytra feebly arcuate, more rapidly rounding at the humeri. Body rather depressed, black and polished, the legs and anterior parts slightly piceous; head elongate, with rather wide neck, two-thirds as wide as the prothorax, the anterior impressions narrow; eyes only very moderately prominent; palpi long, blackish, with pale tip; antennæ long and slender; prothorax about as long as wide, the sides broadly rounded and widely reflexed, becoming oblique and straight basally to the prominent tips of the obtuse basal angles; base as wide as the apex, obliquely rounded at the sides; apical angles bluntly prominent; surface with some transverse rugulæ, the anterior impression very feeble, the posterior obsolete, the stria fine, attaining apex but not base; foveæ smooth, very deep, extending to beyond the middle; elytra oblong, slightly over one-half longer than wide, three-fourths wider than the prothorax, the apex rather rapidly obtuse, with the sinus broad and shallow; striæ smooth, deeply impressed, the intervals notably

convex; ninth stria somewhat nearer the eighth than the margin; met-episterna one-half longer than wide; anterior male tarsi only very moderately dilated, as usual in this group, black. Length ( $\sigma^7$ ) 11.5 mm.; width 4.4 mm. California (Redwood Creek, Humboldt Co.)..... **tersus** n. sp.

Sides of the elytra more rounded but only very slightly more arcuate basally than medially; upper surface more convex..... 12

12—Form rather ventricose, polished in both sexes and of a dark piceous-brown color; head but slightly elongate, with broad neck, fully three-fourths as wide as the prothorax, the anterior impressions short and parallel; eyes moderate though rather prominent; antennæ fully half as long as the body, slender, pale red-brown, the apices of the joints blackish, the basal joints blackish; prothorax as long as wide, sometimes a little longer, the sides moderately arcuate, well reflexed, gradually straight or just visibly sinuate posteriorly, the angles obtuse but with rather sharply prominent tips; base and apex equal, both strongly beaded; apical angles bluntly rounded at tip; surface with the transverse rugulæ very faint, the anterior impression deep, the posterior virtually obsolete, the smooth foveæ deep, not extending quite to the middle; elytra oblong-ovoidal, shorter than usual, not quite one-half longer than wide and nearly twice as wide as the prothorax, widest somewhat behind the middle, the apex rapidly obtuse, the sinus long and shallow; striæ smooth, sometimes feebly punctulate laterally, deeply impressed; intervals convex; met-episterna as usual in this section; legs long, the hind tarsi finely sulcate externally. Length ( $\sigma^7$  ♀) 9.3–10.8 mm.; width 3.9–4.7 mm. Oregon (Clackamas Co.) and California (Arcata, Humboldt Co.). Sixteen specimens.

**arachnoides** n. sp.

Form less ventricose, convex, deep black, polished; head nearly as in the preceding but with somewhat longer neck; antennæ shorter, not half as long as the body, the joints pale, with blackish apices but shorter than in *arachnoides*, the four basal joints black with pale tips; prothorax shorter, a little wider than long, the sides more inflated and rounded anteriorly, oblique basally to the broadly and obtusely prominent tips of the obtuse hind angles, resulting in a very small but definite sinus adjoining the tips; base scarcely as wide as the apex, obliquely arcuate at the sides, the prominent apical angles blunt at tip; surface, foveæ and reflexed margins nearly as in *arachnoides*, but with the anterior impression feebler; elytra more elongate and more evenly oblong-oval, widest at the middle, fully one-half longer than wide, nearly four-fifths wider than the prothorax, the apex not so abruptly obtuse, the tips more narrowly rounded, the long oblique sinus very shallow; striæ smooth, less deeply impressed, the intervals convex but rather less so than in the preceding; second anterior male tarsal joint obtriangular, one-half longer than wide, narrowed from apex to base, smaller, narrower and less parallel than in *arachnoides*. Length ( $\sigma^7$ ) 10.3 mm.; width 4.0 mm. California (Hydesville, Eel River Valley, Humboldt Co.)..... **similatus** n. sp.

- Form still less ventricose, smaller in size and narrower, polished black, the elytra and femora just visibly picescent; head slightly elongate, rhomboidal, more than three-fourths as wide as the prothorax, the eyes moderate but prominent; antennæ scarcely half as long as the body, slender, piceous-black, the third joint much longer than the fourth; prothorax not quite a fourth wider than long, the sides parallel, evenly and distinctly arcuate, becoming gradually just visibly sinuate basally, the angles slightly more than right, with well defined and sharply prominent tips; base as wide as the moderately sinuate apex, only just visibly oblique laterally; apical angles very blunt; margins broadly and strongly reflexed, especially toward base, and faintly diaphanous, the broad gutter more or less punctulate throughout; foveæ large, concave, indefinitely limited and rugose, the outer wall formed by the reflexed edge; near the inner limit of the foveæ and far before the base there is a small and abruptly very deep rounded impression; anterior impression angulate, deep, the posterior feeble; elytra hardly one-half longer than wide, barely two-thirds wider than the prothorax, the sides gradually a little more rounded at base; subapical sinus long and very distinct; striæ strong, deeply impressed, with fine but distinct punctures along the bottom; intervals strongly convex laterally and apically, rather less so elsewhere, the three punctures deep and distinct; tarsi slender, with deep lateral furrow. Length (♀) 9.0 mm.; width 3.5 mm. Idaho (Cœur d'Alene),—Wickham. . . . **aleneanus** n. sp.
- 13—Species moderately large, somewhat as in *brunneomarginatus* in point of size. . . . . 14
- Species of small size and of the southern Mexican fauna, less than 7 mm. in length. . . . . 26
- 14—Prothorax narrow and subcordiform but with the basal angles very obtuse and rounded. Body rather convex, deep black and highly polished throughout; head fully three-fourths as wide as the prothorax, slightly elongate, with large and prominent eyes and short broad anterior impressions; antennæ slender, fully half as long as the body, dark rufous, black basally, the paler joints blackish at apex; prothorax barely a fifth wider than long, the sides inflated and rounded anteriorly, oblique posteriorly, becoming just visibly subsinuate before the very obtuse angles, widely reflexed, becoming the outer wall of the very large deep smooth basal foveæ; base strongly arcuate laterally, distinctly narrower than the feebly sinuate apex, the apical angles obtusely rounded; anterior impression deep, the posterior fine but traceable; stria deep but only between the impressions; elytra three-fifths longer than wide, not quite twice as wide as the prothorax, rather obtuse at tip, with the oblique sinus barely more than straight, the humeri moderately rounded, the rather sinuate basal margin forming a very rounded angle with the sides; striæ deeply impressed, nearly smooth, the intervals convex; dorsal punctures three, but with a fourth, adventitious, on the left elytron of the specimen here described. Length (♂) 10.0 mm.; width 3.7 mm. Minnesota (Duluth). [*Platynnus angusticollis* Kirby nec. Dej.] . . . . . **stygius** Lec.



- Prothorax subcordiform and similarly narrow but with the basal angles more or less distinctly defined, though not always sharp at tip, obtuse as a rule. . . . . 15
- 15—Elytra slightly less shining than the anterior parts, due to microreticulation. Upper surface moderately convex, deep black, the thoracic reflexed sides diaphanously paler; under surface and legs piceo-rufous; head scarcely longer than wide, nearly four-fifths as wide as the prothorax, with large and remarkably prominent eyes, the anterior impressions short, deep and parallel; antennæ long, slender, piceo-ferruginous throughout, about half as long as the body; prothorax nearly a third wider than long, the broadly and strongly reflexed sides broadly rounded, becoming oblique but not sinuate basally, the angles very obtuse though with the tips finely acute and prominent; base arcuate laterally, as wide as the apex, both beaded as usual; apex feebly sinuate, with obtusely rounded angles; surface with feeble transverse rugulæ, medially smooth, becoming evidently punctulate in the foveal region, the impressions evident, the posterior very feeble; foveæ very large, with the deepest part at some distances from the sides; elytra two-thirds longer than wide, nearly twice as wide as the prothorax, the apices gradually very oblique, with the sinus long and very shallow; striæ rather coarse and groove-like, minutely punctulate along the bottom; intervals feebly convex; met-episterna very long, as usual in this section; anterior male tarsi only moderately dilated. Length (♂) 11.0 mm.; width 4.0 mm. Connecticut (S. Meriden),—H. Johnson. . . . . **boopis** n. sp.
- Elytra polished in both sexes. . . . . 16
- 16—Elytra with four dorsal punctures. Body rather small, moderately convex, very highly polished, testaceous throughout, the head and pronotum slightly obscure, except at the broadly reflexed thoracic sides, the elytra black, but with diaphanous reflexed edges; head narrow and elongate-rhomboidal, with somewhat narrow neck and moderate though slightly prominent eyes, three-fourths as wide as the prothorax, the short anterior impressions wide and shallow; antennæ very slender, more than half as long as the body; prothorax a fourth or fifth wider than long, the sides broadly rounded, oblique posteriorly, becoming gradually just visibly sinuate, the angles obtuse, with rather blunt but evident tip; base arcuate, slightly wider than the sinuate apex having rounded angles; impressions feeble; foveæ large, deep, sparsely punctulato-rugose, extending forward beyond the middle; elytra oblong, with parallel arcuate sides, one-half longer than wide, about twice as wide as the prothorax, rather abruptly obtuse at apex, with moderately oblique, long and rather deep sinus; striæ nearly smooth, rather deeply impressed, the intervals notably convex, the four punctures coarser than usual; legs and tarsi slender. Length (♀) 8.5–9.5 mm.; width 3.4–3.5 mm. Pennsylvania (Allegheny),—Hamilton. Three examples. . . . . **parmarginatus** Ham.
- Elytra with three dorsal punctures. . . . . 17

- 17—Fourth tarsal joint with the outer lobe a little longer than the inner. . . . . 18  
 Fourth joint symmetric, feebly emarginate. . . . . 19  
 18—Upper surface blackish-piceous, the elytra black, broadly reflexed thoracic margins diaphanously pale; legs and entire antennæ and palpi pale testaceous; surface moderately convex; head rhomboidal, slightly elongate, with narrowed neck and very prominent though moderate eyes, four-fifths as wide as the prothorax, the anterior impressions broad, the surface strigilate externally; antennæ very slender, rather more than half as long as the body; prothorax but slightly wider than long, the sides subprominently rounded before the middle, very broadly and feebly sinuate posteriorly, the tips of the obtuse angles distinct though not very sharp; base arcuate at the sides, scarcely as wide as the apex, which is sinuate, with rounded angles; surface with some transverse rugulæ, the impressions feeble; foveæ large, deep, nearly smooth, traceable anteriorly beyond the middle, gradually merging into the broadly reflexed sides; elytra long, fully three-fourths longer than wide, twice as wide as the prothorax, the sides well reflexed and diaphanous, gradually ogival behind, the sinus oblique and but little more than straight; striæ nearly smooth, impressed; intervals very moderately convex; surface of each with a large feeble indentation near the apex; anterior tarsi very feebly dilated in the male. Length ( $\sigma^1$  ♀) 9.5–11.0 mm.; width 3.6–4.2 mm. Lake Superior (Bayfield and Marquette), Iowa (Cedar Rapids) and Pennsylvania (Pittsburgh). [*Platynus marginatus* Lec.; *Colpodes marginatus* Chd.]

**reflexus** Lec.

- Upper surface more convex, without the posterior indentation on each elytron, polished, black, the anterior parts slightly picescent, the suture finely piceous; legs and entire antennæ pale; head nearly as in the preceding, the antennæ not quite so long or so slender; prothorax more quadrate, nearly as long as wide, parallel, with more feebly and evenly arcuate sides, these being less broadly reflexed, less diaphanous, not becoming sinuate toward the angles, which are very obtuse, with the tips definable though blunt; base strongly arcuate at the sides, as wide as the apex, which is rather feebly sinuate, with obtuse and rounded angles; surface smooth, the impressions nearly obsolete, the stria very fine; foveæ large and smooth, only very moderately impressed, not traceable beyond the middle and there not near the sides; elytra nearly three-fourths longer than wide, twice as wide as the prothorax, gradually rounded at tip, the sinus long and extremely shallow; striæ fine, smooth, feebly impressed, the intervals very slightly convex, the three punctures fine; basal margin feebly sinuate, forming an extremely obtuse angle with the sides. Length (♀) 9.5 mm.; width 3.6 mm. Mexico (Tamaulipas). A single example. . . . . \***convexus** n. sp.
- 19—Elytra oblong-subelliptical and with the diaphanous side margins as widely reflexed as those of the prothorax. Upper surface convex, highly polished, blackish, the anterior parts rufescent, the thoracic sides well reflexed and diaphanous; under surface and legs rufous,

the antennæ blackish basally; head elongate, rhomboidal, four-fifths as wide as the prothorax, with moderate though very prominent eyes, the anterior impressions rather narrow and deep; antennæ long and slender; prothorax small, barely a sixth wider than long, widest before the middle as usual, the sides evenly rounded, oblique posteriorly, becoming distinctly sinuate near the angles, which are broadly obtuse though unusually sharply defined at tip, but not prominent; base arcuate; apex sinuate, with narrowly rounded angles; surface with very fine and close-set transverse strigilation medially, the anterior impression lineate and somewhat deep; foveæ moderate, rather deep and finely punctate; elytra barely one-half longer than wide, about twice as wide as the prothorax, widest at the middle, with evenly arcuate sides, gradually ogival apically, the sinus long and very feeble; tips narrowly rounded; striæ fine, nearly smooth, moderately impressed, becoming finer, unimpressed and slightly comminuted laterally; intervals feebly convex; three punctures rather coarse; tarsi long and very slender, the anterior shorter and but feebly dilated in the male; met-episterna only moderately elongate. Length ( $\sigma^7$ ) 7.5 mm.; width 2.7 mm. North Carolina (Pigeon River Retreat),—Hubbard. One example received from Mr. Beutenmüller. . . **trifoveolatus** Beut.

Elytra parallel or oblong-suboval, the side margins more finely reflexed than those of the prothorax. . . . . 20

20—Elytra more elongate, parallel and subdepressed, rounding only at apex. Black, the legs rufo-piceous or paler, the reflexed side margins diaphanously pale; surface polished in both sexes; head barely longer than wide, with rapidly narrowed neck and large and very prominent eyes, four-fifths as wide as the prothorax, the anterior impressions moderate; antennæ very slender, testaceous, fully half as long as the body; prothorax nearly a fourth wider than long, the sides evenly rounded and broadly reflexed, becoming oblique but not sinuate posteriorly to the angles, which are broadly obtuse though with the tips minutely subprominent; base strongly arcuate at the sides, as wide as the apex, which is sinuate, with rounded angles; surface with some fine faint transverse rugulæ, the anterior impression alone distinct; foveæ large, deeply concave, smooth, formed externally by the strongly reflexed edge and gradually evanescent at about the middle; elytra three-fifths longer than wide, about twice as wide as the prothorax, the apex ogivally rounding in apical third, the sinus not very long, feeble though evident; sides nearly straight; fine basal line forming a broadly rounded curve with the side margin; surface with a feeble flattening at striæ 5-8 near apical fourth; striæ rather fine, nearly smooth, the intervals nearly flat; met-episterna notably long; anterior male tarsi only feebly dilated. Length ( $\sigma^7$  ♀) 10.0-11.0 mm.; width 3.7-4.0 mm. North Carolina to Alabama (Mobile). Indiana,—Blatchley. [*An. corvinus* Dej.; *marginalis* Hald.] . . . . . **cincticollis** Say

A—Similar to *cincticollis* but a little smaller in size, with the prothorax less transverse; general coloration of the body paler, rufo-piceous; anterior male tarsi very slightly less slender. Length ( $\sigma^7$  ♀)

- 9.7-10.0 mm.; width 3.6 mm. Rhode Island, New Jersey and Indiana..... **blandus** Germ.
- B—Similar to *cincticollis* but still more depressed and more piceous in color; eyes similarly large but not quite so prominent; evenly rounded sutural tips of the elytra more posteriorly prolonged, the sinus distinctly deeper. Length (♀) 11.0 mm.; width 4.2 mm. Texas (Galveston)..... **deplanatus** Chd.
- Elytra not so elongate, more oblong-suboval in form, more convex and rounding posteriorly from only a little behind the middle..... 21
- 21—Prothorax nearly as in the preceding but more subprominently rounded at the middle of the sides, the posterior obliquity but very faintly sinuous, the angles very obtuse, with the tips not very distinctly defined. Body more convex than in *cincticollis*, shining, black, with diaphanous side margins and piceous legs; head slightly elongate, rhomboidal, with moderately abrupt neck and prominent eyes, which are not so large and less prominent than in *cincticollis*, three-fourths as wide as the prothorax; labrum narrower than in the preceding, the mandibles smaller; antennæ testaceous, slender, fully half as long as the body; prothorax a fifth wider than long, the sides broadly reflexed and pale, subangularly prominent at or just before the middle; surface and foveæ nearly as in *cincticollis*; base equal to the apex, strongly arcuate at the sides; elytra shorter, more oval and more convex, more gradually rounded behind, the sinus very shallow; surface of each feebly impressed at the point noted in the preceding species; striæ smooth, more impressed and relatively coarser at tip; intervals feebly convex; anterior male tarsi somewhat feebly dilated. Length (♂ ♀) 9.5-10.0 mm.; width 3.7-3.8 mm. Pennsylvania (locality not more definitely recorded).
- pennsylvanicus** n. sp.
- Prothorax nearly as in *pennsylvanicus*, strongly reflexed at the sides, the general outline of the body and elytra and the pronounced convexity of the latter similar. Size materially larger; coloration and polished lustre similar; head rhomboidal, evidently narrower than the prothorax, the eyes prominent but not quite so large as in *pennsylvanicus*, the antennæ longer and with much more elongate joints in the male, similar in coloration, nearly two-thirds as long as the body, the third joint in similar manner just visibly longer than the fourth; prothorax with strongly reflexed diaphanous sides and in this and other respects as in *pennsylvanicus*, but not quite so evidently wider than long, the sides not quite so widely reflexed as in *reflexus*; foveæ similar, deeply concave; elytra larger than in that species, nearly two-thirds longer than wide, fully twice as wide as the prothorax, parallel, rounding in posterior two-fifths, with feeble sinus; surface convex; striæ rather fine, nearly smooth, deeply impressed; intervals broadly convex, the three punctures of the third rather strong, the first at the third, the other two at the second, stria; met-episterna fully twice as long as wide; anterior male tarsi narrowly dilated, the fourth joint symmetrical. Length (♂) 11.0 mm.; width 4.2 mm. Ontario (Ridgeway),—Knaus.
- distinguendus** n. sp.

- Prothorax with the reflexed sides more sinuate basally, the angles right and very sharply defined. . . . . 22
- 22—Head and prothorax testaceous, the elytra piceous-black. Shining and with testaceous reflexed margins; under surface, the legs and antennæ more or less pale ferruginous; head slightly elongate, much narrower than the prothorax, with well developed and prominent eyes and rather deep parallel anterior impressions; antennæ not quite so long or slender as in the *cincticollis* type; prothorax a fourth wider than long, the sides subevenly rounded and broadly reflexed, feebly sinuate basally, the base broadly and feebly arcuate, as wide as the apex, which is moderately sinuate, with broadly rounded angles; surface almost as in *cincticollis*, except that the anterior prolongation of the large and deeply concave, nearly smooth foveæ is rather more distant from the sides; elytra slightly more than one-half longer than wide, not quite twice as wide as the prothorax, gradually rounding behind, the sinus long and feeble but distinct; suture minutely mucronate at apex; striæ smooth, very fine, coarser at tip, the intervals flat; surface not impressed posteriorly; met-episterna much elongated; anterior male tarsi moderately dilated. Length ( $\sigma^7$  ♀) 8.8–10.8 mm.; width 3.3–4.1 mm. Southern California and Arizona. Abundant. [*Pl. bicolor* Lec. || ]. . . . . **bicoloratus** G. & H. 23
- Head and prothorax never distinctly paler than the elytra. . . . . 23
- 23—Foveal region of the pronotum nearly smooth. . . . . 24
- Foveal region coarsely and deeply punctato-rugose. . . . . 25
- 24—Form rather stout, moderately convex, shining, black, piceous beneath; head nearly similar but a little wider and with shallower and more indefinite anterior impressions; antennæ testaceous, not quite half as long as the body, the joints blackish toward their apices; prothorax larger than in *bicoloratus* and rather less widely reflexed at the sides, otherwise nearly similar, except that the basal angles are even more acutely and denticulately prominent; sides diaphanously pale; elytra formed nearly as in *bicoloratus* but larger, the striæ less fine, the intervals similarly nearly flat, the suture micro-mucronate at apex; anterior male tarsi very moderately dilated; tarsal claws longer. Length ( $\sigma^7$  ♀) 9.0–10.5 mm.; width 3.3–4.2 mm. Middle California and adjacent parts of Nevada. Abundant. [*Pl. tenebricosus* G. & H.; *marginatus* Ménét.; *rugiceps* Mann. and *cinctellus* Lec.]. . . . . **brunneomarginatus** Mann.
- Form less stout, smaller in size, moderately convex, shining, black, the under surface and legs black; head slightly elongate, subtriangular, with rather wider neck, nearly three-fourths as wide as the prothorax, the eyes rather prominent but much smaller than in the preceding; anterior impressions rather broad, slightly oblique; antennæ about half as long as the body, nearly black, with the extreme base of the joints pallescent; prothorax still shorter, nearly a third wider than long, the sides barely at all paler, broadly, strongly reflexed, strongly rounded, oblique and distinctly sinuate basally, the angles nearly right, sharply defined; base feebly arcuate, as wide as the apex, which is moderately sinuate, with rather distinct

to slightly rounded angles; anterior impression deep; foveæ deep, prolonged anteriorly to beyond the middle at some distance from the sides; elytra three-fifths longer than wide, slightly less than twice as wide as the prothorax, very gradually ogival behind, the sinus short and very shallow, the suture not at all mucronate at apex, rounded; striæ fine, groove-like, abruptly coarser along the apex; intervals flat; anterior puncture near the third, the two posterior near the second, striæ; met-episterna much elongated; anterior male tarsi rather distinctly dilated; tarsi long and slender, the unguis rather long. Length ( $\sigma^7$  ♀) 8.5 mm.; width 3.2-3.3 mm. Mexico (Guerrero),—Baron. Communicated, with many other species, by Mr. W. G. W. Harford. Five specimens.

\**harfordi* n. sp.

Form less stout than in *brunneomarginatus* and much smaller in size, similarly ventricose and somewhat more so than in *harfordi*, shining, piceous-black, the margins faintly and narrowly diaphanous; under surface piceo-rufous, the legs pale brownish-flavate; head slightly and obtusely elongate, more than three-fourths as wide as the prothorax, with well developed and rather prominent eyes; antennæ not very slender, distinctly less than half as long as the body, pale rufous in color throughout; prothorax a third wider than long, widest well before the middle, the sides strongly rounded, becoming rapidly sinuate basally and rectilinear and parallel in basal seventh, the angles right, sharply defined but not prominent; base very feebly arcuate, as wide as the moderately sinuate apex, the apical angles rather bluntly pointed; margins broadly, subequally reflexed throughout though not quite so broadly as in *brunneomarginatus*, the surface throughout nearly as in that species, except that the foveæ are slightly less impressed and with fine and feeble rugulosity; elytra oblong, with feebly arcuate sides, which are rapidly and widely rounded at base, three-fifths longer than wide and nearly twice as wide as the prothorax, gradually ogival behind, with long and distinct sinus; striæ moderately fine, grooved, smooth, coarser at apex; intervals flat, the three punctures moderate; sutural angles not micro-mucronate; anterior male tarsi narrowly dilated. Length ( $\sigma^7$ ) 8.6 mm.; width 3.2 mm. Arizona (Pinal Mts.),—Wickham. A single example. . . . . *pinalicus* n. sp.

25—Body rather stout, the surface rather depressed, highly polished, black, the legs piceous; side margins not distinctly paler; head rhomboidal, barely longer than wide, three-fourths as wide as the prothorax and with large and somewhat prominent eyes; occiput nubilously rufous at the middle; surface rufescent anteriorly, the impressions long, parallel, narrow, deep and irregularly sinuous; antennæ not very slender, half as long as the body, testaceous, the joints feebly infumate at their apices; prothorax nearly a third wider than long, widest anteriorly, the sides broadly and strongly reflexed, strongly rounded, becoming oblique and nearly straight in about basal half, feebly sinuate just before the angles, which are right and sharply defined; base transverse and strongly beaded, rather wider than the sinuate and more finely beaded apex; surface

- with numerous transverse feeble rugulæ, the anterior impression deep, the posterior feeble; median stria fine but very broadly impressed; foveæ short, barely at all impressed; elytra one-half longer than wide, three-fourths wider than the prothorax, very gradually arcuately ogival in about posterior half, the very oblique sinus extremely shallow; suture obtuse and not at all mucronate at tip; striæ coarse, deep, distinctly punctured along the bottom; intervals slightly convex, the dorsal punctures as in the preceding. Length (♀) 9.0 mm.; width 3.65 mm. Colorado (Peaceful Valley),—Cockerell.....*pacatus* n. sp.
- 26—Prothorax cordiform, the sides strongly sinuate basally and parallel for some distance before the basal angles; body slightly ventricose, moderately convex, shining in both sexes, the legs rufous; head well developed, fully four-fifths as wide as the prothorax, slightly elongate, the eyes only moderate in size and prominence; impressions rather deep, slightly oblique; antennæ rufous, more than half as long as the body, rather thick, gradually thin basally; palpi pale, the last joint longer than the third; prothorax only just visibly wider than long, the sides strongly, subevenly rounded except basally, abruptly and rather strongly reflexed and slightly paler; anterior impression distinct; foveæ shallow and moderate, feebly rugulose, at some distance from the sides, obliquely attenuate anteriorly to about the middle; base evidently narrower than the moderately sinuate apex; elytra very evenly oblong-oval, widest at the middle, two-fifths longer than wide, twice as wide as the prothorax, the oblique apical sinus long and very shallow; striæ groove-like, fine, becoming coarser at apex, the intervals perfectly flat; three dorsal punctures small, situated as in the preceding; met-episternæ only one-half longer than wide; anterior male tarsi feebly dilated, the fourth joint feebly and symmetrically emarginate. Length (♂ ♀) 5.8–6.8 mm.; width 2.35–2.8 mm. Mexico (Federal District). [*Colpodes concisus* Bates].....\**concisus* Bates
- Prothorax not so cordiform, the more feebly oblique sides posteriorly broadly and only very feebly sinuate, distinctly larger, the hind body narrower, similar in coloration and lustre throughout but with the reflexed side margins scarcely at all paler; head smaller, only two-thirds as wide as the prothorax, but slightly elongate, the eyes even less developed and less prominent than in the preceding; antennæ more filiform, not quite so long though more than half as long as the body; last palpal joint slightly longer and thicker than the third; prothorax larger and broader, nearly a third wider than long, the sides more broadly and equally arcuate; basal angles barely more than right, somewhat sharply defined; base slightly wider than the apex, which is rather deeply sinuate, with distinct angles; transverse impressions both almost obsolete; foveæ small, deep, smooth, slightly elongate, at a great distance from the sides; between them and the sides there is an elongate smooth elevation of the surface; margins only moderately reflexed; elytra two-fifths longer than wide, three-fourths wider than the prothorax, wider behind the middle than at base, the sides less arcuate than in

*concisus* and more rapidly obtuse at apex, the sinus similar; striæ not quite so fine, smooth, not much coarser at apex; intervals flat; two anterior punctures near the third, the third near the second, stria, and similarly rather subapical in position, the met-episterna similar; anterior male tarsi feebly dilated, the fourth joint similar. Length (♂) 6.5 mm.; width 2.65 mm. Mexico (Federal District). A single example from an unrecorded source. . . \**lymphaticus* n. sp.

The very isolated species described by LeConte under the name *stygius*, was afterward suppressed and held to be a synonym of *maurus* Mots., but incorrectly, as shown by a typical specimen of *maurus* from near the type locality, which was said to be California, and described above; the Alaskan representative sent to LeConte as *maurus* was evidently something different. The very obtuse and blunt basal thoracic angles of *stygius*, as well as some others, such as *cincticollis* and *pennsylvanicus*, lack the subprominent sharp denticulation generally observable in *Anchomenus*, but the apparently broadly rounded outline is caused to great extent by the exceptionally arcuate and oblique sides of the base in those species.

The species described above as *boopis*, though smaller, is undoubtedly allied to *opaculus* Lec., which is unknown to me at present, for the elytra are somewhat duller than in any other here described excepting *inquisitor*, which is also allied, although differing in the very prominent rounded apical lobes of the elytra and exceptionally deep subapical sinus, as well as in antennal structure; *boopis* seems to differ from *opaculus*, said to be from Ohio, in its much longer antennæ, these being described as slightly longer than the head and prothorax combined in *opaculus*, which however is probably an understatement of the fact.

There can be scarcely a doubt that *bicoloratus* is a species distinct from *brunneomarginatus*; it is more southern and essentially Sonoran in range. The synonyms under *brunneomarginatus*, given above, are simply quoted from LeConte and I have not been able to confirm them. It is singular that *concisus* and other similar small Mexican species, should have been assigned to *Colpodes* in the Chaudoirian sense of that term, for, so far as I can see, the fourth tarsal joint is symmetrical, slender and feebly emarginate. They were originally placed correctly in *Anchomenus* by Mr. Bates. *Nugax* Bates, which is another of these very small species, differs



from *lymphaticus* in the subangulate sides of the prothorax, and *simplicior* Bates, also described from near the Mexican capital, apparently has a narrower prothorax and the lustre is said to be slightly æneous. None of these descriptions mentions the small elevation of the surface just outside of the pronotal foveæ, which is a conspicuous feature in *lymphaticus*. There are evidently a considerable number of these very small Anchomenids in southern Mexico and Central America; they constitute rather a distinct group, perhaps of subgeneric nature; they seem to be devoid of hind wings, the rounded sides of the elytra being scarcely more arcuate toward the humeri.

Group V (*funebri*s)

Subgenus *Pseudanchus* nov.

The numerous species of this group differ much from the preceding in general appearance, due to their smaller size, more slender form and prevalence of more or less diversified color, which is virtually wanting in any of the other groups; some species are, however, deep black, and others have slight metallic reflection. Examining more closely, the species are all distinguished from any of those which precede by the structure of the sides of the pronotum, the surface being convexly declivous to the finely reflexed edge and without trace of the more or less broad gutter of the other groups, caused by the broadly reflexed edges. Most of the species are peculiar, also, in *Anchomenus*, in having more numerous finer dorsal elytral punctures, although there are some, such as *excavatus*, which have only the usual three; the number of dorsal punctures is not very important, however, as it is a variable feature in most of the genera. Those species at present in my collection may be divided into four distinct sections as follows:

- Third and fourth antennal joints subequal in length, sometimes with the third joint evidently the longer; dorsal punctures of the elytra three in number.....2
- Third joint shorter than the fourth; body more diversified in color...3
- 2—Body black, only rarely with slight metallic lustre; basal thoracic angles always right and very sharply defined to prominent; three elytral punctures fine. Pacific coast regions.

Section PSEUDANCHUS in sp.

- Body metallic in lustre, the thoracic angles obtuse but not rounded; three elytral punctures very large, broadly impressed and foveiform. Atlantic regions.....Section TAPHRANCHUS nov.

3—Elytra uniform in coloration, having more than three dorsal punctures, which are always fine, sometimes also with fine diffused interstitial punctures bearing each a small erect seta, though usually without trace of diffused punctures. Atlantic to Sonoran regions.

Section STICTANCHUS nov.

Elytra dark, with abruptly defined pale areas, without diffused punctulation, the dorsal series of three fine punctures all near the third stria; prothorax still narrower, elongate, approaching the form seen in *Anchus* Lec. Atlantic regions. . . . . Section DERATANCHUS nov.

These sections are of very unequal extent, the last consisting of a single very peculiar species described as *Platynus quadrimaculatus* by Horn; there are only three rather closely allied species in *Taphranchus*; but in each of the others there are a considerable number of species, generally very well differentiated among themselves.

Section PSEUDANCHUS.

This section comprises some of the types of *Anchomenus* more commonly met with in the Pacific coast regions, though very few have been described hitherto, and individuals are often very abundant, especially in such damp localities as ravines and along secluded water courses. The fourteen species at present known to me are the following:

- Prothorax as long as wide or very nearly, except in the aberrant *morbillosus*. . . . . 2  
 Prothorax distinctly transverse; body notably small in size. . . . . 7  
 2—Upper surface with distinct metallic lustre. Moderately convex, shining throughout, similar in the sexes, black, with moderate æneous lustre, the anterior parts a little more greenish; legs and palpi black; head elongate, nearly four-fifths as wide as the prothorax; eyes large but only moderately prominent; antennæ black, slender, half as long as the body, the third joint evidently longer than the fourth; prothorax as long as wide, the parallel sides feebly arcuate, gradually becoming straight to very feebly and broadly sinuate posteriad, the angles sharp; base and apex equal, the apical angles prominent, only slightly blunt at tip; surface with many transverse rugulæ and faint anterior transverse impression; sides finely but sharply reflexed; foveæ large, rather deep, rugose, extending to the middle; elytra one-half longer than wide, twice as wide as the prothorax (♀), nearly so (♂); sides parallel, moderately arcuate and finely, sharply reflexed, more rounding at the humeri; apex rather rapidly obtuse, the sinus short, very feeble; basal margin joining the lateral in a broad arc; striæ rather fine, groove-like, coarser at apex; intervals flat, the three punctures distinct; met-episterna much elongated; anterior male tarsi well

- dilated, feebly grooved medially above. Length ( $\sigma^7$  ♀) 9.5 mm.; width 3.6–3.7 mm. Washington State..... **æneolus** Lec.
- Upper surface sometimes shining but never with distinct æneous metallic lustre; sides of the prothorax much more rounded anteriorly; anterior and middle trochanters similarly rufous; tarsi sulcate above..... 3
- 3—Elytra densely opaque, at least in the female..... 4
- Elytra shining, less so though scarcely opaque in the female..... 5
- 4—Form rather ventricose, moderately convex, dull black; head slightly elongate, four-fifths as wide as the prothorax; with well developed and moderately prominent eyes and parallel sinuous anterior impressions; palpi black, with pale tip, slender; antennæ slender, black, the pubescence gray, the third and fourth joints exactly equal; prothorax nearly as long as wide, widest and with the sides most rounded just before the middle, converging and broadly sinuate posteriorly to the right and very sharp angles; margins finely, sharply reflexed, a trifle more so basally; surface like the head, rather shining, the fine transverse rugulæ feeble; anterior impression alone evident, shallow; median stria fine, abbreviated as usual; foveæ large, broadly concave, rugose, attenuately extended to the middle; base fully as wide as the apex; elytra not quite twice as wide as the prothorax and less than one-half longer than wide, oblong-oval, the sides but little more rounded basally, rather obtuse, with feeble sinus at apex; striæ fine, smooth, grooved, not coarser at apex, the intervals perfectly flat; met-episterna twice as long as wide; legs slender. Length (♀) 8.3–9.0 mm.; width 3.1–3.6 mm. California (Sta. Barbara and San Diego).... **funebriis** Lec.
- Form slightly broader, the anterior parts relatively larger and heavier; coloration and lustre nearly similar; head but slightly narrower than the prothorax, with much more prominent eyes than in *funebriis*, elongate, with deep anterior impressions; antennæ not very slender, slightly less than half as long as the body, the third joint barely longer than the fourth; prothorax slightly wider than long, widest and with more strongly arcuate sides before the middle, the margin finely but sharply reflexed, oblique and broadly sinuate in nearly basal half, the angles slightly more than right, very sharply defined; surface not very shining, with some transverse rugulæ, the postero-lateral parts, including the shallow foveæ, coarsely and deeply punctato-rugose; elytra oblong-oval, rather convex, smooth and densely opaque, one-half longer than wide, four-fifths wider than the prothorax, the sides arcuate, barely at all more so at base; striæ fine, sharply defined and with minute close-set punctulation; intervals perfectly flat, the micro-reticulation strong and conspicuous; anterior of the three small punctures at the third, the other two at the second, stria. Length (♀) 9.3 mm.; width 3.7 mm. California (without further record of locality). [*Scaphiodactylus opacus* Mots.]..... **opacus** Mots.
- Form less ventricose than in the two preceding, smaller and more abbreviated, similar in coloration and lustre; head slightly elongate, with prominent eyes, three-fourths as wide as the prothorax, the anterior

- impressions flexed outwardly behind; palpi slender, with feebly pallescent tip; antennæ barely half as long as the body, the pubescence dark, the third joint a little longer than the fourth; prothorax short and strongly transverse, nearly two-fifths wider than long, the sides inflated and strongly rounded before the middle, oblique but barely at all sinuate posteriorly, the margins less finely reflexed and rather widely so basally, forming the outer wall of the large and broadly concave, rugose, anteriorly attenuate foveæ; surface with conspicuous transverse rugulæ and fine deep anterior impression; base wider than the apex, with very sharp angles, the apex deeply sinuate, with well marked prominent angles; elytra less than one-half longer than wide and not one-half wider than the prothorax, the broadly arcuate sides but little more rounded basally, the subapical sinus rather broad and shallow; striæ acutely grooved, not so fine as in *funebriis*, not coarser at apex; the intervals not quite so perfectly flat; three punctures small; legs slender. Length (♀) 8.3 mm.; width 3.25 mm. California (Redwood Creek, Humboldt Co.)..... **morbillosus** n. sp.
- 5—Third and fourth antennal joints equal; prothorax most strongly rounded at the sides near anterior third; striae intervals feebly convex in the female. Deep black and shining throughout; head rather more than three-fourths as wide as the prothorax, with large and rather prominent eyes, the slender black palpi with the extreme tip barely pallescent; anterior impressions parallel, deep; antennæ slender, nearly half as long as the body, black as usual, faintly picescent distally; prothorax as long as wide, the sides strongly rounded anteriorly, oblique behind the middle, then sinuate, becoming parallel in about basal fourth, the angles very sharp and outwardly somewhat prominent; margins finely, sharply reflexed, only a trifle more so basally; surface with fine strigilation, stronger in the anterior foveal region, the foveæ large, rather deeply concave, rugose, disappearing beyond the middle; base somewhat wider than the deeply sinuate apex, having the prominent angles rather sharp; anterior impression very faint; elytra one-half longer than wide, twice as wide as the prothorax, obtusely ogival behind, the sides more rounded at base, the subapical sinus extremely feeble; striæ fine, extremely finely, closely and obscurely punctulate; intervals feebly but distinctly convex; punctures fine, the two posterior near the second stria as usual in this section; met-episterna twice as long as wide. Length (♀) 9.0 mm.; width 3.3 mm. Nevada (Reno)..... **nevadensis** n. sp.
- Third antennal joint longer than the fourth—this character always being independent of sex; prothorax not quite as long as wide, widest and most rounded at the sides slightly before the middle; striae intervals perfectly flat (♀), slightly convex (♂)..... 6
- 6—Body relating somewhat stouter than in *nevadensis*, distinctly convex, deep and slightly bluish black, polished throughout in the male, the female elytra only slightly alutaceous; head four-fifths as wide as the prothorax, with large and prominent eyes; antennæ black, moderately slender, nearly half as long as the body; prothorax a

sixth or seventh wider than long, the oblique sides posteriorly becoming straight or broadly, almost imperceptibly sinuate to the basal angles, which are more than right but very sharp at tip; margins finely reflexed, a little more so basally; transverse rugulæ fine but evident; anterior impression feeble; foveæ large, rugulose, at some distance from the sides, obliquely attenuate anteriorly, disappearing at the middle; base and apex subequal, the latter deeply sinuate; elytra nearly one-half longer than wide and almost twice as wide as the prothorax, the broadly arcuate sides more rounded at base; apex gradually obtuse, the sinus evident but very shallow; striæ fine, with almost invisible micro-punctulation, a little less fine and smoother in the male; intervals flat (♀), feebly convex (♂); tarsi slender, the anterior moderately dilated in the male. Length (♂ ♀) 7.3-8.6 mm.; width 2.8-3.25 mm. California (Humboldt to Sta. Clara). Abundant. Twelve specimens.

**micans** Ménet.

Body much larger than in *micans*, though somewhat similar in general outline, the thoracic sides less rounded, the head larger and the elytra duller in the female, deep black, the anterior parts shining; head elongate, with prominent eyes, fully four-fifths as wide as the prothorax; antennæ slender, the third joint distinctly longer than the fourth; prothorax about as long as wide, parallel, the sides very moderately and broadly, subevenly rounded, becoming gradually just visibly sinuate posteriorly, finely reflexed, a little more so at base, the angles right and sharp but not prominent; base as wide as the rather feebly sinuate apex; transverse rugulæ distinct, the stria fine but well impressed, subentire; foveæ rugose, concave, gradually disappearing at the middle of the length; elytra fully one-half longer than wide, not quite twice as wide as the prothorax, gradually obtusely ogival behind, with rapidly rounded humeri, the sinus long, barely visible; striæ fine, shallow, closely micro-punctulate; intervals perfectly flat in the female; tarsal joints strongly, longitudinally furrowed and strigilate above and at the sides, slender. Length (♀) 9.5 mm.; width 3.6 mm. California (Sta. Rosa) and Oregon (Medford),—Wickham. . . **concurrrens** n. sp.

Body much stouter than in *micans*, more abbreviated than in that or *concurrrens*, with much larger head than in the latter, black, the elytra somewhat piceous; under surface and legs in part piceo-rufous; head elongate, not quite four-fifths as wide as the prothorax, with large and rather prominent eyes, the slender black palpi with the extreme tip pallescent; antennæ slender, black, nearly half as long as the body, the third joint very distinctly longer than the fourth; prothorax not quite as long as wide, the sides strongly, subevenly inflated and rounded, oblique and straight posteriorly to the angles, which are more than right but with the tips minutely and very acutely prominent; surface shining like the head, the transverse strigillæ conspicuous; stria fine; foveæ rugose, concave, obsolescent rather before the middle; base somewhat wider than the distinctly sinuate apex, beaded only at the sides,

at the apex throughout; elytra shorter and broader, less than one-half longer than wide, four-fifths wider than the prothorax; apex more rapidly obtuse, the sinus less oblique but more distinct than in the preceding; striæ fine, sharp, shallow, the micro-punctulation less distinct; intervals flat, opaculate; tarsi nearly similar. Length (♀) 8.5 mm.; width 3.65 mm. California (Sta. Rosa).

*opacellus* n. sp.

- 7—Basal thoracic angles not sharply defined, very obtuse, with the tips blunt. Body rather stout, somewhat convex, highly polished above in both sexes, deep black, the anterior parts with evident though rather obscure æneous lustre, the legs black; head evidently elongate, fully two-thirds as wide as the prothorax, the eyes well developed, moderately prominent; antennæ black throughout, somewhat over half as long as the body, the third and fourth joints equal, each longer than the succeeding joints; prothorax short, fully two-fifths wider than long, widest before the middle, the sides moderately rounded and narrowly but strongly reflexed, moderately oblique and straight posteriorly, a little more reflexed at the angles; impressions feeble but traceable; foveæ deeply concave and slightly rugulose, the base obliquely rounded at the sides, somewhat wider than the deeply sinuate apex, the apical angles well defined; elytra oblong, not quite one-half longer than wide, fully one-half wider than the prothorax, obtusely rounded at apex, the sinus evident; striæ moderately fine, obscurely micro-punctulate, feebly impressed; intervals slightly convex, the three dorsal punctures rather small, the first at the third, the two posterior at the second, stria; tarsi very slender, black. Length (♀) 7.7 mm.; width 2.9 mm. Oregon (Dilley),—Leng.....*quadratus* Lec.

Basal thoracic angles sharply defined, right to somewhat prominent or very moderately obtuse..... 8

- 8—Form rather stout, moderately convex, very small in size, polished throughout in both sexes, deep black; head slightly elongate, about three-fourths as wide as the prothorax, the eyes rather large, prominent; anterior impressions deep, parallel, subarcuate; palpi slender, not evidently pale at tip; antennæ black, more than half as long as the body, the third joint distinctly longer than the fourth; prothorax short, two-fifths wider than long, inflated and with evenly rounded sides, which become sinuate basally and then sometimes parallel, the margins finely reflexed, rather widely along the basal parts, forming the outer wall of the deep and slightly rugose foveæ, which can be traced scarcely to the middle; surface polished, the rugulæ and anterior impression feeble, the stria fine but rather deep, subentire; elytra oblong, two-fifths longer than wide, not quite twice as wide as the prothorax, with nearly straight sides and very rapidly rounded humeri; apex obtuse, the sinus distinct; striæ extremely fine and shallow, obsoletely micro-punctulate; intervals flat, the three punctures small; tarsi with the upper surface scarcely modified, the anterior distinctly dilated in the male; met-episterna moderately elongate. Length (♂ ♀) 6.3-7.4 mm.; width 2.6-3.0

mm. California (Hoopa Valley, Humboldt Co. and also in Siskiyou Co.). Fifteen examples. . . . . **cornicula** n. sp.  
 Form somewhat less stout, more elongate and a little more convex, distinctly larger in size, deep black and polished throughout in both sexes; head and antennæ nearly as in the preceding; prothorax slightly less transverse, about a fourth wider than long, not quite so narrowed basally; sides less arcuate, becoming sinuate and subparallel basally, finely reflexed, only very little more so at base and not there broadly reflexed as in *cornicula*; basal angles right and very sharp, sometimes minutely subprominent; base fully as wide as the apex and relatively broader than in the preceding; surface with rather strong transverse rugulæ and distinct anterior impression; foveæ deep, concave, strongly rugose, disappearing at about the middle; apex rather deeply sinuate, with well defined angles as in *cornicula*; elytra more elongate and larger, though not quite one-half longer than wide, more gradually rounding behind, four-fifths wider than the prothorax; humeri rapidly rounded; subapical sinus but slightly oblique and very shallow; striæ grooved, not so fine as in the preceding and deeper, nearly smooth; intervals flat, not quite so polished as in the preceding, the three punctures similar; anterior male tarsi feebly dilated, less so than in *cornicula*; met-episterna twice as long as wide. Length (12♂, 2♀) 6.8-7.8 mm.; width 2.7-3.1 mm. Nevada (Reno). Male much more abundant than the female as in the preceding species.

**renoanus** n. sp.  
 Form much more abbreviated and very small in size, rather convex, similarly deep black and rather shining; head smaller, barely longer than wide, three-fourths as wide as the prothorax, with moderate and rather prominent eyes; antennæ slender but shorter; prothorax short and transverse, almost one-half wider than long; sides inflated and strongly arcuate anteriorly, oblique and straight or just visibly sinuate in basal half, finely reflexed throughout, the angles obtuse but with sharp tips; base as wide as the broadly and deeply sinuate apex; rugulæ and anterior impression feeble; foveæ short, scarcely at all impressed, not extended anteriorly and strongly rugose; elytra short, two-fifths longer than wide, four-fifths wider than the prothorax, convex, oblong-suboval, rounding gradually behind the middle; humeri not quite so rapidly rounded; subapical sinus, striæ and flat intervals nearly similar; tarsi slender. Length (♀) 6.4 mm.; width 2.65 mm. Nevada (Reno). One specimen.

**parvus** n. sp.  
 Form narrower, rather more convex, even more strongly shining than in any of the preceding three species, deep black throughout, without trace of metallic lustre; head barely longer than wide, nearly four-fifths as wide as the prothorax, with very prominent eyes, the impressions linear, moderate; surface very smooth; antennæ deep black, very slender, slightly over half as long as the body, the third and fourth joints equal; prothorax nearly two-fifths wider than long, widest and with strongly rounded sides before the middle, the sides oblique and just visibly, broadly sinuate behind, the

angles obtuse but distinctly defined; edge moderately reflexed, rapidly strongly so at the basal angles; base as wide as the very moderately sinuate apex, obliquely rounded at the sides; surface polished, with a few rugulæ near the impressed median stria, both transverse impressions feeble but obvious; foveæ rather deeply concave, nearly smooth; elytra scarcely one-half longer than wide, almost twice as wide as the prothorax, somewhat wider behind the middle than at base, gradually but somewhat obtusely rounded behind, with feeble sinus; striæ fine, distinctly impressed, the usual close punctulation extremely minute; intervals evidently convex, strongly shining and smooth, the three dorsal punctures unusually distinct but in the usual positions; anterior male tarsi long and feebly though obviously dilated, the second joint one-half longer than wide. Length ( $\sigma^7$ ) 6.2 mm.; width 2.4 mm. Oregon (Newport),—Wickham. . . . . **metuens** n. sp.

Form still narrower than in *metuens* and more depressed, highly polished throughout, deep black, the entire upper surface with feeble æneo-greenish metallic lustre; legs black, slender; head three-fourths as wide as the prothorax, with the eyes prominent as in *metuens*, the antennæ nearly similar, black throughout; prothorax shorter and broader, fully two-fifths wider than long, the outline and angles nearly similar, the foveæ similarly deep but rather longer and still more nearly smooth, feebly punctulate; elytra slightly less than one-half longer than wide, one-half wider than the prothorax, more gradually narrowed behind, the sinus more oblique, feeble; striæ finer, feebly micro-punctulate, scarcely at all impressed; intervals nearly flat, the three dorsal punctures not quite so large as in *metuens* but similarly arranged; anterior male tarsi very moderately dilated though more so than in *metuens* and shorter, the second joint only very little longer than wide. Length ( $\sigma^7$ ) 6.5 mm.; width 2.35 mm. Oregon (Dilley),—Leng. . . . . **dilleyanus** n. sp.

There are doubtless many more species of this section to be found in the numerous isolated ravines of the Sierras and in the coast mountains of California and Oregon. *Quadratus* was described from a dilapidated Oregon specimen, but the above identification is probably correct. Through an evident oversight *micans* Mén., was made a synonym of *funebriis* by LeConte, although published ten years earlier.

#### Section TAPHRANCHUS.

In this section the body is small and moderately convex, rather stout and with æneo-metallic lustre, the third and fourth antennal joints about equal, the short convex prothorax with large rugose foveæ, which are not anteriorly prolonged, obtuse though sharp basal angles and very finely reflexed sides, not definitely more



reflexed at base. The elytra have three dorsal punctures, which are not fine as in the other sections but large, broadly impressed and foveiform. The met-episterna are moderately elongate. The three species known at present are the following:

Form rather stout, oblong, somewhat convex, highly polished and with bright greenish-æneous lustre throughout above; under surface greenish-black, the legs testaceous, with blackish knees; head slightly elongate, with large and prominent eyes, three-fourths as wide as the prothorax, the anterior impressions fine, parallel, diverging posteriorly; palpi slender, piceo-rufous; antennæ slender, blackish, with pale basal joint, three-fifths as long as the body, the third and fourth joints equal; prothorax fully one-half wider than long, parallel, the sides broadly, subevenly rounded, feebly so basally, the angles very obtuse but with the tips minutely subprominent and bluntly subdentate; surface with a few feeble transverse rugulæ, fine anterior impression and very fine subentire stria, the foveæ large, concave, rugose and not anteriorly prolonged; margins very finely reflexed; base arcuate, the apex scarcely so wide and feebly sinuate; elytra barely more than a third longer than wide, four-fifths wider than the prothorax, oblong, with nearly straight sides, rapidly rounding at the humeri, broadly rounding at apex from a little behind the middle, the sinus short, shallow but evident; striæ very fine, grooved, very minutely but evidently punctulate, the punctures minutely crenulating the flat intervals and not very close-set; met-episterna nearly twice as long as wide; anterior male tarsi feebly dilated, the joints smooth above; hind tarsi long and slender, very nearly as long as the tibiæ. Length (♂ ♀) 6.7-7.0 mm.; width 2.5-2.75 mm. New Jersey and Massachusetts. [*Agonum excavatum* Dej.]..... **excavatus** Dej.

Form nearly similar and equally convex, slightly more elongate and a little larger in size, shining throughout, cupreo-æneous above, the under surface greenish-black, the legs dark rufous; head fully three-fourths as wide as the prothorax, rather elongate, the eyes not so large but still more prominent than in the preceding, the parts before the eyes more prolonged; antennæ nearly similar; prothorax larger, fully a fourth wider than long, widest slightly before the middle but with the sides subevenly, moderately arcuate throughout and finely reflexed; angles obtuse, with the tips well defined though rather less sharply than in *excavatus*; base wider than the distinctly sinuate apex; surface nearly similar, with feeble impressions, the postero-lateral area densely, subrugosely and somewhat finely punctate, the foveæ different, being more elongate and linear and more sharply and deeply impressed, the surface thence to the sides slightly convex; elytra one-half longer than wide, fully four-fifths wider than the prothorax, in outline, and in the subposterior discal indentation, as in the preceding, the striæ much less fine, abruptly grooved, with punctures which are similarly very fine; intervals feebly convex, the three foveæ of the third not half as

large as those of *excavatus* but in the same positions; tarsi slender, finely grooved laterally. Length (♀) 7.5 mm.; width 2.9 mm. Ontario (Toronto),—R. J. Crew.....**ontarionis** n. sp.

Form not so stout as in *excavatus* and not quite so convex, smaller in size; coloration and lustre almost similar, the knees not so dark; head nearly similar but with rather smaller though more prominent eyes, the impressions similar; mandibles rufous, darker basally; antennæ slender, similar in coloration but not so elongate, half as long as the body; prothorax smaller, rather less than one-half wider than long, the sides subevenly and somewhat more strongly arcuate, very finely reflexed, becoming straight basally, the angles very obtuse but with the tips rather sharply defined though not at all denticulate; impressions and foveæ nearly as in *excavatus*; base more abruptly oblique at the sides, the apex rather narrower and more sinuate; elytra narrower, two-fifths longer than wide, about twice as wide as the prothorax, otherwise nearly as in *excavatus* in outline, the sinus a little more oblique and perhaps not quite so shallow; striæ and flat intervals nearly similar, the minute punctulation rather more obscure; three large foveæ similar but not so deep or conspicuous, situated as usual, the anterior near the third, the other two near the second; stria; met-episterna twice as long as wide; anterior male tarsi still more feebly dilated, the posterior shorter, especially in the first two joints, and much shorter than the tibiæ. Length (♂) 6.0 mm.; width 2.3 mm. A single example unlabeled in the Levette collection and probably taken in Indiana.....**trinarius** n. sp.

In some species of other subgenera there is a feeble indentation of the elytral surface near the apex; this indentation would appear at first sight to be accidental, but it proves to be a constant structural character; the indentation is large and shallow in *reflexus* Lec., and narrower and more external in *cincticollis* Say. Throughout the present section this singular indentation exists; it is small, rounded and near outer third.

A rather notable peculiarity of this section exists in the position of the ninth elytral stria, which is so close to the margin as to be seen with difficulty; this stria is usually separated from the margin by a much less narrow interval. In *excavatus* the scutellum is rather large and parabolic; in *trinarius* it is much smaller, shorter and triangular.

#### Section STICTANCHUS.

This is the largest group of the subgenus *Pseudanchus* and is distinguished from the others primarily by having four or five to six or seven punctures in the dorsal series of the elytra; these punctures are always small and sometimes minute. The outline

is elongate, feebly ventricose, the hind body often notably elongate, and the coloration of the upper surface is more striking and diversified than usual. The integument is rather solid and I have never noticed any indication of the posterior elytral indentation alluded to under *Taphranchus*. The species may be separated and defined in what appears to be a sufficiently effective manner as follows:

- Prothorax dark or at least concolorous. . . . . 2
- Prothorax pale rufo-flavate in color. . . . . 16
- 2—Species larger, never much less than 7–8 mm. in length. . . . . 3
- Species notably small, rarely as much as 6.5 mm. in length. . . . . 12
- 3—Basal foveæ of the pronotum rather abrupt, very deep, separated from the sides by a conspicuous smooth convex elevation. Rather slender and convex, polished throughout and metallic above, the anterior parts greenish, the elytra æneous; under surface black, the legs testaceous; head fully four-fifths as wide as the prothorax, with large and prominent eyes, the anterior impressions short, deep, irregular; antennæ more than half as long as the body, piceous, the basal joint above abruptly pale; the medial joints four times as long as wide, the third barely shorter than the fourth; prothorax about as long as wide, the sides finely reflexed, moderately and evenly arcuate, becoming straight posteriorly, the angles obtuse but with distinct tips; base feebly sinuate medially, as wide as the rather deeply sinuate apex; surface with fine transverse rugulæ but nowhere punctate; anterior impression feeble, the stria fine but rather broadly impressed; elytra evenly elongate-oval, with evenly arcuate sides, two-thirds longer than wide and nearly twice as wide as the prothorax, the sinus very feeble; surface convex; striae not coarse, deep, grooved, coarser at apex, not distinctly punctulate; intervals not quite flat, the third with six punctures; scutellar stria long and deep as usual in this section; ninth stria half as far from the margin as from the eighth; anterior male tarsi feebly dilated, smooth above. Length (♂) 8.0 mm.; width 2.8 mm. New York (Lake Champlain). . . . . **gaudens** n. sp.
- A—Almost similar to *gaudens* but smaller and still narrower, black, with greenish lustre throughout the upper surface, a little more obscure on the elytra; eyes not quite so prominent; prothorax narrower, somewhat longer than wide, the sides more sinuate basally, the elevation between the foveæ and the sides smaller and feebler; elytra nearly similar, more rapidly rounded behind, more than twice as wide as the prothorax; striæ nearly smooth, not fine and very deep, the intervals feebly convex. Length (♂) 7.0 mm.; width 2.5 mm. New Jersey (Rutherford).—Wade.  
**clientulus** n. subsp.
- Basal foveæ not so abruptly formed, the external smooth elevation of the preceding not observable; elytra more oblong-oval. . . . . 4
- 4—Sides of the prothorax more inflated and decidedly more rounded before the middle. . . . . 5
- Sides of the prothorax more broadly and always moderately rounded. . . 6

- 5—Body more abbreviated and with the elytra more shining and more metallic than in *extensicollis*, green anteriorly, green to bright æneocupreous on the elytra; under surface black, the legs testaceous; head distinctly narrower than the prothorax, with large, moderately prominent eyes; antennæ very slender and filiform, fuscous, gradually pale basally, three-fifths as long as the body, the medial joints nearly five times as long as wide; prothorax slightly shorter than wide, the sides oblique and just visibly sinuate posteriad, finely reflexed, but little more so basally; base scarcely as wide as the deeply sinuate apex, the angles obtuse though usually with rather sharply marked tips; surface smooth, punctulate at base, the stria distinct, subentire; foveæ large, deeply concave, usually not much prolonged anteriorly, the bottom acutely linear; elytra one-half longer than wide to less, a little less than twice as wide as the prothorax, with more rapidly rounding humeri than in the preceding, the sinus very shallow; striæ moderately fine, deep, grooved and without evident punctulation, sometimes more impressed toward the humeri, the intervals usually not quite flat, the third with five small punctures; anterior male tarsi distinctly though moderately dilated, a little more so than in the preceding.\* Length (♂ ♀) 8.4–9.0 mm.; width 3.0–3.6 mm. Nova Scotia to Pennsylvania. [*An. thoracicus* Dej.; *obscuratus* Chd.; *proximus* Harris].....**elongatulus** Dej.
- Body somewhat narrower and less convex, shining, the anterior parts greenish or bluish metallic, the elytra obscure greenish to blackish, moderately shining, less dull than in *extensicollis*; legs pale flavotestaceous; head distinctly narrower than the prothorax, rhomboidal, the eyes only moderate in size but prominent; anterior impressions long, curving outwardly behind; antennæ not so long or finely filiform as in *elongatulus*, though slightly more than half as long as the body, fuscous, paler basally, the medial joints not over four times as long as wide; prothorax not quite as long as wide, the oblique sides basally straight or just visibly sinuate, the margins finely though abruptly reflexed; angles very obtuse though with distinctly marked tips; apex deeply sinuate, with rather sharp and prominent angles, fully as wide as the base, beaded as usual; stria distinct, the anterior impression barely traceable; foveæ deep, lineate at the bottom, punctulate, prolonged anteriorly, sometimes traceable beyond the middle; elytra oblong, fully one-half longer than wide, nearly twice as wide as the prothorax; sides feebly arcuate, the humeri rapidly rounding, the sinus feeble; surface shining, duller in a specimen with black elytra; striæ moderately fine, deep and grooved, not evidently punctulate; intervals not quite flat, the third with six punctures; anterior male tarsi feebly dilated. Length (♂) 8.5–9.2 mm.; width 3.2 mm. North Carolina (Asheville).....**vigilans** n. sp.
- 6—Upper surface dark bluish or green, the elytra decidedly dull in lustre; legs pale testaceous.....7
- Upper surface black or blackish, sometimes with very faint metallic tint as in *texanus*; legs frequently dark in color.....8
- 7—Body narrower and much more elongate than in *elongatulus* and

rather less convex, much duller in lustre, although the anterior parts are rather shining; color dark metallic blue or green; under surface black; head only slightly narrower than the prothorax, rather elongate, with large and prominent eyes; labrum and mandibles pale; anterior impressions rectilinearly oblique posteriorly; antennæ long and very slender, filiform, fully two-thirds as long as the body, fusco-testaceous, still paler basally, the medial joints about five times as long as wide; prothorax as long as wide, sometimes a little longer, the finely reflexed sides moderately oblique and just visibly sinuate posteriorly, the very obtuse angles with rather well defined tips; apex sinuate, with rather sharp angles, as wide as the base to wider; anterior impression sometimes completely obsolete; stria strong, subentire; basal parts and especially the foveæ more or less punctate, the foveæ deep, lineate at the bottom, traceable to the middle, the surface between the basal part and the sides flat but inclined strongly upward; elytra long, three-fifths longer than wide, somewhat wider behind the middle than at base, oblong, the sides feebly arcuate, rapidly rounded at the humeri; sinus sometimes scarcely traceable; striæ moderate, deep, grooved, with fine and close-set but usually evident punctulation; intervals flat or nearly so, the third with five or six punctures; met-episterna twice as long as wide; anterior male tarsi not very feebly dilated. Length (♂ ♀) 8.4-9.7 mm.; width 2.8-3.4 mm. Indiana, Iowa, Kansas, and Texas (Galveston and Austin). [*Feronia extensicollis* Say; *An. viridis* Lec.]. Apparently not occurring east of the Appalachians, where it is replaced by *elongatulus* Dej.

**extensicollis** Say

- Body smaller, more convex and more ventricose than in *extensicollis*, still duller in lustre, with opaculate elytra; anterior parts deep indigo, the elytra very dark violaceous-blue; head slightly narrower than the prothorax, with well developed and rather prominent eyes and posteriorly oblique anterior impressions; antennæ fuscous, paler basally, not quite so long or slender as in the preceding, the medial joints not quite four times as long as wide; prothorax nearly similar in outline though not quite as long as wide, basal regions finely punctulate, the foveæ and stria as in *extensicollis*, the former a little smaller; anterior impression barely traceable; elytra three-fifths longer than wide, almost twice as wide as the prothorax, subparallel, with feebly arcuate sides and rapidly rounding humeri, the sinus very feeble; striæ nearly as in the preceding but more deeply impressed as a rule, the punctulation much less distinct, scarcely traceable; intervals usually somewhat convex, rather flat in the female, the third with five punctures; anterior male tarsi distinctly dilated. Length (♂ ♀) 7.5-8.4 mm.; width 2.8-3.2 mm. Arizona. Said by Dunn to have been taken near Benson. [*Pl. extensicollis* var.  $\delta$ , Lec.].....**cyanescens** Mots.
- 8—Sides of the prothorax parallel and very evenly, moderately arcuate from apex to base, the angles extremely obtuse, marked only by a minute projection at the posterior setigerous pore, the projection sometimes wanting, in that case rendering any definition of an

angle impossible. Body rather large, stouter than usual, moderately convex, grayish-black, the upper surface with feeble green metallic lustre, the anterior parts rather shining, the elytra alutaceous; legs testaceous, with darker knees and tarsi; head distinctly narrower than the prothorax, with large and prominent eyes; antennæ slender, nearly black, about half as long as the body, the basal joint testaceous on its under surface; prothorax a fourth wider than long, the sides finely reflexed, slightly more so basally; base rather wider than the apex, strongly obliquely arcuate at the sides; impressions subobsolete, the stria distinct, entire; foveæ punctulate, sharply linear, deeply impressed, at lateral fourth, only moderately or not at all prolonged anteriorly; elytra one-half longer than wide, five-sixths wider than the prothorax, parallel, with subevenly arcuate sides, not very abruptly more rounded at base; apex somewhat obtuse, the sinus rather long, shallow; striæ fine, grooved, very minutely subpunctulate, not deeper apically; intervals flat, the third normally with five punctures; met-episterna nearly three times as long as wide; anterior male tarsi feebly dilated, smooth and convex above. Length (♂ ♀) 9.0-10.0 mm.; width 3.4-3.8 mm. Texas. . . . . **texanus** Lec.

Sides of the prothorax and entire habitus of the body very much as in *texanus*, a little smaller and narrower, similar throughout in coloration and in the pearly alutaceous lustre of the female, the elytra of the male probably somewhat more polished; head and antennæ nearly similar, the third antennal joint much shorter than the fourth; prothorax nearly similar, but with the sides slightly less arcuate, the obtuse basal angles rather better defined at tip, the basal parts much less punctate or impunctate and the foveæ less acutely deepened posteriorly; elytra narrower, nearly three-fifths longer than wide, less nearly twice as wide as the prothorax, less narrowed basally than in *collisus*; sides somewhat more rapidly rounding at base; striæ and intervals nearly similar, the striæ not distinctly punctulate, the intervals nearly flat; punctures of the third five in number; met-episterna twice as long as wide. Length (♀) 9.0 mm.; width 3.3 mm. Florida (Enterprise).

**floridanus** Lec.

Sides of the prothorax parallel, feebly or moderately arcuate, becoming straight basally, the tips of the basal angles subacutely and evidently prominent; body smaller in size. . . . . 9

9—Prothorax smaller, only half as wide as the elytra, the latter more convex; Atlantic regions. Black, polished throughout in both sexes, the anterior parts feebly metallic-green; under surface black, the legs rufo-piceous; head elongate, only a little narrower than the prothorax, with large and prominent eyes and long, posteriorly oblique anterior impressions; antennæ very slender, nearly black; palpi blackish; prothorax as long as wide, the sides finely reflexed, more so at the basal angles; base as wide as the apex, arcuate at the sides, margined; apex feebly sinuate but with sharp angles; impressions barely traceable, the stria fine, impressed, entire; foveæ linear, deeply impressed, not much prolonged and not evi-

dently punctate; elytra three-fifths longer than wide, the sides rapidly rounded at the humeri, evenly and not obtusely rounded posteriorly, the sinus short and very feeble; striæ fine, sharply marked, feebly micro-punctulate; intervals not quite flat, the third with five distinct punctures; met-episterna between two and three times as long as wide; tarsi very slender, the posterior with the external groove very broad and shallow. Length (♀) 8.0 mm.; width 3.0 mm. Florida (Indian River Haulover),—Schwarz.

**gravidulus** n. sp.

Prothorax very nearly as small as in *gravidulus*, the habitat similar. Body much smaller and narrower than in *floridanus*, narrower and less convex than in *gravidulus*, deep black, polished throughout in the male, the anterior parts with obscure greenish lustre; legs piceous; head three-fourths as wide as the prothorax, barely longer than wide, the eyes well developed and notably prominent; antennæ slender, black, the basal joint picescent, the third three-fourths as long as the fourth; prothorax a sixth wider than long, widest well before the middle, the sides broadly, subevenly rounded, straighter and unusually oblique basally, finely reflexed, a little more so at the very obtuse basal angles, which have the tips finely and bluntly subprominent; surface flatter and with more numerous transverse rugulæ than in *gravidulus*, the foveæ smaller, less deep, linearly deeper internally, very finely, obsoletely punctulate; elytra narrower, more depressed, more parallel and with less arcuate sides, three-fifths longer than wide, very slightly less than twice as wide as the prothorax, the striæ rather fine, feebly impressed and distinctly micro-punctulate; intervals feebly convex, the third with about five distinct punctures; anterior male tarsi very narrowly dilated. Length (♂) 7.75 mm.; width 2.8 mm. Florida (Marion Co.).....**collisus** n. sp.

Prothorax larger, always obviously more than half as wide as the elytra; coloration not or but slightly metallic. Pacific regions.....10

10—Elytra rapidly obtuse at apex and with very fine striæ and perfectly flat intervals in the female. Shining, black, the anterior parts faintly greenish, the elytra obsoletely purpurate; under surface black, the legs black, the femora testaceous except apically; head evidently narrower than the prothorax, rather elongate, with well developed and moderately prominent eyes; front with two impressed foveæ between the eyes, the anterior impressions outwardly oblique behind; palpi slender, blackish; antennæ slender, fully half as long as the body, black, the testaceous basal joint clouded with black above, the third joint much shorter than the fourth; prothorax a fifth wider than long, with distinctly rounded and finely reflexed sides; base as wide as the moderately sinuate apex, strongly arcuate laterally; surface nearly smooth, becoming transversely, then irregularly, rugose toward the base, the impressions obsolescent; stria fine; foveæ sharply linear, very deeply impressed, not definitely punctate, not much prolonged; elytra three-fifths longer than wide, four-fifths wider than the prothorax, parallel, with feebly arcuate sides rapidly rounding basally, the sinus distinct;

- striae not definitely micro-punctulate; third interval with five or six rather distinct punctures; epipleura piceo-rufous; tarsi long and slender. Length (♀) 8.0 mm.; width 3.1 mm. Nevada (Reno). One example, taken by the writer.....**solutus** n. sp.
- Elytra gradually rounding behind, with more oblique and very shallow sinus, the striae nearly as fine but with feebly convex intervals, the third similarly with five or six punctures..... II
- 11—Sides of the prothorax more evidently rounded before the middle; legs very slender; body narrower in outline, moderately shining, almost imperceptibly alutaceous, black or piceous-black, without trace of metallic lustre; legs obscure testaceous, the femora pale rufo-flavate, feebly shaded toward the knees; head nearly as in the preceding but without the frontal foveae and with more prominent eyes; antennae black, with the basal joint in great part pale, more than half as long as the body, the third joint shorter than the fourth; palpi piceous, slender; prothorax a fourth wider than long; sides very finely reflexed; base fully as wide as the moderately sinuate apex, arcuate laterally; apical angles finely blunt at tip; surface nearly smooth throughout; anterior impression close to the margin and distinct, the stria fine; foveae finely, deeply impressed, oblique outwardly anteriorly and extending about to the middle, smooth, the surface thence to the sides with some ruguliform punctulation; elytra three-fifths longer than wide, not quite twice as wide as the prothorax, the parallel and moderately arcuate sides rapidly rounding at the humeri; striae with the punctulation close but extremely minute; intervals not quite flat; hind tarsi very slender, the groove on the inner side coarser and more dorsal than the outer sulcus; anterior male tarsi very moderately dilated. Length (♂) 7.5 mm.; width 2.65 mm. California (San Joaquin Co.)....**impictus** n. sp.
- Sides of the prothorax as in *impictus*, well rounded before the middle but becoming feebly sinuate before the basal angles, which are obtuse though with sharply defined and subprominent tips; body deep black, rather more convex than the preceding or *californicus*, the elytra with very faint violaceous lustre, not visible in either of those species; legs obscure rufous, the femora somewhat paler; head fully three-fourths as wide as the prothorax, with notably prominent eyes; antennae slightly more than half as long as the body, rather less slender, black, the basal joint testaceous beneath, piceous above, the third shorter than the fourth; prothorax rather shorter than in *impictus* or *californicus*, fully a third wider than long; base fully as wide as the apex, rapidly arcuate and oblique at the sides; margins very finely reflexed, slightly more so at the basal angles; surface smooth, the foveal region with a few punctures, the foveae linear, rather deep, traceable nearly to the middle; elytra somewhat over one-half longer than wide, four-fifths wider than the prothorax, gradually obtusely rounded behind, the sinus feeble; surface with greenish lustre along the sides; striae fine, with scarcely perceptible micro-punctulation; intervals flat, the third with five small punctures; anterior male tarsi narrowly dilated. Length (♂) 7.3 mm.; width 2.7 mm. Idaho (Priest River),—Wickham....**irruptus** n. sp.



Sides of the prothorax less arcuate before the middle; legs, tarsi and antennæ distinctly less slender than in *impictus*; size larger, the outline stouter, similarly convex and shining, black, without metallic lustre; femora and tibiæ uniform rufo-piceous, the tarsi rather darker; head not quite so large but with large and prominent eyes, the front not bifoveate between them; antennæ similar in coloration, rather more than half as long as the body, the third joint much shorter than the fourth; prothorax a fourth wider than long, very finely reflexed at the sides; base strongly arcuate and oblique at the sides; surface smooth, the impressions obsolete, the stria fine, entire; foveæ smooth, sharply and deeply impressed, lineate as usual, traceable to the middle, the anterior part very feeble and outwardly oblique; elytra three-fifths longer than wide, four-fifths wider than the prothorax, the sides not very rapidly more rounding at base, parallel and feebly arcuate; striæ and intervals about as in *impictus*; anterior male tarsi very moderately dilated. Length (♂ ♀) 7.8-8.0 mm.; width 2.85-3.0 mm. California (Los Angeles to Siskiyou).....**californicus** Dej.

Sides of the prothorax somewhat as in *californicus* and feebly arcuate, though the greatest width is similarly before the middle; basal angles obtuse, with the tips almost similarly prominent; size slightly smaller, narrower and less convex, polished black, with dark green metallic lustre, scarcely visible on the elytra; under surface piceous-black, the legs dark rufous; head barely at all longer than wide, nearly four-fifths as wide as the prothorax, with large and prominent eyes; antennæ more than half as long as the body, black, with piceo-testaceous basal joint, the third joint much shorter than the fourth; prothorax much narrower, very little wider than long, the sides finely reflexed; base fully as wide as the feebly sinuate apex; impressions subobsolete, the fine stria impressed; foveæ nearly smooth, linear and very deep; elytra three-fifths longer than wide, not quite twice as wide as the prothorax, parallel, gradually subevenly rounded behind, with distinct sinus; striæ fine, sharply grooved, smooth; intervals flat, shining, the third with five rather small but well defined punctures; met-episterna twice as long as wide; anterior male tarsi feebly but distinctly dilated. Length (♂) 7.2 mm.; width 2.6 mm. Nevada (Battle Mts.).....**vinnulus** n. sp.

12—Legs black. Body very small, moderately convex, polished black throughout, without trace of metallic lustre; head slightly though evidently narrower than the prothorax, only slightly elongate, with notably prominent eyes; palpi moderate, the fourth joint much longer than the third; antennæ more than half as long as the body, the third and fourth joints equal; prothorax a fifth wider than long, the sides rounded anteriorly, oblique and straight basally, finely reflexed, very little more so basally, the angles very obtuse, the tips obtusely blunt; base arcuate, as wide as the very moderately sinuate apex; anterior impression angulate and rather deep medially; stria fine but deep, abbreviated at apex; foveæ small, smooth, oblong, not prolonged; between them and each side at base there

is a very feeble convexity of the surface, remindful of *gaudens* but very much feebler; surface smooth, with a very minute feeble discal indentation at each side just before the middle and near outer fifth of the width; elytra one-half longer than wide, not quite twice as wide as the prothorax, slightly inflated posteriorly, broadly, evenly rounding behind, the sinus short and barely traceable; striæ fine, feebly impressed and nearly smooth, very feeble externally; intervals not quite flat, the third with about five small punctures; tarsi slender, the anterior very feebly dilated in the male. Length (♂ ♀) 5.65-5.75 mm.; width 2.1-2.2 mm. Vancouver Island (Victoria)..... **erasus** Lec.

Legs piceous-black, the trochanters not paler. Body somewhat broad, moderately convex, highly polished and deep black throughout; head barely longer than wide, fully four-fifths as wide as the prothorax, the eyes large, moderately prominent, the front smooth; anterior impressions short, shallow; antennæ very slender, much more than half as long as the body, black, the first joint piceous, the third longer than the fourth; prothorax barely visibly wider than long, widest before the middle, the sides broadly rounded, becoming straight behind the middle, finely reflexed, a little more so basally, the edge thickened internally at base through outer fourth, the angles very obtuse, blunt; apex broadly sinuate, with distinct angles, barely as wide as the base; transverse impressions distinct, the median stria finely impressed; foveæ broadly, feebly concave; entire surface very smooth, with a few very fine and extremely feeble rugulæ; elytra oblong, two-fifths longer than wide, twice as wide as the prothorax, rapidly rounding in scarcely apical third, the margins extremely finely reflexed; apical oblique sinus very feeble, sutural angles broadly rounded; striæ extremely fine and feebly, minutely subcommittuted, the first smoother and deeper; intervals perfectly flat, the third with four punctures; tarsi very slender. Length (♀) 6.4 mm.; width 2.6 mm. Washington State (Wilbur),—Hyslop. Communicated by Mr. J. S. Wade.

**wadei** n. sp.

Legs piceous-black, the trochanters pale. Body similar in form and in the deep black shining surface to *erasus*, narrower than in *wadei*, not very convex; head much smaller, only three-fifths as wide as the prothorax, rather rounded, not elongate, the eyes well developed but less prominent than in *erasus*; anterior superciliary puncture larger; impressions moderate; antennæ black, with the basal joint piceous, half as long as the body, the third joint distinctly longer than the fourth and not equal thereto as in *erasus*; prothorax a little shorter, between a third and fourth wider than long, the sides more evenly rounded, scarcely becoming straight posteriorly, the anterior angles more broadly rounded; basal angles very obtuse and blunt, distinctly less definite than in *erasus*, the impressions nearly similar; foveæ less definitely linear and apparently interrupted, forming two impressions in the type, feebly rugose; elytra narrower, not subinflated behind as in *erasus*, fully three-fifths longer than wide, almost twice as wide as the prothorax; apical obliquity rather

more abruptly formed, scarcely more than straight; striæ very fine, irregularly subcomminuted or broken; intervals flat, the third with five very small punctures; anterior male tarsi rather distinctly dilated. Length (♂) 5.5 mm.; width 2.0 mm. Idaho (Cœur d'Alene),—Wickham.....**ineptus** n. sp.

Legs pale ferruginous; body never deep black.....13

13—Body with some greenish-metallic lustre anteriorly, not distinct however on the elytra. Dark piceous, the head black; pronotal margins diaphanously pale, the elytra less dark than the pronotum; under surface piceous, the legs and epipleura testaceous; surface polished; head rhomboidal, with moderate but very prominent eyes, three-fourths as wide as the prothorax; anterior impressions small, short and feeble; antennæ slender, fusco-testaceous, clearer basally, three-fifths as long as the body; prothorax more than a fourth wider than long, the sides broadly arcuate, straighter basally, less finely reflexed than usual in this section, gradually a little more widely basally, the angles broadly obtuse, with the tips obtusely subprominent; base arcuate laterally, as wide as the very feebly sinuate apex, the apical angles finely blunt; anterior impression deep, angulate, forming the anterior limit of the fine stria; foveæ smooth, broadly impressed, obliquely obsolescent anteriorly, having a deeper lineate part basally; elytra one-half longer than wide, four-fifths wider than the prothorax, subevenly rounding behind, with feeble sinus; striæ fine and not quite smooth, feebly impressed, not more so apically; intervals feebly convex, the third with five small punctures; anterior male tarsi only feebly dilated, the posterior very slender, with fine and feeble lateral sulcus. Length (♂) 6.3–7.0 mm.; width 2.3–2.45 mm. Lake Superior (Bayfield, Wisc.),—Wickham.....**tritius** n. sp.

A—Almost similar to *tritius* but with feebler evidence of metallic lustre anteriorly, the head and antennæ nearly similar; prothorax not so transverse, barely a fourth wider than long, otherwise nearly similar, except that there are more of the very feeble transverse rugulæ, these being especially more evident in the foveæ; elytra nearly as in *tritius*, the striæ still somewhat finer; anterior male tarsi narrowly but evidently dilated. Length (♂) 5.75 mm.; width 2.35 mm. Utah (Provo),—Wickham....**fractus** n. subsp.

Body with some very faint and obscure greenish lustre on the head and prothorax, wholly wanting on the elytra. Color in great part pale, the head blackish, the pronotum not quite so dark, with pallid margins throughout the contour, very fine at apex and base, the elytra pale and uniform yellowish-brown; under surface very pale piceous, not at all metallic, the legs brownish-flavate; head distinctly elongate, narrower than the prothorax, with moderately convex, scarcely prominent eyes; antennæ slender, uniformly rufous, the mandibles rufous; prothorax small, nearly a third wider than long, the anteriorly parallel sides moderately arcuate, becoming rather strongly oblique behind the middle and slightly sinuate near the basal angles, which are obtuse, with blunt tips; base obliquely rounded at the sides, evidently narrower than the moderately

sinuate apex; surface with the transverse rugulæ very fine, feeble, irregularly somewhat close-set and scratch-like; anterior impression fine, barely traceable, the posterior wholly wanting, but said to be well marked in the LeConte type, the stria fine, feebly impressed; foveæ large, somewhat deeply, subevenly concave, not strongly sculptured; margins rather narrowly but strongly reflexed, barely more so toward base; elytra one-half longer than wide, not quite twice as wide as the prothorax, rather depressed, gradually obtusely rounded behind, the sinus distinct; striæ fine, feebly impressed, just visibly micro-punctulate; intervals not quite flat, the third with five not large but broadly impressed foveæ, the three or four anterior at the third stria, the fifth more axial; anterior male tarsi very moderately dilated, the first three joints diminishing uniformly and rather rapidly in length and very slightly in width. Length ( $\sigma^7$ ) 6.7 mm.; width 2.5 mm. Hudson Bay Region,—Leng.

**marginellus** Lec.

Body with brighter green metallic lustre on the head and pronotum, the latter however becoming more abruptly testaceous and non-metallic about most of the contour, and especially so between the linear foveæ and the sides. Elytra, epipleura and legs pale brownish-flavate; under surface nearly black; head slightly elongate, nearly four-fifths as wide as the prothorax, with notably large and prominent eyes; antennæ slender, slightly more than half as long as the body, fuscous, the first three joints paler, the third and fourth equal; prothorax a fourth wider than long, widest before the middle, though with broadly and moderately arcuate and rather finely reflexed sides, which become almost straight basally, the angles very obtuse and with their tips blunt; base as wide as the feebly sinuate apex, obliquely rounded at the sides; surface smooth, the anterior impression feeble, angulate, the posterior obsolete, the stria very fine; foveæ smooth, narrowly and deeply linear, not anteriorly prolonged; elytra oblong-oval, rather convex, less than one-half longer than wide, about twice as wide as the prothorax, the sides rapidly rounding at base; apex gradually rounding in nearly posterior half, the sinus very short and feeble; striæ fine, the micro-punctulation traceable laterally; intervals flat, the third with five punctures, which are relatively much stronger than in *tritius* or *fractus*, the three anterior adjoining the third, the other two the second, stria; anterior male tarsi with very moderately dilated and unusually elongate joints, rather wider and much longer than in the male of *tritius*. Length ( $\sigma^7$ ) 6.6 mm.; width 2.35 mm. Massachusetts (Chicopee).....**anchomenoides** Rand.

Body without distinct metallic lustre at any point.....14

14—Prothorax small, as long as wide and but little wider than the head; elytral punctures five, very minute. Body and legs pale ferruginous throughout, the head piceous-black; surface smooth, feebly sculptured and shining in both sexes; head but slightly elongate, with large and prominent eyes and short, unevenly lineate anterior impressions; palpi piceous, the last joint slightly longer than the third; antennæ very slender, fusco-testaceous, clearer basally,

- fully half as long as the body, the third joint barely visibly shorter than the fourth; prothorax widest before the middle, with rounded and finely reflexed sides, becoming straight posteriorly to the obtuse and feebly marked angles; base broadly arcuate, as wide as the very feebly sinuate apex; angulate anterior impression evident, the stria fine; surface with feeble transverse rugulæ, otherwise smooth, the foveæ small, narrow, short and linear, only moderately impressed; elytra oblong-suboval, parallel, with feebly arcuate sides, rapidly rounding at base, three-fifths longer than wide and twice as wide as the prothorax, rather rapidly obtuse at apex, the sinus rather short, evident; striæ extremely fine, not deep, obsolescent at the sides; intervals flat; legs very slender, the anterior male tarsi long and feebly dilated. Length ( $\sigma^7$  ♀) 6.5–6.8 mm.; width 2.35 mm. California (San Joaquin Co.).....**ferruginosus** Dej.
- Prothorax transverse, distinctly more than half as wide as the elytra; dorsal punctures of the latter rather strong and five or six in number. Body narrow, moderately convex, pale piceous-brown in color and shining, the head blackish; under surface black, the epipleura and legs pale brownish-flavate; head not longer than wide, nearly five-sixths as wide as the prothorax, the eyes very prominent; impressions oblique behind; antennæ fuscous, with paler first joint, evidently more than half as long as the body, the third and fourth joints subequal; prothorax a fourth wider than long, widest before the middle but with the sides very moderately arcuate and finely reflexed, becoming slightly oblique and straight posteriorly, the angles very obtuse, with the tips rather distinctly defined though slightly blunt; base as wide as the feebly sinuate apex, obliquely rounded at the sides; transverse impressions both distinct, the anterior deep; stria fine, somewhat impressed; foveæ feebly concave, nearly smooth, with a deeper and rounded more basal part; elytra nearly three-fifths longer than wide, about two-thirds wider than the prothorax, the sides rapidly rounding at base; apex gradually rounded, with very feeble sinus; striæ fine, somewhat disintegrated laterally; intervals feebly convex suturad, flat laterad, the third with five or six very distinct punctures; anterior male tarsi rather long, narrowly dilated. Length ( $\sigma^7$ ) 5.8 mm.; width 2.0 mm. Colorado (Ouray),—Wickham.....**marcidus** n. sp.
- Prothorax similarly transverse and more than half as wide as the elytra, the latter however with the dorsal punctures very fine and about four in number..... 15
- 15—Upper surface very slightly more depressed than in *ferruginosus*, pale piceo-ferruginous throughout above, the legs paler; head only slightly elongate, four-fifths as wide as the prothorax, the eyes moderately large, prominent, anterior impressions short, feeble; antennæ not very slender, half as long as the body, fuscous, paler basally, the medial joints less than three times as long as wide, the third fully as long as the fourth; palpi pale, the last joint slightly longer than the third, feebly and evenly inflated, gradually pointed apically; prothorax two-fifths wider than long, the moderately
- T. L. Casey, Mem. Col. IX, Jan. 1920.

rounded sides becoming oblique and straight posteriad, finely reflexed anteriorly, much more so basally, the angles obtuse, with narrowly blunt tips; base broadly arcuate, fully as wide as the shallowly sinuate apex; surface rather depressed, with very fine faint rugulæ, the anterior impression fine, deep, angulate, the stria short, somewhat deeply impressed; foveæ large, shallow, broadly impressed, not anteriorly prolonged; elytra three-fifths longer than wide, three-fourths wider than the prothorax, slightly inflated behind, the humeri not very rapidly rounded; apex rather obtusely rounded, with long and scarcely more than rectilinear sinus; striæ extremely fine, similar at the sides; intervals almost flat, shining; scutellar stria shorter than usual; anterior male tarsi slender, extremely feebly dilated. Length (♂) 6.3 mm.; width 2.4 mm. British Columbia (Stikine River),—Wickham. . . . . *lascivus* n. sp.

Upper surface in coloration and shining lustre almost as in *lascivus*, beneath more blackish posteriorly, the legs testaceous; head even shorter, scarcely as long as wide, fully four-fifths as wide as the prothorax, with rather large and prominent eyes, the impressions small and feeble; palpi with the last joint longer than the third, not so inflated medially as in the preceding, slender; antennæ longer and rather more slender, fusco-testaceous, clearer basally, three-fifths as long as the body, the medial joints somewhat more than three times as long as wide, the third and fourth equal; prothorax not so short though nearly a third wider than long, the apex not sinuate but feebly sinuato-truncate, as wide as the feebly arcuate base; sides broadly and more feebly arcuate, but becoming broadly and feebly sinuate posteriorly, finely reflexed, a little more so at base and less gradually than in *lascivus*, the angles much more distinct, only a little more than right, with well marked and scarcely even blunt tips; surface nearly similar but smoother and with deeper posterior impression, the anterior deep; foveæ nearly similar but longer, extending almost to the middle; elytra very much shorter, not a third longer than wide, four-fifths wider than the prothorax, more rapidly obtuse at apex and with more rapidly rounding humeri, the apical sinus similar; striæ not quite so fine and distinctly impressed, the intervals convex internally; scutellar stria similarly short; anterior male tarsi rather thick and much more strongly dilated; hind tarsi not so long. Length (♂) 5.8 mm.; width 2.35 mm. British Columbia (Stikine River),—Wickham.

*frigidulus* n. sp.

Upper surface rather more convex; body broader in form, polished, piceous-black, the anterior parts with the merest trace of viridate lustre; under surface black, the epipleura and legs rufous; head not elongate, three-fourths as wide as the prothorax, with moderate though notably prominent eyes; last palpal joint much longer than the third; antennæ slender, slightly over half as long as the body, fuscous, the basal joint rufous, the third and fourth exactly equal; prothorax larger than in the two preceding, a third wider than long, widest and more abruptly and strongly rounded at the sides before the middle, the sides oblique and broadly, feebly sinuate in

about basal half, the angles obtuse, with blunt tips; base as wide as the distinctly sinuate apex, rounded and moderately oblique at the sides, the anterior impression deep, the posterior obsolescent; foveæ large, oval, deeply concave, not quite smooth, not anteriorly prolonged and well separated from the sides, which are distinctly reflexed at base, finely so elsewhere; elytra oblong, subinflated behind, not over a third longer than wide, fully three-fourths wider than the prothorax, the sides rather gradually more rounding at base; apex rapidly and broadly obtuse, with rather long but feeble sinus; striæ fine, smooth, entire; intervals very nearly flat, the third with four punctures, which are about as strong as in *frigidulus* and much larger than in *lascivus*; ninth stria close to the edge; metepisterna one-half longer than wide; tarsi only moderately long. Length (♀) 6.3 mm.; width 2.5 mm. Idaho (Priest River),—Wickham. . . . . **dissensus** n. sp.

- 16—Form less elongate and rather more depressed, the elytra more shining, slightly metallic and without trace of interstitial punctulation. Black, the prothorax above and beneath and the legs testaceous, the head strongly, the elytra feebly, metallic-green; head but slightly elongate, almost as wide as the prothorax, with large and very prominent eyes, the anterior impressions deep and slightly oblique; antennæ filiform, black, testaceous basally, three-fifths as long as the body, the third joint slightly shorter than the fourth; palpi slender, the third and fourth joints equal in length; prothorax shining, parallel, a fourth wider than long, the sides moderately, subevenly rounded except near the base, where they rapidly become slightly sinuate, the angles somewhat obtuse but with sharp tips; base oblique at the sides, as wide as the rather feebly sinuate apex; margins very finely reflexed; anterior impression close to the apex and almost completely obsolete; stria finely impressed, entire; foveæ linear, very deeply impressed, smooth, obliquely traceable to the middle; elytra oblong, parallel, with nearly straight sides, strongly rounding at the humeri, one-half longer than wide, about twice as wide as the prothorax, gradually and evenly rounded behind, the sinus very feeble; striæ fine but deep, grooved, the close micro-punctulation scarcely observable; intervals flat, the third with five small but very distinct punctures; scutellar stria long, the ninth half as far from the edge as from the eighth; legs long, the anterior male tarsi distinctly though not broadly dilated and smooth above. Length (♂ ♀) 7.1–8.0 mm.; width 2.65–3.1 mm. Utah. . . . . **luxatus** n. sp.

Form much elongated, moderately convex, the elytra less shining, without metallic reflection and with numerous interstitial punctures, which are equally distributed and bearing each a short pale seta. . 17

- 17—Body very elongate, moderately convex, black, the prothorax above and beneath, scutellum, mesosternum and legs pale flavo-testaceous; head polished and bright metallic-green, the elytra dull and feebly greenish; head scarcely longer than wide, evidently narrower than the prothorax, with large and prominent eyes; antennæ nearly three-fifths as long as the body, black, the three basal joints and

glabrous basal lobe of the fourth pale testaceous; palpi slender, pale; prothorax about as long as wide, the sides broadly rounded, very finely reflexed, straight posteriorly and slightly oblique, the angles very obtuse, with the tips distinct; base and apex equal, the base rounded laterally, the apex rather deeply sinuate; surface opaculate, without transverse impressions, the very fine stria not quite entire; foveæ moderate, feebly concave, with a short linear basal part; elytra fully two-thirds longer than wide, not quite twice as wide as the prothorax, parallel, with feebly arcuate sides, gradually more arcuate basally; apex gradually and subevenly rounded behind, with short but evident sinus; striæ very fine, sharp, impunctate; intervals flat, the third with six small punctures; met-episterna much elongated; anterior male tarsi long, slender, only very slightly dilated. Length ( $\sigma^7$  ♀) 7.5–8.5 mm.; width 2.7–3.1 mm. Rhode Island, New Jersey, Indiana and Iowa. [*Feronia decora* Say; *An. obscurus* Lec.].....**decorus** Say

A—Form slightly more slender than in *decorus* and scarcely so large, similar throughout in coloration and lustre, except that only the first antennal joint is pale rufo-flavate; prothorax narrower, only just visibly wider than the head; anterior male tarsi feebly dilated but rather longer, almost as long as the tibiæ; antennal joints decidedly more elongate than in *decorus*, the third much more distinctly shorter than the fourth; elytral lustre and sculpture similar. Length ( $\sigma^7$ ) 7.4 mm.; width 2.6 mm. Texas (Galveston). One example.....**arenarius** n. subsp.

Body smaller and more abbreviated, similar in coloration and general structure; head slightly elongate and very little narrower than the prothorax, with large and prominent eyes; palpi slender, pale; antennæ shorter, about half as long as the body, black, the first joint pale, the third and fourth subequal; prothorax shorter, nearly a third wider than long, the sides more arcuate just before the middle, oblique and straight or subsinuate posteriorly, the angles obtuse but with sharply marked tips; base oblique at the sides, scarcely as wide as the apex, which is much more feebly sinuate than in *decorus*; surface throughout nearly as in the latter, dull; elytra shorter, three-fifths longer than wide, not quite twice as wide as the prothorax; apex more obtuse than in *decorus*, with rather distinct sinus, the humeri more rapidly rounded; surface less dull, feebly alutaceous, the striæ not quite so fine; intervals not quite flat and with the fine punctulation more irregularly distributed, much sparser and finer, the third with six or seven punctures; legs shorter and slightly stouter. Length (♀) 6.8 mm.; width 2.6 mm. Arizona (Tuçson). A single example, taken by the writer.....**tepidus** n. sp.

There is some uncertainty involved in the identification of the older species of this section, for, as no one of the original types is available for comparison, the descriptions are all we have to guide us, and these are deficient or defective in some cases. It seems



probable, however, that the solution of the question here proposed comes as close to the truth as is possible at present. That species of the Atlantic coastal regions which resembles *extensicollis* and is generally mistaken for it, I believe to be the one described by Dejean under the name *elongatulus*, with synonymy as suggested above, *thoracicus* being founded upon a somewhat immature individual and really identical with *elongatulus*; both it and *proximus* Harr., which seems to be of the same species, were published in 1828. *Elongatulus* varies greatly in coloration, some specimens being bright green throughout, while in others the elytra become metallic æneo-cupreous. *Extensicollis* Say, does not seem to occur east of the Appalachians; it is narrower, longer and less shining than its eastern analogue *elongatulus*, and never has the integuments so shining or metallic as they are in the latter. The Arizona species identified as *cyanescens* Mots., agrees perfectly with the original description, founded upon a Lorquin specimen, many of which probably came from the Sonoran parts of California.

LeConte states that in *anchomenoides* the sides of the prothorax are not reflexed, but in this and allied species they are diaphanously pale as stated by that author and, as a corollary of this, unusually reflexed for this subgenus of *Anchomenus*. The remarks made by LeConte (Proc. Ac. Phila., 1854, p. 47) would seem to indicate, however, that several distinct species were confused under the name *anchomenoides* by that author. In Bull. Bk. 1879, p. 51, the author discusses the probability that *californicus*, *floridanus* and *texanus* may be slight modifications of a single species; this is incorrect however, so far as *texanus* and *californicus* are concerned, though *floridanus* may prove to be a subspecies of *texanus*; the surmise of the author made further on, that *crenistriatus*, *rubripes* and *punctiformis* may be similarly related to each other is also ill-considered. The form *arenarius*, described above, probably has full specific value, because of antennal structure and coloration among other reasons, but since it is closely allied to *decorus*, I give it the status of a subspecies of the latter provisionally, as it is represented solely by a unique, so far as known at present.

I have maintained the name *marginellus* Lec., rather than *bicolor* Dej., with which it was united by LeConte. In *bicolor* the antennal joints after the first have their tips more obscure in color. The

prothorax is said to be slightly narrowed posteriorly and very feebly cordiform; in *marginellus* it is decidedly cordate and much narrowed posteriorly. In *bicolor* the pronotum is covered with more or less distinct undulated transverse rugulæ, the anterior impression strong and the posterior less deep though apparently visible, the obscure brown elytra are slightly bronzed and with smooth striæ, and the under surface is obscurely green-bronze in lustre, most of which characters differ sensibly from those of *marginellus*, as can be seen from the above description. *Bicolor* inhabits Kamschatka and, under the name *riparius* Gebl., is said to occur also in Siberia. *Marginellus* resembles *anchomenoides* somewhat, but the prothorax is much more narrowed basally, the foveæ not deeply linear as in that species but broadly concave, and the elytra are much more depressed. *Marginellus* Er., (1842), from Australia, probably belongs to another genus.

#### Section DERATANCHUS.

This section is limited at present to a single very isolated species, described by G. H. Horn under the name *Platynus quadrimaculatus*, with a query as to the genus. It was the opinion of the author that a separate genus might have to be erected for it eventually, but, as it comes very close to the *decorus* types of the preceding section, in nearly all of its structural characters, I feel that a fully distinct genus is not necessary under present lights; it however differs greatly from any other North American species of the entire subfamily, in its sharply bicolored maculation of the elytra. It may be described as follows:

Form elongate, moderately convex, dull throughout in lustre, testaceous, the head black, the elytra black, each with a large testaceous basal area and another posterior and discal, of testaceous color, the two basal areas uniting at the base of the suture; epipleura black, pale basally; under surface and legs pale testaceous, the abdomen black, with a paler discal posterior area; head elongate, rhomboidal, three-fourths as wide as the prothorax, the eyes moderate, midway between base and apex, somewhat prominent; occiput with some fine scattered punctures; anterior impressions fine, oblique; palpi pale, with the fourth joint distinctly longer than the third; antennæ slender, more than half as long as the body, fusco-testaceous, the four basal joints paler, the third much shorter than the fourth; mentum tooth triangular; prothorax narrow, elongate, with the sides very finely and equally reflexed throughout, broadly rounded,

gradually converging and feebly sinuate in about basal half, the angles barely more than right but rounded at tip; base transverse, much narrower than the broadly sinuate apex, the apical angles well defined and somewhat prominent; surface with very minute and sparse punctures, each bearing a short pale hair, the transverse impressions obsolete, the stria very fine, not quite entire; foveæ very shallow, traceable about to the middle, finely punctulate; elytra three-fifths longer than wide, a little more than twice as wide as the prothorax, rather wider behind the middle than at base, gradually rounding behind, with feeble sinus, the sides anteriorly nearly straight, very finely reflexed, gradually rounding basally; striae fine, sharply defined, with extremely minute close punctulation; intervals flat, the third with three punctures, all near the third stria; met-episterna twice as long as wide; legs slender, the tarsi with fine external sulci, the claws unusually small. Length (♀) 7.2 mm.; width 2.5 mm. Alabama (Salco),—Löding.

**quadrimaculatus** Horn

This singular species can readily be considered intermediate between the usual types of *Anchomenus* and *Anchus pusillus*, of LeConte, which I think should form a subgenus coming immediately after *Deratanchus*.

#### **Macragonum** n. gen.

The type of this genus, having the tarsi densely pubescent beneath, might be assigned to the composite *Colpodes* in the Chaudoirian sense, but the fourth joint is symmetrically emarginate, though rather deeply so on the anterior. In general aspect it does not resemble any form of *Anchomenus* or of *Agonum*, the general outline, broadly and evenly rounded basal thoracic angles and elongate third antennal joint, being more remindful of *Platynidius* than any other generic group; but the very convex surface and absence of the posterior marginal puncture of the pronotum, prevent its assignment to that genus; the anterior marginal puncture is barely before the middle of the length; both superciliary punctures are distinct. The mentum tooth is very broadly triangular and the met-episterna are short, not longer than wide. The type may be described as follows:

Body elongate, rather narrow, strongly convex, polished black; legs black, the anterior male tarsi dark brown, moderately dilated, parallel; head slightly elongate, not quite three-fourths as wide as the prothorax, with moderate though somewhat prominent eyes; anterior impressions coarse, deep and parallel; palpi piceous, of the usual structure; antennæ long, slender, piceous, rather more than

half as long as the body, the third joint a third longer than the fourth; prothorax as long as wide, apparently a little longer, widest just before the middle, the sides broadly and strongly reflexed and moderately arcuate throughout, scarcely less so basally, the angles broadly, evenly rounded and obsolete; base transverse, narrower than the very moderately sinuate apex, the apical angles bluntly rounded; surface smooth, polished and sculptureless throughout, the anterior impression angulate though somewhat feeble, the stria fine, biabbreviated; foveæ large, deeply concave, formed externally by the broadly reflexed sides, prolonged anteriorly and parallel to the margin almost to the extreme apex; elytra nearly three-fourths longer than wide, three-fourths wider than the prothorax, oval, gradually rounded behind, with gradually formed but conspicuous sinus; sides feebly arcuate, gradually more so at the humeri; striæ not fine, deeply impressed, nearly smooth, the intervals notably convex, the third with three punctures; tarsi long, the fifth joint ciliate beneath but not at the sides. Length ( $\sigma^7$ ) 12.0 mm.; width 4.5 mm. Panama,—Gaillard.....\**panamense* n. sp.

Using the tables of *Colpodes* given by Chaudoir and Bates, I am unable to identify this species and so conclude that it is undescribed; at any rate, it will easily be recognized by the rather full description.

#### *Circinalia* n. gen.

The species of this genus are of moderate to small size, rather convex polished surface throughout and notably dense integument. The prothorax is subquadrately rounded, with obsolete and broadly rounded basal angles, the sides very finely margined and the fovea smooth and reduced to a small punctiform impression; the surface is subevenly convex, without evident transverse impressions. The elytra are elongate-suboval, with more rapidly rounding humeri, and the hind wings seem to be well developed; the third interval is always tripunctate. The met-episterna are moderately elongate and the legs and tarsi slender, the latter with the external sulci shallow, deeper in the second group. There are two sub-generic groups as follows:

- Pronotal foveæ somewhat distant from the latero-basal margin, sometimes attended by a moderate impression of the surface; elytral striæ coarse, often conspicuously punctate; integuments thicker and denser.....Group I (*punctiformis*)
- Pronotal foveæ smaller, feebler and very close to the margin; elytral striæ very fine, sharply defined and unimpressed; body smaller, more ventricose, having relatively smaller head and prothorax; integuments thinner and less dense.....Group II (*æruginosa*)

No species of this genus has yet been discovered on the Pacific coast, although it occurs in the Sonoran regions of Arizona and Mexico.

Group I—*punctiformis*

Subgenus *Circinalia* in sp.

This group comprises a considerable number of species, which however often resemble each other very closely to cursory view; those before me at present are the following:

Elytra black, abruptly and broadly margined with flavo-testaceous.

Body elongate-suboval, convex, highly polished; anterior parts rufo-piceous above and beneath, the remainder of the under surface black, the epipleura and legs pale testaceous; head not elongate, three-fifths as wide as the prothorax, with rather large and moderately prominent eyes; antennæ fuscous, paler basally, very slender though less than half as long as the body, the third joint a little shorter than the fourth; prothorax a fourth or fifth wider than long, the sides parallel, very evenly and circularly arcuate from apex to base, the latter transverse medially, as wide as the rather deeply sinuate apex, which has bluntly rounded angles; basal bead interrupted at the middle; surface very evenly convex, smooth, not impressed, the stria very fine and partially obsolete; foveæ deep, with a feebly impressed prolongation almost to the middle; elytra oblong-oval, one-half longer than wide, two-fifths to one-half wider than the prothorax, gradually ogival behind, with barely visible sinus; striæ coarse, rather deep, strongly punctate, the ninth very close to the margin; intervals but slightly convex, crenulated by the punctures; met-episterna twice as long as wide; legs moderate, the anterior male tarsi very feebly dilated. Length (♂ ♀) 7.5–8.5 mm.; width 2.7–3.3 mm. North Carolina to Alabama (Mobile) and Texas (Austin). Not very abundant. [*Ag. palliatum* Dej.].

*limbata* Say

Elytra black throughout, with the margins even more finely reflexed and the ninth stria very close to the edge; upper surface highly polished throughout, partially opaque beneath.....2

2—Striæ not punctate, or sometimes barely visibly so and then only at the sides as a rule.....3

Striæ distinctly punctured throughout, the punctures always crenulating the intervals more or less evidently; legs rufous to flavate throughout.....5

3—Legs obscure rufous, the femora black or piceous-black. Body elongate, rather convex, deep black; head not elongate, two-thirds as wide as the prothorax, with large and moderately prominent eyes, the anterior impressions rather small, linear, deep; palpi slender, black, with pale tip, the last joint longer than the third; antennæ very slender, blackish, paler basally, nearly half as long as the body, the third and fourth joints subequal; prothorax only

slightly wider than long, parallel, with very evenly, circularly rounded sides; base transverse, as wide as the apex, which is deeply sinuate, with rather sharply marked angles; surface convex, even, not impressed, the stria extremely fine and not entire; foveæ small, deep, punctiform, with a short feeble extension visible by obliquely reflected light; elytra three-fifths longer than wide, one-half wider than the prothorax, gradually ogival behind, with faint sinus; humeri not very rapidly more rounded; striæ deep, grooved, feebly impressed; intervals moderately convex ( $\sigma^7$ ) or somewhat feebly so ( $\varphi$ ), the scutellar stria long; anterior male tarsi not strongly though distinctly dilated. Length ( $\sigma^7 \varphi$ ) 7.5–7.8 mm.; width 2.7–3.0 mm. Rhode Island to North Carolina (Southern Pines) and Alabama (Mobile). [*Pl. foveicollis* Chd.] . . . . **punctiformis** Say

Legs clear rufous or rufo-flavate throughout, the femora sometimes shaded a little darker. . . . . 4

4—Body larger and elongate but stouter and more ventricose than in the preceding, similarly deep black; head moderate, the antennæ as usual in form and color but relatively shorter, always distinctly less than half as long as the body, the third and fourth joints subequal; prothorax throughout nearly as in *punctiformis*; elytra broader, one-half longer than wide to but little more, fully three-fourths wider than the prothorax, the apex somewhat more obtuse; striæ rather coarse, deeply impressed, with distinctly convex intervals, becoming flatter externally; met-episterna fully twice as long as wide; anterior male tarsi very feebly dilated as in the preceding; the under surface of the hind body is densely opaque except broadly along the median line. Length ( $\sigma^7 \varphi$ ) 7.5–9.2 mm.; width 2.6–3.3 mm. Ohio, Missouri, Kansas, Texas (Galveston and Austin) and Arizona (Tucson)—the femora slightly darker in the latter specimen. Also recorded from northern Mexico by Bates, under the name *punctiformis*. . . . . **rufipes** Dej.

Body smaller and narrower than in *rufipes* and more slender than in *punctiformis*, polished and deep black in both sexes, the lateral subopaque areas beneath much more restricted, often confined to the met-episterna; legs very pale flavo-rufous; head, nearly three-fourths as wide as the prothorax, with well developed and slightly prominent eyes, only slightly elongate, the antennæ very slender, piceous, paler basally; prothorax throughout nearly as in *punctiformis*, except that the foveæ are more evidently prolonged for a short distance; elytra notably elongate, still narrower, parallel, nearly three-fifths longer than wide, one-half to three-fifths wider than the prothorax, gradually rounded behind, with feeble sinus; striæ feebly impressed, finer than in *punctiformis* or *rufipes* and with the punctures very fine, sometimes scarcely traceable; intervals only feebly convex; anterior male tarsi feebly dilated and smooth, the intermediate joints notably short. Length ( $\sigma^7 \varphi$ ) 6.5–8.0 mm.; width 2.3–2.7 mm. Maryland (Hagerstown) to Kansas (McPherson). Seven examples. . . . . **rubripes** Zimm.

Body smaller than in *punctiformis* and much more abbreviated, similarly more ventricose than in *rubripes*, convex; under surface black to

paler, rather less opaque toward the sides than in *punctiformis*; head narrower, evidently elongate, only three-fifths as wide as the prothorax, similarly with rather large but only moderately prominent eyes; palpi black, paler at tip; antennæ fuscous, paler basally, very slender, fully half as long as the body; prothorax nearly as in *punctiformis*, except that the foveæ are attended by an irregular impression, which is sometimes traceable almost to the middle; elytra shorter and relatively still more inflated, a little less than one-half longer than wide, the similarly rather coarse deep striæ sometimes more obviously punctate laterally than in the preceding; intervals moderately convex; met-episterna somewhat less elongate, generally a little less than twice as long as wide; anterior male tarsi long and extremely feebly dilated. Length (♂ ♀) 6.2–7.8 mm.; width 2.3–3.15 mm. North Carolina (Southern Pines) and Alabama (Mobile). Thirteen specimens.....**rigidula** n. sp.

A—Distinctly stouter than *rigidula*, more ventricose and with relatively smaller prothorax; general characters almost similar, the pronotal foveæ small, punctiform, discal and isolated; elytral striæ coarse, deep, grooved, slightly impressed, moderately punctate, the lateral striæ finer and more distinctly punctate; under surface opaque laterally. Length (♀) 7.7 mm.; width 3.0 mm. Virginia (Norfolk).....**semipunctata** n. subsp.

B—General characters of color, lustre and sculpture as in *rigidula*, but much more abbreviated, the prothorax similar in form and in the subdual nature of the foveæ, but relatively larger in size; elytra much shorter, scarcely a third longer than wide, more rapidly obtuse behind, one-half wider than the prothorax, the striæ deep, feebly punctulate, the intervals strongly convex, the three punctures of the third similarly subaxial along the interval. Length (♀) 7.2 mm.; width 2.8 mm. North Carolina (Southern Pines),—Manee.....**putata** n. subsp.

Body almost as large as in *rufipes* and more ventricose, the hind body broadly oval and relatively shorter, polished black, the legs clear rufous; under surface only feebly opaculate laterally; head rather elongate, much narrower than the prothorax, with large and moderately convex eyes; antennæ slender, slightly over half as long as the body, piceo-testaceous, clearer basally; prothorax nearly as in *rigidula* in form and proportion, the foveal impression irregular and by some reflections formed of two small punctiform foveæ; elytra one-half longer than wide, fully three-fourths wider than the prothorax, the parallel sides much more arcuate than in *rufipes*, only a little more rounded basally, the hind wings apparently not developed; striæ grooved, with the punctures small, feeble and everywhere rather indistinct; intervals only feebly convex. Length (♀) 8.2 mm.; width 3.2 mm. Alabama (Mobile),—Löding.

**ventricula** n. sp.

5—Strial punctures smaller, rather close-set and crenulating the intervals barely at all, though distinct in all the striæ from the sides to the suture, becoming smaller in the very fine lateral striæ. Body elongate, only moderately convex, polished black above, the under

surface opaculate at the sides of the hind body; head no longer than wide, with notably large though moderately prominent eyes, two-thirds as wide as the prothorax; palpi black, with pale tip; antennæ very slender and filiform, fully half as long as the body, fuscous, paler basally, the third and fourth joints equal; prothorax as in all the preceding species in general outline but relatively smaller in size, the transverse impressions feebly traceable; stria very fine but somewhat impressed; foveæ small, deep, punctiform and isolated, the attendant impression very small and feeble, only visible by oblique light; elytra relatively more elongate, three-fifths longer than wide and fully four-fifths wider than the prothorax, parallel, with feebly arcuate sides, which are rapidly rounded at the humeri; apex gradually ogival, with very shallow sinus; striæ rather coarse and deeper internally; intervals there distinctly convex, flat externally; legs rather dark rufous throughout; anterior male tarsi feebly dilated, rather shorter than in any of the preceding species; met-episterna fully twice as long as wide. Length (♂) 8.4 mm.; width 2.8 mm. Louisiana (Alexandria).

*ludoviciana* n. sp.

Strial punctures coarse, strongly crenulating the intervals. . . . . 6

6—Body having nearly the form and size of *rufipes* Dej., but with the hind body relatively shorter and broader and with more arcuate sides. Upper surface deep black and with varnish-like polish, the under surface also black and highly polished throughout, without trace of the lateral opacity of the preceding species; epipleura and legs very pale; head barely longer than wide, nearly two-thirds as wide as the prothorax, with only moderately large and rather feebly prominent eyes; anterior impressions small and very feeble; palpi piceous, paler basally, the fourth joint distinctly longer than the third; antennæ slender, piceous, with the three basal joints testaceous, not quite half as long as the body, the third and fourth joints equal; prothorax of the same general form and surface as in *rufipes*, the foveæ deep, punctiform, isolated and with barely any attendant impression; elytra one-half longer than wide, one-half to two-thirds wider than the prothorax, rather rapidly ogivally rounded at apex, the sinus extremely shallow; humeri not very rapidly more rounded; striæ coarse, very deep, the punctures conspicuous; outer striæ almost obsolete but having the series of strong punctures almost like the other striæ; ninth stria deep, marginal, punctate; intervals notably convex internally; scutellar stria a rather short series of punctures or somewhat impressed; met-episterna only one-half longer than wide. Length (♀) 8.8–9.0 mm.; width 3.2 mm. Minnesota (Duluth). Also an entirely similar unlabeled specimen from the Levette collection, probably from Indiana. . . . . *politissima* n. sp.

A—Deep black color and polished surface as in *politissima*, the outline slightly less ventricose, much smaller in size, the elytral striæ and punctures similar; head similar, the antennæ fuscous, paler basally, more slender than in *politissima* and with distinctly more elongate joints; prothorax similar but with the apex rather less



deeply sinuate; elytra more oblong, with slightly less arcuate sides, three-fifths wider than the prothorax; legs pale. Length (♀) 7.6 mm.; width 3.1 mm. New York (Staten Island),—Leng. Also one example from Hagerstown, Maryland,—Wade.

*statensis* n. subsp.

Body ventriculate as in the preceding but very much smaller, deep black and highly polished throughout, the under surface not less polished at the sides. Epipleura piceo-rufous, the legs clear and very pale rufo-flavate; head scarcely longer than wide, with rather prominent eyes, fully three-fourths as wide as the prothorax; antennæ slender, rather more than half as long as the body, piceo-testaceous, the first three joints very pale and clear testaceous; prothorax nearly as long as wide, peculiar in outline, the sides evenly and moderately arcuate throughout and slightly converging from near the apex to the broadly rounded basal angles, the base evidently narrower than the very feebly sinuate apex; apical angles unusually deflexed; basal foveæ small and punctiform, very deep, slightly and more shallowly prolonged; elytra barely one-half longer than wide, three-fourths wider than the prothorax, gradually ogival behind the middle, the parallel arcuate sides rapidly rounded at base; striæ coarse, not very deeply impressed but coarsely and very conspicuously punctate not quite to the apex, the lateral striæ virtually simple series of almost equally strong punctures; intervals broadly convex; met-episterna small, not quite one-half longer than wide; anterior male tarsi narrowly but evidently dilated. Length (♂) 7.0 mm.; width 2.65 mm. Iowa (Iowa City),—Wickham.....*liticola* n. sp.

Body narrower and very much less ventricose than in the two preceding; under surface similarly polished and not at all opaculate laterally...7

7—Prothorax smaller, much less than three-fourths as wide as the elytra, the dorsal punctures of which are three, situated on the third interval as usual; upper surface deep black, rather convex, polished; head barely at all longer than wide, fully two-thirds as wide as the prothorax, the eyes moderate in size and prominence; antennæ very slender, fuscous, paler basally, a little more (♂) to slightly less (♀) than half as long as the body, the third and fourth joints equal; prothorax of the same general form and structure as in *punctiformis*, the transverse impressions wanting; stria extremely fine and incomplete; foveæ small, deep, generally traceable for some distance anteriorly by very feeble impression; elytra about one-half longer than wide, one-half wider than the prothorax, gradually parabolic behind, with very feeble sinus; humeri somewhat rapidly rounding; striæ coarse but only just visibly impressed, the coarse punctures crenulating the feebly convex intervals, which are flat externally; anterior male tarsi but feebly dilated. Length (♂ ♀) 6.8–7.5 mm.; width 2.25–2.8 mm. New Jersey to Indiana, Iowa (Keokuk) and Lake Superior (Marquette). Rather abundant. The male is narrower than the female as usual.....*crenistriata* Lec.

Prothorax and head much larger, the former about three-fourths as wide as the elytra, the dorsal punctures of which are sometimes irregular, in the type three to five on the third, and sometimes

also two or three on the fifth, interval; body still more elongate, similar in color and lustre; head not longer than wide, three-fourths as wide as the prothorax, with rather larger and more prominent eyes; antennæ longer, not quite so slender, fuscous, paler basally, more than half as long as the body; prothorax a fifth or sixth wider than long, otherwise as in the preceding though relatively much larger; apex similarly very feebly sinuate, with rather blunt angles; elytra three-fifths longer than wide, two-fifths wider than the prothorax, the outline, striæ and punctures nearly as in *crenistriata*, the scutellar stria similarly short and strongly punctate; intervals in some examples with numerous small feeble indentations in addition to the dorsal punctures; anterior male tarsi very moderately dilated, though notably less narrowly so than in the preceding. Length (♂) 7.2-7.6 mm.; width 2.75 mm. New Jersey. Two examples.....*roticollis* n. sp.

The species described by Zimmermann under the name *rubripes*, is not, as thought by the author, limited to eastern regions north of the Potomac, but extends at least as far to the westward as Kansas. In the northern as well as southern Atlantic regions occurs also *punctiformis* Say, which differs from the larger *rufipes* Dej., in the more elongate form and black or blackish femora. The true *rufipes* of Dejean, does not occur east of the Appalachians, but occupies an extended territory from Ohio to Texas, Arizona and northern Mexico; it is larger and stouter than *punctiformis*. The elytral peculiarities of *roticollis* in the way of superfluous punctures and small indentations, as described above, are probably accidental deformities, sometimes making their appearance; the head and prothorax are, however, materially larger, the antennæ still more elongate and the body relatively larger and narrower than in *crenistriata*. It is interesting to note the opaque sides of the under surface in species of the *punctiformis* series, and the total absence of this feature in the species allied to *crenistriata*, all of the latter differing also in having notably coarse strial punctures.

#### Group II—*æruuginosa*

##### Subgenus *Circinalidia* nov.

In this group the body is of very small size and is more ventricose than in the preceding, with thinner integument and very fine elytral striæ, so that the facies is quite distinct, although the more important of the general characters show that it is allied rather

closely and should be included under the same generic head. We have two species as follows:

Upper surface shining, moderately convex, black, with brownish-metallic lustre on the elytra; under surface black, the abdomen partially rufescent, the epipleura and legs obscure testaceous, the tarsi sometimes nearly black; head slightly elongate, four-fifths as wide as the prothorax, with well developed and prominent eyes; antennæ long, slender, black, with more piceous base, three-fifths as long as the body, the third and fourth joints equal; palpi slender, black, with pale tip, the last joint somewhat longer than the third; prothorax small, very nearly as long as wide, convex, parallel, with strongly, very evenly and circularly rounded sides from apex to base, the angles broadly rounded; base not quite as wide as the moderately sinuate apex, the apical angles rather sharply defined; impressions obsolete, the stria extremely fine; foveæ small, elongate-punctiform, at the basal margin, externally feebly prolonged by reflected light for a short distance; scutellum very small; elytra two-fifths longer than wide, about twice as wide as the prothorax, rather evenly rounded in nearly apical half, the humeri rapidly rounded; surface of each with a large feeble vague impression at about the middle of the disk, the sinus long, very feeble; striæ very fine, minutely punctulate, the intervals flat, the three punctures of the third small and feeble, the first near the third, the other two near the second, stria; scutellar stria rather long but very fine; met-episterna twice as long as wide; anterior male tarsi very feebly dilated. Length (♂ ♀) 5.7-6.5 mm.; width 2.15-2.6 mm. Rhode Island to Indiana. . . . . *æruginosa* Dej.

Upper surface even more polished than in the preceding and of a deeper black, without trace of the brownish lustre of that species; under surface deep black, shining, the epipleura and legs obscure, though clear, testaceous; body narrower and rather smaller in size; head slightly narrower, elongate, more evidently narrower than the prothorax, the eyes and antennæ nearly similar; prothorax similar but rather more evidently shorter than wide and with the foveæ still a little smaller and less clearly defined, the base more distinctly narrower than the apex, both finely beaded; elytra narrower and longer, fully one-half longer than wide, about twice as wide as the prothorax, rather more evidently widest slightly behind the middle, rounding in nearly apical half, with similarly very shallow sinus; surface with somewhat more pronounced medial indentation on each, the striæ extremely fine, with the punctulation very minute, the intervals flat; lateral line of punctures more interrupted medially; three dorsal punctures extremely small and feeble; anterior male tarsi only just visibly dilated. Length (♂ ♀) 5.2-6.2 mm.; width 1.8-2.35 mm. North Carolina (Southern Pines),—Manee. Sixteen specimens, perfectly uniform in lustre and coloration, as are also the fifteen specimens of *æruginosa* at hand. . . . . *undulata* n. sp.

The singular indentation at the central part of each elytron, is

analogous to the more posterior impression observable in some species of *Anchomenus*, such as *cincticollis*, *reflexus* and *excavatus*, and has probably a similar origin; it is impossible to surmise the etiology or significance of it.

### **Micragonum** n. gen.

There are no peculiar or exceptional structural characters to distinguish a considerable series of small and more or less ventricose species, allied to *nutans* and *ferreum*, as a genus different from *Agonum*, but in general habitus, which after all is the most important criterion, they differ so radically as to admit of no confusion; most of them, in fact, recall the genus *Europhilus* more than they do any form of typical *Agonum*. There are three subgeneric groups as follows:

- Elytra with three dorsal punctures; sides of the prothorax and elytra very finely reflexed; elytra relatively broader, with coarse and basally sulciform striæ and very coarse punctures; integuments rather thick; antennæ normal in coloration. . . . Group I (*ferreum*)
- Elytra with three to five or six fine dorsal punctures; body more elongate, with the integument thinner, the striæ never sulciform. . . . . 2
- 2—Sides of the prothorax and elytra very finely reflexed; thoracic foveæ usually punctate; elytra shining in both sexes, the striæ impunctate to very moderately although distinctly punctate, the dorsal punctures five as a rule; antennæ uniform in coloration except at base. . . . . Group II (*nutans*)
- Sides of the prothorax and elytra sharply and distinctly reflexed and diaphanously pale, the elytra opaculate, especially in the female; dorsal punctures five in number, the striæ not evidently punctulate; thoracic foveæ smooth, impunctate; antennæ with the last four joints very abruptly whitish in color. . . . Group III (*picticorne*)

There can be but little question that the three type forms above noted require treatment as separate subgeneric groups, by whatever name or other term we may distinguish them. They inhabit the Atlantic regions of the continent exclusively, and no Sonoran or Pacific coast species has apparently yet been discovered.

#### Group I—*ferreum*

##### Subgenus **Stereagonum** nov.

Three rather closely allied species of small size and notably abbreviated form alone constitute this subgenus at present. The

elytra have the striæ coarse, sometimes throughout, but generally more distinctly so and more punctate basally; in *quadrulum* they are more abbreviated than in any other Platynid which I have seen, being but little longer than wide. The three species are described below:

Elytra very short, scarcely more than a fourth longer than wide; color black, the upper surface with the feeblest subviridate lustre. Body short, moderately convex; under surface shining, deep black; legs testaceous, the femora black; head slightly elongate, three-fourths as wide as the prothorax, the eyes well developed and prominent; impressions short, outwardly oblique posteriorly; palpi slender, black, with pale tip, the last joint slightly longer than the third; antennæ slender and long, piceous throughout, nearly three-fourths as long as the body, the third and fourth joints equal; prothorax a fifth wider than long, widest just before the middle, the sides rather inflated, rounded, straight and oblique basally, very finely reflexed, rather broadly so at base, where they form the outer wall of the foveæ; basal angles obtuse and distinctly rounded; base as wide as the very moderately sinuate apex, the apical angles distinct; surface punctured throughout the width basally, the transverse impressions obsolescent, the stria deeply impressed, extending from apex to the punctured area; foveæ large, deep, rounded; elytra four-fifths wider than the prothorax, parallel, rapidly obtuse behind, the humeri rather rapidly rounded, the sinus long, feeble; striæ fine, impunctate and grooved posteriorly, gradually coarse, deep and coarsely punctate from the middle to the base; intervals nearly flat behind, rather convex basally; scutellar stria coarse, deep and punctate; dorsal punctures three, accidentally four on the left elytron of the type; met-episterna elongate, the tarsi slender. Length (♀) 6.7 mm.; width 2.7 mm. Illinois,—Webster.

**quadrulum** n. sp.

Elytra less abbreviated; upper surface polished, æneo-viridate, the elytra subcupreous; under surface and legs as in the preceding. . . . 2

2—Body rather more convex than in the preceding and much more elongate; head slightly elongate, three-fourths as wide as the prothorax, the eyes well developed but not very prominent; impressions deep, parallel; antennæ slender, piceous, pale basally, not as long as in *quadrulum* or *solidulum*, though more than half as long as the body; prothorax nearly a fourth wider than long, widest near the middle, with rounded sides, becoming oblique and feebly sinuate basally, the angles obtuse but distinct, scarcely at all rounded as a rule, the margins reflexed as in the preceding, the stria similar but not so impressed, the anterior impression evident medially; basal parts less closely punctate, the large deep rounded foveæ similar; elytra two-fifths to nearly half longer than wide, not quite twice as wide as the prothorax, especially in the male, gradually rounded behind, with very feeble sinus and finely reflexed margins as usual; striæ coarse, deep and coarsely punctate anteriorly, . . . .

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finer, grooved and impunctate posteriad; scutellar stria as in *quadrulum*, the ninth close to the edge; intervals convex, becoming flat behind, especially in the female; anterior male tarsi very feebly dilated. Length ( $\sigma^7$  ♀) 6.8–7.0 mm.; width 2.4–2.75 mm. New York, Pennsylvania and District of Columbia. . . . . *ferreum* Hald.

Body nearly as in *ferreum* but rather more elongate, similar in color and lustre; head broader, less elongate and with slightly more prominent eyes, nearly four-fifths as wide as the prothorax; antennæ very slender, piceous, scarcely paler basally, much longer than in *ferreum*, as shown especially by the individual joints; prothorax only a fifth or sixth wider than long, similar in outline, except that the oblique sides basally are merely straight, the angles being broadly rounded; surface convex as in *ferreum*, but with the basal punctures much more close-set throughout the width; stria similar, the transverse impressions both obsolete, the foveæ similarly large, rounded and deep; scutellum triangular, a little smaller; elytra one-half longer than wide, scarcely more than one-half wider than the prothorax, gradually rounded behind; striæ very coarse, deep and sulciform almost throughout the length, though less coarse and smoother posteriad, the punctures very coarse and conspicuous; intervals convex, feebly so apically; scutellar stria similar; met-episterna about twice as long as wide; anterior male tarsi rather long, evidently though feebly dilated. Length ( $\sigma^7$  ♀) 6.5–7.3 mm.; width 2.4–2.8 mm. Northern Illinois (Highland Park); also Kansas,—Knaus. Rather abundant; the male is rarer than the female.

*solidulum* n. sp.

These species constitute a rather peculiar type in the *Agonum* series; they are rather closely allied or hold well to a common facies, but I believe them to be specifically distinct as described above. We have here another instance of a common stock forming distinct species in the course of time to the east and west of the Appalachian system, as shown before in *Anchomenus extensicollis* and *elongatulus* and *Circinalia punctiformis* and *rufipes*.

#### Group II—*nutans*

Subgenus *Micragonum* in sp.

In the more elongate body and finer sculpture, this group is always distinguishable easily from the preceding, and by the shining elytra, finely reflexed lateral margins and uniform distal coloration of the antennæ, it may be known at once from the third group. The species, which are more essentially southern in range, are somewhat numerous, those at hand being the following:

Elytra with three dorsal punctures. . . . .	2
Elytra with more than three punctures. . . . .	3

2—Form rather less elongate than in *nutans* and smaller in size, black, shining, rather uniform and bright green throughout above; under surface piceous-black, the entire legs testaceous; head slightly elongate, larger, three-fourths as wide as the prothorax, the eyes not very prominent, the impressions diverging posteriad; antennæ slender, blackish, with pale basal joint, more than half as long as the body, the third and fourth joints equal; prothorax not quite as long as wide, widest before the middle, the sides subevenly rounded throughout, finely reflexed, more so at the obtuse and rounded basal angles; base just visibly narrower than the apex, which is moderately sinuate; surface with more or less evident transverse rugulæ, the transverse impressions evident to subobsolete; foveæ deep, traceable almost to the middle, somewhat rugose; elytra slightly more than one-half longer than wide, one-half to two-thirds wider than the prothorax, the outline nearly as in *nutans*, the sinus rather rapidly oblique and feeble though evident; striæ grooved and feebly impressed, coarser than in *nutans*, completely impunctate, the scutellar not so long; intervals not quite flat; dorsal punctures three; tarsi slender, the anterior of the male narrowly dilated. Length (♂ ♀) 7.2–7.4 mm.; width 2.6–2.75 mm. Illinois. Four examples. . . . . **concretum** n. sp.

A—Nearly similar to the female of *concretum* but stouter and a little larger, the upper surface not brassy-green but pure bright steel-blue throughout, polished; under surface black, the legs ferruginous; antennæ distinctly longer and more slender, similar in coloration; prothorax as long as wide, nearly as in *concretum* but with the transverse rugulæ much less evident, the feebly punctulate foveæ traceable to the middle, the strongly reflexed basal part of the sides similar; elytra similar but broader, the three punctures very fine. Length (♀) 7.5 mm.; width 2.8 mm. Northern Illinois. . . . . **amicum** n. subsp.

Form nearly as in *concretum* but a little larger, more elongate and with more evenly elongate-oval and convex elytra, shining, viridate anteriorly, the elytra blacker and without distinct metallic lustre; under surface black, the epipleura piceous, the legs obscure flavo-testaceous, with slightly darker tarsi; head elongate, three-fourths as wide as the prothorax, the eyes well developed but scarcely at all prominent; antennæ slender, blackish, with pale basal joint, the third just visibly shorter than the fourth; prothorax not quite as long as wide, the sides very evenly rounded from apex to base but more converging basally, finely reflexed, more so and forming the outer wall of the foveæ at base, which is just visibly narrower than the apex; impressions subobsolete; foveæ deeply concave, finely punctulate, traceable in about basal two-fifths; elytra evenly oblong-oval, three-fifths longer than wide, two-thirds wider than the prothorax, the sides very evenly arcuate, gradually a little more so basally to the distinct angle between the sides and sinuate basal margin; apex very gradually rounded, the sinus feeble; striæ not fine, deep, finely and obscurely punctulate, the scutellar long, fine, punctulate, the intervals very sensibly convex; met-episterna one-

- half longer than wide; tarsi long and slender. Length (♀) 7.2 mm.; width 2.8 mm. A single specimen without label from the Levette collection. New York,—LeConte..... *vagans* Lec.
- 3—Elytral striæ without vestige of punctulation. Form elongate-suboval, rather convex, shining, black, the head and prothorax with strong green lustre, the elytra subcupreous; epipleura black to piceous; legs testaceous, the knees and tarsi blackish; head elongate, two-thirds as wide as the prothorax, with well developed but rather feebly convex eyes; antennæ black, with the first joint piceous, three-fifths as long as the body, the third joint not quite as long as the fourth; palpi slender, piceous-black; prothorax about as long as wide, the parallel sides evenly, circularly rounded from apex to base, finely reflexed, a little more so at base, where they form the outer wall of the foveæ; apex rather deeply sinuate; basal angles broadly rounded, the apical prominent, only finely blunt at tip; surface with transverse rugulæ, the impressions obsolete, the stria entire; foveæ rather deep, nearly smooth, traceable almost to the middle; elytra three-fifths longer than wide, evidently less than twice as wide as the prothorax, the parallel sides broadly arcuate, gradually more so basally; apex gradually rounding, the sinus very feeble; striæ very fine but deep, abruptly grooved, completely impunctate, the scutellar notably long, the ninth half as far from the edge as from the eighth; intervals flat; dorsal punctures five; anterior male tarsi evidently but very narrowly dilated. Length (♂ ♀) 7.0–8.3 mm.; width 2.75–3.1 mm. Indiana to Iowa (Keokuk). Not uncommon..... *nutans* Say
- Elytral striæ minutely and feebly punctulate..... 4
- Elytral striæ with very distinct punctures, though always much smaller than in the *ferreum* group, the striæ also finer; dorsal punctures five..... 9
- 4—Prothorax evidently wider than long..... 5
- Prothorax about as long as wide..... 6
- 5—Form rather stout, convex, shining, black, the anterior parts very feebly greenish; under surface black, the epipleura and legs pale, the femora feebly clouded distally; head elongate, three-fourths as wide as the prothorax, the eyes well developed but only feebly prominent; antennæ black, with piceous basal joint and with the third scarcely as long as the fourth, long, slender, fully two-thirds as long as the body; prothorax a fifth wider than long, the sides evenly rounded and finely reflexed, more converging and reflexed basally, forming the outer wall of the foveæ, which are deep, with a few small punctures, traceable anteriorly to the middle of the length; base not quite as wide as the feebly sinuate apex; basal angles obtuse, rounded at tip, the apical rather sharp; impressions feebly traceable, the stria entire; elytra oblong-oval, slightly less than one-half longer than wide, four-fifths wider than the prothorax, rather obtuse at tip, with feeble sinus; striæ fine, grooved, a little coarser at tip, with very fine and close-set punctures, obsolete posteriad, the scutellar long, punctulate; intervals virtually flat, the third with four punctures; met-episterna one-half longer than



- wide; anterior male tarsi very feebly dilated. Length (♂ ♀) 6.7–7.0 mm.; width 2.4–2.65 mm. Texas (Galveston). Three examples, taken by the writer. . . . . **maritimum** n. sp.
- Form nearly similar, rather convex, shining, black, the anterior parts feebly greenish-black; legs obscure testaceous, the knees and tarsi blackish; head nearly as in the preceding, the deep anterior impressions flexed more finely outward behind; eyes nearly similar, scarcely prominent; antennæ very slender, black throughout, two-thirds as long as the body, the third joint shorter and narrower than the fourth; prothorax fully a fourth wider than long, the sides strongly rounded, inflated, oblique and straighter basally, the foveæ as in the preceding but less traceable anteriorly; base very distinctly narrower than the feebly sinuate apex; impressions sub-obsolete, the fine stria entire; elytra not quite one-half longer than wide, four-fifths wider than the prothorax, the arcuate sides similarly gradually more rounding basally; apex similar but with more distinct sinus; striæ moderately fine, deep, grooved, finely punctulate basally, impunctate behind; intervals not quite flat, the third with four, rarely five, punctures. Length (♀) 6.8 mm.; width 2.6 mm. North Carolina (Southern Pines),—Manee. Georgia,—Le-Conte. . . . . **decipiens** Lec.
- 6—Upper surface bicolored, shining, the head and pronotum conspicuously green, the elytra black, becoming green at the sides. Body smaller than in any other, only moderately convex, ventricose; under surface black, the legs pale throughout; head only slightly longer than wide, more than three-fourths as wide as the prothorax, the eyes large but only moderately convex; impression deep and coarse, finely oblique toward the eyes; palpi slender, black; antennæ slender, two-thirds as long as the body, black, the first joint piceo-rufous, the third barely shorter than the fourth; prothorax very nearly as long as wide, the sides very evenly rounded, finely reflexed, more so at base, forming the outer wall of the foveæ, which are large, deeply concave, slightly punctate and traceable for only a short distance anteriorly; base somewhat narrower than the feebly sinuate apex; basal angles obtuse and rounded, the apical sharply marked; surface nearly as in the preceding; elytra only two-fifths longer than wide, about twice as wide as the prothorax, the sides gradually more rounding at base; apex rapidly obtuse, with distinct sinus; striæ only moderately fine, deep, grooved, coarser at tip, finely, closely punctate, obsoletely so behind, the scutellar moderate, punctate; intervals feebly convex to nearly flat, the third with four punctures; anterior male tarsi feebly dilated. Length (♂ ♀) 6.2–6.6 mm.; width 2.3–2.45 mm. Alabama (Fruitdale and Salco),—Löding. . . . . **semiviride** n. sp.
- Upper surface shining, black throughout, the anterior parts or entire surface never more than just visibly and faintly viridate. . . . . 7
- 7—Body stouter and rather strongly convex, the elytra very evenly elongate oval. Legs obscure rufous or blackish, the femora pale except apically; head elongate, narrower than the prothorax, the eyes large but not very prominent, the impressions as in the pre-

- ceding; antennæ long, black throughout, fully three-fifths as long as the body, the third joint distinctly shorter and more slender than the fourth; prothorax very nearly as long as wide, the sides strongly rounded, converging and straighter toward apex and base, more reflexed at base along the foveæ as in the preceding species; basal angles very obtuse, rounded, the apical sharp; base slightly narrower than the rather deeply sinuate apex; foveæ very deep, with a few small punctures, not traceable quite as far as the middle of the length; impressions obsolete, the stria entire; elytra widest at the middle, the evenly arcuate sides rapidly rounding at base, three-fifths longer than wide, very nearly twice as wide as the prothorax; apex very gradually rounding, the sinus feeble; striæ fine, grooved, slightly coarser at tip, very finely but distinctly, closely punctulate almost to the apex, the scutellar rather long, punctulate; intervals nearly flat, the third with four small punctures; met-episterna twice as long as wide; tarsi slender. Length (♀) 7.2-7.5 mm.; width 2.7-2.85 mm. North Carolina (Southern Pines) and Alabama,—Löding. . . . . **ovalipenne** n. sp.
- Body more slender, only moderately convex, the elytra less oval and more oblong. . . . . 8
- 8—Form elongate, shining, deep black, the anterior parts obscurely viridate; legs pale, with dark knees and nearly black tarsi; head slightly elongate, nearly four-fifths as wide as the prothorax, the eyes large and rather more prominent than in the preceding species, the impressions similar; antennæ very slender, black, with slightly less dark basal joint, nearly three-fourths as long as the body; prothorax small, about as long as wide, with evenly rounded and finely reflexed sides, more converging basally, where as usual they are more reflexed along the deep and feebly punctulate foveæ, which are traceable almost to the middle; base distinctly narrower than the feebly sinuate apex; surface nearly as in the preceding species, the stria entire, unusually impressed; elytra nearly three-fifths longer than wide, almost twice as wide as the prothorax, very gradually narrowing behind, the sinus oblique but almost obsolete; sides rather rapidly rounding at base; striæ rather fine, grooved but also unusually impressed, finely punctulate except posteriad; intervals slightly convex, the third with four to five punctures; met-episterna nearly twice as long as wide; anterior male tarsi narrowly dilated. Length (♂ ♀) 6.3-6.8 mm.; width 2.18-2.3 mm. North Carolina (Southern Pines),—Manee. . . . . **pinorum** n. sp.
- Form somewhat similar but less elongate, nearly similar in coloration and lustre but with entirely pale legs; head, eyes and antennæ nearly similar, the first antennal joint piceo-rufous; prothorax almost similar throughout, but a little wider, the foveal region less punctulate, the foveæ deep, easily traceable to the middle of the length; transverse impressions more evident, the stria finer and less impressed and not entire but ending anteriorly at the anterior impression; elytra only one-half longer than wide, four-fifths wider than the prothorax, gradually rounded but somewhat more obtuse behind, the humeri still more rapidly rounded; striæ finer, not so

deep though abrupt and with the minute punctulation so feeble as to be scarcely traceable; intervals perfectly flat, the third with four punctures; met-episterna similarly long; anterior male tarsi slender, only just visibly dilated. Length (♂) 7.0 mm.; width 2.35 mm. Texas (Galveston). A single example, taken by the writer.....**houstoni** n. sp.

- 9—Head short, not longer than wide. Body rather small, only moderately convex, black, shining, the anterior parts very feebly aneo-  
viridate, the elytra rather bright subcupreous; legs pale, tife knees and extreme tips of the tarsal joints feebly infumate; head three-fourths as wide as the prothorax, with rather large and prominent eyes, the impressions parallel; palpi slender, piceous; antennæ very slender, black, the first three joints piceous, with the third shorter than the fourth, filiform, two-thirds as long as the body; prothorax a fourth wider than long, widest near the middle, the sides subevenly and rather strongly arcuate and finely reflexed, more so at base, forming part of the large, deep and finely punctulate foveæ, which are scarcely traceable anteriorly; basal angles very obtuse and rounded, the base fully as wide as the feebly sinuate apex; surface with evident transverse rugulæ, the impressions fine and feeble, the fine stria subentire; elytra oblong, broadly rounded from slightly behind the middle, the sinus scarcely more than straight; sides rapidly rounded at base; striæ fine but deep, grooved, the punctures smaller than in the two following and obsolete in about apical half, the scutellar deep, rather long; intervals virtually flat; met-episterna nearly twice as long as wide; anterior male tarsi feebly though evidently dilated. Length (♂) 6.6 mm.; width 2.4 mm. Mississippi (Vicksburg).....**breviceps** n. sp.

- Head distinctly longer than wide, subtriangular.....10  
10—Upper surface more convex, the size larger, the striæ rather more impressed; sides of the elytra more arcuate; very shining, black, with very feeble viridate lustre—scarcely observable on the elytra; legs colored somewhat as in the preceding; head rather more than three-fourths as wide as the prothorax, with rather large and moderately prominent eyes, the impressions outwardly oblique behind; palpi piceous, antennæ colored as in the preceding, very slender, three-fifths as long as the body, the third joint evidently shorter than the fourth; prothorax a fifth wider than long, in the outline, margins and foveæ almost as in *breviceps*, but with the anterior impression subobsolete, the stria not extending to the apex, the base relatively narrower, not quite as wide as the apex, the foveæ more punctate and traceable to the middle of the length; elytra oblong, rather more obtusely rounded at apex, with feeble though more evident sinus and rather more arcuate sides, which are similarly finely reflexed and rapidly rounded at base; striæ well impressed, rather strongly but not very closely punctate, the punctures becoming obsolete in about apical third; fifth stria feebly indented near apical fifth; intervals rather convex, less so posteriad; met-

episterna nearly twice as long as wide; tarsi very slender. Length (♀) 7.6 mm.; width 3.0 mm. Indiana. Levette collection.

**luculentum** n. sp.

Upper surface less convex; striæ feebly impressed, the sides of the elytra parallel, finely reflexed and but feebly arcuate, similarly rapidly rounded at base; black, the anterior parts obscurely viridate, the elytra black or very slightly æneous, polished; legs obscure rufous, the femora brighter and more flavate, infumate at the knees; head nearly as in the preceding, the eyes large and rather prominent; palpi paler basally than distally; antennæ similar, three-fifths as long as the body, the third joint shorter than the fourth; prothorax a fourth wider than long, the sides strongly, subevenly arcuate and finely reflexed, a little more so at the very large and deep, finely punctulate foveæ, which are traceable not quite to the middle; angles broadly rounded; base usually somewhat narrower than the apex, though sometimes fully as wide, irrespective of sex; elytra rather gradually rounding behind, with very feeble sinus, one-half longer than wide, four-fifths wider than the prothorax, these proportions nearly as in the preceding species but more elongate than in *breviceps*; striæ fine, grooved, the punctures distinct and well separated but not large, crenulating the intervals, obsolete in about apical third; fifth stria similarly very feebly indented near apical fifth; anterior male tarsi very feebly dilated. Length (♂ ♀) 6.5–7.2 mm.; width 2.35–2.6 mm. Alabama (Calvert, Mt. Vernon and Mobile),—Löding; Texas (Galveston). [*Pl. crenulatus* Lec.,—Georgia].....**striatopunctatum** Dej.

The single female from Alabama placed with the female type of *ovalipenne*, from North Carolina, seems to agree very well, though having the convex oval elytra a trifle less elongate. In this and others of that section, the feeble subapical indentation of the fifth stria, noticeable in the *striatopunctatum* section, is completely obsolete, as it is also in *nutans*; this indentation is homologous with the larger feeble dent observable in some other species, as in *Anchomenus cincticollis* and *Pseudanchus excavatus*; in *Circinalia æruginosa* and *undulata*, it lies at the middle of the elytra. The species of *Micragonum* are often rather closely allied, but can be distinguished readily among themselves on actual comparison.

Group III—*picticorne*

Subgenus **Tetraleucus** nov.

It seems necessary to propose a separate subgeneric name for one of the most remarkable Platynids known from our fauna, described many years ago under the specific name *picticornis* by

Newman. In the general structure of the body it agrees very well with the other species of *Micragonum*, except that the sides of the prothorax and elytra are less finely reflexed and diaphanously pale; secondly in having the elytra rather shining in the male but opaculate in the female; lastly, in the remarkable coloration of the antennæ, the first three joints and basal node of the fourth rufous, thence black to the apex of the seventh joint, the last four joints being very abruptly of a creamy white. The male seems to be rather less abundant than the female. Other points relating to this species are recorded in the following description:

Body oblong-suboval, moderately convex, shining, the elytra ( $\sigma^7$ ) faintly alutaceous or ( $\varphi$ ) almost opaque; color black, excepting the fine pale side margins, the elytra dark coppery-brown; under surface black, the legs pale, especially the femora; head but slightly elongate, rather more than two-thirds as wide as the prothorax, with well developed and very prominent eyes; impressions very short, unusually feeble; palpi pale, slender, of the usual structure; antennæ very slender, fully two-thirds as long as the body, the third joint distinctly shorter than the fourth ( $\sigma^7$ ), or subequal ( $\varphi$ ); prothorax relatively larger than in any of the preceding species, fully a fourth wider than long, the sides subevenly rounded throughout, distinctly and abruptly but not broadly reflexed, more oblique but not more reflexed basally, the angles broadly rounded; base narrower than the rather deeply sinuate apex, the apical angles blunt; impressions almost completely obsolete, the stria fine, entire; foveæ large, deeply concave, nearly smooth, not much prolonged; elytra oblong, parallel, hardly one-half longer than wide, rapidly rather obtuse at apex, with long and shallow though distinct sinus, three-fourths wider than the prothorax, the feebly arcuate sides rapidly rounding at base; striæ very fine, impunctate, distinctly impressed ( $\sigma^7$ ), less so ( $\varphi$ ); intervals feebly convex, the dorsal punctures small, four in number, the anterior two near the third, the other two near the second, stria; scutellar stria fine, the ninth very fine, half as far from the edge as from the eighth; met-episterna fully twice as long as wide; tarsi long and very slender, the lateral groove very fine, the anterior of the male feebly dilated. Length (1 $\sigma^7$ , 7 $\varphi$ ) 7.3-7.8 mm.; width 3.0-3.2 mm. Alabama (Mt. Vernon and Salco),—Löding. Not rare in certain localities.

**picticorne** Newm.

LeConte (Bull. Bk., 1879, p. 49) gives *albicus* Dej., as a species also having four abruptly pale outer antennal joints, but there the femora are dark in color and the dorsal elytral punctures are said to be three; in *picticorne* the dorsal punctures are four in number, not five as stated by LeConte. These punctures are said also to

be four in *albicus* by Dejean, who also states that the body is black, shining, the elytra duller, the prothorax subcordate and the elytral striæ obsoletely punctate. In describing *albicus*, Dejean does not mention the antennæ at all, they probably having been lost in his specimen, and what LeConte's *albicus*, with three dorsal punctures, may be, I cannot tell at present. Just why Dejean should have named his species *albicus*, when the legs are obscure yellowish with blackish femora, is also rather inexplicable.

It would be most interesting to know the environmental circumstances, or the life habits, that should have evolved the peculiar coloration of the antennæ seen in *picticorne*. The small Lebiid *Eucærus varicornis*, also has antennæ somewhat of this nature, but there it is the five outer joints that are abruptly white.

#### **Elliptoleus** Bates

Under this generic name Mr. Bates described a few species from southern Mexico, of small size and peculiar appearance. The antennæ are slender, with the third and fourth joints equal, the palpi normal, the pronotum nearly flat, very finely margined and with the foveæ reduced to barely observable impressions, which are slightly elongate and distant from the side margin. The elytra are evenly oval, the sides not more arcuate basally, the hind wings apparently wanting; they are deeply sinuate at base, and the angle made by the basal margin and sides is prominent and acute. The met-episterna are short. A specimen of the type species, named *vixstriatus* by Bates, and taken in the Federal District, is the only representative in my collection. It is very small in size, highly polished throughout and piceous, the elytral striæ extremely fine and feeble; there are three dorsal punctures on the left elytron of this specimen and four on the right. The basal thoracic angles are broadly rounded and the elytra at the middle are one-half wider than the prothorax; its dimensions are 5.5 by 2.3 mm. In general habitus it is not unlike *Europhilus*, but the antennal pubescence does not begin on the third joint.

#### **Platynomicrus** n. gen.

In this genus the body is very small and narrow, the head rhomboidal and very nearly as wide as the prothorax, which is parallel,

with truncate apex. The mentum tooth is well developed and triangular, the palpi only moderate in length, the second joint but little thicker than the others and the fourth longer than the third. The antennæ are very slender and filiform, with the third and fourth joints equal. The prothorax is extremely finely margined but not reflexed at the sides, and the foveæ are narrow and very feeble; they are distant from the sides as in *Elliptoleus*. The narrow elytra have the humeri rapidly rounded, the hind wings being well developed, and the striation is extremely feeble—also as in *Elliptoleus*. The prosternum is unusually long before the coxæ, the met-episterna relatively narrower than in any other generic group, and the coloration of the body is peculiar. The anterior tarsi of the male are extremely feebly dilated. The very slender hind tarsi have the lateral grooves feeble; the claws are small and unusually arcuate and thick. Our two species are the following:

Body slender, moderately convex, smooth, with extremely minute and feeble micro-reticulation, rather shining, flavate, the head black, the pronotum broadly blackish along the middle, the elytral suture also clouded except apically; under surface and legs flavate, the abdomen black except at apex; head evidently though only slightly narrower than the prothorax, with well developed and somewhat prominent eyes, the anterior impressions very small, short and feeble; antennæ blackish, with the first three joints pale, scarcely half as long as the body; prothorax very slightly longer than wide, widest at the middle, the sides there more rounded, oblique and less so anteriorly and posteriorly, feebly subsinuate for a short distance near the rounded basal angles; base as wide as the rectilinearly truncate apex, arcuate laterally; anterior impression angulate and evident, the posterior nearly obsolete, the stria rather strongly impressed and conspicuous, extending only between the impressions; surface smooth, with some feeble transverse lines toward the stria; elytra four-fifths longer than wide, three-fourths wider than the prothorax, parallel, rounded at apex, without distinct sinus; striæ very fine, feebly impressed, finely subpunctulate; dorsal punctures three. Length (♂) 5.5 mm.; width 1.45 mm. Lake Superior to British Columbia. The described specimen from the latter region.

**nigriceps** Lec.

Body still more slender and smaller, similar in coloration and lustre; head narrower but as wide as the prothorax, the eyes not quite so large but more prominent, the impressions longer but finer; antennæ similar but longer, three-fifths as long as the body; prothorax narrower and more elongate, almost a fourth longer than wide, the parallel sides more feebly and subevenly arcuate, simply a little

straighter basally, the angles more broadly rounded; base a little narrower, scarcely as wide as the apex; surface, impressions and foveæ nearly similar; elytra narrower, less parallel, very faintly inflated posteriorly, twice as long as wide and twice as wide as the prothorax, similar at apex; striæ still finer, excessively faint and discernible only under very close observation, not at all punctulate. Length (♂) 5.0 mm.; width 1.35 mm. Canada (Toronto),—Wickham..... *fragilissimus* n. sp.

In both these species the sutural stria is more impressed and more distinct than the others. The dimensions of *nigriceps*, as given by LeConte, 6.2 by 2.5 mm., are so different from the reality, as observed in my British Columbia specimen, that, in conjunction with the statement that the thoracic median stria is "tenuissima," it may possibly be something not quite the same specifically; if LeConte did not habitually overstate the dimensions of the smaller species, we might consider these circumstances more seriously. The length is reduced to 5 mm. in the "Brooklyn Bulletin."

#### Sericoda Kirby

In founding this genus upon a very remarkable species with dense silky surface lustre and pronounced sculpture, Kirby laid principal stress upon what he conceived to be a small retractile segment at the apex of the fourth palpal joint, which was probably a small particle of foreign matter, as there is no trace of this feature in my specimens. It is advisable to preserve the genus, however, because of the habitual peculiarities, which are pronounced, although only a moderate proportion of the species have the dense and opaquely sericeous elytral lustre. There is considerable diversity in the form of the thoracic angles, besides the variety of sculpture and lustre, for, though the basal angles are very obtuse in all, the tips are strongly marked or rather sharp in some and rounded or obliterated in others, such as the Californian *variolata* of LeConte. In the *variolata* and *quadripunctata* sections, the four or five dorsal punctures of the elytra are notably large and conspicuous, and they are very distinct though less impressed in the opaculate *bembidioides* section, while in the *obsoleta* group they become minute, very inconspicuous and only three in number, the distance between the two anterior very much greater than that separating the two posterior. I have been unable to identify the species described



by LeConte under the name *consimilis*, afterward changed to *vicina* by Gemminger and Harold; the original description states that it is materially larger than *obsoleta*, being 8 mm. in length; in the Brooklyn Bulletin this length was however subsequently reduced to 7 mm., which is probably nearer the truth; it is said to differ from *obsoleta* in having the elytra more truncate at tip and with deeper striæ; the type was found on Michipicoton Island, Lake Superior. *Harpalus bogemanni* Gyll., is a European species and I doubt its occurrence on this continent; in the latest European catalogue, however, *obsoleta* Say, is said to be a synonym of *Agonum bogemanni*, without doubt incorrectly, as we have a number of allied though apparently distinct species. Our species are moderately numerous and, so far as known to me, are as follows:

- Elytra densely opaque, with mottled and sericeous lustre; dorsal punctures about five, sometimes four, small and submuricate; pronotum with fine dense strigilate sculpture, the basal angles well defined; thoracic foveæ before the middle near lateral fourth always evident.....2
- Elytra not opaque, always strongly shining; pronotum sometimes with feeble and not dense transverse rugulæ, but never with the close confused sculpture of the preceding section.....4
- 2—Elytra notably elongate, fully one-half longer than wide, the sutural tips subangulate and narrow; color deep black above and beneath, the under surface strongly shining, the legs and palpi black; head fully as wide as long, fully four-fifths as wide as the prothorax, with very prominent eyes; surface partially strigilate but smooth at the middle; antennæ very slender, black throughout, barely half as long as the body; prothorax one-half wider than long, widest and at the sides subprominently rounded before the middle, the sides thence less arcuate before and behind, becoming gradually somewhat sinuate before the obtuse but rather sharp angles, finely reflexed, more so at base, the latter barely as wide as the feebly sinuate apex, strongly oblique outside the peduncle of the hind body; anterior impression feeble but evident, the stria not quite entire, deep and distinct; foveæ having the form of large and feeble indefinite depressions of the surface; elytra perfectly parallel, with very feebly arcuate sides, rapidly rounding at base, rapidly somewhat obtuse at apex, with distinct sinus; striæ fine, feebly impressed, feebly and not closely punctulate; intervals not quite flat, sericeously and unevenly opaque; dorsal punctures small but lying within rather large and feeble depressions; anterior male tarsi very feebly dilated. Length (♂) 5.8–6.5 mm.; width 2.1–2.3 mm. British Columbia (Terrace, 100 miles up the Skeena River),—Keen. [*Ag. cicatricosum* Mots.].....**bembidioides** Kirby
- Elytra much less elongate, always less than one-half longer than wide, the sutural tips broadly rounded.....3

- 3—Sides of the prothorax oblique but straight basally; body similarly rather depressed and deep black throughout; head large, fully as wide as long, with the eyes large but only moderately convex, very much less prominent than in the preceding, fully four-fifths as wide as the prothorax; surface in great part smooth and shining, strigilate anteriorly; antennæ very slender, the third joint a little longer than the fourth as usual in this genus; prothorax nearly one-half wider than long, the sides as in *bembidioides*, except that the prominence before the middle is much less pronounced; angles obtuse and distinct but not at all prominent, the seta similarly on the edge at the angle; base fully as wide as the apex, laterally less oblique than in the preceding, the surface smoother, the fine close strigilation rather less pronounced; anterior discal foveæ deep, the impressions and foveæ nearly similar; elytra not quite one-half longer than wide, one-half wider than the prothorax, in outline nearly similar, though much less elongate and with the apex less abruptly obtuse, with the sinus shorter and much feebler; surface sculpture and lustre nearly similar, the basal margin in like manner rather deeply sinuate, joining the side margin in an even curve; tarsi very slender. Length (♀) 6.0 mm.; width 2.2 mm. Colorado.....*monticola* n. sp.

Sides of the prothorax oblique basally and becoming distinctly sinuate toward the angles, which are sharp, subprominent and more nearly right; coloration, lustre and sculpture nearly similar; head in form, size and in the only very moderately prominent eyes, as in *monticola*, but having the entire surface strigilate, the lines radiating from a short incised medio-frontal line; palpi with the fourth joint more conspicuously longer than the third; antennæ slender but rather more incrassate distally than in *bembidioides*, half as long as the body to a little less; prothorax shorter, two-thirds wider than long, nearly similar in general outline, the finely reflexed sides much less reflexed at base than in that species, the base similarly unmarginated, fully as wide as the apex and arcuately oblique at the sides; impressions almost obsolete, the stria fine; foveæ similarly indefinite and shallow, the anterior discal foveæ smaller; surface flatter, the confused strigilation stronger and more evident; elytra nearly similar but less strongly mottled with velvety black, the general lustre less ænescent, the apex more abruptly obtuse, with the sinus much deeper and more conspicuous, although the sutural tips are similarly rounded and not in the least subangulate, as they are in *bembidioides*. Length (♂ ♀) 5.6–6.2 mm.; width 2.1–2.3 mm. Mexico (Colonia Garcia, Sierra Madre Mts., Chihuahua),—Townsend.....\**colonica* n. sp.

- 4—Dorsal punctures of the elytra four to six in number.....5  
Dorsal punctures very minute and only three in number.....7

- 5—Prothorax in outline nearly as in the preceding section, the basal angles obtuse but distinct and sharply defined. Body smaller, deep black and shining above and beneath, the legs, palpi and antennæ black, the upper surface with extremely feeble subæneous lustre; pronotum opaque laterally; head smaller, fully as wide as long, at least three-fourths as wide as the prothorax, smooth, the

anterior impressions very small; eyes well developed but only moderately prominent; antennæ slender, about half as long as the body; prothorax fully one-half wider than long, the sides subevenly rounded and finely reflexed, a little straighter and more reflexed basally; base as wide as the moderately sinuate apex, obliquely rounded at the sides, not margined; surface feebly convex, shining, opaque laterally, the sculpture very fine; anterior impression evident medially, the stria rather deep and impressed; foveæ as in the preceding section, large, feebly and indefinitely depressed; elytra one-half longer than wide, nearly three-fifths wider than the prothorax, parallel, with slightly arcuate sides, rapidly rounding at base; apex rather abruptly obtuse, with moderately oblique and rather long but very shallow sinus and rounded sutural tips; striæ fine, slightly impressed, somewhat irregular laterally; intervals equal, slightly convex; dorsal punctures very large, deeply concave and conspicuous, four in number, somewhat irregularly spaced. Length ( $\sigma^7$   $\text{♀}$ ) 4.3–5.0 mm.; width 1.5–1.85 mm. Michigan (Marquette), Idaho, Washington State and British Columbia (Skeena River). Rather abundant. [*Pl. stigmatosus* Lec.; *octocolus* Mann.].....**quadripunctata** Dej.

Prothorax more parallel, with obsolete and broadly rounded basal angles though, similarly, having the posterior marginal puncture on the edge and marking the position of the angle; body of paler coloration than elsewhere in the genus and inhabiting the more southern Pacific coast regions.....6

6—Form oblong-oval, moderately convex, shining, black, the anterior parts with feeble æneous lustre, the elytra and epipleura ochreous-brown, the former paler toward the sides, the legs pale, with black tarsi; head barely visibly longer than wide, distinctly narrower than the prothorax, with well developed but only very moderately prominent eyes, the anterior impressions rather short and feeble; antennæ not very slender, half as long as the body, piceous, the first joint paler, the third and fourth equal; prothorax two-fifths wider than long, parallel, the sides subevenly and moderately arcuate and finely reflexed, thicker about the basal angles; base arcuate, scarcely as wide as the feebly sinuate apex having rather blunt angles; surface polished and smooth, having some feeble transverse ruguliform lines, the large and feebly concave foveæ rather more opaculate; impressions barely traceable, the stria very fine; not entire; elytra oblong-suboval, one-half longer than wide, four-fifths wider than the prothorax, the sides moderately arcuate, gradually more strongly so at base, the sinuate basal margin making a somewhat blunt advanced angle with the side margin; apex gradually rounded, the sinus short and very feeble; striæ extremely fine, smooth, the intervals perfectly flat, the third with six rather coarse impressed foveiform punctures, not however quite so large as in the preceding species; met-episterna about twice as long as wide; tarsi very slender. Length ( $\sigma^7$   $\text{♀}$ ) 5.8–6.2 mm.; width 2.0–2.25 mm. California (Monterey to Humboldt Co.). Rather abundant. [*Ag. limbatum* Mots.].....**variolata** Lec.

A—General characters, color, lustre and sculpture as in *variolata*, but with the elytra notably shorter and more oval, the sides more arcuate; sides of the prothorax usually somewhat less arcuate, the apical angles still blunter, the basal rather less broadly rounded. Length (♂ ♀) 5.6–5.8 mm.; width 2.15–2.25 mm. California (San Diego),—Ricksecker. . . . . *coronadina* n. subsp.

Form oblong-suboval and moderately convex, larger and stouter than *variolata*, shining, black, with the faintest subæneous lustre anteriorly, the elytra piceous, with paler sides; legs rufo-piceous; head as in the preceding, though a trifle larger and more elongate; antennæ much longer, black, with piceo-rufous first joint, four-sevenths as long as the body; fourth palpal joint still more elongate, one-half longer than the third; prothorax nearly one-half wider than long, the perfectly parallel sides evenly and less strongly arcuate from apex to base, the basal angles very obtuse but not so rounded as in the preceding; surface and margins nearly similar; elytra one-half longer than wide, only one-half wider than the prothorax, the sides as in *variolata* and similarly very finely reflexed, but with the apex rather more rapidly rounded and obtuse, the sinus longer though feeble; striæ very fine, the intervals not quite so flat, the six punctures of the third much smaller and less conspicuous; epipleura flavate, the rest of the under surface deep black; tarsi very slender. Length (♀) 6.5 mm.; width 2.45 mm. California (Siskiyou Co.),—Koebele. . . . . *shastanica* n. sp.

7—Sinuate basal margin of the elytra forming an obtuse, rather blunt but anteriorly projecting angle with the side margin; elytral intervals not, or only feebly or irregularly, alternating in width. . . . . 8

Sinuate margin joining the sides in a broad and even curve. . . . . 9

8—Form moderately stout, slightly convex, highly polished throughout and black, with the feeblest piceous tinge; under surface piceous, the legs dark rufous; head about four-fifths as wide as the prothorax, slightly elongate, with large and somewhat prominent eyes, the anterior impressions very small and feeble; last palpal joint but slightly longer than the third; antennæ piceous-black, with only slightly paler basal joint, rather stout, becoming more slender toward the first joint, barely half as long as the body, the third joint much longer than the fourth, the fifth two and one-half times as long as wide; prothorax one-half wider than long to a little less, widest well before the middle, the sides rather strongly rounded, less so and distinctly oblique posteriorly, finely reflexed, more so basally, the angles very obtuse and blunt; base broadly, obliquely rounded from seta to seta, as wide as the apex, which is feebly sinuate and with rounded angles; transverse impressions obsolete; anterior discal foveæ wholly wanting, the stria fine; foveæ large, irregular and very shallow, smooth; elytra oblong and parallel, with feebly arcuate sides, gradually more rounding basally, nearly three-fifths longer than wide, four-fifths wider than the prothorax, rather rapidly rounded at apex, with the sinus subobsolete or barely traceable; striæ fine, smooth, impressed; intervals subequal, feebly convex; met-episterna more than twice as long as

wide; tarsi slender, the anterior (♂) very feebly dilated. Length (♂ ♀) 5.0–7.0 mm.; width 1.8–2.35 mm. Rhode Island to Lake Superior (Duluth) and southward to North Carolina (Southern Pines). Very abundant. [*Ag. luctuosum* Dej.; *placidum* Lec. nec Say; *strigicolle* Mann.(?)]. . . . . **obsoleta** Say

Form slightly narrower and more elongate, dark piceous, the head black; under surface and legs piceo-rufous, highly polished; head nearly similar, the eyes rather less prominent; antennæ longer and more slender, black, the first joint piceo-rufous, the third joint subequal to the fourth, the fifth three times as long as wide; last palpal joint barely longer than the third; prothorax nearly similar but shorter, the sides and surface similar, except that the fine transverse rugulæ are more evident and the anterior impression distinct; basal angles obtuse though well defined; elytra two-thirds longer than wide, only three-fifths wider than the prothorax, similar in general outline and striation; anterior male tarsi feebly dilated. Length (♂) 5.75 mm.; width 2.2 mm. Vancouver Island (Victoria),—Wickham. . . . . **insulina** n. sp.

9—Body a little larger and stouter than in *obsoleta*, feebly convex, shining, black, the under surface and legs piceous-black; head evidently narrower than the prothorax, with rather prominent eyes and small anterior impressions; palpi somewhat stouter, the last joint longer than the third; antennæ heavy, distinctly less than half as long as the body, piceous-black, the basal joint scarcely paler, the third much longer than the fourth; prothorax shorter, more than one-half wider than long, widest slightly before the middle but with the sides moderately and evenly rounded, feebly so and only slightly sinuate behind, distinctly reflexed, rather broadly at base, the angles extremely obtuse though evident; base broadly obliquely rounded laterally, as wide as the apex, which is very feebly sinuate, with rather broadly rounded angles; surface with two large and deeply impressed discal foveæ before the middle, having also numerous distinct transverse rugulæ; anterior transverse impression distinct, the stria fine; foveæ large, shallow, not definitely limited and more ruguloso-opaculate; elytra one-half (♂) to two-fifths (♀) longer than wide, evidently less than twice as wide as the prothorax, oblong, with nearly straight sides, rapidly rounding at base; apex rapidly much more obtuse than in *obsoleta*, the sinus longer and distinctly deeper, distinct; striæ very fine, impressed, smooth; intervals distinctly alternating in width, convex, the narrower ones more strongly; anterior male tarsi narrowly dilated. Length (♂ ♀) 6.4–7.0 mm.; width 2.45–2.75 mm. Colorado. Two examples, from the Levette collection and without further record of locality. . . . . **invidiosa** n. sp.

Body rather stout, piceous-black, highly polished and very moderately convex; under surface rufo-piceous, the legs almost deep black; head slightly elongate, nearly as in the preceding, except that the eyes are more prominent and the neck more narrowly constricted, being barely more than half as wide as the prothorax; antennæ

almost similar; prothorax not so short, less than one-half wider than long, the sides, general surface and proportion of the parts nearly similar, except that the transverse rugulæ are feebler, the foveæ shining and smoother and the discal foveæ before the middle completely wanting; anterior transverse impression distinct; elytra oblong but not quite so broad, one-half longer than wide (♀), the apex even more abruptly and broadly obtuse, with the long sinus similarly distinct; striæ very fine and more feebly impressed, the intervals mutually equal in width and more feebly convex; met-episterna two and one-half times as long as wide. Length (♀) 7.2 mm.; width 2.6 mm. Washington State. One specimen, without more definite record of locality. . . . . *tacomæ* n. sp.

There is an evident bond of affinity uniting all the above species, although this was apparently not suspected by LeConte in the case of *variolata*. The singular ante-median discal foveæ of the pronotum are constantly present in the *bembidioides* section, occasionally appear as a mere minute trace in the *variolata* group and are well developed in *invidiosa* but wholly wanting in the related *tacomæ*; in the latter the stria intervals do not alternate in width and prominence as they do in *invidiosa* and, as stated by Dejean, in the European *bogemanni* Gyll.

It is singular that in a genus so uniform in general structural characters, outline of the prothorax and in other ways, there should be such diversity in the sculpture and lustre of the elytra as observable in *bembidioides*, *quadripunctata*, *variolata* and *obsoleta*, or such violent contrast as in the six large foveiform punctures of *variolata* and the three very fine punctures of *obsoleta*, where they often become subobsolete.\*

#### Agonum Bon.

This genus is difficult to define in accurate terms and is based principally upon a specialization of habitus, due to the broader and more parallel form of the body, relatively wider and more transversely oval prothorax and the marked prevalence, in one of its largest sections, of bright metallic coloration, almost unknown in *Anchomenus*, at any rate as the latter occurs in North America.

\* *Obsoleta* occurred during August of a summer which I spent at Bluff Point, near Plattsburg, Lake Champlain, in very great profusion. On one occasion while sitting reading quietly, I felt a mild prick above my foot, and on investigating found that one of these little beetles had bitten me through my stocking, evincing most remarkable enterprise for such a diminutive animal and especially one having so short a head.

There are, however, exceptions as might be expected, the prothorax in *atromicans*, for instance, being noticeably subcordiform, though with broadly rounded or subobsolete basal angles, but in all such cases the relative widths of the prothorax and elytra are the determining factor, and it is but seldom that a species cannot be assigned satisfactorily to either *Anchomenus* or *Agonum*. So in my opinion all the genera of Bonelli are worthy of continuance, at least from the important standpoint of general habitus, and, for taxonomic reasons, it is better so, because to unite all these elements would give us a supergeneric aggregate, so large and heterogeneous as to hamper rather than aid the process of naming what may ultimately prove to be thousands of specific forms. In our fauna four groups are definable as follows:

- Outline elongate-oval; surface convex, pallid, with darker median parts of the disk; elytra with more or less evident scattered interstitial punctures, the dorsal punctures five to eight. Pacific coast regions. I (*maculicolle*)
- Outline more parallel; surface generally less convex.....2
- 2—Upper surface more or less brilliantly metallic in lustre; dorsal punctures three to about six in number..... II (*cupripenne*)
- Upper surface black and without marked metallic lustre, this however feebly æneous in a few, such as *metallescens* and *renoicum*, the anterior parts often feebly greenish in *placidum* and allied forms and entirely green in *errans*.....3
- 3—Integuments thick; pronotal foveæ as in the *cupripenne* group, at some distance from the sides and not formed partially by the reflexed margin..... III (*melanarium*)
- Integuments thin; pronotal foveæ large, concave, formed externally by the more widely reflexed side margin..... IV (*placidum*)

The second and third groups extend entirely across the continent from the Atlantic to the Pacific, and the fourth from the Atlantic to the Rocky Mountains and far into the Sonoran regions of the southwest and Mexico. The *cupripenne* and *melanarium* groups form the larger part of the genus, the others being composed of but few species so far as known.

Group I—*maculicolle*

Subgenus *Leucagonum* nov.

In the fauna of the southern Pacific coast regions there are several distinct species of this group, all formerly confused with *maculicolle*. The comparatively minute *variolum*, of LeConte,

was associated closely with *maculicolle* by that author, but the two are by no means allied and the former species has been assigned above to the genus *Sericoda*. The pronotal foveæ are large, shallow and formed partially by the reflexed margin as in the *placidum* group. *Maculicolle* is a very isolated type of *Agonum* and without doubt demands a separate name, at least of subgeneric weight. The three forms in my collection may be known as follows:

Body stout in form, very variable in size, convex, shining, the elytra feebly alutaceous in the female; color pale flavo-testaceous, the head more or less clouded, the central part of the pronotal disk and a large central elytral area blackish, the elytral plaga unevenly sinuate antero-laterally; under surface dark rufous, with paler legs, the abdomen in great part black; head not elongate, two-thirds as wide as the prothorax, with moderately prominent eyes and short and feeble to obsolete anterior impressions; palpi pale, the last joint subequal to the third or slightly longer; antennæ somewhat longer than the head and prothorax, not very slender, the third joint a little longer than the fourth; prothorax a third to nearly half wider than long, the parallel sides evenly rounded and strongly reflexed; basal angles broadly rounded, the apical only blunt to broadly rounded; anterior impression angulate, feeble, the stria fine; foveæ large, feebly concave, formed partially by the reflexed margin, finely and sparsely punctulate; elytra oblong-oval, broad, barely one-half longer than wide, rather less than one-half wider than the prothorax, the arcuate sides but little more arcuate basally; apex gradually obtusely ogival, the sinus feeble but evident; striæ fine, smooth, grooved; intervals wide, varying from perfectly flat to slightly convex, sometimes rather strongly so toward the sides, having small scattered punctures toward the sides of the disk; metasterna rapidly narrowed, one-half longer than wide; tarsi very feebly grooved externally, the anterior moderately thick in the male. Length (♂ ♀) 8.7–10.7 mm.; width 3.2–4.6 mm. California (San Francisco to San Diego). Abundant..... **maculicolle** Dej.

A—Coloration, lustre and general characters as in *maculicolle* but more abbreviated, with the head relatively somewhat larger, the prothorax more transverse and more widely explanato-reflexed at the sides; elytra not one-half longer than wide; striæ very fine; intervals broad, flat, smooth, not evidently punctulate even toward the sides, the third similarly with six distinct punctures. Length (♀) 9.2 mm.; width 3.8 mm. California (Guadalupe Island)..... **guadalupe** n. subsp.

Body narrower and much more elongate, similar in coloration and lustre; head two-thirds as wide as the prothorax, the eyes large but only slightly prominent, the anterior impressions obsolete; surface feebly rugulose laterally; palpi pale, the third joint fully as long as the fourth, which is very gradually and finely pointed; antennæ nearly as in the preceding though slightly more slender; prothorax much



less transverse, scarcely more than a fourth wider than long, otherwise nearly similar, the foveæ still less concave; elytra more elongate and more gradually arcuately narrowed behind, scarcely more than a third wider than the prothorax, three-fifths longer than wide, the sinus equally distinct but more oblique; striæ similar, the intervals nearly flat, the third with the usual six punctures; surface with small but very distinct interstitial punctures throughout, equally evident from the sides to the suture; met-episterna nearly similar but less rapidly narrowed from the base; metasternum less evidently punctulate; anterior male tarsi feebly dilated. Length (♂) 9.7 mm.; width 3.6 mm. California (Hoopa Valley, Humboldt Co.).....**angustior** n. sp.

There is marked inconstancy in form and size among the numerous specimens of *maculicolle* at hand, and for this and other reasons this subgenus should be regarded as one of those recently developed plastic groups, like *Brennus* and *Omus*, inhabiting the same regions; *angustior* from more northern parts seems, however, to have become sufficiently isolated to be regarded as a distinct species. The hind wings in this group are completely wanting, there being not even a vestigial remnant, at least in *maculicolle*.

Group II—*cupripenne*

Subgenus **Agonum** in sp.

In general terms there is a rather marked mutual resemblance among the numerous species of the true *Agonum* as here considered. They are all pronouncedly metallic in coloration, and the general form of the body is more subparallel than in the preceding group, where the outline is more oval and convex and the integuments devoid of any vestige of metallic reflection. But in minor characters, such as the number and size of the dorsal punctures of the elytra, there is considerable diversification. A tabular statement of the species is a matter of some difficulty, but perhaps the following arrangement may serve some useful purpose:

- Dorsal punctures of the elytra notably large and impressed.....2
- Dorsal punctures very fine.....3
- 2—Dorsal punctures four in number, very large and foveiform; body rather small, oblong, moderately convex, only moderately shining, black, the upper surface brownish-æneous, broadly bright green toward the sides; under surface metallic green, the legs obscure rufous, the femora greenish-metallic; head green, becoming obscure æneous basally, as wide as long, much narrower than the prothorax, with large and prominent eyes; antennæ slender, half as long as

the body, black, paler at base, the third and fourth joints equal; prothorax nearly a third wider than long, parallel, with evenly rounded and finely reflexed sides, the angles broadly rounded; base as wide as the apex, arcuate laterally; surface obscure æneous, green laterally, having transverse rugulæ, obsolete impressions and fine, somewhat abbreviated stria; foveæ short, discal, linear and deeply impressed, smooth; elytra oblong, one-half longer than wide, not quite one-half wider than the prothorax, the feebly arcuate sides more rounded at base; apex gradually obtusely rounded, with feeble sinus; outer green area half the width, the marginal bead bright cupreous; striæ moderate, closely punctulate; intervals flat; foveæ of the third occupying the entire width of the interval; ninth stria very close to the margin; anterior male tarsi moderately dilated. Length ( $\sigma^7$   $\text{♀}$ ) 7.5-7.8 mm.; width 2.8-3.0 mm. Montreal to North Carolina, also Indiana. Not uncommon in certain localities. . . . . **octopunctatum** Fabr.

Dorsal punctures six or seven; body larger, moderately convex, shining, with dark cupreous lustre; under surface and legs black; head nearly three-fourths as wide as the prothorax, with rather prominent and well developed eyes, the impressions very small, feeble; palpi black, the last joint scarcely as long as the third; antennæ black, not quite half as long as the body, the third and fourth joints equal; prothorax a third wider than long, parallel, with evenly arcuate and finely reflexed sides throughout, the angles extremely obtuse and broadly obliterated, except a minute prominence at the setigerous pore; base arcuate laterally, as wide as the moderately sinuate apex, the apical angles with slightly blunt tips; surface with some feeble transverse rugulæ, the impressions obsolete, the stria fine, subentire; foveæ short, linear, discal and deeply impressed, distant from the sides, having a very few indistinct punctures; elytra one-half longer than wide, less than one-half wider than the prothorax, parallel, the moderately arcuate sides more rounded at base; apex gradually rounded, with feeble sinus; surface micro-reticulate and alutaceous ( $\text{♀}$ ), more polished ( $\sigma^7$ ); striæ fine, smooth, grooved; intervals flat; foveæ of the third all on or near the third stria as a rule; met-episterna about twice as long as wide; anterior male tarsi distinctly though not widely dilated, with smooth upper surface. Length ( $\sigma^7$   $\text{♀}$ ) 8.3-9.0 mm.; width 3.3-3.7 mm. California (southern coastal regions),—Dunn. Nine specimens.

**pacificum** n. sp.

- 3—Dorsal punctures three in number; third antennal joint more or less evidently longer than the fourth. . . . . 4  
 Dorsal punctures four to six. . . . . 8  
 4—Elytra oval, widest at the middle; body very small, narrower and more convex. Elongate-oval, black and shining, the upper surface bright green throughout, except a feeble coppery lustre on the elytra posteriorly, but not extending to the sides or apex, the foveal region of the pronotum also cupreous; under surface deep black, the legs rufo-piceous; head smooth, three-fourths as wide as the prothorax and not elongate, with well developed and moderately

prominent eyes; impressions small, with fine oblique extension to the anterior superciliary puncture; antennæ black, fully half as long as the body; prothorax over a fourth wider than long, the parallel sides evenly arcuate and finely reflexed, a little more so at base, the angles broadly rounded; base as wide as the feebly sinuate apex; surface with some transverse striæ, the anterior impression linear and distinct, the stria fine, not quite entire; foveæ discal, short, linear, deeply impressed and smooth; elytra three-fifths longer than wide, fully one-half wider than the prothorax, the arcuate sides a little more rounded basally; apex gradually rounded, with barely visible sinus; striæ fine, not deep, impunctate, the intervals flat, the anterior puncture of the third subaxial, the two posterior near the second stria; met-episterna one-half longer than wide; male anterior tarsi only feebly dilated. Length (♂) 7.5 mm.; width 2.8 mm. Kansas,—Knaus.....**gemmeum** n. sp.

Elytra oblong, parallel, with more feebly arcuate sides; body broader in form and rather less convex.....5

5—Upper surface intense and uniform bright green throughout, shining, the elytra but little less so in the female; under surface bright greenish-black, the legs black; head two-thirds as wide as the prothorax, with large and moderately prominent eyes, the impressions parallel, irregular; antennæ black, less than half as long as the body; prothorax only a fourth wider than long, the parallel sides evenly arcuate and distinctly and abruptly though not broadly reflexed, the angles broadly rounded; base rather wider than the distinctly sinuate apex; transverse rugulæ distinct, well separated, the impressions obsolete, the stria rather fine but deep; foveæ discal, very short, deeply impressed, faintly and sparsely punctulate; elytra three-fifths to one-half (♀) longer than wide, two-fifths wider than the prothorax; sides gradually rounding at base; apex gradually but obtusely rounded, the sinus feeble though evident; striæ fine, extremely minutely, closely punctulate, the intervals flat (♀), nearly so (♂), the scutellar long, well impressed; the three dorsal punctures are not very fine and are all more or less axial on the third interval; met-episterna fully twice as long as wide; anterior male tarsi very distinctly dilated, smooth and black. Length (♂ ♀) 9.5–10.0 mm.; width 3.5–3.8 mm. Utah (Stockton), Colorado (Wray),—Shantz, and Oregon (Clackamas Co.).

**viridissimum** n. sp.

Upper surface more or less diversified with metallic cupreous and green. .6  
6—Prothorax but slightly wider than long; Atlantic regions. Body oblong-suboval, not very convex, highly polished throughout and bright green above in both sexes, the discal part of the elytra bright cupreous-red; under surface and legs shining, black; head rather distinctly elongate, much narrower than the prothorax, with large but only moderately prominent eyes; antennæ black throughout, scarcely half as long as the body; prothorax a fourth to fifth wider than long, the parallel sides evenly arcuate, sharply but narrowly reflexed, somewhat more widely so at the basal angles, which are broadly rounded, the transverse rugulæ faint; anterior impression

- obsolete to evident, the stria fine, the foveæ short, linear, deeply impressed, nearly smooth, attaining the base but as usual remote from the sides; elytra oblong, slightly over one-half longer than wide, somewhat less than one-half wider than the prothorax, the sides gradually more arcuate at base; apex obtusely rounded, the sinus scarcely more than straight; striæ very fine, not evidently punctulate; intervals flat or nearly so, the three punctures of the third distinct, nearly as in the preceding; tarsi and met-episterna almost similar. Length ( $\sigma^7$  ♀) 7.8–8.8 mm.; width 2.9–3.4 mm. New Jersey and Lake Champlain to Lake Superior and Idaho (Cœur d'Alene). Rather common and extremely active. [*Agonum nitidulum* and *cupreum* Dej.] . . . . . **cupripenne** Say
- Prothorax relatively shorter, distinctly transverse. Regions from the Rocky Mountains to the Pacific . . . . . 7
- 7—Form more broadly oblong, larger in size, moderately convex, shining, the elytra alutaceous—faintly ( $\sigma^7$ ) but strongly (♀), black, with bright green metallic lustre anteriorly and along the sides of the elytra, the median parts of the latter cupreous; under surface and legs black, with feeble greenish lustre; head three-fifths as wide as the prothorax, with rather prominent eyes and nearly obsolete impressions; antennæ black throughout, not half as long as the body; prothorax transverse, fully two-fifths wider than long, the evenly rounded parallel sides moderately reflexed, the angles broadly rounded; apex distinctly sinuate, the surface with feeble distant rugulæ, the impressions obsolete, the median stria fine; foveæ discal, not very long, linear but widely and deeply impressed, the foveal region sparsely punctured; elytra oblong, parallel, one-half longer than wide, two-fifths wider than the prothorax, rapidly and obtusely rounded at apex; striæ fine with very small and close-set punctures, the intervals flat, the punctures of the third very distinct, the anterior near the third, the two posterior near the second, striæ; met-episterna twice as long as wide; anterior male tarsi distinctly dilated; apical sinus of the elytra long and feeble though evident. Length ( $\sigma^7$  ♀) 9.5–10.0 mm.; width 3.7–4.0 mm. British Columbia (Agassiz) to southern Oregon. Eleven examples. . . . . **suffusum** n. sp.
- A—Nearly as in *suffusum* but a trifle stouter and differing in having the entire elytral surface green, with almost imperceptible æneous tinge internally, their surface still more opaque in the female; general characters throughout similar, except that the apical elytral sinus is much shorter and very feeble. Length (♀) 9.9 mm.; width 4.2 mm. California (the locality unrecorded),—Knaus. . . . . **latiusculum** n. subsp.
- B—Somewhat as in *suffusum* but much smaller and rather less convex, the antennæ not so long and with distinctly more abbreviated joints, the third more evidently longer than the fourth; prothorax similarly transverse and rounded at the sides, but with the basal angles more defined though very obtuse and blunt; elytra opaculate in the female, green throughout, suffused with very feeble æneous tint internally. Length (♀) 8.5 mm.; width 3.4 mm. Utah (Ogden). . . . . **uteanum** n. subsp.

Form narrower, smaller in size, very moderately convex, shining throughout in both sexes, the female elytra faintly alutaceous, black, with green-bronze lustre above, becoming greenish on the anterior part of the head and sides of the pronotum and elytra; under surface and legs black, with very faint greenish lustre; head three-fifths as wide as the prothorax, slightly elongate, with prominent eyes; antennæ black, shorter than in *suffusum*, only slightly longer than the head and prothorax, the latter smaller and less transverse, a third wider than long, otherwise as in *suffusum*, except that the base is still more evidently wider than the apex and the basal angles more definite, though obtuse and blunt; base much less obliquely arcuate at the sides; elytra narrower, nearly three-fifths longer than wide, two-fifths wider than the prothorax, somewhat less obtusely rounded at apex, with very feeble and much shorter apical sinus; striæ still finer and with minute, close-set punctulation, impressed, the fifth more broadly indented at apical fifth; intervals feebly convex, more distinctly in the male, the punctures of the third not quite so developed and less attached to the striæ; metepisterna not quite twice as long as wide; anterior male tarsi moderately dilated, black as usual in this section. Length (♂ ♀) 8.4-9.4 mm.; width 3.3-3.6 mm. California (Truckee). Four examples, taken by the writer. . . . . **sierranum** n. sp.

A—Somewhat similar but broader, bright cupreous throughout above, the elytra feebly alutaceous in the female; striæ still finer and very minutely, closely punctulate, not at all impressed; intervals broader, perfectly flat in the female; punctures of the third subaxial, except the third, which is near the second stria; apical sinus similar. Length (♀) 9.0 mm.; width 3.75 mm. California (Redwood Creek, Humboldt Co.). A single specimen, taken by the writer. . . . . **sequoiarum** n. subsp.

Form shorter, the size still smaller, the surface much flatter, oblong, shining, the elytra not distinctly alutaceous in the female, black, the entire upper surface bright cupreous-red, a little less intense and more æneous at the sides of the elytra; under surface shining, greenish-black, the legs black; head evidently elongate, two-thirds as wide as the prothorax, the eyes well developed though scarcely at all prominent, the impressions short, feeble, parallel; antennæ black, almost half as long as the body; prothorax a third or less wider than long, parallel, with evenly and not strongly arcuate sides, which are rather finely reflexed though becoming broadly so at base, the angles very obtuse, with broadly rounded tip; base as wide as the sinuate apex, oblique at the sides; apical angles only narrowly blunt; anterior impression angularly lineate, distinct, the stria fine; foveæ oval, broadly impressed and nearly smooth, remote from the sides but attaining the base; elytra parallel, short, two-fifths longer than wide, two-fifths wider than the prothorax, rapidly very obtuse at apex, the sinus long and distinct; sides rather rapidly rounding at base, the striæ very fine, smooth, not punctulate; intervals flat or nearly so, the punctures of the third small, the anterior at the third, the other two at the second, stria;

- met-episterna three-fifths longer than wide. Length (♀) 7.8-8.3 mm.; width 3.1-3.3 mm. California (Truckee).... **tahoense** n. sp.
- 8—Body broader and oblong in form, somewhat as in the preceding section.....9
- Body narrow, notably elongate and more convex, the prothorax relatively wider.....10
- 9—Elytral surface longitudinally feebly swollen along the median line posteriorly, rather depressed, opaculate, shining anteriorly, black, with green metallic lustre, sometimes subcupreous internally on the elytra; under surface black, the legs piceo-rufous; head almost two-thirds as wide as the prothorax, with somewhat prominent eyes, the impressions parallel, with an oblique prolongation toward the eyes; antennæ black, thin, not quite half as long as the body; prothorax two-fifths wider than long, widest before the middle; sides rounded and feebly reflexed throughout, slightly oblique and straighter behind, the angles very obtuse but distinct, the tips often prominent; base feebly oblique at the sides, somewhat wider than the distinctly sinuate apex; impressions feeble, sometimes obsolete, the stria fine, almost entire; foveæ large, broadly impressed, finely and feebly punctulate, separated from the sides but almost attaining the base; elytra oblong, one-half longer than wide, almost two-fifths wider than the prothorax, rapidly obtuse at apex, the sinus rather long and distinct; striæ fine, grooved, smooth, not punctulate; intervals flat in the female, the third with five or six moderate punctures, which are mostly axial; met-episterna twice as long as wide. Length (♀) 9.0-9.7 mm.; width 3.3-3.5 mm.; California (Sta. Clara). Three female examples, sent by Dr. Smith. [*Pl. fallianus* Leng]..... **deplanatum** Mén.
- Elytral surface evenly convex posteriorly as usual; upper surface less depressed, shining, the elytra shining (♂) or opaculate (♀), black, the upper surface wholly green or with the sutural parts of the elytra feebly cupreous; under surface black, somewhat viridate, the legs piceo-rufous; head elongate, three-fifths as wide as the prothorax, the eyes rather large and prominent; impressions and antennæ nearly as in the preceding; prothorax two-fifths or more wider than long, widest at about the middle, the parallel sides evenly arcuate from apex to base and finely though sharply reflexed; basal angles very obtuse and rounded, never at all prominent at tip; base oblique at the sides, much wider than the rather deeply sinuate apex; surface with transverse rugulæ, the impressions feeble or obsolete, the stria rather fine; foveæ rather short, obtusely linear and deeply impressed, feebly rugulose but not punctate, separated from the base and twice as widely from the sides; elytra one-half longer than wide, somewhat longer in the male, two-fifths—or more (♀)—wider than the prothorax, parallel, rapidly obtuse at apex, the oblique sinus long and feeble; striæ fine, closely micro-punctulate; intervals flat in both sexes, the third with very distinct impressed punctures, about four in number and in general not adhering closely to the striæ; met-episterna fully twice as long as wide; anterior male tarsi black and very distinctly dilated. Length

- (♂ ♀) 9.0-9.5 mm.; width 3.5-4.0 mm. California (southern),—  
 Dunn.....**sybariticum** n. sp.
- 10—Prothorax as wide as the elytra or but just visibly narrower.... 11  
 Prothorax sensibly narrower than the elytra..... 13
- 11—Pronotum punctured and transversely impressed behind. Body  
 elongate, blackish viridi-æneous; prothorax rounded, with narrowly  
 reflexed margins, the basal foveæ punctulate, transversely impressed  
 posteriorly; elytra not at all wider than the prothorax, the striæ  
 deep, impunctate; intervals slightly convex, the third with four or  
 five punctures. Length 8 mm. Jasper House, Rocky Mts.  
**crassicolle** Lec.
- Pronotum not punctured or transversely impressed at base..... 12
- 12—Body parallel, somewhat convex, polished, cupreo-æneous, slightly  
 greenish at the base of the head; under surface greenish-black, the  
 legs deep black throughout; head three-fifths as wide as the pro-  
 thorax, not longer than wide, with large and moderately prominent  
 eyes, the impressions short, wide and faint; palpi and antennæ  
 black, the third antennal joint distinctly longer than the fourth;  
 prothorax a fourth wider than long, the sides rounded and finely  
 reflexed, thicker and more converging basally, the angles broadly  
 rounded; base much narrower than the apex, thickened medially;  
 impressions obsolete, the stria distinct, not quite entire; foveæ  
 large, oval, impressed, rather deep, not punctate; elytra two-thirds  
 longer than wide, scarcely visibly wider than the prothorax, feebly  
 inflated behind, the apex gradually broadly rounded, the sinus long  
 and very faint; surface with numerous small indentations, probably  
 accidental in the type; striæ not very fine, grooved, smooth; in-  
 tervals flat, the third with four punctures; anterior male tarsi  
 rather strongly dilated. Length (♂) 8.2 mm.; width 3.0 mm.  
 Utah (Douglas).....**longulum** n. sp.
- Body parallel, convex, polished and bright greenish æneo-cupreous;  
 elytra cupreous and less shining in the female; under surface and  
 legs as in the preceding; head slightly elongate, with well developed  
 and not very prominent eyes, scarcely three-fifths as wide as the  
 prothorax, the impressions very small and almost obsolete; palpi  
 black; antennæ black throughout, only a little longer than the head  
 and prothorax, the third and fourth joints subequal; prothorax  
 transverse, fully two-fifths wider than long; sides as in the preceding;  
 base wider, not thickened medially, obliquely rounded at the sides  
 and about as wide as the sinuate apex; basal angles very broadly,  
 evenly rounded, the thickened margin bearing the setigerous punc-  
 ture not so inwardly prolonged at base as in *longulum*; surface  
 similar and with feeble transverse rugulæ, but with the foveæ much  
 shallower and feebly rugulose though not visibly punctate; surface  
 at the sides more deplanate toward the reflexed edge; elytra long,  
 fully two-thirds longer than wide and very slightly wider than the  
 prothorax, parallel, not at all inflated posteriorly, the apex more  
 rapidly and obtusely rounded, the oblique sinus not more than  
 straight, the striæ deep, abruptly grooved, impunctate; intervals

nearly flat, the third with four or five punctures. Length (♀) 9.4 mm.; width 3.25 mm. Colorado (Magnolia, Boulder Co.).

**parallelum** n. sp.

- 13—Elytra shorter, scarcely one-half longer than wide, more oval; body smaller, the head relatively smaller. Form somewhat oval, convex, shining and metallic-greenish, the elytra less shining in the female and more cupreous; under surface and legs as in *longulum*; head slightly elongate, scarcely three-fifths as wide as the prothorax, with large though scarcely prominent eyes, the impressions small; antennæ slender, black, not quite half as long as the body; prothorax a fourth wider than long, the parallel sides evenly arcuate and narrowly impressed, the surface deplanate near the margins; basal angles broadly rounded; base as wide as the rather deeply sinuate apex; transverse rugulæ rather strong, the anterior impression feeble but evident; foveæ small, feeble, slightly rugulose, feebly prolonged anteriorly for some distance; elytra oblong-oval, with arcuate sides, gradually but little more arcuate basally, fully two-fifths wider than the prothorax; apex rather rapidly rounding and obtuse, the oblique sinus straight; striæ grooved, impunctate, the intervals nearly flat, the third with four punctures; met-episterna three-fourths longer than wide. Length (♀) 7.0 mm.; width 2.8 mm. Lake Superior (Marquette),—Sherman...**marquettense** n. sp.

Elytra much more elongate, more than one-half longer than wide. . . . 14

- 14—Elytra rather rapidly rounding and somewhat obtuse at apex. Body notably elongate, the upper surface polished, cupreous, the anterior parts with some greenish reflection, the elytra less shining in the female, which is distinctly larger than the male; under surface, legs, antennæ and palpi deep black; head barely longer than wide, less than three-fifths as wide as the prothorax, with moderately prominent eyes; antennæ (♂) nearly half as long as the body, shorter (♀); prothorax in general outline as in the preceding species but varying from less than a fourth to fully two-fifths wider than long, the base not quite as wide as the rather deeply sinuate apex; basal angles broadly rounded and with thickened margin which extends inward at base to the inner part of the foveæ, which are shallow, irregularly rounded and feebly rugulose; anterior impression obsolete to distinct; elytra fully three-fifths longer than wide, fully a fourth wider than the prothorax, the parallel sides feebly arcuate, more rounding at base; apical sinus barely more than straight; striæ grooved, smooth; intervals nearly flat, the third with four or five punctures; anterior male tarsi well dilated, smooth. Length (♂ ♀) 8.2–9.0 mm.; width 2.9–3.15 mm. Winnipeg to Lake Superior (several localities) and Arkansas. Abundant. Twenty specimens. [*Pl. protractus* and *chalceus* Lec.].

**seminitidum** Kirby

- A—Similar in general characters but slightly narrower, polished, darker, viridate anteriorly, the elytra black, with very feeble greenish lustre; antennæ with evidently shorter joints; prothorax shorter, a third wider than long, more narrowed at base, widest more decisively before the middle than in any example of *semi-*



*tidum* at hand; elytra more gradually rounding behind but otherwise nearly similar in structure. Length (♂) 8.0 mm.; width 2.8 mm. Minnesota (Duluth) . . . . . **borealium** n. subsp.

Elytra very gradually and more strongly rounded at apex. . . . . 15

15—Form elongate-suboval, convex, polished, the upper surface blackish, greenish or bluish, sometimes feebly æneous; under surface, legs, antennæ and palpi deep black; head nearly as in the preceding but larger, two-thirds as wide as the prothorax, the small impressions irregular; antennæ nearly half as long as the body in the male; prothorax a fourth to third wider than long, in structure nearly as in the preceding but more narrowed behind, the base obviously narrower than the deeply sinuate apex; elytra more oval and less oblong, the sides distinctly arcuate, slightly over one-half longer than wide and a third wider than the prothorax, very gradually narrowing and less obtusely rounded at apex, the oblique sinus very feeble; striæ rather fine, deeply grooved, smooth; intervals and dorsal punctures as in *seminitidum*; met-episterna three-fourths longer than wide; anterior male tarsi distinctly dilated. Length (♂) 8.7–8.8 mm.; width 3.2 mm. Colorado (Magnolia, Boulder Co.) . . . . . **ovalicauda** n. sp.

Form narrower, smaller in size, polished above, in color nearly as in the preceding, but with the anterior parts brighter green and the elytra wholly obscure cupreous, faintly greenish along the side margins; head nearly similar but narrower and somewhat more elongate, the antennal joints distinctly shorter; prothorax a third wider than long, widest before the middle, in this as well as general structure nearly as in the preceding, except that the apex is less deeply sinuate and the basal margin is somewhat thickened medially, but not so conspicuously as in *longulum*, from which this species differs in its smaller size, narrower form and relatively narrower prothorax; foveæ irregularly oval, feebly impressed and more discal than in the other species, being distant from the base as well as sides; elytra shorter, though more than one-half longer than wide, parallel, with nearly straight sides, more rounding at base, fully a third wider than the prothorax, very gradually and somewhat ogivally rounding behind, the sinus not more than straight; striæ finer than in any of the related species, not deep, smooth; intervals nearly flat, the third with four punctures in an anterior and a posterior pair; met-episterna one-half longer than wide; anterior male tarsi distinctly dilated. Length (♂) 7.5 mm.; width 2.65 mm. Colorado. Levette collection. . . . . **esuriale** n. sp.

*Perforatus* Lec., belongs to the *octopunctatum* and *pacificum* section; it differs in color and lustre from the former and it is smaller than *pacificum* and has only four dorsal punctures. The synonymy given under *seminitidum* is that proposed by LeConte himself, but the type of *cupreum* Dej., as shown by the description

and published dimensions, is merely a more completely cupreous example of *cupripenne* Say, one of which, seemingly similar, lies before me, and the name of Dejean will therefore be found under that species. *Subsericeum* Lec., from Kansas, was held subsequently to be a subspecies of *cupripenne* by LeConte; I have not seen it, but the punctulate pronotal foveæ and opaculate elytra, only slightly wider than the prothorax, indicate that it is certainly a species wholly distinct from *cupripenne*, as in fact the author considered it originally. The species described by LeConte under the name *crassicolle* is characterized in the above table from the original description, as I have not been able to examine an authentic specimen; it seems to be different from any other of the peculiarly narrow subparallel forms among which I have placed it.

*Deplanatum* is not a preoccupied name in *Agonum*, and I am therefore compelled to reject the name *fallianum* given it by Mr. Leng. The two genera *Agonum* and *Anchomenus*, proposed by Bonelli over one hundred years ago, are distinct and ought not to have been united, but assuming them to be united and that *Anchomenus deplanatus* Chd., should be truly a synonym of *cincticollis*, it seems to me that the disposing of one *deplanatus* by synonymy ought to be enough, and that the older *deplanatus* under these circumstances might have been allowed to remain valid. Simply because two species in one genus have the same name is not adequate cause for the rejection of both of them. This remark applies also to several other changes of name by Mr. Leng. *Elaphrus politus* Lec., for example, disappeared many years ago by synonymy and, this being the case, there is no adequate reason—in spite of committee decisions—for suppressing *politus* Csy. It is irrational to suppose that both species named *politus* have to be eliminated if they are not both actual synonyms of other species. The case is similar regarding *Monocrepidius finitimus* Csy. In these cases the synonymy of the older species is absolute, and therefore the use of the same name as applied to a valid species should not be inhibited, unless it be intended that hereafter species shall be known only by their names alone, the author's name to be permanently omitted; this would however result in much confusion. But, in the case of *Galerita thoracica*, I am not certain that *thoracica* Chev., from Mexico, is a synonym of *erythrodera* Brul., from Cuba

and the Antilles, and it may therefore really be necessary to change the name of *thoracica* Csy.\*

Group III—*melanarium*

Subgenus **Melanagonum** nov.

The rather numerous species of this group are, with very few exceptions, of an intense polished black; in *lacustre* (*metallescens* Lec.) and in *mordax*, the elytra become slightly æneous and the entire upper surface is faintly æneous in *renoicum*. So the name adopted seems to be sufficiently warranted. The species are moderate to small in size, with convex surface and more or less strong and usually subimpunctate striæ, the basal thoracic angles always very obtuse and usually broadly rounded, but in a few, such as *melanarium*, the tips of the angles are rather well defined; the sides are regularly rounded as a rule, but in *atromicans* become more oblique and straight posteriorly, giving the prothorax a more subcordate appearance. According to the number of dorsal punctures and degree of reflexion of the thoracic sides, the species may be classified as follows:

- Dorsal punctures of the elytra three in number.....2
- Dorsal punctures four or more.....12

\* The principle "Once a synonym always a synonym," adopted by Mr. Leng, of course has no application to the cases mentioned above, except to confirm what I have noted, for if the principle be correct *Elaphrus politus* Lec., having been made a synonym, must always be considered a synonym, which would liberate the name for another species, the ruling that no two names in a genus can be the same, even if one be an absolute and irrefutable synonym, being an invalid dictum, although of course it is desirable not to have two names alike if it can be avoided. But the principle "Once a synonym always a synonym" is eminently fallacious and lies entirely outside the domain of any sort of necessity. Let us assume, for instance, that some inexperienced person, through ignorance or perhaps from pique or some other unworthy motive, takes a notion to unite two genera that have always been regarded as distinct, and in doing so changes the name of a species in one of the genera that has been used also in the other. Shortly thereafter an author, composing a general world-wide monograph of the group, demonstrates that beyond any doubt the two genera are distinct. Now under such conditions is it possible that anyone with definite ideas of justice and propriety, could contend that the name substituted by the said person—it may be to replace a name well known for half a century or more in the literature of the subject—would have to be maintained? But on the principle of "Once a synonym always a synonym" this would have to be done. The absurdity of the thing is self evident. I am not criticizing Mr. Leng in any way, for he has simply adopted as official, a ruling of what necessarily must be a limited coterie, which ruling I personally regard as illogical.

- 2—Elytral striæ finely but evidently punctulate. . . . . 3  
 Elytral striæ never very evidently punctulate. . . . . 6  
 3—Base of the prothorax much wider than the deeply and rather narrowly sinuate apex. . . . . 4  
 Base of the prothorax not or but little wider than the apex, which is relatively wider than in the preceding section. . . . . 5  
 4—Body rather stout, oblong, convex, deep black and polished in both sexes, the legs piceo-rufous; head three-fifths as wide as the prothorax, with rather prominent eyes and moderate impressions, very slightly elongate; palpi blackish and very slender; antennæ black throughout, slender, more than half as long as the body, the third joint not quite as long as the fourth; prothorax a third wider than long, the parallel sides rather strongly, evenly rounded throughout and well reflexed, more widely and strongly so at base, the angles very obtuse and blunt, often rather well defined at tip; base broadly arcuate laterally; impressions feebly traceable, the stria fine, entire; foveæ rugulose, broadly linear, short and deeply impressed, well separated from the reflexed sides; elytra one-half longer than wide to somewhat less, two-fifths wider than the prothorax, the parallel sides more rounded at base; apex gradually broadly ogival, with rather short and feeble sinus; striæ moderately coarse, impressed, more deeply so toward apex, the intervals distinctly convex, the third with the punctures moderate, the two anterior usually near the third stria, the third near the second; met-episterna twice as long as wide; anterior male tarsi pale and only very slightly dilated. Length ( $\sigma^7$   $\text{♀}$ ) 8.0–9.7 mm.; width 3.4–3.8 mm. Connecticut to Idaho (Cœur d'Alene). Abundant. [*Pl. maurus* Hald.; *scutellaris* Say, is said to be the same by LeConte]. . . . . **melanarium** Dej.  
 Body in form, size, color, lustre and striation almost as in *melanarium* but somewhat broader, with the prothorax more transverse and with much more strongly arcuate sides and more obliterated basal angles; oblong-suboval, rather convex, polished, deep black; head rather elongate, much narrower than the prothorax, with the eyes not so large as in *melanarium* and very much less convex, not at all prominent; antennæ nearly similar; prothorax a third wider than long, widest at the middle, the sides, strongly, subevenly arcuate, the basal angles very broadly rounded and obliterated; base arcuate; margins broadly reflexed, more strongly at base, the foveæ broadly impressed, nearly smooth, with a deeper lineate part widely separated from the sides; impressions and stria nearly as in *melanarium*; elytra as in the preceding in form, relative proportions and striation. Length ( $\text{♀}$ ) 9.0 mm.; width 4.0 mm. Massachusetts,—Leng. [*Pl. lævis* || Lec]. . . . . **molestum** Lec.  
 Body narrower than in either of the preceding, with smoother and somewhat bronzy elytra, having much finer striæ and flat intervals; deep black, polished, the legs and epipleura with somewhat rufopiceous tinge, the elytra obscurely bronzed; head not three-fifths as wide as the prothorax, rather elongate, with remarkably convex and prominent eyes, the anterior impressions small; antennæ long and slender, deep black throughout; prothorax a third wider than long,

widest at about the middle but notably and gradually narrowing anteriorly, evenly and moderately arcuate, broadly but not strongly reflexed, barely at all more so at the basal angles, which are obtuse and rounded, less evident than in *melanarium* but much more so than in *molestum*; foveæ large, broad, very feebly impressed, the inner more lineate part feebly and obtusely impressed, the surface latero-basally very feebly subrugulose; elytra one-half longer than wide, one-half wider than the prothorax, parallel, with feebly arcuate sides, which are rounded at base; apex rather rapidly rounding, the sinus feeble; striæ fine, not impressed, having very fine and not very close-set punctulation; the striæ become sensibly and rather broadly impressed both basally and at apex; intervals flat, the second and third punctures near the second stria; anterior male tarsi narrowly dilated. Length (♂) 8.7 mm.; width 3.5 mm. Wisconsin (Beaver Dam). Communicated by Mr. Leng.

**mordax** n. sp.

Body somewhat as in *molestum* but narrower and more parallel, notably convex, highly polished and deep black throughout, the legs black; head moderate, scarcely four-sevenths as wide as the prothorax, slightly elongate, triangular, with large and moderately prominent eyes; surface smooth, the anterior impressions rather long, obtuse; antennæ slender, deep black, not quite half as long as the body, much shorter than in *molestum*; prothorax nearly as in the latter and transversely oval but shorter, one-half wider than long, the parallel sides strongly and evenly arcuate and widely reflexed, the edge thickened and more elevated about the broadly rounded basal angles; surface smooth, with a few transverse rugulæ medially, without distinct transverse impressions, with a few scattered punctures near the basal angles and along the marginal reflexure; basal foveæ elongate-oval, moderately deep, remote from the sides; elytra three-fifths longer than wide, barely a fourth wider than the prothorax, the sides feebly arcuate, gradually rounding behind, not very rapidly rounding at the humeri; striæ moderate, rather deep, closely micro-punctulate; intervals broadly convex; dorsal foveæ rather strong, impressed, all three adjoining the third stria; anterior male tarsi with the first three joints very distinctly dilated. Length (♂) 9.2 mm.; width 3.7 mm. Washington State (Wilbur), —J. A. Hyslop. . . . . **hyslopi** n. sp.

- 5—Form, coloration and lustre somewhat as in *melanarium*, the head two-thirds as wide as the prothorax, slightly elongate, the eyes large though only moderately prominent, the impressions distinct, oblique and finer behind; antennæ nearly similar and slender, but with the joints notably shorter; prothorax relatively smaller and much less transverse, scarcely a fifth wider than long, the sides and general structure similar, but with the base subequal to the apex and the basal angles more obliterated and rounded; elytra less than one-half longer than wide, fully one-half wider than the prothorax, the parallel sides more arcuate, though rather rapidly rounding at base, the apex nearly similar, but with the sinus feebler and scarcely
- T. L. Casey, Mem. Col. IX, Jan. 1920.

- more than straight; striation and intervals nearly as in *melanarium*, the scutellar stria shorter, the scutellum smaller; ninth stria similarly very close to the margin. Length (♀) 8.4 mm.; width 3.3 mm. New York (West Point),—Wirt Robinson... **militare** n. sp.
- Form narrower, subparallel, the coloration and lustre almost similar; head almost as in *militare*, evidently elongate, the large eyes moderately prominent; antennæ slender, black, more than half as long as the body; prothorax a fourth to nearly a third wider than long, the parallel sides strongly, evenly rounded and well reflexed, less abruptly more broadly so basally than in *melanarium*, the basal angles very much more broadly rounded and obliterated; base only slightly wider than the apex, broadly, evenly arcuate; surface nearly similar but with the foveæ larger, more diffuse, almost extending to the reflexed margin and smoother, less rugulose and inwardly less deep; elytra narrower, one-half to three-fifths longer than wide, parallel, with the sides scarcely arcuate, rounded at base; apex gradually obtusely ogival, the sinus long and feeble but evident; striæ less impressed, becoming more so in a less conspicuous manner and for a shorter distance at apex, the intervals flat to feebly convex; sexual characters nearly similar. Length (♂ ♀) 8.5–8.7 mm.; width 3.15–3.3 mm. New York (Bluff Point, Lake Champlain). Three examples..... **tenuè** Lec.
- 6—Elytra distinctly æneous in lustre. Body oblong, black and rather convex, polished throughout in both sexes, the under surface and entire legs deep black; head slightly elongate, three-fifths as wide as the prothorax, with rather prominent eyes; antennæ deep black, distinctly less than half as long as the body, the third and fourth joints equal; prothorax two-fifths wider than long, parallel, with evenly and rather strongly arcuate sides, widest at the middle; angles very broadly rounded; base somewhat wider than the deeply sinuate apex, arcuate laterally and not margined except laterally; anterior impression distinct, the stria very fine; margins very finely reflexed throughout but with the adjacent surface deplanate; foveæ smooth, lineate, very deeply impressed, the surface thence to the sides convexly tumid; elytra one-half longer than wide, nearly one-half wider than the prothorax, parallel, the sides more arcuate at base; apex rather obtusely rounded, the sinus rather long and distinct; striæ fine, feebly impressed, extremely minutely, indistinctly punctulate, slightly more impressed at apex, the fifth usually more indented near apical fourth; intervals feebly convex, the two posterior punctures axial; anterior male tarsi only slightly dilated. Length (♂ ♀) 7.8–8.2 mm.; width 3.2–3.3 mm. Lake Superior (Duluth, Bayfield and Marquette). [*Pl. metallescens* || Lec.]..... **lacustre** n. n.
- Elytra without pronounced æneous lustre..... 7
- 7—Elytra but little wider than the prothorax. Body oblong, rather convex, polished, deep black, the legs, tarsi and palpi also black as usual in this section; head unusually small, but little over half as wide as the prothorax, slightly elongate, with moderate and not very prominent eyes; antennæ black, almost half as long as the

body, the third and fourth joints equal; prothorax large, scarcely a third wider than long, the parallel sides very evenly and rather strongly arcuate, the angles very broadly rounded and obliterated; base much wider than the relatively narrow and deeply sinuate apex, gradually arcuate laterally, finely margined; side margins widely and strongly reflexed, a little more so basally; impressions obsolete, the stria very fine; foveæ discal, short, linear and deeply impressed, lying just within a feeble convexity of the surface, only very feebly, transversely rugulose; elytra oblong, slightly dilated behind, somewhat less than one-half longer than wide, not quite a third wider than the prothorax, gradually evenly rounded at apex, the sinus scarcely more than straight; striæ fine, nearly smooth; intervals almost flat, the anterior puncture at the third stria, the two posterior somewhat axial, although variable in position. Length (♀) 8.0 mm.; width 3.28 mm. Lake Superior (Marquette). [*Pl. atratus* || Lec.].....**mutatum** G. & H.

Elytra much more conspicuously wider than the prothorax.....8  
 8—Elytra black, sometimes very faintly bronzed in *harrisi*.....9  
 Elytra somewhat piceous in color.....11

9—Form oblong, larger in size. Body and legs deep black, polished in both sexes, the elytra sometimes with very feeble bronzy lustre; head rather large, with large and somewhat prominent eyes, almost two-thirds as wide as the prothorax, evidently elongate; antennæ long, slender, over half as long as the body (♂), shorter (♀), the third joint shorter than the fourth; prothorax nearly two-fifths wider than long, the evenly rounded and parallel sides distinctly reflexed, a little more so basally, the angles very obtuse, broadly rounded at tip; base distinctly wider than the sinuate apex, arcuate laterally, the marginal bead obsolete medially; impressions sub-obsolete, the stria very fine, not entire; foveæ elongate-suboval, very shallow, not quite smooth, the surface thence to the sides with a small and very feeble convexity; elytra rather elongate, fully three-fifths longer than wide, not quite one-half wider than the prothorax, parallel, gradually rounded at apex, the sinus long, oblique, scarcely more than straight; striæ fine, almost imperceptibly punctulate, scarcely impressed, the fifth—often at base and near apical fifth—more indented; intervals feebly convex to flat, the anterior puncture at the third stria, the other two generally near the second; anterior male tarsi feebly dilated, sometimes pallescent. Length (♂ ♀) 8.3–9.7 mm.; width 3.25–3.9 mm. Rhode Island to Lake Superior. Black Hills and Saskatchewan,—LeConte. Abundant. [*Pl. corvus* Lec.].....**harrisi** Lec.

Form oblong, much smaller in size and of narrower outline. Deep polished black throughout, only moderately convex, the legs partially picescent; head triangular and only slightly elongate, three-fifths as wide as the prothorax, the eyes well developed but only moderately prominent; antennæ slender, black throughout, half as long as the body; prothorax a third wider than long, widest at the middle, with evenly and moderately arcuate, widely but not strongly reflexed sides, becoming more strongly reflexed at the basal angles, which

are broadly rounded and almost obliterated; base broadly arcuate, a little wider than the distinctly sinuate apex; edges thickened about the basal angles; foveæ very shallow and broad, less shining though scarcely rugose, having a small lineate and more impressed part internally; anterior impression feeble; elytra parallel, with very feebly arcuate sides, rounded at base, almost one-half longer than wide, fully two-fifths wider than the prothorax; apex gradually arcuately narrowing, the sinus distinct, rather short; striæ smooth, not fine, deep, not much more impressed apically; intervals not quite flat, the three punctures all near the third stria. Length 8.0 mm.; width 2.8 mm. A single example, sent by Mr. Leng as probably having been taken somewhere in British America.

*æthiops* n. sp.

Form ventricose, much smaller in size. . . . . 10

10—Body moderately stout, convex, polished, black in both sexes; legs and tarsi black, with short fulvous setæ; head three-fifths as wide as the prothorax, rather elongate, with well developed and rather prominent eyes, the palpi black, slender; impressions broad and rather deep; antennæ black, slender, more than half as long as the body, the third joint a little shorter than the fourth; prothorax a third to two-fifths wider than long, the strongly rounded parallel sides narrowly reflexed anteriorly, gradually more broadly thence posteriorly, strongly reflexed at base, the angles broadly rounded; base not or but slightly wider than the sinuate apex, not margined medially, arcuate laterally; surface very nearly as in *harrisi*, the foveæ deeper and nearly smooth, the surface laterally very feebly convex; apical angles very blunt at tip; elytra more oval, shorter, not one-half longer than wide, gradually rounding behind the middle, the sinus long but very faint; sides more arcuate; striæ fine, distinctly impressed, almost smooth, deeper at apex; intervals broadly convex; two anterior punctures near the third stria, the third near the second; ninth stria half as far from the edge as from the eighth; anterior male tarsi rather distinctly dilated. Length (♂ ♀) 7.7–7.9 mm.; width 3.2–3.3 mm. Rhode Island (Boston Neck). Three specimens. . . . . *fidele* n. sp.

Body somewhat as in *fidele* but still more ventricose and with smaller prothorax, similar in coloration and lustre; head similar but relatively larger, almost two-thirds as wide as the prothorax; antennæ slightly shorter, though fully half as long as the body, the joints shorter, the third and fourth more nearly equal; prothorax relatively smaller and less transverse, scarcely more than a fourth wider than long, otherwise similar, except that the sides are rather less strongly arcuate; base barely wider than the apex, with very broadly rounded and similarly reflexed angles, the foveæ similar and notably deep, nearly smooth, the surface thence to the sides flat and more rugulose than in *fidele*; elytra nearly similar in form and striation but fully three-fifths wider than the prothorax, the sinus very feeble, more abruptly oblique, the external curvature being narrower than in *fidele*; striæ still more impressed, stronger; intervals rather strongly convex, the three dorsal punctures similarly situated; anterior



male tarsi piceous, moderately dilated. Length ( $\sigma^7$ ) 7.3-7.7 mm.; width 3.0-3.1 mm. Lake Superior (Marquette and Bayfield).

**subinflatum** n. sp.

- 11—Form elongate-suboval, rather convex, shining, black, the margins of the prothorax feebly picescent, the elytra dark piceous; under surface black, the legs dark rufous; head moderate but with notably prominent eyes; antennæ slender, piceous-black, the third and fourth joints equal; prothorax moderate, parallel, with arcuate and finely but abruptly reflexed sides, evidently more reflexed basally, the angles broadly obtuse, with rounded tips; base slightly wider than the rather feebly sinuate apex, arcuate laterally; impressions sub-obsolete, the stria very fine; surface with feeble transverse rugulæ, broadly deplanate and finely rugulose postero-laterally, the foveæ small, very feeble and at lateral fourth; elytra elongate-oval, three-fifths longer than wide, about one-half wider than the prothorax, parallel, with broadly arcuate sides and obtusely rounded at apex, with the sinus distinct; striæ rather fine but deep, smooth, deeper at apex; intervals not quite flat, the three punctures all near the third stria; met-episterna three-fourths longer than wide; anterior male tarsi very distinctly dilated. Length ( $\sigma^7$ ) 8.0 mm.; width 3.0 mm. New Jersey. [*Pl. propinquus* G. & H.] . . . **piceum** Lec.

Form still narrower and the smallest of the subgenus, convex, shining, black, the elytra dark piceous; under surface black, the legs and epipleura rufous; head small though nearly two-thirds as wide as the prothorax, with rather prominent eyes, slightly elongate, the impressions narrow, arcuate and feeble; palpi piceous; antennæ black, with paler basal joint, slender, half as long as the body, the third and fourth joints equal; prothorax a fourth or fifth wider than long, the parallel sides evenly and moderately arcuate, finely reflexed, only very little more so at base, the angles obtuse but with the tips well defined and not rounded; base arcuate at the sides, slightly wider than the rather deeply sinuate apex; both impressions are easily traceable though feeble, the stria fine, impressed; surface declivous to the fine reflexed margins; foveæ moderate, elongate-oval, rather well impressed and very feebly rugulose, the lateral surface nearly flat; elytra scarcely one-half longer than wide, not quite one-half wider than the prothorax, very feebly inflated behind the middle, the apex gradually ogival in nearly posterior half, the oblique sinus feeble; striæ unusually fine and shallow, smooth, only a little stronger at apex; intervals flat, the anterior puncture at the third, the posterior at the second, and the middle puncture axial in the type; met-episterna about twice as long as wide; anterior male tarsi extremely feebly dilated. Length ( $\sigma^7$ ) 6.5 mm.; width 2.3 mm. Montana (Kalispell),—Wickham. . . . . **humile** n. sp.

Form somewhat as in *humile* but stouter and with more impressed elytral striæ, especially toward the suture, the head and prothorax broader, shining, black, the elytra nearly black, having only the feeblest piceous tinge; under surface black, the epipleura and legs piceo-rufous; head elongate, two-thirds as wide as the prothorax, the eyes well developed but only slightly convex; surface smooth, with

a few feeble longitudinal plicæ at the sides, the anterior impressions short, shallow; antennæ black, distinctly more than half as long as the body; prothorax not quite a third wider than long, in general outline and other characters nearly as in *humile*, except that the basal foveæ are larger and more broadly impressed, finely and feebly rugulose; elytra oblong, rather convex, rounding in about apical third, the sides rapidly rounded at base, more so than in *humile*, two-fifths longer than wide, two-fifths wider than the prothorax; striæ not very fine, rather deep, smooth and impunctate, the intervals broadly convex, the striæ not so fine, smoother and deeper than in *humile*, the three dorsal punctures as usual; anterior male tarsi very narrow, scarcely at all dilated though squamulose beneath. Length (♂ ♀) 6.2–6.9 mm.; width 2.6–2.85 mm. Washington State (Wilbur),—Hyslop. Communicated by Mr. Wade. Four examples..... *insueta* n. sp.

- 12—Prothorax strongly transverse and with parallel and strongly rounded, broadly reflexed sides. Body stout and oblong, rather strongly convex, deep black throughout the body and all appendages, shining; head relatively small, but little over half as wide as the prothorax, slightly elongate and with prominent eyes; impressions elongate, slightly oblique; antennæ barely longer than the head and prothorax, the third joint just visibly shorter than the fourth; prothorax nearly one-half wider than long, parallel, widest at the middle, with strongly and evenly rounded sides, the angles very broadly rounded; base arcuate laterally, much wider than the deeply sinuate apex; impressions barely traceable, the stria fine; foveæ elongate, deeply impressed, sparsely punctate, the surface thence to the sides—which are but little more reflexed basally—nearly flat and sparsely punctate, the punctures extending along the reflexed side margins almost to the apex; elytra oblong, nearly three-fifths longer than wide, less than one-half wider than the prothorax, the nearly straight sides rounded basally; apex very rapidly obtuse, with rather short and feeble sinus; striæ fine, impunctate, impressed, strongly and more coarsely so at apex, the fifth indented at apical fifth; intervals broadly convex, the third with four or five punctures; met-episterna twice as long as wide; tarsi slender, deeply sulcate laterally. Length (♀) 9.4 mm.; width 4.0 mm. Minnesota (Duluth). A single example, taken by the writer..... *debiliceps* n. sp.

Prothorax but slightly transverse, generally widest somewhat before the middle. Pacific coast regions..... 13

- 13—Elytra notably short, about two-fifths longer than wide; surface obscurely æneous. Body short, oblong, only moderately convex, black, the appendages black, the palpi pallescent apically; surface shining, the elytra rather alutaceous; head rather large, fully three-fifths as wide as the prothorax, the eyes moderate, the impressions feeble; front with two feeble rounded impressions between the eyes; antennæ slightly less than half as long as the body; prothorax large, nearly two-fifths wider than long, the sides broadly arcuate, a little straighter basally, finely reflexed, but little more so basally,

the angles notably obtuse though bluntly evident; base arcuate laterally, wider than the deeply sinuate apex; surface with some feeble transverse rugulæ, the impressions barely traceable, the margins rather broadly declivo-explanate, not punctate; foveæ elongate, moderately impressed, the surface thence laterally with a feeble convexity; elytra barely a third wider than the prothorax, oblong, rapidly obtuse at apex, the sinus long and distinct; striæ fine, nearly smooth, not impressed and not much stronger apically, the ninth almost midway between the edge and the eighth; intervals wide, flat, the third with five or six punctures. Length (♀) 8.5 mm.; width 3.5 mm. California (Lake Tahoe).....**breviusculum** n. sp.

Elytra more elongate, at least one-half longer than wide.....14

14—Body notably small in size, slender. Rather convex, black, with obscure æneous lustre dorsally, polished; head scarcely longer than wide, with moderate eyes, four-sevenths as wide as the prothorax; front with two small deep punctiform impressions between the eyes; antennæ almost half as long as the body, the third and fourth joints equal; prothorax only about a fourth wider than long, with the sides subevenly and moderately arcuate throughout, though widest slightly before the middle; basal angles broadly rounded and subobliterated; edges finely reflexed, evidently more so about the basal parts; impressions shallow but evident, the stria fine, somewhat impressed; foveæ large, elongate and moderately deep, rugulose, traceable well beyond the middle; base barely wider than the moderately sinuate apex; elytra one-half longer than wide, scarcely two-fifths wider than the prothorax, gradually and evenly rounding in about apical third, the sinus distinct; striæ moderate, grooved, not quite smooth, only very little stronger at apex; intervals flat throughout the length and width, the third with about five punctures; mesosternum punctured laterally; met-episterna small, one-half longer than wide; anterior male tarsi distinctly dilated. Length (♂) 7.5 mm.; width 2.8 mm. Nevada (Reno). One example, taken by the writer.....**pertinax** n. sp.

Body larger, relatively more ventricose except in *atromicans*.....15

15—Body subparallel and feebly convex; prothorax swollen at the sides, which become notably oblique and straight in nearly basal half. Deep black and without trace of metallic lustre, the upper surface rather flat; head triangular, with somewhat large and prominent eyes, three-fifths as wide as the prothorax, the interocular foveiform impressions very small and feeble; antennæ nearly half as long as the body, the third and fourth joints equal; prothorax a third wider than long, widest and with well rounded sides near apical two-fifths; basal angles broadly rounded; side margins somewhat broadly reflexed throughout and obsoletely punctate; transverse impressions obsolescent; foveæ oval, rather deep, rugulose, not anteriorly prolonged, the surface thence toward the sides very distinctly and longitudinally swollen; elytra three-fifths longer than wide, between a third and two-fifths wider than the prothorax, rather rapidly obtuse at apex, with long and distinct sinus, the sides posteriorly rather widely declivo-deplanate and less shining;

striae moderate, grooved, smooth, not distinctly deeper apically; intervals flat, the third with five punctures. Length (♂) 8.5 mm.; width 3.1 mm. A single example, without label, from the Levette collection and possibly taken in Colorado. . . . . **atromicans** n. sp.

Body more or less ventricose and more convex, the prothorax more evenly rounded at the sides, sometimes slightly oblique behind the middle but never so conspicuously as in *atromicans*. . . . . 16

16—Form rather narrow and elongate (♂), much stouter (♀), deep black, the male more or less æneous above, shining, the female elytra feebly alutaceous; head rather elongate, much narrower than the prothorax, with large and rather prominent eyes, the two interocular punctiform foveæ obsolete; antennæ slender, nearly half as long as the body, the third and fourth joints subequal; prothorax parallel, with subevenly and very moderately arcuate, narrowly reflexed sides, which are slightly more reflexed at base, the angles very obtuse and broadly rounded; base arcuate laterally, but little wider than the rather deeply sinuate apex; impressions feeble to obsolete, the striae distinct; surface declivous toward the reflexed margins; foveæ elongate, sublinear, deeply impressed, feebly rugulose, traceable to or beyond the middle; surface between the foveæ and the sides flat; elytra parallel, three-fifths longer than wide, two-fifths wider than the prothorax, rather obtusely rounded at apex, with long and distinct sinus; striae moderate, grooved, nearly smooth, not deeper at apex; intervals very nearly flat throughout, the third with four or five punctures; anterior male tarsi very distinctly dilated. Female much stouter, blacker, not æneous, more ventricose; antennæ shorter, the prothorax shorter and broader, usually more oblique posteriorly; elytra not quite one-half longer than wide, rather more than one-half wider than the prothorax, the striae and intervals similar, the third interval with six punctures. Length (♂) 8.8–9.2, (♀) 9.0–9.6 mm.; width (♂) 3.1–3.4 mm., (♀) 3.6–3.8 mm. California (San Francisco to Humboldt and also Lake Tahoe). Abundant. [*Ag. famelicum* Mén. (♂), *brevicolle* Dej. (♀), *robustum* Mots.]. . . . **fossigerum** Dej.

Form in the female somewhat as in *fossigerum* (♀) but still a little stouter, deep black, shining, the elytra opaculate; head and antennæ nearly as in *fossigerum*; prothorax more quadrate, the sides less oblique behind the middle and evenly, moderately arcuate, only about a fourth wider than long, the basal angles broadly obtuse, rounded; base subequal to the deeply sinuate apex, more oblique at the sides than in the preceding; surface similarly with feeble transverse rugulæ, feeble impressions and fine median stria; foveæ more widely and feebly impressed, more rugulose and opaculate, with the bottom more finely linear, similarly traceable to the middle of the length; surface thence to the sides perfectly flat; side margins finely reflexed, a little more so at base; elytra nearly one-half longer than wide, not quite one-half wider than the prothorax, somewhat more gradually rounded behind, the sinus distinct; sides rather less rapidly rounded at base; striation nearly similar, the intervals slightly less flat, the third with five punctures; meso-

sternum finely, closely punctate in the concave lateral part; met-episterna nearly twice as long as wide. Length (♀) 9.2-9.6 mm.; width 3.75-3.8 mm. California (Sta. Cruz). Two examples, taken by the writer.....**vegetum** n. sp.

Form in the male relatively stouter and more ventricose than in the male of *fossigerum* and deep black throughout, smaller in size and with slightly shorter elytra, shining throughout, without trace of æneous lustre; head moderate, three-fifths as wide as the prothorax, slightly elongate, with somewhat prominent eyes, the impressions shallow, oblique posteriorly; antennæ a little less than half as long as the body in the male, the third joint just visibly longer than the fourth; prothorax only a fifth or sixth wider than long, faintly widest before the middle, the sides feebly arcuate, a little straighter posteriorly, finely reflexed, gradually a little more so basally, the angles broadly rounded; base scarcely wider than the feebly sinuate apex, strongly and obliquely rounded at the sides; latero-basal part not quite flat, finely punctate; foveæ linear, very deep, not anteriorly prolonged; elytra less than one-half longer than wide, two-thirds wider than the prothorax, very feebly inflated behind the middle, obtusely rounded at apex, with distinct sinus; striæ moderate, feebly impressed; intervals slightly convex, the third with four to five punctures; anterior male tarsi very distinctly dilated. Length (♂) 8.2 mm.; width 3.2 mm. Oregon (The Dalles),—Wickham.....**columbicum** n. sp.

Form shorter and stouter than in *fossigerum* and of smaller size, deep black in both sexes, the elytra shining in female as well as male; head somewhat as in the others of this section, but with the impressions feeble, irregular and scarcely determinable; front feebly rugulose laterally; antennæ about half as long as the body in both sexes; prothorax a fourth to third wider than long, widest at about the middle, the parallel sides moderately and subevenly arcuate, finely reflexed, gradually slightly more so basally, the angles obtuse and rounded, sometimes very broadly rounded and obsolete; base rounded and margined laterally, barely wider than the moderately sinuate apex; impressions obsolete, the stria fine; foveæ sublinear, deeply and broadly impressed, traceable to the middle, the surface thence to the sides rather conspicuously tumid; elytra about one-half longer than wide, subinflated posteriorly, two-fifths wider than the prothorax, rapidly obtusely rounded at apex, with long and very feeble sinus; striæ moderate, smooth, the intervals feebly convex, nearly flat in the female, the third with five or six punctures; anterior male tarsi moderately dilated, less widely than in *fossigerum*. Length (♂ ♀) 8.0-9.0 mm.; width 3.2-3.75 mm. California (Redwood Creek, Humboldt Co. and at Dunsuir, Siskiyou Co.). Five examples.....**tumidulum** n. sp.

The synonymy given under *harrisi* seems to be correct, but *carbo* Lec., may be something different, especially peculiar in the thoracic side margins, which are said to be extremely finely reflexed;

it is from the northern shore of Lake Superior. *Affine* Kirby, also seems to be different, as Kirby states that the thoracic margins are not reflexed at base and that the foveæ are large, deep and circular; it is 8 mm. in length and the locality is not recorded; it is said that the three dorsal punctures are placed as in *harrisi* and the species is doubtless closely allied. *Piceum* Lec., is a valid name in *Agonum*, as the previously described *Platynus piceus* Dej., is a true *Platynus*, with the elytra nearly twice as wide as the prothorax; so I have not adopted *propinquum*, substituted for it by Gemminger and Harold. The name *atratum* Lec., is however preoccupied in *Agonum*, and we must therefore adopt *mutatum* G. & H., which name was overlooked by LeConte in his Brooklyn revision. The name *molestum* Lec., is substituted above for *læve*, for, as this name had been used two or three times before, it is possible that some one of them may be valid in *Agonum*. In this case it may be necessary to change the name of *molestus* Mots., from Kamschatka. *Agonum metallescens* Dej., is a variety of *viduum*, noted by the author as occurring in Croatia; this it would appear must invalidate the name *metallescens* Lec., and I have therefore changed the latter to *lacustre*, as above.

In *fossigerum* Dej., there is a very exceptional sexual inconsistency in form and lustre, resulting in some synonymy as shown; *pertinax* is an allied but much smaller and still more slender species, differing, besides, in the notably shorter antennal joints. In *tumidulum* the form of the body is stouter than in *fossigerum*, the size smaller and the sexual differences less pronounced; it differs from either *fossigerum* or *vegetum* in having a pronounced protuberance of the surface between the pronotal foveæ and the sides. *Vegetum* differs from *fossigerum* in the feebly impressed pronotal foveæ and less oblique sides posteriorly. *Columbicum* is a smaller species, with shorter elytra and more abbreviated antennal joints; it has the surface between the foveæ and the sides nearly flat.

I have been unable to identify the species described by Dejean under the name *Agonum mærens*, and at first thought that *mordax*, described above, might be a correct determination of it, as the elytral striæ are similarly very fine and the intervals flat as stated by Dejean; but, the assertions that *mærens* has no suggestion of bronze tint, which is very apparent on the elytra of *mordax*, that

the thoracic sides are brownish and less rounded than in *melanarium* and that the hind angles are less rounded, from which it may be inferred that they are rather sharply defined, and further that the legs and antennæ are blackish-brown, seem to preclude any such identity. In dimensions *mærens* must be rather small, if measured correctly, although it was the habit of Dejean to understate, as it was of LeConte to overstate, these characters; *mærens* is said to be 7.5 by 3.3 mm. in length and width. Its exact habitat is unknown.

Group IV—*placidum*

Subgenus *Paragonum* nov.

The few species of this subgeneric group resemble some forms of the preceding subgenus in general characters, but the integuments are thinner and the pronotal foveæ are large, concave and extend to the sides, the strongly reflexed margin forming the outer wall of the foveæ, a structure wholly different from anything observable in *Melanagonum*. There are three very distinctly differentiated species and some minor taxonomic forms as follows:

Dorsal punctures of the elytra very fine, five in number, rarely four or six. Body oblong, moderately convex, polished black in the male, the female elytra alutaceous to subopaque; anterior parts sometimes faintly greenish; legs piceo-rufous; head rather small, with well developed and rather prominent eyes, the impressions short but deep and with finer oblique posterior prolongation; antennæ slender, half as long as the body or nearly, blackish-piceous, the basal joint pale, the third and fourth equal; prothorax a fourth to third wider than long, the sides parallel, evenly and rather strongly rounded and strongly reflexed, especially toward base, the edge very thin; angles broadly obtuse and rounded; base rounded laterally, distinctly wider than the deeply sinuate apex; anterior impression rather evident, the stria fine; foveæ large, concave, feebly rugulose, not prolonged anteriorly; elytra nearly three-fifths longer than wide, not quite one-half wider than the prothorax, very gradually rounded behind, with feeble sinus; striæ fine, smooth; intervals flat or nearly so, the three anterior punctures at the third, the two posterior at the second, stria; tarsi slender, the external sulcus deep, the anterior distinctly dilated in the male; hind wings well developed. Length (♂ ♀) 7.5–8.8 mm.; width 2.9–3.4 mm. Rhode Island to Lake Superior, Kansas, Colorado and New Mexico. Very abundant. [*Ag. morosum* Dej.]..... **placidum** Say

A—Closely related to *placidum* but a little larger and notably broader, the female elytra more densely opaque as a rule and more obtusely rounded at apex; hind body and met-episterna relatively less

elongate, the elytra (♀) not over one-half longer than wide. Length (♂ ♀) 8.0-8.8 mm.; width 3.1-3.7 mm. Colorado (Boulder Co.), New Mexico and northern Mexico.

**amplior** n. subsp.

B—Almost similar to *placidum* but smaller and rather less elongate, blue-black, the female elytra densely opaque; general characters as in *placidum*, the pronotal foveæ less deeply concave, with rather flatter floor and densely punctulate or minutely rugose; elytra nearly similar in outline, striation and dorsal punctures; anterior male tarsi distinctly dilated. Length (♂ ♀) 7.3-7.7 mm.; width 3.0-3.2 mm. Mexico (Amecameca). Three examples.....\***aztecanum** n. subsp.

C—Similar to *placidum* but narrower and relatively more elongate, with broader head and rather larger eyes; antennæ similar and with the third joint evidently longer than the fourth; prothorax nearly similar but not quite so abbreviated; elytra narrower, oval, about two-fifths wider than the prothorax, of a more brownish black than in *placidum*; striæ smooth, extremely fine, the intervals perfectly flat, the four dorsal punctures very fine, the two anterior at the third, the others at the second, stria. Length (♂) 7.8 mm.; width 2.75 mm. New Hampshire.

**citatum** n. subsp.

Dorsal punctures three in number and less minute.....2

2—Form oblong, rather more convex, highly polished throughout, deep black, the thoracic reflexed margins feebly diaphanous; legs and tarsi deep black; elytra not in the least less polished in the female; head rather small, slightly more than half as wide as the prothorax, elongate, with well developed and very prominent eyes; impressions as in *placidum*; antennæ very slender, more than half as long as the body, black, the basal joint piceous, the third and fourth equal; prothorax exactly as in *placidum* in outline and in the strongly reflexed margins, the basal angles more definite though obtuse; base, apex and general surface similar, except that the large and deeply concave foveæ are nearly smooth and rather more traceable anteriorly; elytra three-fifths longer than wide, one-half wider than the prothorax, gradually rounded behind, the sinus long and evident; sides somewhat rapidly rounded at base; striæ very fine, scarcely different at apex and with very minute and close-set punctulation throughout; intervals flat or nearly so, the anterior puncture near the third, the two posterior near the second, stria; met-episterna twice as long as wide; tarsi very slender, with coarse deep sulci. Length (♀) 7.7-8.7 mm.; width 2.8-3.3 mm. Alabama (Salco and Mt. Vernon),—Löding.....**collare** Say

Form less stout, moderately convex, bright metallic green throughout above, shining, the elytra somewhat less so; under surface and epipleura greenish-black; legs dark rufous, the tarsi blackish; head moderately elongate, much narrower than the prothorax, with well developed and prominent eyes, the impressions deep and parallel but irregular; palpi blackish; antennæ black, with piceous basal joint, slender, fully half as long as the body, the third and fourth



joints equal; prothorax between a third and fourth wider than long, widest near the middle, with distinctly arcuate and strongly reflexed sides, which become straighter and widely reflexed basally, the angles somewhat evident, obtuse and rather blunt; base fully as wide as the deeply sinuate apex, arcuate and oblique laterally; surface with rather deep transverse rugulæ, the anterior impression feeble, the stria strong, abbreviated at base; basal region and foveæ sparsely but evidently punctulate, the foveæ large, deeply concave, not anteriorly prolonged; elytra oblong, one-half longer than wide, barely one-half wider than the prothorax, very gradually ogival behind, the sinus shallow; sides rapidly rounding at base; striæ not very fine, grooved, finely, closely punctulate throughout, not deeper at apex; intervals flat throughout, the three punctures distinct; ninth stria half as far from the edge as from the eighth; anterior male tarsi pallid, moderately dilated. Length (♂ ♀) 7.8–8.2 mm.; width 3.0–3.1 mm. Canada (Regina),—Willing; Wyoming (Cheyenne),—Leng. Nebraska,—LeConte. [*Pl. subcordatus* Lec.].

*errans* Say

The various subordinate forms of *placidum* can be defined satisfactorily only after prolonged study, with ample material. One specimen, from Rhode Island, is the smallest known to me and has the antennal joints evidently more abbreviated; it is not included in the measurements under *placidum*, being only 6.9 mm. in length.

The species identified as *errans* above, seems to be typical in all respects, except the form of the hind thoracic angles; these are said to be rounded by Say, and LeConte states that they are "obtusis rotundatis" in both *errans* and *subcordatus*. In LeConte's Nebraska specimen of *errans*, the elytral striæ are said to be "absolutely without punctures," while in the type of *subcordatus* they are described as finely punctured toward base. In the Wyoming specimen here identified as *errans*, the basal thoracic angles are much more than right, in fact notably obtuse, but their tips are sharply defined and not so blunt as in *collare*. In *Agonum erythropus* Kirby, the body is said to be bronzed above, the prothorax obcordate, tinted with copper and with rounded hind angles, the legs dusky rufous.

#### *Europhilus* Chd.

There is a peculiarity of habitus that renders any member of this genus recognizable at a glance. The form is notably elongate, with the surface distinctly convex, and the prothorax is impunctate, having very moderate smooth foveæ and finely reflexed margins;

the elytra have fine smooth striæ and more than three small dorsal punctures; the met-episterna are moderately elongate, the tarsi long and very slender, with the lateral sulci narrow. Lastly, but most important of all as a distinguishing character, the pubescence of the antennæ begins on the third joint, which is longer than the fourth; this joint is completely glabrous in all the preceding types of the subfamily. The genus seems to be widely distributed throughout the northern hemisphere and is well represented in the European fauna. Our species, so far as known to me at present, are as follows:

- Sides of the prothorax at base only very feebly and narrowly reflexed... 2  
 Sides at base more strongly reflexed... 5
- 2—Eyes very prominent, the tempora behind them long. Body rather slender and only feebly convex, moderately shining, pale reddish-brown, the head black; under surface piceo-rufous, the legs and epipleura flavate; head elongate-rhomboidal, rather longer than the prothorax and four-fifths as wide; impressions broad and shallow; antennæ slender, three-fifths as long as the body, slightly fuscous, but paler testaceous basally; prothorax slightly elongate, parallel, with broadly and subevenly arcuate, finely reflexed sides, though widest before the middle; angles very broadly rounded; surface with some feeble transverse rugulæ, the anterior impression evident and the stria subentire; foveæ smooth, moderate, linear, broadly and very feebly impressed; sides slightly more reflexed basally though well separated from the foveæ; elytra nearly three-fifths longer than wide, fully twice as wide as the prothorax, parallel, the sides rapidly rounding at base; apex gradually rounding, the sinus short, distinct; striæ fine but sharp and deep, smooth; intervals not quite flat internally, the third with four moderate punctures, the first two near the third, the others near the second, stria; anterior male tarsi very moderately dilated. Length (♂) 6.8 mm.; width 2.3 mm. Texas (Galveston). A single example, taken by the writer..... **galvestonicus** n. sp.
- Eyes not or but slightly prominent, the tempora shorter; head relatively narrower as a rule..... 3
- 3—Body black, more convex, the elytra generally obscurely piceous, the legs piceo-rufous. Head slightly elongate and three-fourths as wide as the prothorax, the impressions narrower and deeper than in the preceding, the antennæ very slender, black, with the basal joint picescent, more than half as long as the body; prothorax about as long as wide and widest before the middle, the sides anteriorly strongly rounded, straighter and more oblique posteriorly, very finely reflexed throughout, with the angles broadly rounded; surface smooth, moderately and very evenly convex, the two impressions obsolescent, the fine stria feebly impressed; base nearly as wide as the moderately sinuate apex; foveæ narrow and linear but extremely

feeble, smooth: elytra one-half to three-fifths longer than wide, two-thirds wider than the prothorax, the sides rapidly rounding at base; apex gradually rounding, the sinus feeble; striæ rather fine but sharply grooved, smooth; intervals flat, the third with four or five punctures; anterior male tarsi, very moderately though distinctly dilated. Length ( $\sigma^7$  ♀) 7.0-7.3 mm.; width 2.4-2.6 mm. Lake Superior (Bayfield and Marquette) and Ontario (Toronto).

**picipennis** Kirby

Body and legs piceo-testaceous or paler, the head deep black. . . . . 4

4—Elytra notably narrow and elongate, much more than one-half longer than wide. Form elongate-oval, rather convex, smooth, shining throughout in both sexes, the color piceo-testaceous; head deep black, elongate-oval, nearly three-fourths as wide as the prothorax; eyes large but not prominent, the impressions linear, feeble; antennæ very slender and filiform, nearly three-fifths as long as the body, blackish, with paler basal joint; prothorax about as wide as long, parallel, widest at the middle, with evenly and moderately arcuate and finely reflexed sides, the angles broadly rounded; apex about as wide as the base, only feebly sinuate; impressions subobsolete, the stria fine; foveæ short, linear, broadly and feebly impressed, smooth; elytra oblong-oval, three-fourths wider than the prothorax, the sides gradually rounded at base; apex gradually rounded, with short and feeble sinus; striæ very fine, smooth; intervals flat or nearly so, the third with about four very small punctures; scutellar stria long and fine as usual in this genus; anterior male tarsi very feebly dilated. Length ( $\sigma^7$  ♀) 6.0-6.8 mm.; width 2.2-2.35 mm. New York (Lake Champlain) and Lake Superior (Marquette). Maine and Lake Superior,—LeConte. . . . . **lutulentus** Lec.

A—Nearly similar to *lutulentus* but still narrower and of a paler brownish-flavate color, the head deep black, narrower; prothorax narrower, slightly elongate, otherwise almost similar, the foveæ still more feebly impressed; under surface of the hind body deep black, excepting the pale side-pieces of the mesosternum and the last ventral segment, which are abruptly pale, the prosternum, epipleura and legs very pale rufo-flavate; in *lutulentus* the last abdominal segment is not so abruptly pale. Length ( $\sigma^7$ ) 6.4 mm.; width 2.1 mm. New Jersey. . . . . **elegantulus** n. subsp.

B—Form still narrower, very much narrower than *lutulentus* and pale brownish-flavate in color, the under surface and legs similarly pale, the basal and lateral parts of the abdomen blackish; prothorax still narrower, distinctly elongate; elytral striæ very fine and rather shallow, the intervals flat. Length ( $\sigma^7$  ♀) 5.4-6.4 mm.; width 1.8-2.2 mm. Indiana,—Levette collection.

**adustus** n. subsp.

Elytra much less narrow, about one-half longer than wide. Form broader, rather convex, shining, pale brownish-flavate, the head black; under surface and legs very pale, the metasternum and side-pieces and a medio-basal abdominal area blackish; head more elongate, somewhat longer than the prothorax, otherwise nearly

similar; antennæ piceous, gradually testaceous basally; prothorax as wide as long, nearly as in *lutulentus* throughout but relatively smaller, the apex less sinuate and the basal angles not quite so broadly rounded; elytra relatively wider, twice as wide as the prothorax, oblong-oval, the sides more arcuate; striæ similarly very fine but more impressed and, toward the sides, tending more to micro-disintegration; intervals slightly convex, except laterally, the four punctures of the third larger than in any of the preceding related forms; tarsi very slender but shorter than in the preceding. Length (♀) 5.8 mm.; width 2.25 mm. Massachusetts.

**atricæ** n. sp.

- 5—Elytral striæ distinctly impressed, the intervals convex. Rather stout, somewhat convex, polished, black, the elytra seldom with trace of picescence; legs obscure rufous; head slightly elongate, much narrower than the prothorax, the eyes very moderately convex; antennæ slender, half as long as the body, blackish, the basal joint only slightly less so; prothorax very nearly as long as wide, widest near the middle, the well rounded sides less arcuate and more oblique basally, the angles broadly rounded; base not quite as wide as the rather deeply sinuate apex; margins distinctly reflexed, more broadly so basally; surface with feeble transverse rugulæ, the impressions feeble; foveæ rather long, deeply impressed, smooth, distinct in basal two-fifths; elytra shorter and broader than usual, scarcely one-half longer than wide, three-fourths wider than the prothorax, feebly inflated posteriorly; sides not very rapidly rounding at base; apex gradually broadly rounded, the sinus small and feeble; striæ notably impressed, smooth; intervals convex, less strongly in the female, the third with five punctures; anterior male tarsi feebly though distinctly dilated; met-episterna less than one-half longer than wide. Length (♂ ♀) 7.8–8.2 mm.; width 2.6–2.8 mm. New York (Lake George),—Prof. Kemp. Seven examples. . . . . **retractus** Lec.

Elytral striæ finely grooved as a rule, the intervals flatter, sometimes feebly convex. . . . . 6

- 6—Sides of the elytra barely at all more arcuate basally. Body small, shining, rather convex, piceous-black, the pronotum piceous; the legs, epipleura and entire elytra bright testaceous; head deep black, only slightly longer than wide, fully two-thirds as wide as the prothorax; the eyes large but only slightly prominent; antennæ only moderately slender, three-fifths as long as the body, fusco-testaceous, the three or four basal joints clearer; prothorax very nearly as long as wide, with parallel and almost evenly arcuate, moderately reflexed sides, somewhat more reflexed basally, the angles very broadly rounded; apex feebly sinuate, barely broader than the base; surface smooth, the stria fine, impressed; foveæ sublinear but broadly and extremely feebly impressed; elytra short, scarcely one-half longer than wide, four-fifths wider than the prothorax, rather inflated posteriorly and gradually narrowed basally; apex obtusely rounded, the sinus feeble; striæ not very fine, smooth, distinctly impressed, the intervals feebly convex, the third with about

- four small, feeble and indistinct punctures; anterior male tarsi narrowly dilated. Length ( $\sigma^7$ ) 6.0 mm.; width 2.35 mm. Montana,—Knaus.....**collusor** n. sp.
- Sides of the elytra distinctly more rapid in curvature at base.....7
- 7—Species of rather large size for the present genus.....8
- Species smaller.....9
- 8—Form elongate-suboval, rather convex, deep black and polished, the elytra dark piceous, under surface black, the legs and epipleura pale; head elongate-suboval, much narrower than the prothorax, the eyes not prominent; antennæ rather more than half as long as the body, the first joint rufous, two to four blackish, the remainder pale ferruginous; prothorax as long as wide, with moderately arcuate and rather strongly reflexed sides, becoming more oblique and less rounded posteriorly, still more reflexed basally, where they form the outer wall of the rather large and smooth, irregularly sublinear impressed foveæ; apex feebly sinuate, with very blunt angles, rather wider than the base, the basal angles broadly rounded as usual; surface with some short transverse rugulæ and a fine impressed median stria; elytra oblong-oval, nearly three-fifths longer than wide, three-fifths wider than the prothorax, obtusely rounded at apex, the sinus rather long and evident; striæ fine, smooth; intervals almost flat, the third with four—sometimes five—small punctures; met-episterna small, not one-half longer than wide. Length ( $\varphi$ ) 7.5 mm.; width 2.8–2.9 mm. N. Dakota (Devil's Lake),—Wickham; also one from British Columbia (Vernon) and another labeled "Kansas.".....**symmetricus** n. sp.
- Form elongate-suboval, convex, polished, black, the elytra barely at all less black, the legs obscure rufous; head less elongate and with more prominent eyes; antennæ slender, fully half as long as the body, the first four joints blackish, the remainder brownish-ferruginous; prothorax subquadrate, apparently somewhat longer than wide, the parallel sides evenly and moderately arcuate and strongly reflexed, more so basally, the angles broadly rounded; foveæ smaller, sublinear but broadly and very feebly impressed; apex not wider than the base, feebly sinuate, with very blunt angles; median stria entire; elytra three-fifths longer than wide, two-thirds wider than the prothorax, more evenly rounded at apex than in the preceding, the sinus rather distinct; striæ finer, in fact extremely fine, smooth, the intervals flat, the third with about four very minute punctures; met-episterna slightly more elongate; tarsi similarly very slender, with two rather coarse grooves. Length ( $\varphi$ ) 8.0 mm.; width 2.9 mm. New Hampshire (Durham).
- properans** n. sp.
- 9—Form unusually stout, rather convex, shining as usual in both sexes, black, the reflexed thoracic margins faintly piceous, the elytra dark piceous; under surface black, the epipleura and legs rufous; head two-thirds as wide as the prothorax, only slightly elongate, the eyes moderate in size and prominence; antennæ very slender and filiform, having unusually elongate joints, fully three-fifths as
- T. L. Casey, Mem. Col. IX, Jan. 1920.

long as the body, fuscous, clearer testaceous basally; palpi testaceous, the last two joints black; prothorax almost as long as wide, with arcuate and moderately reflexed sides, slightly more oblique basally, the angles broadly rounded; margins distinctly more reflexed at base, the foveæ linear, distinctly impressed, smooth, extending through basal two-fifths; base about equal in width to the apex, which is distinctly sinuate; elytra oblong-suboval, barely one-half longer than wide, one-half (♂) to three-fourths (♀) wider than the prothorax, the subparallel sides unusually arcuate; apex gradually rounded, with very feeble sinus; striæ rather fine, sharply grooved, smooth, feebly impressed; intervals slightly convex internally, the third with four or five punctures; met-episterna one-half longer than wide; anterior male tarsi very pale, slightly dilated. Length (♂ ♀) 6.4-7.0 mm.; width 2.4-2.8 mm. Rhode Island (Boston Neck).....*facilis* n. sp.

Form less stout, elongate-suboval, rather convex..... 10

10—Color black, the elytra often paler and piceous, the thoracic margins finely diaphanous; under surface black, the epipleura piceous, the legs paler, rufous; head rather elongate, much narrower than the prothorax, the eyes large but not prominent; antennæ slender, more than half as long as the body, the basal joint dark rufous, the next three black, the remainder pale brownish-ferruginous; prothorax fully as long as wide, the sides moderately rounded, more oblique but still arcuate posteriorly, moderately reflexed, rather broadly so at base, the angles broadly rounded; foveæ linear but very broad and shallowly impressed; median stria fine, entire, feebly impressed; apex as wide as the base; elytra elongate-oval, slightly more than one-half longer than wide, one-half to two-thirds wider than the prothorax, gradually and subevenly rounded behind, with evident sinus; striæ fine, smooth, slightly impressed; intervals feebly convex internally, virtually flat in the female, the third with four or five small punctures; anterior male tarsi moderately dilated, with the joints unusually elongate-oval, bistriate above as well as along the sides. Length (♂ ♀) 7.0-7.4 mm.; width 2.3-2.6 mm. Rhode Island and New Jersey to Lake Superior (Bayfield and Duluth). Abundant. [*Ag. picipenne* var. C, Kirby; *gratosum* Mann. (Lec.); *ruficorne* Lec.].....*lenis* Dej.

Color black, the elytra, epipleura and legs pale rufous; surface shining; form narrower than in the preceding; head elongate-rhomboidal, much narrower than the prothorax, the eyes rather large and slightly prominent; antennæ very slender and filiform, fusco-testaceous, clearer at base, almost two-thirds as long as the body; palpi pale, the last two joints infuscate; prothorax as long as wide, or wider (♀), the sides subevenly arcuate and rather finely reflexed, somewhat more so at base though not at all conspicuously; basal angles broadly rounded; median stria fine, subentire; foveæ rather small, linear, broadly and feebly impressed, smooth; base and apex about equal, the latter very moderately sinuate; elytra three-fifths longer than wide, two-thirds to four-fifths wider than the prothorax, gradually rounding behind, with the sinus extremely faint; striæ

smooth, not very fine, sharply and deeply grooved; intervals feebly convex in both sexes, the third with the usual four to five punctures; anterior male tarsi differing greatly from those of *lenis*, being much more slender, with the less elongate joints smooth above. Length (♂ ♀) 5.5–6.5 mm.; width 1.8–2.2 mm. Long Island, Pennsylvania, Indiana and northern Illinois. . . . . ***elongatulus*** Hald.

Color black, the elytra rufo-piceous; under surface black, the epipleura and legs bright rufous; size much smaller, moderately convex; head slightly elongate, much narrower than the prothorax, with scarcely at all prominent eyes; antennæ rather thicker than usual and with much shorter joints than in any of the preceding, pale flavo-ferruginous throughout, half as long as the body; prothorax slightly shorter than wide, the moderately arcuate sides rather narrowly but sharply reflexed, evidently a little more so at base; angles broadly rounded; base and apex subequal; foveæ irregularly linear, broadly and rather deeply impressed; elytra smaller than usual, not over one-half longer than wide, more or less obviously dilated behind, three-fourths wider than the prothorax; apex gradually rounded, the sinus shallow but evident; striæ not very fine, deeply grooved, smooth; intervals feebly convex, the third with four punctures; met-episterna small, not one-half longer than wide; anterior male tarsi narrowly but distinctly dilated, the joints not much elongated. Length (♂ ♀) 5.5–6.0 mm.; width 2.0–2.3 mm. Lake Superior (Bayfield and Duluth). . . ***serenus*** n. sp.

The species described above as *galvestonicus* is normal so far as generic structure is concerned, but it differs from the more northern types in the much more prominent eyes and more depressed upper surface. There seem to be a number of forms related more or less closely to *lutulentus*, this type being peculiar in the pallid coloration of the body, with very black head, which prompted LeConte to place *nigriceps* in their vicinity in his treatment of the subfamily. There is no close affinity, however, *nigriceps*, by antennal structure, pertaining to a different generic group; it is assigned to the special genus *Platynomicrus* above.

*Retractus*, as represented by the Lake George examples above described, seems to be identified correctly, although in these New York specimens the upper surface is deep black throughout, the elytra not evidently picescent, as intimated of the Lake Superior types. *Elongatulus* is made a synonym of *picipennis* by LeConte, but it differs in its smaller size, still more slender outline, paler elytra and antennæ and more obviously, though by no means strongly, reflexed basal part of the thoracic margin; the anterior male tarsi are of the usual type and not aberrant as they are in *lenis* Dej.

While these pages were passing through the press, there appeared an article by Mr. Notman (J. N. Y. Ent. Soc., XXVII, p. 225), in which two new species of *Platynus* were described. I have been unable to identify *imitans*, even approximately, but *foveiceps* is, as stated, probably allied to the Californian *Agonum fossigerum*; it differs from anything known to me in the rugose surface of the head and pronotum. The swelling of the surface outside of the basal thoracic foveæ, is a feature frequently observable in the *fossigerum* group, becoming rather conspicuous in *tumidulum*, where however, the pronotal surface is very smooth and shining.



## II—RANDOM STUDIES AMONG THE AMERICAN CARABOIDEA

The following isolated studies and generic reviews, together with the preceding more monographic work covering the greater part of the Platyninæ, nearly completes the systematic treatment of our Carabidæ which I planned many years ago. The chief delinquents in my collection now are the Clivinids and the genus *Brachinus*, and these still remain in great part unidentified or even specifically discriminated. Any efficient revision of *Brachinus* is impracticable in the absence of direct comparisons with the types, and this, because of their wide geographic dispersal, is a rather hopeless task; there is such an extreme uniformity of design among the species—of nearly the same kind as in *Galerita*—that the original descriptions must be considered in many cases quite ineffectual for purposes of identification.

I have alluded previously (Mem. Col., VII, p. 2) to the iridescence frequently observable on the elytra of the Carabidæ, and have stated that it is generally produced by a grating of very fine parallel lines, producing a spectrum. This is often very conspicuous on the elytra in the genus *Loxandrus*, the spectrum, with red at one end and blue and violet at the other, moving forward along the elytra when these are tilted at continually greater angle. Prof. A. A. Michelson having investigated the metallic coloration of insects, became interested on hearing this, and I gave him a specimen of *Loxandrus saphyrinus*. Shortly thereafter I was informed by Prof. Michelson, that he had examined the elytral sculpture of this species and had found a regular optical grating, with lines about 1000 per mm., or 25000 to the inch.

### CICINDELIDÆ

On comparing the series of *Cicindela boulderensis* and *punctulata* in my collection, consisting of 25 and 27 specimens respectively, it can be seen at a glance that there are two distinct species involved; *punctulata*, occurring in abundance from Rhode Island

to Texas, is smaller and narrower than *boulderensis*, which is found in almost equal abundance in the Rocky Mountain region from Manitoba to Colorado. *Prolixa* Csy., from the flatter eastern part of Colorado, is about twice as large as *punctulata* and is very much more elongate even than in *boulderensis*. These three form a section, distinguished by constant absence of pronounced metallic coloration, and I have no doubt that *chihuahuæ* Bates (*micans*), represented before me by equally large series from Kansas, Texas, New Mexico and Colorado, is a perfectly distinct species, having not only strong metallic coloration, varying from deep purplish-blue to pale coppery-green, but with the punctures coarser on the whole and roughly burred. *Fontinaria*, very much smaller and narrower than *chihuahuæ*, is in some respects intermediate between the *chihuahuæ* and *boulderensis* types, having the smooth and almost burrless punctures of the latter and a modification of the metallic coloration of the former—more dullish coppery however throughout, but its distinctness as a species is shown by its small size and complete white humeral lunule.

There are considerable groups of species in *Cicindela* having practically identical markings, and on superficial study these are too often placed together as single species, with attached varieties or subspecies. One of these groups is that comprising *tortuosa*, *sigmoidea* and *serpens*, with a few others; *tortuosa* is of shorter and heavier build than the Pacific coast *sigmoidea*, with blacker ground color and relative deficiency of marginal pale marking; the two can of course be considered as mutually related subspecifically, but I can see no useful gain to taxonomy by this assumption; the probabilities are that they would not interbreed; but, in regard to *serpens* Lec., there can be no doubt in my opinion as to its real specific value; it is scarcely half the size of the other two, much more slender and especially with a narrower prothorax. Mr. Löding, of Mobile, was kind enough to send me very lately three examples of *Cicindela severa* Laf. On comparing the females with a female of the true *severa* in my collection, from Texas, it can be noted at once that the Alabama specimens do not conform very well and appear to constitute a subspecies as follows:

*Cicindela severa* ssp. *alabamæ* nov.—Female narrower and a little smaller than the female of *severa* and blacker, with scarcely a trace of

the feeble cupreous-green lustre of the latter; sculpture and ornamentation similar; elytra angulate at apex, the angle rounded at the suture and not broadly, subevenly rounded throughout as in *severa*. Length ( $\sigma^7$  ♀) 12.0–13.4 mm.; width 4.33–4.65 mm. Alabama (Codon), —Löding.

The labrum is piceo-flavate as in *severa*. The dimensions of the *severa* female are 15.0 by 5.0 mm.

## CARABIDÆ

### *Omophron* Latr.

The probabilities are that this genus should be separated from the Carabidæ and placed between that family and the Dytiscidæ, but this assumption should not be based entirely upon the peculiar rotund form of the body, for the Lebiid genus *Cyclosomus* Latr., resembles *Omophron* very much in this respect. Possibly a study of the larva would be decisive in coming to a conclusion in regard to the relationships of *Omophron*. The following is a new form recently received, for which a name would seem to be desirable:

***Omophron lengi*** n. sp.—Outline rather broadly elliptical, convex, shining, pale flavo-testaceous, the dark areas of the upper surface with green metallic lustre; head slightly more than half the basal thoracic width, the eyes large and somewhat prominent; surface with sparsely punctate green-black base, the more anterior flavate part perfectly smooth and broadly, angularly emarginating the dark basal part as in *americanum*, *texanum* and allied forms; antennæ pale, slender, rather longer than the thoracic width; mandibles blackish distally; prothorax fully two and one-half times as wide as the median length, the sides moderately converging from base to apex and feebly arcuate, the acute apical angles abruptly very prominent; punctures coarse, widely spaced and rather uneven, the surface flavate, suffusedly and broadly darker medially from base to apex, and with a transverse metallic fascia abbreviated at each side; elytra of the usual outline, slightly longer than wide, between three and four times as long as the prothorax and, near basal fourth, evidently wider, flavate, the base, dilated externally but not attaining the sides, metallic-black; suture with short angular scutellar region, a transverse oval spot at one-third, another transverse area at four-sevenths, with a hastate prolongation toward apex, green-black, a large rounded sublateral spot at basal third and a smaller one near apical fourth, connected with the post-median transverse sutural spot, also of the same color; striæ coarse, deeply impressed, fifteen in number and coarsely and deeply punctate. Length ( $\sigma^7$ ) 6.0 mm.; width 4.0 mm. South Carolina.

The type was sent to me some years ago by Mr. Chas. W. Leng.

The species is related to *texanum* and *lacustre*, but the ground color is much paler, the dark spots being thus more clearly isolated, and the strial punctures are much coarser, closer and deeper. In coarseness and closeness of strial punctuation it is almost similar to *americanum*, but the body is much larger and the elytral spots more isolated. *Texanum* and *lacustre* are mutually closely allied, differing from *americanum* in the larger size and much broader outline and in the finer and less close-set and less coarsely punctured striae; *texanum* has the elytra somewhat the shorter, with the sides basally more strongly rounded or inflated.

The following species may be placed near *solidum*:

**Omophron illustre** n. sp.—Evenly elliptic, convex and shining, the dark areas above with bright green metallic lustre; head more than half as wide as the prothorax, the green basal area sparsely but distinctly punctate and deeply, angularly emarginated by the anterior smooth piceo-testaceous area; antennae slender and flavo-testaceous; prothorax more than twice as wide as long, the sides moderately converging and very evenly arcuate from base to apex; surface broadly and feebly concave along the sides, strongly punctate, less closely toward the middle of the length; metallic green, pale along the sides, extending inward a short distance at apex, without other pale areas; elytra broadly semi-elliptic, barely longer than wide, the sides very evenly arcuate and sub-continuous with those of the prothorax; green metallic area very large and almost unbroken, the narrow pale margins prolonged inward in a broad and very irregular fascia near the base to the second stria, and, obliquely and broadly extending inward at apex; otherwise the large green area has only about two very small detached external spots; striae 15 in number, not coarse or much impressed, the punctures relatively small and widely separated. Length (♀) 6.3 mm.; width 3.8 mm. Utah (Vineyard),—Spalding.

This very distinct species may be placed near *solidum*, but it differs greatly in its less broadly and still more evenly elliptic outline, in the finer elytral striae, with much smaller, widely separated punctures, and the brighter green lustre of the dark dorsal areas.

#### **Elaphrus** Fabr.

Among the small and densely punctate species of this genus there seems to be some confusion; *punctatissimus* and *sinuatus* of LeConte and *intermedius* Kirby, are the same as *ruscarius* Say; *gratiosus* Mann. from Kenai, Alaska, having the ocellate elytral foveae violaceous, is evidently a distinct variety or is perhaps specifically

valid; *similis* Lec., from the vicinity of Long's Peak, is also a subspecies of *ruscarius* and not a synonym. The species described by Mannerheim as *californicus*, which has been omitted from our lists, but usually considered the same as *riparius* L., is a perfectly valid species, allied to *riparius*, and as I see from a European specimen of the latter at hand, is of similar outline and nearly similar sculpture, but in *riparius* the epipleura of the elytra are gradually narrowed from base to about the middle, with even internal outline, while in *californicus*, of which I have a considerable series from Lake Co., California to Washington State, the epipleura are obtusely angulate within near basal third, thence more rapidly narrowing behind. Besides this rather radical difference, the prothorax in *californicus* is scarcely as wide as the head, not wider than long, more strongly, loosely and irregularly punctured than in *riparius* and with deeper impression and consequently more irregular surface, the sublateral foveæ being especially distinct; in *riparius* the prothorax is wider than long and with comparatively even, finely and densely punctured surface, and is about equal in width to the head.

The following species is a little larger and relatively much broader than *californicus*:

***Elaphrus finitimus*** n. sp.—Moderately convex, ventricose, obscurely cupreous, the under surface bright green; legs obscure, the tarsi, base and apex of the tibiæ and most of the femora green, the posterior femora testaceous in nearly basal half, the others pale only at base; head scarcely as wide as the prothorax, with the usual prominent eyes, the surface densely punctulate, the sculpture centrally feebly, unevenly, longitudinally strigilate; antennæ short, black, with greenish lustre basally; prothorax evidently wider than long, relatively larger than in *californicus*, constricted basally, the sides prominently rounded; base as wide as the apex; surface finely, closely punctate throughout, the sublateral median pit distinct; median furrow short, deep, broadly bifurcate anteriorly; elytra closely punctulate, a third longer than wide, a little less than twice as wide as the prothorax, the obtuse humeral angle rounded, the sinus between basal third and fourth short and feeble, widest behind the middle, obtusely ogival behind; foveolæ large, well impressed, densely punctate, green, the central elevation large, feeble and obscure, the foveolæ in four series as usual and connected axially in some cases by more shining elevations, of which one near the suture and basal third is very large, smooth and polished; under surface densely punctate, the abdomen smooth except laterally. Length (♀) 7.0 mm.; width 3.3 mm. California.

The inner margin of the epipleura is angulate as in *californicus*. The general character of the sculpture much more closely resembles that of *californicus* than *riparius*, where the pronotal surface is much more even, and the small darker convexity at the centre of the elytral foveolæ much smaller; there is no trace of the strigilate patch at the centre of the front in *riparius* and barely any trace of it in *californicus*.

The following species also belongs to this *riparius* section of the genus, but differs greatly in its relatively broader form and sharply angulate humeri:

**Elaphrus hesperius** n. sp.—Form more abbreviated than in *riparius*, *californicus* or *finitimus*, with especially shorter hind body, paler and subcupreous-brown in color, dull in lustre, the few elevations of the elytra, which are disposed as in the preceding, polished black; foveolæ large, rather shallow, annulate and greenish, with the central umbo very large, feebly convex and more obscure in color; entire upper surface finely and very densely punctured; under surface greenish-æneous, less finely and less densely punctured than the upper surface, the abdomen smooth medially; legs as in the preceding; head as in *finitimus*, except that the central feeble convexity never has more than a trace of strigilation; antennæ rather short and thick, the three smooth basal joints feebly metallic; prothorax a fifth wider than long—sometimes fully a fourth, the general outline as in *finitimus*, the surface more densely punctate, less uneven, the sublateral pit being wholly obsolete, and having about three small rounded areas at each side, in which the color is dull steel-blue; median line tumid at apex and base; striate at the middle, the divaricate impression obtuse; elytra but little over a fourth longer than wide, widest, slightly inflated and not quite twice as wide as the prothorax at about the middle, gradually but very obtusely rounded behind; humeral angles very obtuse but sharply defined, the sinus near basal fourth deep, rounded and conspicuous. Length (♂ ♀) 6.2–7.0 mm.; width 3.15–3.4 mm. California (Humboldt to S. L. Obispo Co.). Eleven specimens.

I believe that both sexes are represented in the series at hand, but scarcely any sexual differences in structure are visible, the anterior tarsi of the male are a little shorter than in the female but only just visibly less slender. In the eastern *ruscarius* Say, which belongs to this section of the genus, the prothorax is distinctly narrower than the head, and the irregularities of the elytral surface are more effaced, the sinus behind the humeri distinct and the humeral angles rounded; the tibiæ are paler in color; *lecontei* Cr. (*intermedius* || Lec.), from Utah, also belongs to this section of the

genus but is larger, with more transverse prothorax and relatively small head.

The following species is allied rather closely to *lecontei*:

***Elaphrus devinctus*** n. sp.—Feebly convex, with rather broad hind body; color obscure bronze above, cupreous beneath, metallic green along the median parts and the entire abdomen; legs as in *lecontei*; head distinctly narrower than the prothorax, finely, densely punctate, minutely rugulose between the eyes; antennæ short and thick, nearly as in *lecontei*; prothorax shorter, fully a third wider than long, the prominently rounded sides becoming abruptly parallel in basal fifth; surface finely, very densely punctate, feebly and transversely biimpressed toward the sides, the fine median stria greatly biabbreviated; elytra a third longer than wide, four-fifths wider than the prothorax, gradually broadly rounded behind, the parallel and broadly arcuate sides with a small distinct sinus just behind basal fourth; surface finely, very densely punctate, the large foveæ of the four series very distinctly defined; central umbones minute but evident, each surrounded by a more obscure dark ring, the foveæ separated longitudinally by small and somewhat elevated polished spots, the one at the suture just before the middle much the largest and oblong; tarsi slender, bright metallic green. Length (♀) 7.5 mm.; width 3.5 mm. Colorado (Wray),—Shantz.

Distinguishable readily from *lecontei* by its more abbreviated form, shorter parallel part of the prothorax at base, this in *lecontei* being about a fourth the entire length, and by the more impressed and more sharply defined elytral foveæ.

#### ***Notiophilus* Dum.**

This genus was reviewed at some length by Mr. H. C. Fall some years ago, so that at present it is only desirable to add several recently discovered new forms, and to offer a few mildly critical remarks. I am unable to understand, for instance, why Mr. Fall did not place *novemstriatus* Lec., as one of the 7-striate series. This is one of our smallest species, of notably slender form and wide distribution, represented in my collection from Massachusetts to Colorado. The striation between the frontal grooves is somewhat inconstant and apt to become irregular, but there are many more specimens having seven striæ than those with five or six, thus warranting the name given by LeConte, who counted the two coarse grooves in with the intermediate striæ; LeConte noticed five striæ between the grooves in some examples, which he referred to the much larger *semistriatus*.

It is probable that *punctatus* Lec., is a valid species, unknown to me at present; it is from the Lake Superior region, and the author states that there is but one scutellar stria or series and that the sutural stria is not recurved and exarate at tip, which would differentiate it very clearly from any of the related species, if these singular characters are constant; it might be accorded specific standing, until something more definite can be learned concerning it.

Mr. Fall has suppressed *hardyi* Putz., as a synonym of *aquaticus* Linn. Without actually knowing the Linnean species, I am inclined to think that this course may prove to be erroneous for two reasons. In the first place, I have found in numerous instances in which American have been declared the same as European species, that such identification was false and due entirely to hasty and superficial observation, and, without venturing any more definite conclusion in the present instance, it becomes, with me at least, a source of grave uncertainty. This is accentuated by the second reason, which rests upon the fact that Putzeys, an able and enthusiastic student of the Carabidæ, who was perfectly familiar with *aquaticus*, described *hardyi* as a distinct species. I have a single example, which I refer to this species, from Marquette, Michigan; it is rather slender, somewhat resembling *novemstriatus* in habitus, but with relatively narrower second stria interval, more separated striae and with the striae obsolete for a long distance before the apex; the outer two or three striae are obsolete except basally; the sides of the prothorax are sinuate and parallel at base.

The two following species are allied to *simulator* Fall:

**Notiophilus sierranus** n. sp.—Slender, polished throughout and black, with æneous lustre, which is wanting beneath; legs black, the tibiae rufescent; head scarcely at all wider than the prothorax; front with five medial striae; antennæ black, the four basal joints testaceous; prothorax four-fifths wider than long, widest and with rounded sides near apical third, the sides moderately oblique and straight thence to the base, just visibly and broadly sinuate toward the angles; surface smooth, with short and deeply impressed median stria, rather closely punctate peripherally, the basal foveæ rounded, rather deep and coarsely, densely punctate; elytra four-fifths longer than wide, evidently wider than the prothorax, parallel, with broadly and subevenly arcuate sides; striae scarcely at all impressed, with rather strong and well spaced punctures, which become very gradually finer behind and are traceable almost to the apex; seventh only distinct basally, exarate at apex; first stria composed of very fine punctures; second interval not as wide as three



to five combined; dorsal fovea single, only moderate in size and at three-sevenths; two apical foveoles rather widely spaced. Length 4.4 mm.; width 1.45 mm. California (Lake Tahoe). A single example, taken by the writer.

Distinguishable from *evanescens* Csy., by the elytral punctures only slightly and very gradually smaller from base to apex; in the latter species the punctures become rather coarse and strong rapidly in about basal third or slightly more, and the coarser and more perforate dorsal fovea is at two-sevenths; the apical foveoles are smaller and feebler.

**Notiophilus coloradensis** n. sp.—Form and size nearly as in the preceding, polished and black throughout, the upper surface obscure æneo-cupreous; legs black, the tibiæ feebly rufescent; head slightly wider than the prothorax, with the usual very large and prominent eyes; frontal intermediate striæ five, long, deep and very regular; antennæ blackish, with silvery hairs, the first four joints pale; prothorax three-fourths wider than long, widest near apical third, with evenly rounded sides, becoming gradually less arcuate and only moderately converging behind and deeply sinuate and then parallel at base, the angles very sharp and even somewhat prominent laterally; surface nearly as in the preceding, except that the basal foveæ are short and deeply linear; there is also a small feeble impression in prolongation thereof near the middle; median prolongation of the apex longer and less obtuse than in *sierranus* or *evanescens*; elytra oblong-oval, convex, three-fourths longer than wide, distinctly wider than the prothorax, the parallel sides evenly arcuate; striæ evidently impressed, rather coarse, coarsely, deeply and closely punctate, the punctures gradually becoming fine and more distant posteriorly, disappearing near the apex; punctures of the eighth stria becoming subobsolete only for a short distance before the exarate apical part; second interspace equal in width to three and four combined; two apical foveoles very small, rather indistinct; dorsal fovea large, deep, barely at all before the middle, that of the right elytron wanting in the type. Length 4.35 mm.; width 1.4 mm. Colorado (Boulder Co.),—Mrs. T. L. Casey.

Also allied to *evanescens* and *simulator* but distinguished by the deeply sinuate sides of the prothorax at base, coarse strial punctures and submedial position of the dorsal fovea. I overlooked the type of this species in describing *evanescens*; it is a very different thing.

As the existence of several distinct species of the *simulator* type is thus proved conclusively, I now doubt that *evanescens* is really the same as *simulator*, as announced by me some time ago, the type locality of the latter being assumably Mullan, Montana; *evanescens*—4.2–4.5 mm., is a little smaller than *simulator*—4.4–4.65

mm., which is very inadequately described and only by comparison with an assumed *aquaticus*, which, as stated above, in its typical form probably does not occur in America. So until further evidence is forthcoming, *evanescens* should be restored to the list.

The following species is rather closely allied to *novemstriatus*, but is broader and less parallel:

**Notiophilus directus** n. sp.—Oblong, moderately convex, polished, bright bronze in lustre; head equal in width to the prothorax, the eyes very large; front with seven striae between the coarse sulci; antennae with the four basal joints paler, slender; prothorax two-thirds wider than long, widest and rounded at the sides for a very short distance at apex, thence converging and straight, becoming gradually and barely visibly sinuate at base; surface strongly and densely punctate peripherally, the basal foveae well developed and deeply impressed; striae deeply impressed, slightly biabbreviated; apical cusp moderate; elytra two-thirds longer than wide, evidently wider than the prothorax, obtusely ogival at apex; sides parallel and nearly straight, rather rapidly arcuate at base; striae laterally close-set and coarsely, deeply and closely punctate not quite to the apex, the oblique apical carina well developed; second interspace almost as wide as the distance thence to the sides viewed vertically, the third and fourth intervals a little wider than the others external thereto; dorsal fovea coarse, single and at two-sevenths, the anterior of the two apical foveoles coarse. Length 4.3–4.7 mm.; width 1.4–1.6 mm. Indiana and Iowa (Keokuk).

Differs from *novemstriatus* not only in its shorter and broader outline, giving it a distinctly different habitus, but in the somewhat larger eyes, more strongly rounded thoracic sides at the extreme apex, coarser anterior of the two apical foveoles of the elytra and in some other characters.

The following is the smallest species known from the American fauna:

**Notiophilus parvus** n. sp.—Form somewhat narrow, highly polished throughout, deep greenish-black, the tibiae dark piceous; head slightly wider than the prothorax, the eyes separated anteriorly by somewhat less than their own length; medial frontal striae rather fine, deep, seven in number; antennae dark, paler basally; prothorax four-fifths wider than long, the sides subparallel, broadly, evenly arcuate, becoming gradually oblique and broadly, feebly sinuate in about basal half; base sinuate except at the sides; apical prominence broadly angulate; surface rather coarsely, deeply and closely punctured peripherally, the striae rather fine, impressed, biabbreviated as usual; foveae large, broadly concave, extending from base to rather beyond the middle; elytra not quite twice as long as wide, wider than the prothorax, gradually narrowed at apex, the sides broadly arcuate; striae feebly impressed, rather coarse, close-

set, coarsely, deeply, moderately closely punctate, the punctures gradually smaller and then obsolete posteriorly, the eighth as in *coloradensis*; second interspace about as wide as the next three combined, the apical foveoles two in number; dorsal fovea single, coarsely impressed, at three-sevenths. Length 3.35 mm.; width 1.2 mm. New York (Catskill Mts.), —H. H. Smith.

According to the classification of Mr. Fall, this species would come near *obscurus* Fall, of the California Sierras, but it is as much below the average in point of size as that is above it. Embodying the opinions expressed above I am disposed to suggest the following list of the North American species of this genus:

<i>æneus</i> Hbst.	<i>coloradensis</i> Csy.
<i>semistriatus</i> Say	<i>nemoralis</i> Fall
<i>americanus</i> Harris	<i>sylvaticus</i> Esch.
<i>confusus</i> Lec.	<i>novemstriatus</i> Lec.
<i>punctatus</i> Lec.	<i>quadrioveatus</i> Harr. i. litt.
<i>hardyi</i> Putz.	<i>directus</i> Csy.
<i>borealis</i> Harris	<i>parvus</i> Csy.
<i>simulator</i> Fall	<i>obscurus</i> Fall
<i>evanescens</i> Csy.	<i>nitens</i> Lec.
<i>sierranus</i> Csy.	<i>semiopacus</i> Esch.

According to the principle recently adopted by Mr. Leng, of renaming species bearing names which have been previously given in the genus, whether or not these older names are synonyms, *obscurus* Fall, of the above list, would have to receive another designation; for, as I see by the European list, there is an *obscurus* D'Torre, which is a synonym of *aquaticus*. I believe this principle to be unnecessary, however, and if generally adopted would give rise to almost endless giving of new names throughout the field of zoology.

### **Trachypachus** Mots.

*Trachypachys* G. & H.

The species of this genus are strikingly inharmonious, in general habitus, with the other genera in this part of the Carabidæ, reminding us much more of certain forms of *Bembidion*, such as *obliquulum* or *erasum*, than they do of *Elaphrus*, *Loricera* and other associates of this section. As a genus *Trachypachus* is peculiar, in that the hind coxæ attain the sides of the body. My collection includes five species as follows:

- Prothorax not materially wider at the middle than at base; size larger... 2  
 Prothorax distinctly wider at the middle than at base, generally more abbreviated; size smaller; antennæ relatively more elongate... 3
- 2—Form oblong-suboval, convex, strongly shining and bright cupreous above, slightly picescent and not metallic beneath, the legs dark rufous; head shorter than wide, scarcely three-fifths as wide as the prothorax, the eyes moderate in size and prominence, the surface evenly convex, smooth, the epistomal suture deeply sinuate; palpi and antennæ piceo-rufous, the latter a third longer than the thoracic width, shining, with short sparse hairs; prothorax three-fifths wider than long, the sides finely reflexed or beaded, parallel and just visibly sinuate in less than basal half, feebly arcuate and converging thence to the small and bluntly prominent apical angles, the basal right and well defined; base transverse, wider than the broadly sinuate apex; surface smooth, with a moderate and slightly punctulate transverse impression near the base, merging into the broadly concave punctate foveæ, which are bounded externally by a strong oblique carina; scutellum well developed, transversely and obtusely ogival; elytra very little wider than the prothorax, with feebly arcuate sides, gradually ogivally narrowing in somewhat less than apical half; striæ unimpressed, visible only internally and consisting of series of moderate and well separated punctures, becoming very fine externally, the scutellar series long, extending between the suture and the first regular series; apex obliquely impressed, the impression bounded externally by a cariniform elevation; under surface and rather short legs smooth, glabrous, the legs with a few short bristles. Length 5.7–5.8 mm.; width 2.5 mm. California (Siskiyou Co.),—Koebele. East of Fort Colville [about 300 miles to the northeast of Siskiyou Co.],—LeConte... *gibbsi* Lec.
- Form narrower, nearly similar in coloration and lustre, the antennæ and palpi black but otherwise nearly similar, the latter rather more slender; head as in *gibbsi*, the prothorax distinctly shorter and more transverse, fully three-fourths wider than long, the sides basally straight and very slightly converging posteriad, the base more visibly narrower than the maximum width; general form similar, the apical angles rather less prominent; transverse subbasal impression subobsolete, the foveæ broadly concave, less punctate and more distinctly duplex, the bounding oblique prominent line subsimilar; side margins similarly with three setæ, one at each angle and the third near apical third; scutellum still broader, being a third as wide as an elytron, the elytra one-half longer than wide, not evidently wider than the prothorax; apex less acutely pointed than in *gibbsi*, the other characters nearly similar. Male with the first two joints of the anterior tarsi very moderately dilated, the second the smaller and as long as wide. Length 4.8–5.0 mm.; width 2.0–2.12 mm. California (Lake Tahoe). Two examples, taken by the writer..... *alticola* n. sp.
- 3—Prothorax less abbreviated, scarcely two-thirds wider than long, the punctured transverse subbasal impression feeble, completely interrupted at the middle. Body oblong, convex, polished and bright

cupreo-æneous; under surface and legs as in the preceding species; head almost similar; antennæ piceous-black, shining, longer, evidently more than half as long as the body, the third joint longer than the fourth as usual; sides of the prothorax finely reflexed or beaded, moderately oblique and feebly sinuate in less than basal half, faintly diaphanous throughout; surface very smooth, the anterior transverse impression traceable; foveæ smaller, narrower, deeper and smoother than in the two preceding, the outer oblique bounding carina strong and relatively somewhat longer; apex evenly sinuate, narrower than the base, almost as wide as the base in the male; scutellum less transverse, triangular, only a little wider than long; elytra two-fifths longer than wide and evidently wider than the prothorax, with the parallel sides broadly rounding basally, more rapidly ogival in about posterior third; apical impressions almost obsolete, the carina faint; punctures of the unimpressed series visible toward the suture moderate; anterior male tarsi only very feebly dilated basally. Length 4.25-4.65 mm.; width 1.7-1.8 mm. Oregon. Two examples. . . . . *oregonus* n. sp.

Prothorax shorter, three-fourths wider than long, the punctured subbasal groove sharper and deeper, not medially interrupted. Body more oblong-parallel and less convex, polished, the upper surface greenish anteriorly, more cupreous on the elytra, the under surface and legs concolorous and piceo-rufous; head narrower, the eyes similarly only feebly convex but rather smaller in size; antennæ shining, black, more than half as long as the body, the third and fourth joints more unequal than in *oregonus*; prothorax in general features as in *oregonus* but with the apical angles blunter, the basal foveæ not so deep and more punctate and the carina less oblique; elytra more elongate, one-half longer than wide, otherwise nearly as in *oregonus*, the apical impression obsolete, the cariniform elevation feeble; scutellum shorter but not wider. Length 4.6 mm.; width 1.85 mm. British Columbia (Aldermere),—Keen. [*T. holmbergi* Mann., Kenai, Alaska]. . . . . *inermis* Mots.

Prothorax still shorter, four-fifths wider than long, the subbasal impressed line rather deep and punctured but somewhat widely interrupted at the middle. Body smaller and narrower than in *inermis*, highly polished, black, with feeble greenish lustre above; under surface black, the legs dark rufous; head smooth and convex, only slightly shorter than wide, the eyes not larger but more prominent than in *inermis*; antennæ similar; prothorax very smooth, the medially arcuate and finely reflexed side margins feebly diaphanous; median stria extremely fine and feeble as usual; foveæ rather small, deep, punctured, the carina rather oblique, well developed; apex but little narrower than the base in either sex; scutellum short and transverse, moderate in size; elytra less than one-half longer than wide, distinctly wider than the prothorax, the parallel sides but feebly arcuate, rounding basally, rather rapidly ogival in apical third; apical impression and attendant prominent line feebly developed; punctures of the unimpressed series toward the suture

very fine and rather well separated; tarsi slender, the first two joints of the anterior very feebly dilated in the male; sides of the metasternum with a few moderate punctures. Length 3.8–4.3 mm.; width 1.6–1.75 mm. California (Lake Tahoe). Three examples taken by the writer, with which are united a series of seven specimens from Colorado, Idaho (Cœur d'Alene) and Oregon, scarcely differing among themselves and varying chiefly in the distinctness and continuity of the transverse subbasal pronotal sulcus.

*specularis* n. sp.

This genus differs from all the others in this part of the Carabidæ, excepting *Omophron*, in having no trace whatever of dorsal elytral foveæ; this is rather remarkable if *Trachypachus* be really closely related, in view of the exceptional development of these foveæ in such genera as *Blethisa*, *Loricera* and *Pelophila*, and may indicate that it is more closely allied to *Diachila*, where however three foveæ on each elytron are sufficiently evident, though very shallow and diffuse. There can be no doubt, however, that *Trachypachus* is one of the most widely and completely isolated of Carabid genera. The genus *Systolosoma* Sol., of Chile, said to belong to the same subfamily, I have not seen.

#### *Loricera* Latr.

This is another remarkably distinct genus, having however a more normal outline for the first division of the Carabidæ, and with the hind coxæ abbreviated externally as usual, but having peculiar antennæ, the basal joint being long and the next three thicker than the following joints, with tumid elevations, each bearing a long stiff seta. As generally observable in this section of the family, the large dorsal punctures of the elytra are variable and, although assumed by Horn as the basis of his classification of the species, it may be noted that in *californicus*, although there is but a single series of foveæ in most cases, as stated by that author, two of the eight examples in my collection have two instead of one series on each elytron. In *neoscotica* Lec., which I prefer to hold as distinct from *cærulescens* Linn., my four examples from Lake Superior, Maine and Labrador, show no tendency to duplication of the series of foveæ; these specimens are all of an obscure subæneous lustre, without trace of cærulescence. The following is an apparently new form near *neoscotica*:

*Loricera uteana* n. sp.—Shining, black, the anterior parts with feeble greenish lustre, the elytra not evidently metallic; under surface deep black; legs piceous-black, the tibiæ and tarsi paler, the anterior and middle trochanters bright testaceous as usual; head more than three-fourths as wide as the prothorax, transverse, the eyes large and prominent, the nuchal constriction deep and sharp; surface rugulose laterally, the two anterior pits and occipital median line deeply impressed; mandibles pale; antennæ black, half as long as the body, the basal joint testaceous at base; prothorax only between a fourth and fifth wider than long, the moderately reflexed sides broadly, evenly arcuate, more oblique only near the base, becoming just visibly sinuate at the angles, which are more than right though very sharp; surface smooth, sparsely punctured at base, the median line broadly impressed; anterior impression wholly wanting, the posterior evident though not deep; foveæ broadly concave, extending sinuously forward in sharply and deeply impressed form through basal two-fifths of the length; apex very faintly sinuotruncate and strongly beaded along the neck, the outer angles very broadly rounded, undefined; elytra oblong, with parallel and feebly arcuate sides, more rounding basally, one-half longer than wide and one-half wider than the prothorax, oblique and very obtusely ogival at apex; striæ twelve in number, impressed suturally, moderately punctate, the punctures obsolescent posteriorly; lateral striæ very fine, the twelfth deep, the marginal interval with an irregular series of moderate punctures, the third interval with three large and broadly impressed foveæ; abdomen latero-basally, sides of the metasternum and the metepisterna coarsely punctate. Length 7.3 mm.; width 2.9 mm. Utah (Provo),—Spalding.

Differs from *neoscotica* in its bipartite and more obscure lustre, less elongate form of body, narrower and basally less narrowed prothorax and more elongate basal joint of the antennæ. From *californica* Lec., it differs in its larger size and broader outline, much less transverse prothorax, not so sinuate at the sides basally, larger head, less intensely black coloration and in many other features.

Besides the twelve elytral striæ, this genus is peculiar in having no trace of a scutellar stria, but the second stria fails to attain the base and apparently ends in a somewhat larger puncture; the elytra have each a feeble apical indentation. The male has the first three anterior tarsal joints rather widely dilated, densely spongy-pubescent beneath and forming an elongate-oval patellum. The tarsi are long and very slender.

#### Leistus Fröh.

Dr. G. H. Horn, in his monograph on the tribes and genera of the Carabidæ, forms a tribal group Nebriini, to which he assigns, in

addition to the evidently Nebriid genera *Pelophila* and *Leistus*, as well as *Nebria*, the genera *Opisthius* Kirby and *Notiophilus* Dum. In my opinion *Notiophilus* should form a group by itself, the subapically emarginate anterior tibiæ, as well as the general habitus of the body, being radically different from that of the associated genera, and *Opisthius* might much better be placed with *Elaphrus*, as a member of the Elaphrini, in spite of the fact that the anterior tibiæ of *Elaphrus* are emarginate internally near tip, while in *Opisthius* they are simple and merely coarsely grooved beneath apically as in *Leistus*, *Nebria* and *Pelophila*. The general habitus and peculiar scheme of sculpture in *Elaphrus* and *Opisthius*\* are identical, and these general features outweigh modifications of special organs or appendages. The following is a hitherto undescribed species of *Leistus*, recently discovered in northern California by Mr. Nunenmacher:

***Leistus longipennis*** n. sp.—Body very narrow, elongate and subparallel, with relatively large head and prothorax, shining, evenly somewhat dark rufous in color throughout, the legs concolorous; head as long as wide, more than three-fourths as wide as the prothorax, with moderately large and very prominent eyes; transverse nuchal depression deep; surface smooth, with some close fine strigilation near the anterior angles; mandibles broadly inflated externally, the very wide external depression with a small setigerous puncture anteriorly, the apices abruptly narrowed and finely aciculate; antennæ long, fully half as long as the body and extremely slender, pale, the first four joints glabrous, the fourth only two-thirds as long as the third joint and three-fifths as long as the fifth; prothorax strongly inflated, one-half wider than long, widest at the middle, at which point the margin is somewhat more widely reflexed than anteriorly or posteriorly; sides subevenly and strongly rounded, becoming abruptly parallel for a short distance at base, the angles sharp and right; base transverse, four-sevenths the maximum width and equal in width to the apex, which is bisinuate; surface convex and very smooth, the anterior transverse impression very broad, deep and sparsely punctate, the posterior deep, narrower and broadly angulate, the surface sparsely punctate thence to the base;

\* The species *Opisthius indicus*, of Chaudoir, evidently represents a genus different from the subarctic American *Opisthius*, which may take the name **Paropisthius** (n. gen.), if not already named. The body is less ventricose, nearly as in *Elaphrus*, but with the sides of the prothorax very prominently lobed; the maxillary palpi are truncate and not bluntly pointed at tip, the epistomal suture transverse and not sinuate, and the large elytral foveæ are not finely umbonate at the centre as in *Elaphrus* and *Opisthius*, but have perfectly flat floors, with a minute central puncture and also with about four fine longitudinal striiform series of minute punctures. The femora and tibiæ are pubescent in *Opisthius* and glabrous in *Paropisthius*.



scutellum distinct, obtusely ogival; elytra about twice as long as wide, gradually inflated behind, with nearly straight sides, broadly rounding at base, widest near apical third, barely a third wider than the prothorax, gradually evenly rounded at apex; striæ nine in number, rather coarse, deeply impressed and distinctly punctured, and, except the sutural, obsolete at apex; intervals broadly convex, the third with three impressed punctures adjoining the third stria; scutellar stria long, the second regular stria deflexed basally to the subscutellar puncture; sides of the metasternum and first ventral, also the met-episterna coarsely punctate; first three joints of the anterior male tarsi moderately inflated, convex above, spongy-pubescent beneath; legs long and slender. Length ( $\sigma^7$ ) 9.8 mm.; width 3.25 mm. California (Humboldt Co.). A single example.

Distinguishable at once from *ferruginosus* and *nigropiceus* by the much larger size, more elongate form and relatively very much larger prothorax, also from the former by the posteriorly inflated elytra, equally distinct in *nigropiceus*, and from the latter by the relatively smaller head, in which it accords better with *ferruginosus*. As in the other species of this very isolated genus, as well as *Nebria* and *Pelophila*, there is but one supra-orbital seta and the anterior tibiæ are briefly and very deeply sulcate beneath at apex. Dr. Horn does not seem to allude to the long thread-like antennæ, with the fourth joint very much shorter than the third or fifth; this proportion of the joints is feebly evident in the very much shorter and stouter antennæ of *Nebria* and *Pelophila*, proving also in this way, that these three genera form a natural group.

#### **Nebria** Latr.

A considerable number of new forms in this genus have come to light recently, and I am now convinced that a series from Labrador, which I formerly held to represent *sahlbergi* Fisch., does not have this status but is doubtless an undescribed species. The numerous species of the European fauna, where also *Leistus* is greatly developed, when compared with North America, are divided into a number of named subgenera; our own species do not lend themselves so readily to this form of subdivision, the only ones known to me at present which might be assigned to a separate subgenus being *virescens* Horn, with the allied *brevis* Csy., and the *ingens* section; the habitus of these species is notably different from that characterizing the many other species; perhaps *pallipes* and allied species might form another subgenus.

The following species has the sides of the prothorax merely oblique behind and not distinctly sinuate basally; being the only one of the *obliqua* series at hand, it is described before the others:

***Nebria nimbose*** n. sp.—Rather narrow and very moderately convex, shining, black above and beneath, without trace of metallic lustre; legs long and very slender, dark rufous, the femora blackish, gradually rufescent basally; head as long as wide, fully three-fourths as wide as the prothorax, the eyes moderate, rather prominent; front smooth, with two red spots on a line through the middle of the eyes; anterior margin tumid at the middle; mandibles and palpi piceo-rufous, the last joint of the latter two-thirds longer than the third; antennæ slender, nearly three-fifths as long as the body, black, gradually brown distally; prothorax not quite one-half wider than long, widest at the middle, the sides arcuate, oblique and broadly, just visibly sinuate basally, broadly and strongly reflexed throughout; basal angles obtuse though sharply defined, the apical prominent but rounded; base transverse, distinctly narrower than the broadly, deeply sinuate apex; transverse impressions both rather sharp and deep, the base depressed, feebly and sparsely punctulate; foveæ very small, basal and linear; elytra four-fifths longer than wide, two-thirds wider than the prothorax, gradually slightly wider behind, with nearly straight sides, which are rapidly rounded at base; apex rather rapidly rounded, each apex oblique and straight, rounded suturally; striæ rather coarse, feebly impressed, with distinct and well separated punctures, the third with about three small feeble setigerous punctures; intervals not quite flat; scutellar stria long. Length 9.4 mm.; width 3.6 mm. New Hampshire (Lake of the Clouds, Mt. Washington). A single female.

Allied to *longula* Lec., occurring in Colorado; the sides of the elytra are not parallel as they are in *suturalis*, described by LeConte from Lake Superior, but said to occur also in New Hampshire; the size is smaller and the color more uniformly black.

The following species are all devoid of any metallic lustre; the first three are allied to the Alaskan *sahlbergi*:

***Nebria reducta*** n. sp.—Body of unusually small size, shining, black, the elytra and under surface more or less feebly picescent, very moderately convex; legs slender, obscure rufous, the femora blackish; head triangular, as long as wide, two-thirds as wide as the prothorax, the eyes moderate, rather prominent; surface without red spots, nearly smooth, feebly tumid at apex, the epistoma canaliculate in apical half; palpi long, testaceous, the last joint blackish and two-thirds longer than the third; antennæ piceo-rufous throughout, fully half as long as the body; prothorax short, very nearly twice as wide as long; sides strongly rounded, oblique in basal half, becoming parallel basally, the angles right, very sharp; margins deplanate, uniserially punctate, the edge sharply reflexed and pallescent; transverse impressions deep, punctate:

foveæ rather large, oblique and deep; median stria well impressed, rather coarse; elytra two-thirds longer than wide, only a fourth wider than the prothorax, oblong, only just visibly wider behind, the sides rapidly rounded at base; apical obliquity just visibly sinuate; striæ rather fine, feebly impressed and with small and well separated punctures, the third with four small foveæ within large irregular indentations; intervals nearly flat; anterior male tarsi with the first three joints large, dilated and densely albido-spongy-pubescent beneath. Length 7.7-8.4 mm.; width 3.1-3.3 mm. Alaska (St. Paul Island). Seven specimens.

Allied to *sahlbergi* but smaller and with still shorter and more transverse prothorax. I cannot be sure, however, that the single specimen at hand representing *sahlbergi*, also from St. Paul Island, is really that species.

***Nebria labradorica*** n. sp.—Much larger than the preceding and rather more convex but of nearly similar habitus, piceous in color, moderately convex, shining; legs colored nearly as in the preceding; male more abbreviated than the female; head nearly as in the preceding, the last palpal joint only one-half longer than the third; prothorax three-fourths ( $\sigma^7$ ) to three-fifths ( $\text{♀}$ ) wider than long, widest just visibly before the middle, the sides evenly arcuate, oblique and gradually sinuate behind, becoming parallel at the angles, the sinus much less abruptly formed than in the preceding, the angles right, sharp; margins nearly similar but more widely and constantly rufescent; transverse impressions deep, strongly punctured, the median stria deeply impressed, almost entire; foveæ deep, slightly oblique; elytra broader, oblong, parallel, three-fourths longer than wide, a fifth ( $\sigma^7$ ) to more than a fourth ( $\text{♀}$ ) wider than the prothorax, the sides gradually rounded basally, the apical obliquity scarcely more than straight; striæ moderate, feebly punctate, the third with four internally adhering punctures, not within large impressions; intervals broadly convex, flatter externally; three basal joints of the anterior male tarsi well dilated, the second and third quadrate. Length 8.7-9.8 mm.; width 3.2-3.5 mm. Labrador (West St. Modest),—Sherman. Nine specimens.

Distinguishable readily from the preceding by its larger size, broader form, less abbreviated prothorax, more parallel elytra and absence of large indentations about the dorsal foveæ. Its exact relationship with *sahlbergi* cannot be stated definitely at present.

***Nebria prominens*** n. sp.—Rather slender, more convex, shining and deep black above and beneath; legs long and slender, obscure rufous, the femora black; head triangular, three-fourths as wide as the prothorax, with prominent eyes; maxillary palpi rufous, the fourth joint one-half longer than the third; front without pale spots; antennæ piceous, more than half as long as the body; prothorax one-half wider than long, widest just before the middle, the sides evenly rounded, gradually oblique, becoming subparallel behind the middle, the angles

very acute and laterally subprominent; apical angles well defined though slightly blunt at tip; impressions and reflexed side margins punctate, the anterior impression shallow, the posterior very deep; foveæ very deep, oblique; elytra four-fifths longer than wide, a third wider than the prothorax, gradually just visibly wider behind, the sides feebly arcuate, very rapidly rounding at base; apices very oblique, almost straight, rounded as usual at the suture; striæ moderately coarse, with fine and widely spaced punctures; intervals nearly flat, the third with four punctures, which are confluent with the third stria; tarsi very long and slender. Length 9.2–9.7 mm.; width 3.65–3.75 mm. New Hampshire (Mt. Washington). Two female examples.

Differs much from *labradorica* in its narrower form, less abbreviated and laterally less strongly rounded prothorax, with more prominent acute basal angles, narrower and posteriorly somewhat inflated elytra, intense black coloration and almost non-diaphanous thoracic sides; the sides of the elytra are more rapidly and strongly rounded at base. It is probably allied rather closely to *mæsta* Lec., from Lake Superior, but is apparently more convex.

The two following species are allied to the west coast *eschsoltzi*, having entirely very pale legs:

***Nebria transversa*** n. sp.—Stout, the outline much broader than in *eschsoltzi*, the surface fully as convex, shining, the anterior parts and under surface rufo-piceous, the elytra black; legs very pale, long and slender; head large, less triangular than in the preceding section, barely as long as wide, the prominent and well developed eyes at a greater distance from the base; surface nearly smooth, with two nubilously paler spots on a line through the eyes; mandibles rufous, the inner margin black; palpi clear rufous throughout, the last joint very obtuse at apex, one-half longer than the third; antennæ missing in the type, the basal joint pale testaceous; prothorax short and very broad, fully three-fourths wider than long, widest at anterior two-fifths, the inflated sides strongly rounded anteriorly, gradually converging but barely less arcuate behind to the gradual sinus, thence parallel to the right and sharp angles; margins narrowly deplanate, with a single series of punctures, the edge finely but sharply reflexed; apex broadly sinuate, wider than the base, with rather blunt short thickened angles; base transverse, the sides obtusely projecting behind to slight degree; transverse impressions rather deep, sparsely punctate, the median stria fine; foveæ small, somewhat deep, rather close to the angles; elytra two-thirds longer than wide, one-half wider than the prothorax, gradually inflated behind, with broadly arcuate sides, somewhat rapidly rounding at base; surface smooth, with an obtuse arcuate longitudinal ridge at apex; striæ moderate, slightly impressed, finely irregular but not definitely punctate, more clearly punctulate basally; intervals not quite flat, the third with four moderate impressed punctures adhering to the third stria. Length 11.5 mm.; width 4.8 mm. Oregon (Corvallis). A single female example.

This distinct species differs from *eschsoltzi* Mén., in its much stouter form, larger head, shorter and much more transverse prothorax and other features; the arcuate ridge at the apex of each elytron is better developed and more distinct.

***Nebria formalis*** n. sp.—Outline slightly broader and more ventricose than in *eschsoltzi* and rather more convex, paler in color, piceous, the thoracic margins more diaphanously pallid; legs similarly long, slender and pale; head nearly as in *eschsoltzi* but without two paler spots between the eyes, though having a transverse space nubilously paler but evident only in the darker specimens; maxillary palpi with relatively shorter third and longer fourth joint; prothorax nearly similar but relatively smaller in size and with deeper and more punctate transverse impressions, the deep and lunate, slightly oblique foveæ traceable anteriorly almost to the middle; scutellum more transverse, ogival; elytra more oval and less oblong, the sides at base being less inwardly rounded, three-fifths longer than wide and one-half wider than the prothorax, slightly more inflated behind the middle, the sides thence anteriorly broadly arcuate and not nearly straight as in *eschsoltzi*; surface more convex, the striæ not so fine, much more impressed and more distinctly punctulate; intervals convex suturally, the third with four moderate impressed punctures adjoining the third stria; anterior male tarsi with the first three joints rather widely dilated. Length 10.2–10.9 mm.; width 3.9–4.4 mm. Washington State (Wawawai),—Hyslop. Communicated by Mr. Wade. Two males and two females.

The basal joint of the anterior male tarsi in *eschsoltzi* is scarcely as long as the next two together, while here it is fully as long. The present species differs in its paler coloration, more convex and ventricose form, relatively smaller prothorax, more arcuate sides of the elytra and in some other obvious features; the short longitudinal ridge at the apex of each elytron is nearly similar.

#### **Carabus** Linn.

The species *tædatus* Fabr., is common over a large extent of country from Indiana to Colorado; the head is in greater part smooth and is without any conspicuously deep sculpture; *agassii* of LeConte, from Lake Superior, is a synonym of this species, a west coast species with more sculptured head and more elongate form of body having been mistaken by LeConte for *tædatus* in his comparisons. In southwestern Alaska occurs a form resembling *tædatus* but smaller, with relatively much smaller prothorax; it has the head conspicuously sculptured and bicanalate and was named *baccivorus* by Fischer; it is a distinct species and not a

variety of *tædatus*. The west coast form named *oregonensis* by LeConte, is different from *tædatus*, but I have not been able to recognize it among my material; it is allied evidently to the species which I named *franciscanus*, but has the prothorax smaller, scarcely more than half as wide as the elytra, almost opaque and densely and finely rugose; the impressions and rugosities of the head seem to be moderate in development; *oregonensis* also is a distinct species and not a variety of *tædatus*. The following has a more coarsely and deeply biexcavated front than even *franciscanus* and it should also have a specific status:

*Carabus bicanaliceps* n. sp.—Elongate, moderately convex and but slightly ventricose, the head and pronotum deep black and highly polished, the elytra dark brown and opaculate; under surface shining, blackish-piceous, the legs black; head four-sevenths as wide as the prothorax, with very prominent eyes; surface devoid of fine sculpture of any kind but very coarsely rugose, with a broad, deep and irregular sulcus at each side, extending from near the epistomal apex to a line bordering the eyes posteriorly; the two broad sulci are separated by a prominent ridge, the summit of which is canaliculate; labrum deeply sinuate, the surface deeply excavated medially; antennæ rather thick, black, feebly picescent distally, not quite half as long as the body; prothorax a fifth wider than long, widest before the middle, the sides broadly rounded, becoming feebly oblique and broadly, just visibly sinuate behind the middle, the hind angles evenly and strongly rounded and produced posteriorly; margins strongly reflexed, especially at base, and with the edge thick; base transverse between the lateral lobes; apex rather narrowly sinuate medially, broadly rounded laterally, with thick marginal bead throughout; surface loosely but deeply, coarsely vermiculato-rugose, broadly impressed postero-laterally, the median furrow coarse and very deep; elytra two-thirds longer than wide, less than one-half wider than the prothorax, oval, widest slightly behind the middle, the sides broadly arcuate, rapidly converging at the humeri; apex gradually obtusely ogival; striæ about 26 in number, deep, separated by fine continuous carinæ, the narrow concave intervals very obscurely punctate; foveæ of the three series very deep, finely polished at the bottom, the submarginal series of smaller and closer foveæ distinct. Length 22.0 mm.; width 8.9 mm. Washington State (Olympia). A single female.

Distinguishable from *franciscanus* and *montanicus* by the more opaque elytra, with larger and much deeper foveæ and coarser, deeper, more sulciform and less numerous fine striæ; in *montanicus* the fine striæ are about 30 in number. In the two species mentioned above the elytral foveæ are not connected by a coarser ridge as they are in *bicanaliceps*, and, in *montanicus*, the head is nearly as smooth as in *tædatus* Fabr.

The following belongs to the *tædatus* section but is very different in sculpture and sexual characters:

***Carabus stocktonensis*** n. sp.—Male narrow and very elongate, black or slightly brownish, rather shining; head nearly as in *tædatus* but sparsely punctured basally and with greater extent of rugosity and also more punctured toward the eyes; labrum similar; mandibles short, arcuate, smooth; antennæ similar; prothorax similar, the sides a little more sinuate basally, broadly and less abruptly reflexed toward base; surface more finely and closely punctate, more rapidly declivous at the sides; scutellum smaller; elytra narrower and more elongate, four-fifths longer than wide, one-half wider than the prothorax; humeri more narrowly rounded at base; surface with fine close-set cariniform lines, the summits of which are finely asperulate, the intervals not definitely punctulate as they are in *tædatus*; foveæ very shallow, not metallic; anterior tarsi moderately dilated, densely spongiose beneath the first four joints. Female larger and stouter than the male, similar in general outline and in the sculpture and configuration of the anterior parts, but with somewhat different arrangement of the fine asperulate sculpture of the elytra, the regular close-set lines not being apparent, except laterally, the minute elevations very close-set and generally confused in arrangement. Length ( $\sigma^7$  ♀) 19.5–22.0 mm.; width 7.7–9.2 mm. Utah (Eureka and Stockton),—Spalding.

This species differs greatly from *tædatus* in having the first four joints of the anterior male tarsi spongiose beneath; in *tædatus* only the first three joints are so clothed, and in that species the elytra have close-set regular smooth lines, with distinctly though irregularly punctate intervals; the general form of the body is much less elongate than in the present species and the size is smaller.

Of *chamissonis* Fisch., I have a series of between twenty and thirty specimens from St. Paul Island; it is a small species, with short prothorax, and *brachyderus* Wiedem., is a true synonym. The form named *grænlandicus* by Dejean, of which I have four examples from St. Modest, Labrador, is however different from *chamissonis* and is without doubt specifically valid; it is much larger in size, the prothorax less abbreviated and more sparsely and finely sculptured, and the hind angles project further posteriorly. The following is related closely to *grænlandicus* but is a little smaller, distinctly narrower and with more evenly rounded sides of the prothorax.

***Carabus grænlandicus*** ssp. *washingtoni* nov.—Narrower and a little smaller than *grænlandicus* and also more convex, deep and rather less shining black; head slightly more than half as wide as the prothorax,

with rather small and very prominent eyes, the surface sparsely punctate, nearly smooth anteriorly, where there is a shallow longitudinal impression at each side, becoming deep on the epistoma; prothorax two-fifths wider than long, widest barely before the middle, with subevenly arcuate sides, similarly sculptured; elytra narrower and more convex, nearly three-fourths longer than wide, three-sevenths wider than the prothorax, oblong-oval, widest near the middle, strongly sculptured in the style of *tadatus* as in *granlandicus*, but with only about 16 or 17 striæ, which are coarse and irregular, with coarser ridges connecting the moderate foveæ. Length 12.4–14.0 mm.; width 5.7–6.3 mm. New Hampshire (Mt. Washington). Three male examples.

Differs from *granlandicus* more especially in the slightly smaller size, narrower outline, more convex surface and more transverse prothorax—not widest near apical third as in that species but near the middle and with more evenly rounded sides.

#### Calosoma Web.

Of the forms in this genus described hitherto as allied to *calida*, the type of *expansa* Csy., is simply an unusually developed male of that species and consequently a synonym. The others are valid, either as species or subspecies; *stellata* is a subspecies, and I am now inclined to believe that the large New Mexican *laticollis* should rather be considered a species than a subspecies. The form described by LeConte under the name *lepida* I have not seen and can therefore form no useful opinion regarding it. The two following are specifically different from *calida* however:

**Calosoma comes** n. sp.—Smaller, narrower and more parallel than *calida*, though nearly similar in color, ornamentation and sculpture; head smaller, but slightly over half as wide as the prothorax, finely, sparsely punctate and rugulose, becoming gradually smooth anteriorly; eyes similar; mandibles straighter and narrower; antennæ with the fifth joint glabrous, pubescent on the edges, shorter than in *calida*, the sixth joint but little more than twice as long as wide; prothorax very nearly twice as wide as long, widest at the middle, the sides broadly, moderately reflexed and beaded and very evenly, circularly arcuate throughout, the basal angles moderately produced behind and obtusely rounded; surface nearly similar, the latero-basal impressions more evenly concave; elytra narrower and more elongate, fully one-half longer than wide and subequal in width to the prothorax, the sides parallel and feebly, evenly arcuate, the reflexed edges feebly diaphanous; general sculpture and the metallic foveæ as in *calida*. Length (♂) 19.0 mm.; width 7.0 mm. A single male from an unrecorded region in the Northwest Territory.



Besides the characters above mentioned, this species differs from *calida* in the more slender mandibles, shorter antennæ, the sixth joint in the latter being more compressed and nearly three times as long as wide in the male, and especially in the vestiture of the fifth joint, which in *calida* is pubescent throughout, except very narrowly along the axial line of the sides. The third anterior male tarsal joint is twice as wide as long, while in *calida* it is very much less transverse.

***Calosoma concreta*** n. sp.—Shorter, relatively broader and more convex than *calida*, deep black in color throughout, shining but without trace of metallic lustre; head distinctly more than half as wide as the prothorax, with abruptly very prominent eyes, the surface finely, evenly and sparsely punctate and somewhat rugulose throughout; epistoma deeply impressed in the middle at apex, the lateral grooves deep; mandibles short, subcircularly arcuate; antennæ rather short, the fifth joint broadly but not definitely glabrous at the sides; prothorax short, fully twice as wide as long, evenly and circularly rounded and broadly declivousubreflexed, the beading of the edge fine and feeble; basal angles as in *calida*; surface convex, rather shining, finely and sparsely punctulate, becoming coarsely, densely punctate and rugulose peripherally; foveæ concave, deepest at some distance from the sides; elytra short, about a third longer than wide, a fifth wider than the prothorax, parallel, with feebly arcuate sides, obtusely ogival at apex; sculpture of the same type as in *calida* but with the dark green ocellate foveæ very much deeper, rather larger and more close-set, the longitudinally connecting intervals relatively broader, more convex and without transverse lines, the transverse lines of the three intermediate intervals feebler. Length (♂) 18.8 mm.; width 8.8 mm. A single male apparently from north of Lake Superior.

This species is strikingly different from *calida* in its shorter, more compact and more convex form, much closer and deeper elytral foveæ, connected by wider and more convex smooth surfaces, shorter mandibles, more abbreviated antennæ, the outer joints being very much shorter, and in several other structural features. The fourth anterior male tarsal joint in *calida* is about as long as wide, the apex much more produced internally than externally, while in *concreta* it is nearly twice as wide as long, with the apex subevenly emarginate, not noticeably more produced internally.

The three following species belong to the same section as *cancellata* Esch. (*anescens* and *moniliata* of LeConte), but in each case are distinguished by some conspicuous special characters; they were all taken by Mr. Nunenmacher:

*Calosoma sagax* n. sp.—Rather broadly oblong and convex, shining, black, without metallic lustre outside of the dorsal foveæ; head large, two-thirds as wide as the prothorax, with the usual prominent eyes; surface rather loosely, subvermiculately sculptured, with intermingled rather fine punctures; epistoma only feebly impressed at the middle, the deep lateral excavations extending to apical third; mandibles semi-circularly rounded externally; antennæ short, as long as the thoracic width, with joints five to eight glabrous medio-basally on the more compressed sides, the glabrous area successively diminishing on the following joints; prothorax just visibly less than twice as wide as long, widest slightly before the middle, the sides broadly arcuate, only slightly oblique posteriorly, the basal angles rounded as usual but only very slightly produced behind; lateral edge rather sharply reflexed, more broadly at base; surface shining, vermicularly but not very coarsely or densely rugulose or punctate; basal foveæ rather deep, at some distance from the sides; median stria moderate, subentire; elytra short, about a fourth longer than wide, a third wider than the prothorax, barely visibly wider behind the middle, the apex very obtusely ogival; humeral angles rapidly rounded; surface with sets composed of three rows of moderate impressed irregular punctures, the sets separated by a wide smooth and rather convex interval, bearing the moderate but rather deep, umbilicate foveæ, the bottoms of which are bright metallic green; anterior male tarsi broadly dilated. Length (♂) 17.0 mm.; width 8.0 mm. California (Lassen Co.).

The second and third anterior male tarsal joints are subsimilar in form, the latter slightly the smaller, and they are both about twice as wide as long. This species differs from the others of this series in the relatively large head among other important features.

*Calosoma rectilatera* n. sp.—Much narrower than the preceding, deep black, without metallic ground lustre, rather shining, the anterior parts dullish; head well developed, not so large as in the preceding but three-fifths as wide as the prothorax, with prominent eyes; surface moderately and rather closely punctured, very densely on the neck and more coarsely rugose toward each eye; epistoma very broadly and deeply impressed, the impression separated from each of the deep lateral excavations by a rounded oblique ridge; mandibles moderate, circularly rounded externally, finely and but feebly and partially sculptured; antennæ moderate though distinctly longer than the thoracic width, with joints five to eleven glabrous on the flatter sides, either entirely, or, in the case of the outer joints, in a small basal area; prothorax of peculiar form, four-fifths wider than long, parallel, the sides very feebly arcuate, gradually more rounding apically, rather narrowly reflexed, more so basally, the angles moderately produced and broadly rounded; surface with close-set punctures, becoming rugulose peripherally and especially coarse and dense in the foveæ, which are rounded, rather deep and at some distance from the sides; elytra oblong, two-fifths longer than wide, a fourth or fifth wider than the prothorax, just visibly wider behind,

rapidly obtusely ogival at apex, the humeri strongly and rapidly rounded; surface with the punctures of the triplicate series small and well separated, badly defined; intervals bearing the foveæ notably convex, smooth, the foveæ small, shallow and metallic green, the submarginal green line of asperate punctures distinct. Length ( $\sigma^7$ ) 16.5 mm.; width 7.3 mm. California (Palm Spring).

The anterior male tarsi are not quite so strongly dilated as in *sagax* and the three dilated joints together have a more oval outline; the second and third joints are less than twice as wide as long, the inner edge nearly straight, the outer more oblique and arcuate. The close-set row of punctures along the lower edge of the femora is more conspicuous.

**Calosoma præstans** n. sp.—Oblong, convex, much larger in size, moderately shining, black, the anterior parts with faint, the elytra with strong, cupreous lustre; under surface and legs deep shining black; head rather large, two-thirds as wide as the prothorax, the eyes abruptly prominent, the surface closely punctato-rugose; epistoma broadly and feebly impressed medially, with the lateral excavations unusually wide; mandibles moderate, evenly arcuate externally; antennæ but slightly longer than the thoracic width, the fifth joint pubescent throughout, except in a shining glabrous basal area; prothorax relatively moderate in size, four-fifths wider than long, widest barely before the middle, the sides parallel, subevenly and moderately rounded, the edge sharply reflexed; basal angles well produced, circularly rounded; surface coarsely and densely punctate, more coarsely rugose basally, the foveæ distant from the sides and moderately deep, slightly elongate; basal and apical beading unusually thick; elytra parallel and with feebly arcuate sides, oblong, convex, four-sevenths longer than wide, not quite one-half wider than the prothorax, the humeri rapidly and strongly rounded; foveæ small, shallow, metallic green, the smooth elevations joining them longitudinally short, distinct; triple intermediate series irregularly and shallowly comminuted, each with a series of asperate punctures. Length ( $\varphi$ ) 21.0 mm.; width 8.7 mm. California (Butte Co.).

This species is very distinct among the others of this section by its larger size, bright cupreous elytra and other characters; the male is not at hand and would probably show some interesting tarsal modifications.

*Transversa* Csy., from San Diego, resembles *sagax* considerably, though having a less highly polished and more shallowly sculptured surface, but the mandibles are rather longer and are much less strongly arcuate externally in the female type of that species than in the male of *sagax*. *Esuriens* Csy., also from San Diego, is a smaller, narrower and more parallel species than either *sagax* or

*transversa*; it is represented in my collection only by the female. *Cancellata* is represented by four specimens from various parts of Oregon.

The two following species belong to the *tepidata* section, but are much smaller in size:

***Calosoma pallax*** n. sp.—Rather small and narrow, moderately convex, not very shining, deep black throughout; head fully three-fourths as wide as the prothorax, with the usual abruptly very prominent eyes; surface closely, deeply punctured and subrugose, more coarsely rugose toward each eye, broadly impressed anteriorly; epistoma not impressed medially at apex, the lateral grooves deep, separated from the apex by a thin margin; mandibles unusually long and narrow, rapidly rounding toward tip; antennæ nearly one-half longer than the thoracic width, the joints five to nine with a broad feeble glabrous groove along the flat sides; prothorax relatively small, two-thirds wider than long, the sides parallel, evenly and circularly rounded from apex to base and sharply reflexed, widely and vertically so at base, the basal angles much narrower than in the preceding section, rounded and feebly produced behind; surface deeply and very closely punctate, more coarsely and rugosely so peripherally, the median stria very fine; foveæ rather small, deeply concave, adjoining the reflexed sides; elytra two-fifths longer than wide, fully one-half wider than the prothorax, distinctly inflated behind, the sides broadly arcuate, rapidly rounded at the humeri, where the edge has three distinct serrations; surface with about fifteen fine and feeble striæ, much confused at the sides, the intervals crossed by deep lines forming asperulate tessellation; umbilicate foveæ of the three series very moderate, their bottoms bright cupreous; third anterior male tarsal joint short, twice as wide as long. Length ( $\sigma^7$ ) 16.0 mm.; width 7.2 mm. A single specimen without indication of locality, but probably from Oregon or adjacent region.

Very distinct in its rather small size, less convex surface, canaliculate antennal joints, long and slender mandibles and other features.

The species described by me some years ago under the name *indigens*, differs from *pallax* in its broader prothorax, widest sensibly before and not at the middle, in its shorter, more regularly arcuate mandibles and convex, uncanaliculate and more glabrous fifth antennal joint. From *tepidata* it differs in its smaller size and rather narrower form, in the much less densely strigilato-rugose mandibles, trapezoidal and not briefly parallel epistoma, less posteriorly projecting hind thoracic angles, more slender tarsi and shorter tarsal claws; it is however, somewhat more closely allied to *tepidata* than it is to any other described species.

**Calosoma semicuprea** n. sp.—Form rather convex, more ventricose than in the preceding, rather shining black, the anterior parts without trace of metallic lustre, the elytra bright cupreous, with bright greenish or cupreous foveæ; under surface and legs deep black; head fully three-fifths as wide as the prothorax, with very prominent eyes; surface sparsely and irregularly punctate basally, rugose toward the eyes, the latter with prominent superciliary ridge, and smooth medially, rugose laterally toward apex; epistoma nearly smooth, feebly impressed at the middle of the apex, the lateral excavations deep, nearly smooth; mandibles subcircularly rounded externally; antennæ nearly as in *tepida*; prothorax four-fifths wider than long, widest barely before the middle, with evenly rounded sides, which are rather broadly reflexed, strongly so basally, the angles rounded, feebly produced; surface finely vermiculato-punctulate, coarsely rugose at base and in the moderate concave foveæ, the beading at base and apex somewhat poorly defined; elytra two-fifths longer than wide, one-half wider than the prothorax, feebly dilated behind, with broadly arcuate and well reflexed sides, the edge basally with four or five distinct serrules; surface with sculpture nearly as in *tepida*, except that the metallic foveæ are very much larger and very conspicuous; anterior male tarsi of the *tepida* type. Length (♂) 17.0 mm.; width 7.8 mm. A single specimen without indication of locality, but probably from the northern Rocky Mountain region.

This species is altogether distinct from *tepida* in coloration, in the smaller anterior parts, sculpture of the head and epistoma and especially in the very much larger and more brilliant metallic foveæ of the elytra; the dimensions of *tepida* are 20.0–21.0 by 9.0–9.8 mm.

The following is a remarkably distinct species, larger and very much stouter than *semicuprea* and with relatively larger head and more elongate mandibles:

**Calosoma cogitans** n. sp.—Stout, convex, moderately shining, deep black, the elytra subcupreous in the deep impressed anastomosing lines and with greenish-cupreous foveæ, which are almost as conspicuous as in *calida*; under surface deep shining black; head two-thirds as wide as the prothorax, with very prominent eyes; surface deeply and rather coarsely, closely and irregularly punctate and subrugulose; epistoma deeply impressed in median fourth at apex, the lateral excavations deep; mandibles three-fourths as long as the width across the eyes, rather narrow, circularly rounded externally and closely sculptured; antennæ two-fifths as long as the body; prothorax very nearly twice as wide as long, widest at the middle, the sides thence arcuate anteriorly and oblique and nearly straight posteriorly, the angles strongly rounded and distinctly projecting behind; surface deeply and closely punctate, more coarsely and rugosely so peripherally; side margins sharply reflexed, more broadly toward base, the foveæ large and rather shallow; median line fine, entire; apical beading thick, the basal obsolete; elytra oblong,

T. L. Casey, Mem. Col. IX, Jan. 1920.

inflated posteriorly, a third longer than wide, nearly two-thirds wider than the prothorax, the humeri strongly rounded; surface with confused flattened tessellate sculpture, the tegulæ frequently forming transverse rugulation, closely subgraniform toward sides and apex; legs moderate; hind tarsi four-fifths as long as the tibiæ. Length (♀) 22.0 mm.; width 10.0 mm. Utah (Stockton),—Spalding.

The conspicuous metallic foveæ of the elytra are about ten to fourteen in number in the series, more widely separated suturally than externally; the metallic foveæ of the submarginal line are small and close-set. This species is allied to the preceding.

The species from Vancouver Island named *irregularis* by Walker, is said to be æneous-black, 12 lines (24 mm.) in length, the head rugulose in front and the elytra each with three discal series of golden points. If the length is accurately stated it is even much larger than *tepida* and is probably a valid species, though nothing more definite can be said of it at present. Probably *cogitans* is its nearest relative from the Rocky Mountain region, though distinct without much doubt.

The form which I announced some years ago under the name *Calosoma davidsoni* as a subspecies or variety of *semilævis*, I now believe to be entitled to a fully specific status; the prothorax is of a distinctly different habitus, being relatively smaller, much narrower, more parallel and less arcuate laterally in both sexes; the following, however, is probably a subspecies of *semilævis*:

***Calosoma semilævis* ssp. adjutor nov.**—Body in general form and habitus almost exactly as in *semilævis*, but differing in the sculpture of the pronotum, which in the latter is finely, densely punctate throughout, more coarsely base and apex medially, the punctures coarser, dense and rugose toward the sides; here however the punctures centrally are very fine and sparse, becoming coarse but well separated and not at all rugose basally and apically toward the middle, but almost similarly coarse, dense and rugose toward the sides; it differs also in the maxillary palpi, the fourth joint of which in *semilævis* (♂) is nearly three-fourths longer than wide, while here it is stouter and very much shorter, being less than one-half longer than wide. Length (♂) 23.0 mm.; width 10.0 mm. California (Alameda).

The surface of the head is much less densely punctate in *adjutor*, which at present is represented by only one specimen.

There is a group of species allied to *prominens* Lec., but smaller in size and especially very much narrower, with relatively smaller prothorax. The first of this group to be made known was *parvi-*

*collis* Fall, from southern California, Arizona and Nevada; then I described *clemens*, from southern Nevada, and the following is still another related species:

**Calosoma pertinax** n. sp.—Rather slender and convex, deep shining black throughout, without trace of metallic lustre, except a feeble bluish tinge on the sixteenth interval, from slightly before the middle to the apex, this interval only in the metallic part bearing a regular series of small subasperate punctures; head three-fifths as wide as the prothorax, the eyes well developed and very prominent; surface with coarse and well spaced punctures, becoming smaller anteriorly and on the neck, having anteriorly two feeble longitudinal impressions, the epistoma not definitely impressed medially, the lateral sulci large, deep and perfectly smooth; mandibles slender, regularly arcuate and very densely rugose; antennæ longer than the head and prothorax, the latter three-fourths wider than long, angularly prominent at the sides medially, thence arcuate anteriorly and straight, sometimes slightly crenulate posteriorly, the angles oblique, narrow and very acute; base feebly arcuate, slightly narrower than the apex; surface finely, remotely punctulate and feebly creased, becoming coarsely punctate or rugose medio-apically and more broadly toward base; edges feebly reflexed, the foveæ large but only very feebly impressed; median stria well impressed, subentire; elytra nearly three-fourths longer than wide, four-fifths wider than the prothorax, very slightly wider behind the middle than at base; humeri rapidly rounded, the edges basally with four or five long and very feeble serrules; surface micro-reticulate, finely, feebly striate, the striæ with small punctures, which are transversely connected by very coarse deep grooves, delimiting medio-posteriorly prominent tegulæ in a large sub-basal region, the transverse lines posteriorly gradually feeble, then only visible along the middle of the intervals as fine punctulation; foveæ very small, sometimes metallic-green; anterior male tarsi moderately dilated, the third joint two-thirds wider than long. Length ( $\sigma^7$ ) 20.5 mm.; width 9.0 mm. New Mexico (Albuquerque),—Snow.

The largest of these three species is *parvicollis*, having the epistoma impressed in the middle from apex nearly to the base, the anterior male tarsi more dilated, with the third joint twice as wide as long and the extreme tip of the abdomen rugose. In *clemens* the anterior male tarsi are much more narrowly dilated, the third joint only one-half wider than long, the abdominal tip feebly rugose and the epistoma more narrowly impressed in the middle to a little behind the centre. In *pertinax* the corresponding characters are mentioned above; the abdominal apex is nearly smooth, finely punctate, with the usual four setigerous punctures. In *clemens* the angles at the sides of the prothorax are less acute than in the other two, and in *pertinax* the prothorax is shorter than in *parviceps*

and relatively even smaller in size. All these comparisons are taken from the male.

### Callisthenes Fisch.

The species of this genus are numerous, but have been greatly confused in the scanty literature concerning them. The species of the *pimelioides* group are distinguished from those of the *luxatus* group, by having the sculpture stronger and denser on the anterior parts and more granuliform on the elytra; they may be separated readily, so far as known to me, as follows:

Elytra with the rows of teguliform elevations separated by definite and rather deep striæ.....2

Elytra with the tegulæ in regular series, which are not separated by definite striæ.....4

2—Sides of the elytra rather widely and strongly reflexed basally. Small, oblong-suboval, rather convex, black, somewhat shining but without metallic lustre of any kind; head three-fifths as wide as the prothorax, with rather small, moderately prominent eyes; surface with sparse vermiculate creases, more numerous laterally and basally and mingled with a few remote minute punctures; epistoma with broad flat apical beading, the lateral excavations deep; mandibles semicircular externally, much produced inwardly at tip; antennæ as long as the head and prothorax, the pubescent triangular flat area on each joint well developed; prothorax three-fourths wider than long, widest anteriorly but with the sides broadly and feebly arcuate throughout and but slightly oblique behind, sharply and strongly, subevenly reflexed; basal angles well produced posteriorly and unusually narrowly rounded; surface finely, not closely punctate, more coarsely and closely rugose peripherally, the sculpture becoming especially coarse and dense in the foveæ, the deepest part of which is small, rounded and distant from the sides; apical beading broad and thick; stria fine; elytra short, oblong, parallel, with evenly arcuate sides and broadly obtuse apex, barely a fourth longer than wide, not quite one-half wider than the prothorax; tegulæ mutually contiguous and subevenly and moderately convex, subasperately prominent at the middle of their hind margins and, toward the sides and apex, becoming very close and coarsely graniform; anterior male tarsi narrowly dilated; tarsi short. Length (♂) 14.3 mm., width 6.8 mm. Northern Rocky Mountain region.

**reflexus** n. sp.

Sides of the elytra similarly rather widely reflexed basally, the sculpture and striation very different. Body short, convex, shining, deep black; head moderate, four-sevenths as wide as the prothorax, with only moderately prominent eyes; surface remotely biimpressed anteriorly, finely, sparsely punctate and with some fine irregular impressed lines; epistoma not impressed at apex, the lateral sulci



rather deep; mandibles finely sculptured, not evenly arcuate externally as in the preceding, but more arcuate apically; antennæ short, the fifth joint almost completely glabrous, the succeeding joints each with triangular pubescent area as usual; prothorax not quite twice as wide as long, widest at the middle, the sides anteriorly broadly rounded, moderately oblique and nearly straight in basal half, the produced angles narrowly rounded; edges sharply and somewhat strongly reflexed, a little more so basally; surface minutely and sparsely punctate, rather coarsely but not densely at sides and base; fine feeble lines are also visible throughout; foveæ small and feeble, at base distant from the sides; median stria distinct, entire; elytra very short, barely a fifth longer than wide, two-fifths wider than the prothorax, parallel, with rounded sides and very obtuse apex; tegulæ more convex than usual in the *striatulus* section, the striæ not so regular but finely broken and having fine punctures, the tegulæ at the sides more convex and less close-set, having the form of coarse contiguous granules apically; tegulæ on the disk rather longer than wide; anterior male tarsi very narrowly dilated; tarsi unusually long, the posterior fully as long as the tibiæ. Length (♂) 15.5 mm.; width 7.0 mm. Utah (Stockton),—Spalding.....**utensis** n. sp.

Sides of the elytra toward base narrowly, or at least not conspicuously, reflexed, the sculpture nearly as in *reflexus*, except that the tegulæ become distinctly graniform only toward apex.....3

3—Tegulæ generally rather shorter than wide and somewhat flattened. Body stouter, moderately convex, similar in color and lustre; head three-fifths as wide as the prothorax, with well developed convex eyes; surface with sparse vermiculate creases mingled with small punctures, smooth medially toward apex and on the epistoma; mandibles short, feebly sculptured; antennæ similar but with the triangular pubescent areas less well defined; prothorax broader, very nearly twice as wide as long, widest but little before the middle, the sides arcuate and moderately reflexed, becoming oblique and straighter posteriorly, the angles well produced and narrowly rounded; surface sculpture somewhat as in the preceding but stronger and more uniformly dense throughout; scutellum larger and more broadly triangular; elytra oblong-oval, the parallel sides more strongly, subevenly arcuate and the apex very obtusely subogival, slightly over a fourth longer than wide, not quite one-half wider than the prothorax; anterior male tarsi rather narrowly dilated. Length (♂) 15.0 mm.; width 7.5 mm. Wyoming. Utah,—LeConte.....**striatulus** Lec.

Tegulæ elongate and more convex, each as a rule composed of two tegulæ of the size seen in *striatulus*, the suture between these segments being partially visible at times. Body smaller and narrower, more ventricose, moderately convex, rather strongly shining, deep black; head nearly similar, with small and sparse punctures mingled with some vermiform creases, especially distinct and longitudinal near the eyes, nearly smooth broadly antero-medially; mandibles rather small and slender, circularly rounded externally, only feebly

sculptured; antennæ as long as the head and prothorax, the long pubescent patches as usual; prothorax rather small, two-thirds wider than long, widest near apical third, where the sides are somewhat strongly rounded, thence rather strongly oblique and nearly straight to the angles, which are well produced and unusually narrow, strongly rounded at tip; margins somewhat broadly and strongly reflexed and subequally so throughout; punctures rather small but deep, well separated, coarse peripherally, barely at all so at apex, where the bead is very broad and notably flat; surface postero-laterally gradually declivous toward the lobiform angles, there being no distinct impressed fovea; elytra oval, with subparallel and strongly arcuate, sharply reflexed thin sides and gradually subparabolic apex, not quite a third longer than wide, one-half wider than the prothorax, the dividing longitudinal striiform lines rather deep. Length ( $\sigma^7$ ) 13.5-14.3 mm.; width 6.3-6.7 mm. California (Placer Co.). Three examples. . . . . **exaratus** Csy.

Tegulæ flatter and subquadrate, rather more widely separated throughout than in either of the two preceding. Body more strongly convex and more ventricose, deep black, rather shining; head fully four-sevenths as wide as the prothorax, the eyes moderately prominent; surface sparsely but somewhat strongly punctate and with some short fine impressed lines, moderately biimpressed anteriorly, the impressions rather coarsely and more closely punctate, the anteromedial surface smooth; epistoma nearly as in the preceding; mandibles unusually small, very feebly, sparsely sculptured; antennæ short as usual, the fifth joint with a triangular and apical, densely pubescent area as in succeeding joints but less developed; prothorax only two-thirds wider than long, widest somewhat before the middle, but with the sides very evenly arcuate from apex to base, in a manner notably differing from any of the allied species, equally and moderately reflexed at the edge throughout, the angles moderately produced and more broadly rounded than in any of the allied species; surface with fine and well separated punctures and fine lines, coarsely, densely rugose laterally but not basally, the stria distinct, entire; foveæ subobsolete, very faintly impressed; scutellum smaller than usual, very short; elytra between a third and fourth longer than wide, three-sevenths wider than the prothorax, oval, with rounded sides and obtusely ogival apex; tegulæ subquadrate, very moderately convex, having the form of well separated granules at the sides, becoming closer apically, the intervening spaces opaculate; striæ rather evenly continuous, fine, not at all punctate; hind tarsi much shorter than the tibiæ. Length ( $\varphi$ ) 16.0 mm.; width 6.9 mm. Utah (Stockton),—Spalding. . . . . **semotus** n. sp.

- 4—Tegulæ flatter, only very slightly convex, more oblong in form and subcontiguous. . . . . 5  
 Tegulæ well separated laterally, more convex and more graniform throughout. . . . . 7  
 5—Head in apical half, except at the sides, nearly smooth, the remainder of its surface with rather coarse, close-set and evenly distributed punctures; body smaller in size. Black throughout, rather shining,

without trace of metallic lustre; head three-fifths as wide as the prothorax, with the eyes moderately prominent, rather narrow, the rugosity not at all close; antennæ as long as the head and prothorax, the fifth joint with a very small shining area having very few punctures and not at all like the longer areas of fine and denser punctures on the succeeding joints; prothorax rather small, scarcely two-thirds wider than long, widest anteriorly, the sides rather strongly rounded, somewhat finely and not strongly reflexed, becoming notably oblique and straight behind the middle, the angles broadly rounded and but very slightly produced behind; surface with sparse and deep but moderate punctures, which are more or less connected by feeble vermiculate lines, coarser and more closely rugose laterally and in the extremely shallow elongate foveæ; stria short, fine; scutellum angularly impressed at base; elytra two-fifths longer than wide, a third wider than the prothorax, oblong-oval, the tegulæ broadly convex, pointed behind, obsolescent at the humeri, not graniform at the sides though taking the form of coarse and widely separated, pointedly convex granules apically; anterior male tarsi very narrowly dilated. Length ( $\sigma^7$ ) 15.5 mm.; width 6.7 mm. Oregon. [*C. zimmermanni* Csy. nec Lec., olim.]. . . . . **debilis** n. sp.

Head almost uniformly punctate and rather sparsely, the punctures but little smaller and sparser antero-medially, smaller and closer on the neck; body larger and much broader than in *debilis*, deep black, rather shining, the head well developed, fully three-fifths as wide as the prothorax, with more prominent eyes than in *debilis*, the antennæ nearly similar; mandibles more strongly arcuate; prothorax nearly four-fifths wider than long, the general outline and sculpture nearly as in *debilis*, but with the sides much more strongly reflexed, conspicuously so toward base, the produced basal angles more strongly rounded; median stria coarser, deeper and entire; elytra notably short, subquadrate, moderately convex, just visibly longer than wide, nearly one-half wider than the prothorax, the parallel sides broadly arcuate, obtusely ogival at apex, the humeri rather rapidly but not narrowly rounded, the margins sharply and strongly, subevenly reflexed; tegulæ convex, oblong-oval, prominently pointed at their posterior ends, the eighth series with a few small remote asperate punctures; the tegulæ toward the sides and apex are smaller, closer and more graniform; under surface sparsely punctate, the legs and tarsi black. Length ( $\varphi$ ) 17.0 mm.; width 8.0 mm. Utah (Parowan),—Spalding. . . . . **parowanus** n. sp.

Head much more finely and rather closely punctate, the punctures obsolescent antero-medially, sparse and coarser in a transverse sinuate band extending unbrokenly between the eyes; mandibles short, with notably sparse and rather feeble sculpture; body broader, oblong-oval, somewhat convex, deep black and rather dull in lustre, the elytral tegulæ very moderately convex at the sides and apically. . . . . 6

6—Head larger, nearly two-thirds as wide as the prothorax, of the usual

form; fifth antennal joint with a definite narrow area of dense punctures of the same character as the larger densely pubescent areas of the succeeding joints; prothorax three-fourths wider than long, the rounded and moderately reflexed sides oblique and nearly straight in basal half, the angles more narrowly rounded and more produced behind than in *debilis*, very closely, subuniformly punctate to the sides and base, more coarsely in the foveal region, which is flat, the foveæ not evident; elytra only a fourth longer than wide, almost one-half wider than the prothorax, oblong-oval, with rather well marked humeri; tegulæ becoming very fine, feeble and obsolescent on the basal slope. Length (♀) 15.4 mm.; width 7.3 mm. California (locality unrecorded).....*tegulatus* Csy.

Head not quite so large, three-fifths as wide as the prothorax, with similarly only moderately convex eyes; fifth antennal joint without trace of fine close punctures, excepting a very few on the upper surface in a small and not sharply defined area; prothorax in outline as in the preceding but somewhat shorter, four-fifths wider than long; punctures somewhat close-set, moderately small, becoming rapidly very coarse and rugose laterally, the reflexed margin more broadly shining and impunctate than in the preceding; foveæ traceable but very shallow, the hind angles as in *tegulatus*; elytra less broad, a third longer than wide, but little more than a third wider than the prothorax; tegulæ more truncate behind than in the preceding, and, on the basal slope, remaining distinct and elevated though smaller in size; narrow depressions of the surface separating the tegulæ with some barely glimpsible greenish lustre, wholly unobservable in *tegulatus*; humeral angles more broadly rounded. Length (♀) 14.6 mm.; width 6.9 mm. California (locality unrecorded).....*viator* Csy.

7—Body stout, rather convex, deep black, shining, without trace of metallic lustre, the surface separating the elytral tubercles dull or subopaque; head well developed, fully three-fifths as wide as the prothorax, with somewhat long wide neck, the eyes but very moderately convex; surface with deep and moderate, close-set punctures and some rugosity throughout, the latter denser toward the eyes; mandibles rather short, rugose, the outer outline circular; antennæ nearly as long as the head and prothorax, the fifth joint densely pubescent on the edge in distal half, the pubescent areas of the outer joints more extensive as usual; prothorax fully four-fifths wider than long, widest more or less before the middle, the sides subevenly arcuate but more converging basally, rather sharply and evenly reflexed, the neighboring surface bearing numerous erect setæ throughout the length; basal angles rounded, only moderately produced behind; punctures close-set, not very coarse, becoming a coarse dense vermiculate rugosity laterally and basally, the foveæ narrow, feebly impressed, rather distant from the sides; scutellum longitudinally strigilate; elytra two-fifths (♂) to between a third and fourth (♀) longer than wide, oblong-oval, with arcuate sides and rather distinct humeri, the tegulæ strongly convex, strongly graniform and more separated laterally and apically; anterior male

tarsi distinctly dilated. Length ( $\sigma^7$  ♀) 14.4–16.0 mm.; width 7.2–7.6 mm. California (Humboldt Co.). Vancouver Island,—Walker.

**pimelioides** Walk.

Body smaller and narrower than in the preceding, similar in color and lustre; head nearly two-thirds as wide as the prothorax, somewhat elongate, with moderately prominent eyes; surface with moderate, deep and sparse punctures, intermingled with vermiculate rugulæ, smoother antero-medially; mandibles nearly similar; antennæ almost similar, piceous at apex, the fifth joint with the triangular dense patch smaller, occupying much less than apical half of the narrow sides; prothorax narrower, more cordiform, three-fourths wider than long, widest anteriorly, where the sides are strongly rounded, thence notably converging and nearly straight to the base, the angles more produced and narrower, strongly rounded; sculpture nearly similar but nowhere quite so dense, the surface with numerous erect setæ near the reflexed edge; median stria deep, almost entire; scutellum not evenly strigilate; elytra oblong-oval and two-fifths longer than wide, the parallel sides broadly arcuate, the apex obtuse; humeri broadly rounded; sculpture nearly as in the preceding; anterior male tarsi more narrowly dilated than in the preceding. Length ( $\sigma^7$ ) 14.3 mm.; width 6.8 mm. California (Yreka, Humboldt Co.),—Levette.....**pustulosus** Csy.

It is but seldom that the above species can be said to be very closely allied among themselves; *pustulosus* is easily distinguishable from *pimelioides* by its smaller size, much narrower form, smaller, less transverse, more rectilinearly narrowed prothorax, less dense sculpture of the anterior parts and more prominent eyes. In a similar way *tegulatus* and *viator* are rather closely allied, but the latter can be distinguished at once by its notably smaller head, relatively less broad but more oval elytra and by the nature of the sculpture on the basal slope near the humeri. The above *pimelioides* answers very well to the short description given by Walker (Nat. in Br. Col., II, p. 312), and the California examples can at least be assumed to be specifically identical.

The following is a remarkable new form in the *luxatus* section:

**Callisthenes klamathensis** n. sp.—Narrowly elongate-oval, strongly convex, deep polished black, without trace of metallic lustre; head two-thirds as wide as the prothorax, with rather prominent eyes, the surface with fine and remote punctures, intermingled with fine and sparse vermiform scratches, broadly biimpressed anteriorly, the excavations at the sides of the epistoma large and very deep; mandibles moderate, arcuate externally, with moderate sculpture of the usual character; antennæ slender, somewhat longer than the head and prothorax, the flatter sides of the joints glabrous, narrowly so on the outer joints; prothorax only three-fifths wider than long, widest before the middle, the

sides broadly rounded and sharply, subequally reflexed, converging and straighter basally, the angles rather narrow, produced posteriorly and evenly rounded; surface polished, finely and sparsely punctate, much more coarsely but not densely laterally and basally, the foveæ wanting, the surface there being merely flat, the side margin basally rather more strongly reflexed; median stria distinct, entire; elytra evenly oblong-oval, two-fifths longer than wide, two-fifths wider than the prothorax, the humeri gradually rounded; surface very shining, with series of irregular oblong contiguous tegulæ, which are but very slightly convex and separated along their sides by fine, feeble and minutely punctate lines, which do not produce the effect of continuous striæ, the transverse lines fine and feeble and bearing each a small subasperate puncture; toward the sides the tegulæ do not differ in form but become slightly more convex; apically, they become subgraniform; sides of the abdomen toward base coarsely punctate, the short transverse met-episterna sparsely and much less coarsely punctulate; anterior male tarsi narrowly dilated, with coarse black lateral fringes. Length (♂) 15.0 mm.; width 7.0 mm. Oregon (Klamath Co.),—Nunenmacher.

This species is probably narrower than either *monticola* or *nevadensis*, although the latter two are now represented only by the rather stout females; the sculpture of the elytra is very different, there being no regular smooth striæ as in those species, the fine irregularly arcuate lines bordering the tegulæ not forming striæ and having numerous very fine punctures. In the still more aberrant *diffRACTUS*, from New Mexico, the tegulæ, which are irregular and similarly flat, are separated transversely by rather deep short lines, but there is scarcely any trace whatever of longitudinal lines separating them, and the sides of the elytra basally are coarsely serrate; there is no trace of this serration in either *monticola*, *nevadensis* or *klamathensis*. I regret not knowing at present typical examples of the species described by Say, from the Arkansas Valley, as *luxatus*; it is evident that the Sierran species are different, and there is scarcely any probability that *diffRACTUS* can be at all closely related.

It is rather uncertain whether the following species should be placed in *Calosoma* or *Callisthenes*, but most of its characters harmonize better with the latter than with *Calosoma*:

\**Callisthenes lævissimus* n. sp.—Oval, strongly convex, highly polished, the upper surface with scarcely a trace of sculpture, black, the elytra broadly rufescent on the suture basally in only the male of the two specimens at hand; under surface very smooth, deep black, the abdomen with some coarse sparse punctures laterally; head small,

about half as wide as the prothorax, with rather prominent eyes; surface smooth, with a very few feeble punctures near the apical angles; epistoma deeply foveate at the middle of the apex, the lateral sulci deep and rather narrow; mandibles moderate, smooth, only feebly arcuate externally; antennæ not quite as long as the head and prothorax, with joints five to eleven finely, closely punctate and pubescent throughout; prothorax three-fourths ( $\sigma^7$ ) to three-fifths ( $\varphi$ ) wider than long, parallel, with evenly and circularly rounded, thickly beaded sides, the basal angles broadly rounded but only very slightly produced behind; apical and basal beading wholly wanting; median stria fine, not quite entire; surface smooth, without trace of sculpture of any kind, evenly declivous to the lateral beading and without reflexure near the sides; at a little behind the middle there is a large foveiform puncture, apparently not setigerous; scutellum very broadly and obtusely ogival; elytra oblong-oval, a third longer than wide, a fourth ( $\sigma^7$ ) to three-sevenths ( $\varphi$ ) wider than the prothorax, the sides evenly arcuate, the humeri very broadly rounded; surface almost completely devoid of any trace of longitudinal series of punctures, except three rows of small distant and feebly impressed non-metallic foveæ and a submarginal series of fine asperulate punctures; metasternum extremely short behind the coxæ, the metepisterna a third wider than long; anterior male tarsi moderately dilated. Length ( $\sigma^7$   $\varphi$ ) 14.8–15.5 mm.; width 7.2–7.65 mm. Mexico (Salazar, Mex.),—Wickham.

The fact that these specimens were taken in the same locality as that of *Calosoma diminuta* Bates, the two forms having some striking characters in common, I was led at first to hold *lævissimus* to be the same as *diminutus*, but on considering the description of the latter, and the accompanying figure, more closely, I cannot find much close agreement. In *diminutus*—whether a *Calosoma* or *Callisthenes*—there is apparently a broad feeble reflexure of the thoracic sides and the elytra have regular series of minute punctures, and dorsal foveæ which seem to be conspicuous; in *lævissimus* the latter are small, feeble, very inconspicuous impressed punctures, and series of small punctures are but seldom at all traceable; according to the figure the elytral humeri are much better marked in *diminutus*, and Mr. Bates makes no allusion at all to the conspicuous puncture at each side of the pronotum in *lævissimus*. In this species the antennæ, excepting the four polished basal joints, are finely and densely punctate and pubescent throughout, and without the irregularities noticeable in most of our *Callisthenes*; this, and the very feebly produced basal thoracic angles, might be thought to denote a closer agreement with *Calosoma*, but the body seems to be wingless, the humeral angles being broadly rounded.

**Sphæroderus Dej.**

The following is a rather interesting subordinate form of *stenostomus* Web.:

**Sphæroderus stenostomus** ssp. *æqualis* nov.—Narrower and relatively more elongate than *stenostomus*, nearly similar in habitus, coloration and lustre; head similarly, very small and narrow; fourth antennal joint shorter than the second, not equal thereto as in *stenostomus*; prothorax nearly similar but somewhat more abbreviated, the punctures of the foveæ less numerous and not extending transversely between the foveæ as they do in that species; elytra nearly one-half longer than wide, only two-fifths wider than the prothorax, the striæ narrower and less strongly punctate; coarse punctures of the broad epipleura less numerous. Length (♀) 12.5 mm.; width 4.8 mm. Pennsylvania.

The elytra are narrower and relatively longer than in *stenostomus* and less coarsely and less deeply sculptured.

**Irichroa Newm.**

This is an evidently distinct genus, containing a considerable number of species and representing in the east *Pemphus* and *Brennus* of the west coast. The following is the smallest species known to me, although there are some examples of *ridingsi* and *monongahela* which are almost similarly small in size, but the head here is still narrower and the prothorax relatively smaller in size:

**Irichroa tenuiceps** n. sp.—Polished black, with dark purplish reflection, the head without trace of such coloration, deep black and but little more than half as wide as the prothorax, smooth, the feebly rugulose superciliary impressions joining the smooth deep anterior depressions; epistoma smooth, subquadrate, the suture fine, deeply sinuate; lateral lobes long, smooth; mandibles long, slender, hooked at tip and each with the usual two sharp erect internal teeth; antennæ very slender, pale brown, the first four joints black; prothorax slightly elongate, widest and with subprominent sides a little before the middle, the sides thence evenly, feebly sinuate and oblique to the basal angles, which are extremely obtuse and feebly marked, thence more oblique to the transverse base, which is distinctly narrower than the apex; margins finely but sharply reflexed; foveæ narrow, elongate, slightly punctate, the transverse connecting sulcus very deep; anterior impression deep, angulate; elytra evenly oval, more pointed and somewhat deplanate at apex, scarcely one-half longer than wide, nearly two and one-half times as wide as the prothorax, without humeral angles; striæ strong, very deeply impressed and rather strongly, subcrenately punctate; epipleura strongly, sparsely punctate; anterior male tarsi extremely feebly dilated, very slender, the first three joints spongiöse beneath. Length including mandibles (♂ ♀) 13.8–15.7 mm.; width 5.8–6.7 mm. Pennsylvania (Uniontown),—Brown.



Differs from *monongahelæ* Leng, from the same regions, in its distinctly smaller size, narrower form, narrower and more elongate prothorax, smaller and much narrower head and especially in the still decidedly more slender anterior male tarsi. Among a large series of *monongahelæ* there were two males and two females of this species.

*Monongahelæ* is a fully valid species, quite different from *ridingsi* in its more ventricose form and much deeper and coarser elytral sculpture; a specimen of *ridingsi* was recently given me very kindly by Mr. Mann; it was taken near Washington.

A large series of the following species has been in my collection for some years under the name *germari* Chd., but it is a smaller form, with narrower prothorax and different anterior male tarsi:

***Irichroa mutabilis*** n. sp.—Strongly ventricose, convex, shining, violaceo-cupreous, varying to bronze or obscure bluish, deep black beneath; head two-thirds as wide as the prothorax; last joint of the palpi variable in form and size; antennæ long and slender; prothorax relatively small, a little longer than wide, not inflated, widest slightly before the middle, where the sides are obtusely subangulate, thence very slightly converging and arcuate to the broadly rounded and slightly prominent apical angles and more converging and very feebly sinuate or straight to the rounded basal angles, the margins abruptly reflexed; surface rather flattened, punctured apically, more broadly basally and narrowly along the sides; transverse impressions deep; elytra not quite one-half longer than wide, two and one-half (♂) to two and three-fourths (♀) wider than the prothorax, the humeri rather rapidly rounding as a rule; striæ coarse, very deep and strongly punctured, the sixth and tenth intervals usually with confused coarse punctures beyond the middle; apical slope with confused punctures; anterior male tarsi coarsely punctate and pubescent above, except along the middle, the first joint broader than the second, the spongiose sole extending to basal third. Length (♂) 19.0–20.5, (♀) 21.5–23.5 mm.; width (♂) 7.9–8.3, (♀) 8.8–9.7 mm. Pennsylvania (Uniontown, on the western slope of the Appalachians),—T. M. Brown.

Differs from *germari* in its rather smaller size, narrower and moderately though evidently elongate prothorax and less extended pubescent sole of the first anterior male tarsal joint; this sole in *germari* extends to the base of the joint.

The following seem to be two varietal forms occurring in the same region:

***Irichroa mutabilis*** ssp. *longicollis* nov.—Nearly similar to *mutabilis* but larger, the elytra rather less convex and the coloration tending more

to darker bluish; prothorax more elongate, about a fifth longer than wide, otherwise nearly similar, except that the angulate sides are even less prominent and the basal angles not quite so broadly rounded; elytra nearly similarly sculptured; anterior male tarsi with the first joint not wider than the second, with the pubescent sole extending to basal fourth. Length ( $\sigma^7$  ♀) 20.5–23.5 mm.; width 8.7–10.4 mm.

*Irichroa mutabilis* ssp. *modulata* nov.—Smaller than *mutabilis* and less convex, black, with feeble violaceous lustre on the anterior parts, the elytra bronzed; prothorax small, not distinctly longer than wide, less narrowed at base, the latter three-fifths the maximum width and not barely more than half as it is in *mutabilis*; elytra similar but notably less convex; anterior male tarsi with the first joint not distinctly wider than the second, the spongiose sole extending to between basal third and fourth. Length ( $\sigma^7$ ) 19.2 mm.; width 7.9 mm.

The following may be regarded as a subspecies of *violacea* Lec., which apparently is a species distinct from *andrewsi* and not properly a variety:

*Irichroa violacea* ssp. *amplicollis* nov.—Convex, moderately ventricose, shining, violaceous-black, the elytra brighter cupreo-violaceous; head not quite one-half as wide as the prothorax, the latter a fourth wider than long, the sides abruptly and strongly reflexed, subprominent but rounded just before the middle, thence moderately converging and strongly arcuate to the broadly rounded and subprominent apical angles and more converging and broadly sinuate to the broadly rounded basal angles; base somewhat more than half the maximum width; impressions deep; punctures few and very feeble; elytra oblong-oval, one-half longer than wide, distinctly less than twice as wide as the prothorax, the deep coarse sculpture and the rounded humeri almost as in *andrewsi*; anterior male tarsi rufo-piceous, the first joint with the dense spongiose sole extending virtually to the base, more nearly so than in *andrewsi*. Length ( $\sigma^7$ ) 19.7 mm.; width 8.3 mm. North Carolina (Black Mts.),—Beutenmüller.

The almost completely spongiose sole of the first anterior tarsal joint of the male, will distinguish this form from *violacea* quite readily; the prothorax is very much broader than in *andrewsi*, having a width of 4.7 mm. in the type.

The genus *Irichroa* consists of those forms allied to *guyoti*, *andrewsi* and others, having a comparatively small prothorax, not elevated at the hind angles. Other species which have been associated with those mentioned but presenting a very different habitus, being very stout, with larger prothorax elevated at the hind angles, such as *vidua* Dej., *irregularis* Beut., and *leonardi* Harr., do not pertain properly to *Irichroa* but constitute a distinct genus between

*Irichroa* and *Scaphinotus*, for which I would suggest the name **Megaliridia** (n. gen.).

As will be noted from the description of *tenuiceps*, the slender, straight, internally hooked and spicularly denticulate mandibles, are admirably fitted for seizing and withdrawing the soft bodies of small snails from their shells. These food habits and attendant structures extend, so far as I know, throughout the subfamily Cychrinæ.

#### Brennus Mots.

A considerable number of undescribed species of this genus have become known in recent years, and I utilize this opportunity to make known those that are in my collection at present. In some cases the types described below have formed part of this collection for many years, awaiting additional confirming evidence. The former literature is so obscure and inadequate that it has been very difficult to come to any positive conclusion in regard to the older species, but it seems evident now that of the two large and rather smooth species found near San Francisco Bay, *striatopunctatus* Chd., has a relatively moderate prothorax, with the base about half the maximum width and *alternatus* Mots., which I formerly identified as *striatopunctatus*, has a relatively large prothorax, with notably broader base than in the true *striatopunctatus*. The species from about Sta. Cruz, of rather large size and with notably inflated hind body, more abbreviated than in the two just mentioned, with coarser striæ and with moderate prothorax, half as wide at base as at the point of maximum width, is *lativentris* Mots. I formerly identified it as *ventricosus* Dej., but the latter is a much smaller species, with the hind body in comparison only moderately inflated; Dejean gives the dimensions as 16.0 by 7.0 mm.; the striæ are distinct to the sides, not broken up on the flanks and my series is from Monterey. *Crenatus* Mots., is slightly larger and stouter, the coarse deep striæ coarsely and crenately punctate, becoming confused only rather near the sides; my series is from Sta. Clara; *fuchsianus* Riv., is a very isolated species of large size and almost quadrate elytra, having feebler broken striæ, alternating with the moderate principal striæ, the sculpture coarse, deep and much confused broadly toward the sides; but it is prin-

cipally remarkable and isolated in the strongly elevated reflexed sides of the prothorax. The species named *ovalis* by Motschulsky is related to *striatopunctatus* and is of about the same form, size and sculpture, but the prothorax is relatively smaller and especially much narrower or less anteriorly inflated; an excellent outline drawing was given by the author, rendering its identification quite certain and I have an example which resembles this drawing exactly.

It seems now that the species which I described as *sinuatus*, probably from Sonoma Co., is the true *interruptus*, about 15.5 to 18.5 mm. in length, and that that identified by me under that name (Annals N. Y. Acad., IX, p. 333), a much smaller species, is still unnamed and may be called *parvulicollis* (nom. nov.). In both this and *interruptus* the prothorax is moderate or small in size, smaller in *parvulicollis*, while in *constrictus* Lec., which I formerly identified as *dissolutus* Schm., the prothorax is relatively much larger and the body rather narrower and less ventricose. In *corpulentus* Csy., the hind body is notably short and inflated, but the prothorax is much larger and more inflated than in *parvulicollis*, it occurs at Oakland. *Dissolutus* Schm., would now appear to be a species from the western slopes of the Sierras, and a female at hand from Mokelumne Hill, Calaveras Co., has a general outline of the elytra somewhat as in *oreophilus*, the male probably much less ventricose; the sculpture is coarse and the striæ much broken up toward the sides. *Compositus* Csy., is a very distinct species, with relatively larger prothorax and deep and strongly punctured but only very slightly and sparsely subinterrupted striæ, distinct to the side margins, being only very slightly irregular on the flanks. All just mentioned, from *interruptus* (*sinuatus*) to this point, have strong elytral sculpture and more or less interrupted striæ; and all except *corpulentus* have bluish or violet reflexed elytral margins.

*Brennus decipiens* Csy., is a species quite distinct from *striatopunctatus*, being smaller, with closer elytral striation and relatively much narrower thoracic base. The following species is allied somewhat to *decipiens*, but has the elytra more oblong and much more depressed and the antennæ longer; the first anterior male tarsal joint is pubescent beneath in less than apical half, whereas in *decipiens* the dense pubescence extends to basal two-fifths:

**Brennus subdepressus** n. sp.—Deep black and alutaceous, the elytra more shining though micro-reticulate; head not very narrow though but little more than half as wide as the prothorax; surface smooth, with a few transverse wrinkles centrally; antennæ slender, the fifth joint four times as long as wide; prothorax relatively rather large, wider than long, the sides moderately reflexed and strongly circularly rounded, rapidly narrowed behind, becoming parallel in basal fifth or more; base half as wide as the maximum width; transverse impressions distinct, the median stria deep; subbasal longitudinal impressions very feeble; elytra fully one-half longer than wide, just twice as wide as the prothorax, the sides rather rapidly rounding at base, more so than in *decipiens*; side margins well reflexed; surface with thirteen rather fine but deep and even entire striæ, which are rather finely but distinctly punctate; thence to the sides the striæ are confused, coarser, deeper and more coarsely punctured, but they are still traceable as striæ about five in number; epipleura with a series of punctures near the inner edge; tarsi slender, black, the anterior only slightly dilated in the male. Length ( $\sigma^7$ ) 17.0 mm.; width 7.8 mm. California (Monterey). A single example.

The prothorax is relatively larger than in *decipiens*, where the fifth antennal joint of the male is evidently less than four times as long as wide, the following joints also distinctly shorter than in *subdepressus*.

*Brennus gentilis* Csy., is a species altogether distinct from *crenatus* Mots., having much less coarse and very much more finely punctured striæ; in this latter respect it closely resembles *decipiens*, but the elytral striæ are not confused laterally as in the latter and the head and prothorax are both narrower, the sides parallel at base for a shorter distance. The following is allied to *gentilis*, but is very much smaller and with relatively coarser striæ:

**Brennus montereyensis** n. sp.—Strongly ventricose, convex, black, feebly alutaceous anteriorly, the elytra polished; head notably narrow and elongate, only slightly more than half as wide as the prothorax, smooth, the anterior impressions deep; antennæ piceous, nearly black basally, the fifth joint almost five times as long as wide, this and the following joints distinctly narrower than the fourth; prothorax relatively small, as long as wide, the sides moderately reflexed, subprominent before the middle, rounded anteriorly, oblique and nearly straight thence to the subbasal sinus and, behind this, parallel to the narrowly rounded right basal angles; base half as wide as the maximum width; transverse impressions distinct, the median stria deep; subbasal impressions very faint; elytra oval, a little less than one-half longer than wide, the sides evenly rounding, barely at all more so at base, two and one-half times as wide as the prothorax; striæ coarse, deeply impressed and strongly punctured about to the moderately reflexed side margins, sixteen in number; anterior male tarsi slender, the first joint densely pubescent

beneath only in apical third or fourth; hind tarsi about as long as the tibiae. Length ( $\sigma^7$ ) 13.5 mm.; width 6.3 mm. California (Monterey),—Dunn.

This species is very distinct from *gentilis* in its much smaller size, relatively smaller prothorax, narrower head and coarser elytral punctures and striation; in many respects it closely resembles *integer* Csy., but the stria punctures are more close-set and the side margins more narrowly reflexed and not at all violaceous, as they are feebly in *integer*, and the head is relatively a little narrower, with less prominent eyes; the anterior tarsi are of similar structure in these two species and the size of body is notably small. The elytral humeri are more completely obliterated in *montereyensis* than in either *gentilis* or *integer*.

The following species is related rather closely to *lativentris* Mots. (*ventricosus* Csy. nec Dej.), but has a relatively larger and unusually abbreviated prothorax, flatter stria intervals and longer legs, especially observable in the tarsi; it inhabits the Sierras, while *lativentris* occurs near Sta. Cruz on the coast:

**Brennus brevicollis** n. sp.—Rather large in size, very convex, alutaceous anteriorly, the elytra shining but micro-reticulate, the surface nowhere metallic; head rather large, twice as long as wide, a little more than half as wide as the prothorax and somewhat wrinkled transversely anteriorly; antennae slender, the fifth joint five times as long as wide; prothorax a sixth wider than long, the sides moderately reflexed, obtusely somewhat prominent at the middle, thence rounded and converging to the rounded apical angles and more converging and nearly straight to the basal sinus, which is in line with the subbasal sulcus, thence parallel to the basal angles, which are rounded; base transverse, more than half the maximum width, the transverse impressions distinct but shallow, the median stria fine but deep; foveae very short and faintly impressed; surface with numerous fine transverse creases; scutellum very short and broadly rounded as usual; elytra three-fifths longer than wide, two and two-fifths times as wide as the prothorax, obliquely acuminate in about apical third, the arcuate sides more rounded at base, the humeri as in *lativentris*; striae rather fine, impressed, about eleven of them regular and with moderate, widely spaced punctures, thence more or less confused, coarser and somewhat more coarsely punctate in about outer two-fifths of the width; margins narrowly reflexed, not metallic. Length ( $\sigma$ ) 19.0 mm.; width 9.3 mm. California (Mokelumne Hill, Calaveras Co.),—Blaisdell.

The epipleura have some sparse moderate punctures, more evident than in *lativentris*, but the inner submarginal line of punctures is much less definite than in that species, where also the sides of the prothorax are more widely reflexed.

In a considerable series of species received some time ago as having been collected on St. Paul Island in Bering Sea, there was one *Brennus*; whether or not this had been taken really on St. Paul Island, I have no way of proving, but at any rate it differs from anything else in my collection, being perhaps most closely related to *integer*, differing in its relatively much larger prothorax; it may be described as follows:

***Brennus beringi*** n. sp.—Body small in size, rather convex, deep black, the elytral margins faintly violaceous; elytra polished, the anterior parts strongly shining; head only moderately elongate, half as wide as the prothorax, smooth, with a few feeble transverse wrinkles; antennæ moderate in length, brown, the first four joints black, the fifth not quite four times as long as wide; prothorax relatively large, somewhat wider than long, the sides well reflexed, inflated and subevenly rounded, becoming not very abruptly oblique and nearly straight behind to the subbasal sinus, thence parallel and straight in almost basal fifth; base transverse, with a feeble beveled beading, distinctly less than half the maximum width; transverse impressions rather deep, the stria deeply impressed; foveæ wholly obsolete, the surface with rather close-set fine creases; elytra oval and somewhat over one-half longer than wide, not quite twice as wide as the prothorax, the arcuate sides gradually but little more rounded basally; striae coarse, deeply impressed, strongly punctured, the sculpture confused or broken in lateral third, those which are more or less entire eleven in number; margins rather broadly reflexed; anterior male tarsi narrow and slender; apical third of the first and the entire second and third joints spongy-pubescent beneath. Length (♂) 13.0 mm.; width 6.0 mm. Alaska (St. Paul Island).

This species is named in honor of the distinguished Danish navigator Vitus Bering, this being the most modern spelling of the name, though formerly it frequently took the form of Behring or even Beering; when accurately known the spelling in the specific name can be altered.

The following is one of the more notably elongate of the non-metallic species of the genus:

***Brennus procerus*** n. sp.—Very elongate, rather convex, black, moderately shining throughout; head well developed, slightly more than half as wide as the prothorax, smooth though with rather numerous pronounced transverse wrinkles; epistoma deeply canaliculate apically, the suture fine, deeply sinuate; antennæ rather more than half as long as the body; prothorax relatively rather large, barely visibly wider than long, the sides strongly reflexed, inflated and subevenly arcuate anteriorly, gradually oblique and nearly straight posteriorly, becoming rapidly parallel in basal sixth; transverse impressions distinct, the posterior bisinuate; stria sharply and deeply impressed; foveæ faintly

visible near basal third; surface with numerous fine creases, coarser and more conspicuous basally; elytra fully four-fifths longer than wide, not quite twice as wide as the prothorax, symmetric, the sides broadly, evenly arcuate and but little more so basally; apex gradually sharply ogival; striæ rather coarse and deeply impressed, strongly punctured, becoming more or less confused and broken in nearly outer half, the margins very narrowly reflexed, not at all metallic; anterior male tarsi slender, the apical third of the first and the second and third joints densely spongiose beneath. Length (♂) 17.5 mm.; width 7.3 mm. California (Piedmont, Alameda Co.),—Nunenmacher.

This species may be placed near *compositus* Csy., but is much more elongate and with more narrowed thoracic base, this being narrower in *procerus* and wider in *compositus* than half the maximum width, but in both the prothorax is relatively larger than in *interruptus*; it also comes near *constrictus* Lec. (*dissolutus* Csy. nec Schm.), which also has that part relatively rather large in size and the thoracic base even more narrowed than in *procerus*, but the hind body is more ventricose and the striæ finer and with the intervals more interrupted in *constrictus*:

The species described by Prof. Wickham (Pr. Ent. Soc. Wash., 21, p. 170), under the name *Pseudonomareetus manni*,\* is closely allied in most respects to *Brennus symmetricus* Csy., being merely a little narrower, with the finer elytral striæ relatively more separated internally and closer externally. It belongs to the great Pacific coastal genus *Brennus*, although the anterior male tarsi differ in being more broadly dilated. It is singular that this marked discrepancy in structure of the anterior male tarsi was not more fully dwelt upon by the author, as it constitutes the most remarkable structural peculiarity of the species.

The following is one of the more distinctly defined of the *marginatus* section:

***Brennus columbianus*** n. sp.—Male elongate-suboval, convex, rather shining, the elytra polished, the head black, the pronotum black, with faint violaceous lustre, the elytra bright greenish-æneous, becoming more cupreous basally, the moderately reflexed side margins bright blue

\* As part of a scheme to promote uniformity in nomenclature, it has become an unwritten law to attach a single *i* to all names of persons, in forming the specific name. Under a uniform rule of this kind some ambiguity can be avoided. For instance, if the specific designation were founded upon the family name Jacobi, the specific name *jacobii*, under such a rule, would indicate this, but, if the rule be not observed consistently, it would be impossible to determine whether the name of the person honored might not be Jacob—Latinized to Jacobius.



or greenish; under surface and legs deep polished black, the epipleura violaceous; head narrow, only half as wide as the prothorax; antennæ slender, not quite as long as the elytra; prothorax large, slightly wider than long, the strongly rounded and moderately reflexed sides becoming abruptly oblique and nearly straight in basal half, the angles obtuse, rounded; base transverse, rather wider than the apex and distinctly more than half the maximum width; impressions and foveæ distinct, the latter extending well before the middle; elytra evenly elongate-oval, three-fourths longer than wide, one-half wider than the prothorax, the sides gradually but little more rounded basally, the striæ very coarse and deep, slightly irregular and about thirteen in number; intervals convex, more or less interrupted; stria punctures coarse, deep; anterior tarsi very slender, the second and third joints and the first in apical half spongiose beneath; last ventral segment with a small apical sinus. Female much larger than the male, with relatively smaller prothorax and with the metallic lustre much less pronounced, the elytral striæ not quite so coarse, close-set or deep, very irregular; head half as wide as the prothorax, the latter very nearly as long as wide, otherwise almost as in the male; elytra elongate-oval, more gradually arcuately attenuate behind than in the male, two-thirds longer than wide, very nearly twice as wide as the prothorax. Length ( $\sigma^7$ ) 15.5, ( $\text{♀}$ ) 17.0 mm.; width ( $\sigma^7$ ) 5.8, ( $\text{♀}$ ) 6.8 mm. British Columbia (Victoria).

The female, when compared with the female type of *insularis* Csy., has less brilliant metallic elytra, which are also less elongate, more gradually acuminate behind and less coarsely or deeply striate, the prothorax relatively a little smaller in size, the head decidedly narrower; in *insularis* it is much more than half as wide as the prothorax and, in the latter, the reflexed elytral margins are bright golden, while in *columbianus* they are bright blue or green as stated.

Of the smaller species with metallic coloration and coarsely, deeply and irregularly striate elytra, allied to *marginatus*, there are many forms having a subordinate status; *marginatus* itself is represented before me by a large series of between thirty and forty specimens, comprised in the collections from St. Paul Island, Alaska, alluded to before under *beringi*; in every one of these specimens, varying from 10 to 14 mm. in length, the side margins of the elytra are brilliantly golden, rarely feebly greenish-golden; this is the true *marginatus*. Taken abundantly in British Columbia and Washington State by Keen and others, there is a form of similar length but more slender, having darker metallic coloration and invariably green elytral margins, there being no exception in about forty specimens examined; I take this to be *gracilis* Gehin, the locality having been quoted erroneously by the author, as it is

undoubtedly British Columbian and not Mexican. Then, from Fort Wrangell, in southern Alaska, there is another form, with the hind body slightly shorter and more inflated than in *gracilis*, similarly with bright green elytral margins, but with the sides of the prothorax toward base more distinctly sinuate; the elytral sculpture is coarser and deeper than in the female of *gracilis*; the female type is 13.8 by 5.4 mm. in dimensions and this variety may be known as **wrangelli** (n. subsp.). Finally, from Helena, Mont., I have a male specimen of very small size, convex form, rather ventricose, much more so in fact than in the males of *marginatus* and *gracilis*, black, shining, with violaceous elytra, having a narrow blue margin; head slightly more than half as wide as the prothorax, which is about as long as wide, evenly narrowed in basal half, with the base slightly more than half the maximum width, the elytra coarsely, deeply sculptured, evenly oval, three-fourths longer than wide and scarcely twice as wide as the prothorax; this variety may be called **montanicus** (n. subsp.). The type is 11.0 by 4.4 mm. in dimensions and the anterior male tarsi are slender, the basal joint spongiose only in apical third, the second and third throughout. In all these close allies of *marginatus*, the male is very much smaller and more slender than the female.

The following seems to be a distinct species of this *marginatus* section, with larger prothorax and more gradually posteriorly pointed elytra:

**Brennus oregonus** n. sp.—Rather strongly ventricose, moderately convex, somewhat alutaceous and faintly bluish-black on the pronotum, the elytra cupreous, with bright green reflexed margins; under surface and legs shining black; head smooth, four-sevenths as wide as the prothorax, the antennæ long and slender; prothorax relatively not so small as in *confusus*, as long as wide, the sides slightly prominent just before the middle, rounded anteriorly, oblique and straight thence posteriorly to the base, which is just visibly more than half the maximum width; impressions, stria and foveæ all rather deep and distinct, the foveæ extending evidently before the middle; elytra widest well before the middle, the sides rounded, gradually more feebly arcuate and converging thence for a long distance to the acute tip, three-fifths longer than wide, evidently less than twice as wide as the prothorax; disk flattened or concave suturally before the middle, the sutural elevation strong and unbroken along the scutellum and base; striæ notably coarse, deep and irregular, very coarsely punctate suturally, less so laterally, thirteen in number; anterior male tarsi slender, the soles of the second

and third joints and less than apical third of the first spongiose. Length ( $\sigma^7$ ) 13.5 mm.; width 5.5 mm. Oregon.

Allied somewhat to *confusus* Csy., but with more abbreviated, more gradually posteriorly attenuate and more coarsely, closely and deeply sculptured elytra.

There are a number of forms closely allied to *cordatus* Lec., but different; there is, however, so close a community of habitus, that I could not venture to suggest a higher status than that of the subspecies for them; those at present in my collection are as follows:

Prothorax distinctly wider than long. Deep black, highly polished throughout the upper surface, excepting the head with very faint violaceous lustre; head broader, distinctly more than half as wide as the prothorax, very smooth; fifth antennal joint more than four times as long as wide; prothorax with inflated and evenly arcuate sides, becoming parallel in basal fifth or sixth, the angles broadly rounded; transverse impressions and longitudinal foveæ rather deep and distinct, the median stria deeply impressed, sub-entire; elytra widest somewhat before the middle, gradually arcuately acute behind, more parallel basally, with rather rapidly rounding humeri, three-fourths longer than wide, four-fifths wider than the prothorax; surface rather flattened, the striæ coarse, very feebly impressed, the punctures coarse, isolated and along virtually unimpressed striæ laterally; margins sharply and very narrowly but strongly reflexed, not metallic; tarsi black, slender, the anterior of the male slender, scarcely at all dilated, the second and third joints and small apical area of the first loosely spongy-pubescent beneath, the fourth with longer, finer hairs beneath. Length ( $\sigma^7$ ) 12.8 mm.; width 5.2 mm. California (Monterey). Sta. Clara Co.,—LeConte.....**cordatus** Lec.

Prothorax much narrower, as long as wide; head narrower.....2  
2—Tarsi black. Surface polished, deep black, without distinct violaceous lustre; head somewhat more than half as wide as the prothorax; fifth antennal joint shorter, a little less than four times as long as wide; prothorax subprominently rounded just before the middle, the sides broadly arcuate and feebly converging thence to the apex, oblique and straighter behind, gradually becoming almost parallel basally, the angles moderately rounded; impressions and foveæ distinct; elytra two-thirds longer than wide, not quite twice as wide as the prothorax, very gradually arcuately acuminate behind from before the middle, the humeri very rapidly rounded; sculpture nearly as in the preceding, the punctures not quite so coarse. Length ( $\sigma^7$ ) 12.9 mm.; width 5.0 mm. California (near San Francisco Bay).....**vernificatus** n. subsp.

Tarsi pale brownish-testaceous. Polished, deep black, without trace of violaceous lustre, larger, more elongate than in the preceding; head similar; fifth antennal joint four times as long as wide; prothorax

as in *verniscatus* but relatively somewhat larger, the sides feebly sinuate behind and not becoming subparallel but oblique to the base, the angles more broadly rounded; sides before the slightly ante-median prominence more converging to the apex than in the preceding, the impressions and foveæ almost similar; base narrower than half the maximum width, not equal thereto as it is in *verniscatus*; elytra larger, four-fifths longer than wide, nearly twice as wide as the prothorax, more evenly oblong-suboval, widest more nearly at the middle and more rapidly arcuately narrowing posteriad, the humeri less strongly rounded; sculpture as in *verniscatus*, less coarse than in *cordatus*; tarsi very slender. Length (♀) 13.3 mm.; width 5.4 mm. California (Sta. Cruz Mts.),—Harford.

*rufitarsis* n. subsp.

It is impossible at present to determine the true relationship of these three forms, all of which are very rare individually, and it seems appropriate to suggest for them the status of subspecies until it becomes possible to gather more material evidence. The larger head, wider and more transverse prothorax and coarser elytral sculpture of the single example of *cordatus* are not essentially male characters, for the elytra in the single female of *verniscatus* are narrower than in this male, a condition unknown in this genus within the limits of true species.

#### Trechus Clairv.

In a short review of our *Trechus* species in the preceding number of these Memoirs, I unfortunately overlooked some descriptions by Mr. Schaeffer (J. N. Y. Ent. Soc., 1915, p. 47) and quite naturally have had some solicitation in regard to synonymy, but on reading the author's references to *T. utahensis* and *coloradensis*, am convinced that neither of these could be included in my material; the former is far larger than any of my species, and *coloradensis*, so far as can be judged by the four published lines, also differs, the elytra being as in *chalybæus* and not dilated, oval and relatively much wider, as they are in *saxatilis* Csy., said to have been taken in Colorado by Levette. In regard to *borealis* Schf., however, it seemed at first that *brumalis* Csy., also from Labrador, must be synonymous; so, on my request, Mr. Schaeffer very obligingly sent me two specimens of *borealis*, one, typical, from Battle Harbor, Labrador, the other from Port aux Port Bay, St. George, Newfoundland, both, as well as the type of *brumalis*, being males. The two specimens sent by Mr. Schaeffer represent two distinct species,

the first, or true *borealis*, having a larger prothorax, only about a fourth wider than long, with the sides basally becoming broadly and feebly but distinctly sinuate; the second, from Newfoundland, having a relatively smaller prothorax, with the sides arcuate from apex very nearly to the base, becoming just visibly sinuate for a short distance before the more obtuse basal angles; the prothorax in the Newfoundland specimen is fully a third wider than long. Now the species which I named *brumalis*, from W. St. Modest, Labrador, much more nearly resembles the Newfoundland species than it does *borealis* Schf., but it differs from both of those mentioned, in the relatively smaller fourth antennal joint, this being shorter than the second joint, while in the two just compared, the fourth joint is distinctly longer than the second, more evidently so in *borealis* itself. So we are entirely safe in considering *brumalis* and *borealis* as different species, and I think that the Newfoundland species is also valid and still undescribed.

About a month before my article on *Trechus* appeared, a genus *Thalassotrechus* was published by Dr. Van Dyke, founded upon a species called *nigripennis*; this proves to be congeneric with my interpretation of *Trechus barbaræ* Horn, as I see from specimens of *nigripennis* kindly sent me by Dr. Blaisdell; it seems apparent therefore, that *Anatrechus* Csy., must be placed in synonymy. *T. nigripennis* is more elongate and slender than my assumed *barbaræ* and has much shorter antennæ, but the peculiar coarse elytral punctures are nearly alike in the two, which would make the language of G. H. Horn, in describing *barbaræ*, altogether inexplicable. I am also unable to understand the pin label "Pasadena" on my specimen of what would appear to be *barbaræ*, as received from the collection of the late Mr. Fuchs. As Dr. Horn was usually a careful observer, it is possible that *T. barbaræ* may not be exactly the same as the species which I assumed represented it, and, if the conditions are really as described by that author, *barbaræ* and *nigripennis* would have to be placed in different genera; it is desirable that the type of *barbaræ* should be again inspected.

#### **Patrobis Dej.**

The species identified and described by me as *tenuis* Lec. (Mem. Col. VIII, p. 396), is not the *tenuis* of LeConte at all, but an entirely

different thing, which may take the name *tritius* (nom. nov.). The true *tenuis*, or at least a species which agrees with the original description in every respect, is represented before me by a male and female, also taken at Marquette by Sherman; it resembles *tritius* in form and size, though a little stouter and more parallel, but the prothorax differs greatly, being only a little wider than the head, subquadrate and not rather strongly transverse as in *tritius*, and it is completely devoid of the deep punctate anterior transverse impression of that species, making its resemblance to *Pterostichus*, where it was placed by LeConte, rather striking; the elytral striæ are less strongly punctate and become much feebler apically; the first two joints of the anterior male tarsi are similarly well dilated.

#### **Pherypbes** n. gen.

The four species *tarsalis* and *serripes* Lec., and *sequoirarum* and *spissitarsis* Csy., form a group, distinguishable at once from the other species constituting the genus *Hypherpes*, by their broader and more parallel form and relatively larger head; in addition to these features, the hind tarsi are relatively shorter and generally much thicker, the joints more rapidly narrowed from apex to base. The above name is proposed for these species.

#### **Hypherpes** Chd.

A few additional undescribed species in this genus have come to light recently and may be known by the following characters:

**Hypherpes lassulus** n. sp.—Rather narrow and depressed, feebly convex, brownish-black, the under surface and legs rufo-piceous; surface only moderately shining, the elytra micro-reticulate; head two-thirds as wide as the prothorax, narrowed behind the eyes, which are moderate in size and prominence; anterior impressions rather deep, smooth; antennæ compressed, not quite as long as the head and prothorax, the latter as long as wide, widest anteriorly, the sides broadly and subevenly arcuate, gradually more oblique posteriorly, becoming broadly, feebly sinuate basally, the angles right and sharply defined; transverse impressions obsolescent, the median stria deep, not entire; foveæ narrow, feeble, elongate and smooth, traceable not quite to the middle, the surface posteriorly thence to the sides feebly concave, with a fine and feeble impression along the margin near the base, the latter broadly sinuate medially, narrower than the broadly and deeply sinuate apex, finely margined, the margin gradually obsolete medially; elytra three-fourths longer than wide, two-fifths wider than the prothorax; humeri

not denticulate; striæ deep and abrupt, finely punctulate, the oblique scutellar stria evident but not long; intervals nearly flat; prosternal process margined throughout. Length (♀) 11.8 mm.; width 4.0 mm. California (Olancho, Inyo Co.),—Dury.

May be placed near *arcanus*, but the prothorax is more narrowed toward base and the elytral striæ do not become so deep and coarsely impressed toward the sides.

**Hypherpes pergracilis** n. sp.—Elongate, slender and rather convex, somewhat shining, black, the legs pallescent basally, the anterior tarsi rufescent; head slightly elongate, three-fifths as wide as the prothorax, the eyes moderate and only slightly convex; anterior impressions somewhat broad and smooth, curving outwardly behind; antennæ but just visibly compressed, distinctly longer than the head and prothorax, the latter somewhat longer than wide, widest just before the middle, the sides moderately, subevenly arcuate, converging behind, becoming sinuate, parallel in fully basal sixth, the angles right and very sharply marked; transverse impressions obtuse, feeble and barely traceable, the median stria rather fine but deep, slightly biabbreviated; foveæ smooth, obtusely and feebly impressed in basal third, the surface thence to the sides flattened or feebly concave, the posterior setigerous puncture somewhat distinct, the margins finely reflexed; base narrower than the deeply sinuate apex, not margined laterally; elytra twice as long as wide, a third wider than the prothorax, elongate-oval, the sides not more arcuate basally, the humeri denticulate; striæ moderate, impressed, a little coarser toward the sides, finely and feebly punctulate, the scutellar stria, as well as the subscutellar puncture, completely obsolete; intervals micro-reticulate, not quite flat, convex laterally and apically; prosternal process margined throughout. Length (♀) 13.8 mm.; width 4.6 mm. California (Olancho, Inyo Co.),—Dury.

This species may be placed near *panticulatus*, having an almost identical form of prothorax, but with very much narrower and more elongate elytra, without trace of the scutellar stria so distinct in the latter species; it is much smaller than *spraguei* Lec., which also has a distinct scutellar stria.

**Hypherpes sufflatus** n. sp.—Form rather stout, convex, deep black and polished throughout above and beneath, the legs blackish-piceous; head only moderate in size, four-sevenths as wide as the prothorax, the eyes rather prominent, the anterior impressions parallel, deep, inflated and sinuous outwardly behind; antennæ rather stout, as long as the head and prothorax, the latter relatively large and convex, slightly wider than long, widest at anterior two-fifths, the sides regularly arcuate and finely reflexed, oblique and straight posteriorly, the angles obtuse, with rather blunt tips; base rectilinear, as wide as the moderately sinuate apex and not margined laterally; transverse impressions very obtusely and feebly marked, the stria distinct, biabbreviated; foveæ smooth, broadly and

rather deeply impressed, traceable almost to the middle, the surface thence to the sides feebly convex, flat at base; elytra oblong-oval, not three-fifths longer than wide, about a fourth wider than the prothorax, the sides gradually a little more rounded basally, the humeri finely denticulate; striæ coarse, very deeply impressed, smooth, not in the least punctulate; subscutellar puncture distinct, with a short oblique scutellar stria; intervals equal throughout, rather strongly convex; prosternal process margined. Length (♀) 12.8 mm.; width 5.0 mm. A single example unlabeled in the Levette collection and probably from Indiana.

Belongs to the *adoxus* group, but much shorter and stouter than any member of that small eastern group known to me, and it may be distinguished by the absence of the short sinuation of the thoracic sides at base; in *zephyrus* Csy., which also belongs to this group, the sides are sinuate at base for a notably great distance; *rejectus* Lec., seems also to be distinct from *adoxus* in its more elongate form of body; the other varietal forms described by LeConte, named *subarcuatus* and *sustentus*, I have not seen, but by description at least, they do not seem to approach *sufflatus* in any way closely.

#### **Euferonia** Csy.

The species of this genus are rather numerous and have a very distinctive appearance; they appear to be peculiar to eastern North America; the following has been sent me recently by Mr. Chas. Dury, of Cincinnati:

***Euferonia roanica*** n. sp.—Narrower and more elongate than *coracina*, convex and deep polished black, the tarsi and palpi piceous; head slightly elongate, fully three-fifths as wide as the prothorax, with rather prominent eyes; anterior impressions deep and straight, parallel and broad; last palpal joint slender, much shorter than the third, narrowly truncate at tip; antennæ but slightly compressed, a little longer than the head and prothorax, the latter fully as long as wide, the sides subparallel, almost evenly arcuate, strongly, equally reflexed, the basal angles very obtuse, blunt at tip; base arcuate laterally, not quite as wide as the moderately sinuate apex having rounded angles; transverse impressions obtuse and feeble; foveæ deeply concave and somewhat punctured, parallel, nearly twice as long as wide, the surface separating them from marginal gutter elevated and subcariniform; median stria deeply impressed and subentire; elytra parallel, with feebly arcuate sides, more rounding basally, nearly three-fourths longer than wide, between a third and fourth wider than the prothorax, gradually rounding in almost apical third, the sinus very distinct; striæ coarse, very deeply impressed, smooth or not definitely punctulate; intervals very convex, subequal throughout, the



third with two punctures, the anterior, at two-fifths, much the larger; also, on the left elytron of the type, having a large and apparently adventitious puncture very near the base; male anterior tarsi moderately dilated, nearly as in *coracina*. Length ( $\sigma^7$ ) 16.0 mm.; width 5.5 mm. North Carolina (Roan Mountain).

Differs from *coracina* in its much narrower form, narrower, deeper and more elongate thoracic foveæ and deeper subapical sinus of the elytra.

The two following close relatives of *coracina* seem to be worthy of special names, as they are plainly separable on observation; they were mentioned by the writer on a former occasion (Mem. Col. VIII, p. 370) and, as the original type of *coracina* seems to have been lost, the identification of *coracina* as a common species extending from Lake Superior to New York and New Jersey, and as described (l. c.), may be regarded as permanent:

**Euferonia coracina** ssp. *venator* nov.—Larger and more elongate than *coracina*, similar in its deep black color and shining lustre; head almost similar, the anterior impressions not so outwardly flexed behind; prothorax nearly similar but more arcuate at the sides; elytra more elongate, nearly three-fourths longer than wide; anterior tarsi of the male more broadly dilated. Length ( $\sigma^7$  ♀) 16.7–17.3 mm.; width 6.1–6.25 mm. Pennsylvania (Danville),—Champlain.

Easily distinguishable from *coracina* by its more elongate form, larger size, notably longer elytra and more broadly dilated anterior male tarsi. As is often to be noted, the head in the female is larger than in the male.

**Euferonia coracina** ssp. *ludibunda* nov.—Much smaller than *coracina* and of narrower form, even more convex, polished black; elytra narrower, the sides more feebly and gradually rounded basally, the posterior sinus deeper; prothorax narrower and much less transverse; last palpal joint equal in length to the third. Length (♀) 14.2 mm.; width 4.8 mm. Pennsylvania (Buena Vista Spring, Franklin Co.).

The type is quite distinct in appearance from the female of *coracina*, the size being much smaller, the prothorax with more narrowed base, this being very evidently narrower than the apex and not equal thereto as in *coracina*, and the form of the body is decidedly narrower; as represented by five examples, the true *coracina* is 15.8–16.8 by 5.7–6.2 mm. in dimensions.

The conception of subspecific relationship in regard to these two forms is simply an hypothesis, and that they are both more

properly species different from *coracina*, will not improbably be proved at some future time and with more evidence at hand.

### **Cryobius** Chd.

The following species is represented in my collection by a considerable series:

**Cryobius washingtoni** n. sp.—Elongate-oval, rather strongly convex, black, polished, the legs bright rufous; head as wide as long, three-fourths as wide as the prothorax, the eyes prominent; impressions rather long, interrupted; mandibles and palpi rufous; antennæ rather heavy, somewhat more (♂) to less (♀) than half as long as the body, nearly black or paler basally; prothorax barely visibly wider than long, the sides broadly rounded and finely reflexed, more oblique and very feebly sinuate basally; base transverse, not margined laterally and as wide as the sinuate apex having blunt angles, the basal right and very sharp; median stria fine, not quite entire; transverse impressions moderate, the anterior sharper and deeper; foveæ linear in basal two-fifths, rather deeply impressed and feebly punctulate; near the outer margin there is a short punctate channel at base; elytra oblong-suboval, more inflated and oval in the female, nearly three-fourths longer than wide, a fourth wider than the prothorax; humeri not denticulate, the apices oblique, more or less subsinuate; striæ distinct and impressed suturally, fine to subobsolete externally, finely punctate except apically, the intervals flat, feebly convex suturally, the third with two to three punctures; anterior male tarsi with the first three joints rather strongly dilated. Length (♂ ♀) 7.0–8.0 mm.; width 2.4–2.9 mm. New Hampshire (White Mts.).

I have had this species in my collection for many years under the name *hudsonicus* Lec., but in the latter the elytra are apparently less convex and the third interval has three to four punctures; the legs are paler rufous in *washingtoni*.

The following species I have had for some years under the name *confusus* Mots., which was described from the Kurile Islands, but it is evidently different:

**Cryobius patulus** n. sp.—Rather stout, oblong-suboval, only moderately convex, polished black above and beneath, the epipleura piceous-black, the legs paler, rufo-piceous; head not quite three-fourths as wide as the prothorax, the eyes moderate though notably prominent; anterior impressions concave, feebly punctulate; mandibles dark, the palpi pale, rufous; antennæ blackish, paler basally, fully half as long as the body; prothorax a fourth wider than long, widest before the middle, the sides rather strongly rounded, distinctly reflexed, with the gutter deep but narrow, equal; toward the basal angles, which are right and very sharp, the sides become feebly sinuate; anterior impression obsolescent, the posterior feeble, the median stria fine, impressed, biabre-

viated; foveæ linear, coarse, deeply impressed and punctulate in basal two-fifths; surface thence to the sides convex, with a coarse intermediate punctate groove in basal fourth; elytra one-half longer than wide to a little less, scarcely a third wider than the prothorax, the arcuate sides a little more rounded basally, the subapical sinus feeble; edges rufous posteriorly; striæ fine but rather deeply impressed, almost smooth or feebly punctate externally; intervals very feebly convex, the third with two or three punctures adjacent to the second stria, the first a little before the middle; scutellar stria very short, the puncture distinct; anterior male tarsi with the first three joints rather strongly dilated. Length ( $\sigma^7$ ) 7.3 mm.; width 2.75–2.8 mm. British Columbia (Stickine River Cañon),—Wickham.

Distinguishable by its rather broad and more than usually parallel form and moderate convexity; the thoracic base is feebly sinuate medially, as wide as the apex and not margined laterally.

#### Ferestria Leng

The male in this genus seems to be much rarer than the female, and it was only recently, on receiving some additional material from Mr. Löding, that I have been able to observe its tarsal characters. In the male the anterior tarsi are very moderately dilated, the under surface of the first three joints having two series, in mutual contact, of elongate white subgelatinous plates, crossed by fine distant transverse lines; this, at least, being the condition in *castigata*. In the female the first two or three joints of the anterior tarsi are sometimes, but apparently not in all the species, obliquely and acutely prolonged internally at apex. The recognizable taxonomic forms in this genus are more numerous than hitherto supposed, and among the six examples sent from Mobile by Mr. Löding, I am obliged to recognize four, which are given the specific status provisionally and until more abundant material can be obtained. These four forms may be set forth in tabular arrangement as follows:

Elytral striæ with feeble but distinct punctures. . . . .	2
Elytral striæ without obvious punctuation. . . . .	3
2—Anterior tarsi ( $\varphi$ ) slender throughout, the basal joints not or very feebly asymmetric. Body of short and rather stout form, polished black, the legs piceo-rufous, the palpi slender; prothorax shorter, nearly one-half wider than long, the denticle at the sides at the posterior setigerous pore acute, prominent and very near the base, which is about half the maximum width; elytra oblong-oval, very gradually arcuately ogival posteriorly; punctures rather strongly	

marked in all the feeble striae. Length (♀) 8.6–8.8 mm.; width 3.3–3.4 mm. Alabama (Mobile). Two almost perfectly similar specimens. . . . . *nanula* Csy.

Anterior tarsi (♀) not so equally slender throughout, the two basal joints notably wider and strongly asymmetric, acutely produced internally at apex. Body not so small and rather more elongate, convex, polished black, the legs obscure rufous; head a little larger, the anterior impressions similarly deep, remotely separated and diverging; mandibles a little longer, thick; maxillary palpi similarly dark rufous but stouter, especially the thick fusiform fourth joint; prothorax not so short, two-fifths wider than long, otherwise nearly similar, except that the subapical incised transverse line is more arcuate and, medially, more distant from the apical margin, the base narrower, not half the maximum width, and the subbasal marginal denticle small and very feeble and at a greater distance from the base, the sides from denticle to base more evenly continuing the curvature of the posterior part of the sides; elytra nearly similar in outline, a fifth wider than the prothorax and but slightly more than twice as long, the striae more widely, very feebly impressed and with punctures evident throughout the width but feebler and almost completely disappearing under certain angles of view. Length (♀) 10.0 mm.; width 3.45 mm. Alabama (Mobile). One example. . . . . *simiola* n. sp.

3—Male more parallel, convex, polished and very smooth, rufo-castaneous in color; head nearly as in the preceding species and with similarly thick antennae; anterior impressions more nearly parallel; prothorax of nearly similar outline but only a third wider than long, the sides subparallel, rapidly rounding at apex, converging basally, the subbasal denticle at some distance from the base and almost completely obsolete, the foveae, anterior incised line and median stria as usual; elytra of the same outline, fully one-half longer than wide, but not evidently wider than the prothorax; surface with vestiges of feebly impressed smooth striae at certain angles of view; anterior tarsi very moderately dilated, convex above, the joints virtually symmetric. Female more abbreviated than the male but otherwise nearly similar, the anterior cephalic impressions more strongly diverging as in the preceding species, the prothorax shorter, with the posterior denticle strong, prominent and relatively nearer the base; anterior tarsi more slender but with the first three joints strongly and obliquely produced and acute internally at apex; elytra more distinctly wider than the prothorax than in the male; maxillary palpi with the fourth joint not very stout, gradually narrowed in apical half, the apex narrowly truncate. Length (♂ ♀) 9.0–9.2 mm.; width 2.85–3.0 mm. Alabama (Mobile). Two examples. . . . . *castigata* n. sp.

Female still more abbreviated than in the preceding, also with relatively smaller head and prothorax and more rapidly rounded elytral humeri, deep polished black, the legs rufo-piceous, the mandibles smaller, as usual with a few oblique strigae; cephalic impressed lines very moderately diverging; last palpal joint more pointed at

apex; prothorax of nearly similar form and outline, but with the sides apically more gradually rounding, the posterior denticle as in the female of *castigata*, the anterior incised line and median stria similar; elytra oblong-oval, with strongly rounded humeri, less than one-half longer than wide, between a third and fourth wider than the prothorax; impressed punctureless striæ very evident at certain angles of view; anterior tarsi slender, the basal joints almost symmetric, the inner apical angles barely perceptibly more acute than the outer. Length (♀) 8.3 mm.; width 2.7 mm. Alabama (Mobile). One example..... **bullata** n. sp.

It is probable that all the above forms are more or less closely related to *lævipennis* Lec., from Georgia, but the author states that in the latter the prothorax is feebly, transversely rugose and that it is transversely impressed anteriorly and posteriorly. The type of *castigata* is a male, this differing unusually from the female, not only in its rather more elongate and parallel form, but still more notably in the size and position of the latero-basal denticle of the prothorax; I am in fact not quite certain that the male and female associated above belong truly to the same species, the very pallid color perhaps being due to immaturity in one or both of them, but, in *obsoleta* Say, at any rate, the pale coloration seems to be natural.

#### **Evarthrinus** Csy.

A number of species recently received already necessitate some rearrangement of the genera allied to *Evarthrus*. *Evarthrus enormis* Csy., must be removed from that genus and placed in *Eumolops*, where it is distinguished by a larger head and much shorter and feebler basal sinus of the thoracic sides than in any other species; as *nonnitens* Lec., is probably allied to *enormis*, this too may be assigned to *Eumolops*.

The genus *Evarthrinus* was announced (Mem. Col. VIII, p. 357) as a subgenus of *Eumolops*, more on the possession of three elytral punctures than any other differential feature, but it is in reality a distinct genus and should be so regarded. The prothorax is of a different outline, being much narrower at base than at apex, and the dorsal punctures of the elytra vary from one to three, being rather constantly three in *deceptus* and *impolitus*, but one in the others at hand, except in a male of *sodalis*, where they are two in number. The species of *Evarthrinus* are all notably narrower than

in *Eumolops* and are much more diversified in size, *lilliputicus* being as small as the average size in *Ferestria* or *Gastrosticta*. The eleven species of *Evarthrinus* in my collection may be known as follows:

Elytra with three dorsal punctures in both sexes; prothorax with a deep and entire apical incised line. [EVARTHINUS in sp.].....2

Elytra with one puncture, very rarely with two, the prothorax without an incised line—medially at least. [EVARTHROPS n. subgen.]...4

2—Elytra with a short but distinct scutellar stria. Body (♀) subparallel, moderately convex, deep black, rather shining, the elytra opaque; head moderately large, the anterior sulci parallel, the mandibles coarsely strigose; prothorax shorter, three-sevenths wider than long, the sides parallel, with thick reflexed margins, subevenly arcuate, becoming parallel in about basal eighth; surface feebly concave transversely near the base, the foveæ linear, with an obtuse ridge near the margin; elytra two-thirds longer than wide, only a fifth wider than the prothorax, the striæ rather coarsely impressed and strongly punctate, gradually fine and subim punctate apically; seventh interval swollen basally. Length (♀) 16.0 mm.; width 4.9 mm. Indiana.....**deceptus** Csy.

Elytra without trace of scutellar stria, the subscutellar puncture similarly large however; prothorax less transverse; body less parallel...3

3—Size larger, deep black, rather convex, shining, the elytra but little less opaculate in the male than in the female; head nearly as in the preceding, the mandibles a little larger, the anterior sulci parallel; palpi similarly with pale and truncate tip; prothorax scarcely a third wider than long, the sides parallel, subcircularly rounded and reflexed, the gutter a little wider behind than before the middle; at base they become parallel; base broadly, feebly sinuate except at the sides; surface with distant feeble rugulæ, feebly transversely impressed near the base, the foveæ linear, rather widely separated from the marginal ridge by a feeble and uneven concavity; elytra oblong-suboval, gradually arcuately narrowing behind, with very feeble sinus, two-thirds to three-fourths longer than wide and a third (♀) or a fourth (♂) wider than the prothorax, the striæ coarse, deeply impressed and coarsely punctate, gradually very fine and with minute, remote punctures distally; seventh interval tumid at base; anterior male tarsi strongly dilated. Length (♂ ♀) 16.2–17.8 mm.; width 5.8–6.2 mm. Indiana,—Levette collection.

**minax** n. sp.

Size smaller, subparallel, feebly ventricose in the female, black, rather shining, with opaculate elytra in both sexes; head a little smaller, four-sevenths as wide as the prothorax, the anterior sulci similar, the mandibles smaller and with less numerous oblique grooves; prothorax rather more than a third wider than long, in form nearly as in *minax*, except that the sides are more gradually rounded behind the middle and the transverse basal impression obsolete; foveæ, submarginal ridge and widely spaced feeble rugulæ almost

- similar; elytra not quite so elongate, with similar punctured striæ; base of each elytron similarly declivo-concave, the prominence of the seventh interval at base not quite so marked; anterior male tarsi strongly dilated. Length ( $\sigma^7$  ♀) 14.5–14.9 mm.; width 5.2–5.35 mm. Texas..... **impolitus** Csy.
- 4—Sides of the prothorax becoming parallel for some distance before the basal angles—about a sixth to eighth of the total length.....5
- Sides of the prothorax becoming parallel for only a very short distance before the basal angles; body sometimes very small in size.....7
- 5—Sides of the prothorax subobliquely and feebly rounded posteriorly from rather before the middle. Form rather more abbreviated, convex, deep black, wholly polished ( $\sigma^7$ ), polished, with the elytra feebly alutaceous though scarcely opaque (♀); head well developed, nearly two-thirds as wide as the prothorax, the eyes prominent; anterior sulci remote, parallel; mandibles with rather few oblique furrows; palpi dark rufous, paler and obtusely rounded at apex; antennæ rather short; prothorax a third or fourth wider than long, the side margins formed chiefly by a moderately thick bead; surface with a few faint transverse rugulæ, the anterior incised line obsolete medially; foveæ oblong, deeply concave, the inner margin broadly sinuate, the outer the submarginal ridge and the bottom slightly irregular; just inward and near the fovea there is a small irregular impression; elytra one-half to three-fifths longer than wide, a third (♀) to two-fifths ( $\sigma^7$ ) wider than the prothorax, rather rapidly rounded behind; striæ somewhat fine, equidistant, feebly impressed, with small but distinct punctures, obsolescent behind; scutellar stria wanting; intervals flat (♀), very feebly convex ( $\sigma^7$ ); anterior male tarsi rather strongly dilated. Length ( $\sigma^7$  ♀) 15.8–17.0 mm.; width 6.1–6.3 mm. Pennsylvania (Camphill and Rockville),—Champlain..... **furtivus** Lec.
- Sides of the prothorax parallel, evenly and subcircularly rounded from apex to the basal constriction, narrowly reflexed as usual, with slightly thickened edge.....6
- 6—Striæ deeply impressed, the intervals notably convex and equal in width. Elongate-oval, rather convex, black, the legs rufescent, highly polished throughout in the male; head slightly elongate, three-fifths as wide as the prothorax, the eyes only moderately convex; sulci deep, parallel, the furrows of the mandibles very coarse, becoming fine near the inner edge; antennæ longer than in *furtivus*, as long as the head and prothorax, the latter a third wider than long, with very feeble and widely concave vestiges of anterior and posterior transverse impression, the apical incised line visible only near the sides; transverse rugulæ widely separated as usual, rather distinct; foveæ oblong, nearly smooth, deeply concave, the outer ridge joining the margin basally, the puncture at the angles deep, elongate; inner adjacent impression very feeble; elytra oblong-oval, nearly three-fourths longer than wide, scarcely a fourth wider than the prothorax, the deep striæ strongly punctured, feeble apically; scutellar stria distinct but short; anterior male tarsi

strongly dilated. Length ( $\sigma^7$ ) 17.6 mm.; width 6.6 mm. Florida (locality not indicated).....*sulcatus* Csy.  
 Striæ much less coarse, only feebly impressed, the intervals almost flat ( $\varphi$ ), very feebly convex ( $\sigma^7$ ), alternating in width in both sexes through about inner half of the width; scutellar stria wholly wanting. Body subparallel ( $\sigma^7$ ), broader and more ventricose ( $\varphi$ ), black, the legs more piceous, polished throughout ( $\sigma^7$ ), the elytra of the female opaque; surface rather strongly convex; head moderately large, slightly larger in the female, about three-fifths as wide as the prothorax; eyes prominent, the anterior sulci short, slightly diverging; mandibles as in the preceding; maxillary palpi rufous, the last joint rather broadly truncate; antennæ not quite as long as the head and prothorax, the latter nearly two-fifths wider than long, the transverse impressions subobsolete, the median stria more widely impressed near basal fourth; foveæ elongate, very deeply concave and feebly rugose, the outer ridge adjacent to the margin and rather thin; apical incised line fine and only visible laterally; elytra oblong-oval, nearly two-thirds ( $\sigma^7$ ) or one-half ( $\varphi$ ) longer than wide, a fifth ( $\sigma^7$ ) to a third ( $\varphi$ ) wider than the prothorax; punctures of the striæ moderate in size, deep and rather close-set, obsolescent apically, the striæ however notably distinct throughout; anterior male tarsi pale rufous, the first three joints rather strongly dilated and subequal in width. Length ( $\sigma^7$   $\varphi$ ) 17.2-18.3 mm.; width 5.9-7.0 mm. Iowa (Keokuk).

*alternans* n. sp.

- 7—Larger species, the sides of the prothorax rapidly arcuately oblique only well behind the middle.....8  
 Small species, the thoracic sides finely reflexed, more gradually oblique posteriorly from well before the middle, the sinus before the basal angles still shorter.....10  
 8—Sides of the prothorax very evenly, circularly arcuate from apex to the short basal sinus. Body narrow, moderately convex, black, the legs and under surface rufo-piceous; surface shining, the elytra alutaceous but not densely opaque in the female; head rather large, elongate, somewhat more than three-fifths as wide as the prothorax, with unusually small and only moderately prominent eyes; anterior sulci distant, nearly parallel; mandibular furrows coarse, the last palpal joint shorter than the third, rather slender but widely truncate; antennæ not as long as the head and prothorax, the latter a third wider than long, the sides narrowly reflexed, the short basal sinus shallow, the short sides thence to the rather obtuse basal angles converging and not parallel; apical incised line visible laterally, close to the apical margin; stria deeper at basal fourth; transverse impressions obsolescent, the sparse rugulæ very feeble or obliterated; foveæ moderate, rather short, irregular, the concave bottom with distant transverse rugulæ; obtuse outer ridge adjacent to the margin; puncture at the angles coarse, forming a slightly elongate groove; elytra oblong-oval and three-fourths longer than wide, only about a fifth wider than the prothorax, very gradually ogival behind, with short feeble sinus; striæ moderate, slightly



impressed and with rather small but distinct punctures, obsolescent apically; scutellar stria extremely short or obsolete; intervals very feebly convex, equal in width; dorsal puncture on the second stria at three-fifths. Length (♀) 15.8 mm.; width 5.6 mm. A single example from the Levette collection, without indication of locality but probably from Indiana.....**retractus** n. sp.

Sides of the prothorax not evenly arcuate, the greatest width at or even a little behind the middle, the sides thence anteriorly only very feebly converging and much less arcuate and converging than posteriorly. .9

9—Form elongate, moderately convex, evidently ventricose, black, the legs and sometimes the under surface piceo-rufous; upper surface (♂) polished throughout, the elytra with feeble micro-reticulation, or (♀) shining, with opaculate elytra; head three-fifths as wide as the prothorax, with remote and slightly diverging anterior sulci, the mandibles covered, except as usual externally, with coarse oblique strigilation; palpi truncate at tip, the antennæ not quite as long as the head and prothorax, thick as usual; prothorax only a fourth or fifth wider than long, the sides very narrowly reflexed, the basal sinus shallow, the short portion thence to the obtuse but distinct basal angles, almost parallel; apical incised line visible laterally, the surface without transverse impressions, the median stria coarsely impressed, the remote rugulæ feeble; foveæ irregularly impressed, nearly smooth, the outer ridge not at the margin and three-fourths as long as the inner line; inner impression near the foveæ very feeble; elytra two-thirds longer than wide, a third to two-fifths wider than the prothorax, oblong-oval, the subapical sinus long and very feeble; striæ moderate, slightly impressed, the punctures small but distinct, obsolete apically, the scutellar stria wanting; intervals very feebly convex in both sexes; anterior male tarsi pale rufous, well dilated. Length (♂ ♀) 16.0–17.8 mm.; width 5.9–6.2 mm. Ohio and Indiana. [*Evarthrus fatuus* Lec.].

**sodalis** Lec.

Form narrower, convex, highly polished throughout in the male, deep black, the legs black; head as in *sodalis* but not quite so large, with similarly rather prominent eyes, the mandibles smaller and with fewer strigæ; antennæ similar; prothorax barely a fifth wider than long, the sides more finely reflexed, more parallel and broadly, sub-evenly arcuate to behind the middle, then more rounding and converging to the rather more abrupt sinus, the short part thence to the base slightly converging to the somewhat rounded angles; transverse impressions feeble though rather evident, the apical incised line fine, much nearer the margin and broadly interrupted medially; median stria deep, greatly biabbreviated; rugulæ fine and remote; foveæ linear, deeply impressed, the outer ridge not well defined and less than half as long as the linear inner part, the intervening surface very smooth and not deeply concave; elytra oval, nearly three-fourths longer than wide, only a fourth wider than the prothorax, the sinus very feeble; striæ moderately coarse and deeply impressed, with strong punctures, obsolescent apically, the seventh feeble, the scutellar wanting; intervals broadly and moderately convex, the

- single puncture on the third coarse, near or adjoining the second stria near three-fifths; anterior male tarsi very obscure rufous, well dilated. Length ( $\sigma^7$ ) 15.3 mm.; width 5.4 mm. North Carolina (Southern Pines),—Manee.....**pinorum** n. sp.
- 10—Body moderately narrow, feebly ventricose, convex, deep black and highly polished throughout in the male, the legs rufous distally; head slightly more than half as wide as the prothorax, with moderate but prominent eyes, the anterior sulci narrow, deep and slightly diverging, the mandibles rather small; palpi rufous, the last joint barely shorter than the third, elongate-oval, with rather narrowly truncate apex; antennæ somewhat longer than the head and prothorax, the latter a fifth wider than long, widest near apical third, the sides finely reflexed, almost evenly arcuate from apex to the basal sinus and thence nearly parallel for a short distance to the right and well defined angles, the apical angles broadly rounded; apical incised line very fine, only visible laterally, the median stria finer than in any of the preceding and slightly biabbreviated; transverse impressions obsolete; rugulæ fine, remote and feeble; foveæ linear, deeply impressed, narrow along the bottom, the outer ridge wanting, the bottom moderately concave; impression near the foveæ rounded, smooth and distinct though very shallow; base sinuate, three-fifths as wide as the apex; elytra oblong-oval, three-fifths longer than wide, a fourth wider than the prothorax, rather rapidly narrowing behind, with long and obvious shallow sinus; striæ rather coarse and well impressed, strongly punctate, the sixth and seventh obsolescent basally, the punctures somewhat abruptly obsolete in nearly apical third; scutellar stria wanting; intervals moderately convex, the single puncture coarse, on the second stria just behind the middle; surface between the smooth eighth stria and the margin more widely declivo-replanate posteriorly than usual; ninth stria very fine and subobsolete, much further from the margin than from the eighth; anterior male tarsi rather more moderately dilated. Length ( $\sigma^7$ ) 12.0 mm.; width 4.4 mm. Alabama (Allen),—Löding.....**alabamensis** n. sp.
- Body narrower but rather more ventricose, smaller in size, deep black, the under surface and legs more or less piceo-rufous; upper surface highly polished, the elytra opaculate in the female; head and prothorax relatively much smaller than in the preceding; head fully three-fifths as wide as the prothorax, with prominent eyes, the anterior sulci narrow, nearly parallel; labrum rufous; mandibles small, the strigæ fine and feeble; palpi pale rufous, nearly as in the preceding; antennæ fully as long as the head and prothorax, a little longer ( $\sigma^7$ ); prothorax in almost every respect as in *alabamensis*, though smaller in size and with the foveæ still more reduced in every way, the inner lineate part fine, the surface thence to the sides smooth, scarcely at all concave; sides behind the sinus very short, feebly converging to the more obtuse and less sharply marked angles; elytra oblong-oval, one-half longer than wide, two-fifths wider than the prothorax, the shallow subapical sinus distinct; striæ ( $\sigma^7$ ) rather coarsely impressed and strongly punctate, the

punctures obsolete gradually toward apex and the intervals distinctly convex, or (♀) fine and not impressed and finely punctate, the punctures obsolete from slightly behind the middle and the intervals flat; scutellar stria wanting; dorsal puncture coarse, adjoining the second stria just behind the middle; lateral parts of the elytra nearly as in the preceding, the declivous part often rufescent; outer striæ obsolescent basally; anterior male tarsi much less dilated than in the preceding. Length (♂ ♀) 9.3-9.8 mm.; width 3.3-3.4 mm. Alabama (Mobile),—Löding.

*lilliputicus* n. sp.

The species *alabamensis* and *lilliputicus* constitute a very isolated group of this genus, peculiar apparently to its extreme southern range, and doubtless many more remain to be discovered. The species which I formerly identified as *fatuus* Lec., based entirely upon the female, proves from the male recently sent me by Mr. Dury, to be none other than *sodalis* Lec., which synonymy had already been published.

#### *Percosia* Zimm.

Of the described species of this genus I now have series of males and females of *latissima*, *obesa* and *extensa*, and, by juxtaposition, the specific differences are seen to be very distinctly marked; in *diffinis* Lec., the eyes are flatter, and in all four the strial intervals are very nearly flat; in *ventricosa*, from Long Island, the body is shorter and broader, with coarser striæ and slightly convex intervals, and, in the following, the latter become decidedly convex, conspicuously so posteriad:

*Percosia sulcatula* n. sp.—Rather smaller in size, convex, shining, black, the elytra slightly alutaceous in the female; under surface piceous-black, rufous at the abdominal tip, the legs rufous; head rufescent, somewhat longer than wide, scarcely half as wide as the prothorax, the neck scarcely at all constricted; eyes well developed but only very slightly convex; anterior impressions short, slightly diverging; mandibles short; palpi slender, pale, the last two joints equal; antennæ rufous, not quite as long as the head and prothorax, the latter three-sevenths wider than long, the sides sharply but not widely reflexed, parallel and nearly straight in basal half, rounding and converging anteriorly; oblique latero-basal ridge obtuse but high; basal impressed area densely punctured except medially; anterior transverse impression rather distinct, smooth, the stria deep, attaining base but not quite the apex; elytra short, a fourth longer than wide, a fifth or sixth wider than the prothorax, the sides feebly and very gradually converging basally, the subapical sinus short, distinct; striæ coarse, groove-like, feebly impressed, strongly so behind, very feebly and indefinitely punctulate, the

scutellar stria long, oblique; intervals broadly convex, strongly so on the declivity. Length (♀) 10.3 mm.; width 4.6 mm. Colorado (Mesa, Boulder Co.),—Foster. Communicated by Prof. Cockerell.

This species may be placed near *ventricosa*, but differs in the virtually unconstricted neck and almost flat eyes; from *diffinis* it differs in its more abbreviated form and convex stria intervals, also in the less clearly biimpressed lateral\* punctured pronotal area at base.

From material recently received from Mr. Wade, I note that *Amara fallax* Lec., extends entirely across the more northern parts of the subarctic regions, while the smaller *hesperia* occurs in California and Oregon, Nevada, Utah, southern Colorado and New Mexico, the contrasting series of 29 and 25 specimens demonstrate their validity as species.

#### Diplocheila Brullé

In Mem. Col., page 146, I gave a review of the species of this genus then known to me. Since that time several additional species have come to hand, among which I am glad to number Canadian examples of *laticollis* and *striatopunctata* of LeConte, as well as examples of *alternans* Csy., very kindly given me in exchange by the Dominion Entomologist, Dr. C. Gordon Hewitt, from series discovered among the material shown me while on a recent visit to Ottawa. There is also among these recently acquired species, one belonging to the *obtusa* group of LeConte, distinguished by the rounded thoracic angles and absence of dorsal elytral puncture, but differing from *obtusa* in having scarcely a vestige of transverse pronotal impressions, said to be unusually distinct in that species. I have restored the original spelling of the generic name, overlooked in my former revision of the species. The new forms may be described as follows:

**Diplocheila procera** n. sp.—Elongate-suboval, moderately convex and shining throughout above, black, the legs and tarsi black; head rather large, somewhat longer than wide, four-sevenths as wide as the prothorax, with prominent eyes, the anterior impressions large and within a broad declivous depressed area; epistoma rather narrowly and deeply sinuate at tip, the suture distinct, transverse, finer and oblique at the sides; labrum with the lobes coarsely setose at tip, the right lobe larger and longer than the left; mandibles thick; palpi long and slender, the last joint evidently shorter than the third; antennæ slender, ferruginous,

blackish basally, extending well behind the thoracic base; prothorax longer than usual, scarcely more than a third wider than long; sides finely reflexed, gradually rounding anteriorly, straight and just visibly converging in about basal half; base broadly sinuate medially, much wider than the apex; apical angles narrowly rounded, the basal slightly more than right, sharply defined, not blunt; anterior impression visible as a large foveiform depression on the median line, the posterior very feeble, the median stria fine, broadly impressed, greatly biabbreviated; foveæ slightly elongate, distant from the base, broadly impressed, lying within outer fourth; surface with some remote rugulæ; scutellum equilatero-triangular, with straight sides; elytra oblong, with parallel and broadly arcuate sides and obtusely rounded apex, the apices oblique and straight, not sinuate, one-half longer than wide, two-fifths wider than the prothorax; striæ incised, feebly subpunctulate, finer and feebler externally, the seventh subobsolete, the scutellar stria obsolete, the puncture small but distinct. Length (♀) 18.5 mm.; width 7.65 mm. Lake Superior.

Belongs in the neighborhood of *expansa* and *major*, differing from the former in the stronger anterior cephalic foveæ but less pronounced large anterior depression, in which the foveæ are individually undefined in *expansa*, also in the narrower and much less transverse prothorax and much narrower general form of the body. From *major* it differs in the more obsolete seventh elytral stria, narrower and more elongate prothorax and rather more unequal and more setose lobes of the labrum, also in the relatively larger head and slightly narrower bodily form.

**Diplocheila foveata** n. sp.—Dilated and rather convex, the lustre as in others of the genus, deep black; head three-fifths as wide as the prothorax, with moderate but prominent eyes, feeble and indefinite anterior impressions and deep epistomal line; labrum acutely and deeply, angularly emarginate, the left lobe sharply triangular, much broader than the right lobe and just visibly shorter; antennæ slender, fuscous, the first three joints black; last palpal joint elongate-oval, evidently shorter than the third; right mandible sinuato-truncate; prothorax one-half wider than long; base nearly as in the preceding, much wider than the apex; sides broadly, evenly arcuate, gradually becoming straight and parallel basally, the basal angles right, not rounded; transverse impressions subobsolete, the foveæ very short, deep, almost punctiform, at the bottom of a large shallow depression; stria fine; elytra rather short and broad, not quite one-half longer than wide, about a third wider than the prothorax, the sides rounding at base to the thoracic angles; striæ moderate, finely subpunctate laterally, the seventh rather deep but more broadly impressed than the others; intervals scarcely more than flat, the alternate ones somewhat elevated medially toward tip, the scutellar obsolete. Length (♀) 14.5 mm.; width 6.0 mm. New York (Lake Champlain).

To be known very readily by the short and scarcely linear pronotal foveæ, and differing from *laticollis* in its relatively shorter and broader elytra, with broad and deeper seventh stria. From *striatopunctata* it differs in the short pronotal foveæ, less coarse and deep and much less punctate elytral striæ and relatively larger prothorax. *Cliens* Csy., is a species of the *laticollis* group, but differs from the others in the longer third palpal joint, this being almost one-half longer than the fourth, in the more convex elytra, more deeply declivous at the sides, in the deeper and perfectly smooth striæ and in the notably larger though not so convex eyes. *Planulata*, also coming in near *laticollis*, differs in the flattened dorsal surface of the elytra, gradually laterally and apically obsolete punctureless striæ, less deeply incised labrum and in having the prothorax widest behind the middle, the basal angles sharp but much more than right. Of *laticollis* Lec., I have a specimen from Ottawa and another from Riverside, Illinois; it is easily to be known by the relatively shorter and broader prothorax, much less notably narrower than the elytra than in the *striatopunctata* group and very nearly twice as wide as long, the elytra rather elongate, with almost smooth striæ, not coarser and strongly punctate as they are in *striatopunctata*, which represents a group having the prothorax relatively smaller than usual. I do not seem to have run across *impressicollis* Dej.; it certainly is not the same as *striatopunctata* Lec. Mr. Blatchley has recently (Col. Indiana) placed *alternans* Csy., as a variety of *impressicollis*; it has no such relationship, being larger, as well as differing in elytral coloration; *impressicollis* is only 12 to 14 mm. in length.

In this genus the head in the female is larger than in the male, as may be noted in many species of *Harpalus*, *Anisodactylus* and in some other genera; this sexual difference in the size of the head, probably denoting relatively greater feminine efficiency in this part of animated nature, is very conspicuous in *striatopunctata*.

**Diplocheila amplipennis** n. sp.—Form rather broadly suboval, the head and prothorax relatively small when compared with the elytra, black, moderately shining, with the usual minute surface sculpture; head moderate, three-fifths as wide as the prothorax, the eyes rather prominent; anterior declivous depression distinct but with the foveæ rather indefinite; epistomal sinus flatly beaded; labral lobes setose at tip, the right nearly twice as long as the left and much more narrowly

rounded; palpi slender, black, the last joint slightly shorter than the third; mandibles rugosely punctate distally; antennæ slender; prothorax relatively small, two-thirds wider than long, the sides parallel, broadly rounded and more converging anteriorly, feebly converging and straight in about basal half, finely reflexed basally, more coarsely anteriorly; basal angles obtuse and slightly blunt; base evidently wider than the apex, transverse, oblique at the sides; surface with some distant rugulæ, the impressions very feeble, the stria distinct, attaining base but not apex; foveæ short, linear, impressed, distant from the base and at outer fourth; elytra large, oblong, with parallel and broadly arcuate sides, one-half longer than wide and nearly one-half wider than the prothorax; striæ rather fine, deeply incised, feebly punctulate, the seventh deep and more punctate; intervals feebly convex. Length (♀) 16.5 mm.; width 7.2 mm. Lake Superior.

May be placed near *striatopunctata*, but it is larger, much broader and with finer and virtually impunctate striæ; the labrum has much more unequal lobes than in that species.

**Diplocheila brevicollis** n. sp.—Form narrowly-suboval, rather convex, moderately shining, black; head rather small, with very prominent eyes, four-sevenths as wide as the prothorax, the anterior declivity feebly marked, the foveæ small, rather deep and well defined; epistomal sinus rather deep, parabolic, the beading fine medially, broader laterally; labral lobes very unequal, the right lobe long, narrow at tip; mandibles very short; palpi slender, black, with pale tips, the last joint barely at all shorter than the third; antennæ about as long as the head and prothorax, the latter short, three-fifths wider than long, the sides moderately and almost evenly arcuate and finely reflexed from apex to base, a little more converging apically; basal angles obtuse and slightly rounded; base evidently wider than the apex, transverse, oblique at the sides; anterior transverse impression very feeble, the posterior obsolete, the stria deep, somewhat impressed, not quite attaining base or apex; foveæ linear, rather long, at half their length from the base and at outer fourth; elytra elongate-suboval, narrowed arcuately and unusually gradually behind, three-fifths longer than wide, almost one-half wider than the prothorax; striæ rather fine but sharply incised, a most equally deep throughout the width and finely lineato-punctate, the intervals feebly convex; dorsal puncture small, at the middle and at inner third of the third interval; anterior male tarsi distinctly dilated, black. Length (♂) 12.8 mm.; width 5.4 mm. New York (Ogdensburg).

This species is allied to *striatopunctata* but differs in its narrower form, shorter prothorax, shorter mandibles, more prominent eyes and more finely punctured striæ; the three dilated joints of the anterior male tarsi decrease but slightly in width, while in *striatopunctata* they diminish rapidly.

**Diplocheila modesta** n. sp.—Smaller, moderately convex and shining, black; head three-fifths as wide as the prothorax, with moderate but

notably prominent eyes and feebly concave anterior impressions, the labrum rather more symmetrically incised than usual; mandibles small ( $\sigma^7$ ), larger ( $\varphi$ ); antennæ not as long as the head and prothorax, piceous, blacker basally; last palpal joint slender, cylindrical, slightly shorter than the third, rather more distinctly shorter in the female; prothorax one-half wider than long to somewhat more; base much wider than the apex, transverse medially, feebly oblique thence to the slightly obtuse but sharp angles; sides broadly, subevenly rounded, scarcely straighter basally, very finely reflexed; anterior impression barely traceable, the posterior wholly obsolete, the median stria fine but rather deep, almost entire; foveæ deep, linear, extended to the basal margin by shallower impression; elytra oblong, parallel, obtusely ogivally rounded at tip, one-half longer than wide, fully two-fifths wider than the prothorax, the sides more rounding basally to the thoracic angles; striæ rather deep, sharply defined, very obsoletely micro-punctulate at the bottom, the seventh about as distinct as the others; intervals obviously convex ( $\sigma^7$ ), virtually flat ( $\varphi$ ), the puncture a little behind the middle as in *foveata*. Length ( $\varphi$ ) 13.5 mm.; width 5.2 mm. Canada (Montreal).

This species resembles *laticollis* somewhat but is smaller, with relatively narrower, basally somewhat narrowed prothorax, slightly longer third palpal joint and distinct seventh elytral stria; it is much smaller and narrower than *foveata*, besides differing in several other structural characters. In size and general characters it resembles *impressicollis* Dej., but differs apparently in its obsolete transverse pronotal impressions and still more indistinct stria punctures of the elytra, with more convex intervals.

***Diplocheila parallela*** n. sp.—Parallel, rather more convex and with more polished lustre than in the other species, deep black, the legs black; head more rounded, four-sevenths as wide as the prothorax, the eyes moderate and only very moderately convex; anterior impressions very small and feeble; labrum symmetric, moderately emarginate; mandibles unusually small; fourth palpal joint truncate at tip, barely shorter than the third; antennæ black, slender, nearly as long as the head and prothorax, the latter not quite one-half wider than long, the sides evenly arcuate from apex to the obtuse and narrowly rounded basal angles, very finely, equally reflexed; base distinctly wider than the somewhat deeply sinuate apex; the apical angles broadly rounded, the transverse impressions both obsolete, the stria fine; foveæ linear, deep, extending almost to the basal margin; elytra three-fifths longer than wide, only a fourth or fifth wider than the prothorax, oblong, evenly rounded at apex, the sides narrowly reflexed, only a little more arcuate basally, the sinuate basal margin extending from the first stria to the acute humeral angulation; striæ moderate, rather deep and sharply defined, virtually smooth, the sixth feeble, the seventh, almost completely obsolete; sutural stria a very short oblique fine line; intervals flat externally,



nearly so suturad; dorsal puncture completely wanting; tarsi slender, deep black. Length (♀) 10.0 mm.; width 4.0 mm. Illinois (Homer).

The only species with which this can be compared is *obtusa* Lec., said to be from the vicinity of Long's Peak, in the Rocky Mts., but *obtusa* is a slightly larger species, 11 mm. in length, having the transverse pronotal impressions distinct, the anterior angulate, the posterior transverse, the foveæ apparently somewhat shorter, the scutellar stria wanting and the sides of the prothorax seemingly more rounded before the middle; here, if anything, they are rather more rounded just behind the middle than elsewhere. *Parallela* is, however, rather closely allied to *obtusa*, and the two constitute a remarkably isolated group of the genus.

#### Dicælus Bon.

I have recently received from Mr. Manee two specimens which may represent the Georgian *planicollis* of LeConte; it is still stouter and more opaque than *carolinensis*, with less irregular pronotum, the indentation made upon the sublateral obtuse ridge by the internal lateral channel being obsolete; this is always very evident in the latter species, which seems to be much the more abundant of the two in the vicinity of Southern Pines. The following belongs to the *elongatus* group of the genus:

**Dicælus ashevillensis** n. sp.—Form narrow, elongate and with the upper surface almost flat, black, opaculate throughout above; hypomera and epipleura polished, the rest of the under surface rather alutaceous; epipleura concave and having one or two rows of small feeble punctures; legs deep black, with blackish setæ, the soles of the anterior male tarsi clothed with bright fulvous and whiter scales; head moderate, nearly four-sevenths as wide as the prothorax, the eyes moderate but convex and prominent; anterior impressions deep and punctiform; labrum evenly, shallowly and angularly emarginate, the median furrow distinct; mandibles small; antennæ slender, black, gradually bright ferruginous distally; prothorax as long as wide, parallel and nearly straight at the sides to beyond the middle, gradually arcuately narrowed thence to the deeply sinuate apex, which is very much narrower than the base, the basal sinus pronounced, with transverse bottom; surface with minute rugulosity and fine transverse lines, the stria deep, almost entire; at each side of the median line behind the middle there is a fine linear impression, slightly oblique and well defined, and, exterior to the lines, a long feeble obtuse ridge; sides broadly concave and having three setigerous punctures; elytra three-fourths longer than wide, just visibly wider than the prothorax, evenly ogivally rounded behind; lateral ridge from the humeri very acutely elevated, disappearing near apical

fourth; striæ deep, smooth, the intervals subequal, moderately convex. Length (♂) 15.0 mm.; width 5.3 mm. North Carolina (Asheville). A single example, taken by the writer.

This species has the elytral intervals much less unequally elevated than in *elongatus* or *simplex*, resembling *debiliceps* more in this respect. The body is less elongate and smaller than in the first two named and has a slightly larger head, with much more prominent eyes than the last; it has the sides of the prothorax parallel for a longer distance anteriorly than in any of the three, and the fine oblique pronotal lines are more shallowly impressed.

The four species of the *elongatus* group can be distinguished easily among themselves as follows:

Elytra narrowing posteriorly from well behind the middle.

Last abdominal segment (♀) evenly rounded from side to side.

*elongatus* Bon.

Last segment arcuately subtruncate; head smaller in size.

*debiliceps* Csy.

Elytra narrowing posteriorly from the middle and less elongate.

Prothorax narrowing anteriorly from behind the middle.

*simplex* Dej.

Prothorax narrowing from before the middle; body narrower, the head smaller, with smaller but more prominent eyes.

*ashevillensis* Csy.

#### Badister Clairv.

The species described by LeConte from Georgia as *Badister micans* (Proc. Acad. Phila., 1844, p. 52) is probably not a *Badister*, for its dimensions are given as 9 by 3.75 mm. ( $4\frac{1}{2}$  by  $1\frac{7}{8}$  l.). The prothorax is described as flat, black, margined with brown, the sides sinuate near the posterior angles; elytra iridescent, not sinuate apically, the striæ rather deep, with flat intervals, the third with two punctures. The antennæ are brown, with the two basal joints paler. In the subsequent remarks the author intimates that it differs much in general appearance from the other species and may perhaps be generically different. The *Badister micans* next described by the author (Ann. Lyceum N. Y., IV, 1846, p. 318) is a very different species, 6 by 1.8 mm. in dimensions, with the thoracic angles obtuse and somewhat rounded. What the original *micans* can be I have no means of knowing, and, although it may be permissible to shift the type label to a species allied to the original type and not differing materially from the characters

assigned to it, I do not think so radical a change as that indicated can be allowed, and the species *Badister micans*, commonly so called, must therefore be regarded as undescribed.

The species of *Badister* seem to be numerous in North America, though generally rare individually. Those at present in my collection may be known as follows:

Elytral striæ deep, smooth, the intervals narrow and convex; species very small in size. . . . . 2

Elytral striæ less deep, the intervals feebly convex. . . . . 4

2—Head smaller, not quite as wide as an elytron, the eyes smaller and very prominent. Body narrower, convex and shining, black, with pale legs, the elytra piceous, testaceous in nearly basal half, except near the suture, which is narrowly testaceous throughout; head three-fourths as wide as the prothorax, convex, smooth, the anterior impressions minute and very feeble; last palpal joint much longer than the third; antennæ pale, two-thirds as long as the body, the medial joints between two and three times as long as wide; prothorax convex, a fourth wider than long, widest at apical third, where the sides are rather strongly rounded, oblique and straight basally, the angles obtuse and slightly blunt; anterior impression near the sinuato-truncate apex and distinct, the posterior obsolete, the stria rather coarse and deep, not quite entire; foveæ coarse, deep, elongate; sides very finely reflexed, abruptly a little more so at base, which is somewhat wider than the apex; elytra three-fifths longer than wide, not quite one-half wider than the prothorax, elongate-oval, convex, the striæ deep, relatively coarse, the intervals flatter behind; dorsal punctures two, small and feeble, adhering externally to the second stria; apex evenly and obtusely rounded. Length (♂) 3.5 mm.; width 1.25 mm. Illinois. . . . **angustus** n. sp.

Head larger, slightly wider than an elytron, the eyes relatively larger but not quite so prominent; coloration almost similar, the suture not definitely paler and the antero-external rufous areas even more nubilous; antennæ clearer testaceous basally. . . . . 3

3—Antennæ shorter, rather more compressed, three-fifths as long as the body, the medial joints barely twice as long as wide; body narrower, polished, strongly convex; head very smooth, convex, becoming deplanate at the sides apically; fourth palpal joint subinflated and wider and much longer than the third, gradually acutely pointed; prothorax nearly a third wider than long, in form and structure nearly as in the preceding, but with the posterior transverse impression visible, the foveæ less elongate, narrower and deeper, the sides basally more reflexed; base much narrower, not as wide as the sinuato-truncate apex; elytra four-sevenths longer than wide, only a third wider than the prothorax, nearly as in *angustus* but still more obtusely rounded at apex. Length (♀) 3.7 mm.; width 1.3 mm. New York (Long Island),—Shoemaker. . . . **gilvipes** n. sp.

Antennæ in both sexes much longer and relatively more slender, nearly three-fourths as long as the body, the medial joints nearly three

times as long as wide in both male and female; body a little larger, notably stouter; head still larger, though otherwise nearly as in *gilvipes*, fully four-fifths as wide as the prothorax; last palpal joint very much longer than the third and thicker, acutely pointed; prothorax less transverse, a fourth or fifth wider than long, throughout nearly as in *gilvipes*, except that the apical angles are less obtuse and the base and apex more nearly equal; elytra two-fifths ( $\sigma^7$ ) to one-half ( $\varphi$ ) longer than wide, nearly one-half wider than the prothorax, very obtusely rounded behind, the structure nearly as in *gilvipes*, and, as in others of this group, very finely reflexed at the sides; hind tarsi slender, as long as the tibiae. Length ( $\sigma^7$   $\varphi$ ) 3.8-4.0 mm.; width 1.45 mm. New York and District of Columbia to Illinois. Five specimens. [*B. terminalis* Lec.]...**notatus** Hald.

- 4—Elytra uniform in coloration or virtually so. . . . . 5  
 Elytra pale, variegated with sharply defined black areas and spots. . . . . 11  
 5—Prothorax moderately transverse, strongly narrowed behind, the base narrower than the apex; antennae clear and pure flavo-feruginous throughout. Form oblong, moderately convex, shining, black, the lateral edges finely paler from diaphaneity; under surface black, the epipleura obscure testaceous; legs very pale flavate; head large, shorter than wide, four-fifths as wide as the prothorax, convex, broadly concave and duller at the sides of the very broad apex; fourth palpal joint much longer than the third, gradually paler apically; eyes notably large, convex though only moderately prominent; antennae almost three-fourths as long as the body, very slender, filiform and not distinctly compressed as they are in the preceding group, the medial joints four times as long as wide; prothorax a third wider than long, widest and laterally rounded at apical third, the sides thence oblique and straight posteriorly, the angles very obtuse, with slightly blunt tips, the apical angles rather sharply defined and subprominent; apex broad, rather deeply and evenly sinuate, much wider than the base, which is transverse medially and obliquely arcuate laterad; surface feebly convex, the transverse impressions shallow but evident; stria finely impressed between them; foveae elongate, narrow, deeply impressed in basal third; sides finely reflexed, more broadly at base; elytra parallel, rapidly very obtuse at apex, three-fifths longer than wide, about one-half wider than the prothorax, the sides very finely reflexed, rapidly rounding at base; surface with feeble iridescent lustre; striae fine, impressed, smooth, the intervals very slightly convex, the two punctures along the outside of the second stria very fine; hind tarsi much shorter than the tibiae. Length ( $\varphi$ ) 5.6 mm.; width 2.0 mm. Iowa (Cedar Rapids),—Brendel...**flavicornis** n. sp.  
 Prothorax strongly transverse, very moderately narrowed behind, the base as wide as the apex; antennae always dark in color. . . . . 6  
 6—Head very large, distinctly wider than an elytron. . . . . 7  
 Head smaller, always narrower than an elytron. . . . . 9  
 7—Sides of the prothorax feebly reflexed. Body rather larger in size, feebly convex and shining, obscure testaceous, the prothorax and elytral suture paler, the head black; elytra barely visibly iridescent;

- head four-fifths ( $\sigma^7$ ) to five-sixths ( $\varphi$ ) as wide as the prothorax, the broad apex alutaceous, with elevated sides; eyes well developed, prominent; mandibles stout; antennæ very slender, blackish, paler distally, the basal joint pale; medial joints four times ( $\sigma^7$ ) to three times ( $\varphi$ ) as long as wide; prothorax two-thirds wider than long, widest just before the middle, the sides oblique, straight and thickened basally, the angles obtuse but not rounded; foveæ large, shallow, impressed, the median stria fine; base beaded, obliquely rounded laterally; apex broadly, evenly sinuate; elytra oblong, very obtusely rounded at tip, one-half longer than wide, two-fifths wider than the prothorax; striæ fine, the intervals nearly flat, the two punctures very distinct. Length ( $\sigma^7$   $\varphi$ ) 6.0–6.25 mm.; width 2.2–2.25 mm. California (San Joaquin Co.) . . . . . **ferrugineus** Dej.
- Sides of the prothorax strongly reflexed, broadly so basally; color much darker. . . . . 8
- 8—Form oblong, moderately convex, shining, black, the lateral edges finely paler, the elytra strongly iridescent; head very large, five-sixths as wide as the prothorax, shorter than wide, with large and rather prominent eyes and strong, very curved mandibles, the sides of the broad epistoma elevated; antennæ ( $\varphi$ ) very slender and filiform, slightly over one-half as long as the body, black, gradually paler distally, the basal joint pale only basally, the medial joints fully four times as long as wide; prothorax transverse, three-fourths wider than long, widest near anterior third but with the sides evenly rounded, becoming more oblique and nearly straight basally, the angles very obtuse, somewhat blunt; surface with some transverse, ruguliform lines, the stria fine, impressed, subentire; foveæ broadly concave, with linear bottom; base not beaded, somewhat narrower than the sinuate apex, the apical angles blunt; elytra three-fifths longer than wide, scarcely a third wider than the prothorax, very obtuse at apex; striæ smooth, fine, the intervals broadly convex, the two punctures distinct, just before the middle and near apical fourth; legs and epipleura obscure testaceous. Length ( $\varphi$ ) 5.3 mm.; width 1.9 mm. District of Columbia . . . . . **grandiceps** n. sp.
- Form less parallel, the anterior parts relatively not so large, moderately convex, shining, piceous, the head blacker, large, four-fifths as wide as the prothorax, with rather large prominent eyes; surface alutaceous and unusually sloping anteriorly, with the usual elevated sides, the apex sinuate; mandibles moderate, with equally truncate apex; antennæ piceous, very slender, the medial joints not quite four times as long as wide, the first joint fuscous, nubilously paler basally; prothorax not so large as in *grandiceps* but otherwise similar, except that the sides are rather more strongly rounded anteriorly, becoming straight in fully basal half; foveæ broadly concave, with the short lineate bottom finer, shorter and more definite than in the preceding and slightly oblique; elytra shorter, scarcely one-half longer than wide and about one-half wider than the prothorax, feebly iridescent; striæ in the preceding, the intervals slightly flatter; tarsi shorter, the posterior much more distinctly
- T. L. Casey, Mem. Col. IX, Feb. 1920.

- shorter than the tibiæ; under surface piceous, the epipleura obscure, the legs bright, flavate. Length (♀) 5.5 mm.; width 2.0 mm. Illinois. A single example as in the preceding. . . . . **ocularis** n. sp.
- 9—Body deep black in color, the edges not paler, the thoracic sides only very slightly oblique posteriorly. Lustre alutaceous, the elytra shining though not or only very faintly iridescent; under surface black, the epipleura piceous, the legs dark rufous; head scarcely three-fourths as wide as the prothorax, with moderate and not very prominent eyes, the feebly sloping epistoma truncate, with finely elevated sides; antennæ not so slender as in the preceding but more than half as long as the body, black, gradually ferruginous distally, the two basal joints piceous; prothorax three-fifths wider than long, the sides feebly arcuate, less so basally, the angles very obtuse, blunt at tip; apex only moderately sinuate, with broadly blunt angles; margins slightly thickened basally; base and apex margined; surface rather flat, the stria fine, the transverse impressions very feeble; foveæ elongate, feebly impressed; elytra one-half longer than wide, two-fifths wider than the prothorax, very obtuse at apex; striæ fine, the intervals feebly convex; hind tarsi as long as the tibiæ, the anterior strongly dilated in the male. Length (♂) 5.5 mm.; width 2.0 mm. California (Sebastopol, Sonoma Co.). A single example. . . . . **anthracinus** Lec.
- Body not deep black, the edges often a little paler; thoracic sides strongly reflexed, more oblique posteriorly. . . . . 10
- 10—Color piceous, the head blacker; surface shining, distinctly though moderately convex, the elytra iridescent; legs flavate; head three-fourths as wide as the prothorax, with rather large and prominent eyes; surface slightly declivous anteriorly, feebly concave at each side of the epistoma, the apex evenly and feebly sinuate; palpi long and very slender, the fourth joint only slightly longer than the third and but little thicker; antennæ slender, piceous, the medial joints not quite four times as long as wide; prothorax short, fully three-fourths wider than long, the sides rounded, oblique and straight behind the middle, narrowly reflexed apically, gradually becoming broadly so at base, the angles very obtuse, slightly blunt at tip; apex and the base laterally finely margined, the latter very oblique and arcuate laterally; apex sinuate, with distinct but blunt angles and equal in width to the base; transverse impressions distinct though not deep, the stria visible only between them and fine; foveæ moderate, elongate, shallowly impressed, not attaining the base; elytra four-sevenths longer than wide, two-fifths wider than the prothorax, very obtuse and each rectilinear at apex; striæ not very fine, smooth, deeply impressed; intervals evidently convex; posterior puncture at apical fifth or sixth; hind tarsi slender, distinctly shorter than the tibiæ. Length (♀) 5.6 mm.; width 2.2 mm. A single example from the Levette collection, probably taken in Indiana. . . . . **transversus** n. sp.
- Color obscure testaceous, with the head blacker, the legs flavate; elytral suture generally finely paler; size much smaller; surface moderately convex, shining, the elytra barely visibly iridescent; head relatively

larger, four-fifths as wide as the prothorax, with large and prominent eyes; surface declivous and alutaceous anteriorly; antennæ slender, fuscous, the medial joints between three and four times as long as wide; prothorax relatively much smaller than in *transversus*, three-fourths wider than long; general outline and surface similar, except that the side margins are more reflexed anteriorly and still more widely so basally, and that the foveæ are deeper, more acutely linear at the bottom and attain the basal margin; elytra one-half longer than wide and fully one-half wider than the prothorax, the striæ finer and less impressed, the intervals flatter though sensibly convex; posterior puncture much less apical, at or before posterior fourth; apex similarly obtuse. Length ( $\sigma^7$  ♀) 4.2-4.5 mm.; width 1.6-1.7 mm. Illinois..... **reflexus** Lec.

- 11—Form elongate-subparallel, rather convex, shining, pale rufo-flavate in color, the head, entire hind body beneath, a large quadrate spot not quite attaining the margin or suture and an apical area on each elytron, deep black; legs pale flavate; elytra wholly devoid of iridescence; head barely wider than an elytron, more than three-fourths as wide as the prothorax, with large prominent eyes; epistoma feebly concave at each side, the apex broadly sinuate; palpi with the fourth joint much longer and thicker than the third; antennæ very slender, black, the first joint testaceous with nubilously black apex; prothorax one-half wider than long, the sides finely reflexed, rounded, gradually oblique and straight in nearly basal half, only little more reflexed basally, the angles very obtuse, scarcely blunt; base evidently narrower than the apex, the transverse impressions just traceable, the foveæ oval, moderately impressed, not attaining the base; elytra fully three-fourths longer than wide, one-half wider than the prothorax, rather wider behind the middle than at base, obtusely rounded at apex; striæ fine, smooth, rather abrupt, the intervals almost flat, the posterior puncture near apical fifth. Length (♀) 5.5-6.0 mm.; width 1.9-2.2 mm. Indiana,—Levette. Five examples..... **pulchellus** Lec.

Of the species which I have not seen, *obtusus* Lec., from Lake Superior, has broadly rounded basal thoracic angles; *flavipes*, of the southern Atlantic regions, also has these angles rounded; *micans* is alluded to in the introductory remarks; *bipustulatus* Fab., is a European species said to occur in Vancouver Island, but probably not correctly identified; *maculatus* Lec., from Pennsylvania, is marked somewhat as in *pulchellus*, but has a black prothorax, and *elegans* Lec., of Texas, seems to resemble *maculatus*, the elytral spots confluent from the fourth to ninth stria, but does not have the thoracic sides more broadly reflexed basally and is somewhat smaller in size. The species described by Mr. Blatchley from Indiana, under the name *laticeps*, is evidently allied to *flavicornis*, but is somewhat larger; the head is said to be as wide as

the prothorax, the flavate antennæ with the apical half gradually dusky and the median thoracic stria entire; nothing is said as to elytral iridescence. In *flavicornis* the antennæ are very pale and equally flavate throughout the length, the head very distinctly narrower than the prothorax, even in the female, the difference undoubtedly still more notable in the male, for, as in *Diplocheila*, the head is a little larger in the female than in the male; in *flavicornis* the median thoracic stria is not entire, extending only between the feeble transverse impressions, and the elytral surface is distinctly iridescent. In his original description of *pulchellus*—from Evansville, Indiana—LeConte states that the middle black spot of each elytron is marginal, and that the antennæ are “obscuræ, articulis 3 pallidis”; I fail entirely to comprehend the description of the antennæ, and, in all my specimens, the middle elytral spot is equally and narrowly separated from the sides and suture.

#### Calathus Bon.

In Memoirs IV, 1913, page 159, I briefly referred to the species of the Pacific coastal regions, basing the remarks upon rough determinations of species in my collection, identified by comparison with the material of the Horn and LeConte collections, but find on more careful study that these identifications were in some cases erroneous. *Behrensi*, for example, is the notably stout subparallel form, with red prothorax, found abundantly about San Francisco; it was said by Mannerheim to occur at Fort Ross, in Sonoma Co., and had been previously described by Dejean under the name *ruficollis*; *quadricollis* of LeConte is a very much narrower species. The true *obscurus*, from an unrecorded locality in southern California, and represented by a single female said to be 10 mm. in length, does not seem to be in my collection at present, although *longulus* may be closely allied. Finally, the specimen from Guadalupe Island, which I there referred to *quadricollis*, proves to be a different thing and is described below under the name *insularis*. My Alaskan material does not include *ingratus* Dej., or *incommodus* Mann., but there are several undescribed species, smaller in size, which were said to have been taken on St. Paul Island, and, although personally I have no reason do doubt this locality, Mr. Wm. T. Davis informs me that some Hemipterids received by him from the



same collector, were in his opinion taken on the mainland and not on St. Paul Island. At any rate, the species of *Calathus*, three in number, said to be from St. Paul Island, are apparently hitherto undescribed. The species of the Pacific coast known to me thus far may be described as follows:

Species of California, larger and stouter in build. . . . . 2  
 Species of Alaska and neighboring islands, notably smaller and narrower. . . . . 12

2—Third antennal joint much longer than the fourth. . . . . 3

Third antennal joint not or but very slightly longer than the fourth. . . . 4

3—Elytra without trace of a subbasal puncture near the scutellum; last palpal joint slender as usual, but with the tip transversely truncate. Body elongate-suboval, moderately convex, shining, the elytra opaculate; color pure bright testaceous, the elytra piceous-black, with the reflexed edge testaceous; head oval, with moderately convex eyes, not three-fifths as wide as the prothorax; antennæ not very slender, three-fifths as long as the elytra; prothorax a fifth wider than long, the deeply sinuate apex scarcely three-fourths as wide as the base; sides feebly arcuate; basal angles right, slightly blunt; surface nearly smooth, the anterior impression distinct, the posterior obsolete; sides rather strongly and abruptly reflexed, becoming broadly declivo-explanate basally; elytra more than one-half longer than wide, nearly a third wider than the prothorax, the sides evenly and moderately arcuate to the base; apex evenly and gradually ogival; striæ very fine, the intervals just visibly convex; dorsal punctures very fine, four in number. Length (♀) 9.5 mm.; width 3.9 mm. California (Mokelumne Hill, Calaveras Co.),—Blaisdell. . . . . *ignicolis* n. sp.

Elytra with a small subscutellar puncture, not quite at the base; last palpal joint rather inflated, elongate-oval. Body less elongate and with notably inflated elytra, obscure rufous, the legs more flavate; elytra black, with dull rufous reflexed margins; surface alutaceous, the elytra opaque, the head nearly as in the preceding; antennæ slender, two-thirds as long as the elytra; prothorax subsimilar in form and structure but relatively not quite so large and with notably rounded basal angles, the apical not so prominent and more obtusely rounded at tip; anterior transverse impression completely obsolete; sides similarly reflexed and basally explanate; elytra shorter, rather less than one-half longer than wide, two-fifths wider than the prothorax, the sides slightly more arcuate; striæ very fine, the intervals flat; dorsal punctures small, four in number. Length (♀) 8.7 mm.; width 3.65 mm. California (Monterey). . . . . *montereyanus* n. sp.

4—Body very much larger than in any other American species of the genus. Form stout, oblong-oval, testaceous, the elytra blackish, with the usual testaceous reflexed margins; lustre moderately shining, the elytra opaculate in both sexes; surface very moderately convex; head subtriangular, longer than usual, more than half as wide as the prothorax, the palpi slender, with obtusely pointed apex;

antennæ very slender, long, fully half as long as the body; eyes large, moderately convex; prothorax a fourth wider than long; sides subevenly and feebly arcuate, narrowly reflexed anteriorly, broadly explanate basally, the basal angles slightly obtuse and rounded; apex sinuate, much narrower than the base; surface with feeble ruguliform transverse lines medially, the anterior impression barely traceable; elytra oblong-oval, rather more than one-half longer than wide, a third (♂) to two-fifths (♀) wider than the prothorax, gradually rounding posteriorly at the sides from before the middle, ogival at tip; striæ very fine, the intervals flat; sub-scutellar puncture distinct; dorsal punctures four; anterior male tarsi strongly dilated; met-episterna evidently though not greatly longer than wide. Length (♂ ♀) 11.0–12.0 mm.; width 4.5–4.9 mm. Guadalupe Island, off the coast of Lower California. Six specimens. . . . . **guadalupensis** Csy.

Body smaller, of the usual size characterizing the west coast species. . . 5

5—Antennæ filiform, the third and fourth joints much longer than the fifth. . . . . 6

Antennæ almost as filiform, but with joints three to five differing but little in length. . . . . 7

6—Body elongate-suboval, moderately convex, bright testaceous, the legs more flavate; elytra blackish-piceous; surface shining, the elytra opaculate; head scarcely at all longer than wide, slightly over half as wide as the prothorax, the eyes moderate, rather feebly convex; antennæ moderately slender, only a little longer than the head and prothorax; last palpal joint somewhat thicker than the third; prothorax rather large, fully a fourth wider than long, the sides subevenly and somewhat strongly arcuate to the narrowed and moderately sinuate apex having obtuse angles, a little less converging or arcuate basally, the angles slightly obtuse, narrowly rounded; surface more evenly convex than in the three preceding, the sides rather abruptly well reflexed, but becoming only slightly more broadly so basally, the transverse impressions subobsolete; elytra evenly oblong-oval, slightly over one-half longer than wide, scarcely a third wider than the prothorax; striæ extremely fine, less so on the declivity, the intervals perfectly flat throughout the length; dorsal punctures three to four; scutellar puncture distinct but small, remote from the scutellum and behind the base; female as usual with the last ventral strongly rounding and with a single puncture at each side as in the male. Length (♀) 9.0 mm.; width 3.8 mm. California (San Diego). A single example, taken by the writer.

**tenuistriatus** n. sp.

Body nearly similar in form and coloration but with the elytra piceous-brown, with paler suture and reflexed edge, and with its surface much more shining, scarcely less so than the pronotum; body in general very pale testaceous; head slightly more than half as wide as the prothorax, narrower and more elongate than in *tenuistriatus*, and with the eyes smaller and notably more prominent; antennæ very slender and longer, fully half as long as the body; prothorax smaller, more quadrate, only very little wider than long, the broadly

arcuate, feebly, anteriorly converging sides becoming more parallel and straighter posteriorly, the basal angles but little more than right and rather sharp, not even blunt at tip; anterior and posterior impressions both evident though feeble; sides narrowly but strongly reflexed, becoming gradually much broader and flat posteriorly; basal foveæ elongate and feebly impressed, much more evident than usual; elytra narrower and less convex than in the preceding, three-fifths longer than wide, about a third wider than the prothorax, of the usual outline; striæ rather fine but much less so than in the preceding and less sharply defined, not deeper on the declivity; intervals flat, the subscutellar puncture similar; dorsal punctures four to five; anterior tarsi of the male rather moderately dilated, much less so than in *guadalupensis*. Length ( $\sigma^7$ ) 8.8 mm.; width 3.35 mm. Guadalupe Island.....**insularis** n. sp.

- 7—Prothorax large, nearly half as long as the elytra and scarcely narrower, with distinct and only narrowly blunt right basal angles; stria intervals feebly and confusedly punctate, less evidently in the female. Body subparallel, rather convex, bright testaceous, the elytra black, with pale reflexed margins; surface polished throughout ( $\sigma^7$ ) or with the elytra very faintly alutaceous ( $\text{♀}$ ); head four-sevenths as wide as the prothorax, barely longer than wide, with well developed convex eyes; antennæ moderately slender, filiform, a little longer than the head and prothorax; last palpal joint distinctly longer than the third; prothorax but very slightly wider than long, the sides arcuately converging in apical, parallel and straight in basal, half; sides moderately reflexed, becoming broadly subdeplanate posteriorly only in the female; stria fine, biabbreviated, the transverse impressions obsolete, the foveæ barely traceable; elytra one-half longer than wide, gradually obtusely ogival behind the middle; striæ only moderately fine, more deeply impressed internally and apically in the male; intervals ( $\sigma^7$ ) just visibly convex or ( $\text{♀}$ ) flat; dorsal punctures unusually distinct, two to three in number, the subscutellar puncture distinct; three basal joints of the anterior tarsi ( $\sigma^7$ ) very distinctly dilated, the fourth abruptly very narrow. Length ( $\sigma^7$   $\text{♀}$ ) 7.5–8.5 mm.; width 3.2–3.4 mm. California (Hydesville, Valley of Eel River, Humboldt Co.). Three examples.....**grandicollis** n. sp.

Prothorax relatively smaller, always distinctly narrower than the elytra and less than half as long, the basal angles evidently and sometimes rather broadly rounded; stria intervals not punctulate.....8

- 8—Color pale and bright rufo-testaceous, the elytra dark as usual. Body moderately narrow and elongate, the elytra but feebly dilated; lustre shining throughout ( $\sigma^7$ ), or with the elytra more or less opaculate ( $\text{♀}$ ); head scarcely longer than wide, very little more than half as wide as the prothorax; antennæ moderately slender, somewhat attenuate distally, not quite half as long as the body; last palpal joint as long as the third and not thicker, obtusely pointed; prothorax only a fifth or sixth wider than long, and with the sides arcuate and converging apically, parallel basally, reflexed, becoming deplanate basally; foveæ feebly impressed; impressions obsolete,

the median stria fine; apical angles rather obtusely rounded at tip; elytra somewhat more than one-half longer than wide, fully a fourth wider than the prothorax; outline obtusely ogival behind the middle; striæ fine, but little more impressed in the male, the intervals virtually flat; scutellar puncture distinct; dorsal punctures rather strong, about three in number; three basal joints of the anterior male tarsi rather strongly dilated. Length (♂ ♀) 8.0–9.3 mm.; width 3.1–3.6 mm. California (San Francisco to Sta. Barbara). Very abundant. . . . . **quadricollis** Lec.

Color pale testaceous though somewhat duller, and with brownish-black elytra having the usual pale reflexed edges. Body larger, very much broader, subalutaceous, the elytra more opaque; head scarcely half as wide as the prothorax, but little longer than wide, the eyes well developed and rather prominent; antennæ slender, much less than half as long as the body, the third joint somewhat evidently longer than the fourth as a rule; prothorax notably transverse, a third wider than long, the sides rounding anteriorly, straighter and subparallel basally, the angles rather broadly rounded; transverse impressions feeble but traceable, the foveæ subobsolete; margins strongly reflexed, deplanate basally; elytra scarcely one-half longer than wide, a fourth wider than the prothorax, ogivally rounding behind; striæ fine, deeper in the male, sometimes broken or subpunctulate laterally; intervals feebly convex (♂), or perfectly flat (♀); subscutellar puncture distinct, the dorsal punctures three to four; anterior male tarsi with the first three joints rather strongly dilated. Length (♂ ♀) 8.2–10.0 mm.; width 3.6–4.2 mm. California (San Francisco). Moderately abundant. [*C. behrensi* Mann.] . . . . . **ruficollis** Dej.

Color blackish-piceous, the prothorax generally a little paler or obscurely rufescent. . . . . 9

9—Prothorax nearly as in the preceding, distinctly wider than long. . . . . 10

Prothorax very nearly as long as wide; body more elongate. . . . . 11

10—Body moderately convex, rather small, narrower than in *quadricollis*, the elytra alutaceous in the male; head very evidently more than half as wide as the prothorax, the eyes well developed and somewhat prominent; last palpal joint somewhat longer than the third, slender but obtuse at tip; antennæ very slender and filiform, half as long as the body; prothorax nearly a fourth wider than long, in outline and impressions almost as in the preceding, the apical angles even more obtusely rounded; elytra slightly over one-half longer than wide, a fourth to third wider than the prothorax, gradually obtusely ogival posteriorly; striæ fine, coarser and deeper on the declivity; intervals flat to just visibly convex; dorsal punctures three; subscutellar puncture evident; anterior male tarsi moderately dilated. Length (♂) 6.8–8.0 mm.; width 2.8–3.0 mm. California (Sta. Clara Co.). Four specimens. . . . . **minuens** n. sp.

Body stouter, more nearly as in *quadricollis*, but with the anterior parts relatively smaller and the hind body more inflated; elytra rather shining (♂), strongly alutaceous (♀); head small, elongate, scarcely more than half as wide as the prothorax; antennæ rather slender,

evidently less than half as long as the body; palpi very slender, the last two joints equal in length; prothorax fully a fourth wider than long, in outline nearly as in *ruficollis* and with similarly rounded apical and basal angles, but with the sides rather less reflexed; foveæ vestigial, the median stria rather deep, biabbreviated; elytra more elongate, fully three-fifths longer than wide, gradually ogival with obtuse apex in about posterior half, less than a fourth wider than the prothorax; striæ moderately fine, abrupt, a little deeper behind; intervals not quite perfectly flat; subscutellar puncture distinct; dorsal punctures four; anterior male tarsi very moderately dilated. Length (1♂, 6♀) 7.5-8.2 mm.; width 3.2-3.6 mm. California (San Diego). Taken by Mr. Dunn and the writer.

*piceolus* n. sp.

11—Form elongate-suboval, moderately convex, alutaceous, the elytra opaque, with the reflexed margins not distinctly paler; legs dark rufous; head elongate, four-sevenths as wide as the prothorax, the eyes well developed but not very prominent; antennæ very slender, dark rufous; maxillary palpi with the last joint not quite as long as the third; prothorax barely at all wider than long, the sides broadly, subevenly arcuate, less so and subparallel basally; all the angles rounded; surface subeven, the stria short; sides deeply reflexed, broadly explanate posteriorly, the foveæ and impressions obsolete; elytra nearly two-thirds longer than wide, almost two-fifths wider than the prothorax, somewhat evenly elongate-oval, gradually pointed and ogival apically; striæ very fine, only slightly stronger apically, the intervals perfectly flat throughout, the subscutellar puncture distinct; dorsal punctures fine, two to three in number. Length (♀) 9.5 mm.; width 3.5 mm. California (Los Angeles Co.)..... *longulus* Csy.

12—Elytral striæ deep, sharply defined and groove-like, the intervals throughout the length perfectly flat, micro-reticulate and minutely and feebly, confusedly subpunctulate. Body elongate, narrow, nearly parallel, polished and piceous-black, with diaphanously pale thoracic sides; elytra alutaceous, with the narrowly reflexed edges scarcely pale; head scarcely elongate, four-sevenths as wide as the prothorax, with large but very moderately convex eyes; antennæ slender, flavate, nearly half as long as the body; last palpal joint very gradually pointed, a little longer than the third; prothorax a fourth wider than long, the sides broadly arcuate and converging anteriorly, less arcuate and just visibly converging behind the middle; basal angles narrowly rounded, the apical well defined and prominent; transverse impressions nearly obsolete, the stria fine but broadly impressed; foveæ short, linear and feeble, at basal third; sides very narrowly and feebly reflexed, gradually a little more widely so basally; elytra elongate, fully two-thirds longer than wide, scarcely a fourth wider than the prothorax; sides parallel, very feebly arcuate, rounding in about apical third; subscutellar puncture strong; dorsal punctures two in number. Length (♀) 7.2 mm.; width 2.75 mm. Alaska (St. Paul Island). One specimen..... *planifer* n. sp.

Elytral striæ finer, less abruptly defined and feebly impressed, the intervals not exactly flat and not evidently uneven or punctulate. 13  
 13—Form elongate, moderately convex, shining, the elytra not quite so polished as the anterior parts, piceous in color throughout, the thoracic margins narrowly pallid; head three-fifths as wide as the prothorax, with large and rather prominent eyes; antennæ slender, flavate, half as long as the body; last two palpal joints equal in length; prothorax quadrate, very slightly shorter than wide, the sides broadly arcuate, more converging anteriorly; apex moderately narrowed, deeply sinuate; basal angles narrowly rounded; surface with vestigial impressions and long and very feeble foveæ, the sides rapidly declivous, with narrow reflexed edge, scarcely differing at all basally; elytra three-fifths longer than wide, two-fifths wider than the prothorax, the sides rapidly ogivally rounded at apex; striæ very fine, not impressed; subcutellar puncture coarse; dorsal punctures three or four; three basal joints of the anterior male tarsi rather strongly dilated. Length (3♂, 7♀) 7.0–8.0 mm.; width 2.8 mm. Alaska (St. Paul Island).....beringi n. sp.

Form still narrower, very elongate, more convex and smaller in size, strongly shining throughout above, scarcely less so in the female, blackish-piceous above throughout, the sides of the prothorax only very narrowly pallid; legs pale flavate as usual; head smaller and narrower than in the preceding, slightly more than half as wide as the prothorax, the eyes well developed, not very convex; last palpal joint a little longer than the third; prothorax unusually and evenly convex and very smooth from side to side, fully as long as wide to but little less; impressions all very feeble; sides narrowly reflexed, more widely at the narrowly rounded basal angles; elytra long, three-fifths to one-half longer than wide, a third wider than the prothorax, evenly rounding in about apical third; striæ rather fine, deeply impressed (♂), very moderately (♀); intervals somewhat strongly to feebly convex; subcutellar puncture strong; dorsal punctures two in number; anterior tarsi (♂) rather strongly dilated. Length (♂ ♀) 6.0–7.0 mm.; width 2.2–2.5 mm. Alaska (St. Paul Island). Fourteen examples.....nanulus n. sp.

*Longulus* approaches *obscurus* Lec., more closely than any other species and possibly may be identical, but it is stated of *obscurus* that the sides of the prothorax are distinctly depressed though hardly reflexed; in *longulus* the sides are strongly reflexed, more feebly at base, where the surface as usual becomes broadly deplanate; it is also said of *obscurus* that it is "minus elongatus." The very elongate form of *longulus* is its most striking feature; it is very much narrower and more elongate than *ruficollis* and more so even than in the narrower *quadricollis*, both of which had been described just before *obscurus* in the text (Pr. Acad. Phila., 1854, p. 37). So I hesitate to propose any synonymy at present.

Since my last study of this genus I have received a specimen of *confusus* Lec., taken by Sherman at Marquette, Lake Superior; it evidently belongs to the same group as the Alaskan species above described, and so may possibly be identical with *ingratus* Dej. It is much less elongate than *beringi* and very much larger than *nanulus*, which last is the smallest species known from North America.

The following are four additional species of this genus:

**Calathus ventricosus** n. sp.—Form elongate-ovoidal, moderately convex, black, piceous beneath, the legs dark rufous; sides of the prothorax diaphanously pale; upper surface moderately shining, the elytra opaque; head somewhat elongate, four-sevenths as wide as the prothorax, with moderately convex eyes; antennæ ferruginous, nearly half as long as the body; palpi pale, the last joint slender, barely longer than the third; prothorax scarcely visibly wider than long, the sides feebly arcuate, gradually a little more so and moderately converging anteriorly, the apex deeply sinuate and two-thirds as wide as the base; basal angles blunt at tip; impressions and lineate foveæ scarcely traceable; sides abruptly and strongly reflexed throughout the length, narrowly toward apex, broadly but not deplanate basally; elytra somewhat over one-half longer than wide, one-half wider than the prothorax, oblong-oval, with distinctly arcuate sides, which as usual are not more arcuate basally, obtusely ogival behind the middle; striæ fine, somewhat deeper on the declivity; intervals virtually flat; subscutellar puncture distinct; dorsal punctures four; met-episterna subtriangular, but little longer than wide. Length (♀) 9.6 mm.; width 4.0 mm. Mississippi (Vicksburg).

I could only secure a single example of this interesting species, which can be compared only with *obesulus* Csy., differing in its smaller prothorax, more dilated elytra and less elongate antennæ—of the female in each case.

**Calathus peropacus** n. sp.—Form very elongate-suboval and notably depressed, piceous-black and moderately shining, the elytra deeper black and densely opaque; under surface rufo-piceous, the legs dark rufous; head slightly elongate, four-sevenths as wide as the prothorax, the eyes moderate and rather prominent; palpi slender, piceous, the last two joints equal in length and thickness; antennæ blackish-piceous, slender, less than half as long as the body, the pubescence of the fourth joint beginning very abruptly at basal third; prothorax quadrate, as long as wide or very nearly, widest at the middle, the feebly arcuate sides less converging and straighter basally than apically; basal angles obtuse and rounded; apex much narrower than the base, deeply sinuate, with distinct and only slightly blunt angles; surface narrowly reflexed at the sides, gradually becoming broadly deplanate and more opaque, and also a little more reflexed at the edge, basally; impressions and foveæ vestigial, the short median stria evident; elytra four-fifths longer than wide,

scarcely two-fifths wider than the prothorax, the sides gradually rounding behind the middle; striæ very fine; intervals flat; subscutellar puncture distinct; dorsal punctures very fine, three in number. Length (♀) 10.5–11.0 mm.; width 3.75–4.0 mm. Arizona (Palmerlee),—H. A. Kaerber. Two specimens.

This species stands rather alone and is not closely allied to any other in my collection; it is much larger and less convex than either *opaculus* Lec., or *obesulus* Csy., and has the anterior parts less shining and the elytral striæ still finer and less deep. It is also very much larger than *sonoricus* Csy., with the latero-basal parts of the pronotum widely and concavely explanate in a manner not even suggested in *sonoricus*.

**Calathus calator** n. sp.—Narrow, elongate-suboval, rather convex, highly polished throughout, blackish-piceous, the anterior parts dark rufous; under surface pale piceous, the legs pale brownish-flavate; head half as wide as the prothorax, the eyes but feebly convex; antennæ slender, pale testaceous, more than half as long as the body; prothorax very nearly as long as wide, widest at about the middle, the sides very evenly arcuate throughout and finely reflexed, a little more so basally; surface not deplanate at the sides basally, the foveæ shallow, elongate and discal; impressions barely traceable, the stria very fine and feeble; apex deeply sinuate, only three-fourths as wide as the base; elytra elongate, subparallel, two-thirds longer than wide, barely perceptibly wider than the prothorax, the apex very gradually and evenly rounded; striæ fine but sharp, smooth; intervals feebly convex, the third with three punctures, the two anterior in the third, the third in the second, stria; tarsi long and slender; tarsi and tibiæ darker than the femora. Length (♀) 7.7 mm.; width 2.9 mm. Colorado (Peaceful Valley),—Cockerell.

This species can be compared only with *coloradensis*, but it is still narrower, with relatively narrower head and paler anterior parts and with the pronotal surface not deplanate toward the hind angles.

**Calathus aquilus** n. sp.—Form more abbreviated and smaller in size, polished and blackish-piceous throughout, the sides of the prothorax diaphanously somewhat paler; under surface blackish-piceous, paler anteriorly, the legs pale rufous throughout; head moderate, with slightly prominent eyes, evidently more than half as wide as the prothorax; antennæ pale, three-fifths as long as the body; prothorax shorter, more than a fourth wider than long, widest submedially, the sides very moderately reflexed, barely more so gradually toward base, arcuate, rather straighter behind the middle; surface feebly, subevenly convex, with fine transverse rugulæ, not deplanate postero-laterally; foveæ large, irregular, very shallow and scarcely definable, distant from the sides as usual; elytra shorter, barely one-half longer than wide, fully two-fifths



wider than the prothorax, oblong, with distinctly arcuate sides, gradually but more rapidly rounding apically; striae fine, nearly smooth; intervals very nearly flat, the third with three punctures placed as in the preceding; anterior male tarsi with the first three joints distinctly dilated and subequal in length; hind tarsi very slender. Length ( $\sigma^7$ ) 7.0 mm.; width 2.75 mm. Colorado (Ouray, 7500 ft. elev.),—Wickham.

Quite distinct from either *calator*, *coloradensis* or *reductus*, all of which are also inhabitants of Colorado, in its much more abbreviated form; *reductus* has the prothorax narrower and more elongate than in either of the others mentioned.

### *Pristodactyla* Dej.

The following species is allied to *zuniana*, but differs in its smaller anterior parts, the head especially being much smaller, relatively wider elytra, more slender maxillary palpi, smaller mandibles, less equally and more anteriorly rounded sides of the prothorax and in a consequently pronounced difference of facies:

*Pristodactyla neomexicana* n. sp.—Deep black and rather shining, the elytra opaque; surface distinctly convex; legs piceous; head three-fifths as wide as the prothorax and very distinctly narrower than an elytron, with moderately prominent eyes; palpi pale testaceous, the last joint a little longer than the third, narrowly truncate at tip; antennae ferruginous, the four basal joints more piceous, not quite half as long as the body; prothorax widest near apical third, slightly wider than long, the sides rather strongly rounded, oblique and feebly arcuate in fully basal half; apex sinuate, with well rounded angles, the basal angles still more broadly rounded; posterior transverse impression feeble, the anterior obsolete; stria deep, abbreviated a little at apex, attaining the base; foveae linear, feebly impressed, smooth; sides very moderately reflexed, scarcely differing basally; elytra two-thirds longer than wide, almost one-half wider than the prothorax, obtusely ogival at apex, the parallel sides broadly, evenly arcuate; striae fine, feebly impressed, finely punctulate; intervals almost flat; dorsal punctures three, the first at basal third; met-episterna slightly elongate; first three joints of the anterior male tarsi strongly dilated. Length ( $\sigma^7$ ) 10.5–11.0 mm.; width 4.1–4.3 mm. New Mexico. One example from an unrecorded source and two from Cloudercroft, the latter sent by Knaus.

In both this species and *zuniana* the tarsal claws are virtually smooth beneath, without trace of fimbriolation, but, under high power, there are visible basally about three very feeble serruliform crenules. The type of this species was considered with the larger type of *zuniana* in my previous work on the genus (Mem. Col., IV, p. 160) but it evidently represents a distinct species.

The two following species are much narrower, more parallel and less ventricose than *arizonica*, *zuniana* or *neomexicana*, and are of a paler piceous-brown color. They evidently belong to the same group as that represented by *Anchomenus mollis* Dej., of Alaska, which is erroneously assigned generically, but differ in some respects according to the description of Dejean:

***Pristodactyla binaria*** n. sp.—Body elongate, parallel, feebly convex, shining, with opaculate and closely micro-reticulate elytra, dark brown in color, the edges slightly pale; under surface and legs rufo-ferruginous; head slightly elongate, with moderately prominent eyes, two-thirds as wide as the prothorax, the anterior impressions shallow and vague; palpi pale, the fourth joint distinctly longer than the third; antennæ uniform pale rufo-ferruginous, moderately slender, about half as long as the body, the third joint distinctly longer than the fourth; prothorax a fifth or sixth wider than long, widest a little before the middle, the sides evenly and moderately rounded, moderately oblique and usually very slightly sinuate posteriorly, the angles broadly rounded, the puncture on the edge distinct; base as wide as the apex, margined, transverse medially, becoming strongly and gradually arcuate laterally; apex moderately sinuate, the angles blunt at tip; margins strongly reflexed, broadly so at base, where however they are separated from the foveæ, which are elongate and feebly, vaguely impressed and virtually smooth; surface almost smooth, the impressions feeble, the stria fine, impressed, not attaining the base; elytra elongate, oblong-subparallel, with feebly arcuate sides, becoming gradually but little more rounded basally; apex gradually rounded, the sinus obsolete, nearly two-thirds longer than wide and about three-sevenths wider than the prothorax; striae fine, smooth, evidently impressed, the scutellar stria long, the ninth midway between the eighth and the edge; intervals slightly convex, with fine and feeble scattered punctures laterally, the third with two punctures at the second stria, before the middle and near apical fourth; metepisterna rapidly narrowed, not quite twice as long as wide; anterior male tarsi unusually strongly dilated, feebly sulcate medially. Length ( $\sigma^7$   $\text{♀}$ ) 8.5–9.8 mm.; width 3.3–3.8 mm. S. Arkansas. Five examples.

I have no reason to doubt the accuracy of the habitat assigned this species, but have no record of the collector or other data connected with the specimens. The species from the far north—"prope fines Aquilonis," described by LeConte under the name *Pristodactyla advena*, and conceived by the author to connect *Pristodactyla* and *Pristonychus*, I have not seen, but it is evidently of the *mollis* group and related to *binaria* and *scolopax*, here described; but it is not piceous in color and in great part dull in lustre, as in the latter two species, but of a shining black; it is 9.7 by 3.5 mm. in dimensions and the elytra have two dorsal punctures.

The following species is much smaller, and, relatively, the prothorax is not so large:

*Pristodactyla scolopax* n. sp.—Body smaller and narrower, deeper umber-brown in color, the under surface and legs nearly as in the preceding; general characters subsimilar; head not elongate, more than two-thirds as wide as the prothorax, with more prominent eyes; antennæ nearly similar; prothorax almost similar but not paler at the sides, which are straight and feebly oblique posteriorly, with the basal angles more narrowly rounded and with more conspicuous puncture; side margins rather less broadly reflexed; general features similar; elytra narrower and still more elongate, only about a third wider than the prothorax, the gradually rounded apex without sinus; striæ, intervals and two dorsal punctures nearly as in *binaria*; tarsi almost similar. Length (♂ ♀) 7.8–8.7 mm.; width 2.8–3.1 mm. Colorado. Levette collection. Nine specimens.

Besides *mollis* and the two preceding, there are two other Alaskan species which may be assigned to *Pristodactyla*, both having two dorsal elytral punctures; one of these, *Anchomenus lenis* Mann., from Kodiak Island, is said to differ from *mollis* in its larger and narrower prothorax, more narrowed and more strongly reflexed toward base, obliquely rounded basal angles and more elongate elytra, these characters fitting the two here described better than the recorded characters of *mollis*. According to a manuscript note by LeConte, *lenis*, in fact, is said to be a *Pristodactyla*.

The second species was named *Anchomenus dulcis* by Mannerheim, and is from the Kenai Peninsula; it is said to differ from *lenis* in its still more elongate form, longer and narrower prothorax, not linearly but arcuately narrowed posteriorly, with less reflexed margins and less obliquely truncate hind angles, and also in having shorter elytra. LeConte does not seem to have seen this species.

The following species resembles *semirufa* somewhat in general form and size, but has the head and prothorax relatively smaller, the elytra more opaque and the coloration very different:

\**Pristodactyla subopaca* n. sp.—Narrow, elongate-oval, small in size and moderately convex, deep black, the legs piceous-black; upper surface highly polished anteriorly, the elytra rather densely opaque; head barely at all elongate, fully two-thirds as wide as the prothorax, the eyes well developed but only moderately prominent; palpi rufous; antennæ slender, fusco-testaceous, clearer basally, fully four-sevenths as long as the body; prothorax very little shorter than wide, widest before the middle, the sides moderately and subevenly arcuate throughout the length and finely reflexed; basal angles obtuse and rather broadly

rounded, the apical bluntly rounded; base transverse, rounding laterally, very little wider than the feebly sinuate apex; surface evenly and slightly convex throughout, very smooth and impunctate, the transverse impressions very feeble, the stria fine, subentire; foveæ small, narrow, feebly impressed, linear and at some distance from the sides; elytra elongate-oval, three-fifths longer than wide, two-fifths wider than the prothorax, the sides not more arcuate at base; apex gradually rounded, without trace of sinus; basal margin sinuate, making a very sharp and acute angle with the sides; striæ fine, with very feeble and obscure micro-punctulation; intervals perfectly flat, the third with four small punctures, all at the third stria; under surface black, shining, the legs moderate. Length (♀) 8.0 mm.; width 3.0 mm. Mexico (Tres Marias, Morelos),—Wickham.

I can find no published description according in any way with this very distinct species and therefore regard it as undescribed. The tarsal claws are long and have within a distinct fringe of rather long spicules.

### **Onypterygia Dej.**

*Onychopterygia* G. & H. (emend.)

In many respects this remarkable neotropical genus is allied closely to the Platynid series of genera, but the tarsal claws are strongly and closely pectinate beneath. The integuments are more or less brilliantly metallic in color and the genus therefore constitutes one of the more conspicuous types of the Carabidæ. The species are rather numerous. *Höpfneri* Dej., is a larger species, having the cupreous-red and uniformly colored elytra dull in lustre, in a way foreign to most of the others; my representatives, taken by Baron, in Guerrero, are apparently larger than Dejean's type, measuring as much as 14 mm. in length, but they seem to satisfy his description otherwise. *Tricolor* and some others have the elytral apices spiniform. The following seems to be a hitherto undescribed small species:

\**Onypterygia cupricauda* n. sp.—Outline elongate-suboval, strongly convex and highly polished throughout, the head and pronotum black, with feeble bluish lustre; elytra brilliantly green, gradually cupreous apically; under surface obscure rufo-ferruginous, the legs piceous, the femora more nearly black; head elongate, rhomboidal, nearly three-fourths as wide as the prothorax, with rather prominent and well developed eyes; anterior impressions small, deep, linear; mandibles small, nearly straight except at tip; mentum tooth sharply triangular; palpi piceous, pale at tip, the last joint fusoid, gradually pointed, as long as the third and a little thicker; antennæ slender, fusco-ferruginous, the

joints nubilously pale basally, distinctly more than half as long as the body; prothorax about as long as wide, the sides rounded, oblique basally, becoming feebly sinuate at the distinct angles, very finely reflexed throughout the length; apex sinuato-truncate, narrower than the base; surface slightly punctate at the basal foveæ, which are rather coarse and deep, linear; transverse impressions both feeble, the stria fine, biabbreviated; elytra evenly oblong-oval, with arcuate sides and obtusely ogival apex, two-thirds longer than wide, not quite twice as wide as the prothorax, the oblique apices only just visibly sinuate, evenly rounded at the suture, the latter wholly devoid of prolongation; striae fine but abrupt, finely punctulate; intervals flat; met-episterna much elongated; legs slender. Length (♀) 7.5-8.0 mm.; width 2.8 mm. Mexico (Guerrero),—Baron.

This small, metallic and convex species is evidently allied to *aneipennis* Chd., but in that the under surface is described as shining black, and the brilliantly green elytra are suffused with coppery reflection throughout; it is from Oaxaca.

#### **Lachnophorus Dej;**

The following is very close to *elegantulus* Mann., but seems to differ subspecifically:

**Lachnophorus elegantulus** ssp. *ocularis* nov.—Almost exactly similar to *elegantulus* in every way, except that it is a trifle stouter in the hind body and that the legs are pale flavate throughout; eyes slightly larger, separated by less than their width from a vertical point of view; thoracic constriction less sharply marked, the short sides thence to the base less parallel; elytra nearly similar in form and marking, but with the punctures of the interstitial series rather more evident. Length 5.2 mm.; width 2.15 mm., Texas. A single specimen.

In *elegantulus* the eyes are separated by just twice their width when viewed vertically.\*

#### **Galerita Fabr.**

This remarkably isolated genus is almost peculiarly American and contains a large number of species; so far as known to me they may be segregated into two subgeneric groups, based upon peculiarities of elytral sculpture, but it would be premature, without the African and East Indian representatives, to assign definite names to these groups. In all the subarctic North American species the elytra have a perfectly even surface, with simple and feebly punctate striae, the intervals with fine and evenly diffused

\*A small form occurring at Yuma, Ariz., seems to represent a valid variety of *Tetragonoderus fasciatus* Hald., different from *undulatus* Lec.

T. L. Casey, Mem. Col. IX, Feb. 1920.

punctulation and pubescence; but, in the tropical forms, the elytra generally have many fine costules, with a finer geminate pair of raised lines along the middle of each interval. Between the very long scutellar stria and the feebly deflexed basal part of the first regular stria, there is usually a series of punctures, particularly developed in species of the *lecontei* type. The joints of the anterior male tarsi are very asymmetric, the outer part being bluntly produced; this asymmetry is far more conspicuous than in the Pterostichid genus *Loxandrus*. The pronounced isolation of *Galerita* in morphologic type, is even more evident in the larva, as shown by Sallé—quoted by Lacordaire—than in any of the numerous peculiarities of the imago. There is such a monotonous consistency in form, size and coloration among the species as to have led to a good deal of confusion in synonymy, the case being rather like that of *Brachinus* in this respect; but in reality our species are far more numerous than hitherto suspected, those at present represented in my collection being readily separable as follows:

Elytral surface even.....	2
Elytral surface finely costulate; legs black.....	16
2—Legs pale ferruginous in color.....	3
Legs black.....	14
3—Sides of the head behind the eyes partially parallel or very moderately oblique, generally a little more oblique in the male than in the female.....	4
Sides strongly oblique from the eyes to the base in both sexes.....	9
4—Antennæ longer and very slender in both sexes, the fourth joint rather more than four times as long as wide.....	5
Antennæ much shorter, the fourth joint not four times as long as wide... 8	
5—Body more slender, the elytra about twice as long as wide in both sexes. Black, the prothorax above throughout and beneath, except at base, and also the legs, ferruginous, the tarsi darker; head longer than wide, three-fourths as wide as the prothorax, the eyes very prominent, at one-half more than their length from the base; tempora obliquely rounded from the eyes to the base; antennæ of the usual coloration, the basal joint ferruginous, the next three black, the remainder blackish-brown, gradually paler toward the antennal tip; neck much constricted; prothorax somewhat longer than wide, the parallel sides broadly and subevenly arcuate, broadly reflexed, more so at base, sinuate before the basal angles, which are obtuse, blunt and reflexed, the base one-half wider than the feebly sinuate apex; apical angles broadly rounded and obliterated, the surface feebly, subevenly convex, strongly and densely punctate and feebly rugulose, the pubescence pale; surface impressed transversely at base; elytra nearly twice as wide as the prothorax, parallel, the	

sides evenly rounding at base; apex obliquely truncate, the external angle rounded; striæ fine, feebly punctulate, the intervals closely, feebly punctate and with short fusco-fulvous pubescence, the general surface dull and strongly micro-reticulate; anterior male tarsi with a long oblique external series of squamules as usual. Length (♂ ♀) 16.0-16.8 mm.; width 5.3-5.65 mm. Missouri (St. Louis); also a single unlabeled male from the Levette collection.

*intermedia* Csy.

Body less slender, the elytra a little less than twice as long as wide in the male, wider in the female.....6

6—Size much smaller than in the two following, the prothorax narrow, the sides deeply sinuate before the basal angles. Coloration, lustre, sculpture and vestiture nearly as in the preceding, the short elytral hairs still darker; head narrow, much elongated, deeply and densely punctate, four-fifths as wide as the prothorax, the eyes abruptly very prominent, the tempora circularly rounded to the neck and becoming nearly parallel toward the eyes; palpi moderate, the last joint very obliquely truncate as usual; antennæ sharply tricolored, joints two to four black, the remainder somewhat pale red-brown; prothorax narrow, elongate, much less than half as wide as the elytra, the general structure and sculpture as in the preceding but narrower and more elongate, the sinus before the basal angles deep, the reflexed angles more conspicuous; elytra three-fourths longer than wide, in general form and sculpture as in *intermedia*; anterior male tarsi even more strongly, asymmetrically dilated, the basal joint relatively distinctly shorter than in *intermedia*. Length (♂) 15.7 mm.; width 5.5 mm. Missouri (St. Louis).

*angusticeps* n. sp.

Size larger, the prothorax and head broader, the thoracic sides much more shallowly and broadly sinuate before the reflexed and obtuse basal angles.....7

7—Color black, the prothorax and legs as in the preceding, the elytra varying from nearly black to decidedly bluish; head somewhat wider, moderately elongate, the punctures rather coarse, deep and dense, the front with a small rufous medial spot; eyes very prominent, the tempora feebly converging and circularly rounded to the neck; antennæ slender, sometimes uniformly fusco-ferruginous though paler at base, rarely with the tricoloration of the preceding more or less evident; prothorax slightly longer than wide, the parallel sides broadly, subevenly arcuate, becoming sinuate basally and parallel for a short distance at the angles, the tips of which are sharply defined; surface somewhat densely and rugulose punctate, broadly subdeplanate along the sides, feebly, transversely impressed at base, deeply concave at the reflexed angles; scutellum narrow, acutely attenuate; elytra twice as wide as the prothorax, three-fourths to four-fifths longer than wide, just perceptibly widest a little behind the middle, the feebly arcuate sides evenly rounded at base; apices and general surface as in the preceding two species; anterior male tarsi only moderately dilated, very asymmetric, the external fulvous fringe conspicuous, the basal joint as long as the

- next two combined. Length ( $\sigma^7$  ♀) 17.0–18.5 mm.; width 6.0–6.6 mm. Rhode Island, New York (Long Island), Maryland, Pennsylvania, Lake Superior (Marquette), Indiana, Iowa and Missouri. [*G. americana* Fab., nec Linn.; *cyanipennis* Dej., and *cordicollis* Chd.].....**janus** Fabr.
- Color in general as in the preceding, except that the elytra are deep black and without bluish hue; head elongate, three-fourths as wide as the prothorax, coarsely punctato-rugose, more sparsely punctate anteriorly on the median longitudinal convexity, the central red spot scarcely definite; pubescence coarse, fulvous and rather long; eyes very prominent, the tempora circularly rounded, subparallel behind the eyes; neck deeply constricted as usual; antennæ rather long, colored as usual, the first four joints conspicuously pubescent; prothorax large, elongate, widest at two-fifths from the apex, the sides broadly arcuate, broadly sinuate basally, the angles very obtuse but with definite tips, broadly and strongly reflexed; punctures dense and relatively fine, subrugose; surface broadly subdeplane laterally, the edge narrowly reflexed; elytra nearly twice as wide as the prothorax, four-fifths longer than wide, in general form and sculpture nearly as in *janus*, but with the short, fine and abundant pubescence more obscure, finer; anterior male tarsi with the first three joints strongly, obliquely asymmetric as usual, the first as long as the next two. Length ( $\sigma^7$ ) 21.0 mm.; width 6.9 mm. Florida. [*G. thoracica* Csy. nec Chev.].....**caseyi** Leng
- 8—Form notably elongate, colored as in the preceding, the elytra deep black; head broad, oblong, slightly longer than wide, nearly four-fifths as wide as the prothorax, the eyes large but only very moderately prominent, at less than one-half more than their own length from the base, the tempora near the eyes nearly as prominent as the latter, rapidly, circularly oblique thence to the constricted neck; surface convex, deeply and densely punctato-rugulose and with a conspicuous central red spot, immediately before which there is a small polished smooth spot; anterior impressions broad; antennæ short, the basal joint pale rufous, the next three deep black, the remainder pale brown, one to four with dense shaggy pubescence; prothorax not distinctly longer than wide, widest slightly before the middle, the sides rather strongly, evenly arcuate, becoming parallel for a short distance at base, the angles right but distinctly rounded; base rectilinearly transverse, the surface densely punctate, not deplane though gradually sloping laterally, the basal foveæ deep, connected transversely by a feebly impressed line; elytra very feebly inflated posteriorly, more than three-fourths longer than wide, in general form, sculpture and pubescence as in the preceding species, not quite twice as wide as the prothorax. Length (♀) 17.7 mm.; width 6.0 mm. Rhode Island (Boston Neck).....**occipitalis** n. sp.
- 9—Tempora longer, much longer than the length of the eyes.....10  
Tempora notably short, about as long as the eyes.....13  
10—Base of the prothorax relatively wider, only a little narrower than the maximum width.....11  
Base much narrower than the maximum width.....12



- 11—Sinus before the basal thoracic angles deep, rendering the angles laterally prominent; antennal pubescence moderate. Form rather ventricose, the hind body only moderately elongate; coloration and sculpture nearly as in all the preceding species, the elytra black, without bluish tinge; head but slightly elongate, four-fifths as wide as the prothorax, the punctures strong and close-set, the pubescence rather long, fulvous; frontal red spot more or less evident; eyes very prominent; tempora converging and arcuate; antennæ slender, the basal joint ferruginous, with blackish tip, the next three black, the remainder pale red-brown; prothorax distinctly elongate, widest at the middle, where the sides are rather strongly rounded, thence oblique and less arcuate anteriorly, more oblique behind to the rather deep sinus, the basal angles obtusely rounded at tip; surface moderately and closely punctate and subrugulose, gradually feebly reflexed at the sides, the edge abruptly upturned; foveæ deeply concave; elytra three-fourths longer than wide, distinctly more than twice as wide as the prothorax, rather more convex than usual, the humeri more rapidly rounded; striæ rather fine but deep, punctulate, the ground punctures and pubescence nearly as in *janus*; punctures of the subscutellar series widely separated. Length (♂) 16.5 mm.; width 5.8 mm. Florida (New Augustine),—Ganung. [*G. dubia* Lec.]. Probably described by Dejean from a LeConte specimen from southern Georgia.

**lecontei** Dej.

- Sinus toward base of the thoracic sides broad and feebler, the sides becoming subparallel thence to the base; antennæ bristling basally with long shaggy pubescence. Form still more ventricose, the elytra relatively broader and not so convex; coloration as in the preceding; head nearly as in *lecontei* but with the punctures becoming very fine and sparser basally, the eyes even more conspicuously prominent and the tempora even more oblique to the narrow neck; central red spot distinct; antennæ slender, pale brown, the basal joint brighter rufous, not dark at tip, joints three to five not more than piceous; prothorax slightly broader though longer than wide, the sides nearly similar, except basally, the basal angles very much more broadly rounded; surface more finely punctured and with shorter, finer pubescence, less reflexed at the sides, the foveæ narrower, remote from the sides, not forming part of the reflexed angles so evidently as in *lecontei*; elytra two-thirds longer than wide, nearly two and one-half times as wide as the prothorax, less convex but otherwise nearly similar, except that the punctures of the subscutellar series are rather more close-set and more distinct. Length (♀) 16.5 mm.; width 6.3 mm. Texas (near El Paso),—Dunn. . . . . **crnicornis** n. sp.

- 12—Body elongate, moderately ventricose and only feebly convex; coloration as in all the preceding species, the black elytra never with very evident bluish bloom; head oval, rather more than three-fourths as wide as the prothorax, with a central rufous spot sometimes elevated in prolongation of the anterior axial convexity; punctures close-set, the erect vestiture bristling; eyes very promi-

ment, the tempora very oblique and moderately arcuate, longer than in the two preceding species; antennæ slender, tricolored as usual; prothorax notably elongate, widest and strongly rounded at the middle, the sides thence oblique and straighter to the apex, broadly sinuate basally, the angles obtusely rounded and more or less feebly everted; surface less convex than usual, finely, very closely punctate and subrugulose, moderately flavo-pubescent; sides broadly declivo-explanate, the fine edge sharply upturned as usual; foveæ large, concave; elytra three-fourths to four-fifths longer than wide, more than twice as wide as the prothorax, feebly subinflated posteriorly, the humeri strongly rounded; striæ moderately fine, sharply grooved, finely, feebly punctate, the general ground sculpture as in *janus* and the other species before described; male with the external oblique angles of the first three anterior tarsal joints rather sharply rounded, the basal joint as long as the next two. Length (♂ ♀) 17.0–19.0 mm.; width 5.5–6.6 mm. Pennsylvania and North Carolina (Asheville). [*G. americana* Dej., nec Linn.; *borealis* Cast., and *longicollis* Chd.]. . . . . **bicolor** Drury

A—Similar in nearly all respects to *bicolor* but not quite so elongate, the head a little narrower; prothorax distinctly less elongate, but just visibly longer than wide, the sides more evenly rounded though similarly widest at the middle, the sinus rather more abruptly formed; elytra two-thirds longer than wide. Length (♂) 17.0 mm.; width 5.8 mm. Iowa (the locality unrecorded).  
**iowensis** n. subsp.

B—Nearly as in *bicolor* but narrower, the head narrower, with still somewhat more prominent eyes, the tempora—converging thence to the neck—straighter; prothorax narrower and relatively still more elongate, the basal angles rather less broadly rounded; elytra narrower, twice as long as wide. Length (♀) 17.5 mm.; width 6.0 mm. Indiana. . . . . **rhombeiceps** n. subsp.

Body still more elongate than in *bicolor* and much larger in size, similar in coloration, sculpture and vestiture; head and antennæ nearly similar, the first antennal joint longer, bright rufous, the remainder pale brownish, two to four with feeble obscure cloud in part; prothorax nearly similar, the sides before the middle feebly oblique and evenly, very moderately arcuate; sinus before the obtuse basal angles rather deep though gradually formed, the angles reflexed; foveæ very large and concave, traceable anteriorly very feebly almost to the apex; close punctures moderate, subruguliform, the pubescence abundant, pale and bristling; elytra nearly as in *bicolor* but rather more elongate, three-fourths (♀) to four-fifths (♂) longer than wide, rather more than twice as wide as the prothorax, similarly with the punctures of the long subscutellar series very much less evident than in *lecontei* and related forms. Length (♂ ♀) 19.0–20.5 mm.; width 6.6–7.0 mm. Florida (Palm Beach). Two examples. . . . . **obliqua** Csy.

13—Form notably narrow, only moderately convex, with color and general sculpture very nearly as in all the preceding species, smaller in size; head distinctly elongate, the eyes well developed and notably

prominent, at just visibly less than their own length from the base, the base of the head behind them subcircularly rounded; central red spot distinct; punctures somewhat finer basally; pubescence abundant; antennæ slender, the first joint bright rufous, two to four piceous, the remainder dark brown, the fourth ( $\sigma^7$ ) about four times as long as wide, nearly so ( $\varphi$ ); prothorax slightly ( $\varphi$ ), distinctly ( $\sigma^7$ ), longer than wide, widest before the middle, the sides subevenly rounded, becoming gradually sinuate before the basal angles, which are very obtuse though laterally somewhat prominent; punctures fine, rather close, the surface rather dull; foveæ large, concave, faintly prolonged anteriorly to beyond the middle; elytra twice as long as wide ( $\sigma^7$ ), nearly so ( $\varphi$ ), barely twice as wide as the prothorax, the general form and punctuation as in all the preceding, the striæ fine, obscurely punctulate, the subscutellar series distinct; anterior male tarsi asymmetrically dilated though more narrowly than usual, the first joint rather longer than the next two combined. Length ( $\sigma^7$   $\varphi$ ) 15.0–15.5 mm.; width 4.9–5.5 mm. California (San Diego),—Dunn.....**californica** Mann.

A—Similar to *californica* but less slender and with a relatively somewhat smaller prothorax, which is however similar in form, except that the lateral sinus is more shallow, the obtuse angles less prominent laterally; eyes similarly prominent; fourth antennal joint between three and four times as long as wide in both sexes; elytra similar but broader, never quite so much as twice as long as wide, the striæ similarly fine. Length ( $\sigma^7$   $\varphi$ ) 15.0–15.8 mm.; width 5.2–5.7 mm. Arizona and Texas.....**arizonica** n. subsp.

Form much more abbreviated, smaller in size, more ventricose, similar in coloration, lustre and sculpture; head only slightly longer than wide, the eyes prominent, at their own length from the base, the base circularly rounded; red central spot similar; antennæ shorter, the fourth joint barely three times as long as wide, the coloration as in *californica*, except that joints two to four are more nearly black; prothorax almost similar in outline but relatively smaller and narrower, barely visibly wider than the head, the evenly rounded sides more gradually and shallowly sinuate basally, the angles not prominent laterally, rounded; elytra very much shorter and relatively wider, barely three-fifths longer than wide, two and one-half times as wide as the prothorax; striæ about twice as coarse and deeper, much less evidently punctulate. Length ( $\varphi$ ) 14.0 mm.; width 5.0 mm. Arizona (Yuma),—Dunn.....**infirmata** Csy.

14—Strial intervals somewhat coarsely, closely and roughly punctate. Form nearly as in *janus*; head, palpi, antennæ, body beneath and legs black; prothorax reddish-yellow, the elytra decidedly bluish; head oval, very broad behind the eyes, somewhat as in *janus*, coarsely and densely punctate; prothorax as in *janus*, oval, narrowed behind, broadest in front of the middle; hind angles very obtuse, the surface somewhat densely and coarsely punctate; elytra oval, rather depressed, black, the surface decidedly blue, especially at the sides, striate, the striæ distantly punctured; surface sparsely pubescent; under surface more shining, less closely punctate and

- more sparsely pubescent. Length 18 mm. Arizona. [*G. decipiens* Horn].....**mexicana** Chd.  
 Strial intervals finely, feebly, rather closely and evenly punctulate as in *janus* and the other preceding species.....15
- 15—Body, excepting the ferruginous prothorax above and beneath, black, the elytra without obvious bluish lustre; head large, elongate, four-fifths as wide as the prothorax, the eyes well developed and prominent, the tempora behind them strongly and circularly rounding to the neck; surface coarsely and closely punctate, the central red spot distinct; antennæ rather long and slender, the first four joints black, the remainder paler, brown; palpi black, pale at tip; prothorax fully a fourth longer than wide, widest before the middle, the parallel sides broadly and evenly arcuate, becoming moderately sinuate for a short distance before the obtuse hind angles; foveæ rather sharply impressed, and with very feeble extension traceable anteriorly nearly to the apex; surface somewhat coarsely, densely, subrugulose punctate and with suberect pale pubescence; elytra narrow, twice as long as wide (♂), barely, or not quite twice as wide as the prothorax, of the usual outline; striæ fine, feebly micro-punctulate, the subscutellar series rather finely punctured; anterior male tarsi with the first three joints dilated and very obliquely produced externally, the first barely as long as the next two. Length (♂) 17.0–18.0 mm.; width 5.7–5.8 mm. Kansas.....**atripes** Lec.
- Body smaller, narrower, but, at the same time, more ventricose, the head and prothorax relatively much smaller; coloration and general sculpture nearly similar; head slightly elongate, only very little narrower than the prothorax, the eyes rather large, very prominent, at their own length from the base, the tempora more converging behind them to the neck than in *atripes* and much more feebly, evenly arcuate; red spot small and feeble; punctures close, smaller than in *atripes*; anterior parts more sparsely and very coarsely punctato-rugose, nearly flat, scarcely biimpressed; antennæ nearly as in *atripes*; prothorax less elongate, smaller, of almost similar outline, but with the parallel sides rather more arcuate, the basal sinus longer and more gradually formed, the angles narrowly blunt, slightly prominent laterally; surface and foveæ nearly similar, the thin side margins in the same way sharply and strongly reflexed, the general punctuation less coarse; elytra four-fifths longer than wide, much more than twice as wide as the prothorax and almost four times as long, feebly inflated behind but nearly of the usual outline, the striæ fine, the subscutellar series distinct; anterior male tarsi very moderately dilated, the first joint as long as the next two. Length (♂) 15.5 mm.; width 5.4 mm. Texas (Amarillo),—Shantz.
- melanopus** n. sp.
- 16—Body large, moderately convex, not very slender, dullish in lustre, black, excepting the dark rufo-ferruginous prothorax above and beneath; head but slightly elongate, three-fourths as wide as the prothorax, with very prominent eyes, the tempora very short, circularly rounded to the neck, only two-thirds as long as the eyes; surface coarsely and subrugulose punctate; anterior half broadly

biimpressed, with a medial cariniform elevation; antennæ with the first four joints black, the remaining joints pale brown, more obscure at their tips; prothorax large, barely visibly longer than wide, widest before the middle, with broadly, evenly rounded subparallel sides, becoming parallel near the blunt basal angles; surface coarsely, closely, subrugosely punctate; elytra slightly inflated behind the middle, fully three-fourths longer than wide, not quite twice as wide as the prothorax; surface with complex sculpture, the fine smooth ridges nine in number, the intervals strongly micro-reticulate, and along the middle of each, there are two finer close-set carinæ, separated by a deep groove, which is feebly punctured along the bottom, the space between each of the fine axial ridges and the coarser ridges has very fine and shallow punctures, resembling completely the fine interstitial punctures of *janus*, *bicolor* and other more northern species; sterna more coarsely punctured than the abdomen; anterior male tarsi dark ferruginous, strongly asymmetric, the basal joint not as long as the next two. Length (♂) 19.0 mm.; width 6.8 mm. Cuba (Havana),—Baker. [*G. insularis* Cast., and *erythrodera* Brul.].....\**ruficollis* Dej.

Body much smaller and more slender, deep black and more shining, the legs black, the elytra alutaceous and differing in outline from those of any of the preceding, being elongate-oval and wholly without humeri; head slightly longer than wide, only a little narrower than the prothorax, coarsely but not densely punctate, more sparsely at base; eyes very prominent, at one-half more than their own length from the base, the tempora not very rapidly converging and circularly rounded; rufous spot wanting; medial cariniform line separating the two impressions continuing to the line posteriorly tangent to the eyes; antennæ slender, the first four joints black, the remainder piceous; prothorax narrow and very elongate, widest before the middle, the parallel sides broadly, evenly arcuate, very gradually and feebly oblique posteriorly, becoming parallel at base, which is transverse and four-fifths the maximum width; surface subdeplanate laterally, the foveæ long, moderately concave; median line broadly, feebly impressed, with a fine axial stria; punctures coarse and rather irregularly close-set; elytra gradually narrowing from the middle to the base, four-fifths longer than wide, twice as wide as the prothorax; sculpture nearly as in *ruficollis*, except that the two fine axial costules of each interval are finer and feebler, and not separated by a deep groove, and that the space between each of these costular threads and the principal costæ, which are very moderate, is very sparsely and obsoletely punctate; under surface shining; anterior male tarsi black, very asymmetric, the external lobes very oblique. Length (♂) 15.0–16.5 mm.; width 4.6–5.2 mm. Isthmus of Panama (Natá).....\**panamensis* n. sp.

The species just described under the name *panamensis*, is evidently related to *mustelina* Bates, from Costa Rica, but is very much smaller, *mustelina* being 18 mm. in length, and the form of

the prothorax "antice gradatim modice angustato" must be quite different, the sides, except at base, in *panamensis* being parallel and very evenly arcuate from the basal sinus to the apex. The species described above as *obliqua*, is well distinguished from *bicolor*, not only by the materially larger size, but by the form of the anterior male tarsi, the third joint being much smaller than the second in *bicolor* and *iowensis*, but exactly equal to the third in *obliqua*. *Thoracica* Chev., from Mexico, is possibly not identical with the West Indian *ruficollis* (*erythrodera*), which would render valid the name *caseyi*, substituted for *thoracica* Csy., by Leng.

#### Loxopeza Chd.

This is another genus in which the joints of the anterior male tarsi are asymmetric, though to a very slight degree when compared with the preceding genus, and in some cases the tarsus must be viewed carefully to recognize the obliquity of the joints at all. Nevertheless, I believe that *Loxopeza* should be maintained as distinct from *Lebia*; in *Lebia pleuritica* and *enormis*, having apparently symmetric tarsi, the peculiar habitus of *Loxopeza* is reproduced, and I therefore think that these two species should be regarded as *Loxopeza* rather than *Lebia*. The three basal antennal joints and a clearly marked basal node of the fourth are glabrous as in Platyninæ. The ten species in my collection, which, at any rate, I prefer to record as *Loxopeza*, may be distinguished readily as follows:

Fourth joint of the hind tarsi deeply emarginate.....	2
Fourth joint feebly emarginate.....	5
2—Head black. Body moderately convex and ventricose, strongly shining, pale rufo-flavate, the head black but with pale epistoma, labrum and mandibles, the elytra bright steel-green, the epipleura and abdomen piceous; head four-fifths as wide as the prothorax, with large and rather prominent eyes, the front finely and feebly rugulose; antennæ slender, fusco-testaceous, clearer basally; prothorax four-fifths wider than long, widest before the middle, the sides straight basally, the angles more than right but only slightly blunt; surface feebly rugulose, very broadly reflexed and smoother at the sides, the anterior impression obsolete, the posterior straight and deep near the base and through half the width; elytra oblong, a third longer than wide, twice as wide as the prothorax, rapidly narrowing at apex, the external angle of the truncature rounded; striæ very deeply and conspicuously impressed, the micro-punctuation scarcely discoverable, the seventh and eighth fine and not	

- impressed, the intervals notably convex; scutellum pale. Length 7.2 mm.; width 3.3 mm. New York (Buffalo).....**tricolor** Say
- Head pale, similar in color to the prothorax, legs and most of the under surface; prothorax widest at about the middle, the sides rounded and widely reflexed.....3
- 3—Size smaller, the striæ fine and feebly impressed, the outer angle of the truncature rounded. Color rather pale rufo-flavate throughout, excepting the epipleura and abdomen, which are piceous and black respectively, the elytra dark blue; head rather more than three-fourths as wide as the prothorax, with large and prominent eyes; front faintly strigilate near the eyes; antennæ slender, blackish, the first three joints testaceous; prothorax four-fifths wider than long, the basal angles obtuse but not rounded; rugulæ fine and faint; basal channel not very deep; elytra two-fifths longer than wide, twice as wide as the prothorax, gradually arcuately narrowing behind; surface shining, though micro-reticulate, the striæ closely micro-punctulate, the third with two widely separated punctures as usual; intervals very nearly flat; tarsi slender, blackish. Length 5.4–6.5 mm.; width 2.6–2.9 mm. New Jersey, Indiana, Illinois and Lake Superior (Marquette). Abundant.....**atriventris** Say
- Size rather large, the striæ deeply impressed, the intervals convex; elytra dark indigo-blue; prothorax relatively wider.....4
- 4—Outer angle of the elytral truncature rounded. Body stout, oblong-suboval, moderately convex, strongly shining, the elytral micro-reticulation fine, very feeble in the male; coloration as in *atriventris*, except that the abdomen and epipleura are piceous and the tarsi not blackish; head nearly three-fourths as wide as the prothorax, with large and remarkably prominent eyes, the front feebly and unevenly rugulose; antennæ slender, half as long as the body, fusco-testaceous, the first three joints paler; prothorax twice as wide as long, the strongly arcuate sides very convergent anteriorly; basal angles rather obtuse, the tips sometimes bluntly subprominent; surface feebly rugulose, smoother in the broad lateral reflexed regions; base broadly pedunculate, the transverse channel along the peduncle rather deep; elytra a little longer in the male, two-fifths longer than wide, four-fifths wider than the prothorax; striæ deeply impressed, with very obscure micro-punctulation; intervals convex, having some feeble scattered punctulation laterally; anterior male tarsi distinctly dilated, the third joint feebly and bluntly channeled above. Length 8.7–9.8 mm.; width 4.1–4.7 mm. New York to northern Illinois and southward to North Carolina. Abundant.....**grandis** Hentz
- A—Similar to *grandis* throughout in coloration and size, the elytra rather more alutaceous, with nearly flat intervals and less deeply impressed striæ, which are more evidently micro-punctulate; antennæ shorter, less than half as long as the body, the joints much less elongate; scutellum similarly pale. Length (♀) 8.5 mm.; width 3.9 mm. Texas (Brownsville),—Wickham.
- rivularis** n. subsp.
- Outer angle obtuse but rather well defined, not definitely rounded; size

larger. General form and coloration as in *grandis*; elytra shining, the micro-reticulation fine and faint; head in form and relative size nearly similar, the large eyes very prominent; surface feebly rugulose, smoother anteriorly; antennæ long, very slender, similar in coloration but with more elongate joints; prothorax relatively larger, fully twice as wide as long, general outline and sculpture nearly as in *grandis*, but with a smooth obtuse elevation extending outwardly from the convex part not quite to the outer limit of the broad lateral reflexion at base, and of which there is barely a trace in *grandis*; elytra larger and more elongate, three-sevenths longer than wide, four-fifths wider than the prothorax; striæ finer but very deeply impressed, not micro-punctulate; intervals strongly convex except laterally, the two outer striæ finer and more punctulate as usual; reflexed edges not so diaphanous or pallescent as in *grandis*; legs long, pale throughout. Length 10.5 mm.; width 4.8 mm. Lake Superior (Marquette),—Sherman.....**magister** n. sp.

5—Head and prothorax pale.....6

Head black, the prothorax pale.....9

6—Body stouter in form, the coloration and general habitus almost exactly as in *grandis*. Elytra of rather more greenish hue than in *grandis*; head fully three-fourths as wide as the prothorax, finely rugulose, the eyes large and very prominent; antennæ long, about half as long as the body, fusco-testaceous, the three basal joints clearer; prothorax four-fifths wider than long, widest at the middle, the sides much rounded and strongly converging anteriorly; surface broadly reflexed at the sides, the convex discal parts finely, closely rugose, the basal peduncle conspicuous, the transverse groove only moderately deep, the median striæ deep; elytra nearly a third longer than wide, twice as wide as the prothorax, the outer limit of the sinuate apical truncature rather narrowly rounded; striæ deeply impressed, fine, nearly smooth, the intervals moderately convex, densely micro-reticulate; reflexed margins diaphanous and slightly paler; under surface pale, the epipleura and abdomen piceous; tarsi as pale as the tibiæ. Length 8.5 mm.; width 4.0 mm. Texas.

**majuscula** Chd.

Body narrower, much less ventricose and smaller in size.....7

7—Elytra with fine micro-punctulate striæ and flat intervals, deep indigo-blue and with the side margins finely reflexed and not in the least paler in color. Under surface pale, the epipleura and abdomen black, the former feebly picescent basally; legs pale, the tarsi a little darker; head narrower than in *grandis*, with less prominent eyes, the front very finely and feebly rugulose, nearly smooth medially; antennæ almost half as long as the body, blackish, the three basal joints and basal node of the fourth pale testaceous; prothorax finely and feebly rugulose, three-fourths wider than long, more evenly arcuate at the sides and less narrowed anteriorly than in *grandis*, the margins only half as widely reflexed; basal peduncle and transverse channel almost similar; scutellum similarly rufous; elytra much narrower, almost one-half longer than wide, fully twice as wide as the prothorax, the apical truncature sinuate, more oblique



- than usual, the subsutural part more posteriorly produced, the elytra divaricate at tip, the outer limit of the truncature broadly rounded; micro-reticulation rather feeble; two punctures at the third stria near basal third and apical fourth; scutellar stria rather long, feeble, parallel and close to the suture. Length 8.0 mm.; width 3.3 mm. New York (near the city)..... **enormis** n. sp.
- Elytra with impressed striæ and more or less convex intervals, the narrow reflexed side margins abruptly pale testaceous; body smaller in size..... 8
- 8—Elytra blue-black; under surface pale, the epipleura and abdomen more obscure rufous, piceous posteriorly; head finely but strongly rugulose, fully four-fifths as wide as the prothorax, with very prominent eyes; antennæ slender, half as long as the body, rufous, somewhat clearer basally; prothorax four-fifths wider than long, in form nearly as in *grandis*, the rounded sides very converging anteriorly, broadly reflexed, the convex parts rugulose in coarse and somewhat wavy lines; basal peduncle distinct, the transverse groove deep; scutellum small, pale, the margining parts of the stria interval and the basal margin of the elytra also pale; elytra nearly one-half longer than wide, feebly inflated posteriorly, four-fifths wider than the prothorax, the sinuous truncature as usual; striæ deeply impressed, finely punctulate, the sixth and seventh becoming gradually more approximate basally, the intervals strongly convex; seventh stria slightly, the eighth much, more feebly impressed; legs slender, pale, the tarsi not noticeably darker. Length 6.2 mm.; width 2.8 mm. Arizona..... **pimalis** n. sp.
- Elytra brighter steel-blue; under surface, entire legs and epipleura pale testaceous, the abdomen piceous-black; head moderate, in part feebly punctulate or subrugulose, smooth medially, having well developed and very prominent eyes, fully four-fifths as wide as the prothorax; antennæ rufous, nearly half as long as the body; prothorax much shorter than in the preceding, twice as wide as long, the sides not quite so strongly though widely and more gradually reflexed, strongly rounded, very convergent apically; basal angles feebly subprominent at tip; surface finely rugulose, the basal peduncle and groove almost similar; median stria not impressed as it is in *pimalis*, and extremely fine; elytra oblong, slightly inflated behind, about a fourth longer than wide, very nearly twice as wide as the prothorax, the feebly sinuate truncature limited externally by broadly rounded angles; striæ fine, not evidently micro-punctulate, rather deeply impressed; intervals distinctly convex, though not quite so strongly as in *grandis*, much less convex than in *pimalis*; anterior tarsi of what appears to be the male only a little less slender than those of the female and perfectly symmetric. Length 5.8–6.0 mm.; width 2.7 mm. Arizona (Tuçson),—J. F. Tucker. Five specimens..... **tuckeri** n. sp.
- 9—Body larger, rather ventricose, pale testaceous, the head and elytra black, the latter with pronounced blue lustre; under surface pale, the epipleura rufo-piceous, the abdomen black; legs pale, the tibæ distally gradually darker, the tarsi black or nearly so; head

large, just visibly narrower than the prothorax, with very prominent eyes; epistoma and basal part of the neck pale; front finely punctate and rugulose; antennæ slender, black, the three basal joints testaceous; prothorax three-fourths wider than long, general outline and widely reflexed margins nearly as in *grandis*; surface finely rugose; basal projection and transverse groove distinct; median stria fine, not impressed, terminating near the apex in a small foveiform dilatation; elytra nearly one-half longer than wide, inflated behind, fully twice as wide as the prothorax, the truncature broadly and feebly sinuate; striæ fine, very finely, subobsoletely micro-punctulate, slightly impressed ( $\sigma^3$ ), scarcely so ( $\varphi$ ); intervals feebly convex to nearly flat; side margins not paler; anterior male tarsi rather thick, with the apex of joints one and two only very slightly oblique. Length 7.2-7.6 mm.; width 3.0-3.35 mm. New Mexico (Santa Fé), Utah (Ureka) and Mexico (Tepehuanes, Durango). Three examples.....*atriceps* Lec.

Body very nearly as in *atriceps* but much smaller in size, the coloration and rather shining lustre as in that species, but with the tibiæ pale, the tarsi piceous, the neck black throughout; head not so large, evidently narrower than the prothorax, otherwise similar, the antennæ similar in coloration, but rather more slender and with the individual joints notably shorter; prothorax similar, but widest more evidently before the middle and with the sides less widely and more gradually reflexed except at base; basal parts similar, the surface finely rugulose, the median stria nearly similar but feebly impressed, not at all enlarged subapically and entire, attaining the apical margin; elytra two-fifths longer than wide, feebly inflated behind, twice as wide as the prothorax, nearly similar at tip; striæ fine, feebly but evidently micro-punctulate, the intervals nearly flat. Length 5.7-6.0 mm.; width 2.5-2.6 mm. Colorado (Boulder Co.).  
*nanulina* n. sp.

The three species *enormis*, *pimalis* and *tuckeri* are evidently allied to *pleuritica* Lec., from Lake Superior, which was placed in typical *Lebia* by Horn, who however at the same time alluded to its strongly suggestive resemblance to *Loxopeza*. It seems to me that all four of these species should be allied more closely to *Loxopeza* than to *Lebia*, notwithstanding the fact that the peculiar anterior male tarsal characters distinguishing *Loxopeza* have become virtually obsolete. The case is similar to that of *Colpodes* in the Batesian sense, Mr. Bates, as well as Chaudoir, having assigned many species to *Colpodes*, in which the peculiar tarsal characters of the latter genus have become very nearly extinct. The species defined above as *enormis* was sent to me under the name *pleuritica* Lec., but it differs from the latter, judging by the author's description, in having no vestige of the pale elytral margins, apparently exactly

like those of *pimalis* and *tuckeri*, and in the black antennæ; *pimalis* seems to be allied to the Mexican *Loxopeza exarata* of Bates and *melanocephala* Chd.; *tuckeri* and *pimalis* are smaller than *pleuritica*; they are mutually widely distinct species and are probably equally distinct from *pleuritica*, which I have not seen; *tuckeri* must however resemble *arizonica* Schf., from the Huachuca Mts., very closely, but in *tuckeri* there are only some extremely minute punctules toward the sides of the head, the pronotum is widely reflexed at the sides, the elytral intervals rather conspicuously convex and not flat as in *arizonica*, and the abdomen is impunctate; the fourth hind tarsal joint is feebly emarginate.

#### **Lebia** Latr.

General habitus of the body, as I have had occasion to refer to in the case of the Pterostichinæ and Amarinæ, when considered in a broadly discriminative way, is the most important single structural character which can be adopted as a criterion of classification in large groups, deficient in striking structural modifications of special organs. In fact many differences in special organs, which have generally served as bases of classification, must be regarded as indecisive in the presence of an identical general habitus, and it is for this reason that I believe *Loxopeza* should include, besides the typical forms, species of the *pleuritica* type, having apparently purely Lebiid tarsi. Coming to *Lebia* itself, it is quite evident that, as comprehended in our lists, there are two types of general facies and two only; that is those with a prothorax transverse and well reflexed at the sides, recalling *Loxopeza* though more abbreviated, and those with a more convex, more basally narrowed and laterally only very narrowly reflexed prothorax, as observable in *Dianchomena abdominalis*; in *Aphelogenia* the facies is exactly as in typical *Lebia*, excepting a somewhat different type of elytral ornamentation, and even this is inconstant, as seen in *Aphelogenia guttula*, when compared with the vittate species. *Dianchomena miranda*, which differ very much in ornamentation from *D. abdominalis*, which I regard as the type of *Dianchomena*, I have not been able to study, and it is probable that it should not really form part of the genus *Dianchomena*; *scapularis*, which was placed in the latter genus by Horn, is a typical *Lebia* in its entire physi-

ognomy and especially in the very constant thoracic form of that genus.

Adding *rhodopus* Scz., from description, the following is a tabular statement of all those species of *Lebia* at present in my collection, which have uniformly black, blue or green elytra, or at least elytra devoid entirely of maculation; they are numerous and but very few of them have been hitherto described. So far as concerns certain subordinate structural characters, this division is probably artificial, but at any rate it is a practical course to pursue in this very difficult genus:

Antennæ wholly black.....	2
Antennæ not entirely black.....	17
2—Pronotum black, with pale lateral margins. Body moderately convex and ventricose, polished; head black, the elytra dark blue; entire under surface and legs piceous-black; head well developed, as wide as the prothorax, the eyes rather large and prominent, the front smooth, faintly strigilate basally; antennæ slender, more than half as long as the body; prothorax rather small and short, fully four-fifths wider than long, the sides subparallel, rounding strongly before the middle; apex feebly sinuate; base lobed and transversely grooved medially; surface minutely and feebly rugulose; sides broadly deplanato-reflexed and diaphanously pale, the scutellum piceous; elytra a fourth longer than wide, feebly inflated posteriorly, much more than twice as wide as the prothorax, the sides finely reflexed; striæ fine, not impressed, finely, very obsoletely and irregularly subpunctulate; intervals flat, the two discal punctures at the third stria; scutellar stria short. Length 4.0 mm.; width 1.8 mm. Mississippi (Vicksburg).....	<b>marginicollis</b> Dej.
Pronotum uniform in color throughout its extent, black, bluish or greenish.....	3
3—Head and prothorax deep black, without metallic color, except a feeble trace in <i>truckeensis</i> .....	4
Head, prothorax and elytra uniformly bluish, greenish or in part violaceous in color.....	6
4—Elytra black, with the feeblest obscure metallic lustre, polished, the under surface and legs shining, greenish-black. Head slightly narrower than the prothorax, with moderate and not very prominent eyes, the tempora rather long; front smooth, with very few fine rugulæ laterally; at the centre there is a deep foveiform puncture; antennæ half as long as the body; prothorax barely three-fourths wider than long, peculiarly narrowed anteriorly, with broadly arcuate sides, parallel in basal half, the angles right; median lobe and sulcus moderate; surface very feebly rugulose; sides rather narrowly reflexed, broadly flat and explanate at base; median stria distinct; elytra oblong, inflated behind, fully a third longer than wide, much more than twice as wide as the prothorax; striæ fine,	

- nearly smooth, not quite regular, feebly impressed; intervals not quite flat, the two dorsal punctures adjoining the third stria at third and three-fourths. Length 3.8 mm.; width 1.5 mm. Rhode Island (Boston Neck)..... *cynica* n. sp.
- Elytra blue, sometimes with feeble suffused violaceous lustre..... 5
- 5—Head well developed, not longer than wide, the body moderate in width and convexity, polished; under surface shining and deep black; head barely visibly narrower than the prothorax, with well developed prominent eyes; front rather strongly strigato-rugose throughout the width; antennæ more than half as long as the body; prothorax short, barely twice as wide as long, strongly but loosely vermiculato-rugose, widest at the middle, the sides thence oblique basally and broadly rounded and converging anteriorly; sides not very widely reflexed, more widely so at base and with deep shining gutter; basal lobe and sulcus distinct; apex feebly sinuate; basal angles more than right but sharply defined; scutellum black; elytra nearly a third longer than wide, feebly inflated posteriorly, barely twice as wide as the prothorax; striæ fine, nearly smooth, very feebly impressed; intervals not quite flat, the punctures as in the preceding; anterior male tarsi narrowly dilated, piceo-rufous. Length 5.0 mm.; width 2.15 mm. California (Hoopa Valley, Humboldt Co.)..... *perita* n. sp.
- Head rather well developed and slightly longer than wide, the eyes less prominent than in *perita*, the front smoother and having scarcely more than a few minute punctures; antennæ rather more than half as long as the body; prothorax very short, evidently wider than the head, fully twice as wide as long, widest before the middle but with the sides broadly and feebly rounded, straighter but only slightly converging basally; margins finely reflexed anteriorly, rather broadly deplanate at base; median stria fine, feebly impressed; surface finely, feebly and subvermicularly sculptured; elytra a third longer than wide, barely twice as wide as the prothorax, feebly inflated behind; striæ rather fine and nearly smooth but deeply impressed, the intervals distinctly convex; two dorsal punctures small, at the same distance from base and apex; the elytra are bright steel-blue, the head and prothorax black, with just perceptible dark greenish lustre. Length 4.4 mm.; width 1.85 mm. Nevada (Reno). A single example, taken by the writer..... *truckeensis* n. sp.
- Head rather well developed, though evidently narrower than the prothorax, the eyes not quite so large as in *perita* and distinctly less prominent; front very smooth and polished, with a few feeble rugulæ near the eyes; antennæ not so long as in *perita* and slightly more slender, scarcely half as long as the body; prothorax not quite twice as wide as long, the sides subparallel to beyond the middle, thence strongly rounding to the apex, subsimilarly reflexed, the gutter not quite so deep or shining; surface nearly smooth; basal lobe and sulcus distinct; elytra narrower, two-fifths longer than wide, only feebly inflated behind, twice as wide as the prothorax; striæ very fine, not impressed, feebly micro-undulated; intervals
- T. L. Casey, Mem. Col. IX, Feb. 1920.

- flat, the dorsal punctures situated as in *perita* but smaller and feebler; under surface black, without metallic lustre, the legs faintly picescent. Length 4.0 mm.; width 1.85 mm. California (Sta. Barbara),—Dunn.....**barbaræ** n. sp.
- Head smaller and more elongate, the prothorax narrower than in any of the preceding three species, the body much smaller in size, deep black and shining, the elytra violet-blue; under surface deep greenish-black, the legs deep black; head slightly narrower than the prothorax, decidedly elongate, with well developed and moderately prominent eyes; front very smooth, with a few strigillæ near the eyes; antennæ slender, only three joints remaining in the type; prothorax two-thirds wider than long, widest before the middle, the sides rather narrowly reflexed and distinctly arcuate anteriorly, more widely deplanate basally, feebly converging and straight from rather before the middle to the slightly obtuse but sharp basal angles; surface with feeble loose subvermiculate sculpture; basal lobe and furrow and median stria distinct; elytra a third longer than wide, slightly wider posteriorly, twice as wide as the prothorax; striæ fine, feebly micro-subpunctulate, the intervals very nearly flat. Length 3.75 mm.; width 1.5 mm. California (Placer Co.),—Koebele.....**castigata** n. sp.
- 6—Elytral striæ not or only very feebly impressed.....7  
 Elytral striæ more or less conspicuously impressed.....16  
 7—Prothorax relatively small in size and less transverse.....8  
 Prothorax larger, about as in *viridis*, more transverse except in *magica*, moderately reflexed toward the sides, more broadly and deeply in *bracata*.....9  
 8—Body much smaller and narrower than in *viridis*, bluish-green, sometimes violaceous on the elytra, shining; under surface and legs polished black; head moderate in size, with large and rather prominent eyes, as wide as the prothorax; front smooth; antennæ nearly three-fifths as long as the body; prothorax three-fourths wider than long, the sides subparallel, rounding anteriorly, deplanate at the basal angles, which are rather sharply marked and almost right; surface very finely, faintly or obsoletely rugulose; basal lobe and channel distinct, the median stria rather deep, entire; elytra a third longer than wide, more than twice as wide as the prothorax, slightly inflated behind; striæ somewhat fine, shallowly subimpressed and slightly irregular, the intervals nearly flat. Length 3.25–3.7 mm.; width 1.35–1.45 mm. Rhode Island (Boston Neck) and North Carolina (Southern Pines).....**adolescens** n. sp.
- Body relatively narrower, more elongate, shining, the anterior parts dark green, the elytra polished violaceous-blue; under surface and legs polished, blackish-green; head fully as long as wide, as wide as the prothorax, with prominent eyes, the surface minutely punctulate and subrugulose, smoother medially; antennæ half as long as the body; prothorax three-fourths wider than long, subparallel, rounding at the sides anteriorly and distinctly reflexed, very abruptly deplanate posteriorly; edge just visibly sinuate near the basal angles, which are as usual; surface finely and feebly subrugulose, the anterior

transverse impression fine and very feeble; basal lobe and channel distinct, the stria fine, abbreviated anteriorly; elytra longer than usual, nearly one-half longer than wide, feebly inflated posteriorly, fully twice as wide as the prothorax; striæ extremely fine, unimpressed, in part subobliterated, the sutural a little stronger; intervals flat. Length 4.0 mm.; width 1.5 mm. New Mexico (Las Vegas); one, taken by Prof. Snow in Kansas, seems identical. . . *evoluta* n. sp.

9—Antennæ somewhat thicker and shorter, less than half as long as the body, the medial joints only about one-half longer than wide; body more minute. Shining, dark blue, somewhat more greenish anteriorly; under surface shining, bluish-black; head fully as long as wide, slightly narrower than the prothorax, with rather large and prominent eyes; surface distinctly though sparsely punctate from side to side, except basally; third antennal joint much longer than the fourth; prothorax very nearly twice as wide as long, subparallel, rounded anteriorly; basal angles subprominent; margins abruptly reflexed, narrowly so anteriorly, more broadly at base; surface very finely, rather closely rugulose, the basal lobe and sulcus distinct, the stria very fine; elytra between a third and fourth longer than wide, gradually slightly wider behind, the sides rapidly rounding to the apical truncature, twice as wide as the prothorax; striæ extremely fine and feeble, the intervals flat. Length 3.65 mm.; width 1.4 mm. Rhode Island (Boston Neck).

*histrica* n. sp.

Antennæ longer and more slender, the joints twice as long as wide or longer. . . . . 10

10—Sides of the prothorax rather broadly and very abruptly reflexed throughout from apex to base, as usual more broadly so basally. Upper surface shining, metallic bluish-green; under surface and femora shining, greenish-black; head not quite as wide as the prothorax, with large and prominent eyes; surface with some minute scattered punctures anteriorly, finely and feebly strigato-rugulose postero-laterad; antennæ half as long as the body; prothorax four-fifths wider than long, the sides parallel, rounding in apical third, the angles sharp; basal deplaniture flexed upwardly; surface finely rugulose; at base as in the preceding, the median stria fine; elytra a third longer than wide, feebly inflated posteriorly, slightly more than twice as wide as the prothorax; striæ very fine and unimpressed but distinct, the intervals flat. Length 4.2 mm.; width 2.0 mm. A single specimen found unlabeled in the Levette collection and probably from Indiana. . . . . *bracata* n. sp.

Sides of the prothorax finely reflexed anteriorly, more broadly at base. . 11

11—Prothorax wider, subequal to half the elytral width. . . . . 12

Prothorax, though very transverse, always much less than half as wide as the elytra. . . . . 13

12—Form somewhat elongate, rather shining, deep cobalt-blue throughout above, the under surface and femora blackish-green, the epipleura violet-black; head well developed and with very prominent eyes, almost as wide as the prothorax, finely strigilato-rugulose, with some intermingled very minute punctures, smoother centrally;

antennæ slender, about half as long as the body, the third and fourth joints long, subequal; prothorax fully four-fifths wider than long, widest at the middle, the sides feebly converging and straight thence basally, broadly rounding anteriorly, the margins abruptly reflexed; surface with somewhat distinct vermiculate rugulosity; anterior impression obsolete, the basal sulcus and lobe conspicuous, the median stria distinctly impressed and rather deep; elytra fully two-fifths longer than wide, feebly inflated behind and scarcely more than twice as wide as the prothorax; striæ very fine, not impressed, nearly smooth, the intervals flat; abdomen sparsely hairy toward tip. Length 5.5 mm.; width 2.4 mm. Missouri (St. Louis).

*magica* n. sp.

Form less elongate, blue above, the anterior parts somewhat more greenish; under surface and femora dark greenish, the epipleura purplish-black; head large, with well developed and prominent eyes, though rather evidently narrower than the prothorax, finely rugose, with fine scattered punctures throughout the smoother medial parts; antennæ not so slender, compressed, nearly half as long as the body, the third joint somewhat longer than the fourth and much more slender; prothorax larger than usual, fully twice as wide as long, in general outline somewhat as in the preceding, widest at the middle; margins smooth, not quite so abruptly reflexed; surface finely and shallowly though distinctly vermiculato-rugose; angles very sharp, somewhat more than right; basal sulcus and lobe distinct, the stria fine, feebly impressed; anterior transverse impression obsolete; elytra barely a third longer than wide, only very feebly inflated posteriorly, barely twice as wide as the prothorax; striæ fine, somewhat uneven, feebly impressed; intervals not quite flat; scutellar stria short, broadly, obtusely and feebly impressed. Length 5.4 mm.; width 2.22 mm. California (Hoopa Valley, Humboldt Co.)..... *incitata* n. sp.

Form rather short, shining blue, the anterior parts rather more obscure or greenish; under surface polished, dark blue; legs black, the femora blue; head as wide as long, with prominent eyes, not quite though nearly as wide as the prothorax, the front smooth, minutely, loosely punctulate laterally; antennæ nearly half as long as the body; prothorax short, very transverse, twice as wide as long, widest somewhat before the middle, the sides broadly rounded and converging anteriorly, slightly converging and straighter basally, becoming very feebly sinuate before the basal angles; latero-basal declivity with a small tubercle near the angle; surface nearly smooth, the median stria fine and feebly impressed, not entire; elytra a third longer than wide, gradually arcuately dilated posteriorly, only just visibly more than twice as wide as the prothorax; striæ rather fine and nearly even but distinctly more impressed than in *viridis*, though less so than in *smaragdula*; abdomen with some very short sparse hairs posteriorly. Length 4.0-4.3 mm.; width 2.0 mm. New Mexico (Fort Wingate),—Woodgate.

*subaffinis* n. sp.

13—Prothorax more widely reflexed at the sides, the surface rather



coarsely and conspicuously, vermicularly rugulose. Moderately narrow and convex, polished, bright brassy-green, the elytra with suffused violaceous-blue reflection, except suturally toward base; under surface and femora with greenish lustre, the tibiæ and tarsi black as usual; head barely visibly narrower than the prothorax, with moderate and not very prominent eyes; front smooth, finely, feebly rugulose laterally; antennæ distinctly less than half as long as the body; prothorax three-fourths wider than long, the sides subparallel and nearly straight, rounded and converging before the middle; basal angles reflexed; basal lobe and sulcus distinct, the median stria fine; elytra two-fifths longer than wide, gradually inflated behind, more than twice as wide as the prothorax; striæ rather fine, very feebly impressed, the intervals scarcely more than flat; dorsal foveæ rather strong, near basal third and apical fourth. Length 5.2 mm.; width 2.2 mm. Rhode Island (Boston Neck).

**vermiculina** n. sp.

Prothorax more finely reflexed anteriorly, deplanate as usual at the sides of the base, the surface more finely, feebly and closely, subvermicularly rugulose. . . . . 14

14—Eyes very prominent; sides of the prothorax more rounded throughout the length. Body rather ventricose and moderately convex, shining, dark blue throughout above, the under surface and femora shining, greenish; head barely as long as wide, as wide as the prothorax, the eyes large and very prominent; surface finely rugulose, smoother medially; antennæ slender, about half as long as the body; prothorax three-fourths wider than long, widest at the middle, where the sides are rather strongly rounded, converging and rounded anteriorly, converging but straight basally, the angles minutely prominent at tip, the surface reflexed at the angles; median stria fine, the transverse basal sulcus deep; elytra fully a third longer than wide, feebly inflated posteriorly, distinctly more than twice as wide as the prothorax; striæ fine, rather shallow, finely and irregularly punctulate; intervals flat, the two dorsal punctures much finer than in the preceding. Length 5.3 mm.; width 2.3 mm. A single example, without indication of locality in the Levette collection, probably taken in Indiana. . . . . **prominens** n. sp.

Eyes less or but moderately prominent, the sides of the prothorax not so rounded, barely visibly converging in about basal half, the basal angles less reflexed than in the two preceding. . . . . 15

15—Form moderately stout and convex, shining, bright green, sometimes blue or greenish-blue; under surface shining, greenish; head barely visibly narrower than the prothorax, with rather prominent eyes; front with fine punctures and rugulosity, smooth medially; antennæ half as long as the body; prothorax three-fourths wider than long, the sides moderately converging and broadly rounded anteriorly; surface rather convex, finely, vermiculately rugulose, the stria fine; basal sulcus deep; elytra a third longer than wide, moderately inflated behind the middle, more than twice as wide as the prothorax; striæ rather fine, not distinctly impressed and more or less evidently, finely punctulate, the two dorsal punctures moderate and in the

usual position. Length 3.7–5.0 mm.; width 1.7–2.3 mm. New York (Lake Champlain), Lake Superior (Marquette), New Jersey, Pennsylvania and Kansas.....**viridis** Say

Form slightly narrower than in *viridis*, shining, obscure blue, the head and prothorax sometimes slightly æneous; under surface and femora very dark blue and shining; head relatively smaller, with more moderate and less prominent eyes, much narrower than the prothorax, feebly rugulose and minutely punctulate, smooth medially; antennæ slender, half as long as the body; prothorax very short, fully twice as wide as long, the sides broadly rounded and converging anteriad, feebly converging and nearly straight in about basal half, the angles sharply marked though scarcely prominent; rugulosity confusedly strigilliform, very fine, rather close-set, the median stria fine, feebly impressed, not entire; anterior impression traceable but very close to the margin; elytra relatively longer than in *viridis*, two-fifths longer than wide, barely more than twice as wide as the prothorax, moderately inflated posteriorly; striæ very fine and shallow, not punctulate, the intervals flat. Length 4.0–4.85 mm.; width 1.9–2.2 mm. Arizona (Tuçson),—Tucker.

**planifera** n. sp.

Form still narrower, smaller in size, polished, deep cobalt-blue, the anterior parts more greenish, the pronotum at each side discally, and also the elytra, with some violaceous lustre; under surface and femora shining, rather dark but vivid bluish-metallic; head narrow, distinctly elongate, evidently narrower than the prothorax, the eyes moderate in size and convexity; surface smooth, the lateral punctules and rugulosity scarcely at all visible; antennæ slender, fully half as long as the body; prothorax rather small, four-fifths wider than long, the sides broadly arcuate and moderately converging anteriad, very slightly converging and straight posteriad, the angles slightly prominent at tip; latero-basal deplanation with a small tubercle near the angle; median stria fine but impressed; rugulosity very feeble and not close-set; elytra a third longer than wide, feebly, arcuately inflated posteriorly, distinctly more than twice as wide as the prothorax; striæ fine, just visibly impressed, the intervals virtually flat; dorsal punctures distinct, near basal and apical third. Length 4.5 mm.; width 1.55 mm. Mexico (Colonia Garcia, Sierra Madre Mts., Chihuahua),—Townsend.

**\*cobaltina** n. sp.

16—Body rather elongate, moderately convex, shining, pale and bright green throughout above, the under surface black, with greenish lustre; head moderate, with rather large and moderately prominent eyes, about as wide as the prothorax, nearly smooth, the rugulosity laterad very fine and feeble; antennæ slender, somewhat more than half as long as the body; prothorax small, two-thirds wider than long, parallel, with somewhat feebly arcuate sides, becoming slightly sinuate near the hind angles, the margins well reflexed; rugulosity fine and feeble; median stria distinct and impressed, finer and obsolescent apically; elytra long, fully two-fifths longer than wide, gradually slightly inflated posteriorly, much more than

- twice as wide as the prothorax; striæ not very fine and slightly uneven, the intervals evidently though not strongly convex, the dorsal punctures distinct, near basal third and apical fourth. Length 4.2-4.5 mm.; width 1.8-2.0 mm. Rhode Island, Indiana and Texas (Austin).....**smaragdula** Dej.
- Body slightly broader, the head relatively not quite so large, shining, bright green, the anterior parts sometimes subæneous and the elytra partially bluish; under surface with dark bluish-green lustre; head slightly elongate, evidently narrower than the prothorax, with large but only slightly prominent eyes; front minutely, sparsely punctulate, finely strigilate postero-laterad; antennæ half as long as the body, slender; prothorax relatively a little larger than in the preceding and nearly three-fourths wider than long, almost similar in form and sculpture, but with the median line finer; elytra a third longer than wide, oblong, only feebly dilated posteriorly and barely more than twice as wide as the prothorax; striæ much less fine than in *viridis*, feebly impressed and, at least toward the sides, distinctly punctulate; intervals nearly flat; dorsal punctures distinct. Length 4.5 mm.; width 2.0 mm. Arizona (Tuçson),—Tucker.....**papago** n. sp.
- A—Similar to *papago* but with the head, though slightly elongate, scarcely visibly narrower than the prothorax, the latter not quite so transverse; elytra narrower and more elongate, fully two-fifths longer than wide, the striæ stronger, more impressed, more punctate and irregular, the intervals feebly convex and more strongly micro-reticulate than usual; abdomen similarly with very small sparse hairs. Length 4.0 mm.; width 1.8 mm. Arizona (the locality unrecorded, but probably from near the southern boundary).....**trajecta** n. subsp.
- Body narrower than in either of the preceding species or in *trajecta*, very shining and deep cobalt-blue above, the head and pronotum more greenish; under surface with obscure bluish-green lustre; head slightly elongate, with large and prominent eyes, fully as wide as the prothorax, nearly smooth; antennæ slender, fully half as long as the body; prothorax small, two-thirds wider than long, the sides a little more converging before and behind the middle than in either *smaragdula* or *papago*, similarly reflexed; rugosity extremely fine and faint, the median stria fine; elytra two-fifths longer than wide, evidently inflated posteriorly, much more than twice as wide as the prothorax; striæ not very fine, irregularly subpunctulate and distinctly impressed; intervals very obviously convex, the dorsal punctures moderate. Length 3.8 mm.; width 1.65 mm. Minnesota (Duluth).....**duluthiana** n. sp.
- 17—Antennæ black, with the third joint pale; legs piceous to flavate... 18
- Antennæ black; joints one, or one to three, paler... 24
- 18—Body moderate in size... 19
- Body very small... 20
- 19—Head and prothorax subopaque, greenish or bluish black, the elytra shining, blue or greenish-blue; head large, wider than the prothorax; antennæ more than half as long as the body, the outer

- joints stout, the third and base of the fourth testaceous; prothorax small, very little rounded at the sides, subsinuate before the basal angles, but feebly sculptured; elytra feebly alutaceous; striæ very fine, the intervals subconvex; legs bright rufo-testaceous, the tarsi blackish. Length 4.5 mm. Florida (Tampa). Characters quoted from the original description. . . . . **rhodopus** Scz.
- Head and prothorax moderately shining, black, slightly bronzed, the elytra black, with feebly subæneous lustre, strongly shining; under surface black, the epipleura piceous, the legs brownish-flavate; head rather elongate, barely as wide as the prothorax, the eyes moderate in size and prominence, the tempora not very rapidly converging to the neck; surface micro-reticulate, feebly rugulose, smoother centrally; antennæ distinctly more than half as long as the body, not very slender, the third joint and base of the fourth testaceous; prothorax small, one-half wider than long, parallel, the sides rather feebly, subevenly arcuate and somewhat narrowly reflexed, feebly sinuate at the rather sharp and subprominent basal angles; latero-basal deplaniture narrower than usual; surface finely, sparsely punctulate and subrugulose, the median line rather broadly impressed; elytra two-fifths longer than wide, feebly inflated behind the middle, nearly two and one-half times as wide as the prothorax; striæ not very fine, widely and rather deeply impressed, the intervals distinctly convex; dorsal punctures rather small. Length 4.2 mm.; width 1.9 mm. District of Columbia. . . . . **tertiaria** n. sp.
- 20—Elytral striæ distinctly impressed. . . . . 21
- Elytral striæ very fine, not at all impressed. . . . . 22
- 21—Antennæ notably elongate, much more than half as long as the body, shining, deep black, the pronotum subopaque; under surface very shining, black, the epipleura piceous, the legs pale flavate, with very slender blackish tarsi; head slightly elongate, equal in width to the prothorax, the eyes very moderate in size and prominence, the tempora rather long, the front nearly smooth, convex; antennæ black, the third joint and base of the fourth testaceous; prothorax small, one-half wider than long, parallel, the sides very moderately arcuate and very finely reflexed, gradually feebly and broadly sinuate posteriorly, the angles sharp; latero-basal deplaniture abrupt and triangular; surface minutely and feebly punctulate, the median stria fine, subentire; elytra a third longer than wide, gradually arcuately inflated behind, much more than twice as wide as the prothorax; striæ rather fine, irregular, impressed, the intervals evidently convex. Length 3.3 mm.; width 1.4 mm. Louisiana (Alexandria). . . . . **ludoviciana** n. sp.
- Antennæ similarly slender and moderately compressed, but not quite so long, only a little more than half as long as the body, the pale third joint shorter; coloration nearly as in the preceding, the upper surface more æneous and the under surface and legs piceous; head as wide as the prothorax, sometimes apparently a little wider, rather elongate, rhomboidal, the eyes not large and moderately prominent; surface nearly smooth; prothorax small, one-half wider than long, nearly as in the preceding, less opaque, the latero-basal

- deplaniture not so abrupt and merging gradually into the reflexed margins; elytra between a fourth and third longer than wide, moderately inflated posteriorly, two and one-half times as wide as the prothorax; striæ finer, more regular, less impressed, the intervals just visibly convex, less so that in the preceding; tarsi very slender, the fourth joint similarly narrowly bilobed. Length 2.45–3.0 mm.; width 1.1–1.35 mm. Rhode Island and Pennsylvania (near Philadelphia)..... *pumila* Dej.
- 22—Elytra quadrate, barely perceptibly longer than wide. Body ventricose, moderately convex, deep black, the elytra polished, with very feeble greenish lustre, the anterior parts feebly alutaceous and without trace of metallic lustre; under surface shining, black, the legs very pale brownish-flavate, the tarsi darker and very slender; head rhomboidal, with rather prominent but very moderate eyes, the surface convex and nearly smooth; antennæ somewhat slender, more than half as long as the body, the pale third joint notably elongate, relatively longer than in *pumila*; prothorax small, in almost every respect as in *pumila*, the transverse basal sulcus angulate at the middle, the impressed stria extending from the angle to the obsolescent transverse anterior impression; elytra scarcely at all inflated posteriorly, with the sides broadly arcuate, much more than twice as wide as the prothorax; striæ moderately fine, somewhat irregular, the intervals virtually flat. Length 2.8 mm.; width 1.25 mm. North Carolina (Southern Pines),—Manee.  
*quadrata* n. sp.
- Elytra elongate, a fourth to third longer than wide..... 23
- 23—Antennæ longer, slender, scarcely at all compressed, more than half as long as the body, the latter shining, black, faintly subæneous, the anterior parts not distinctly alutaceous; under surface black, the legs piceous; head rhomboidal, equal in width to the prothorax, the eyes prominent but rather small, only slightly longer than the gradually converging tempora behind them; third antennal joint piceo-testaceous; front nearly smooth; anterior superciliary puncture notably large; prothorax almost as in the preceding species, but with the anterior transverse impression more distinct, angulate at the middle, the median stria—extending thence to the angulation of the basal sulcus—rather deeply impressed; elytra a third longer than wide, gradually arcuately subinflated posteriorly, much more than twice as wide as the prothorax, the color faintly picescent; striæ extremely fine and feeble, in part almost obliterated, the intervals flat; dorsal punctures small. Length 3.0 mm.; width 1.25 mm. Northern Illinois..... *illini* n. sp.
- Antennæ shorter, scarcely half as long as the body and very stout, only feebly compressed; body black, the anterior parts feebly alutaceous, the elytra shining and very feebly subæneous; under surface black, with faintly picescent epipleura; legs dark piceous; head rhomboidal, with rather prominent though very moderate eyes, which are scarcely longer than the tempora, not quite as wide as the prothorax; surface strongly micro-reticulate, the anterior superciliary puncture rather large; third antennal joint pale flavo-testaceous;

- prothorax somewhat shorter than usual in this section, rather more than one-half wider than long, the parallel and feebly arcuate sides becoming broadly and rather deeply sinuate basally, the angles sharp and prominent, the other characters as in *quadrata*; elytra a fourth longer than wide, widest and with the sides more arcuate near apical third, much more than twice as wide as the prothorax; striæ very fine, sometimes barely visible, the intervals flat; dorsal punctures fine. Length 3.2 mm.; width 1.3 mm. Lake Superior (Bayfield, Wisconsin),—Wickham..... *frugalis* n. sp.
- 24—Under surface and legs in great part pale..... 25  
Under surface and legs black or nearly so, the prosternum sometimes red in *cyanipennis*..... 27
- 25—Thoracic sides with a short deep abrupt sinus before the basal angles, the sides of the base oblique and rounded. Polished, the head obscure green, the prothorax rufous, the elytra bright green; under surface pale testaceous, the epipleura black; femora testaceous, blackish at apex; tibiæ more obscure, rufous, the tips and the tarsi blackish; head four-fifths as wide as the prothorax, with large and somewhat prominent eyes and short, strongly converging tempora, the front finely, feebly punctulate and rugulose, smooth medially; antennæ slender, somewhat more than half as long as the body, the first three joints testaceous, the remainder black; prothorax two-thirds wider than long, the sides evenly, subcircularly rounded to the basal sinus and rather widely reflexed; basal lobe and impression well marked; surface finely, feebly and not closely rugulose, the median stria fine, feebly impressed; elytra oblong, feebly inflated behind, slightly over a third longer than wide, barely twice as wide as the prothorax; striæ feeble, composed of unimpressed series of small punctures; intervals flat, the two dorsal punctures remotely separated and moderate; tarsi notably stout. Length 5.5 mm.; width 2.6 mm. Indiana..... *abrupta* n. sp.
- Thoracic sides not sinuate at the basal angles, which however are minutely prominent as a rule; prothorax much shorter and more transverse, the base transverse at the sides..... 26
- 26—Coloration and lustre nearly as in the preceding; head but little more than three-fourths as wide as the prothorax, the eyes prominent, nearly as in *abrupta*, the front finely punctulate, smooth medially; antennæ similarly long, the first two joints pale testaceous, the third not quite so pale, the remainder black; prothorax shorter, very nearly twice as wide as long, the sides subevenly rounded and well reflexed, straighter basally, gradually more widely reflexed from apex to base; basal lobe strong, the sulcus deep, the surface finely and more closely rugulose, the median stria very fine; elytra narrower, two-fifths longer than wide, fully twice as wide as the prothorax, rather rapidly arcuately narrowed apically; striæ very fine and feeble, less distinctly punctured than in the preceding, the flat intervals less evidently micro-reticulate, the dorsal punctures similar; tarsi more slender. Length 5.0–5.8 mm.; width 2.5 mm. Rhode Island (Boston Neck) to Indiana..... *viridipennis* Dej.
- A—Similar in almost every way to *viridipennis* but with the pro-

thorax even shorter, twice as wide as long, differing in that the front has, besides the small punctures, two deep elongate approximate and anteriorly somewhat diverging foveæ on a line through the middle of the eyes; antennæ with the first three joints pale flavo-testaceous; elytra still more shining, bluish-green; tarsi slender. Length ( $\sigma^7$ ) 5.7 mm.; width 2.5 mm. Iowa (Keokuk).

*frontalis* n. subsp.

Coloration differing somewhat, the head black; prothorax pale testaceous, the elytra having strong bluish-violaceous lustre and very shining; under surface and legs nearly as in *viridipennis*; body narrower; head finely, sparsely punctulate laterally, smooth medially, nearly four-fifths as wide as the prothorax, the eyes well developed and very prominent; antennæ slender, black, the first joint testaceous, the second piceous; prothorax four-fifths wider than long, widest somewhat before the middle, the sides rounded, oblique and straight basally, strongly reflexed; basal lobe and sulcus conspicuous, the median stria extremely fine; rugulosity very fine, not close-set; elytra fully two-fifths longer than wide, not quite twice as wide as the prothorax; striæ extremely fine and subobliterated, the serial punctures fine and feeble; intervals flat; sutural stria distinct apically; tarsi rather thick, the posterior long and slender. Length 5.5 mm.; width 2.35 mm. Rhode Island (Boston Neck).....*rhodeana* n. sp.

27—Form rather stout and feebly convex, polished, deep black, the elytra violaceous-blue, the prothorax frequently red throughout above and beneath; under surface and legs black; head not as long as wide, with very prominent eyes, nearly four-fifths as wide as the prothorax, the front sparsely and irregularly punctulate and subrugulose; antennæ slender, more than half as long as the body, black, the two basal joints piceous to nearly black; prothorax short, fully twice as wide as long ( $\text{♀}$ ), a little less ( $\text{♂}$ ), widest before the middle, the moderately arcuate sides broadly reflexed, straight basally, the angles sharply marked but not prominent; surface distinctly but not densely rugulose, the fine median stria impressed; elytra a third longer than wide, only slightly inflated behind, distinctly less than twice as wide as the prothorax; striæ fine, feebly subpunctulate, the intervals flat, the dorsal punctures small, near anterior and posterior third. Length 5.7–6.2 mm.; width 2.5–2.65 mm. California (Los Angeles and San Diego) and Arizona. [*L. ruficollis* Lec.].....*cyanipennis* Dej.

Form more abbreviated, much smaller in size, rather shining, deep black, the elytra with very obscure greenish lustre; under surface black, the legs testaceo-piceous; head fully as long as wide, rather more than three-fourths as wide as the prothorax, with moderate though prominent eyes; front with sparse but distinct punctures; antennæ not very slender, somewhat more than half as long as the body, black, the first two joints dark rufous; prothorax three-fourths to four-fifths wider than long, widest before the middle, the sides strongly rounded and narrowly reflexed, broadly so at the slightly prominent reflexed basal angles, before which there is a

moderate sinus; surface sparsely, finely punctulate and also with slight rugulosity, the median line fine; elytra a fourth longer than wide, only feebly dilated behind, distinctly less than twice as wide as the prothorax; striæ very fine, not distinctly punctulate; intervals flat, with remote and very minute punctulation, the dorsal punctures at basal, and behind apical, third. Length 4.6-5.0 mm.; width 2.2 mm. California (Lake Tahoe). Three examples.

*tahoensis* n. sp.

The entirely red or black prothorax of *cyanipennis* Dej., is analogous to a character well known in the longicorn *Hapalosabia sphaericollis* Say. *Lebia ruficollis*, of LeConte, does not differ from typical *cyanipennis* in any character whatever, except the red prothorax, and I have examples with both red and black prothorax apparently taken together near Los Angeles; sex seems to have nothing to do with this remarkable dichromatism and there is undoubtedly but one species involved. *Lebia mæsta* Lec. (L. Sup. p. 203), is a species evidently different from *viridis*; it is black, with subæneous lustre, the anterior thoracic impression deep, and the head is longer and narrower than in *viridis*; *mæsta* Lec., and *rhodopus* Scz., are inscribed as varieties of *viridis* in the Henshaw list, but they are both fully valid species. The species described above under the name *tertiaria* is evidently closely allied to *maculicornis* Lec., from Georgia, which has been erroneously suppressed as a race of *pumila*; it is a much larger species than *pumila* and I could not fail to identify it as *maculicornis*, if it were not that the author describes the elytra as obscurely viridescent and finely striate; in *tertiaria* there is no trace of viridescence and the elytral striæ are notably deep; perhaps, however, a conservative course would be to reinstate *maculicornis* as a fully valid species, with *tertiaria* as a subspecies. *Rhodopus* Scz., is also a species closely allied to *maculicornis*.

The following list comprises all the non-vittate species of *Lebia*, having maculate elytra, that are in my collection at present; in some cases, such as *guttula*, they belong to the inadmissible genus *Aphelogenia* of Chaudoir.

Elytra dark blue, crossed before the middle by a broad rufo-flavate fascia, which is emarginate at the suture both before and behind, the apex also rufo-flavate from side to side; head blue-black, the prothorax rufo-flavate; under surface and legs very pale, the tarsi darker, the head black and finely punctate throughout; prothorax



- three-fifths wider than long, much wider than the head; elytral striae very fine, the intervals perfectly flat. Length 5.2-5.8 mm.; width 2.4-2.7 mm. New Jersey and Indiana. . . . . **pulchella** Dej.
- Elytra never having a trace of metallic coloration; maculation more irregular, less fasciiform. . . . . 2
- 2—Head with deeply strigilliform sculpture throughout. . . . . 3
- Head in great part smooth or sparsely punctured. . . . . 4
- 3—Form moderately stout, rather convex, shining; head black; prothorax pale testaceous, the elytra black, flavate at the sides in anterior half, this area extending obliquely inward with recurved lobiform tip reaching the first stria and with posterior limit well behind the middle; apex transversely flavate, connected with the anterior flavate area by a narrow pale side margin; humeral black area quadrate; under surface and legs throughout pale, the head black, the abdomen brownish at tip; head large, with very prominent eyes, almost as wide as the prothorax; antennae slender, fuscous, the three and one-half basal joints pale; prothorax nearly twice as wide as long, finely, strongly rugulose, broadly reflexed at the sides; elytra between a third and fourth longer than wide, gradually dilated behind, scarcely twice as wide as the prothorax, the striae deeply impressed with convex intervals. Length 5.5 mm.; width 2.35 mm. Texas (Brownsville),—Wickham. . . . . **anchora** Chev.
- Form rather stout, shining, the size very variable; coloration as in the preceding, except that the flavate antero-lateral area of the elytra is smaller, not extending quite to the middle of the length, extending basally in similar manner to the fourth stria, but with the oblique inner prolongation small, extending inward to the second stria and posteriorly to about the middle, the flavate area having a fuscous spot at the humerus, the margin finely flavate posteriorly to the transverse apical flavate area; head not quite so large as in *anchora*, with very prominent eyes, slightly narrower than the prothorax; antennae similarly colored, very slender; prothorax twice as wide as long, moderately rounded and broadly reflexed at the sides; median stria very fine, usually a little deeper at apex; surface finely, closely and strongly rugulose; elytra fully a third longer than wide, otherwise nearly as in *anchora*. Length 4.4-6.0 mm.; width 1.9-2.8 mm. Indiana and Mississippi (Vicksburg). Twelve specimens. . . . . **appendiculata** Chd.
- Form not quite so stout and sensibly smaller, though similarly varying greatly in size, similar in general coloration, except that the elytra are more completely black, there being a narrow flavate spot involving the fifth and sixth intervals from base to slightly behind basal fourth, and sometimes almost obsolete—*marginella*; lateral margins always finely flavate throughout the length, the apical flavate fascia slightly dilated inwardly; head with remarkably large and prominent eyes, barely narrower than the prothorax; antennae slender, fuscous, the first three and one-half to four joints pale flavate; prothorax four-fifths wider than long, pale testaceous as in the two preceding and similarly rounded and broadly reflexed at the sides; rugulosity fine, close-set; median stria very fine, often

- foveiform at apex; elytra nearly a third longer than wide, wider posteriorly as usual, twice as wide as the prothorax; striæ fine, distinctly impressed except apically, the seventh extremely fine and unimpressed or obsolete as in the two preceding, the intervals moderately convex, flatter toward apex. Length 4.3-5.8 mm.; width 1.75-2.6 mm. Wisconsin, Indiana, Mississippi and Louisiana. Abundant. [*L. marginella* Dej.].....**analis** Dej.
- 4—Head with fine but deep sparse punctures. Body very small in size, shining, piceous, the head black; prothorax with pale side margins; elytra each with an irregular discal pale spot, somewhat oblique and before the middle, the tips pale, more broadly so internally; under surface and legs pale, the head dark; head four-fifths as wide as the prothorax, with rather large and prominent eyes, the tempora moderately converging; antennæ fuscous, clearer basally, half as long as the body; prothorax three-fifths wider than long, widest before the middle, with very moderately rounded and widely reflexed sides, briefly and feebly sinuate at the distinct hind angles; rugulosity fine, sparse and inconspicuous; median line distinct but not attaining the apex; elytra one-half longer than wide, two-thirds wider than the prothorax, parallel, rounding at the sides apically; striæ relatively rather coarse, irregularly subpunctate, the intervals feebly convex, perfectly flat apically, where the striæ become very fine. Length 3.0 mm.; width 1.5 mm. Virginia....**lobulata** Lec.
- Head not at all punctured, smooth, sometimes slightly rugulose laterally.....5
- 5—Head small, elongate, about two-thirds as wide as the prothorax...6
- Head larger, not elongate and with more prominent eyes.....7
- 6—Body not stout, moderately convex, shining, black, the prothorax more piceous, with the broadly reflexed margins pale; elytra each with a discal pale spot before the middle, never attaining the sides or base, and a smaller rounded pale spot near apex and adjoining the first stria; under surface and legs pale, the prosternum and abdomen piceous; head nearly smooth throughout, the eyes only moderately prominent, the anterior superciliary puncture notably large; antennæ slender, rather more than half as long as the body, fuscous, the first three joints paler; prothorax two-thirds wider than long, widest before the middle, the sides moderately arcuate, straight basally, the angles minutely and bluntly subprominent; surface nearly smooth, the rugulæ fine, sparse and faint; median line fine, impressed, not extending anteriorly beyond the angle of the fine and feeble transverse impression; elytra fully a third longer than wide, gradually inflated posteriorly, barely twice as wide as the prothorax; striæ coarsely impressed, uneven or feebly punctate; intervals moderately convex. Length 4.0-5.0 mm.; width 1.7-2.0 mm. Rhode Island to Indiana. Abundant. [*L. frigida* Chd.].....**ornata** Say
- Body broader than in *ornata* and with much more developed pale elytral maculæ, shining; head black, the prothorax pale flavo-testaceous, with a median piceous cloud, the elytra black, each with a very large inwardly inflated spot extending slightly behind the middle,

- gradually attenuated to the base and reaching the side margin in second fourth of the length; side margins finely pale as in *ornata* and extending to the transverse apical fascia, which is abruptly enlarged toward the suture, the large anterior pale area extending to and along the first stria; under surface and legs evenly very pale flavo-testaceous throughout, the head black; head nearly smooth, almost three-fourths as wide as the prothorax, with large but only moderately prominent eyes; antennæ much more than half as long as the body, fuscous, gradually paler basally; prothorax almost as in *ornata* but shorter and broader, very nearly twice as wide as long; elytra barely over a fourth longer than wide, more parallel and less posteriorly inflated than in *ornata*, distinctly less than twice as wide as the prothorax, the striation nearly as in *ornata*. Length 4.8 mm.; width 2.1 mm. New York.....**reperta** n. sp.
- 7—Apical pale fascia of the elytra widest suturally.....8  
 Apical pale fascia widest outside of the middle of the width.....11  
 8—Anterior pale spots of the elytra not extending posteriorly behind the middle.....9  
 Anterior pale spots extending behind the middle of the length. Sub-tropical regions.....10  
 9—Prothorax short, twice as wide as long, very shining throughout; head deep black above and below; prothorax pale brownish-flavate, feebly clouded centrally, the elytra piceous-black, with narrow pale side margins as usual in this section, each with an anterior spot in the form of an inverted comma, extending from the middle and, in attenuated form, attaining the middle of the base, extending internally to the second stria and, externally, united for a short distance with the lateral margin; apical fascia broad in more than inner half, thence narrow to the pale margin; under surface and legs very pale; head smooth and polished, with the anterior superciliary puncture conspicuous, not quite four-fifths as wide as the prothorax, with very prominent eyes; antennæ half as long as the body, pale and uniform testaceous throughout; prothorax widest before the middle, with rather strongly rounded and widely reflexed sides, becoming feebly sinuate before the sharp angles; surface nearly smooth, the fine sparse rugulæ scarcely discoverable, the stria fine, not entire; elytra a third longer than wide, inflated posteriorly, not quite twice as wide as the prothorax, the striæ coarsely impressed and punctate, fine, feeble and smooth apically, the intervals as in *ornata*. Length 3.6 mm.; width 1.5 mm. Virginia.  
**virginica** n. sp.
- A—Nearly as in *virginica* throughout, except that the antennæ are slightly more elongate, the prothorax still a trifle shorter and more transverse, the anterior discal pale spot of the elytra not prolonged to the base—or posteriorly quite to the middle of the length—attaining the first stria and, externally, separated from the pale margin by nearly two intervals, the inner enlargement of the fine apical fascia small and quadrate. Length 4.0 mm.;

width 1.6 mm. North Carolina (Asheville). A single example, taken by the writer as in the case of *virginica*.

*ashevillensis* n. subsp.

Prothorax much less abbreviated and only two-thirds wider than long; lustre shining; color deep black, the pronotum piceous-black, with abrupt pale and broadly reflexed margins; elytra black, marked with pale areas almost exactly as in *virginica*; legs pale, the prosternum piceous and the head black; head four-fifths as wide as the prothorax, with well developed prominent eyes, the surface smooth, the anterior superciliary puncture very large; antennæ pale testaceous throughout, more than half as long as the body and much more slender than in *virginica*; prothorax in general outline and sculpture nearly similar, much less transverse and with the fine rugulosity more visible; elytra fully a third longer than wide, gradually very moderately inflated behind, less than twice as wide as the prothorax, the striation nearly as in the two preceding; two dorsal punctures adjoining as usual the third stria and at basal third and apical fourth; epipleura very pale as in *virginica* and *ashevillensis*. Length 3.9-4.2 mm.; width 1.5-1.6 mm. Mississippi (Vicksburg) and Illinois. Five examples. . . . . *fluviatilis* n. sp.

10—Form rather narrow and elongate, shining, the head rufo-piceous; prothorax pale flavate throughout, the elytra black, each with a large oblique flavate spot well separated from the base, lobularly prolonged internally to well behind the middle, extending internally to the first stria and, externally, separated as a rule from the pale margin by about the width of an interval, rarely uniting with the side margin for some distance; apical pale fascia broadened in about inner half; under surface and legs, excepting the head, very pale; head large, only very little narrower than the prothorax, with large and very prominent eyes; surface smooth; antennæ rather more than half as long as the body, pale testaceous; prothorax four-fifths as wide as the elytra, widest before the middle; sides rather strongly rounded, broadly reflexed, becoming straight basally, the angles minutely and acutely prominent; rugulæ fine, faint and not dense, the stria fine, more or less impressed; elytra two-fifths longer than wide, gradually feebly inflated behind, a little less than twice as wide as the prothorax, the striæ impressed, subpunctate, finer and smoother apically, the seventh obsolete as usual. Length 4.7-5.0 mm.; width 1.8-2.1 mm. Texas (Brownsville).—Wickham. Seven specimens. . . . . *serpentina* n. sp.

Form still more slender, smaller in size, shining; head black, the prothorax and elytra pale flavate, the latter black in a small angulate scutellar spot and a transverse fascia behind the middle, which is not wider suturally than the inner part of the apical fascia and connected with the scutellar spot by a fine vitta along the first interval; lateral margins along the ends of the fascia pale, no other dark markings visible; under surface as in the preceding; head smaller than in the preceding, though with equally prominent eyes, five-sixths as wide as the prothorax, smooth; antennæ much more than half as long as the body, fusco-testaceous, clearer basally;

prothorax throughout nearly as in the preceding but not quite so large; elytra two-fifths longer than wide, feebly inflated posteriorly, nearly twice as wide as the prothorax; striæ smoother, finer and not quite so impressed as in the preceding. Length 4.2 mm.; width 1.65 mm. Texas (Brownsville),—Wickham. Two examples.

*esurialis* n. sp.

11—Apical pale area of the elytra usually not joining the anterior pale areas; body much larger in size. Atlantic regions. . . . . 12

Apical pale area usually joining the anterior—less certainly in *metuens*; body much smaller in size. Pacific and Sonoran regions. . . . . 14

12—Anterior pale spots of the elytra separated from the apical fascia by a very broad black fascia. Body moderate in size and convexity, rather shining, black, the pronotum rather less deeply and with the broadly reflexed margins abruptly pale; elytra each with a broad comma-like pale spot, from the middle, attenuate and evenescent at base, extending internally to the first stria and separated from the sides by about two black intervals, the scutellar black area transversely subquadrate; pale sides limited to the reflexed margin; pale apical fascia well developed; head nearly as wide as the prothorax, with moderate but very prominent eyes; surface smooth, very finely and faintly subrugulose near the eyes; antennæ slender, fully half as long as the body, pale testaceous throughout; prothorax moderate, not quite though nearly twice as wide as long, the sides broadly rounded, the hind angles minutely and bluntly subprominent; rugulosity usually distinct; median line fine, attaining the apical margin; elytra a fourth to third longer than wide, oblong, barely inflated behind, twice as wide as the prothorax, with fine, smooth and slightly impressed striæ, the intervals evidently convex; dorsal punctures at basal and apical fourth, they being unusually widely separated; under surface and legs pale. Length 4.3–5.0 mm.; width 2.0–2.2 mm. Lake Superior (Marquette) and Rhode Island (Boston Neck). Four examples.

*canonica* n. sp.

Anterior pale spots very narrowly separated from the broad apical pale fascia, sometimes connected as in the typical *fuscata*. . . . . 13

13—Body of comparatively large size, moderately convex, shining, the pronotum less so, black, the pronotum pale at the sides in somewhat more than the broadly reflexed margins; elytra each with a large basally narrowed spot, extending from behind the middle to the base, attaining the first stria internally and separated from the fine pale margin by about two dark intervals, the apex broadly pale, this area suturally emarginate, and separated very narrowly and imperfectly from the anterior spots, the submarginal black vitta attaining apical fourth; under surface and legs pale; head four-fifths as wide as the prothorax, with large and very prominent eyes, the surface smooth; antennæ slender, not quite half as long as the body, pale brownish-testaceous, clearer basally; prothorax fully twice as wide as long, the rounded and broadly reflexed sides very converging at apex, the hind angles sharply marked; rugulosity

fine and not dense but distinct, the median stria fine; elytra about a third longer than wide, gradually and distinctly inflated behind, barely twice as wide as the prothorax, the striae rather fine but evidently punctate, impressed, the intervals broadly convex; dorsal punctures a little behind basal, and before apical, fourth. Length 6.2 mm.; width 2.7 mm. Illinois. . . . . *fuscata* Dej.

Body not quite so large, relatively broader, rather convex, shining; head rufo-testaceous, the pronotum a little paler; elytra black, each with a large oval spot extending from behind the middle to basal sixth or seventh, internally to the first stria and, externally, separated from the pale margin by a vitta of about two intervals, extending to the apical fascia, which is broad, emarginate on the suture and narrowly but clearly separated from the anterior spots; under surface and legs pale; head five-sixths as wide as the prothorax, with large and very prominent eyes; surface nearly smooth, usually with two small approximate foveae on a transverse line through the anterior part of the eyes; antennae not very slender, shorter than in the preceding, less than half as long as the body and pale flavo-testaceous in color; prothorax fully twice as wide as long, the rounded and well reflexed sides very converging apically, the hind angles rather blunt at tip; rugulosity rather fine, not dense; median stria fine but deep, entire; elytra only about a fifth longer than wide, gradually and distinctly inflated behind, evidently less than twice as wide as the prothorax, the striae impressed, nearly smooth, the intervals somewhat strongly convex; dorsal punctures very small, at basal third and apical fourth. Length 5.0-5.5 mm.; width 2.5-2.65 mm. Texas (Brownsville),—Wickham.

**rhodope** Bates

14—Apical pale areas of the elytra separated narrowly from the anterior pale areas, or else joining by a very narrow isthmus; body smaller in size. Shining, black, the pronotum piceous to black, with the moderately reflexed margins abruptly pale; elytra pale, with a narrow scutellar area connected along the suture with a large oval posterior sutural spot, and also with a frequently isolated smaller external spot just behind the middle, black, the apices behind the posterior pale area infuscate; under surface piceous, the legs and epipleura pale flavate, the tarsi not darker; head not quite as wide as the prothorax, shorter than wide, with moderate though very prominent eyes; surface feebly rugulose laterally, especially at base; antennae slender, half as long as the body, pale flavo-testaceous; prothorax twice as wide as long to a little less, the moderately rounded sides very feebly sinuate just before the sharp basal angles; surface nearly smooth, the faint rugulosity scarcely discoverable; median stria fine, entire between the basal transverse sulcus and the apical margin; elytra a fourth longer than wide, slightly dilated behind the middle, twice as wide as the prothorax or less; striae fine, barely at all impressed, feebly and irregularly punctulate, the intervals not quite flat; dorsal punctures small, at basal third and apical fourth. Length 3.3-3.6 mm.; width 1.4-1.65 mm. California (the locality unrecorded). . . . . *metuens* n. sp.

Apical pale areas joining the anterior in a broad and constant isthmus, always isolating the submarginal small black spot. . . . . 15

15—Body narrower, shining, pale in color, the head slightly infuscate; prothorax testaceous, the elytra flavate, with a large common oval sutural spot of black, the centre of which is well behind the middle, extended along the suture to the scutellum by a narrow black vitta, the submarginal spot of black slightly behind the middle, the apex black, more widely so externally than suturally; under surface and legs pale, the met-episterna and abdomen piceous-black; head five-sixths as wide as the prothorax, with large and prominent eyes, the surface smooth, but becoming longitudinally and feebly rugulose laterally; antennæ slender, testaceous, more than half as long as the body; prothorax twice as wide as long to a trifle more, the sides broadly rounded, moderately reflexed, broadly so at base, the angles sharply defined; transverse rugulosity fine, not dense, the median stria fine but rather deep; elytra fully a third longer than wide, very feebly subdiluted posteriorly, four-fifths wider than the prothorax, the striæ somewhat coarse and impressed, irregularly sub-punctate, with the intervals slightly convex. Length 3.4–4.0 mm.; width 1.35–1.6 mm. Southern California to Texas and Utah (southwestern,—Weidt). . . . . **guttula** Lec.

Body broader, shining, the head deep black, the labrum pale flavate; pronotum fusco-testaceous, gradually clearer laterally; elytra as in *guttula*, except that the sutural spot is relatively not so large and the apical fascia piceous and narrower; under surface and legs pale, the met-episterna and abdomen piceous-black, the metasternum blackish laterally; head nearly five-sixths as wide as the prothorax, with large and prominent eyes, the surface finely rugulose throughout, except at the middle of the vertex; antennæ very slender, more than half as long as the body, fuscous, the three basal joints testaceous; prothorax very short, slightly more than twice as wide as long, the arcuate sides more convergent at apex than in the preceding, becoming very feebly sinuate at the sharp basal angles; rugulosity rather fine but close-set and distinct; margins rather more widely reflexed than in *guttula*; elytra much broader, scarcely a fifth longer than wide, gradually dilated posteriorly, very nearly twice as wide as the prothorax; striæ finer and more feebly impressed, the intervals not quite flat. Length 4.2 mm.; width 2.15 mm. California (Lake Co.),—Fuchs. . . . . **pacifica** n. sp.

The species described above under the name *serpentina*, is allied closely to the Mexican *calliope* Bates, and was so identified by Schaeffer, but it appears to be narrower and more elongate than that species, the head piceo-rufous and perfectly smooth, and not black and very obsoletely punctulate and striate as it is in *calliope*, and the sides of the prothorax would appear to be somewhat more widely explanate; the size of *calliope* is about 0.5 mm. greater. An examination of the figure of *calliope*, given on the plate, would

seem to show that the prothorax is relatively narrower, the apical pale fascia of the elytra less dilated suturally and the distance separating this lobe from the posterior lobe of the anterior pale spots much less in *calliope* than in *serpentina*. *Appendiculata* Chd., is a species quite distinct from  *analis* and on the average larger and broader, besides differing decisively in maculation. *Axillaris* Dej., according to the description, seems to be a valid species, but I have seen nothing to correspond. *Frigida* Chd., is placed as a synonym of *fuscata* in our lists, but the description and figure given by Chaudoir, show unmistakably that it is a synonym of *ornata*.

A partial review of the vittate species of *Lebia* was given by the writer some years ago (Mem. Col., IV, p. 191); the following is allied to *vittata* Fabr., but is quite distinct; a description of *vittata* is also given below for comparison:

***Lebia websteri* n. sp.**—Form rather stout, moderately convex, shining, the head and prothorax testaceous, the elytra black, with transverse pale apex, without sutural pale area behind the testaceous scutellum, the external pale margin confined to the narrow reflexed edge throughout the length; each elytron has also an oblique irregular vitta, extending from the base within the humerus to the apical pale area at inner third; this pale vitta involves outer half of the third interval from the middle to apex, all of the fourth interval from basal third to the apex, all of the fifth interval from base to apical third, and a small inner section of the sixth interval from basal seventh to third, all of these together producing a rather irregular single oblique vitta; under surface and legs throughout pale testaceous, the tarsi not at all darker; head large, about as wide as the prothorax, with large and prominent eyes; surface deeply strigose between the eyes, except at the middle, elsewhere nearly smooth; antennæ rather long, slender, black, the first three and one-third joints pale testaceous; prothorax fully twice as wide as long, the strongly rounded sides very convergent apically, somewhat widely and strongly reflexed, more broadly basally, the angles sharply defined; strigillation very fine and faint; median stria very fine, dilated and abbreviated near the apical margin; elytra a third longer than wide, slightly inflated posteriorly, twice as wide as the prothorax, the striae fine, smooth, evidently impressed, the intervals slightly convex. Length 5.8 mm.; width 2.5 mm. Indiana. Named in honor of Prof. F. M. Webster.

As will be observed on comparing the above with the following description, this species differs from *vittata* Fabr., in its larger size, completely pale legs and tarsi, very fine marginal pale stripe of the elytra and more irregular and composite median vitta, which is



smoothly limited at the sides in *vittata*, besides the larger head, more transverse prothorax and more impressed elytral striae.

***Lebia vittata*** Fabr.—Smaller than the preceding but of somewhat similar outline, shining, the head and prothorax testaceous, the elytra black, with pale apex, each with an oblique pale vitta extending from the humerus to the apical pale area near the suture, and with an external pale vitta from the humerus to the pale apex, broadest at the middle, where it occupies fully the two outer intervals; also with a very abbreviated common sutural vitta, extending a short distance behind the scutellum; under surface pale rufous, the legs black, more than basal half of the femora abruptly rufous; head nearly four-fifths as wide as the prothorax, with large and very prominent eyes, the surface almost smooth, feebly strigose toward the sides; antennae more than half as long as the body, not very slender, black, the basal joint rufous, the second and third piceo-rufous; prothorax a little less than twice as wide as long, the rounded sides very converging apically and very moderately reflexed, more widely so thence to the base, the hind angles sharply defined; subtransverse strigillation feeble, the stria fine, deep, extending only to the fine and feeble anterior transverse impression; elytra scarcely a third longer than wide, gradually dilated behind, four-fifths wider than the prothorax, the striae fine, smooth, the intervals not quite flat; dorsal punctures distinct. Length 5.0–5.2 mm.; width 2.2 mm. North Carolina (Southern Pines),—Manee. Two specimens.

#### ***Dianchomena*** Chd.

Disregarding modifications of the epilobes of the mentum and tooth of the emargination, which are of comparatively slight importance, I am of the opinion that this group of species should be accorded full generic value. The prothorax differs rather radically in structure and appearance from that of *Lebia*, being rounded at the sides, more evenly and gradually narrowed basally to the laterally much less developed basal angles, sometimes with the merest trace of these angles, as in *abdominalis*, and the side margins are narrowly and more feebly and equally reflexed throughout the length, giving to this important segment of the body a very characteristic habitus. The basal angle near the pedicel is sometimes remindful of *Lebia*, but it is very different in structure, there being no distinct basal enlargement of the finer reflexed margins. The elytra are diversified in coloration very much as in *Lebia*.

The species at present in my collection appear to be six in number as follows, *scapularis* of Dejean, included by Horn, being a true *Lebia*, as is also *miranda* Horn, in all probability:

- Elytra wholly metallic green or blue in color.....2  
 Elytra black, each with one or two pale vittæ.....3
- 2—Body rather small in size, moderately convex, shining, the pronotum dull; head black, with dark green reflection, the prothorax flavo-rufous; elytra dark greenish-blue; under surface and legs testaceous, the meso- and metasterna, epipleura, tarsi and tibial tips black; head subequal in width to the prothorax, with moderate prominent eyes, the front nearly smooth, with some strigillation near the eyes and with scattered minute punctules; antennæ almost deep black, the first three and one-third joints testaceous, distinctly more than half as long as the body; prothorax a third wider than long, the sides subcircularly rounded and very moderately reflexed evenly to the basal lobe, excepting a very obtuse and feeble angulation near the latter; basal lobe much more than half the maximum width, somewhat punctured, the sulcus distinct, minutely angulate at the middle; surface convex, finely, feebly rugulose, the stria fine, extending to the apex; elytra between a third and fourth longer than wide, gradually moderately inflated behind, much more than twice as wide as the prothorax; striæ very fine, feebly punctulate, almost obliterated, the intervals flat, with some very minute sparse punctulation. Length 4.2–4.6 mm.; width 2.1 mm. Texas (Brownsville and elsewhere).....**abdominalis** Chd.
- Body nearly as in the preceding in outline and coloration, but somewhat more elongate, with the elytra green; under surface and legs nearly similar; head only slightly though evidently narrower than the prothorax, with the eyes not quite so large and somewhat less prominent, the tempora more strongly rounded, the front nearly as in the preceding, the antennæ similar, except that the third joint is in great part blackish; prothorax shorter and broader, three-fifths wider than long, similarly rounded and evenly, moderately reflexed at the sides, but with the basal angulation more pronounced and at a greater distance from the basal lobe, which is but little more than half the maximum width; surface less convex, impunctate, the sulcus finer; stria similar; elytra nearly similar in outline but with even more obsolete striation and only barely more than twice as wide as the prothorax. Length 5.0 mm.; width 2.15 mm. Illinois (Cairo).....**convictor** n. sp.
- 3—Head and elytra black, the prothorax above and beneath testaceous, each elytron with a slightly oblique flavate vitta, extending from the middle of the base nearly to the apex at inner third; under surface and legs black, the abdomen rufous in posterior half or less, the tibiæ slightly pallid, dark at apex. Head shorter than wide, four-fifths as wide as the prothorax, sparsely and unevenly punctulate, the eyes prominent, moderately large; antennæ slender, black, the first three joints more or less pale, the third generally blackish distally; prothorax four-fifths wider than long to rather more, the sides strongly rounded and very narrowly, subevenly reflexed to the basal angles, which are sharp though very obtuse and at only a short distance from the basal lobe, the latter three-fifths the maximum width, the sulcus shallow; surface finely, sparsely rugulose

and punctulate, the stria very fine, not entire; elytra a third longer than wide, gradually feebly inflated posteriorly, distinctly less than twice as wide as the prothorax, the striæ very fine, not impressed, feebly punctate, the intervals flat, with sparse and extremely minute punctulation; dorsal punctures small and feeble, at basal and apical fourth. Length 4.5-4.7 mm.; width 2.1-2.25 mm. California.

*bilineata* Mots.

Head and elytra black, shining, the prothorax above and beneath testaceous; elytra each with two flavate vittæ; coxæ and entire abdomen rufous, the meso- and metasterna and epipleura black. . . . . 4

4—Head moderate, distinctly narrower than the prothorax, the eyes moderate, prominent. Surface nearly smooth, with minute sparse punctulation; antennæ unusually long, much more than half as long as the body, black, the first three joints in great part testaceous; prothorax three-fifths (♂) to two-thirds (♀) wider than long, the sides rather strongly rounded and finely reflexed to the very obtuse angles, which are minutely prominent at tip; basal lobe punctulate, the sulcus shallow, not sharply defined; surface convex, shining, with fine sparse rugulosity, the median stria fine, not well defined and abbreviated; elytra two-fifths longer than wide, feebly dilated behind the middle, just twice as wide as the prothorax, the striæ extremely fine and feeble, minutely punctulate, the flat intervals minutely, sparsely punctulate; each elytron with a flavate vitta from the middle of the base not quite to the apex near inner third, there slightly swollen, also with a submarginal vitta of equal width, extending to posterior fourth, the reflexed margin black; pale vittæ equal in width and much narrower than the outer black vitta; legs black, the femora pale at base, the tibiæ fusco-flavate except at tip. Length 5.2-5.7 mm.; width 2.25-2.4 mm. Kansas. . . . . *æmula* n. sp.

Head larger, barely visibly narrower than the prothorax; antennæ not so long. . . . . 5

5—The pale elytral vittæ much narrower than the external black vitta as in the preceding; elytra more elongate; head finely and feebly, very minutely punctulate, with two larger, more widely separated, and two smaller, more anterior and more approximate, impressions, each pair on a transverse line through the eyes, the latter prominent though moderate in size; antennæ not very slender, half as long as the body, colored as in *æmula*; prothorax one-half wider than long, the sides evenly, subcircularly rounded and narrowly reflexed to the obtuse but sharp basal angles, which are at a short distance from the basal lobe, the sulcus shallow and not sharply defined; surface convex, shining, with fine sparse rugulosity and minute sparse punctures, the stria fine, not entire; elytra slightly less than one-half longer than wide, very gradually and slightly broader posteriorly, fully twice as wide as the prothorax; vittæ nearly as in the preceding, the submarginal a little shorter, the sculpture nearly similar, except that the fine striæ are rather more distinct; legs black, the femora pale at base, the tibiæ obscure rufous, black at tip. Length 5.3 mm.; width 2.2 mm. Iowa (Keokuk).

*quadrivittata* Dej.

The pale elytral vittæ much wider, about as wide as the external black vitta, the elytra much less elongate, relatively broader; head finely but strongly, less sparsely punctulate, the impressions between the eyes less definite; eyes a little larger, not quite so prominent; antennæ rather thicker, half as long as the body, shining black, the three basal joints more or less testaceous; prothorax a little more than one-half wider than long, widest more evidently before the middle, the sides subevenly rounded, finely but sharply reflexed to the basal angles, which are sharp and minutely subprominent at tip, the basal part thence to the basal lobe much more transverse than in the preceding, the surface forming the lobe more depressed and punctate, the sulcus not well defined; general surface features and fine median stria as in the preceding; elytra a fourth longer than wide, slightly inflated behind, much more than twice as wide as the prothorax, the pale vittæ much broader, equal in width to the black vittæ, the submedial pale vitta deflexed internally at its posterior end to the first stria, the very fine feeble striæ and minute interstitial punctures nearly as in the other species; legs black, the femora pale basally, the tibiæ pale rufo-flavate, black at tip. Length 5.75 mm.; width 2.5 mm. Colorado (Boulder Co.).

*devincta* n. sp.

The species usually called *bivittata* Fabr., I have entered above in the name given it by Dejean; *quadrivittata* is at least accurately defined by the author and is therefore definite, but this cannot be said of the Fabrician species, whatever it may prove to be.

#### Coptodera Dej.

The salient external features of this genus are the stout and rather convex body, very large head, short transverse prothorax, elongate labrum, comparatively short antennæ, complete absence of the basal thoracic lobe of *Lebia*, indentation of the sixth elytral stria from the middle to apical sixth and the unusual position of the two dorsal punctures, the anterior being very near the base, adjoining the third stria, and the posterior only slightly behind the middle and at the second stria.

The considerable series in my collection from Indiana, Maryland and North Carolina agrees perfectly with LeConte's description of his *viridipennis* from Alabama, and, if really identical with *ærata* Dej., the latter name must be regarded as unhappily chosen; this however was due primarily to Knoch, who sent it to Dejean under the manuscript name *Lebia ærata*; the green color of the elytra is intense and vivid and the head and pronotum are deep greenish-black.

**Axinopalpus** Lec.

*Axinopselaphus* G. & H.

In this genus the species are very small, with the hind thoracic angles acute and more or less prominent behind a small sinus, the base transverse and the elytra usually but not always ornamented with a flavate humeral spot, which is obliquely prolonged posteriorly. The eight species in my collection may be known very readily as follows:

- Elytra with pale humeral marking. . . . . 2
- Elytra wholly pale, without maculation. . . . . 6

2—Humeral pale maculation very short, faint and nubilously defined. Body very small, the surface polished, blackish-piceous, the head black; under surface and femora black, the tibiæ and tarsi paler; head somewhat wider than long, five-sixths as wide as the prothorax, smooth, with a few feeble rugulæ behind the eyes, which are well developed and prominent; palpi pale; antennæ long, nearly three-fifths as long as the body, longer than the elytra, fuscous, gradually paler basally; prothorax short, three-fifths wider than long, widest anteriorly, the oblique sides becoming sinuate posteriorly and very finely reflexed, the basal angles right, sharp and laterally prominent; surface smooth, the anterior and posterior transverse impressions deep, the connecting median stria fine but deep; elytra one-half longer than wide, nearly three-fourths wider than the prothorax, parallel, the outer angle at apex broadly rounded, the feeble truncature not sinuate; striæ fine, feebly impressed; dorsal punctures small and feeble. Length 2.3 mm.; width 1.0 mm. California (Napa Co.—Jountville). Taken by the writer.

**illectus** n. sp.

Humeral pale maculation more extended posteriorly and sharply defined. . . . . 3

3—Antennæ shorter though very slender, about as long as the elytra, the individual joints much shorter. Surface highly polished; body black, the humeral pale mark extending through basal third at the sides and to the middle and inner third on the disk; under surface black, the legs and epipleura pale; head distinctly narrower than the prothorax, rounded, fully as long as wide, with notably small and but feebly prominent eyes; antennæ fusco-testaceous, gradually clearer basally; prothorax less abbreviated than in the preceding, though with nearly similar outline, one-half wider than long, the finely reflexed sides similarly more widely deplanate at the sharp and laterally prominent angles; impressions finer and feebler, the median stria deep; surface very smooth and polished; elytra two-fifths longer than wide, four-fifths wider than the prothorax, similar in outline, the striæ fine and very feebly impressed. Length 2.3–2.8 mm.; width 0.8–1.1 mm. California (Los Angeles to Humboldt). . . . . **californicus** Mots.

- Antennæ much longer, with more elongate though not quite so narrow joints.....4
- 4—Elytra more elongate, fully two-fifths longer than wide and as long as the antennæ. Body elongate, polished, piceous-black, the humeral flavate marking extending at the sides to a little before the middle, and, on the disk, to posterior third, the inner side following the second stria rectilinearly for a long distance; head small, scarcely over two-thirds as wide as the prothorax, the eyes rather small but prominent; antennæ slender, fuscous, becoming pale in the four or five basal joints; prothorax relatively large, scarcely one-half wider than long, in outline nearly as in the two preceding but with the sharp basal angles slightly more than right; margins very finely reflexed, broadly deplanate at the angles; anterior impression extremely fine and feeble and the posterior obsolete medially, the median stria fine but deep, the surface very smooth; elytra slightly broader posteriorly, with broadly arcuate sides, two-thirds wider than the prothorax, the striæ fine and very feebly impressed. Length 2.8 mm.; width 1.15 mm. Texas (Austin). A single example, taken by the writer.....*habilis* n. sp.
- Elytra in similar manner fully as long as the antennæ, the head and prothorax larger, the eyes very much more prominent. Upper surface almost deep black, the under surface piceo-rufous, the epipleura and legs bright flavate; head three-fourths as wide as the prothorax, with very prominent eyes, the anterior impressions parallel and very remotely separated; antennæ long and slender, flavo-rufous, gradually dusky distally, the fourth joint fully three times as long as wide; prothorax large and transverse, four-sevenths wider than long, widest near apical third or fourth, the sides strongly rounded; thence oblique and less arcuate posteriorly, becoming parallel for some distance before the right and sharp angles, extremely finely reflexed throughout; base broadly lobed in the middle, somewhat wider than the broad apical sinus, the apical angles broadly rounded; transverse impressions very feeble, the stria deep, the basal foveæ very small and feeble; elytra rather more broadly oblong than in *habilis*, with broader humeri, only feebly inflated posteriorly, the humeral and apical angles broadly rounded, nearly two-fifths longer than wide, about one-half wider than the prothorax, the sharply defined pale area occupying nearly basal half at the sides and outer half at base, the posterior prolongation extending to three-fifths and not quite as long as the humero-marginal part; striæ fine and very feeble, more nearly obsolete than in *habilis*. Length 3.2 mm.; width 1.22 mm. Colorado (Boulder Co.),—Cockerell.....*coloradensis* n. sp.
- Elytra less elongate, only about a fourth longer than wide, shorter than the antennæ.....5
- 5—Head smaller, with well developed and very prominent eyes, piceous-black, polished; humeral flavate spot extending through basal third at the sides and to just behind the middle near inner third on the disk, the posterior arm narrower than in *habilis* and more oblique; under surface piceous-black, the legs and epipleura pale flavate;

- head three-fourths as wide as the prothorax; antennæ three-fifths as long as the body, feebly incrassulate distally, fuscous, the first five or six joints flavate; prothorax one-half wider than long, the sides strongly rounded anteriorly, rather deeply sinuate for a short distance before the basal angles, which are sharp and laterally prominent; margins very finely reflexed, the deplaniture at the angles more gradual and less well defined than in the preceding forms; transverse impressions obsolete, the median stria deep and rather coarse; elytra subparallel, with arcuate sides, two-thirds wider than the prothorax, the striæ very fine and extremely feeble; dorsal punctures not clearly visible. Length 2.65–2.8 mm.; width 0.85–1.1 mm. Rhode Island. Four examples. . . . **biplagiatus** Dej.
- Head relatively larger but with decidedly smaller and less conspicuously prominent eyes, piceous-black and polished; humeral pale area extending a little behind basal third at the sides, the inner ramus long, longitudinal and extending through three-fifths; under surface as in the preceding, the meso- and metasterna, but not the parapleura, also pale as in *biplagiatus*; head nearly four-fifths as wide as the prothorax, as long as wide, smooth, with two feeble impressions at the epistomal suture; antennæ slender, two-thirds as long as the body, fuscous, the first six joints flavate; prothorax shorter, rather more than one-half wider than long, widest well before the middle, but with more evenly rounded sides than in *biplagiatus*, the basal sinus deep, the angles sharp and laterally somewhat prominent; margins and impressions nearly similar, the median stria finer; elytra parallel, with arcuate sides, three-fifths wider than the prothorax, the striæ fine and very feebly impressed, the dorsal punctures extremely small and feeble. Length 2.7–2.9 mm.; width 1.0–1.2 mm. California (San Francisco to Los Angeles). . . . **demissus** n. sp.
- 6—Body very small in size, moderately shining, flavate in color, the under surface of the hind body sometimes more piceous; head infusate, narrow, elongate, with rather long neck, three-fourths as wide as the prothorax, the eyes small, very moderately convex; front smooth; antennæ flavate, three-fifths as long as the body; prothorax a third wider than long, widest anteriorly, with evenly rounded and very finely reflexed sides, converging posteriorly, rather deeply sinuate before the acute and laterally rather prominent angles; surface at the angles slightly deplanate, elsewhere convex, smooth, the anterior impression, medially, and the posterior sulcus both distinct, the stria deeply impressed; elytra two-fifths longer than wide, feebly inflated posteriorly, four-fifths wider than the prothorax, feebly convex, the striæ shallow and broadly impressed, the dorsal punctures minute and feeble, scarcely discoverable. Length 2.65 mm.; width 1.0 mm. California (San Francisco and Marin Co.). . . . **fusciceps** Lec.
- Body decidedly larger and with the lustre and coloration subsimilar; head larger, four-fifths as wide as the prothorax and not longer than wide, the neck shorter; eyes not so small and evidently more prominent; surface not so smooth, minutely, sparsely punctulate; antennæ nearly similar; prothorax larger, less abbreviated, a fourth

wider than long, the general outline nearly similar, except that the base is about as wide as the apex and not a little narrower as it is in *fusciceps*; anterior impression feebler, the impressed median stria longer; elytra longer, nearly one-half longer than wide, three-fourths wider than the prothorax, oblong, with arcuate sides, the striæ rather deeper and more sharply defined than in the preceding; outer angle at apex similarly broadly rounded, the apex arcuato-truncate; dorsal punctures minute, indistinct. Length 2.7-3.0 mm.; width 0.9-1.1 mm. Texas.....**nigriceps** Lec.

*Californicus* Mots., and *nigriceps* Lec., have been declared synonyms of *biplagiatus* and *fusciceps* respectively, but this is incorrect; they are both amply valid as species; in fact, there would appear to be little or no doubt connected with the validity of any of the species above described; they are well characterized among themselves.

### Blechrus Mots.

*Bomius* Lec.

Although *Metabletus*, as represented in the European fauna, is probably distinct from *Blechrus*, this cannot be said so truly of *americanus*, now placed in that genus in our lists, and I think, with Zimmermann, that it should be ranged with the other American forms under the genus *Blechrus*; *Apristus*, however, by peculiarities of sculpture and habitus, should be regarded as valid, and not united with the others as recommended by Zimmermann. Our species of *Blechrus* are small, slender, black and polished, and have the surface nearly smooth; those in my collection are the following:

- Prothorax relatively narrower, but little more than half as wide as the elytra.....2  
 Prothorax broader, transverse, very much more than half as wide as the elytra. *Metabletus* Horn.....7  
 2—Head broader, not elongate, the eyes distinctly prominent.....3  
 Head narrower, elongate, the eyes not prominent though somewhat convex.....4  
 3—Surface shining, black throughout the body, legs and antennæ, the femora and coxæ picescent; head but just visibly narrower than the prothorax, smooth, the eyes at about their own length from the base, the tempora strongly converging; antennæ distinctly more than half as long as the body; prothorax larger than in any other of this section of the genus, not quite one-half wider than long, nearly three-fifths as wide as the elytra, widest anteriorly, the arcuate sides oblique behind, very finely reflexed, a little more so at the basal angles, which are minutely acute and subprominent; transverse impressions obsolete, the median line coarsely impressed;



- elytra not quite one-half longer than wide, the sides barely at all arcuate, evenly and moderately diverging from the humeri; apex truncate, the external angle moderately rounded; striæ broadly, very feebly impressed and subobsolete. Length 2.65-3.3 mm.; width 1.0-1.2 mm. Utah (southwestern), Idaho (Cœur d'Alene), Wisconsin and Iowa to New York and Massachusetts. [*Dromius angustus* || Lec.].....**linearis** Lec.
- Surface similarly colored and shining, smaller in size; head relatively larger, as wide as the prothorax, nearly smooth, with a small central fovea or impression; eyes at about their own length from the base; antennæ moderately slender, over half as long as the body; prothorax a third to two-fifths wider than long, four-sevenths as wide as the elytra, in outline nearly as in the preceding, the basal angles even more distinctly acute and prominent; impressions faint, the stria deeply impressed and biabbreviated; elytra shorter, two-fifths longer than wide, in general outline and sculpture nearly similar. Length 2.6-3.0 mm.; width 0.9-1.0 mm. Nevada (Reno) and California (Lake Tahoe and Humboldt Co.).....**prominulus** n. sp.
- 4—Antennæ long and slender, much more than half as long as the body. California..... 5
- Antennæ shorter, half as long as the body, the individual joints much more abbreviated; size much smaller. Sonoran regions..... 6
- 5—Body smaller and narrower than in *linearis*, rather depressed, shining, black, the legs piceous; head smooth and rhomboidal, just visibly narrower than the prothorax, the latter a third wider than long, widest anteriorly, the sides broadly arcuate, oblique behind, the angles minutely prominent; margins as in the preceding species; impressions obsolete or very feeble, the surface smooth as usual; median stria rather coarsely and deeply impressed, biabbreviated; elytra nearly one-half longer than wide, the sides very feebly arcuate, slightly diverging; surface depressed, the striæ broadly, feebly impressed but evident. Length 2.75-3.0 mm.; width 0.85-1.1 mm. California (Sta. Clara to Sonoma). Rather abundant.
- nigrinus** Mann.
- A—Similar to *nigrinus* but somewhat larger and more convex, the head not so narrow, as wide as the prothorax, with the eyes distinctly larger and relatively somewhat less prominent; prothorax shorter, fully two-fifths wider than long; elytra wider and more convex, very smooth, the striæ subobsolete, barely glimpsible in part by oblique light. Length 3.4 mm.; width 1.15 mm. California (San Francisco).....**fretus** n. subsp.
- B—Similar to *nigrinus* and with the head notably narrow and the antennæ long and slender as in that and *fretus*, but with the prothorax shorter, nearly one-half wider than long; elytra as in *nigrinus* in outline, about one-half longer than wide, narrower and more elongate than in *fretus*, rather convex, smooth, the striæ obsolescent as in *fretus*. Length 3.25 mm.; width 1.05 mm. California (Port Harford, S. L. Obispo Co.)....**obispinus** n. subsp.
- Body still smaller and with evidently shorter elytra, shining, black, the legs piceous; head rhomboidal, barely narrower than the prothorax,

the eyes very slightly more prominent than in *nigrinus*, the front smooth; antennæ evidently shorter than in any of the three preceding forms, though longer than half the body, the individual joints much more abbreviated; prothorax as in *nigrinus* but a little shorter, the head, neck and prothorax all relatively wider than in that species; elytra a third longer than wide, three-fourths wider than the prothorax, in outline and striation almost as in *nigrinus*, the striæ obtusely impressed and similarly distinct. Length 3.0 mm.; width 0.95 mm. California (San Francisco).

**curtipennis** n. sp.

- 6—Form narrow, very moderately convex, polished black, the elytra, epipleura and legs piceous; head narrow and elongate-rhomboidal, fully as wide as the prothorax, smooth, the eyes rather well developed but not at all prominent; prothorax small, barely a third wider than long, the sides broadly arcuate, converging from well before the middle, becoming briefly sinuate at the basal angles, which are more than right though sharp and subprominent, barely at all reflexed; anterior impression scarcely evident and only at the middle, the posterior obsolete, the median stria deeply impressed, biabbreviated as usual; elytra two-fifths longer than wide and just visibly more than twice as wide as the prothorax, of the usual outline but without evident striation; dorsal punctures very minute, just before the middle and near apical third. Length 2.5 mm.; width 0.75 mm. Texas (Austin). Colorado River of California,—LeConte.....**lucidus** Lec.

Form still narrower and smaller than any other known species, feebly convex, shining, black, the epipleura and legs piceous; head not so elongate, barely longer than wide, rhomboidal, the eyes small, feebly convex; prothorax equal in width to the head, small, only slightly wider than long, the moderately oblique sides from near the apex less arcuate than usual, the hind angles sharply subprominent; transverse impressions very feeble, the anterior nearer the apex than usual, the median stria moderate; elytra almost one-half longer than wide and just visibly less than twice as wide as the prothorax, the sides slightly diverging from the humeri; striæ broadly and very feebly impressed though evident. Length 2.0 mm.; width 0.65 mm. Texas (Brownsville); also occurs in Louisiana.

**pusio** Lec.

- 7—Form somewhat broader, rather convex, shining, black, the legs piceous; head wider than long, sensibly narrower than the prothorax, the eyes well developed and notably prominent; front smooth; anterior impressions briefly lineiform, oblique; antennæ slender, a little more than half as long as the body; prothorax short and transverse, nearly three-fifths wider than long, widest and inflated well before the middle, the hind angles more than right but sharp and subprominent; impressions moderate, the anterior at a considerable distance from the apex, the stria moderate, impressed; base with a feeble median lobe; elytra two-fifths longer than wide, rather convex, subparallel, less than one-half wider than the prothorax, the striæ fine but rather sharp, slightly irregular,

feebly impressed though evident, the dorsal punctures nearly as in the preceding; apical truncation just visibly sinuate, rounded toward the suture. Length 2.6–3.0 mm.; width 0.9–2.2 mm. New Hampshire, Ontario, Lake Superior, Colorado, Arizona, Idaho and Washington State (Spokane). Abundant. . . . . **americanus** Dej.

There can be little or no doubt that *linearis* Lec., is a species different from *nigrinus*, with which it was united too hastily, as shown by ample series. I am quite unable to place the species described by Zimmermann as *Metabletus borealis*, from Lake Superior; it is said to be very similar to *americanus*, but with the prothorax transversely quadrate, only slightly narrowed behind and having broadly reflexed hind angles; these characters will not answer at all to *americanus*, for there the prothorax is rather strongly narrowed behind and with a very narrow deplaniture at the hind angles. The name *angustus* is only preoccupied apparently in *Dromius*, in which genus it was placed by LeConte, so that it would be available in *Blechrus*, but as *linearis*, by the same author, is equally suitable, I leave the synonymy as above given.

There is very little development or diversification of color or sculpture throughout this genus, so that an unusual degree of monotony prevails among the species. The name *Microlestes* Sch.-Göb., is used in place of *Blechrus* in the recent European catalogue, but I have no opportunity at present to confirm the correctness of the course indicated.

#### Apristus Chd.

The general habitus of the small elongate species composing this genus is very much as in the preceding, but the elytra are more deeply sculptured and the colors more metallic as a rule; the chief distinction, however, among the Lebiinæ, resides in the small slender tarsal claws, which are devoid of all vestige of serrulation beneath. The sides of the thoracic base are more or less oblique and the mentum is denticulate. The anterior tarsi of the male are barely thicker than those of the female, but are always notably shorter. Our species are widely diffused over the entire country, as well as Mexico, and are rather numerous, especially near the Pacific coast; those now represented in the material so far accumulated are as follows:

- Sides of the prothorax briefly and feebly sinuate at the sharp and minutely subprominent basal angles; dorsal punctures of the elytra two in number. . . . . 2
- Sides deeply sinuate in basal fourth; dorsal punctures three. . . . . 11
- 2—Prothorax very short, fully three-fourths wider than long. Body black, rather shining but without distinct metallic lustre; under surface and legs black, the coxæ piceous; head well developed, four-fifths as wide as the prothorax, with notably broad neck, not longer than wide, the eyes rather large and prominent; surface rugulose or strongly micro-reticulate throughout, with a small central puncture and striole; antennæ black as usual, about half as long as the body; prothorax widest at apical third, where the sides are strongly rounded, oblique posteriorly; base equal in width to the neck, the lateral obliquity short but strong; apex broadly sinuate; margins extremely finely reflexed; surface feebly rugose, the impressions obtuse, shallow, the median stria deeply impressed; elytra between a third and fourth longer than wide, parallel, one-half wider than the prothorax, the apices slightly oblique; margins very finely reflexed; striæ fine, shallow, slightly uneven, not at all sulciform; intervals somewhat uneven, sparsely micro-punctulate and strongly reticulate though shining. Length 3.25 mm.; width 1.25 mm. California (Sonoma Co., Cloverdale). A single female.
- cephalus n. sp.
- Prothorax less abbreviated. . . . . 3
- 3—Elytral striæ very fine, shallow and equal throughout the width, not in the least sulciform. Body rather more depressed than usual and shorter, black, somewhat shining, the elytra dark piceous; under surface and legs black; head scarcely as long as wide, five-sixths as wide as the prothorax, the eyes moderate and but slightly prominent; front smooth, rugulose antero-laterally, the anterior impressions long, striiform and parallel; antennæ moderate, less than half as long as the body; prothorax three-fifths wider than long, in outline and general structure nearly as in the preceding; surface smoother, the impressions more nearly obsolete; stria fine, impressed, entire; elytra oblong, parallel, a third longer than wide, a little less than one-half wider than the prothorax, shining and only feebly micro-sculptate, the intervals flat; dorsal punctures distinct, near two-fifths and three-fourths, not closely adjoining the third stria. Length 3.0 mm.; width 1.2 mm. California (Mt. Diablo). A single male example, taken by the writer. . . . . subdeletus n. sp.
- Elytral striæ broadly sulciform at least toward the suture. . . . . 4
- 4—The sulciform striæ of the elytra obliterated laterally, rather less deep than usual toward the suture; body small in size. . . . . 5
- The striæ more or less conspicuous throughout the width. . . . . 6
- 5—Upper surface shining and rather brightly æneous throughout; under surface black, the legs piceous; head fully four-fifths as wide as the prothorax, as long as wide, with moderate but rather prominent eyes; front smooth, rugulose anteriorly, the anterior impressions short; antennæ black, half as long as the body; prothorax large, three-fifths wider than long, the sides finely but evidently reflexed, rather

broadly rounded anteriad, oblique posteriad, the hind angles somewhat blunt, thickened; surface smooth, except at apex and base, the impressions very feeble, the stria fine, impressed, biabbreviated; elytra short, parallel, a fourth longer than wide, two-fifths wider than the prothorax; apices slightly oblique, with very broad external angle; striæ in about inner half shallowly broad and sulciform; dorsal punctures adjacent to the third stria, just before the middle and at apical fourth. Length 3.0 mm.; width 1.2 mm. California (San Diego). A single female example, taken by Mr. Dunn..... *laticollis* Lec.

Upper surface rather shining but barely at all metallic, the elytra not quite so deep black as the anterior parts; under surface and legs black, the coxæ paler as usual; head only just visibly narrower than the prothorax, fully as long as wide, with rather large and prominent eyes, the surface smooth, feebly punctulate and subrugulose anteriorly, the impressions short; antennæ slender, nearly half as long as the body; prothorax almost three-fifths wider than long, relatively not so large as in the preceding, though nearly similar in outline, the hind angles somewhat more than right but sharper and prominent; impressions obsolete, the surface punctulate near apex and base; stria fine, deeply impressed; apex very shallowly sinuate, subprominent toward the middle; elytra between a third and fourth longer than wide, parallel, with broadly arcuate sides, fully one-half wider than the prothorax; striæ fine throughout, feebly impressed and much less than usually subsulciform internally; dorsal punctures fine, not quite adjoining the third stria behind basal third and at apical fourth. Length 2.85 mm.; width 1.1 mm. Nevada (Reno). A single example, taken by the writer.

*nevadensis* n. sp.

6—Sides of the prothorax moderately oblique behind.....7

Sides strongly oblique, the base relatively narrow.....10

7—Eyes notably prominent; surface shining, black, very obscure sub-æneous in lustre; under surface and legs black; head rather large, barely visibly narrower than the prothorax, smooth, with some sparse and minute punctulation anteriorly, the anterior impressions short but deep; antennæ slender, half as long as the body; prothorax less than usually expanded anteriorly, slightly less than one-half wider than long, widest behind apical third, the sides broadly rounded, oblique and becoming gradually sinuate behind, the angles right and sharp; margins very finely reflexed, the surface shining and nearly smooth, punctulate at apex and base, the impressions almost obsolete, the median stria deeply impressed; elytra oblong, parallel, with broadly and subevenly arcuate sides, scarcely a third longer than wide, three-fifths wider than the prothorax; striæ broadly sulciform, finer and feebler laterally, the micro-reticulation strong; dorsal punctures distinct, barely before the middle and just visibly before apical fourth. Length 3.1 mm.; width 1.2 mm. Arizona (Tuçson),—J. F. Tucker..... *tuckeri* n. sp.

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Eyes only very moderately prominent, the prothorax more expanded anteriorly.....8

- 8—Head much narrower than the prothorax; elytra parallel, with distinctly and evenly arcuate sides. Rather shining, black, the elytra not quite black and obscurely æneous; under surface and legs black; head as wide as long, four-fifths as wide as the prothorax, the eyes moderate in size; surface rather dull, minutely, sparsely punctulate, the antennæ slender, somewhat more than half as long as the body; prothorax large, rather more than one-half wider than long, the sides broadly arcuate anteriorly, converging and subsinuate behind, finely but sharply reflexed, the angles right and very sharp; surface minutely punctulate and finely rugulose, the impressions evident but obtuse, the median stria deeply but not broadly impressed; elytra oblong, between a fourth and third longer than wide, barely one-half wider than the prothorax, the striæ rather deep, sulciform, the dorsal punctures strong, adjacent to the third stria, well before the middle and near apical fourth. Length 3.25 mm.; width 1.2 mm. Pennsylvania. A single male.

**subsulcatus** Dej.

- A—General features nearly as in *subsulcatus* but smaller in size and rather narrower, the head a little more than four-fifths as wide as the prothorax and fully as long as wide; elytra similarly piceorufous, with æneous lustre, narrower, with the parallel sides less arcuate; antennæ distinctly more than half as long as the body. Length 3.0 mm.; width 1.15 mm. Texas (Austin). Two specimens.....**fuscipennis** Mots.

Head relatively larger, only very little narrower than the prothorax...9

- 9—Elytra shorter, oblong-suboval, the parallel sides distinctly arcuate.

Color black, the elytra faintly piceo-rufous, with moderate æneous lustre; under surface and legs black; head somewhat wider than long, the eyes better developed and somewhat more prominent than in *subsulcatus*; surface punctulate anteriorly, the anterior impressions short; antennæ distinctly more than half as long as the body; prothorax less transverse than in *subsulcatus*, similar in general outline, but with the basal angles sharp and minutely prominent, the surface nearly similar; elytra narrower, a third longer than wide, two-thirds wider than the prothorax, the sulciform striæ less deep than in *subsulcatus*, the dorsal punctures differently placed, smaller, the anterior at the middle, the posterior at apical fourth. Length 2.9 mm.; width 1.18 mm. North Carolina (Southern Pines).—Manee. A single male example.....**actuosus** n. sp.

- Elytra much more elongate, the parallel sides less arcuate. Color deep black, with moderate æneous lustre, especially on the elytra, the ground color of which does not seem to be rufescent; under surface and legs black; head fully as long as wide, with large but only moderately prominent eyes, the surface convex, nearly smooth, with a few fine punctures anteriorly; antennæ half as long as the body; prothorax large, the sides finely but sharply reflexed, more broadly rounded than usual, converging and arcuate posteriorly, feebly sinuate for a short distance at the basal angles, which are

minutely prominent and sharply right; surface shining and with some fine loose subtransverse rugulæ, the impressions evident; median stria deeply and broadly impressed; elytra a third to almost one-half longer than wide, not quite one-half wider than the prothorax, the broadly sulciform striæ much more shallow than in the two preceding species; dorsal punctures slightly before the middle and behind apical third. Length 2.8–3.2 mm.; width 1.0–1.2 mm. New Mexico (Jemez Springs),—Woodgate. Three specimens.

**thoracicus** n. sp.

10—Color black, feebly æneous, the elytra piceo-æneous; under surface and legs black; surface shining; head fully as long as wide, five-sixths as wide as the prothorax, the eyes rather well developed, only moderately prominent; surface nearly smooth, with minute sparse punctulation; antennæ more than half as long as the body; prothorax one-half wider than long, with the sides subprominently rounded near apical two-fifths, strongly oblique, becoming slightly sinuate thence to the basal angles, which are sharp and minutely subprominent; surface with some fine sparse transverse rugulæ, finely, closely sculptured and opaculate basally and longitudinally finely rugulose at apex, the anterior impression obsolete; median stria fine, impressed, not entire; elytra a third longer than wide, parallel, with broadly arcuate sides, two-thirds wider than the prothorax, the sulciform striæ deep. Length 3.2 mm.; width 1.18 mm. Maryland (Piney Point), Mississippi (Vicksburg) and one example, differing only in having slightly shorter elytra, from Lake Superior (Bayfield)..... **cordicollis** Lec.

Color black, obscurely æneous above, the femora basally and the trochanters picescent; head fully as long as wide, only a little though evidently narrower than the prothorax, the eyes well developed but not very prominent; front as in the preceding, the anterior lineiform impressions slightly longer; antennæ more than half as long as the body; prothorax nearly as in *cordicollis* but even more rapidly and widely inflated apically, the base three-fourths as wide as the apex, which is broadly sinuate; surface smoother and more polished, duller, rugulose and feebly impressed near apex and base, the stria fine but impressed; elytra rather elongate, more than a third longer than wide, with parallel and broadly arcuate sides, one-half wider than the prothorax; base more deeply sinuate medially than in the preceding, the sulciform striæ more shallow. Length 3.1–3.3 mm.; width 1.0–1.2 mm. Washington State. Four examples..... **pugetanus** n. sp.

Color black, feebly ænescent above, the elytra more brightly æneous; size smaller than in the two preceding; head relatively large, barely at all narrower than the prothorax, at least in the male, not quite as long as wide, the eyes moderately large and distinctly prominent; front nearly smooth, with some close strigilate rugulæ toward the sides; antennæ rather more than half as long as the body; prothorax short, three-fifths wider than long, widest at apical third, where the sides are strongly rounded, thence very oblique posteriorly, becoming almost straight and parallel near the angles, which are right and

sharply defined; surface finely and sparsely sculptured, more closely at apex and base, the impressions evident, the stria deeply impressed; elytra shorter, about a fourth longer than wide, oblong and somewhat depressed, with but feebly arcuate parallel sides, about one-half wider than the prothorax, the striæ deeply sulciform internally; fine and feeble externally; dorsal punctures as usual. Length 2.7 mm.; width 1.1 mm. California (Humboldt Co. and Sta. Rosa).

Two examples. . . . . *liratus* n. sp.

A—Almost similar to *liratus* but with the prothorax much narrower, only about a third wider than long; head rather longer than wide, about as wide as the prothorax, the eyes a little smaller and less prominent; surface of the anterior parts almost similar in the general feeble sculpture but still more shining. Length 2.65 mm.; width 1.05 mm. California (San Diego). A single male, taken by the writer. . . . . *agitatus* n. subsp.

11—Body narrow, elongate and rather depressed, deep black and shining, without æneous lustre; head slightly elongate, almost as wide as the prothorax, with very moderate eyes, which are but slightly prominent, the surface smooth, with some sparse punctures anteriorly; antennæ slender, somewhat more than half as long as the body; prothorax short, three-fifths wider than long, widest near apical third, but with the inflated and extremely finely reflexed sides subcircularly rounded, becoming strongly convergent toward the abrupt constriction, the basal angles slightly less than right and very sharp; apex broadly and deeply sinuate, with sharp angles; surface finely, closely rugulose, strongly impressed at apex and base, the median stria fine and deep; elytra elongate, parallel, with but very feebly arcuate sides, fully one-half longer than wide, slightly more than one-half wider than the prothorax; striæ broadly sulciform, the dividing intervals somewhat acute; dorsal punctures rather strong, the first at three-sevenths, the second a little behind the middle, the third before apical fourth. Length 3.35 mm.; width 1.18 mm. California (Sta. Rosa). . . . . *constrictus* n. sp.

There is but very little diversification in anatomical characters suitable for taxonomic use in the species of this genus, which have to be determined therefore in large measure by general habitus, made up of coloration, form of the head, eyes and prothorax, depth of elytral striation and some other features; in many respects *constrictus* is widely distinct from any other species, and its isolation is confirmed by the three dorsal punctures of the elytra instead of the otherwise almost universal two. The species described by LeConte under the name *Dromius latens*, from the vicinity of the Mississippi River, I do not seem to have at present; it is said to resemble *subsulcatus*, but with the elytra less deeply striate, the striæ in fact almost indistinct, and it is of a reddish-æneous tint,



nearly as in *fuscipennis*. This genus is very poorly represented by a single species, and perhaps a few subspecies, in the European fauna.

***Dinodromius* n. gen.**

The numerous European species of *Dromius*, apportioned among a number of subgenera, are notably small, slender insects, the prothorax sometimes apparently longer than wide, and, on the ground of habitus at least, the comparatively large, broader American forms allied to *piceus*, ought to form a different genus, a name for which is suggested above. The bottom of the mental sinus has a rapidly declivous short coriaceous extension, the chitinous edge adjoining having at the middle an excessively short, transverse and deeply emarginate tooth, which is wholly invisible except under high amplification. The palpi are notably stout, the fourth joint rapidly pointed at tip. The ligula is large and greatly expanded, evenly convex and smooth. The prosternum is notably narrow and strongly convex between the coxæ, and the head is broadly rhomboidal, with long converging tempora.

The species described by LeConte under the name *Dromius atriceps*, seems to differ greatly from the others, because of its small size and slender outline, and it may be that this is a true *Dromius*; I have seen no example and therefore cannot allude to it in greater detail.

The species of *Dinodromius* at hand are the following:

Prothorax short and transverse. Piceous, shining, elongate and feebly convex, the head somewhat more dusky; under surface and legs pale, the abdomen a little darker; head not quite as long as wide, with well developed, prominent eyes, the rapidly converging, and feebly, evenly arcuate tempora about as long as the eyes; front smooth, with a few strong longitudinal plicæ at the sides, except behind the limits of the eyes; labrum transverse, broadly arcuate at tip; antennæ slender, pale, almost half as long as the body; prothorax fully three-fifths wider than long, widest before the middle but with the sides broadly rounded, feebly sinuate at base, broadly reflexed and diaphanous, the basal angles obtuse and rather blunt; base rounded at the sides, wider than the feebly sinuate apex; surface very smooth, with distant transverse rugulæ, the impressions obsolete, the median stria fine and feeble; elytra oblong, parallel, very feebly inflated behind, two-thirds longer than wide, nearly one-half wider than the prothorax, transversely truncate, with rounded external angle; striæ fine, feeble and some-

- what comminuted, the intervals flat. Length 6.0 mm.; width 2.4 mm. California (Lake Co.),—Fuchs.....**quadricollis** Lec.
- Prothorax as long as wide or very nearly.....2
- 2—Body larger than in the preceding, moderately convex, shining, castaneous, piceous beneath, with the legs testaceous; head rather longer than wide, three-fourths as wide as the prothorax, the eyes rather well developed but much less prominent than in the preceding, the long converging tempora nearly straight; front as in the preceding but with the lateral plicæ more numerous; antennæ fuscous, clearer basally, distinctly less than half as long as the body; prothorax in general outline and broadly reflexed diaphanous side-margins, nearly as in the preceding, the transverse rugulæ rather closer and more numerous; median stria fine, biabbreviated; apex much narrower than the base, more deeply sinuate than in *quadricollis*; basal foveæ similar, smooth, at lateral fifth; elytra nearly as in *quadricollis* in outline but four-fifths wider than the prothorax, and with the fine and slightly uneven striæ rather deeply impressed, the intervals broadly convex, not perfectly flat as in the preceding; dorsal punctures not evident. Length 6.6–7.8 mm.; width 2.35–2.8 mm. Maryland and Lake Superior (Marquette and Bayfield). Eight examples.....**piceus** Dej.
- Body smaller and narrower than in the preceding, castaneous, the under surface and legs paler, polished, the elytra more strongly micro-reticulate than in *piceus*; head four-fifths as wide as the prothorax, shorter, as wide as long, but otherwise similar, the eyes more prominent; antennæ testaceous, slender, a little less than half as long as the body; prothorax shorter, a fourth wider than long, otherwise nearly similar, except that the sides are more oblique posteriorly; margins broadly, subequally reflexed throughout and diaphanous; elytra similar in general outline but only three-fifths wider than the prothorax, the striæ differing in being broadly and feebly impressed and obtuse, the intervals very feebly convex, the dorsal punctures not observable and probably wanting in the genus. Length 6.0 mm.; width 2.1 mm. Mexico (Colonia Garcia, Sierra Madre Mts. Chihuahua),—Townsend.....\***chihuahua** n. sp.

I am unable to understand on what ground *quadricollis* has been placed as a variety of *piceus*; it is altogether distinct in its shorter head, more prominent eyes, transverse and relatively much broader prothorax, feeble striæ, perfectly flat intervals, smaller size and many other characters. It is not advisable to give the name *quadricollis*, unless the prothorax approximates a square, which is not by any means the case in this species. I am unable to discover any clear trace of dorsal punctures on the elytra, which is another obvious distinguishing feature of this genus.

**Pinacodera** Schm.

This genus is distinguished from *Cymindis* primarily by the glabrous upper surface of the tarsi and well developed wings, and, in a subordinate but externally more striking sense, by the much less strongly sculptured pronotum and head. There are some characters recalling the preceding genus, *Dinodromius*, such as the general form of the prothorax, with widely reflexed translucent side margins, and the longitudinal plicæ at the sides of the front; in fact *Dinodromius piceus* Dej., was originally described as a *Cymindis*, which is closely related to *Pinacodera* and undifferentiated therefrom by Dejean. In this genus the elytra have however two very distinct dorsal punctures. The species are rather numerous, those in my collection being distinguishable as follows:

- Strial intervals of the elytra with nearly similar sculpture throughout the width. . . . . 2
- Strial intervals alternating in character of sculpture, having each a single line of fine punctures, or, a narrow median stripe, in which these very small punctures are broadly confused in arrangement; surface glabrous, the apical thoracic angles with a few short setæ. . . . . 8
- 2—Elytra each with a definite and very constant humeral rufous spot; sculpture very fine and feeble. Body not very broad, feebly convex, shining throughout, the elytra not duller, piceous, the under surface and legs pale testaceous; pronotum and elytra pale at the sides, the former broadly; head elongate, three-fourths as wide as the prothorax, with large and prominent eyes, the surface smooth, with a few long plicæ laterally; antennæ slender, pale, fully half as long as the body; prothorax a third wider than long, widest barely before the middle, with almost evenly rounded and very broadly reflexed sides, the apical and basal angles broadly and evenly rounded, pale at apex and base, as well as the sides, smooth, feebly punctulate at apex and base, more strongly on the reflexed sides; transverse impressions distinct; median stria impressed, gradually fine posteriorly and greatly biabbreviated; elytra three-sevenths longer than wide, one-half wider than the prothorax, oblong, the truncature feebly sinuate; striæ moderate and slightly impressed, minutely punctulate, the intervals not quite flat, each with an approximately single row of very fine and scarcely definite punctures; dorsal punctures distinct, near the third stria, near two-fifths and three-fourths. Length 8.8–9.2 mm.; width 3.2–3.6 mm. Rhode Island to Illinois. Sixteen examples. . . . . **limbata** Dej.
- Elytra without a pale humeral area; surface similarly glabrous, except in *ampliata* and *ruficornis*. . . . . 3
- 3—Strial intervals of the elytra having each a single series of extremely minute punctures; basal thoracic angles subprominent at their tips. . . . . 4

- Strial intervals with strong punctures, forming more or less irregular single series; body deep black, polished, the thoracic angles obtuse, bluntly rounded at tip. Mexico. . . . . 6
- Strial intervals with moderate though very distinct punctures, confused in arrangement throughout the width of each; thoracic angles obtuse, bluntly rounded. . . . . 7
- 4—Elytra and the entire upper surface polished. Body rather small, piceous, diaphanously paler at the sides; under surface piceous, the legs testaceous; head nearly as in the preceding, the antennæ fuscous, clearer basally, slender, more than half as long as the body; prothorax as in the preceding but rather shorter, two-fifths wider than long, less rounded at the sides behind the middle and with the basal angles not broadly rounded but very obtuse, with the tips evident and barely even blunt, there being often a short and very faint sinus in front of them; median line broadly, deeply and evenly impressed, attaining the base and very nearly the apex; elytra oblong, nearly similar in outline but with more arcuate sides and more broadly rounded external angle at apex, two-thirds wider than the prothorax, the striæ rather deeply impressed, minutely but clearly, closely punctulate; intervals not quite flat, the punctules of the series widely spaced and extremely fine and feeble; dorsal punctures coarse, at one-third and three-fourths. Length 7.8 mm.: width 3.1 mm. Canada (Ontario), Pennsylvania and Rhode Island. . . . . **fuscata** Dej.
- Elytra alutaceous or opaculate, the micro-reticulation distinct; remainder of the surface above and below polished; basal thoracic angles prominent, with very sharp tips. . . . . 5
- 5—Color pale rufo-testaceous, the elytra nearly black, nubilously reddish toward base, the abdomen black posteriorly; legs obscure rufous, the femora flavescent; head more than three-fourths as wide as the prothorax, elongate, with prominent eyes, the surface sparsely punctulate, uneven antero-laterally, the anterior superciliary puncture very coarse; antennæ fusco-testaceous, slightly longer than the head and prothorax, the latter three-sevenths wider than long, widest before the middle, with broadly rounded sides, becoming oblique behind and broadly, strongly reflexed, a little less broadly at apex; base broadly arcuate, abruptly less so at the sides; surface with some feeble transverse rugulosity, minutely, sparsely punctulate, more distinctly and less sparsely peripherally; base distinctly depressed; anterior impression almost obsolete; median line deeply impressed, greatly biabbreviated; elytra somewhat over one-half longer than wide, oblong, with arcuate and strongly reflexed, diaphanously rufous sides, three-fifths wider than the prothorax, the apical truncature oblique, in part sinuate, with broadly rounded external angle; striæ fine, even, shallow, minutely, strongly and closely punctulate; intervals flat or alternately feebly convex, each with a single series of extremely fine, feeble, widely separated punctures; two dorsal punctures small, at three-sevenths and three-

fourths. Length 10.3-10.8 mm.; width 3.9-4.0 mm. Arizona (Douglas, Cochise Co.),—Snow. [*Cymindis blanda* Csy.]

**blanda** Csy.

Color and lustre as in the preceding, except that the elytra are only slightly darker than the anterior parts and piceous-brown, smaller in size; head similar, the punctulation more minute, the lateral rugosity and plicæ distinct; antennæ rufo-fuscous, not very slender and obviously less than half as long as the body; prothorax not quite so broad or transverse, the rounded sides broadly and equally reflexed throughout the length, less oblique posteriorly than in *blanda*, broadly arcuate; median part of the base more thickly margined; surface nearly similar, except that the anterior impression is deep medially; median groove greatly biabbreviated, the basal deplanate depression more punctate and in part longitudinally plicate; elytra as in the preceding in outline but two-thirds wider than the prothorax, the sides more arcuate posteriorly; apex similar, except that the external angles are much less broadly rounded; striæ fine and feebly impressed, closely punctulate, the intervals slightly convex, flatter behind, similarly very minutely punctulate in single loose series, the outer side of the seventh series finely carinulate; dorsal punctures almost similar though still smaller. Length 9.7 mm.; width 3.7 mm. Arizona (Tucson),—Tucker.....**subcarinata** n. sp.

6—Form more abbreviated than in the two preceding, intensely black and polished, the legs and tarsi deep black; head fully four-fifths as wide as the prothorax, with very prominent eyes, the surface feebly, sparsely subrugulose and sparsely, finely punctulate, with a few long plicæ at the sides; palpi piceous, pale at apex; antennæ dark brown, the first four joints blackish-piceous, more than half as long as the body; prothorax a third wider than long, widest near apical third, the sides oblique and nearly straight from the rounded anterior part to the base and widely, equally reflexed; base arcuate and beaded medially; impressions broad and very feeble, the base not deplanately depressed; surface nearly smooth, sparsely punctulate peripherally; median stria fine, almost entire; elytra inflated posteriorly, a third longer than wide, three-fifths wider than the prothorax, the striæ rather deeply impressed, not very fine and closely punctate; intervals convex, the punctures of the series strong and widely spaced. Length 9.7 mm.; width 3.5 mm. Mexico (Tres Marias, Morelos),—Wickham. [*Cymindis atrolucens* Csy.].....**\*atrolucens** Csy.

Form and coloration nearly as in the preceding but with smaller head and more abbreviated elytra, the legs black, with dark rufous tarsi; surface not glabrous as in the preceding, each puncture bearing a short erect hair; head smoother but with more plication laterally; eyes much less prominent; antennæ relatively not so long, though fully half as long as the body, dark rufous or brownish-rufous throughout, clearer at base; prothorax nearly similar but smoother, less punctate peripherally; elytra not so inflated posteriorly, subparallel, with broadly arcuate sides; striation and interstitial punc-

- tures almost similar, the intervals flatter; dorsal punctures similarly two in number at the third stria. Length 10.2–11.0 mm.; width 3.65–4.2 mm. Mexico (Guerrero),—Baron. . . . . **\*ruficornis** Bates
- 7—Body large and unusually broad, moderately convex, shining throughout, rufo-piceous, the pronotum paler at apex and base and broadly, diaphanously so at the sides, the elytra black throughout, the reflexed margin testaceous; under surface and legs pale rufous, the abdomen black at the sides and apex; dorsal punctures throughout bearing each a very short erect hair; head elongate, more than two-thirds as wide as the prothorax, the eyes only moderately prominent; surface with fine sparse punctures, smooth medially, with a few long plicæ antero-laterally; left mandible rather abruptly bent at the middle; antennæ dark brown, more rufous basally, a little longer than the head and prothorax, the latter large, two-fifths wider than long, widest slightly before the middle, the sides arcuate, somewhat more converging gradually behind, very broadly and equally reflexed throughout; impressions both feeble but rather evident, the median line fine, widely biabbreviated; surface with very fine sparse punctulation, becoming gradually coarser and closer peripherally; broadly arcuate median lobe of the base strongly beaded; elytra oblong, feebly inflated behind, nearly one-half longer than wide, two-thirds wider than the prothorax, the rather oblique truncature broadly sinuate medially, the bead rufous, the external angles very broadly rounded; striæ rather fine, minutely, closely punctulate; intervals feebly convex, the punctures rather fine and sparse but conspicuous, the dorsal punctures distinct, near two-fifths, adjoining, and at four-fifths, separated from, the third stria. Length 11.8 mm.; width 4.7 mm. Colorado. [*Cymindis planipennis* Csy. nec Lec.] . . . . . **ampliata** n. sp.
- 8—Setigerous dorsal punctures of the elytra irregular, about three in number on the third interval, about two on the fifth, appearing among the other smaller punctures of the single series on the third, fifth and seventh intervals. Body rather depressed, shining, the elytra alutaceous, rufous in color, the elytra dark brown, with pale margins; femora more flavate, the abdominal tip somewhat dark; head elongate, distinctly narrower than the prothorax, having well developed and somewhat prominent eyes; surface smooth, finely punctulate basally and having numerous plicæ toward the sides; antennæ rufous, nearly half as long as the body; prothorax less than a fifth wider than long, the broadly arcuate and widely, equally reflexed sides becoming oblique only well behind the middle, the angles obtuse but rather sharply defined, subprominent at tip; base obliquely rounded at the sides; apex sinuate, with very broadly rounded angles; impressions feeble, the stria very fine, subentire; surface smooth, finely punctulate peripherally; elytra almost one-half longer than wide, nearly four-fifths wider than the prothorax, the striæ very fine and extremely finely punctulate; intervals alternately flat with very minute confused punctures along the middle, and feebly convex with a single series of minute but more distinct and well spaced punctures, including some larger and

- bearing short setæ. Length 10.0–11.5 mm.; width 3.85–4.4 mm. North Carolina (Southern Pines),—Manec. [*Cymindis complanata* Dej., and *russata* Newm.].....**platicollis** Say
- Setigerous dorsal punctures definitely two in number, as usual in the genus.....9
- 9—Elytra short, not over a third longer than wide. Color piceous; sides of the pronotum widely, and of the elytra more narrowly, pale rufous; under surface rufo-piceous; legs bright flavo-rufous, the epipleura pale flavate; head moderate, scarcely more than two-thirds as wide as the prothorax, with somewhat prominent eyes; surface very smooth throughout, plicatulate antero-laterally; antennæ slender, rufous, three-sevenths as long as the body; prothorax a third wider than long, widest before the middle, the sides broadly rounded, widely and evenly reflexed, oblique and straighter in about basal half, the hind angles obtuse, with the tips rather well defined, though not sharp, and very slightly prominent; surface with some transverse rugulæ medially, smooth, feebly punctulate at the sides but less distinctly at apex and base, the anterior impression obtuse but visible; basal impression deep, transverse, interrupted at the middle; median stria fine, biabbreviated; elytra three-fourths wider than the prothorax, the external apical angles very broadly rounded; striæ rather deep, moderately fine, very minutely and closely but clearly punctulate; intervals not quite flat, alternating but slightly; fine punctures of the single series feeble, equal; dorsal punctures coarse, at the third stria, just before the middle and at apical fourth or fifth. Length 9.0 mm.; width 3.65 mm. Colorado. Levette collection.....**abbreviata** n. sp.
- Elytra more elongate, subparallel, barely at all wider posteriorly.....10
- 10—Surface moderately convex, polished, the elytra feebly alutaceous, blackish-piceous, the elytra black, the reflexed margins of pronotum and elytra diaphanously pale; under surface black, piceous anteriorly; legs and epipleura dark rufous, the femora more flavate; head elongate, nearly three-fourths as wide as the prothorax, with large and rather prominent eyes; surface very smooth, with some punctulation and very few plicæ antero-laterally; antennæ dark rufous, fully two-fifths as long as the body; prothorax transverse, fully a third wider than long, widest a little before the middle, with broadly and subevenly arcuate, broadly, equally reflexed sides, gradually a little more converging basally, the hind angles obtuse, with the tips bluntly subprominent; base broadly, feebly lobed, obliquely feebly arcuate laterally; apex sinuate, with broadly rounded angles which bear a small cluster of setæ; basal impression large, continued anteriorly, sparsely punctulate, narrowly interrupted at the middle; impressions subobsolete; median stria fine, subentire; surface nearly smooth, punctulate peripherally; elytra one-half longer than wide, three-fourths wider than the prothorax, with very broadly rounded external angles at apex; striæ fine, closely micro-punctulate; intervals not quite flat; line of confused minute punctures of the wider intervals narrow, occupying less than median third; dorsal punctures at two and four fifths. Length

10.8 mm.; width 3.85 mm. North Carolina (Southern Pines),—  
 Manee. . . . . **obscura** n. sp.  
 Surface less convex, polished throughout; form more abbreviated, dark  
 rufous, the translucent pronotal sides a little paler; elytra black,  
 with the reflexed margins rufous; under surface and legs paler,  
 rufous, the abdomen gradually darker posteriorly; head barely  
 longer than wide, three-fourths as wide as the prothorax, smooth,  
 plicatulate laterally throughout the length, the eyes very prominent;  
 antennæ obscure rufous, slender, two-fifths as long as the body;  
 prothorax transverse, two-fifths wider than long, widest slightly  
 before the middle, the sides rather strongly, subevenly arcuate  
 and broadly, evenly reflexed, the basal angles very obtusely sub-  
 prominent at tip; base with broad feeble median lobe, slightly  
 oblique and arcuate at the sides; apex sinuate, with broadly rounded  
 angles, bearing each a few setæ; surface smooth though with some  
 feeble transverse rugulæ; anterior impression feebly evident at the  
 middle; basal impression interrupted at the middle; median stria  
 fine, subentire; reflexed margins sparsely, the base and apex less  
 distinctly, sparsely, punctulate; elytra oblong, parallel, scarcely  
 one-half longer than wide, three-fifths wider than the prothorax;  
 acute basal margin sinuate medially and very broadly rounded  
 laterally as usual; striæ fine, very minutely punctulate; intervals  
 not quite flat, the punctuation nearly as in the preceding, all the  
 punctures feebler however and barely observable; dorsal punctures  
 strong, on the third stria, at two and four fifths. Length 9.3 mm.;  
 width 3.5 mm. Florida. A single example from an unrecorded  
 locality. . . . . **atripennis** n. sp.

The species described by LeConte as *punctigera*, from near Yuma, Arizona, is allied to *blanda* and *subcarinata*, but, according to the statements of Horn, differs from either in having the impressed median line of the pronotum continuous from base to apex. *Atrolucens* I thought at one time might be one of the varietal forms of *atrata* Chev., but on reading Chevrolat's description more carefully, it would appear to be specifically different, *atrata* being 11 mm. in length and having rufous tarsi.

In the case of *ampliata*, described above, I too hastily assumed it to be identical with *planipennis* of LeConte, but the description of that author, although indicating a species about as large in size and therefore not invalidating my remarks regarding *brevipennis* Zimm., seems to show that *Cymindis planipennis* is a different species from *Pinacodera ampliata*. The elytra in the former are said to be subopaque, darker in color posteriorly and with impunctate striæ, and the pronotum deeply impressed at base; it is from New Mexico, and, as the differences between *Cymindis* and



*Pinacodera* were well known at that time, it is probably a true *Cymindis* as described. In *ampliata* the upper surface of the tarsi is glabrous and canaliculate along the middle, this depression not being discoverable in the other species; the sculpture and hairs of the striae intervals also render it quite isolated in the genus.

The species *fuscicollis* and *laevigata* of Motschulsky, the latter at least being from Mobile, I have not seen, and can therefore form no estimate of their systematic position; they are said to be identical with *limbata* by Horn, but this is altogether improbable, *limbata* being a northern species and peculiarly marked. I have also been unable to examine any representatives of *semisulcata* and *sulcipennis* of Horn, from Lower California. *Platicollis* is very peculiar in the greater number of dorsal setigerous punctures of the elytra and their extension to other intervals than the third; as Dejean is careful to mention three dorsal punctures, and his description accords otherwise, there is barely a doubt that the *complanata* of that author is the same species; the synonymy of *russata* is, however, taken from Horn and may or may not be correct.

#### Cymindis Latr.

This genus is closely allied to *Pinacodera* but, besides differing in the hairy upper surface of the tarsi, the form of body is more slender as a rule, the sculpture deeper, coarser and more conspicuous and the pubescence more abundant and coarser, giving to the species a different and characteristic habitus. Several of the special features noted under the preceding genus can also be observed here, for example, the small cluster of setæ at the apical angles of the prothorax and the irregular setigerous dorsal punctures of the elytra—very rare in *Pinacodera* but noticeable in *platicollis*. The revision of the genus given by the writer a few years ago (Mem. Col., IV, p. 177) is to be modified by the removal of *atrolucens*, *blanda* and *planipennis* Csy. nec Lec. (*Pinacodera ampliata* Csy.), to form part of the genus *Pinacodera*, and the addition of the three following:

\* *Cymindis agitata* n. sp.—Moderately\* convex and ventricose, polished throughout, piceous-black, the elytra black, with the reflexed margin pale, the pronotum also diaphanously pale at the sides; under surface rufo-piceous, the abdomen black at the sides and apex—a form of coloration generally visible in *Pinacodera*, the legs rufous; head four-fifths

as wide as the prothorax, with numerous coarse deep punctures, smoother antero-medially, the antero-lateral plicæ distinct; eyes moderate, prominent; antennæ piceous, rufous basally, nearly half as long as the body; prothorax not quite a third wider than long, widest near apical third, the sides rounded, oblique posteriorly, the hind angles minutely prominent, not very broadly but strongly reflexed throughout; base slightly oblique and arcuate at the sides, as wide as the apex to slightly narrower, the apex broadly sinuate, with rounded angles; punctures moderate, deep, sparse, especially centrad, the fine impressed stria greatly bi-abbreviated; elytra about two-fifths longer than wide, subparallel, with broadly arcuate sides, one-half wider than the prothorax; striæ moderately coarse, deep, closely punctulate; intervals flat, each with a single rather uneven series of well spaced, moderate punctures, which are a little coarser than those of the striæ. Length 10.0–11.3 mm.; width 3.5–3.9 mm. Mexico (Colonia Garcia, Chihuahua),—Townsend. Three examples.

A comparison of the series of three specimens with four of the species which I identified as *uniseriata* Bates, shows that *agitata* is much larger in size, with relatively broader head and prothorax and less coarse and somewhat shallower elytral striæ; the prothorax is larger and rather more transverse. The dimensions of *uniseriata* Bates (Csy.) are 8.2–9.6 by 2.9–3.2 mm. The length given by Bates is 9 mm.

*Cymindis directa* n. sp.—Oblong, moderately convex, shining throughout and with short sparse coarse erect pale hairs, pale rufous, the elytra piceous, with the reflexed margins rufous, and each with a pale basal spot, involving intervals five to seven in basal fourth; under surface rufous, the entire hind body and legs flavate; head large, four-fifths as wide as the prothorax, with prominent eyes, having moderately coarse deep and well separated punctures, broadly almost wanting anteriorly, the antero-lateral plicæ few and feeble; antennæ slender, testaceous, more than half as long as the body; prothorax large, transverse, almost one-half wider than long, the sides broadly and moderately reflexed, parallel and feebly arcuate in about anterior half, rapidly oblique, becoming sinuate basally to the angles, which are right, with acute prominent tip; base broadly arcuate, very nearly as wide as the broadly sinuate apex having broadly rounded angles; surface more convex medially, coarsely, deeply, moderately closely punctate; elytra parallel, with virtually straight sides, one-half longer than wide, only a fourth wider than the prothorax, the tips arcuate, with broadly rounded external angle; striæ somewhat coarse, grooved, closely and strongly punctate; intervals flat, with confused and moderate punctures, much smaller than those of the striæ. Length 7.4 mm.; width 2.65 mm. Colorado (Akron),—Shantz.

This is an isolated species that could only be compared with *bipartita*, but differing in its larger, less basally narrowed prothorax,

though similarly having a series of about four long erect lateral setæ, in its more parallel elytra, with straight and not arcuate sides and a definite pale basal spot, and not gradually pale throughout in about basal fourth as in *bipartita*, and in its coarser striæ, with more close-set punctures; the humeral angles are much more rapidly rounded and the apices more evenly arcuate.

**Cymindis continens** n. sp.—Rather stout, subcuneate, moderately convex, shining, the elytra subopaque, black, the pronotal sides not paler; elytra narrowly rufescent at the sides and each with a large and well defined red humeral spot, with arcuate inner margin and extending from the middle of the base to the external margin at about two-fifths; under surface black, the hind body medially and the legs rufous; pubescence stiff, erect and pale; head large, slightly elongate, only very little narrower than the prothorax, with prominent eyes; surface coarsely, deeply and closely punctate, smooth antero-medially; labrum, mandibles and palpi rufescent; antennæ long, slender, fusco-rufous, more than half as long as the body; prothorax large, as long as wide, the sides subparallel and broadly arcuate, becoming rather rapidly sinuate basally, narrowly but abruptly reflexed, the angles prominent, rather sharp and much more widely and very strongly reflexed; base feebly arcuate laterally, slightly narrower than the apex, which is feebly sinuate, with moderately rounded angles; surface coarsely, very deeply and rather closely punctate throughout, the median line broadly impressed, very fine at the bottom, greatly biabbreviated; elytra nearly one-half longer than wide, two-thirds to three-fourths wider than the prothorax, moderately inflated behind, the apices rounded, oblique, more strongly rounded internally; striæ deep, very closely punctate, the intervals very slightly convex, with the punctures confused, moderately close, deep and about as large as those of the striæ. Length 10.5–11.4 mm.; width 3.9–4.2 mm. Colorado (locality unrecorded in the Levette collection). Two female examples.

Allied to the eastern *venator* and *americana* of Dejean, but shorter and relatively broader in build, the elytral interstitial punctures less close-set than in the former and the body larger and much broader than in *americana*, the head and prothorax larger, the elytra broader and with flatter intervals.

Since my last revision was published I have received three examples under the name *Cymindis elegans* Lec., from Löding and Manee—two from Mobile and one from Southern Pines, North Carolina. The strial intervals have each a regular series of punctures, which are much smaller than those of the striæ. The specimens from Mobile represent however a subspecies. The language of LeConte in describing *elegans* is: "Elytra brunneo-marginata,

margine ad humerum indistincte dilatato." This satisfies the form from North Carolina very well, where the humeral red spot extends only to between the fourth and fifth striæ. The variety from Mobile may be characterized as follows:

*Cymindis elegans* ssp. *mobilensis* nov.—Similar in form, size and coloration to *elegans* Lec., except that the base of the elytra is rufous from side to side; pale side margins of the prothorax not quite so wide; outer side of the sixth stria interval toward base more definitely carinate; erect pubescence of the upper surface similarly sparse but notably longer, especially on the elytra. Length 9.8–10.5 mm.; width 3.3–3.7 mm. Alabama (Mobile).

The elytra in *mobilensis* are narrower and more elongate-oval than in *elegans*.

#### *Lecalida* n. gen.

In this genus, which is allied to *Calleida* in many characters, the general form, coloration and habitus of the body much more closely resembles *Platynus* than *Calleida*. There is no trace of metallic coloration, and the basally narrowed prothorax, with broadly reflexed side margins, is quite unlike anything observable in the latter genus. The mentum tooth is long and well developed, the maxillary palpi slender and of normal structure, the last joint of the labial broadly securiform, especially in the male. The anterior tarsi of the male have the first three joints biserially squamulose beneath, the lobes of the fourth joint finely spongy; the middle tarsi are simply hairy beneath, the first joint canaliculate except apically. On the dorsal surface the tarsal joints are coarsely canaliculate along the median line. The claws are well developed and are closely fimbriate beneath. The type of the genus is the following:

*Lecalida pimalis* n. sp.—Form elongate, moderately convex, shining, glabrous, the elytra micro-reticulate but almost as shining as the anterior parts, which are pale rufous, the elytra piceous, with rufous reflexed margins; under surface and legs rufous, the abdomen in great part more obscure; head fully three-fourths as wide as the prothorax, with very prominent eyes; surface smooth and impunctate, with a few feeble rugulæ subbasally and two or three long plicæ antero-laterally; mandibles short, thick, circularly arcuate externally; labrum arcuato-truncate, flat, one-half wider than long; antennæ slender, dark red-brown, two-fifths as long as the body; prothorax a fifth (♀) to sixth (♂) wider than long, widest before the middle, the sides circularly rounded, becoming broadly sinuate and parallel basally, the angles about right, sharp; margins broadly, strongly and equally reflexed; base barely as wide as the apex,

which is very feebly sinuate, with broadly rounded angles; basal foveæ distinct and shallowly prolonged; transverse impressions subobsolete; surface with well spaced and transverse rugulæ but in great part not evidently punctulate, feebly so peripherally; median line fine, broadly impressed, not attaining the base; elytra notably long, three-fourths longer than wide, feebly inflated behind, but little less than twice as wide as the prothorax, the apices rectilinearly truncate, with flat beading, the sides apically rapidly, arcuately converging; striæ fine, shallow, very minutely and closely but clearly punctulate; intervals distinctly convex (♂), or not quite flat (♀), and with extremely minute, sparsely scattered punctules; two dorsal punctures distinct, impressed, the anterior adjoining the third stria at two-fifths, the posterior not close to the stria and at apical fifth to sixth. Length 10.8–12.5 mm.; width 3.7–4.5 mm. Arizona (Tuçson),—Tucker. Seven specimens.

The last ventral segment is broadly arcuato-truncate at tip in both sexes, but there is only one setigerous puncture at each side in the male, two in the female. The following seems to be another allied species from the same locality:

*Lecalida nigrītula* n. sp.—Form and general characters nearly as in the preceding, but darker in color, the anterior parts piceous, the pronotum broadly and diaphanously pale at the sides; elytra black, with obscurely red reflexed margins; under surface piceous, the legs rufous; surface polished, the micro-reticulation of the elytra very fine and feeble; head a little larger, similarly elongate, nearly four-fifths as wide as the prothorax, almost as in the preceding species throughout, except that the eyes, though even larger, are notably less prominent; prothorax larger, more transverse, between a fourth and third wider than long, subsimilar in general features and with broadly, strongly reflexed margins, but with the sides less arcuate, very much less converging though similarly sinuate basally, the base much broader, wider than the apex; surface nearly similar; elytra still longer, four-fifths longer than wide, barely visibly swollen behind, only three-fourths wider than the prothorax, the apices similar; striæ not so fine, the close-set punctulation much more distinct; intervals broadly convex, flat posteriorly, minutely, sparsely punctulate, the impressed dorsal punctures almost similarly placed, the posterior axial on the interval and between apical fifth and sixth. Length 12.0 mm.; width 4.3 mm. Arizona (Tuçson),—Tucker. A single female example.

The fringe of the maxillary lobe is longer and denser in *pimalis* than in *nigrītula*, the apex of the lobe less abruptly and less obliquely hooked and the last joint of the flattened outer lobe is a little longer. The last antennal joint in *pimalis* much more notably exceeds the tenth joint in length than in *nigrītula*. In the latter the elytra are more nearly parallel than in *pimalis*.

The species described by Horn as *Calleida platynoides*, from Visalia, California, also belongs to this genus, but differs very much from either of the two preceding in the position of the posterior dorsal puncture of the elytra, which is said to be at apical third. The lateral thoracic margins are said to be "rather wide and slightly reflexed," which is not suggestive of the broadly and strongly reflexed margins of the two here described. It is further probable, from the language used and comparisons made, that *platynoides* is not so elongate as these species, having more the outline of *Anchomenus bicoloratus* G. & H. It is also highly probable that the *Calleida platynoides*, announced by Bates as occurring in northern Sonora, is one of the present two species and not the true Californian *platynoides*. The sides of the metasternum have some sparsely scattered punctures, extremely minute in *pimalis*, fine but more evident in *nigritula*.

#### Zacotus Lec.

In this remarkably isolated genus the body is slender and very convex, glabrous, shining, with basally constricted prothorax, thick antennæ and evenly rounded elytral tips, without trace of sinus. A small series of *matthewsi*, from Clackamas Co., Oregon, and Moscow, Idaho, seems to indicate that the female is somewhat more slender than the male, where the three basal joints of the anterior tarsi are well dilated. The following species, from southern Oregon, is decidedly more slender than *matthewsi*:

*Zacotus angustus* n. sp.—Very elongate, narrow and convex, moderately shining, with violet lustre, the under surface and legs deep shining black; head four-fifths as wide as the prothorax, with rather prominent eyes; surface very coarsely rugose, broadly, longitudinally biimpressed from apex nearly to the posterior line of the eyes; epistoma large, truncate, the suture distinct; mandibles small, hooked at tip; maxillary palpi stout, the last joint much longer and broader than the third, widest and truncate at apex; antennæ fuscous, thick, submoniliform, extending to about basal third of the prothorax, the joints after the third equal in length, two-thirds longer than wide and swollen at their apices, the last joint fusiform, pointed at tip; prothorax a fourth longer than wide, the sides broadly, subevenly arcuate and finely reflexed, the basal constriction abrupt, thence parallel to the obtuse angles; base evenly arcuate, narrower than the truncate apex having rounded angles; surface with strong and well spaced, transverse rugulæ; anterior transverse impression wanting, the posterior feeble, the median stria deep and impressed, greatly biabbreviated, the foveæ wanting; scutellum

extremely short and broad, confined entirely to the basal peduncle, not entering the elytra, the latter two and a third times as long as wide, a fourth or fifth wider than the prothorax, the sides parallel and almost evenly arcuate throughout, only a little more so at base; apex obtusely and evenly rounded; margins very finely reflexed; flanks with about five impressed submarginal punctures; striae rather fine, somewhat abruptly incised, not punctate; intervals flat, unevenly creased, without dorsal puncture; subscutellar puncture distinct, as far from base as suture and at the anterior end of the second stria, the short feeble and slightly oblique scutellar stria forming a subdetached basal part of the first stria and widely removed from the subscutellar puncture; side margin ending at the humeri, the base slightly depressed, not margined; anterior male tarsi moderately dilated, spongiose beneath; inner tibial tooth beyond the middle strong, bearing a long spiniform seta similar to the one at apex. Length ( $\sigma^7$ ) 14.0 mm.; width 4.2 mm. Oregon (Josephine Co.),—Nunenmacher.

Differs from *matthewsi* in its more slender form, violet and not cupreous-red color, longer cephalic impressions, shorter third palpal joint, more abruptly incised and less impressed elytral striae and many other features.

#### *Chlænium* Bon.

A considerable number of nondescript species have accumulated in my collection during recent years, which it seems worth while to make known at the present time as follows:

*Chlænium umbritarsis* n. sp.—Body of large size, nearly as in *erythropus* but stouter, black, feebly shining, the elytra olivaceous-black and opaque; under surface rather shining, deep black, the legs dark rufous, with piceous-black tarsi; head four-sevenths as wide as the prothorax, with prominent eyes, the surface coarsely punctate basally, except on the neck, and with feebler ruguliform punctures laterally; median part impunctate to the apex; impressions obsolete; palpi rufous, long, the third joint a third longer than the fourth; antennae long, slender, fusco-testaceous, each joint with a fine blackish carina; prothorax but little wider than long, widest at the middle, where the sides are rather rounded, thence converging and feebly arcuate to the apex, less converging and feebly sinuate posteriad, the angles obtuse and blunt at tip; base transversely sinuate medially, a third wider than the sinuato-truncate apex; margins rather narrowly reflexed throughout; surface flattened medially, coarsely punctate, more closely toward base, the stria greatly biabbreviated and very fine; foveae longitudinally impressed; elytra oblong, nearly one-half longer than wide, three-fourths wider than the prothorax, the parallel, very feebly arcuate sides rapidly rounding at base; subapical sinus long and very distinct; striae fine, finely, not closely punctate; intervals flat, finely, closely punctate; scutellar stria very long; under surface punctured throughout, very finely, rather sparsely and unevenly on the abdomen. Length ( $\varnothing$ ) 22.3 mm.; width 9.3 mm. Louisiana.

Allied to *fuscicornis* Dej., but with relatively smaller prothorax, less reflexed at the sides, especially toward base, and with the foveæ well outside of lateral fourth and not very near lateral fourth as in that species; it also differs in its rather longer elytra and less infusate antennæ; from *erythropus* it differs in its much broader form of body, blackish tarsi, relatively shorter third palpal joint and much more distinct subapical sinus of the elytra.

***Chlænium oblongipennis*** n. sp.—Body large, broad and only slightly convex, rather dull, the head shining, the elytra opaculate; under surface and legs nearly as in the preceding, but with the tarsi fusco-rufous; upper surface black, with faint purplish bloom, the head bright purplish-blue, nearly three-fifths as wide as the prothorax, with rather large prominent eyes; surface coarsely punctured subbasally and near the eyes, the anterior impressions short, broad and evident; antennæ slender, fusco-testaceous, the carina of each joint distinct; prothorax a fifth wider than long, much smaller than in *fuscicornis* but almost similar in outline and in the basally more reflexed side margins; surface somewhat concave medially, the punctures moderate and well separated, gradually becoming dense basally, the stria short, very fine; foveæ rather short, impressed and slightly outside of lateral fourth; elytra oblong, one-half longer than wide, fully two-thirds wider than the prothorax, the sides rapidly rounding at base, the subapical sinus long and very feeble; striæ rather fine, feebly impressed, finely, not closely punctate; intervals not quite flat, minutely and very closely punctate; anterior male tarsi with the first three joints widely dilated; under surface punctured nearly as in *erythropus* and *fuscicornis*. Length (♂) 21.5 mm.; width 9.0 mm. Florida (Lake Worth),—Kinzel.

This species is more closely related to *fuscicornis* than to *erythropus*, but the relatively small prothorax is, in proportion to the body, almost as in *erythropus* and relatively much smaller and narrower than in *fuscicornis*; the pronotal punctures are much smaller than in *erythropus* and are even feebler than in *fuscicornis*, the bright purplish-blue head forms a rather striking character.

***Chlænium regestus*** n. sp.—Rather stout and convex, somewhat shining, with opaque elytra, wholly bright sericeous green in color above, black beneath, the abdomen rufous at tip, the legs pale flavate, with rufous femora; head three-fifths as wide as the prothorax, with prominent, well developed eyes, the surface with some distinct punctures laterally, the anterior impressions short, broad and shallow; third palpal joint evidently longer than the fourth; antennæ slender, flavo-testaceous, extending somewhat behind the middle of the body; prothorax slightly more than a fourth wider than long, widest somewhat before the middle, but with very evenly arcuate sides to the subbasal sinus, thence parallel to the broadly rounded angles; base feebly bisinuate, wider than the



feebly sinuate apex; anterior transverse impression evident, the posterior obsolete, the short deep stria well impressed; punctures rather strong, close toward apex and more gradually so toward base, also rather close along the median line and toward the sides, elsewhere sparse; margins moderately reflexed; foveæ short, longitudinal, deeply impressed, remote from the base and near outer fifth; scutellum with sinuate sides and acute tip; elytra one-half longer than wide, nearly four-fifths wider than the prothorax, very faintly inflated posteriorly, the sides very rapidly rounded at base; apex rounded, with feeble sinus; striæ not much impressed but strongly punctate, the punctures very gradually smaller behind, traceable nearly to the apex; intervals nearly flat, very finely, rather closely punctate and briefly fulvo-pubescent; scutellar stria long and strongly punctate; under surface punctured throughout; tarsi infumate distally. Length (♀) 15.3 mm.; width 6.65 mm. Mississippi (Vicksburg).

Comparable only with *prasinus* Dej., but differing in its more abbreviated form, shorter antennæ, less transverse and latero-basally more sinuate prothorax, and more closely, much more finely punctate surface of the elytra, which also has finer, shorter and denser pubescence.

The species allied to *leucoscelis* have been greatly confused, but there seems to be but little need for the recorded uncertainties; *leucoscelis* was described from Mexico by Chevrolat, and a series in my collection taken at Tucson, Arizona, agrees perfectly with his description and also with that of *monachus* Lec. I regard this therefore as typical *leucoscelis*, with synonym *monachus*; it is moderate in size, indigo-blue in color, with slightly transverse prothorax, irregularly punctate, as usual in the group, and rather coarse impressed striæ, which are strongly punctate, the punctures obsolete behind about the middle. The species described by Kirby as *cordicollis* is strikingly distinct when observed in juxtaposed series; it is much larger, with broader elytra, having less impressed striæ, which are subequally punctured; it inhabits a climatically very different region in the north and east of the country. *San-antonialis* Csy., resembles *leucoscelis*, having similar indigo coloration and coarse, deeply impressed striæ, but the general form of the body is more abbreviated and the prothorax is shorter and more transverse, and *gilensis* Csy., is smaller, much narrower and more convex, with less impressed striæ and much finer and shorter pubescence. I believe these four are truly species, and I have to add here two more as follows:

**Chlænius sonomæ** n. sp.—Deep indigo-blue, the head generally green between the eyes; form rather stout, very moderately convex, dull in lustre, less dull anteriorly and throughout the black under surface, the legs pale rufous; head four-fifths as wide as the prothorax, with moderate, very prominent eyes; surface impunctate but somewhat creased, the anterior impressions shallow but evident; mandibles and labrum rufous; third palpal joint a little longer than the fourth, both much narrower than the second; antennæ slender, brown, the first three joints testaceous; prothorax only slightly wider than long, the rounded sides distinctly sinuate behind and parallel for some distance before the angles, which are right and sharp; base transverse, as wide as the apex; stria deep, broadly impressed; anterior impression feeble, with very few feeble punctures, these traceable feebly along the stria toward base, more visible but sparse basally, obsolete at the opaque sides; foveæ shallow, feebly punctate, traceable to the middle; scutellum black; elytra oblong, very feebly inflated posteriorly, the sides nearly straight, very rapidly rounded at the humeri, three-fifths longer than wide, almost twice as wide as the prothorax; apex rapidly rounded, the sinus shallow but distinct; striæ rather fine, not coarsely impressed, the punctures strong basally, very gradually fine though visible to the apex; intervals nearly flat, the fine punctures moderately close, simple, the hairs rather coarse; anterior male tarsi moderately dilated, the second joint exactly quadrate. Length (♂ ♀) 13.0–15.0 mm.; width 4.9–5.9 mm. California (north of San Francisco). Ten examples.

Differs from *leucoscelis* in its slightly larger size, broader form and larger head, very sharp basal thoracic angles, these being blunt at tip in *leucoscelis*, and in the finer, less impressed and more equally punctate elytral striæ.

**Chlænius recticollis** n. sp.—General characters as in others of the *leucoscelis* group; body narrower and more convex than in the preceding or *leucoscelis*, similar in the rather dull lustre, the upper surface not deep blue but green; legs rufous; head nearly similar but with much larger prominent eyes; surface impunctate, the anterior impressions nearly obsolete; third and fourth palpal joints equal in length; antennæ nearly similar; prothorax longer, about as long as wide, more parallel, the sides evenly but less strongly arcuate, becoming more gradually sinuate behind and parallel for some distance before the angles, which are right, with blunt tips; surface sculptured nearly as in the preceding, the foveæ shorter and feeble, the scattered basal punctures bearing much coarser and paler hairs; elytra parallel, broadly rounded at tip, three-fifths longer than wide, almost twice as wide as the prothorax; humeri rapidly rounded, less oblique at base than in *sonomæ*; striæ not much impressed, distinct and rather strongly punctate, the punctures gradually a little smaller posteriad though traceable easily to the tip; intervals finely, not very closely punctate and with notably coarse pale hairs; subapical sinus almost obsolete; apical half of the last ventral pale, broadly angulate at tip in the male. Length (♂) 13.0 mm.; width 5.25 mm. California (the locality unknown).

Narrower and rather more convex than in the preceding, the elytra parallel and not inflated behind, the latero-basal thoracic sinus shallower and the hind angles bluntly rounded at tip; the color also is green in great part and not indigo-blue. The larger eyes constitute a striking differential feature. The dimensions of *leucoscelis*, taken from ten specimens, are 12.8–13.5 by 4.8–5.7 mm.

The following species belongs near *vafer* Lec., but is more elongate:

***Chlænium pertinax*** n. sp.—Form elongate, moderately convex, very dull in lustre throughout above, excepting the polished and sculptureless head, which is dark green, the pronotum distinct, the elytra more obscure, olivaceous-green; under surface more shining, black, distinctly and rather closely punctate throughout, the legs pale rufous; head rather small, with very prominent eyes, four-sevenths as wide as the prothorax; anterior impressions obsolete; third palpal joint a little longer than the fourth; antennæ slender, brown, paler basally; prothorax but just visibly wider than long, widest at the middle, the sides broadly arcuate, becoming feebly sinuate at base, unusually finely reflexed, the angles more than right but very sharp; base slightly oblique at the sides, much wider than the apex; surface rather finely, not closely and subevenly punctate throughout, each puncture bearing a stout lustrous hair; transverse impressions wholly obsolete; median line deep, not impressed, biabbreviated; foveæ small, linear, feebly impressed; elytra two-thirds longer than wide, four-sevenths wider than the prothorax, the sides not very abruptly rounded at base, the sub-apical sinus feeble; margins very finely reflexed, rufescent; striæ fine but deep, finely punctate; intervals not quite flat, very finely, feebly and not densely punctate, the hairs small, fulvous; anterior male tarsi moderately dilated, the third joint barely visibly narrower than long. Length (♂) 11.7 mm.; width 4.8 mm. Florida (New Augustine).

Differs from *vafer*, found thus far only in Texas, in its narrower form, much less transverse prothorax, the sides of which are parallel for a short distance before the angles, and not converging to their tips as in *vafer*, and in the finer, less close-set punctures of the elytral surface; in *vafer* the third joint of the anterior male tarsi is relatively smaller, narrower and more elongate.

***Chlænium jacinto*** n. sp.—Elongate, but less so than in *tricolor*, the head and pronotum shining and bright cupreo-æneous, the elytra dull and purplish-indigo in color; under surface more shining, black, punctate, the abdomen very minutely; legs rufous; head elongate, barely more than half as wide as the prothorax, convex and nearly smooth, the anterior impressions small and punctiform; third and fourth palpal joints equal in length; antennæ slender, pale brown, clearer testaceous basally; prothorax between a third and fourth wider than long, parallel, the finely reflexed sides very evenly arcuate from apex to the basal

angles, which are obtuse though very sharply defined; base transverse, arcuate at each side, two-fifths wider than the distinctly sinuate apex; surface with moderate but deep, well separated punctures, gradually close toward base, the transverse impressions obsolete, the stria fine and short; foveæ deep, impressed, acute at the bottom, distant from the base and near outer fourth; elytra three-fifths longer than wide, two-fifths wider than the prothorax, parallel, with the arcuate sides only gradually more rounded basally, the subapical sinus rather short and distinct; striæ moderately fine, deeply incised, rather distantly and distinctly punctured basally, gradually impunctate posteriorly; intervals almost flat, minutely, not very densely punctulate, the hairs rather fine, gray; anterior male tarsi well dilated basally. Length ( $\sigma^7$   $\text{♀}$ ) 10.5–12.0 mm.; width 4.6–4.7 mm. California (southern) and Arizona. Six examples.

Allied to *tricolor* Dej., but shorter in build, the head more elongate and with less prominent eyes; it differs principally, however, in the structure of the anterior male tarsi, the basal joint in *tricolor* being longer than wide, the third narrow and distinctly elongate, while in *jacinto* the first three joints are more broadly dilated, the first very nearly as wide as long, the third subquadrate.

The following two species may be placed in the group typified by *pennsylvanicus* and *brevilabris*:

**Chlænium sedulus** n. sp.—Narrow and elongate, moderately convex, the head and pronotum shining æneous-green, the elytra rather dull, olivaceous-green; under surface rather shining, distinctly punctate throughout, black, the legs rufous; head four-sevenths as wide as the prothorax, with prominent eyes, the surface minutely, feebly sculptured and creased, impunctate, the anterior impressions small, punctiform; palpi slender, pale, the third joint subequal to the fourth; antennæ slender, black, the first three joints testaceous; prothorax a fourth wider than long, widest near the middle, the sides arcuate, more converging anteriorly, straight and feebly oblique posteriorly to the slightly more than right angles having scarcely blunt apices; fine reflexed margins rufous, still finer and black at apex; base slightly oblique at each side, much wider than the feebly sinuate apex; transverse impressions obsolete; stria fine, short, within a rather wide impression; foveæ short, fine, deep, linear, lying within a broad depression and distant from the base; punctures rather coarse, deep and close-set, somewhat less close subcentrally, except near the stria; elytra two-thirds longer than wide, two-fifths wider than the prothorax, the sides rather gradually rounded at base and evenly so to the thoracic angles, gradually rounded behind, the sinus rather short and distinct; striæ rather fine, feebly incised, finely punctured, smooth posteriorly; intervals flat, finely, not densely punctulate, the hairs moderate; anterior male tarsi moderately dilated, the first joint slightly oblique, as long as wide, the second slightly asymmetric and a little wider than long, the third subquadrate. Length ( $\sigma^7$ ) 10.8 mm.; width 4.3 mm. Texas (Amarillo),—H. L. Shantz.

This species may be allied to *flaccidus* Horn, but is evidently distinct, as there is no trace of a sinus before the thoracic angles, this being specially stated as distinct in *flaccidus*; it is more elongate and slender than *pennsylvanicus*, where the second joint of the anterior male tarsi is quadrate and exactly as wide as long, the third slightly elongate; in *pennsylvanicus*, also, there is a distinct sinus before the thoracic angles, and the elytral striæ are distinctly impressed.

**Chlænius blanditus** n. sp.—Body slightly smaller and more abbreviated than in *pennsylvanicus*, bright green throughout above and rather shining, the elytra not distinctly opaculate; under surface black, punctate, the legs testaceous; head nearly as in *pennsylvanicus* but shorter and a little broader, the antennæ subsimilar; prothorax a fourth wider than long, the sides parallel and evenly arcuate throughout, becoming just visibly sinuate near the basal angles, which are slightly more than right and narrowly blunt at tip; median line fine, lying within a broad and feeble depression, the impressions obsolete, the foveæ short, linear, deeply impressed; surface strongly punctate, closely toward base, rather loosely elsewhere; margins finely rufescent; base feebly bisinuate, a little wider than the apex; elytra barely more than one-half longer than wide, not one-half wider than the prothorax, in outline nearly as in *pennsylvanicus*, the striæ similar but almost impunctate, the intervals flatter, with strong and asperate close-set punctures, the hairs a little coarser, brighter fulvous; anterior male tarsi well dilated, the second joint wider than long, the third about as wide as long. Length (♂ ♀) 9.7–10.0 mm.; width 4.0–4.4 mm. Utah (Vineyard),—Tom Spalding. Three examples.

Allied to *pennsylvanicus* but with shorter form of body and much brighter green color above, also with broader anterior male tarsi, the second joint in *pennsylvanicus* being exactly as long as wide, quadrate, the third distinctly longer than wide; the prothorax is more transverse and widest at the middle, and not behind the middle as it is in *pennsylvanicus*; the elytral striæ have much finer punctures, sometimes almost invisible, and the interstitial punctures are still stronger, rather closer and more asperate. In *brevilabris* the anterior male tarsi are as in *pennsylvanicus*, the prothorax more nearly as in *blanditus*, and the interstitial punctures are finer and sparser than in either of these species; *brevilabris* is a little larger and broader, with relatively larger prothorax.

The following is appreciably distinct from *tomentosus*, but may be regarded as subordinate for the present; the body is much longer and narrower and the coloration is different:

**Chlænius tomentosus** ssp. **lacustrinus** nov.—Body narrow and elongate-oval, black above, with barely a trace of metallic lustre at any part; maxillary palpi as in *tomentosus*, stout, the third joint a little longer than the fourth, which is broadly truncate at tip; prothorax not so transverse, a fourth wider than long, the punctures similar in character but not so coarse and more close-set; elytra almost similar but relatively narrower and more elongate, the vestiture shorter, not so dense and less conspicuous; anterior male tarsi nearly similar. Length (♂) 12.8 mm.; width 5.0 mm. Lake Superior (Bayfield),—Wickham.

In *tomentosus* the upper surface of the body, which is more broadly oblong-oval, is of a well known pale though dullish coppery tinge, which is virtually altogether wanting in the narrower and more elongate *lacustrinus*.

**Chlænius punctipennis** n. sp.—Body nearly as in *purpuricollis* but notably broader, oblong-oval, rather convex, strongly shining throughout and deep black, without any sort of metallic lustre, except a feeble purplish tint toward the sides of the pronotum; legs and male tarsi deep black; head notably small, much less than half as wide as the prothorax, with rather prominent eyes, the surface smooth, with a few strong punctures toward the sides; maxillary palpi with the last joint elongate-oval, truncate; antennæ piceous-black, with rufous basal joint, nearly half as long as the body; prothorax a third wider than long, the sides feebly arcuate, converging almost from base to apex, finely reflexed, the basal angles right but rather blunt at tip; base transverse, nearly two-thirds wider than the deeply sinuate apex; surface with coarse punctures, close-set basally, along the median line and foveæ, sparser postero-laterad, elsewhere unevenly very remote; foveæ broadly impressed, not sharply linear, the median stria very fine; elytra oblong, rounded in about posterior third, parallel, with straight sides, exactly equal in width to the prothorax and nearly one-half longer than wide, the subapical sinus feeble; striæ fine, not deep but sharply defined, not punctate; intervals with rather coarse, close-set punctures, bearing short blackish hairs; scutellar stria not well defined; anterior male tarsi only moderately dilated. Length (♂) 9.8 mm.; width 4.1 mm. Washington State (Wildur),—Wade.

Allied to *purpuricollis* Rand., but much broader in form, without general metallic violaceous tint on the upper surface and with much coarser interstitial punctures of the elytra; the second anterior male tarsal joint is less transverse than in *purpuricollis*, and the under surface of the body is more coarsely punctate.

#### **Anomoglossus** Chd.

The following species is somewhat allied to *gravis* Csy., but has the body more abbreviated and more anteriorly narrowed:

**Anomoglossus semotus** n. sp.—Stout in form, bright green and shining, the elytra opaque and purplish-black, with a narrow marginal bluish line; under surface shining, black, coarsely punctate, the abdomen picescent, with pale apical margin and with less coarse though strong, irregularly distributed punctures; legs pale testaceous, slender; head three-fifths as wide as the prothorax, the eyes well developed but only very moderately convex, the mandibles notably long, obscure rufous, hooked at tip; surface sparsely punctate, smooth antero-medially, the anterior impressions small and punctiform; palpi long and slender, the third joint much longer than the fourth; antennæ slender, flavo-testaceous; prothorax a fifth or sixth wider than long, widest behind the middle, the sides thence feebly converging and slightly arcuate to the feebly sinuate apex and just visibly converging, nearly straight and a little more reflexed basally, the obtuse basal angles rounded at tip; base oblique at each side, a third wider than the apex; surface coarsely, closely punctate, the punctures basally not quite so coarse but denser; median stria distinct; foveæ linear and deep but broadly impressed, at outer fifth, distant from the base; elytra broad, oblong, one-half longer than wide, three-fifths wider than the prothorax, obtusely rounded at tip, with feeble sinus, the sides very gradually rounding at base to the thoracic angles; striæ not very coarse but deeply incised, with moderate punctures, very minute posteriad; intervals nearly flat, finely, not very closely punctate, the hairs pale, rather stiff. Length (♀) 13.5 mm.; width 5.7 mm. Florida (Lake Worth),—Kinzel.

Differs from *gravis* in the characters stated, also in the less deeply sinuate labrum, less convex eyes, smaller prothorax, shorter and relatively broader elytra, more slender femora and in other characters.

### III—SOME DESCRIPTIVE STUDIES AMONG THE AMERICAN BARINÆ

A recent survey of the Barid species in my collection reveals a very large number of undescribed forms, and, before finally arranging the entire material in a systematic way, it seems desirable to make these nondescripts known, so that future students of this great subdivision of the Curculionidæ may have, in a single collection, a large part of all the necessary typical data to aid in the identification of their American series.

The Barinæ are wonderfully developed in North and South America, and, counting even the many species hitherto described by Mr. Champion, the present writer and some others, it can be said very truthfully that these afford scarcely more than a prelude to the enormous total which will some day be known through systematic record. My Brazilian quota of the subfamily, taken for the most part by the late H. H. Smith, already includes almost 700 species, in great part still undescribed, and, in a future paper, it is my intention to publish descriptions of some of the more interesting of them.

The following descriptions embrace most of the new forms at present in my collection, but some of the latter, though apparently valid as species or subspecies, are omitted, because of lack of confirmatory material in those parts of certain genera where the species become especially numerous and closely interrelated.

#### Baris Germ.

Before making known a surprising number of new forms in this genus—more in fact than the entire number previously published—it is desirable to record a few corrections in my previous work (Ann. N. Y. Acad. VI, 1892, p. 460). Some of these have either been adopted or suspected by Blatchley and Leng.

As noted by the authors mentioned, the species recorded by me under the name *transversa* Say, is really the *interstitialis* of that author, of which *quadrata* and *carinulata* Lec., are synonyms or



accidental variations; it is widely distributed and abundant from central Texas to Iowa and eastward to, but apparently not across, the Appalachian system. The true *transversa* of Say, is the larger and more essentially western species named *strenua* by LeConte; of this, I think, there can be no question, as it agrees very well with Say's description in all of its structural characters, especially including size of the body. The Florida species *splendens* Csy., was formerly identified by Boheman and LeConte as *interstitialis* Say, but it agrees closely with the description of Say in scarcely any particular. *Baris subovalis* Lec., a large and conspicuous species, was formerly known to me only through the unique type from Wisconsin, but, as stated by the authors named above, it has since been taken by Manee at Southern Pines, North Carolina. I have made this identification only by means of published descriptions of *subovalis*, but possibly Blatchley and Leng may have compared the Manee specimens directly with the LeContean type. I now have an additional specimen of *subænea* Lec., taken on Coney Island; it is dark piceo-rufous in color, the legs usually somewhat more rufous.

The following eleven species belong to the *transversa* (*strenua*)—*striata* group of the genus, as defined in my revision. The Yucatan species identified by Mr. Champion as *strenua* Lec., differs rather conspicuously in its somewhat smaller size, relatively shorter and stouter outline and especially in the much coarser, less close-set pronotal punctures and coarser punctures of the more impressed interstitial series; it may be renamed **Baris championina** (new name for *strenua* Chmp., nec Lec.). *Transversa* (*strenua*) occurs rather abundantly from eastern Missouri to Arizona, being more southern and less eastern than *striata* Say, which is found less abundantly from Wisconsin to Arkansas and North Carolina.

**Baris montanica** n. sp.—Rather large, elongate, moderately stout, convex, black, the lustre and pubescence nearly as in *transversa*; legs black; beak differing but little in the sexes, strongly, not densely punctate, evenly and feebly arcuate and about three-fourths as long as the prothorax, the latter fully a third wider than long, the sides converging, nearly straight, becoming broadly, feebly arcuate anteriorly to the feeble but definite constriction at the apex; punctures coarse, deep, numerous, separated by a third to half their diameters, forming subcoalescent series toward the sides, the median line partially impunctate; scutellum transverse, impressed; elytra one-half longer than wide, a fourth or fifth

wider than the prothorax, the grooves coarse, rather deep, with small and well spaced punctures along the bottom, nowhere crenulate; intervals flat, generally a little wider than the grooves, each with a single series, generally scarcely impressed, of distinct punctures about half as wide as the intervals, each bearing a very small silvery seta; femora finely, sparsely punctate; abdomen strongly, rather closely punctate, the basal segment in the male with a longitudinal and broadly impressed line throughout the length, usually more acutely defined along the bottom. Length ( $\sigma^7$  ♀) 4.7–5.8 mm.; width 2.2–2.65 mm. Montana (Gallatin Valley). Six specimens.

Related to *transversa* but narrower and more elongate, with relatively smaller and shorter prothorax, only about half as long as the elytra and not three-fifths as in *transversa*. The prothorax is however larger and much less coarsely punctured than in *striata* Say.

**Baris coloradensis** n. sp.—A little smaller than *montanica* and rather stouter, though less so than in *transversa*; prothorax a little larger and less abbreviated than in *montanica*, but less developed than in *transversa*, being four-sevenths as long as the elytra; color deep black, more polished than in either of the species mentioned; beak more densely punctured than in *montanica*, less arcuate, about similarly elongated; prothorax a fourth wider than long, the sides feebly converging and more arcuate than in the preceding, gradually still a little more arcuate anteriorly to the apical constriction, which is very short; punctures not quite so coarse as in *montanica* and less close-set, frequently separated by nearly their diameters, the median impunctate line distinct but not entire; scutellum impressed, slightly transverse; elytra two-fifths longer than wide, only a fifth or sixth wider than the prothorax, the grooves deep, finely, remotely punctate along the bottom, the intervals distinctly wider than the grooves, with a subunimpressed series of punctures about half as wide as the intervals, each bearing a small pale shining seta; femora finely, loosely punctate; abdomen coarsely, closely punctate, the first segment of the male broadly and feebly impressed along the middle, not quite to the apex, the bottom of the impression not at all acutely defined. Length ( $\sigma^7$  ♀) 4.3–5.3 mm.; width 2.0–2.35 mm. Colorado. Two examples.

This species is allied to *montanica* but is rather smaller and still narrower, with relatively larger and less abbreviated, somewhat more coarsely and loosely punctured prothorax, more shining surface and more densely and coarsely cribrate abdomen.

**Baris subparilis** n. sp.—Form shorter and stouter than in either of the preceding, somewhat as in *transversa*, but with narrower though similarly long prothorax, black, rather shining, strongly convex; beak fully three-fourths as long as the prothorax, evidently arcuate, not densely punctate, having bristling hairs beneath; prothorax a fourth or fifth wider than long, distinctly narrower than the elytra, the sides

broadly, subequally arcuate, becoming gradually parallel basally, the apical constriction very short; punctures coarse, deep, usually separated by half their diameters, the distinct impunctate line not attaining base or apex; scutellum small, moderately impressed; elytra barely a third longer than wide, a fourth or fifth wider than the prothorax, subparabolic from the humeri around the apex; grooves coarse and deep, moderately punctured at the bottom; intervals not distinctly wider than the grooves, the second and third wider and closely, strongly punctate but not sulcate, the narrower intervals sulcate, the punctures moderate but very close, each with an erect bristling seta, longer than in the other species; abdomen with distinct lustrous pale setæ, rather strongly, somewhat closely punctate in the male, with a large impression extending almost to the end of the second segment and rather acutely defined along the bottom on the first segment. Length (♂) 5.1 mm.; width 2.4 mm. Montana. A single example.

Differs from *montanica* in its shorter, stouter form, relatively more inflated elytra, almost similarly coarse but looser pronotal punctures, with more polished interstices and relatively narrower striae intervals, which are coarsely and deeply sulcate.

\**Baris agricola* n. sp.—Form, size, coloration and lustre very nearly as in *transversa* (*strenua*), but a trifle narrower and more elongate, the beak similar but still more coarsely and densely punctate; prothorax large and of similar form, a fourth wider than long, the feebly converging sides gradually rounded anteriorly, the very short tubulation more definite; punctures very deep, a little coarser and still closer, more crowded, the partial smooth median line narrow and inconspicuous; scutellum short, transverse, deeply impressed; elytra a little less than one-half longer than wide, a fifth wider than the prothorax and three-fourths longer; grooves deep and coarse, punctate at the bottom, the intervals not wider than the grooves, excepting as a rule the slightly wider and confusedly punctate second and third, each of the narrow intervals with a more or less impressed series of close-set coarse punctures, about two-thirds as wide as the intervals, the punctures bearing small silvery-gray setæ; abdomen with close and rather coarse, deep punctures, the male with a deep basal concavity gradually disappearing on the second segment; pygidium convex, with rather coarse, close punctures. Length (♂ ♀) 4.8–6.0 mm.; width 2.2–2.7 mm. Mexico (Aguas Calientes, Ags.),—Wickham. Three examples.

A large species coming near *transversa*, but differing in the decidedly coarser and still closer punctures, more conspicuous basal impression of the abdomen, rather more convex pygidium and slightly less inflated form of the body. The Yucatan *championina* is smaller and shorter, with more rounded thoracic sides and much less closely placed coarse punctures.

**Baris humerosa** n. sp.—Body large, elongate, convex, deep black and moderately shining; beak arcuate, nearly four-fifths as long as the prothorax and strongly, rather closely punctate; prothorax large, nearly a third wider than long, the sides almost parallel, very rapidly rounded anteriorly to the distinctly tubuliform apex; basal lobe distinct, rounded; punctures coarse, separated by about a third of their diameters, dense laterally but not forming distinct lines; median smooth line short but evident; elytra two-fifths longer than wide, nearly a fourth wider than the prothorax and almost four-fifths longer; grooves coarse, moderately punctate; intervals all evidently wider than the grooves, flat, not at all sulcate, the punctures of the single series well separated, deep, slightly more than a third as wide as the intervals and bearing very small pale setæ; only the third interval is wider than the others and with more confused median series; pygidium densely punctate and with longer pale hairs; abdomen strongly but not very densely though closely punctate. Length (♀) 6.0 mm.; width 2.75 mm. Illinois. A single example.

In this species the prothorax has the same peculiarly shouldered form as in *gravida*, a still larger and stouter species of western Texas; the thoracic punctures are, however, much coarser and those of the strial intervals relatively somewhat smaller and less confused, the intervals being narrower, and the beak is more arcuate, both types being the female. In *humerosa* the apical tubulation of the prothorax is much more developed; the outline is more elongate than in *transversa* and the sculpture coarser.

**Baris satelles** n. sp.—Form short, stout and convex, subparallel, deep black, not very shining; beak only feebly arcuate, very nearly as long as the prothorax, strongly and densely punctate; antennæ rather short; prothorax about a fourth wider than long, the sides subparallel, gradually broadly rounding anteriorly to the very short and feeble constriction; basal lobe distinct, not broadly rounded; punctures moderately coarse, very dense throughout, forming partial lines, the median impunctate line narrow, partial and feeble; elytra short, a fourth longer than wide, a fifth or sixth wider than the prothorax and about three-fourths longer, parallel, rapidly very obtusely rounded at apex; grooves not very deep, closely punctate; intervals throughout a little wider than the grooves, the punctures very close, relatively rather coarse and forming impressed sulci, the setæ very short, pale; abdomen not very coarsely but densely punctate, the male with a moderate impression confined to the first segment; pygidium closely but discretely punctate. Length (♂) 3.9 mm.; width 2.0 mm. New Mexico (Jemez Springs),—Woodgate.

A very distinct species belonging to the *transversa* group but very much smaller and relatively even stouter than that species, with evidently less coarse and denser punctures.

**Baris formalis** n. sp.—Somewhat as in *transversa* but smaller and much narrower, black, the pronotum shining, the elytra less so, black,

the tarsi rufescent; beak more slender, feebly, evenly arcuate, not very strongly or densely punctate, three-fourths as long as the prothorax in the male; prothorax almost as long as wide, the broadly arcuate sides becoming straighter and parallel in about basal half, the apical tubulation obliterated; punctures somewhat coarse, deep, separated by half their diameters, denser laterally, the smooth median line narrow though not much abbreviated; elytra two-fifths longer than wide, two-thirds longer and a fifth wider than the prothorax, the humeri prominent, the sides behind them slightly converging; grooves coarse, deep, only a little narrower than the intervals, each of which has a single series of rather coarse deep and subcontiguous punctures, the series more or less sulciform, the third interval alone a little wider; setæ erect, yellowish-silvery, distinct; abdomen strongly and rather densely punctate, with a deep basal impression in the male extending half way through the second segment; legs piceous-black. Length ( $\sigma^7$ ) 4.5 mm.; width 2.0 mm. Texas.

This species belongs also near *transversa* but is smaller and much more slender, with the rather elongate prothorax more rapidly narrowing before the middle; the beak is more slender and the elytral series more sulciform; the abdominal impression is deeper and more conspicuous.

**Baris separata** n. sp.—Much smaller and narrower than *transversa*, with nearly similar coloration and lustre but with piceous-black legs and more shouldered prothorax; beak much shorter, only very feebly arcuate, scarcely three-fifths as long as the prothorax in the female and strongly, rather densely punctured; prothorax shorter, a fourth or fifth wider than long, the sides converging and nearly straight to about apical third, there rapidly rounding to the short and feebly tubuloid apex; punctures coarse, suboval, separated by half their diameters or less; median smooth line very short, feebly defined; elytra only a fourth longer than wide, two-thirds longer than the prothorax and a fifth wider, the humeral callus rather prominent, the sides feebly converging; grooves coarse, deep, rather distantly punctate, the intervals throughout only just visibly or scarcely wider than the grooves, each with an impressed sulcus of relatively coarse, subcontiguous punctures; setæ erect, distinct, yellowish-silvery; abdomen with the punctures very moderate in size and well separated, generally by nearly twice their diameters medio-basally. Length ( $\varphi$ ) 4.3 mm.; width 1.9 mm. Arizona (locality unrecorded). One specimen.

Smaller and much narrower than *transversa*, almost similar to *formalis* in outline, but with the prothorax distinctly different, the sides being more convergent from the base and more rapidly rounded nearer the apex; the beak is much shorter.

**Baris tuckeri** n. sp.—Form narrower and more elongate than usual in this group, convex, shining, deep black throughout the body and legs; T. L. Casey, Mem. Col. IX, Feb. 1920.

beak feebly arcuate, two-thirds as long as the prothorax and densely punctate, the depression separating it from the head well marked; prothorax rather more than a fourth wider than long, the sides subparallel and broadly arcuate nearly to apical third, there broadly rounding and converging to the obsolescent apical constriction; punctures medially moderate and distinctly separated, coarser and dense laterally, the median smooth line small and almost obliterated; basal lobe moderate but rather abrupt; elytra nearly one-half longer than wide, a fifth wider than the prothorax and four-fifths longer; grooves deep but only moderately coarse, finely punctate; intervals distinctly wider than the grooves, the punctures subcontiguous, rather coarse, forming very feebly impressed series, not so coarse and more confused on the wider third interval; setæ pale, glistening and very short; pygidium transversely oval, convex, moderately but very densely punctate; abdomen in the male shining but rather coarsely, closely punctate, with a moderately large but deep, unusually abrupt impression, not intruding distinctly upon the second segment. Length ( $\sigma^7$ ) 4.5 mm.; width 1.8 mm. Arizona (Tuçson),—J. F. Tucker. A single specimen.

An isolated species of the *transversa* group, much smaller and more slender than the latter and having a more parallel and laterally rounded prothorax than in any other; the humeral callus is moderate but rather abrupt and the sides are parallel, rounding in about posterior third; the elytra are relatively much more elongate than in the other species.

**Baris longulicollis** n. sp.—Elongate, convex, shining, black, the elytra and legs piceo-rufous; beak fully three-fourths as long as the prothorax in the male, feebly arcuate, not very closely punctate; prothorax large, very nearly as long as wide, the sides feebly converging from the base nearly to apical third and but just visibly arcuate, thence rounding and converging to the subobsolete apical constriction; punctures coarse, deep, somewhat close-set, being separated by nearly half their diameters, not coarser but close laterally, the smooth median line narrow and short; elytra two-fifths longer than wide, a sixth wider than the prothorax and only three-fifths longer, gradually rounding at the sides behind the middle, with the humeral callus very moderate in prominence; grooves moderately deep, very abrupt as usual; intervals rather evidently wider than the grooves, each with an entirely unimpressed single series of moderately coarse, close-set but separated punctures, the second and third broader and with confused punctures; pale setæ very small; male abdomen with moderate but deep punctures, separated medio-basally by rather more than their own diameters, and also with a shallow basal impression, not extending to the second segment and having the bottom line more acutely defined. Length ( $\sigma^7$ ) 5.2 mm.; width 2.25 mm. New Mexico (Las Vegas). A single example, taken by Mr. Meeske.

There is no other species of this group with which the present harmonizes very closely; it is narrower than *transversa* and differs in coloration, as well as in many other ways.

**Baris uinta** n. sp.—Small in size, rather stout, convex, somewhat shining though coarsely and densely sculptured, dark red-brown in color throughout; beak slightly arcuate, very nearly as long as the prothorax in both sexes, moderately and somewhat closely punctate; antennal club short and stout; prothorax rather more than a fourth wider than long, the sides nearly straight and parallel in about basal half, thence gradually rounding and converging to the subobsolete apical constriction; punctures coarse and very close-set, the median smooth area very small to obsolescent; elytra a third to two-fifths longer than wide, a fifth wider than the prothorax and four-fifths or more longer, parallel, rapidly and obtusely rounded at apex, the humeral callus rather feeble; grooves somewhat narrow, finely seriato-punctate, the intervals distinctly wider than the grooves, each with a single series of moderately coarse and rather close-set punctures, the third barely visibly wider than the others and similarly uniseriate; setæ very small, pale; abdomen rather strongly but not very closely or coarsely punctate, the male with a small feeble impression at the middle of the first suture. Length (♂ ♀) 2.7–3.2 mm.; width 1.2–1.4 mm. Utah (southwestern),—Weidt. Five specimens.

This species is altogether isolated, by far the smallest of the *transversa* group and recognizable also by the red-brown color and close sculpture.

The species named *Baris umbilicata* by LeConte, is rather abundant from the Hudson River Valley to North Carolina and westward to Iowa and Texas; it is rather short, stout and very convex, deep black, with notably long but feebly arcuate, densely sculptured beak, coarse pronotal punctures, separated by barely half their diameters, and rather coarse interstitial punctures in even single series and moderately though uniformly separated. The elytra are distinctly wider than the prothorax and scarcely more than a fourth longer than wide, and the under surface is coarsely, deeply and somewhat closely punctate throughout, the male with a rather deep elongate-oval impression at the base of the abdomen, obsolete at the base of the second segment. In the single Texas male at hand, the pronotal punctures are separated by almost their own diameters and the abdominal impression is somewhat feebler than in the typical forms occurring from Pennsylvania—the original type locality—to Iowa, and a female from Indiana is more elongate and more regularly oval, with elytra nearly a third longer than wide. In looking over my material I find four related but distinct species as follows:

**Baris minuens** n. sp.—Small, more narrowly oval, strongly convex, shining and deep black, the tarsi rufescent; beak in the male cylindric,

feebly arcuate, rather closely punctate and about as long as the prothorax, the latter nearly as in *umbilicata* but with the converging sides more evenly arcuate, not evidently shouldered anteriorly and with the apical constriction obsolescent; scutellum similarly excavated but smaller and less transverse; elytra narrower, two-fifths longer than wide, distinctly wider than the prothorax and nearly twice as long, the sculpture as in *umbilicata* but with the grooves less coarse; under surface strongly and closely, the abdomen not quite so coarsely, punctate, the male impression almost similar. Length ( $\sigma^7$  ♀) 3.1–3.9 mm.; width 1.35–1.8 mm. Pennsylvania (Enola). Two examples.

Readily distinguishable from *umbilicata* by its much smaller size and less dilated form, also by the relatively longer beak, this in the male of that species being scarcely more than three-fourths as long as the prothorax, also by the less coarse abdominal punctures. The dimensions of *umbilicata*, as shown by all the specimens in my collection are 3.8–5.0 by 1.8–2.35 mm.

**Baris irregularis** n. sp.—Stout, very convex, deep black throughout and shining, the tarsi not paler; beak in the male closely but rather evenly punctulate, feebly arcuate and rather more than three-fourths as long as the prothorax, the latter with evenly and moderately arcuate upper profile, a fourth or fifth wider than long, the sides slightly converging and broadly arcuate, gradually broadly rounding and converging in about apical third, the constriction almost obsolete; punctures not quite so coarse or deep as in *umbilicata* and unevenly distributed, closely to widely separated, close laterally, the median line similar, the basal lobe much less prominent; scutellum excavated but smaller and less transverse; elytra a fourth longer than wide, much wider than the prothorax, throughout almost as in *umbilicata*, except that the interstitial punctures are not so strong and usually more close-set; under surface with less coarse and more shallow punctures, those of the abdomen medio-basally especially smaller, the impression of the male almost similar. Length ( $\sigma^7$ ) 4.1 mm.; width 2.0 mm. Pennsylvania (locality unrecorded).

The type differs from the male of *umbilicata* in the somewhat longer, less coarsely sculptured beak, less coarse and more irregular punctures of the upper surface and in the notably smaller abdominal punctures; the sides of the prothorax are more gradually rounded anteriorly.

**Baris denverensis** n. sp.—Rather stout, ovulate and very convex, moderately shining, black, the legs piceo-rufous; beak in the male nearly straight, somewhat closely but not coarsely punctate and only two-thirds as long as the prothorax, the latter with evenly and rather strongly arcuate upper profile, a fifth wider than long, the sides converging and subevenly, feebly arcuate to the abrupt apical constriction, which is



deep and distinct, the apex tubuliform; punctures and basal lobe nearly as in *umbilicata*, the former less coarse and closer, separated by scarcely a third their diameters, the median smooth line much shorter and merely central; scutellum slightly transverse, deeply impressed; elytra two-fifths longer than wide, much wider than the prothorax and four-fifths longer, the outline and sculpture as in *umbilicata*, except that the uniseriate interstitial punctures are still coarser; abdominal punctures similarly strong and close, the male impression similar but longer, extending more than half way through the second segment. Length ( $\sigma^7$ ) 3.8 mm.; width 1.75 mm. Colorado (Denver).

This species differs from *umbilicata* in its more slender, less coarsely sculptured beak, apically more constricted prothorax, with the punctures not quite so coarse and still more close-set, in the slightly coarser interstitial punctures and rufescent legs.

**Baris genitiva** n. sp.—Rather narrowly oval, strongly convex, shining, black throughout; beak in the male notably slender, slightly arcuate, rather finely, sparsely punctate, two-thirds as long as the prothorax, which is a fourth wider than long, with the sides moderately converging and slightly arcuate, rapidly rounding in apical fourth to the apex, which is very briefly subtubulate; punctures coarse, deep, rather well separated, minute at apex, closer but not confluent at the sides, the smooth median line greatly biabbreviated; basal lobe large, broadly rounded, the scutellum small, slightly transverse, impressed and emarginate; elytra two-fifths longer than wide, throughout nearly as in *umbilicata*, except that the punctures of the regular single interstitial lines are not quite so coarse; abdomen with the punctures similarly coarse but not so dense, the basal impression of the male smaller and much feebler. Length ( $\sigma^7$ ) 3.5 mm.; width 1.5 mm. Florida (locality unrecorded).

Allied to *umbilicata* but differing in its smaller size and narrower outline, rather shorter, much more slender and more sparsely punctate beak, relatively somewhat smaller though otherwise nearly similar prothorax, less coarse interstitial punctures and sparser abdominal punctures, with feebler basal impression in the male; the slenderness and sparse sculpture of the beak are characters apparently decisive in the separation of this form as a species.

The following thirteen species belong to the group comprising *subænea*, *floridensis*, *rubripes*, *aprica*, *vespertina*, *dolosa* and *peninsulæ*, the last of which was described from Lower California by Horn. They resemble *interstitialis* rather closely but are all of a piceous or obscure reddish color. All of those here described, excepting *oblata* and *surrufa*, occur only in the very broken extreme western country.

**Baris oblata** n. sp.—Form oblong-suboval, moderately convex, shining, blackish, the elytra and legs red-brown; beak short, straight, arcuate basally, finely, not densely punctate, only a little more than half as long as the prothorax, the latter fully a third wider than long, shouldered anteriorly, the sides converging and nearly straight, rapidly rounding and converging apically, with the tubulation obsolete; punctures coarse, deep, more or less well separated; smooth median line narrow, extending about from base to centre; basal lobe rather abruptly formed; elytra two-fifths longer than wide, very little wider than the prothorax and two-thirds longer, the sides converging and feebly arcuate from the pronounced humeral callus, rapidly obtusely rounded at tip; grooves rather coarse; intervals subequal throughout, very much wider than the grooves, each with a single line of relatively rather coarse, moderately separated punctures; setæ very small, pale; abdomen of the male with moderately coarse and rather close-set punctures, the first segment with a feeble median impression throughout its length; pygidium convex, closely, strongly punctate. Length ( $\sigma^7$ ) 3.3 mm.; width 1.4 mm. Indiana. Levette collection.

The type represents a rather isolated species, overlooked in my previous revision and not closely comparable with any hitherto described; in some ways it suggests the *transversa* group, but the tibiæ are not sinuate externally at apex.

**Baris surrufa** n. sp.—Suboval, somewhat convex, highly polished and subæneous, brownish-rufous throughout and rather finely, loosely sculptured; beak differing much in the sexes, thick arcuate, finely, not closely punctate, barely over half ( $\sigma^7$ ) to nearly two-thirds ( $\varphi$ ) as long as the prothorax, the latter large, convex, a third wider than long, with the sides converging and feebly arcuate from base, rapidly but broadly rounding and converging in about apical third, the tubulation obsolete; punctures fine and sparse, becoming close and rather coarse laterally, sometimes with a short impunctate median area; basal lobe small and rather abrupt; elytra a third longer than wide, only very little wider than the prothorax, the sides behind the pronounced callus converging to the broadly rounded apex; grooves rather coarse, very deep; intervals nearly twice as wide as the grooves, crenulate at the sides basally, each with a single line of rather fine and well separated punctures, the second and third wider but still uniseriate; pygidium convex, coarsely, very densely punctate; abdomen sparsely punctate, minutely so medially, the male with a very feeble basal impression—scarcely more than a flattening. Length ( $\sigma^7$   $\varphi$ ) 3.65–4.2 mm.; width 1.65–1.85 mm. Alabama (Mobile). Six specimens.

This species also is very distinct from any other known to me in its stout form, feeble sculpture, rutilate coloration and sexual differences in the beak. It was probably taken by Mr. Löding, but the collector's name was in some way left unrecorded.

**Baris matrona** n. sp.—Elongate-suboval, convex, rather shining, red-brown in color, the legs brighter rufous; beak arcuate, finely, basally rather closely punctate, three-fifths as long as the prothorax, the latter large, a fourth wider than long, the sides converging and nearly straight almost to apical fourth, there rapidly rounding, thence strongly converging and straight to the apex, the constriction obsolete; punctures rather coarse, deep, close-set, the median smooth line subentire and slightly tumid in the type; basal lobe gradually formed; elytra a third longer than wide, only slightly wider than the prothorax, the callus large and moderately elevated; sides subparallel, the apex broadly rounded; grooves deep, moderate in width; intervals two to three times as wide as the grooves, strongly, loosely and confusedly punctate, unevenly sub-crenulate, those toward the sides with single series of coarse punctures; setæ very small; abdomen sparsely, rather finely punctate, densely at apex. Length (♀) 4.25 mm.; width 2.0 mm. California (Mokelumne Hill, Calaveras Co.),—Blaisdell.

There is no species known to me very closely allied to this; its pale color, large prothorax, crenulate striæ and red legs will easily distinguish it.

**Baris retrusa** n. sp.—Rather narrow, convex, suboval, shining, brownish-rufous throughout; beak arcuate, finely, sparsely punctate, two-thirds as long as the prothorax in the female; prothorax only a fifth or sixth wider than long, the sides feebly arcuate and very slightly converging, gradually broadly, evenly rounded anteriorly to the apex, which is not at all constricted; punctures relatively coarse, dense laterally, rather widely separated but not much less coarse medially, the smooth line narrow from base to beyond the middle; lobe not broadly rounded though gradually formed; elytra two-fifths longer than wide, barely at all wider than the prothorax, the humeri prominent, the sides slightly converging, the apex broadly and rapidly rounded; grooves somewhat coarse, very deep, abrupt, not crenulate; intervals subequal throughout, not quite twice as wide as the grooves, each with an even single series of coarse and rather well separated punctures; setæ moderate, glistening; abdomen moderately and rather sparsely punctured, with a very feeble basal impression in the male; legs somewhat sparsely punctate, short. Length (♂) 3.35 mm.; width 1.6 mm. Colorado (Cañon City),—Wickham. A single example.

May be known by its rather pale rufous coloration, shining integuments, large and somewhat coarsely punctured prothorax, equal strial intervals and regular loose series of coarse interstitial punctures.

**Baris lavacana** n. sp.—Subparallel, narrow, very convex, shining and piceous-black throughout; beak strongly and evenly arcuate, minutely, not densely punctate, barely more than half as long as the prothorax, the latter more than a fourth wider than long, the sides subevenly and

rather strongly arcuate from base to apex, a little less arcuate basally than apically, the apical constriction wholly untraceable; basal lobe abrupt; punctures rather coarse, deep, separated by their own diameters medially, dense and coarser, with some series, laterally; smooth median line not attaining base or apex; scutellum small, impressed; elytra two-fifths longer than wide, barely at all wider than the prothorax and scarcely three-fifths longer; sides parallel, the apex broadly arcuate, the humeri prominent; grooves rather coarse, abrupt and deep, still coarser basally; intervals much wider than the grooves, each with a single loose series of small but distinct punctures; except the second and third intervals, which are wider and with confused punctures; setæ pale, very small; abdomen with strong and rather close-set punctures. Length (♀) 3.5 mm.; width 1.5 mm. Texas (Lavaca Co.). One example.

This species is conspicuously different from those more closely allied in the rounded form of the prothorax, evenly arcuate and minutely punctured beak, and other characters as related above.

**Baris irrita** n. sp.—Body subparallel, convex, not very stout or shining, piceous-black, the prothorax somewhat rufescent; beak arcuate, finely but distinctly, loosely punctate, scarcely more than half as long as the prothorax in the male; prothorax scarcely a fourth wider than long, the sides parallel and just visibly arcuate, rounding in about apical third to the apex, the constriction obsolete; basal lobe rapidly formed, not broadly rounded; punctures relatively coarse and separated by scarcely their own diameters, dense and in some part lineate toward the sides; median smooth line obsolete in the type; scutellum small, impressed medially; elytra two-fifths longer than wide, just visibly wider than the prothorax and three-fifths longer, the sides parallel, gradually rounding in fully apical third, the humeri not distinctly prominent; grooves deep, moderately coarse; intervals subequal in width throughout, each with a single line of rather strong and somewhat close-set punctures, becoming confused basally on some of the intervals; setæ rather small; abdomen with rather strong and not very close-set punctures, having at base a very feeble impression in the male. Length (♂) 3.3 mm.; width 1.4 mm. Texas (Columbus).

Differs very much from the preceding in the long and nearly straight parallel sides of the prothorax, and, from *retrusa*, also in the more parallel sides and in the much less coarse and conspicuous single interstitial lines of punctures.

**Baris nephiana** n. sp.—Somewhat narrowly oblong-elongate, convex, somewhat shining, rufo-piceous in color; beak arcuate and not quite three-fifths as long as the prothorax in the male, finely, not densely punctate; prothorax nearly a third wider than long, the sides converging, broadly rounding, then strongly converging, anteriorly, to the unconstricted apex, at the middle of the length sometimes slightly sinuate; basal lobe moderate, not abrupt; punctures moderate and separated by

twice their diameters medially, gradually coarse and denser thence to the sides, the median smooth line short, feebly defined; scutellum small, impressed medially at apex; elytra fully two-fifths longer than wide, very little wider than the prothorax, the sides subparallel; apex gradually rounded; humeral callus very moderate; grooves rather coarse, deep, the intervals much wider than the grooves, each with a single irregular series of moderate, well separated punctures, the third wider than the others and confusedly, loosely punctate; setæ very small, pale; abdomen with very moderate and shallow, notably sparse punctures, the male with a feeble basal impression, which is smoothly concave at the bottom. Length (♂ ♀) 3.3–3.8 mm.; width 1.3–1.6 mm. Utah (Nephi),—Wickham. Three examples.

Easily distinguishable by its rather small size, piceous color and more or less sparse sculpture; from the next it differs also in the nature of the abdominal impression of the male.

**Baris apposita** n. sp.—Larger and rather stouter than the preceding, nearly similar in coloration and lustre; beak arcuate toward base, closely but not coarsely punctate, short, barely more than half the thoracic length in the male; prothorax a fourth or fifth wider than long, the sides feebly converging and slightly arcuate to about apical fourth, then strongly rounding, the basal lobe short, broadly arcuate, not abrupt; punctures coarse, separated by less than their diameters, not much coarser but dense laterally, the smooth median line narrow and long though biabbreviated; scutellum very small, not as large as in the preceding; elytra two-fifths longer than wide, formed nearly as in *nephiana* but with more prominent humeral callus; sculpture nearly similar; abdomen with larger, deeper and much more close-set punctures, the male with a large and rather deep impression, the bottom of which extends almost through the second segment and is rather acutely sulciform. Length (♂) 4.0 mm.; width 1.65 mm. Utah (Chadbourne's Ranch),—Wickham; also one female similar in size from Colorado (Salida), New Mexico (Deming and Jemez Springs) and Texas (Longview).

This species is allied to the last but differs not only in its larger size and different form of abdominal impression in the male, but in the coarser and denser thoracic and abdominal sculpture, also in the more elongate prothorax and relatively shorter beak. The four females from as many rather widely separated localities, seem to belong to the same species without any decided doubt; there are no evident sexual differences in the beak.

**Baris immunis** n. sp.—Form rather stouter, with more inflated elytra, very convex, moderately shining; black, with slight piceous tinge throughout; beak arcuate and four-sevenths as long as the prothorax in the male, rather closely but not very coarsely punctate basally; prothorax

scarcely a fifth wider than long, the sides slightly converging and feebly arcuate, becoming rather broadly rounding and converging in about apical third, the apex half as wide as the base and not constricted; basal lobe rather small, short and rounded; punctures moderately coarse, separated by barely their own diameters medially, gradually coarser and dense laterally, the smooth median line very narrow and much abbreviated; scutellum nearly as in *nephiana*; elytra much broader, scarcely more than a fourth longer than wide, between a fourth and fifth wider than the prothorax and three-fifths longer, parallel, very rapidly and obtusely rounded at apex; humeri obtusely prominent; grooves rather coarse and deep, finely, distantly punctate along the bottom; intervals distinctly wider than the grooves, the second and third but little wider; punctures strong and close-set, rather confused but forming single series on some of the intervals; setæ pale, small; abdomen strongly, rather closely punctate, the male with a large deep and well defined basal impression, triangular in form, with evenly almost flat bottom, the point of the triangle at the apex of the second segment. Length (♂) 3.7 mm.; width 1.6 mm. Colorado (Poudre River).

A notably isolated species by reason of the relatively narrow prothorax, short and parallel elytra, rather coarse, close sculpture and in the abdominal sexual characters of the male.

**Baris profuga** n. sp.—Rather stout, suboval, strongly convex, somewhat shining, blackish-piceous, the under surface and legs more rufous; beak arcuate, three-fifths as long as the prothorax, moderately and not densely punctate; prothorax fully a fourth wider than long, the sides slightly converging and feebly arcuate, broadly rounding and then strongly converging in about apical fourth, the apex less than half as wide as the base and unconstricted; basal lobe obtusely cuspidiform; punctures coarse, separated by about their own diameters, denser but not coarser laterally; median smooth line untraceable; scutellum small, not impressed; elytra barely a third longer than wide, barely wider than the prothorax, with feebly converging sides and broadly rounded apex, the humeral callus prominent; grooves moderately coarse, very deep, abrupt and smooth; intervals nearly twice as wide as the grooves, rather closely, coarsely, and confusedly punctate, forming single series on some of the intervals except basally, the second and third a little wider than the others; setæ rather small, pale as usual; abdomen with somewhat coarse and close-set punctures, with a very moderate shallow, not well defined cavity occupying the middle of the first segment in the male. Length (♂) 3.85 mm.; width 1.8 mm. California (Yuma),—Wickham. Also a male specimen corresponding almost exactly and labeled Sta. Rosa, Cal., and another from San Diego taken by Ricksecker.

This species is decidedly stouter than any of the six preceding and has more confused elytral punctuation than most of them; it is not closely allied to any other California species hitherto described.

**Baris caudalis** n. sp.—Black, moderately shining, the elytra and legs piceo-rufous, convex, elongate-suboval in outline; beak feebly arcuate and three-fifths as long as the prothorax in the male, not very coarsely but densely punctate; prothorax a fifth wider than long, the sides distinctly converging and feebly arcuate, broadly rounding and converging in about apical third; basal lobe broadly rounded and notably short; punctures moderate in size, deep and rather dense throughout, coarser and still denser toward the sides, the median smooth line subobliterated; scutellum not impressed, rounded and punctate; elytra three-sevenths longer than wide, barely at all wider than the prothorax and three-fourths longer, subparallel and feebly arcuate at the sides, broadly rounded at apex, the humeral callus scarcely at all prominent; grooves rather coarse, deep, abrupt and smooth, with small punctures along the bottom; intervals one-half wider than the grooves, each with a single rather close-set line of moderately coarse punctures, the second and third wider and with confused punctures; pale setæ very small; abdomen with rather strong and close punctures, the male with a feeble medio-basal impression not extending to the second segment, the fifth with a short median ligula at apex; femora rather strongly, closely punctate. Length (♂) 3.9 mm.; width 1.7 mm. Kansas. A single specimen.

To be readily known by the rather dense sculpture, especially as observable on the beak and femora, by the punctured scutellum and by the exceptional sexual characters of the male.

**Baris adustula** n. sp.—Stout, convex, suboval, rather shining, obscure red-brown throughout; beak arcuate, closely punctate basally and three-fifths as long as the prothorax in the female; prothorax but little wider than long, the sides parallel, feebly arcuate, gradually rounding from slightly before the middle; basal lobe obtusely cuspidiform; punctures notably coarse, separated by about half their diameters, dense and rugulose laterally; impunctate line narrow, short and inconspicuous; scutellum very small; elytra two-fifths longer than wide, very slightly wider than the prothorax and three-fifths longer, the sides feebly arcuate, gradually rounding behind, the humeral callus rather feebly prominent; grooves not very coarse, deep, with fine and distant punctures along the bottom, not crenulate at any point; intervals twice as wide as the grooves, with coarse confused punctures, the third wider and more loosely and less coarsely punctate; setæ pale, small but distinct; abdomen strongly but loosely punctate, more densely so at tip, the femoral punctures well separated. Length (♀) 4.2 mm.; width 1.85 mm. California (locality unrecorded).

Distinct from any other of the preceding brownish species by its robust form, coarse pronotal and confused elytral punctures and very small scutellum.

**Baris brevipennis** n. sp.—Stout, subparallel, very convex, rather shining, dark red-brown in color throughout; beak short, arcuate, closely punctate, three-fifths as long as the prothorax in the female;

prothorax large, a fifth wider than long, the sides feebly converging and very slightly arcuate nearly to apical fourth, there broadly rounding and rapidly converging to the apex, the basal lobe as in the preceding; punctures rather coarse, separated by about their diameters, gradually rather larger and dense laterally; median smooth line very short and imperfect; elytra parallel, a fourth longer than wide, very slightly wider than the prothorax and one-half longer, the sides behind the rather prominent humeral callus straight; apex rapidly, very obtusely rounded; grooves deep; intervals more or less nearly twice as wide as the grooves, with single somewhat uneven series of coarse and close-set punctures, a little smaller and more confused on the third; setæ short but distinct; abdomen not coarsely, shallowly and very loosely punctate, more strongly and closely toward tip. Length (♀) 4.0 mm.; width, 1.9 mm. New Mexico (Las Cruces).

The very stout form, relatively short and parallel elytra, rapidly and obtusely rounded at apex, short beak and rather bright red-brown color, will readily distinguish this species.

*Baris peninsulae* Horn, of which I have a specimen taken at San José del Cabo, Lower California, resembles such species as *nephiana* and *apposita* very closely, but has the general sculpture coarser and denser and much more confused on the elytra; it is narrower in outline and more cylindrical than the southern California *profuga* and has the thoracic punctures notably denser.

The following nine species are allied more or less evidently to *interstitialis* Say (*quadrata* and *carinulata* Lec.). They are deep black, more or less strongly shining and, as a rule, are strongly sculptured; *soluta* is a remarkably developed form of this group, with short and broad, very coarsely and sparsely punctured prothorax; *zuniana* also belongs here, as do *tumescens* Lec., and *monticola* Fall, the last, however, having very much finer elytral punctures than any other.

***Baris agnita*** n. sp.—Elongate-suboval, convex, shining, deep black throughout the body and legs; beak but little smaller or more slender in the male, about three-fifths as long as the prothorax in both sexes, arcuate, finely and not densely punctate; antennal club notably small and slender; prothorax rather short, a third wider than long, the sides slightly converging and feebly arcuate, gradually and broadly rounded anteriorly, without trace of constriction at apex, the basal lobe rather small, obtusely cuspidiform, the punctures somewhat strong, separated by once to twice their widths, gradually close but not confluent laterally; median smooth line not well defined, narrow; scutellum small, rounded; elytra nearly one-half longer than wide, a little wider than the prothorax and almost twice as long, the sides slightly converging and broadly



arcuate behind the rather prominent humeral callus, the narrowed apex obtusely rounded; grooves moderately coarse and very deep, intervals twice as wide as the grooves or more, each with a well-spaced single series of very moderate punctures; setæ sparse, minute and very inconspicuous; abdomen with fine sparse punctures, coarser and closer laterally, the basal segment with a simple median impression throughout its length in the male. Length ( $\sigma^7$  ♀) 3.6-4.1 mm.; width 1.5-1.8 mm. Texas (Brownsville),—Wickham. Eleven specimens.

A smaller, narrower and more loosely punctate species than *interstitialis*, more polished and with very regular single interstitial series of smaller punctures.

**Baris brachyrhina** n. sp.—A little shorter, broader and more densely sculptured than the preceding and with still shorter beak and stouter femora; coloration similar, the lustre not quite so shining; beak arcuate, rather finely, closely punctate, less than half as long as the prothorax in the male and but little longer in the female; prothorax rather more than a fourth wider than long, the sides converging barely at all, arcuate, rather rapidly rounding and strongly convergent in about apical third, the basal lobe moderately prominent, not broadly rounded; punctures rather coarse and close, separated by a third to half their diameters, dense and longitudinally subconfluent at the sides, the median smooth line almost obliterated; scutellum notably small, subquadrate, feebly impressed; elytra barely two-fifths longer than wide and scarcely at all wider than the prothorax and about three-fourths longer, with the sides feebly converging and broadly arcuate to the obtusely rounded apex; humeral callus moderately prominent; grooves rather coarse, deep, with fine and well separated punctures; intervals less than twice as wide as the grooves, with rather strong and usually close-set punctures in single series, the second and third wider, the latter with confused punctures in the female or single line in the male; abdomen strongly, somewhat closely punctate, more sparsely medio-basally, this part scarcely more than flattened in the male. Length ( $\sigma^7$  ♀) 3.3-3.8 mm.; width 1.3-1.6 mm. Mississippi (Vicksburg), Missouri and Texas (Lavaca Co., and Columbus). Six specimens.

This species is distinct by reason of the exceptionally short beak in both sexes and in the feeble sexual characters of the male.

**Baris fultoni** n. sp.—Body throughout almost as in the preceding, except that the thoracic punctures are still denser and the beak relatively somewhat longer, this being arcuate, closely punctate, less stout and, in the female, evidently more than half as long as the prothorax, the latter as in the preceding, but with the punctures not quite so coarse and separated by barely a third of their widths as a rule, dense and forming evident rugulæ at the sides; median smooth line narrow or barely traceable; scutellum and elytra throughout nearly similar; pygidium with the similarly very dense punctures notably coarser; abdomen almost similar. Length (♀) 3.35-3.5 mm.; width 1.5-1.6 mm. New York (Hudson Valley) and West Point,—Robinson.

Very closely allied to the preceding and possibly no more than a subspecies, but the thoracic punctures are not quite so coarse and are still denser, the pygidial punctures coarser and the general form of the body rather more parallel and subcylindric. The male abdominal characters may prove to be quite different.

**Baris cribrifera** n. sp.—Oblong, convex, rather stout; black throughout, moderately shining; beak arcuate, rather finely, closely punctate, half as long as the prothorax (♂) and barely longer (♀); prothorax large, a fifth wider than long, the sides feebly converging, slightly arcuate, rapidly rounding and strongly converging anteriorly, the apex wholly unconstricted, the basal lobe very bluntly cuspidiform, gradually formed; punctures notably coarse and deep, close-set, sometimes subcontiguous, denser laterally; median smooth line obliterated or very narrow; scutellum small, quadrate; elytra a third to two-fifths longer than wide, only just visibly wider than the prothorax and scarcely three-fifths longer, the sides subparallel anteriorly, with prominent rounded humeral callus; apex gradually rounding from near the middle; grooves not very coarse, deep, finely lineato-punctate; intervals twice as wide as the grooves, with coarse and close-set confused punctures, sometimes forming single series, the second and third wider, with the confused punctures not quite so coarse as a rule; setæ very small, sparse and inconspicuous; abdomen somewhat strongly, not very closely punctate, with an extremely feebly impressed or scarcely more than flattened medio-basal area; pygidium convex, very densely punctate. Length (♂ ♀) 4.0–4.4 mm.; width 2.0–2.1 mm. North Carolina (Southern Pines) and Pennsylvania (Harrisburg),—Manee and Champlain. Nine specimens.

Distinguishable from *interstitialis* by the more elongate-oblong form, larger and much less abbreviated prothorax, less developed elytral setæ and other characters.

**Baris vagans** n. sp.—Oblong-oval, strongly convex and polished, deep black, the legs not paler; beak in the male arcuate, finely, not closely punctate and three-fifths as long as the prothorax, which in profile slopes in front with unusual abruptness and steepness; prothorax scarcely a fourth wider than long, the sides broadly arcuate, becoming straighter and subparallel behind and more arcuate anteriorly; apex completely unconstricted, the basal lobe very short, obtusely rounded; punctures very coarse and separated by more than their diameters medio-basally, but close and less coarse anteriorly, becoming fine at the apical margin, coarse and dense laterally; smooth median line narrow, not attaining the apex; scutellum very small, subquadrate; elytra two-fifths longer than wide, only just visibly wider than the prothorax and three-fourths longer, the sides feebly converging and broadly arcuate behind the rather prominent humeral callus, gradually broadly rounded behind; grooves rather coarse, very deep; intervals not quite twice as wide as the grooves, with single series of moderately coarse and separated punctures, the second and third wider and with confused or uneven

series; setæ very small and inconspicuous; abdomen with strong and well spaced punctures, coarser and closer laterally, having ( $\sigma^7$ ) a medio-basal impression which is broad, shallow and not sharply defined; pygidium closely punctate, finely below, coarsely above, the transverse convexity. Length ( $\sigma^7$  ♀) 3.5-4.1 mm.; width 1.4-1.8 mm. Colorado, Texas (Uvalde and Houston), Louisiana (Morgan City), Mississippi (Vicksburg) and Alabama.

In this series of eleven specimens, which holds together rather well, there is considerable variation in elytral punctuation, the coarsish punctures being in great part confused in some of them; but further discriminatory work is unwarranted at present. The male type specimen described above is labeled "Colorado."

**Baris austiniana** n. sp.—Rather narrowly elongate-suboval, convex, moderately shining, black throughout; beak ( $\sigma^7$ ) short, arcuate, rather closely punctate and only half as long as the prothorax, the latter a fourth wider than long, the sides evenly and moderately arcuate almost throughout the length; apex wholly unstricted and much less than half the basal width, the basal lobe wide, gradually formed and cuspidiform; punctures coarse, deep and very close-set, separated generally by barely half their diameters, dense and rugulate laterally; median smooth line imperfect, narrow or obliterated; scutellum very small, medially impressed at apex; elytra fully two-fifths longer than wide, scarcely wider than the prothorax and two-thirds longer, gradually obtusely rounded behind about the middle, the sides parallel toward the prominent humeral callus; grooves not very coarse, finely punctate, more coarsely so and subrenate at base; intervals nearly twice as wide as the grooves, each with a single series of coarse and close-set punctures, the third wider and with confused punctures; setæ small, pale, glistening; abdomen rather strongly, not densely punctate, having at base ( $\sigma^7$ ) a deep triangular impression, evenly concave at the bottom and extending, with obtuse apex, not quite through the second segment. Length ( $\sigma^7$  ♀) 3.65-3.8 mm.; width 1.4-1.75 mm. Texas (Austin). Two specimens.

The form of the prothorax in this species is peculiar, being gradually narrowed throughout, with evenly arcuate sides; in addition to this the marked male sexual characters are distinctive.

**Baris attonsa** n. sp.—Oblong-oval, convex, shining, deep black throughout; beak in the male moderately arcuate, finely, not densely punctate and only half as long as the prothorax, the latter rather more than a fourth wider than long, the sides subparallel and broadly arcuate, evenly and broadly rounded and strongly converging in about apical third, the apex unstricted, the basal lobe small, cuspidiform; punctures moderate and separated by their own diameters medially, dense and longitudinally coalescent at the sides; median smooth line narrow, not entire; scutellum very small, slightly impressed; elytra nearly one-half longer than wide, barely at all wider than the prothorax and fully three-fourths

longer, the outline and humeral callus nearly as in the preceding; grooves moderate, not coarse, punctate; intervals twice as wide as the grooves, the third and fifth much wider and with confused punctures, the narrower intervals with rather uneven single series, all the punctures notably close-set and very moderate in size; setæ small but distinct, glistening; abdomen with somewhat small and sparse punctures, becoming rather coarser and closer peripherally, having, in the male, are extremely feeble medio-basal impression. Length ( $\sigma^7$ ) 3.8 mm.; width 1.6 mm. North Carolina (Southern Pines),—Manee.

This species may be distinguished from *interstitialis*, where also the interstitial punctures are in great part confused, by its much narrower form, less coarse pronotal punctures toward the median line and much finer elytral sculpture.

**Baris intacta** n. sp.—Narrowly oblong-oval, convex and deep black throughout and polished; beak slender, moderately punctate, feebly, arcuate and three-fifths as long as the prothorax in the female; prothorax subevenly arcuate above in profile, rather short, fully a third wider than long, the sides converging and arcuate from base to apex, a little more arcuate anteriorly, the basal lobe small; punctures strong, separated by fully their own diameters, denser laterally, the smooth median line narrow, not extending to the apex; scutellum small, rounded; elytra two-fifths longer than wide, barely wider than the prothorax and not quite twice as long, the sides converging and broadly arcuate, moderately obtuse at apex, the humeral callus prominent; grooves moderately coarse, deep; intervals two to nearly three times as wide as the grooves, each with a single loose line of notably small but distinct punctures; setæ minute and barely observable; abdomen rather strongly though loosely punctate; pygidium closely but not very coarsely punctate, finely carinulate; femora somewhat slender. Length ( $\varphi$ ) 3.35 mm.; width 1.4 mm. Mississippi (Agricultural College).

Not closely allied to any other described species; it differs from the equally polished *tumescens* in its narrower form, smaller and closer pronotal punctures and shorter prothorax; the serial punctures of the elytra are very nearly as small as in *monticola* and more separated.

**Baris columbiana** n. sp.—Larger, more elongate-suboval, convex, shining, black, the legs slightly picescent; beak feebly arcuate, very densely and rather strongly punctate, about two-thirds as long as the prothorax in the male; prothorax with evenly arcuate upper profile, a fourth wider than long, the feebly converging and slightly arcuate sides more rounded in about anterior third, then strongly converging, feebly sinuate apically, the basal lobe moderate; punctures strong, rather close-set, becoming gradually a little larger and very dense laterally; smooth median line narrow, parallel, extending very nearly from base to apex; scutellum small, slightly transverse, longitudinally and feebly impressed;

elytra two-fifths longer than wide, a fifth or sixth wider than the prothorax and nearly twice as long, the sides arcuate and slightly converging to the moderately obtuse apex, the humeral callus rather prominent; grooves somewhat coarse, very deep and abrupt; intervals one-half wider than the grooves or less, each with a single series of moderate but strong punctures, sometimes so close-set as to produce a feeble impression of the line, the second and third wider, with the punctures much finer and confused; setæ very small; abdomen strongly and closely punctate, with a feeble median concavity at base in the male. Length (♂ ♀) 4.1 mm.; width 1.75 mm. Oregon (The Dalles). Two specimens.

To be known very readily by the densely punctate beak and by the longitudinally subimpressed narrower of the strial intervals, remindful somewhat of a character often observable in the *transversa* group of the genus; it is in no way allied otherwise to that group however.

The three following form part of a small group represented by *oblongula*, *porosicollis* and *subsimilis*, having close-set pronotal punctures, which are moderate in size as a rule:

**Baris appalachia** n. sp.—Elongate-suboval, convex, deep black and rather shining, the legs with a feeble piceous tinge; beak cylindrical, not very stout, arcuate, finely and not very closely punctate and nearly three-fourths as long as the prothorax in the female; prothorax evenly arcuate in profile, fully a third wider than long, the sides feebly converging and slightly arcuate, gradually broadly rounding and converging in about apical third, the basal lobe small; punctures rather small in comparison with those of *attonsa*, close-set, dense and longitudinally confluent at the sides, the smooth median line narrow and short; scutellum small, quadrate, emarginate at apex; elytra one-half longer than wide, more than twice as long as the prothorax and a fifth or sixth wider, gradually rounding behind from near the middle, obtuse at apex, the humeral callus not strikingly prominent; grooves not very coarse, deep, with small and separated punctures; intervals some with single series of small but distinct punctures, others with the punctures confused along the middle, the second and third wider; setæ very small and inconspicuous; abdomen with moderate deep close punctures, coarser at the sides; legs rather short. Length (♀) 4.3 mm.; width 1.75 mm. Pennsylvania (locality unrecorded).

Distinguishable easily from *subsimilis* by its slightly larger size, more elongate outline and much more close-set and relatively smaller punctures; the following is closely related to *appalachia*:

**Baris demissa** n. sp.—Shorter and much stouter than *appalachia* and stouter than *subsimilis*; beak as in the former, the prothorax with similar moderate and very close-set punctures but still shorter, fully two-fifths wider than long; elytra more oval and abbreviated, with

nearly similar sculpture, the interstitial punctures small, rather close-set and usually confused, barely twice as long as the prothorax. Length (♀) 3.8 mm.; width 1.82 mm. Pennsylvania (locality unrecorded).

I have at present but one example of each of these forms, and the types have been compared with a large and rather homogeneous series of *subsimilis*.

**Baris bispeculata** n. sp.—Elongate-suboval, convex, rather shining, black, the legs barely perceptibly picescent; beak slender, arcuate, two-thirds as long as the prothorax and rather densely punctate; prothorax a fourth wider than long, the sides slightly converging and feebly arcuate, rather rapidly rounding and converging in apical third or fourth, very slightly sinuate near the apex, the basal lobe distinct; sculpture notably irregular, the punctures small and distinctly but unequally separated medially, coarser and longitudinally confluent at the sides; at each side near basal third and lateral fourth there is a small punctureless spot; median smooth line distinct, lineiform, extending from base to apex, not tumid, the scutellum small; elytra one-half longer than wide, fully twice as long as the prothorax and a little wider, the sides feebly converging, broadly rounding behind, the humeral callus scarcely at all prominent; grooves rather coarse and deep, abrupt, somewhat closely punctate; intervals from one-half wider to twice as wide as the grooves, the small and close-set punctures forming single series on the narrower, or confused median lines on the broader, intervals; setæ moderate; abdomen closely, moderately punctate, finely and sparsely so medio-basally, where there is a slight flattening in the male. Length (♂) 4.5 mm.; width 1.85 mm. Kansas. One example.

This species is evidently one of the *subsimilis* series, but the marked peculiarities of sculpture will identify it very readily if these prove to be at all constant; it is larger and more elongate than *subsimilis*.

The next species belongs to a south Atlantic group of peculiarly polished black species, such as *callida*, *nitida* and *lubrica*, and *splendens* and *virginica* may be regarded as also allied:

**Baris anaplata** n. sp.—Oblong-oval, convex, highly polished and deep black, the legs just visibly picescent; beak thick, only feebly arcuate, two-thirds as long as the prothorax in the male and finely, sparsely punctured; prothorax with a feebly and evenly arcuate upper profile, more than a fourth wider than long, the sides slightly converging and feebly arcuate, gradually rounded and then more strongly converging apically, the basal lobe moderate, obtuse; punctures small and sparse, becoming coarser and closer though shallow at the sides; median smooth line not evident except at base; scutellum very small, rounded; elytra two-fifths longer than wide, nearly a fifth wider than the prothorax and almost twice as long, the sides evidently converging and feebly arcuate

to the obtusely rounded apex, the humeral callus somewhat prominent; grooves moderately coarse, deep; intervals from a little less to somewhat more than twice as wide as the grooves, their surface not flat but evidently convex and with single series of extremely minute and feeble, barely observable punctures; setæ very minute and not distinct; abdomen with distinct though sparse punctures, the male with a triangular basal concavity, rather shallow and extending not quite through the second segment. Length ( $\sigma^7$ ) 3.9 mm.; width 1.75 mm. Florida (Indian River).

Comparable in some respects with *lubrica*, but with very different elytral sculpture, the intervals in that species being flat as usual, with series of well developed punctures.

**Baris virginica** n. sp.—Elongate, oblong-suboval, convex, polished, deep black, the legs often feebly piceous; beak in the male feebly arcuate, distinctly but not very closely punctate, two-thirds as long as the prothorax, only a little longer and thicker in the female; prothorax with feebly and evenly arcuate upper profile, a fourth, or slightly more, wider than long, the sides slightly converging and feebly arcuate, rather gradually rounding in nearly apical third, slightly rounded at the basal angles; punctures moderate or small and sparser medially, coarser and subcontiguous laterally, the median smooth line wanting; basal lobe moderate, the scutellum small, rounded; elytra rather long, fully two-fifths longer than wide, a little wider than the prothorax and fully three-fourths longer, the sides just visibly converging and feebly arcuate to the broadly obtuse apex, the humeral callus rather large, only moderately prominent; grooves deep, somewhat coarse, the intervals not quite twice as wide as the grooves, each with a line of small and well separated punctures, which are sometimes slightly confused, the second and third somewhat wider; setæ minute and inconspicuous; abdomen moderately and loosely, sometimes medially very finely, punctate, having in the male a short feeble basal impression half as long as the first segment. Length ( $\sigma^7$  ♀) 4.0–4.5 mm.; width 1.6–1.85 mm. Virginia (Norfolk). Seven specimens.

Rather closely allied to *splendens* Csy. (*interstitialis* Lec. nec Say), from Fernandina, Florida, but more elongate and larger in size, with somewhat longer beak and less abbreviated prothorax.

In my revision (p. 502), I confused several forms with typical *tenuestriata*, and, at that time, construed them as parts of a single species, but since then, with greater knowledge of the average extent of individual variation in the species of the genus, I have become convinced that there are a number of distinct species allied to *tenuestriata*, of which the following should be described:

**Baris laxicollis** n. sp.—Subparallel, convex, rather shining, deep black throughout; beak arcuate, densely and strongly punctate, four-fifths as

long as the prothorax in the female; prothorax with the upper profile a little more sloping near the apex, large, not quite a third wider than long, the sides parallel, distinctly arcuate, rounding and convergent in about apical third, the apex slightly constricted; basal lobe relatively small and feeble; punctures not very coarse but deep and dense, barely separated medially, the median smooth line obsolete; scutellum small, subquadrate, punctulate but not impressed; elytra fully one-half longer than wide, barely at all wider than the prothorax and about twice as long, the sides very feebly converging and nearly straight to the rapidly obtuse apex, the humeral callus distinct, obtuse; grooves rather coarse, deep, the punctures distinct, sometimes slightly crenulative; intervals twice as wide as the grooves, with single series of very fine punctures, the second and third wider and with more confused punctures; abdomen strongly but loosely punctate. Length (♀) 4.8 mm.; width 1.9 mm. California (south of San Francisco),—Dunn. One specimen.

I do not understand how the type of this species could have been placed with typical *tenuestriata*, where the elytral striæ are notably fine and not over a fourth or fifth as wide as the intervals; it is also a much larger species, with more densely punctured prothorax.

**Baris instans** n. sp.—Elongate, subparallel, convex, deep black throughout, not very shining; beak (♂) thick, feebly arcuate, densely punctate, three-fourths as long as the prothorax, the upper profile of which is almost evenly arcuate, fully a third wider than long, the sides subangularly inflated near the base in the types, thence feebly converging and almost straight, rounding broadly and converging in about apical third; punctures moderate but deep and dense, slightly separated and a little smaller medially, the smooth line narrow, not extending to the apex, which is very briefly subconstricted; scutellum transversely ovoidal, feebly punctate; elytra fully one-half longer than wide, equal in width to the broad prothorax and very nearly twice as long, the sides parallel, gradually rounding behind from about the middle, the humeral callus very moderate; grooves deep and crenulate, moderately coarse; intervals flat, not quite three times as wide as the grooves, with the very fine punctures forming a broadly confused line along the middle of each; setæ very minute, scarcely observable; abdomen rather strongly but loosely punctate, with a strongly punctate impression in the male, extending half through the second segment; pygidium only feebly convex, densely punctate. Length (♂ ♀) 4.0–4.6 mm.; width 1.65–1.8 mm. California (south of San Francisco),—Dunn. Three examples.

The type indicates a species very different from *tenuestriata* in the coarse elytral grooves and much inflated prothorax, and, from *laxicollis*, it differs in the less coarse elytral grooves and slightly less stout and more parallel form of the body. The dimensions of the unique male type of *tenuestriata* are 4.3 by 1.45 mm.

**Baris gradata** n. sp.—Somewhat narrower than *instans*, more shining, deep black throughout; beak arcuate, densely punctate, very nearly as



long as the prothorax (♀); the latter with the upper line evenly arcuate in profile, almost a fourth wider than long, feebly inflated near the base, the nearly straight sides gradually rounding before the middle, the apex very briefly subconstricted; punctures moderate but deep, distinctly separated, becoming dense laterally, the median smooth line evident, except toward base and apex; scutellum very small, impressed; elytra not quite one-half longer than wide, slightly wider than the prothorax and about twice as long, subparallel, gradually rounding behind, the humeral callus rather notably prominent; grooves somewhat narrow, deep, finely and very indistinctly subcrenulate; intervals between three and four times as wide as the striæ, with uneven loose series of minute and almost indistinct punctures; abdomen distinctly but shallowly, loosely punctate. Length (♀) 4.25 mm.; width 1.6 mm. California (south of San Francisco),—Dunn. One example.

Allied evidently to the last but smaller and much narrower, with a more loosely punctate prothorax and with the elytral grooves narrower and much less crenulate, though decidedly coarser than in *tenuestriata*; in the female type the strial intervals are distinctly convex and the interstitial punctures very minute and indistinct.

**Baris crenulita** n. sp.—Larger and stouter, somewhat shorter and broader than in *instans*, much larger and broader than in *tenuestriata*, deep black throughout and shining; beak in the male thick, feebly arcuate, densely punctate and three-fourths as long as the prothorax, the upper line of which is subevenly arcuate in profile; prothorax unusually short and transverse though scarcely one-half wider than long, the sides subparallel, slightly arcuate, rounding and rapidly converging anteriorly, the apical constriction subobsolete; basal lobe small and feeble; punctures rather coarse, dense, a little smaller and slightly separated medially, the smooth median line evident but abbreviated; scutellum very small, rounded, impressed; elytra long, rather more than one-half longer than wide, just visibly wider than the prothorax and a little more than twice as long, the feebly converging sides slightly arcuate, the apex obtuse, the humeral callus distinctly prominent and polished; grooves moderate, deep, minutely but strongly although somewhat distantly crenulate; intervals flat, three or four times as wide as the grooves, with single lines of very small and well separated punctures, the setæ minute; abdomen rather coarsely but loosely punctate, with a feeble concavity at base in the male, extending slightly upon the second segment; pygidium densely punctate, convex inferiorly. Length (♂) 4.8 mm.; width 1.9 mm. California (San Diego Co.). One example.

The type of this species represents one of the allies of *tenuestriata*, but is very distinct in the short, broad and cribrate prothorax and long elytra, with sharply crenate striæ, which are much less coarse than in *laxicollis* but twice as wide as in *tenuestriata*.

The following four species are comparable only with *rubripes*:

***Baris inculta*** n. sp.—Stout, oblong-oval, convex, rather shining, black, the legs obscure rufous; beak arcuate, four-sevenths as long as the prothorax in the female, rugosely punctate; prothorax large, a fourth wider than long, the sides almost evenly arcuate, becoming parallel basally, the apex wholly unstricted, the basal lobe well developed; punctures coarse, separated by about their own widths, dense and rugulate at the sides; median smooth line subobliterated; scutellum very small, quadrate, emarginate behind; elytra two-fifths longer than wide, barely visibly wider than the prothorax and three-fourths longer, the sides subparallel, gradually rounding behind, the humeral callus moderately prominent; grooves moderately coarse, deep; intervals nearly twice as wide as the grooves, with confused or sometimes unilineate punctures, which are somewhat strong and numerous, the second and third slightly wider than the others; setæ small but glistening; abdomen moderately and loosely punctate, more densely at sides and tip as usual. Length (♀) 4.4–4.5 mm.; width 2.0 mm. California (San Diego and Colton),—Ricksecker and Wickham. Seven specimens.

Very much stouter than *rubripes* and larger in size, with coarser and less close pronotal punctures and absence of the conspicuous smooth median line of that species; the legs are longer and stouter and the femora more coarsely punctured.

***Baris subcylindrica*** n. sp.—Parallel, rather stout, moderately convex and shining, blackish-piceous, the elytra, under surface and beak piceo-rufous, the legs brighter rufous; beak in the female cylindrical, arcuate, rather closely punctate and fully three-fourths as long as the prothorax, the latter large, nearly a third wider than long, widest slightly before the base, the sides thence converging and feebly arcuate, gradually rounded and more convergent in about apical fourth; punctures moderate and separated by fully their own diameters medially, gradually coarser and close laterally, the smooth median line distinct, subentire and somewhat tumid, the basal lobe well developed and rounded; scutellum small, rounded, flat and punctulate; elytra two-fifths longer than wide, as wide as the prothorax and three-fourths longer, the sides parallel and nearly straight, obtusely rounded in apical third, the humeri prominent; grooves deep, rather coarse, finer sutural, the intervals almost twice as wide as the grooves, each with a single series of punctures which are moderate in size and separation, the second and third wider, with the punctures smaller and more confused; setæ very small; abdomen finely and sparsely punctate, more strongly and closely toward sides and apex. Length (♀) 4.2 mm.; width 1.8 mm. California (Lake Co.),—Fuchs.

Distinguishable from *rubripes*, from about the same region, in its stouter form and larger size, relatively larger and somewhat more loosely punctate prothorax, which, in that species, is always distinctly narrower than the elytra, finer interstitial punctures and somewhat longer beak.

**Baris trajecta** n. sp.—Subcylindric and convex, shining and blackish-piceous, the legs and distal parts of the beak bright rufous; beak in the male cylindro-arcuate, rather closely punctulate and fully four-fifths as long as the prothorax, the latter a third wider than long, the sides almost evenly arcuate and moderately converging, a little more so anteriorly, slightly narrowed at base; punctures rather coarse, deep and very close-set throughout, cribrate, denser and confluent along the sides, with the median smooth line very short, central and feebly defined; basal lobe abrupt, rounded, the scutellum small, rounded and having one or two punctures; elytra fully two-fifths longer than wide, just visibly wider than the prothorax and almost twice as long, the sides subparallel, gradually arcuate behind to the obtuse apex, the humeri prominent; grooves rather coarse, deep, smooth, the intervals twice as wide as the grooves, strongly, somewhat closely punctate in single series, becoming confused on the fifth and sixth basally, the second and third barely at all wider and with the irregularly serial punctures smaller; setæ very small; abdomen finely, sparsely punctate, more strongly and closely toward sides and apex, the male with an elongate-oval basal impression, obsolete toward tip of the second segment. Length (♂) 3.3 mm.; width 1.4 mm. California (Tehachapi Pass),—Wickham.

Although allied evidently to *rubripes*, this species may be known at once by the more slender legs and beak, more evenly rounded sides of the still more closely cribrate pronotum, which is without the conspicuous smooth median line of that species, and by the closer interstitial punctuation.

**Baris coltonensis** n. sp.—Oblong-suboval, convex, moderately shining, obscure rufous, the elytra nearly black, broadly rufous at the apex and posterior part of the sides; legs and beak bright rufous, the beak in the male very short, slightly arcuate, loosely punctulate and but little more than half as long as the prothorax, the latter with the arcuate upper profile more sloping anteriorly, a third wider than long, the sides converging and broadly arcuate, rapidly rounding and very oblique in barely apical fourth, the apex feebly constricted; punctures rather coarse, separated by nearly their own diameters, dense laterally, the smooth median line partial and feebly defined, the basal lobe rather abrupt and distinct, moderately narrow, the scutellum very small, subquadrate and punctate; elytra two-fifths longer than wide, evidently wider than the prothorax and three-fourths longer, the sides broadly arcuate, barely converging, gradually rounding behind, the humeri prominent; grooves rather coarse, deep; intervals nearly twice as wide as the grooves, with single series of somewhat coarse and moderately separated punctures, becoming broadly confused basally throughout, the second and third distinctly wider, the punctures smaller and confused throughout on the latter; setæ small but distinct, glistening; abdomen moderately and rather sparsely punctate, less sparsely toward the sides and apex, the male with a rather large transversely oval basal impression. Length (♂) 3.8 mm.; width 1.62 mm. California (Colton),—Wickham.

The coloration in this species differs from that of the other allies of *rubripes*, and the beak is much shorter. It is really more closely related to *inculta* than to *rubripes*.

The two following are subopaque species allied to *opacula* but manifestly different:

**Baris alternans** n. sp.—Deep black, feebly shining, the elytra opaculate, the legs bright red; beak in the male not very stout, feebly arcuate, rather densely punctate, three-fourths as long as the prothorax and black, the antennæ black; prothorax with evenly arcuate upper profile, a fourth wider than long, the sides feebly converging and slightly arcuate, gradually rounding and more converging in about apical third; punctures deep, moderate in size and very close throughout, not larger but still denser laterad, the smooth median line very fine though evident through most of the length; basal lobe rather small, the scutellum small, quadrate, impressed behind; elytra long, nearly one-half longer than wide, only slightly wider than the prothorax and almost twice as long, the sides very feebly converging and slightly arcuate, gradually circularly rounded behind, the humeri moderately prominent; grooves deep but only moderately coarse, more or less evidently crenulate; intervals three to almost four times as wide as the grooves, with fine and moderately separated punctures, confused on the broader, in single series on the narrower, the third and fifth much wider than the others; setæ minute but glistening; abdomen slightly shining, with strong but not very coarse, rather dense punctures throughout, the male with a shallow basal impression, gradually evanescent near the tip of the second segment. Length (♂) 4.2 mm.; width 1.75 mm. California (southern).

The male type of this species differs from the female type of *opacula* in the much denser abdominal punctures, unequal strial intervals, only the third being wider in *opacula*, in the larger prothorax, stouter form of body and more coarsely, densely and rugosely punctate beak.

**Baris planifera** n. sp.—Still larger and stouter than *opacula*; coloration and lustre as in the preceding, except that the legs are blackish-piceous and not clear red; beak in the female arcuate, cylindrical, finely, closely and evenly punctulate and three-fourths as long as the prothorax, the latter with evenly arcuate upper profile, two-fifths wider than long, the sides subevenly arcuate throughout, more parallel basally and slightly more converging apically; punctures moderately coarse, very deep and closely cribrate, very dense and sublineate at the sides, the median line wholly obsolete, the basal lobe short, broadly rounded and feeble, the scutellum small, subquadrate; elytra two-fifths longer than wide, very slightly wider than the prothorax and almost twice as long, the subparallel sides feebly arcuate, very gradually rounding behind; humeri feebly prominent, closely punctulate internally; grooves moderately coarse, deep, with shining and lineato-punctate bottom, but not at all

crenulate; intervals more than twice as wide as the grooves, very flat, subequal, all finely but deeply, confusedly punctate, the third a little wider; setæ very small; abdomen with rather small but deep, somewhat well separated punctures, closer but not larger toward the sides, except at the sides of the first segment, where they are coarser and sparser; anterior coxæ separated by somewhat more than half their widths. Length (♀) 4.7 mm.; width 2.0 mm. California (southern).

The single female at hand represents a species differing greatly from the female type of *opacula*, in which the legs are similarly piceous-black in color, in its larger size and very much stouter outline, larger, more transverse and laterally more rounded prothorax, less confused interstitial punctures and more oblong and less elongate-oval form of the body. As in the case of the type of *alternans*, the exact locality is unrecorded. The dimensions of the female type of *opacula* are 3.8 by 1.45 mm.

*Baris brunneipes* Csy., a rather large species, described as from an unrecorded part of California, has recently been sent to me by Mr. Spalding, having been taken at Stockton, Utah.

The numerous species which follow are all small and allied as a rule to *area*, *aperta*, *confinis*, *socialis*, *ancilla* and *inconspicua*, although there are some that are not at all close to anything made known hitherto; *discipula* is now represented in my collection by four specimens from Indiana, Illinois and Kansas; it is a much narrower species than *area*. Specimens said to be *area* sent to me by Mr. Champion from Guatemala City, prove upon comparison to be quite different, and there are many other Mexican and Central American species more or less allied to *area* but different specifically and nearly all undescribed.

**Baris cruda** n. sp.—Stout, with inflated elytra, convex, shining, black, with very feeble submetallic lustre; beak in the female thick, moderately punctate, arcuate and almost as long as the prothorax, the latter transverse, almost one-half wider than long, the sides subparallel, arcuate, rounding and converging in apical third or more, the apex very feebly constricted, the basal lobe small; punctures coarse, separated by their own diameters, dense laterally, finer and relatively closer apically, the smooth median line completely wanting in the type; scutellum very small; elytra scarcely a third longer than wide, fully a fourth wider than the prothorax and not quite twice as long, the parallel sides nearly straight, rapidly very obtuse at apex, the humeri very moderate; grooves coarse and deep, becoming finer apically, the intervals as wide as the grooves basally, relatively wider posteriorly, each with a single series of very moderate separated punctures; setæ minute and inconspicuous;

abdomen strongly and densely punctate. Length (♀) 3.2 mm.; width 1.4 mm. Indiana. Levette collection.

The type of this species was overlooked in my revision of the genus; the species is not closely allied to any other and the abdominal punctures are as dense as in *punctiventris* though less coarse; the latter is much narrower than *cruda*.

Of *Baris monardæ* Pierce, I have two examples from Missouri; it was described from Dallas, Texas. It resembles *deformis* to some extent in sculpture, except that the thoracic punctures are smaller and still denser. The abdomen is densely punctate.

*Baris regularis* Chmp., a very small species, with coarse sculpture, short beak and acutely prominent external tibial angles, small transverse scutellum and coarse elytral grooves, seems to be represented in my collection by a single specimen taken at Tepehuanes, Durango, by Wickham; the typical *regularis* is from Guerrero, and the beak is described as closely punctate; in the Durango specimen it is however sparsely and very inconspicuously punctate.

**Baris sejuncta** n. sp.—Oblong-oval and moderately convex, polished, black, the legs slightly piceous; beak in the female cylindrical, rather thick and arcuate, four-fifths as long as the prothorax and not densely punctulate; prothorax short, one-half wider than long, having evenly arcuate upper profile, the sides subparallel, feebly arcuate, very gradually rounding and converging before the middle, without trace of apical constriction; basal lobe abrupt, distinct; punctures coarse, a little less so medially, widely separated; close-set laterally, the median smooth line not definite; scutellum very small, quadrate, impressed behind; elytra two-fifths longer than wide, a little wider than the prothorax and not quite twice as long, the sides feebly converging, gradually obtuse at tip, the humeri prominent; grooves rather coarse and deep, especially toward the sides basally, less coarse suturally; intervals one-half wider than the grooves, each with a single series of rather small but distinct and moderately spaced punctures, the second and third wider but still with single series; setæ very small; abdomen with small sparse punctures, closer and larger laterally. Length (♀) 3.2 mm.; width 1.35 mm. Florida. One example.

The only species with which this can be at all closely compared is *æneomicans*, said to be from Massachusetts, but there is no trace of the æneous lustre so pronounced in that form; the body is smaller and shorter and the legs rufescent and not black.

**Baris persola** n. sp.—Elongate-suboval, convex, shining, black, with somewhat æneous lustre; beak in the female thick, arcuate, three-fourths

as long as the prothorax and finely, loosely punctate; prothorax transverse, not quite one-half wider than long, the upper profile evenly arcuate; sides feebly converging and but slightly arcuate, gradually rounding and converging in about apical third; basal lobe small but abrupt; punctures coarse, separated by fully their own diameters, dense at the sides, the median smooth line not definite; scutellum very small, rounded; elytra two-fifths longer than wide, evidently but not greatly wider than the prothorax and about twice as long, the sides slightly converging and feebly arcuate, rapidly obtuse at tip; humeral callus rather large and prominent; grooves rather coarse, deep and very abrupt externally, much less coarse suturad; intervals not quite twice as wide as the grooves, each with a single series of very fine and widely spaced punctures, the second and third much wider than the others, but with the fine punctures still in single series; setæ very small and inconspicuous, the abdomen loosely punctate, but somewhat coarsely latero-basally. Length (♀) 3.0 mm.; width 1.35 mm. Missouri (St. Louis),—Schuster. One example.

This species is also allied to *æneomicans* and has a somewhat similar æneous lustre, but the prothorax is not subevenly rounded at the sides as in that form, and the interstrial punctures of the elytra are much more minute.

**Baris mobilensis** n. sp.—Small, polished, black, with slight æneous lustre, the legs black or nearly so; beak rather slender, finely, sparsely punctate, strongly and evenly arcuate and three-fourths (♂) or four-fifths (♀) as long as the prothorax, the latter short, one-half wider than long, the sides subparallel and scarcely arcuate in basal, rounding and converging in apical half, the apex wholly unconstricted; basal lobe moderate, rather abrupt; punctures moderately strong, separated by more than twice their diameters, coarser and close laterally, the median impunctate line not definite or wanting; scutellum small, rounded; elytra relatively long, about one-half longer than wide, a little wider than the prothorax and between two and three times as long, the sides feebly converging and slightly arcuate to the gradually obtuse apex, the humeri prominent; grooves moderate, smooth, very deep, a little coarser basally; intervals all with a single line of minute and widely separated punctures, the second and third much wider than the others; setæ minute and indistinct; abdomen minutely, remotely punctulate, more evidently latero-basally, not evidently modified in the male. Length (♂ ♀) 2.5–2.8 mm.; width 0.9–1.2 mm. Alabama (Mobile). Three specimens.

Allied also to the *æneomicans* section, but very much smaller and narrower than any of the others; it is also allied somewhat to *ærea*, but differs in its narrower and more elongate form, shorter prothorax and much longer beak.

**Baris subtropica** n. sp.—Elongate and feebly subrhomboidal, convex, polished, black, with evident subæneous lustre, the legs black; beak

thick, arcuate, finely, not densely punctulate, barely visibly shorter than the prothorax in the apparently male type; prothorax three-sevenths wider than long, the sides subparallel and feebly arcuate, rapidly rounded and then oblique in nearly apical third; punctures deep, rather coarse, less so medially, separated by about their own diameters, coarser, dense and somewhat longitudinally confluent at the sides, the smooth median line obliterated; basal lobe short but rather abrupt, rounded, the scutellum small, subquadrate, impressed at apex; elytra three-sevenths longer than wide, evidently wider than the prothorax and twice as long, the sides notably converging, the apex somewhat narrowly and obtusely rounded, the humeri prominent; grooves deep, rather coarse, less so sutural, smooth, not evidently punctate; intervals scarcely twice as wide as the grooves, each with a single series of small and well separated punctures, the second and third much wider than the others but with single series; setæ very small, almost indistinct; abdomen very finely, sparsely punctate throughout; metasternum very coarsely punctate. Length 2.9 mm.; width 1.2 mm. Florida. One example.

Evidently belongs to the *aneomicans* group, and, as in that species, having fine sparse abdominal and coarse metasternal punctures, the latter similar also to the otherwise not closely allied *metasternalis*, but in *subtropica* the prothorax is very different in outline, the body narrower and the elytra more cuneiform.

**Baris rostrina** n. sp.—Elongate-oval, very convex, shining, black, not metallic, the legs feebly picescent; beak in the male rather thick, very moderately arcuate, closely punctulate, impressed above near basal third, so that the basal part is more convex in profile, about two-thirds as long as the prothorax, the latter between a fourth and fifth wider than long, the sides almost evenly arcuate from base to apex, becoming gradually parallel but arcuate basally; basal lobe very short and rounded; punctures strong and deep, separated by about their own diameters, coarser and densely rugulose laterally, the smooth median line narrow from base to anterior third; scutellum small, rounded; elytra two-fifths longer than wide, slightly wider than the prothorax and a little less than twice as long, the sides feebly converging and broadly, distinctly arcuate to the rather narrowly obtuse apex, the humeral callus inconspicuous; grooves moderately coarse, deep, smooth; intervals one-half wider than the grooves, with single lines of very moderate and rather well separated punctures, the third wider and with the punctures confused; setæ very small, inconspicuous; abdomen with somewhat strong, deep and dense punctures throughout, broadly and very feebly impressed at base in the male. Length (♂) 2.8 mm.; width 1.2 mm. Missouri (St. Louis),—Schuster. One specimen.

It is impossible to estimate the constancy of the peculiar modification of the beak in the single type, but the species is very distinct otherwise in its narrowly elongate-oval and very convex form and



strong dense punctures of the abdomen, not as coarse or dense however as in *punctiventris*.

**Baris amnicola** n. sp.—Elongate-oval, convex, moderately shining, black throughout; beak in the female rather short and slender, arcuate, moderately closely punctulate and three-fifths as long as the prothorax, which is two-sevenths wider than long, with the sides subevenly arcuate, becoming feebly so and subparallel posteriorly; basal lobe moderate; punctures somewhat coarse and dense, smaller and rather well separated medially, the smooth line small, not well defined; scutellum small, rounded; elytra two-fifths longer than wide, slightly wider than the prothorax and three-fourths longer, the sides feebly converging and slightly arcuate, the apex moderately obtuse; humeral callus not conspicuous; grooves moderately coarse, deep, not crenulate, the intervals about twice as wide as the grooves, each with a single series of more or less widely separated, moderate punctures, the second and third a little wider, the setæ very small and inconspicuous; abdomen somewhat strongly but loosely punctate. Length (♀) 2.9 mm.; width 1.15 mm. Texas (Brownsville),—Wickham.

This species may be placed near the last, which it resembles somewhat in general habitus, but the abdominal punctures are much more separated and shallower, and the beak is more slender.

**Baris obsequens** n. sp.—Evenly oval, less elongate and convex than the preceding, more shining, piceo-rufous in color throughout; beak in the female feebly arcuate, rather closely punctulate and three-fifths as long as the prothorax, the latter a third wider than long, with the sides converging and broadly arcuate from the base, a little more converging at apex, the basal lobe short and obtuse; punctures somewhat strong, well separated and rather small medially, gradually a little coarser and close laterally, the smooth median line obsolete; scutellum very small, rounded; elytra a third or more longer than wide, barely at all wider than the prothorax and three-fourths longer, the converging sides distinctly arcuate to the narrowly obtuse apex; humeral callus very moderate; grooves moderate, deep and not crenulate except slightly at base; intervals fully twice as wide as the grooves, each with a single series of moderate and rather well separated punctures, those of the second and third fine and more close-set, the setæ minute but evident; abdomen moderately and rather loosely punctate. Length (♀) 2.6 mm.; width 1.05 mm. Texas (locality unrecorded).

A small and evenly oval, polished, pallescent species, not very closely allied to any other, but which may be associated with the two preceding.

*Baris confinis* Lec., and *socialis* Csy., are both abundant and widely distributed from the Great Lakes to southern Florida, and the latter extends also to Texas; *confinis* is shorter, smaller and

more closely sculptured than *socialis* and generally has a very faint æneous lustre, wholly wanting in the blacker and more shining, more elongate-oval *socialis*; *ancilla* Csy., from Tampa, Florida, is allied rather closely to *socialis*, resembling it almost exactly in outline and size, but the pronotal punctures are smaller, the serial punctures of the elytra much more minute and more widely separated, and the beak is longer and notably heavier. The following four species are more or less closely allied to *ancilla* and *socialis*, though *carolinensis* is closer to *confinis*, being similarly rather closely sculptured and less elongate than the others, but it is smaller and narrower than *confinis*:

**Baris neptis** n. sp.—Rather broadly oval, convex, deep black, polished, without trace of metallic lustre; beak in the male rather slender, arcuate, finely, loosely punctate and barely three-fifths as long as the prothorax, the latter two-fifths wider than long, the sides slightly converging and feebly arcuate, rapidly rounding and very strongly converging in about apical fourth, the basal lobe short; punctures moderate though deep, separated by their own widths or more and very small medio-apically, gradually coarser and closer though barely contiguous at the sides, the median smooth line subobsolete; scutellum very small, rounded, emarginate behind; elytra two-fifths longer than wide, rather evidently wider than the prothorax and about twice as long, the sides slightly converging and broadly arcuate, the apex moderately obtuse, the humeri somewhat prominent; grooves rather coarse, deep, somewhat crenulate basally; intervals one-half wider than the grooves, each with a single series of fine and moderately separated punctures, the second and third wider, more unevenly uniseriate; setæ minute; abdomen with rather coarse, deep and close-set punctures, having (♂) a feeble medio-basal concavity, gradually evanescent on the second segment. Length (♂) 3.3 mm.; width 1.4 mm. North Carolina (Asheville).

Notably broader than *socialis* and with coarser and much closer abdominal punctures.

**Baris metasternalis** n. sp.—Form rather narrowly elongate-oval, more strongly convex, polished, deep black, without metallic lustre; beak rather slender, feebly arcuate, finely, loosely punctate and about two-thirds as long as the prothorax, the latter only a fifth wider than long, the converging sides feebly arcuate, gradually rounding and more convergent in about apical fourth; basal lobe rather small and feeble; punctures strong though only moderately coarse, well separated, longitudinally subconfluent at the sides, the median smooth line narrow and not strongly defined; scutellum minute, rounded, impressed; elytra a little more than two-fifths longer than wide, slightly wider than the prothorax and not quite twice as long, the sides feebly converging and broadly arcuate, the apex obtuse, the humeri moderately prominent;

grooves not very coarse but deep, not at all crenate, the intervals twice as wide, each with a single even series of small and well separated punctures, the second and third slightly wider, evenly uniseriate, but with the punctures smaller and more close-set; setæ very minute and inconspicuous; metasternum with very coarse punctures having three times the area of those of the side-pieces or of the base of the abdomen, the latter separated by their own widths at the sides. Length (♂) 3.0 mm.; width 1.15 mm. North Carolina (Black Mts.),—Beutenmüller.

Narrower, more elongate and more convex than *socialis*, with slightly shorter beak and very much coarser metasternal punctures.

**Baris carolinensis** n. sp.—Oblong-suboval, moderately convex, polished, black, with just visible æneous lustre; beak not stout, feebly arcuate, rather closely punctulate, three-fifths (♂) or three-fourths (♀) as long as the prothorax, which is a third to two-fifths wider than long, the sides feebly converging and slightly arcuate, rapidly rounding and very convergent in about apical fourth, the basal lobe moderate, cuspiform; punctures relatively rather coarse, deep, separated by about their own diameters, dense and longitudinally subconfluent at the sides, the smooth median line evident but abbreviated; scutellum very small, rounded; elytra two-fifths longer than wide, rather evidently wider than the prothorax and about twice as long, the sides feebly converging and slightly arcuate, the apex obtusely rounded, the humeri polished, not very prominent; grooves somewhat coarse, very deep, with smooth sides, the intervals barely twice as wide as the grooves, each with a single series of fine and well separated punctures, which are more irregular on the wider second and third intervals, the setæ minute and inconspicuous; abdomen moderately and loosely punctate, more coarsely and closely toward the sides, having a feeble medio-basal impression in the male. Length (♂ ♀) 2.7–2.8 mm.; width 1.15–1.2 mm. North Carolina (Black Mts.),—Beutenmüller. Three specimens.

Allied to *confinis* Lec., but differs in its somewhat smaller size and slightly narrower outline, also in the somewhat longer beak and more shouldered prothorax, which has likewise an unusually abbreviated form and strong, rather close-set punctures, differing in these and other respects from *socialis* and *ancilla*.

**Baris ashevillensis** n. sp.—Oblong-oval, elongate, strongly convex, polished, black, without metallic lustre of any kind; beak in the male short, arcuate, finely, not densely punctate and scarcely three-fifths as long as the prothorax, which is less abbreviated than in the preceding or in *confinis*, the sides moderately converging and feebly arcuate, rapidly rounding and converging in apical fourth; basal lobe small, feeble; punctures moderate, separated by twice their diameters, becoming coarser and close toward the sides, the median smooth line evident but abbreviated; scutellum small, rounded; elytra rather more than two-fifths longer than wide, slightly wider than the prothorax and a little less

than twice as long, the sides barely visibly converging and broadly arcuate, obtusely rounded at apex, the humeral callus rather feeble; grooves moderately coarse, deep, the intervals about one-half wider than the grooves, the second and third a little wider, all with a single series of small and well separated punctures; abdomen rather coarsely, deeply and closely punctate, the punctures forming an uneven transverse series on the third and fourth segments, having in the male a feeble medio-basal impression, obsolete near the apex of the second segment; pygidium convex, with deep though moderate and not densely crowded punctures. Length ( $\sigma^7$ ) 3.1 mm.; width 1.3 mm. North Carolina (Asheville). One example.

This species can be compared only with *socialis*, but differs in the shorter and less sculptured beak and stronger and denser abdominal punctuation; the prothorax is slightly more abbreviated, but much less so than in the more metallic *carolinensis* and *confinis*.

**Baris pupilla** n. sp.—Oblong-suboval, convex, strongly shining, black, with evidently æneous lustre above, the legs black; beak rather stout, barely arcuate, rather closely punctulate and two-thirds as long as the prothorax, the latter a fourth wider than long, the sides broadly arcuate, gradually less so and subparallel in about basal half; punctures strong, separated by about one-half more than their diameters, dense and longitudinally confluent at the sides, very minute medio-apically, the smooth median line narrow but almost entire, the basal lobe small; scutellum very small, rounded; elytra a third longer than wide, slightly wider than the prothorax and two-thirds longer, the sides feebly converging and broadly arcuate, the apex broadly obtuse, the humeri prominent, finely punctate, the tip polished; grooves rather coarse, deep; intervals one-half wider than the grooves, each with a single series of small and well separated punctures, slightly confused on the third, the second and third wider than the others; setæ minute but glistening as usual; abdomen finely, sparsely punctate medio-basally, rather strongly and closely elsewhere, having at base a feeble transversely oval impression in the male. Length ( $\sigma^7$ ) 2.7 mm.; width 1.2 mm. North Carolina (Asheville). One example.

Allied evidently to *ærea*, but differing in the coarser and closer pronotal punctures and in the almost evenly arcuate thoracic sides, the outline being more shouldered anteriorly in *ærea*.

**Baris modicella** n. sp.—Parallel, subcylindric, convex, shining, black, with barely evident subæneous lustre above, the legs piceous; beak in the male very feebly arcuate, slightly punctulate and nearly four-fifths as long as the prothorax, the latter short, one-half wider than long, the sides almost parallel, very feebly arcuate, rapidly rounding and oblique between apical third and fourth, the basal lobe abrupt, well developed, rounded; punctures fine or moderate and sparse, becoming gradually rather coarse and moderately close laterally; median smooth line wanting; scutellum very small, rounded; elytra not quite a third longer than

wide, barely at all wider than the prothorax and three-fourths longer, the parallel sides feebly arcuate, gradually rounding behind, the apex obtuse; humeral callus moderate; grooves moderate, coarser latero-basally, the intervals twice as wide as the grooves, the second and third wider, all with single series of minute and remotely spaced punctures, the setæ very small; abdomen finely, sparsely punctate, only a little less so laterally, the male with a feeble triangular medio-basal impression confined to the first segment. Length ( $\sigma^7$ ) 2.6 mm.; width 1.0 mm. Texas (Austin). One specimen.

This species is also to be associated with *area*, but differs in its more parallel and narrower outline and very much shorter and more transverse prothorax.

**Baris novella** n. sp.—Suboval, convex, shining, black, the elytra and legs with the faintest possible piceous tinge; beak in the female moderately arcuate, finely, somewhat closely punctulate and two-thirds as long as the prothorax, which is between a third and fourth wider than long, with broadly, subevenly arcuate sides, more converging apically, becoming parallel basally, the apical constriction very faint; punctures rather coarse, deep, cribrate, separated by half their diameters or less, finer medio-apically, dense and longitudinally confluent at the sides, the median smooth line narrow, not entire, the lobe unusually abrupt, not large but strongly marked; scutellum minute, rounded and impressed; elytra a third longer than wide, distinctly wider than the prothorax and two-thirds longer, with the sides converging and broadly arcuate to the moderately obtuse apex, the humeri prominent; grooves coarse and deep, not crenate; intervals a third wider than the grooves, each with a single frequently subimpressed series of coarse and very close-set punctures, the third wider and with finer and confused punctures; abdomen with only moderately coarse though deep and notably dense punctures. Length ( $\text{♀}$ ) 3.3 mm.; width 1.35 mm. Missouri (St. Louis),—Schuster.

At first glance this species might be thought allied to *socialis*, but the sculpture is much coarser and denser, and there is in reality no close affinity in any direction.

**Baris cauta** n. sp.—Oblong-suboval, convex, shining, black throughout, without metallic lustre; beak in the apparent female short, straight in inferior, arcuate in superior, outline, two-thirds as long as the prothorax and somewhat closely punctulate; prothorax nearly a fourth wider than long, the sides notably converging and almost straight, rapidly rounding and oblique in apical fourth; punctures notably coarse and close-set, cribrate, coalescent laterally, the median smooth line obliterated; basal lobe moderate, the scutellum small, narrowly subcanaliculate; elytra a third longer than wide, only slightly wider than the prothorax and three-fourths longer, the sides feebly converging and slightly arcuate to the rapidly obtuse apex, the humeral callus not large, rather prominent; grooves coarse, very deep, not crenate; intervals barely one-half wider than the grooves, each with a single series of somewhat coarse, rather

well separated punctures, the second and third wider and with smaller punctures, somewhat confused on the third, the setæ small but glistening and distinct; abdomen with moderate and rather widely separated punctures, becoming coarser and somewhat close laterally. Length (♀) 3.0 mm.; width 1.4 mm. Pennsylvania (locality unrecorded).

The unique type represents a species not closely allied to any other, but belonging to the *socialis* series; it has a very feeble rounded indentation, not at the abdominal base but at the centre of the first segment; this, in connection with the short beak, may indicate the male, but the probabilities are that it is a female.

**Baris sculptiventris** n. sp.—Oblong-suboval, convex, black, shining and with barely any metallic lustre above, the legs rufescent; beak in the female rather stout, strongly, evenly arcuate, rather densely punctate and as long as the prothorax, which is not quite one-half wider than long, with parallel and feebly arcuate sides, rounding strongly and rapidly in apical third or fourth; punctures coarse, deep, close-set, separated by half their diameters, denser laterally; smooth median line obliterated; basal lobe broad and very short, the scutellum very small, rounded, impressed; elytra two-fifths longer than wide, only slightly wider than the prothorax and not quite half longer, the sides subparallel, slightly arcuate, gradually obtuse at apex, the humeri subprominent; grooves moderate, very deep, with smooth sides, the punctures along the bottom well separated; intervals barely twice as wide as the grooves, each with a single series of small but deep and distinct, well separated punctures, the second and third but little wider, the latter with the series more uneven; setæ minute and inconspicuous; abdomen strongly, extremely densely punctate, with the punctures subcoalescent longitudinally. Length (♀) 2.8 mm.; width 1.28 mm. Florida (Key West). A single example.

A remarkably distinct species in the peculiar strong and dense compressed sculpture of the abdomen; in this respect it resembles *punctiventris*, from Louisiana and Missouri, though having the abdominal sculpture even denser, but it differs in the more oblong and less oval outline, shouldered and not laterally subevenly rounded prothorax and in the still longer beak.

The three following species are notably narrow, slender, convex and subcylindric, more or less resembling *macra*, *aperta* and *inconspicua*:

**Baris fracta** n. sp.—Elongate-suboval, convex, shining, piceous-black, the elytra and legs obscure rufous; beak in the male closely punctulate, black, feebly arcuate, slender and three-fourths as long as the prothorax, the latter a fourth wider than long, the sides moderately converging, broadly, subevenly arcuate, rather abruptly oblique in apical third or fourth, the apex unconstricted; punctures rather coarse, deep, separated

by somewhat less than their diameters, dense and longitudinally confluent at the sides, the smooth median line narrow but distinct and entire in the type; basal lobe distinct, the scutellum small, rounded, smooth and impressed; elytra fully two-fifths longer than wide, distinctly wider than the prothorax and almost twice as long, the sides feebly converging and slightly arcuate to the obtuse apex; grooves moderately coarse, deep, smooth, the intervals rather less than twice as wide as the grooves, each with a single series of small and widely separated punctures, the second and third a little wider; humeri rather prominent; setæ very minute, indistinct; abdomen somewhat strongly and closely punctate, loosely toward the middle, with a rather short, broad and feeble basal impression in the male. Length ( $\sigma^7$ ) 3.0 mm.; width 1.23 mm. Missouri.—Schuster.

Allied to *aperta*, but differing in the more closely punctured beak, less evenly rounded sides of the prothorax, more densely and strongly punctate abdomen and less coarsely and more closely punctured metasternum; the type of *aperta* is a female and the beak is rufescent; it is from Dakota.

**Baris rusticula** n. sp.—Narrowly parallel and subcylindric, shining, black, the elytra and legs obscure piceo-rufous; beak slender, feebly arcuate, finely, not densely punctate and four-fifths as long as the prothorax, which is between a third and fourth wider than long, with parallel and very feebly arcuate sides, gradually rounding and then oblique in about apical third, the apex scarcely at all constricted; punctures moderate though deep, separated by fully their diameters, stronger, dense or subcoalescent at the sides, the smooth median line obliterated or barely suggested, the lobe short and feeble; scutellum very small, rounded, smooth, slightly canaliculate; elytra fully two-fifths longer than wide, not distinctly wider than the prothorax and nearly twice as long, the sides very feebly arcuate, the apex obtuse and the humeri rather prominent; grooves somewhat coarse, smoothly abrupt and deep; intervals barely one-half wider than the grooves, each with a single series of small but very distinct punctures, the second and third but little wider; setæ very small; abdomen finely, sparsely punctate, gradually less finely but still very loosely toward the sides, having a short broad feeble basal impression in the male. Length ( $\sigma^7$ ) 2.7 mm.; width 1.0 mm. Colorado (locality unrecorded).

This is a distinct small species, very parallel and differing from *inconspicua* in its relatively narrower elytra, with finer and less close interstitial punctures, sparser punctures and more parallel sides of the prothorax and shorter, much shallower abdominal impression in the male.

**Baris subexilis** n. sp.—Cylindric, rather convex, shining, black, the legs feebly picescent; beak in the female somewhat thick and strongly

arcuate, closely but not densely punctate and very nearly as long as the prothorax, the latter between a fourth and third wider than long, the sides parallel and very feebly arcuate, gradually evenly rounding in about apical third; punctures somewhat coarse, separated by half their diameters or less, coarser and densely rugulose at the sides, the median smooth line very narrow, visible in basal half, the lobe moderate; scutellum small, rounded, feebly punctulate; elytra not quite one-half longer than wide, very little wider than the prothorax and almost twice as long, the sides very feebly arcuate, gradually more so behind, the apex obtusely rounded; humeral callus moderate; grooves deep, not very coarse, the intervals twice as wide, each with a single series of small, well separated punctures, the second and third distinctly wider; abdomen with moderate, shallow and well separated punctures, scarcely closer at the sides. Length ( $\sigma^7$  ♀) 3.1–3.3 mm.; width 1.15–1.28 mm. New Mexico,—F. H. Snow.

The specimen supposed to be the male, because of somewhat shorter and more slender beak, has the thoracic punctures slightly less coarse; there do not seem to be any distinct abdominal modifications.

The next three species here described are stouter and less cylindrical than those immediately preceding and do not belong in their vicinity, but they would also be inharmonious elsewhere in the genus; they are all from the vicinity of Greeley, Colorado.

**Baris meraca** n. sp.—Oblong-suboval, convex, not very shining, black, the legs slightly piceous; beak in the female rather thick, feebly arcuate, finely and densely, subrugosely punctate and three-fifths as long as the prothorax, the latter nearly a third wider than long, the sides feebly converging and but slightly arcuate, gradually rounding and oblique in about apical third; punctures moderately coarse, deep and close-set, the median smooth line obsolete; basal lobe very moderate, the scutellum small, rounded and punctulate; elytra barely at all wider than the prothorax and three-fourths longer, a third longer than wide, the parallel sides nearly straight, gradually rounding in about apical third, the humeri slightly prominent; grooves deep, not very coarse, the intervals, about twice as wide as the grooves, each with a series of rather coarse, close and almost transversely crowded punctures, the second and third a little wider, with more rounded punctures; setæ rather small but very distinct; abdomen with moderate, somewhat shallow but close punctures. Length (♀) 3.2 mm.; width 1.3 mm. Colorado (Greeley),—Wickham.

A very distinct species not at all near any previously described, having notably close elytral sculpture and very densely sculptured beak; the tibiæ are not at all denticulate externally at apex.

**Baris probata** n. sp.—Larger and much stouter than *meraca*, convex, black, not very shining, the legs but faintly picescent, the femora more



strongly and densely punctured than in the preceding; beak in the male short, feebly arcuate, closely punctate and three-fifths as long as the prothorax, the latter rather large, a fourth wider than long, the sides feebly converging and slightly arcuate, somewhat rapidly rounding in between apical third and fourth; punctures everywhere dense, somewhat coarse laterally, notably fine medially, and without trace of impunctate median line; basal lobe moderate, the scutellum very small, smooth, subquadrate not at all transverse; elytra not a third longer than wide, slightly wider than the prothorax and barely three-fourths longer, the sides nearly straight and parallel, parabolically rounding in about apical third, the humeral callus feeble; grooves rather coarse and with strong distant punctures along the bottom; intervals one-half wider than the grooves, each with a single series of rather coarse but separated, rounded punctures, the second and third wider, with finer, closer and more confused series; setæ moderate, pale and distinct; abdomen with moderately coarse, close-set punctures, sparser within a feeble basal impression in the male, broadly obsolescent in the basal part of the second segment. Length (♂) 3.8 mm.; width 1.65 mm. Colorado (Greeley),—Wickham.

Differs from *meraca* in its larger size, much stouter form, more finely and very closely punctate prothorax, more rapidly narrowed at apex, in the coarser elytral grooves and relatively narrower intervals, with looser series of circular and rather coarse punctures, and in the closer abdominal punctures.

***Baris oviculata*** n. sp.—Narrower than the preceding but broader than *meraca*, strongly convex, shining, black, the elytra and legs with feeble piceous tinge; beak in the male short, cylindro-arcuate, closely punctulate and three-fifths as long as the prothorax, which is almost a third wider than long, the sides very distinctly converging, feebly arcuate, rounding rather rapidly in apical fourth, subsinuate in the apical obliquity; punctures relatively coarse, separated by half their diameters, dense laterally, the median smooth line evident except toward base and apex; basal lobe small, the scutellum small, strongly transverse, not impressed; elytra a third longer than wide, evidently wider than the prothorax and four-fifths longer, the sides parallel, nearly straight, gradually broadly rounding behind, the apex not obtuse; humeral callus distinct; grooves moderately coarse and deep, the punctures not very distinct; intervals twice as wide as the grooves, each with a single series of very moderate, evidently though unevenly separated punctures, the second and third wider, the latter with finer, closer and more confused punctures; setæ moderate, pale, glistening and distinct; abdomen rather loosely, moderately and very shallowly punctate, the male with a basal impression, which becomes gradually and narrowly, subcanalicularly attenuate behind, extending to the apex of the second segment. Length (♂) 3.35 mm.; width 1.4 mm. Colorado (Greeley),—Wickham.

Distinguishable from *probata* by the narrower form, looser sculpture and different male sexual characters, coarser pronotal punctures

and other characters; from *meraca* it differs in the smaller, more distant serial punctures of the elytra and in the more converging sides of the prothorax, which are more rapidly rounded anteriorly, and it differs furthermore from either in the short transverse scutellum and relatively broader elytra.

The following species is wholly unlike any other in our fauna in sculpture, vestiture and general habitus. At first it seemed likely to be a member of the genus *Pycnobaris*, having a similarly very robust outline, though less convex, but the beak is not separated from the head by an abrupt transverse sulcus as in that genus and the anterior coxæ are less widely separated:

***Baris lanosella*** n. sp.—Broad, oblong-suboval, rather convex, feebly shining, black, with feeble bronze lustre, the legs more or less rufopiceous, the vestiture throughout consisting of long and slender subdecumbent hair-like scales, dark grayish in color and not at all dense, a little shorter beneath; beak long, arcuate, closely, not finely sculptured and as long as the prothorax in the female; prothorax transverse, not quite one-half wider than long, the sides subparallel, broadly arcuate, very gradually rounding in about apical half, the apex not constricted, truncate and much less than half as wide as the base; punctures deep, rather coarse, although narrowly separated, the median smooth line distinct and subentire, broadest medially; scutellum small, slightly transverse, tumid and feebly canaliculate; elytra oblong, a fourth longer than wide, a fourth or fifth wider than the prothorax and about twice as long, the sides parallel, nearly straight, rounding evenly in posterior two-fifths, the humeral callus very feeble, the sides at base oblique; grooves moderate, becoming coarse and strongly punctate but not crenulate basally; intervals broad, flat, confusedly and not very coarsely but rather closely punctured throughout; subapical umbo rather pronounced; pygidium moderate, slightly oblique; abdomen strongly, rather closely punctate. Length (♀) 4.4 mm.; width 2.2 mm. Wyoming (Laramie).

The peculiarities of this species reside in the stout oblong form, and in the close and confused punctures and distinct long slender hair-like scales throughout the upper surface. The beak is separated from the head above by the usual feeble smooth impression of *Baris*, and the head is distinctly punctured behind the depression.

The following is a minute species, the affinities of which cannot be determined at present; it seemed at first to be a minute and slender *Onychobaris*, but on closer examination it proves to be in all probability a *Baris*; the anterior coxæ are separated by a little less than their own width and the intervening surface is feebly concave:

**Baris esuriens** n. sp.—Slender, elongate-oval, strongly convex, rather dull in lustre and coarsely, densely sculptured, black, the legs slightly piceous; beak in the female arcuate, rugosely sculptured and slightly longer than the prothorax, the latter a fourth or fifth wider than long, the sides very feebly converging and slightly arcuate, gradually rounding and oblique in nearly apical third, the apex not constricted; punctures deep, moderately coarse and dense throughout, without smooth median line; basal lobe small, feeble; scutellum small, elongate-suboval; elytra ovulate, convex, two-fifths longer than wide, widest near basal third, where they are just visibly wider than the prothorax, nearly twice as long, the sides evenly arcuate, gradually converging behind to the rather narrowly rounded apex, feebly so basally, the base and thoracic base equal, the humeral callus very feeble, almost invisible to vertical view; grooves moderate, the intervals alternating in width and confusedly to uniseriately punctate, the punctures rather strong but visibly separated; abdomen with moderately coarse, even and rather close-set punctures. Length (♀) 2.4 mm.; width 0.8 mm. Kansas (Fort Scott).

The form of the elytra is peculiar, being feebly inflated subbasally, with almost invisible humeral callus, and the beak is rather longer than usual in *Baris*; all the punctures above and beneath have small narrow slender scales, which are more or less subdecumbent.

#### **Plesiobaris** Csy.

The species previously described as *signatipes*, which is held to be a subspecies of *T-signum* by Blatchley and Leng, is not, I think, at all closely allied, as it belongs plainly to the *albilatus* section of the genus; the type is not piceous but dark, though evident, red-brown; the disposition of the condensations of scales is as in *albilatus* but the body is very much more minute, with more slender beak and sparser pronotal punctures than in any other known member of the genus; the beak in the type is strongly and evenly arcuate and as long as the prothorax. The following species is also allied to *albilatus*, but differs in its smaller size and other characters:

**Plesiobaris rufina** n. sp.—Subcylindric-oval, strongly convex, shining, dark but clear brownish-red; beak slender, strongly, evenly arcuate, rather closely but not densely punctulate and somewhat longer than the prothorax, the latter fully a fourth wider than long, the parallel sides feebly arcuate, rapidly rounded and sensibly constricted at apex, the latter truncate and two-thirds as wide as the base; punctures coarse and close-set, the smooth median line narrow, usually entire or nearly so; basal lobe rather large but short, broadly rounded, the scutellum small, triangular; elytra two-fifths longer than wide, just visibly wider than the prothorax and almost twice as long, the sides parallel, rounding gradually behind the middle, the humeral callus small; grooves fine

rapidly becoming coarser at base, the intervals flat, each with a single series of very small and distant punctures; intervals two to five each with a short line of pale scales at apical third, the third with dense white scales in basal fourth or fifth, there are also a few large and widely scattered scales; under surface with condensations of pale scales as in *albilatus*, the abdominal punctures less strong, the legs shorter. Length ( $\sigma$   $\text{♀}$ ) 2.3–2.8 mm.; width 0.8–1.0 mm. Louisiana. Four examples.

Differs from *albilatus* in its smaller size, much more slender beak, less strongly punctate surfaces and especially in the elytral striation, the fine grooves becoming rapidly rather coarse at base; in *albilatus* the grooves are much less fine but are not enlarged perceptibly at base.

#### **Cosmobaris** n. gen.

In this proposed genus the beak, mandibles and legs are nearly as in *Baris*, but the body is squamose and the beak separated from the head by a deep transverse sulcus. The antennæ are slender, with very moderate oval club, the first joint of which constitutes rather more than half the mass and is loosely pubescent; the basal funicular joint is as long as the next three. The prosternum is flat, feebly fossulate transversely at apex and it separates the coxæ by about half their width. The prothorax is feebly constricted at apex. The type may be described as follows:

***Cosmobaris americana*** n. sp.—Oblong-oval, convex, black, the pronotal scales large, dense and whitish, wanting in a large medio-basal area having a few slender darker scales; on the elytra the large white scales are condensed in a few small spots, in a larger area just behind the middle and near the suture and on the suture basally, elsewhere more slender, linear and pale brown; the propleura are partially denuded, the pale scales elsewhere on the under surface narrow and well separated, coarser, denser and whiter on the met-episterna; beak feebly arcuate, strongly sculptured and as long as the head and prothorax, rather less in the male, the sparse squamules pale brown and not conspicuous; prothorax a fourth wider than long, the sides feebly converging, rapidly rounded anteriorly to the subtubulate apex; punctures strong and close-set; basal lobe feeble; scutellum small, nude; elytra one-half ( $\text{♀}$ ) to two-fifths ( $\sigma$ ) longer than wide, rather rapidly obtuse at apex, slightly wider than the prothorax and more than twice as long, the humeri not distinctly prominent; grooves moderate; intervals two or three times as wide as the grooves, finely, loosely punctate. Length 3.0–3.25 mm.; width 1.15–1.3 mm. Rhode Island and Pennsylvania.

The European *Baris scolopacea* Germ., comes closer to this species than any other, but is narrower and more cylindrical, with the pro-

notum squamose throughout, though unevenly, and the propleura are not denuded; the scales of the elytra are more uniformly oval and dense, though similarly aggregated in white spots among the pale brown scales of the general surface. I formerly held *americana* to be the same as *scolopacea*, but more careful observation with ampler material, shows that they are different.

Of those species now in my collection, it is evident that the European *sellata* and *spoliata* Boh., *albosignata* Jek., of Senegal, and the Japanese *orientalis*, also belong to this genus.\*

### Pycnobaris Csy.

The Colorado specimen formerly placed with typical Texan examples of *pruinosa* Lec., proves to represent a rather closely allied but apparently distinct species, which may be described as follows:

**Pycnobaris canonica** n. sp.—Stout, oblong-oval, convex, not shining, evenly clothed throughout above and beneath with slender and not very dense white scales; beak three-fourths as long as the prothorax, thick, arcuate, its dense scales conspicuous basally, abruptly ending at the smooth and glabrous head; prothorax large, nearly as in *pruinosa*, but with the sides more strongly constricted apically, the apex more definitely tubulate; punctures less coarse, dense throughout and without smooth median line; basal lobe small, with more conspicuous and dense white vestiture, the scutellum transverse, also with coarser and more distinct scales; elytra throughout nearly as in *pruinosa* but broader, scarcely a fourth longer than wide, two-thirds longer than the prothorax, the lineiform scales in the punctures at the bottom of the moderate grooves

\*The European species of *Baris*, as represented by *timida*, *carbonaria*, *laticollis*, *artemisiæ*, *quadraticollis*, and many more, resemble the American species assigned to the genus in general features—in their nude surface, antennal club and mandibles—but they are in general very much more feebly sculptured. Some of those regarded as *Baris* cannot remain there, and two have recently been separated by Reitter to form the genera *Ulobaris* and *Neobaris*; the following in addition should be proposed:

**Orthobaris** n. gen.—The type of this genus is *Baris cuprirostris* Fabr. The body is very slender, nude above and feebly sculptured, apparently always brightly metallic green, cupreous or bluish in color, with the beak differing considerably in the sexes and the prosternum obtusely canaliculate along the middle. The pygidium is as in *Baris* and the other genera here mentioned.

Some other species entering *Orthobaris* are *angusta* Brull., *prasina* Boh., and *nitidula* Bris.

Such species as *cærulescens* Scop., *pivicornis* Marsh., *chlorizans* Germ., and *corinthia* Fairm., which are placed in the same group as *cuprirostris* in the European catalogue, belong to the genus *Baris* and not to *Orthobaris*, although the last named species is very isolated even there.

longer and more conspicuous than in *pruinosa*, the dense confused punctures of the broad flat intervals almost similar; under surface closely but not coarsely punctate and with lineate scales throughout, the legs also distinctly although more finely squamulose. Length (♀) 4.2 mm.; width 2.2 mm. Colorado (Cañon City),—Wickham.

This species differs from *pruinosa* in its stouter form, more tubulate thoracic apex, less coarse pronotal punctures, flatter and more evenly squamulose pygidium in the female, and coarser and more conspicuous lineolate white scales throughout the body. The dimensions of the male and female of *pruinosa* in my collection are 3.2–4.2 by 1.3–2.0 mm.

#### *Stictobaris* Csy.

As in *Pycnobaris*, the beak is separated from the head by a deep transverse sulcus above, but otherwise there is no resemblance at all in the habitus of the body, the species of *Stictobaris* being narrow and elongate, with the upper surface more or less strongly convex, the sculpture\* very coarse and the prothorax tubulate at apex, often with a deep subapical constriction extending across the upper surface. The two following species differ from any of the three hitherto described, in the more variegated vestiture and other features:

\**Stictobaris tubifera* n. sp.—Elongate-suboval and moderately convex, shining and deep black, the legs black, picescent distally; sparse scale-like hairs of the pronotum long, suberect, irregularly bristling and fulvous in color, those of the elytra long, whiter, sparse, condensed in one or two basal tufts on each and in a short loose line on intervals two to six near apical third; beak in the female arcuate, thick, slightly longer than the prothorax and closely, strongly punctate, with some bristling scales at base above; prothorax a third wider than long, the sides subparallel, feebly arcuate, rapidly rounding and deeply constricted at the tubulate apex, which is rather more than half as wide as the base; punctures deep, very coarse and in mutual contact, the smooth median line evident but very narrow, subtumid, not entire; scutellum small, wider than long; elytra two-fifths longer than wide, evidently wider than the prothorax and fully twice as long, the sides parallel, gradually converging and arcuate behind the middle, the humeral callus small but rather prominent; grooves moderately coarse, deep, the intervals one-half wider than the grooves, each with a line of rather coarse punctures, sometimes confused, the second and third a little wider; abdomen not very coarsely, shallowly and rather loosely punctate. Length (♀) 3.7 mm.; width 1.6 mm. Mexico (Tepehuanes, Durango),—Wickham.

Distinguishable readily from *cribrata* by the still coarser sculpture,

more diversified vestiture and more deeply constricted apex of the prothorax.

\**Stictobaris ornatella* n. sp.—Form narrower and more convex than in the preceding, rather shining, black, the elytra and legs brownish-rufous; vestiture whitish, shorter than in the preceding, visible on the prothorax as some long subdecumbent scales toward the sides except apically, and, on the elytra, condensed loosely at the base of the third interval and on the separate intervals in a transverse area in inner half and near three-fifths from base, and also feebly near the apex; beak in the female thick, arcuate, closely punctate and about as long as the prothorax, without bristling scales at base; prothorax as usual, with the upper profile evenly and feebly arcuate, almost as long as wide, the sides subparallel, very feebly arcuate, rapidly rounded at apex to the apical tubulation, which is marked by longitudinal plicæ, the dorsal constriction much less marked than in the preceding; punctures much less coarse, deep, dense, the median line almost similar; elytra nearly as in the preceding in outline, though narrower and with more prominent humeri and barely three-fourths longer than the prothorax; grooves more unequal, coarser and strongly punctured basally, but gradually becoming rather fine behind; intervals not wider than the grooves basally, wider behind, each with a single series of relatively coarse and separated punctures, smaller and more confused on the slightly wider second and third intervals; abdomen very convex, finely, sparsely punctate, more distinctly and less sparsely toward the sides. Length (♀) 3.2 mm.; width 1.2 mm. Mexico (Tepehuanes, Durango),—Wickham.

This species differs from *tubifera* in the much longer, less coarsely but more densely punctured prothorax, posteriorly gradually finer but basally much coarser elytral grooves, less deep thoracic constriction and less bristling vestiture.

### *Onychobaris* Lec.

The species of this genus are very numerous in the arid western country, and many of them are nearly opaque because of density of sculpture. The *millepora* type is of larger size of body than the average, with finer and everywhere dense punctuation and small short whitish scale-like hairs, imparting a grayish pruinose appearance; the three following are allied to *millepora*:

*Onychobaris pollens* n. sp.—Stout, rather convex, deep grayish-black throughout, parallel, the sides oblique behind the humeral callus; beak in the male not very slender, arcuate, densely punctate and four-fifths as long as the prothorax, the latter large, fully a fourth wider than long, with the upper arcuate profile more sloping at apex, the sides parallel, scarcely arcuate, broadly rounding and then greatly converging in about apical third; apex less than half as wide as the base; punctures rather

small but deep, everywhere dense and subconfluent, not much coarser but in longitudinal rugulæ narrowly at the sides; median line feebly tumescent but not at all smooth; basal lobe broadly rounded, the scutellum transversely oval, impressed at the middle; elytra barely a fourth longer than wide, only two-fifths longer than the prothorax and not wider, except at the notably prominent humeral callus, the sides oblique and distinctly arcuate, the apex obtusely rounded; striæ fine, the small punctures bearing whitish decumbent hair-like scales, the intervals very broad, moderately though very densely punctate throughout; abdomen rather strongly, closely punctate, loosely so medio-basally, where there is a very shallow oval impression in the male. Length ( $\sigma^7$ ) 4.8 mm.; width 2.3 mm. Kansas (Belyvidere),—Knaus. One example.

Differs from *millepora* in its larger size, more parallel and larger, prothorax, finer elytral striæ, less defined and more crowded interstitial punctures and less transverse scutellum; in that species the elytra are distinctly more obtusely rounded behind in the female than in the male.

***Onychobaris implicata*** n. sp.—Cuneiform, the body widest at anterior third of the prothorax; coloration, lustre, sculpture and vestiture nearly as in the preceding and *millepora*; beak almost as in the preceding; prothorax shorter, a third wider than long, the sides nearly straight, diverging slightly from the base in line with the elytral sides, evenly but rapidly rounding in apical third, more transversely toward apex, which is much less than half as wide as the base, with polished and smooth margin as in the preceding and *millepora*; sculpture and lobe nearly similar, the scutellum more transverse and not impressed but punctured throughout; elytra a fourth longer than wide, not quite one-half longer than the prothorax, the oblique sides broadly arcuate, the apex rounded; humeral callus smaller and less prominent than in *pollens*; striæ not quite so fine, the interstitial punctures similarly very dense but somewhat stronger; abdomen slightly less coarsely, densely punctate, the punctures only a little less close-set in the somewhat deeper basal impression of the male. Length ( $\sigma^7$ ) 4.4 mm.; width 2.0 mm. Colorado (locality unrecorded).

In *millepora* the elytra are slightly less abbreviated than in either of the preceding species, the sides of the prothorax feebly converging and the interstitial punctures, though very close, are better defined, deeper and rather coarser. Though these three forms are closely allied, I have scarcely any doubt that they are specifically distinct; the following, although belonging to the same group of the genus, differs notably in elytral sculpture:

***Onychobaris mansueta*** n. sp.—Somewhat smaller and not so stout as in the preceding, black throughout and slightly more shining, especially on the elytra, elongate-suboval, convex; beak in the female rather



slender, arcuate, nearly smooth, becoming closely punctulate basally and just visibly longer than the prothorax, which is a third wider than long, the sides very feebly converging and nearly straight, broadly rounding and strongly, arcuately converging in apical third; apex very nearly half as wide as the base, having a smooth margin; punctures moderately strong, very close but not confluent, the median line obliterated; basal lobe more narrowly rounded; scutellum small, transverse, unimpressed but with two or three punctures; elytra two-fifths longer than wide, not wider than the prothorax, except at the rather prominent humeri, and nearly two-thirds longer; grooves moderate, with the small and more distant punctures bearing similar pale hairs, the intervals about three times as wide as the grooves, with rather strong, not very coarse and somewhat close-set punctures, either loosely confused or in single line; setæ small, pale; abdomen with close-set punctures, rather coarse laterally, smaller and less close medially. Length (♀) 3.9 mm.; width 1.7 mm. Montana (locality unrecorded).

This distinct species differs from any other of the *millepora* group in having moderately confused or single series of rather small but conspicuous interstitial punctures.

\****Onychobaris chihuahua*** n. sp.—Oblong-suboval, parallel, somewhat convex and shining, black throughout, the tibiæ and antennæ rufopiceous; beak rather slender, broadly arcuate, finely but strongly, closely punctate, a little shorter (♂) or slightly longer (♀) than the prothorax, the latter two-fifths wider than long, the sides rounding in at base, thence feebly converging, broadly rounded in about apical third; at about the middle there is frequently a feeble sinuation; apex briefly tubulate, half as wide as the base; punctures strong though only moderately coarse, very close, the narrow smooth median line imperfect or obliterated; basal lobe short, broadly arcuate, the scutellum slightly transverse, nearly smooth; elytra three-sevenths longer than wide, not distinctly wider than the prothorax and fully three-fourths longer, the sides subparallel, gradually rounding behind the middle, the humeral callus rather prominent; grooves moderately coarse, deep; intervals alternately more than, or barely, twice as wide as the grooves, the punctures not very coarse but deep, somewhat close and conspicuous, confused on the broader, in single series on the narrower, intervals, the setæ not evident; abdomen moderately closely, rather strongly punctate, more finely and loosely medio-basally, where there is a rather deep oval impression in the male; anterior femora with a feeble obtuse angulation beneath. Length (♂ ♀) 4.0–4.9 mm.; width 1.75–2.0 mm. Mexico (Colonia Garcia, Sierra Madre Mts., Chihuahua),—Townsend. Eight examples.

A large and conspicuous species, not closely allied to any other, distinguishable by its oblong form, shining surface and invisible elytral setæ; it may be placed near *molesta* among those hitherto described, but differs in its more elongate outline, much less rounded

sides of the prothorax, longer elytra and less coarse interstitial punctuation; *molesta* occurs at an unrecorded locality in Arizona. *Illex* Csy., occurs at Alamosa, Colorado, and at Marysvale, in Utah. I have now three examples of *pectorosa* Lec., taken at St. Louis, Missouri by Schuster and at the White Sulphur Springs, West Virginia, by Robinson; the anterior coxæ are separated by one-half more than their own width, the sternal surface between them flat, and it was described originally as from Texas; it is recorded from Connecticut by Blatchley, but possibly in subspecific form.

The following three small species are allied to the southern Californian *arguta*:

***Onychobaris oblita*** n. sp.—Oblong-suboval, moderately convex above, slightly shining, piceous-black, the legs and beak rufous; beak in the female strongly arcuate, moderately punctate and longer than the prothorax, the latter a fourth wider than long, the sides parallel and straight, rounding at about apical third and oblique thence to the briefly subtubulate apex, which is half as wide as the base; punctures strong and dense, the median line obliterated; basal lobe small but rather prominent, the scutellum smooth, small and evidently transverse; elytra two-fifths longer than wide, evidently wider than the prothorax and fully three-fourths longer, the sides feebly converging and slightly arcuate, gradually rounding about the apex, the humeral callus very moderate; grooves deep; intervals one-half to once wider than the grooves, each with a single line of slightly separated moderate punctures, coarser and denser toward the sides and sometimes confused at base; setæ small but evident; abdomen closely, rather strongly punctate, more loosely toward the middle. Length (♀) 2.25 mm.; width 0.9 mm. California (southern), —Dunn.

Differs from *arguta* in its smaller size, less prominent humeral callus, smaller and more abruptly formed thoracic basal lobe and rufous legs and beak, these being deep black in both my representatives of *arguta*.

***Onychobaris cernua*** n. sp.—Oblong-suboval, rather strongly convex and feebly shining, black, the legs and beak rufous, the pronotum piceo-rufous; beak in the female shorter, arcuate, somewhat closely punctulate, barely as long as the prothorax, the latter a fourth wider than long, the sides parallel and only just visibly arcuate, rapidly rounding in apical fourth to the briefly subtubulate apex, which is slightly more than half as wide as the base; punctures deep, not very coarse, notably dense throughout, without smooth median line, the basal lobe short, broadly rounded, the scutellum small, ogival and somewhat transverse; elytra scarcely two-fifths longer than wide, as wide as the prothorax and barely

more than one-half longer, the sides subparallel, gradually rounding in about apical half, the humeral callus moderate; grooves deep; intervals generally about twice as wide as the grooves, each with a single series of moderate and rather close-set punctures, sometimes confused, as is usually the case, on the second and sixth; setæ small, not conspicuous; abdomen with small, evidently separated punctures, coarser and dense toward the sides of the first segment. Length (♀) 2.7 mm.; width 1.15 mm. Colorado (Magnolia, Boulder Co.),—Mrs. Casey.

Differs from *arguta* in the more parallel form, smaller and even denser thoracic punctures, less prominent humeral callus, rather less abbreviated elytra and shorter beak; it differs from *oblita* in its shorter beak, more parallel form and closer and more conspicuous interstitial punctures. As in the case of *oblita* and *metuens*, only a single specimen is available.

***Onychobaris metuens*** n. sp.—Subparallel, strongly convex, slightly shining, colored somewhat as in *cernua*; beak in the female arcuate, closely punctulate and rather longer than the prothorax, which is a fourth wider than long, with parallel and virtually straight sides, rounding in about apical third to the briefly tubulate apex, which is fully half as wide as the base; punctures strong, deep, very close-set but not densely crowded, the median line obliterated; basal lobe small, rather sharply cuspidiform, the scutellum very small, transverse; elytra a third longer than wide, slightly wider than the prothorax and three-fifths longer, the sides slightly converging and arcuate, gradually somewhat narrowly rounding behind the middle, the humeral callus moderately prominent; grooves deep; intervals one-half wider than the grooves, the third a little wider, each with a single, sometimes slightly confused, line of rather conspicuous, moderately separated punctures, the setæ small but pale, in regular single lines and distinct; abdomen punctured somewhat as in *cernua* but a little more closely. Length (♀) 2.7 mm.; width 1.05 mm. Arizona (the locality unrecorded),—Ulke.

This is a distinct small species, allied somewhat to *cernua*, but differing in the longer, rather more tapering or less cylindrical beak, coarser but less dense pronotal punctures, smaller and more acute basal lobe, smaller and more transverse scutellum, narrower intervals of the elytra and several other characters. The prothorax is much more elongate than in *pauperella*.

The following species are more or less closely allied to *insidiosa*:

***Onychobaris perita*** n. sp.—Broadly oval, convex, deep black throughout, barely at all shining; beak in the female arcuate, densely punctate and equal in length to the prothorax, which is short, one-half wider than long, the sides feebly converging and broadly arcuate, gradually broadly rounding and converging from slightly before the middle to the briefly

tubulate apex, which is much less than half as wide as the base; punctures strong, everywhere very dense, the median line finely smooth in part; basal lobe somewhat prominent, though evenly rounded, the scutellum small, transverse; elytra a fourth longer than wide, slightly wider than the prothorax and two-thirds longer, the outline oval, narrowly rounded at apex, the humeral callus rather prominent; grooves deep; intervals from one-half wider than the grooves to twice as wide as the latter, with strong and very dense confused punctures throughout; setæ minute and inconspicuous; abdomen shining, with the deep but moderate punctures not quite so dense. Length (♀) 3.2 mm.; width 1.6 mm. California (San Diego).

Related to *insidiosa*, from western Texas, and resembling it in color and sculpture, but more broadly oval and with much shorter prothorax and shorter beak.

***Onychobaris liberta* n. sp.**—Narrower, feebly subrhomboid-oval, convex, rather dull from density of sculpture, black throughout; beak slender, arcuate, closely punctulate, a fifth (♂) to a third (♀) longer than the prothorax, which is a third wider than long, the sides feebly converging and slightly arcuate, gradually rounding from a little before the middle to the briefly tubuliform apex, the latter fully half as wide as the base; punctures only moderately coarse, deep, very dense throughout, the median line sometimes feebly tumescent basally but not definitely smooth, the basal lobe relatively well developed and prominent, subangularly rounded, the scutellum small, transverse; elytra a fourth longer than wide, slightly wider than the prothorax and fully three-fourths longer, suboval in form, but somewhat more broadly obtuse at apex than in the preceding, the humeral callus rather prominent; grooves not coarse, deep, the intervals two to two and one-half times as wide as the grooves, strongly and moderately coarsely, densely and confusedly punctate throughout; abdomen shining, the moderate punctures not very dense, the male with small medio-basal impression. Length (♂ ♀) 2.2–2.65 mm.; width 0.82–1.3 mm. California (San Francisco to Los Angeles). Nine examples.

I formerly regarded the examples of this species at hand as belonging to the Texan *insidiosa*, but on renewed examination I find that they represent a distinct though somewhat closely allied species, differing in the narrower form of body, smaller size and less coarse sculpture.

There are two forms at hand so closely allied to *insidiosa* that I do not feel inclined to announce them as full species, especially as the types are unique; they may be held, for the present at least, as subspecies as follows:

***Onychobaris insidiosa* ssp. *veterator* nov.**—Color and sculpture nearly as in *insidiosa*, the body more broadly oblong-oval in outline, the beak

in the female strongly arcuate, visibly shorter than in the female of *insidiosa*; elytra more broadly obtuse at apex and with the intervals strongly alternating in width. Length (♀) 3.1 mm.; width 1.45 mm. Texas (locality unrecorded, but probably eastern or central).

In *insidiosa* the elytral intervals are approximately of equal width throughout.

***Onychobaris insidiosa* ssp. *mentorea* nov.**—Similar to *insidiosa* but a little larger and broader; sculpture and coloration similar; prothorax shorter, nearly two-fifths wider than long, the sides rounded inward at apex to the tubulation for a longer distance than in that species; basal lobe rather large, cuspidiform; elytra broader, more obtusely rounded at apex. Length (♀) 3.0 mm.; width 1.3 mm. California (locality unrecorded).

The differences alluded to will enable one to identify this form if rediscovered; it is narrower and less rhomboid-oval than *perita*, with the prothorax not quite so broad and the elytral intervals alternate in width much less strikingly.

***Onychobaris perversa* n. sp.**—Subcuneately oblong-oviform and very convex, not very shining, the under surface and beak feebly picescent, the legs obscure rufous; beak in the female arcuate, densely punctate and as long as the prothorax, which is large, subinflated, not quite a third wider than long, with subparallel, evenly and distinctly arcuate sides, becoming gradually more convergent before the middle, the apex subtubulate and half as wide as the base; punctures deep, moderately coarse and dense, becoming gradually rather small and well separated medially, with short and poorly defined smooth line, the interspaces rather alutaceous; basal lobe broadly rounded, a third the total width, the base deeply bisinuate; scutellum transverse, smooth and shining; elytra a third longer than wide, scarcely as wide as the prothorax, except at the rather prominent humeri, and but two-fifths longer, evenly ovulate in form; grooves even and deep, the intervals a little less than, to about, twice as wide as the grooves, with rather coarse and distinctly separated punctures, confused on the broader, in subeven series on the narrower; setæ minute and very inconspicuous; abdomen with moderate, deep punctures, close-set laterally, sparse medially. Length (♀) 4.25 mm.; width 1.9 mm. Colorado (locality unrecorded).

A rather large, very convex, somewhat coarsely and more than usually loosely sculptured species, which may be placed near *molesta*; it is larger and stouter than the female type of *molesta*, with notably larger and inflated, and not gradually arcuately narrowed, prothorax.

The following genus differs widely in habitus from any of those with which it seems to be associable in structure:

**Madarellus** Csy.

The description of *Rhynchænus undulatus* Say, states that it is a fifth of an inch, or 5 mm., in length. I have no specimen quite so large as this, but four, from Indiana and Missouri, approach it very closely in that respect and display very little sexual difference, the beak in the male being long, though not quite so long as in the female, and distinctly, closely punctured to the tip, while in the female it is a little more tapering and is subimpunctate distally. Another series from Massachusetts to Iowa, consisting of five females and two males, seems to represent a different though closely allied species, much smaller in size and narrower in outline; in these the male is not so inflated anteriorly as the female and the beak is much shorter than in the latter sex, although almost similarly punctate and apically smooth. There can be but little doubt that we have here two distinct species, both of which are inconstant in coloration, being either entirely black or bicolored, and we also have another of the *undulatus* group, differing markedly in sculpture; it is from the southern tip of Florida.

**Madarellus inconstans** n. sp.—Resembles *undulatus*, but much smaller and less stout, black throughout or with rufous prothorax, polished, feebly sculptured as in *undulatus*, but with the smooth elytral striæ somewhat finer; beak (♂) not distinctly longer than the prothorax, or (♀) as long as the head and prothorax, the latter one-half wider than long, the broadly arcuate sides rounding broadly and strongly to the sub-tubulate apex; punctures small and sparse, wanting medially and toward base, the basal margin with a series of small punctures, the lobe abrupt and strongly rounded; scutellum small, subogival and moderately transverse; elytra subacutely ovoidal, equal in width to the prothorax and almost three-fourths longer, the surface as in *undulatus*, the interstitial punctures only visible laterally, very small, feeble and sparse; pygidium closely and strongly punctate, a little larger in the male; under surface opaque, strongly and closely punctate. Length (♂ ♀) 2.65–3.5 mm.; width 1.2–1.6 mm. Massachusetts (Framingham),—Frost, District of Columbia, New York, Indiana and Iowa (Keokuk).

Smaller than *undulatus* and not so broad or anteriorly inflated; the four specimens of *undulatus* in my collection measure 4.2–4.7 by 1.75–2.0 mm.

**Madarellus floridanus** n. sp.—Stout, oblong-subcuneiform, and rather convex, shining, black, the prothorax rufous; under surface rufo-piceous, the legs and beak deep black; beak in the female arcuate, closely and coarsely sculptured basally and rather longer than the head and pro-

thorax, the latter three-fifths wider than long, the sides parallel and rather arcuate, rounding and transversely converging in about apical third, the apex subtubulate and only two-fifths as wide as the base; punctures coarse, deep, dense laterally, smaller and sparse medially, wanting in a moderate medio-basal area; base bisinuate, the lobe large, rounded; scutellum ogival, flat, nearly as long as wide; elytra two-fifths longer than wide, not quite as wide as the prothorax, except at the prominent rounded humeri, and two-thirds longer, ovoidal in outline; surface as in *undulatus*, except that the lateral punctures are rather coarse and much more conspicuous, and the striæ coarser and distinctly punctured though not crenulate; pygidium finely, deeply and closely punctate; under surface opaque, sculptured nearly as in *undulatus*, the femora strongly, densely and rugosely punctate, the anterior with a small triangular tooth beneath. Length (♂) 4.0 mm.; width 1.8 mm. Florida (Lake Worth). One example.

Differs conspicuously from *undulatus* in sculpture, the coarse lateral punctures of the pronotum and flanks of the elytra being amply distinctive.

The following two Texan species are allied to the subtropical *cuneatus* and allies:

**Madarellus perditus** n. sp.—Oblong-cuneiform, strongly convex and polished throughout, red-brown to black, almost sculptureless above; beak arcuate, rather closely punctulate, as long as the prothorax (♂) or head and prothorax (♀), the latter two-fifths wider than long, inflated, the sides broadly arcuate, becoming parallel posteriorly, more rounded and converging anteriorly to the subtubulate apex, which is three-sevenths as wide as the base, the latter transverse and with an abrupt rounded median lobe; punctures extremely minute and sparse, the sides and inferior surface feebly, obliquely rugulose as usual; series of fine punctures along the base evident; scutellum small, flat, ogival, slightly transverse; elytra acutely ovoidal, scarcely two-fifths longer than wide, not quite as wide as the prothorax and nearly three-fifths longer, the humeral callus rather large, prominently rounded; surface undulated; striæ smooth, deep but fine; interstitial punctures scarcely traceable at any part; under surface feebly, the abdomen strongly, shining, the latter sparsely punctate; femora rugosely and densely punctate, the anterior acutely denticulate beneath. Length (♂ ♀) 2.5–3.0 mm.; width 1.15–1.5 mm. Texas (Brownsville).—Wickham. Four specimens.

This species is allied rather closely to *cuneatus* Csy., the type of which was taken by Wickham at San Antonio; it differs, however, in its less abbreviated and less rapidly cuneiform outline and longer elytra; in *cuneatus* the elytra are barely a fifth longer than wide and less than one-half longer than the prothorax.

**Madarellus imulus** n. sp.—Oblong-suboval, strongly convex, polished, piceous-brown; beak in the female arcuate, distinctly longer than the

head and prothorax, the latter large but not inflated, a third wider than long, the sides parallel and feebly arcuate, gradually rounding and converging in about anterior half, the subtubulate apex half as wide as the base, which is as in the preceding but with the punctures of the marginal series closer, uniting laterally to form a fine canaliculation; punctures fine and sparse but rather distinct, broadly wanting medio-basally, the lateral oblique rugulosity distinct; scutellum flat, ogival, only slightly wider than long; elytra only a fourth or fifth longer than wide, narrowly parabolic at tip, fully as wide as the prothorax and, at the rounded humeral callus, a little wider, scarcely one-half longer; surface undulated; striæ deep, finely punctate along the bottom, the interstitial punctures nowhere distinct; pygidium convex, rather coarsely, densely punctate; under surface dull, strongly and densely punctate, the abdomen shining and sparsely so except laterally; femora moderately and closely punctate. Length (♀) 2.5 mm.; width 1.2 mm. Texas (Brownsville),—Wickham. One specimen.

Allied rather closely to *perditus* but perhaps somewhat smaller and not at all cuneiform, the prothorax not inflated and not at all wider than the elytra.

The species from Temax, in northern Yucatan, identified by Mr. Champion as *cuneatus*, is closely allied but not identical; the black polished surface is evidently æneous, the thoracic punctures less minute and closer and the fine elytral grooves are not similarly smooth along their edges but feebly crenulate, especially toward the sides; the prothorax is less transverse than in *cuneatus*, more closely resembling that of *perditus*, but the sculpture is much stronger than in either; it may be called **Madarellus impar** (new name), and the specimen at hand, kindly sent by Mr. Champion, is 2.6 by 1.25 mm. in size.

The following is another species doubtless hitherto confounded with *cuneatus*:

\***Madarellus hondurasensis** n. sp.—Oblong-subcuneiform, strongly convex, polished, deep black, feebly æneous; beak in the female slender, arcuate, loosely punctulate and as long as the head and prothorax, the latter subquadrate, two-fifths wider than long, the parallel sides distinctly arcuate, strongly rounding inward anteriorly, the subtubulate apex half as wide as the base, the latter transverse, with abrupt rounded lobe, the adjacent series of fine punctures evident; punctures very fine, sparse, largely wanting medially and basally; scutellum flat, ogival, a little wider than long; elytra undulate, scarcely one-half longer than the prothorax and somewhat narrower, ovoidal, the humeral callus rather prominent; striæ nearly as in *cuneatus*; intervals each with a single widely spaced series of very minute though visible punctures; sterna coarsely, closely punctate, the abdomen less so, more finely and rather



loosely mediad. Length (♀) 2.8–3.0 mm.; width 1.3 mm. Honduras (San Pedro Sula); also another female specimen, apparently similar in every respect, from Guatemala (Mauricio,—elev. 500 feet).

Related rather closely to *cuneatus* but differs from that and *perditus* in its relatively rather larger, though less strongly inflated, prothorax, the sides of which are parallel and less arcuate to a point much nearer the apex, where they are more abruptly rounded; the tooth of the anterior femora is large and not very sharp, equilatero-triangular in form.

#### Gymnobaris Chmp.

This genus resembles *Madarellus* very closely, having the same glossy and feebly sculptured surface and similar thoracic base, scutellum and broad flat intercoxal part of the prosternum; the elytral surface is, however, not at all undulated, and there are some other slight differences, these remarks being based upon *planiplectus*, of which I have a single example from Guatemala. In this species, at least, the slender femora—all devoid of inferior denticle—are quite different from anything observable among the numerous small species of *Madarellus*.

#### Aulobaris Lec.

But very little structural diversification can be observed among the species of this genus, and yet when compared in series and noting certain differences in outline and sculpture, there can be little or no doubt that the various forms described so far are true species and should be so treated. Blatchley and Leng are not disposed to admit the name *naso*, given by LeConte to the species which he had previously named *Baridius nasutus*, and it really is a matter of slight importance, but from the viewpoint of consistent nomenclature, I am disposed to admit that *nasuta* ought to be adopted instead of *naso*.

The three following new forms seem to differ specifically from any of the others now known:

**Aulobaris subdita** n. sp.—Piceous-black, the legs obscure rufous; body oval, very convex and rather shining; beak in the female arcuate, as long as the head and prothorax and more densely and strongly sculptured than usual; prothorax a fourth wider than long, the sides evenly converging and distinctly arcuate from base to the evident apical con-

striction, the apex half as wide as the base, which is broadly bisinuate, the lobe small and narrowly rounded; punctures deep and moderately coarse, very close-set, denser laterally, the median smooth line visible centrally; scutellum slightly transverse, rounded, impressed centrally but not apically; elytra scarcely more than a fourth longer than wide, not wider than the prothorax, except at the rather prominent humeri, and about one-half longer; grooves nearly smooth and not coarse, the intervals three or four times as wide as the grooves and with feeble punctures, moderately close in single series and usually having a notably transversely lineate character; vestiture indistinct, the cluster at the base of the third interval small; under surface closely, rather coarsely punctate, the legs slender. Length (♀) 3.0 mm.; width 1.45 mm. California (locality unrecorded).

May be placed near *pusilla* Lec., but larger, stouter and more strongly and closely sculptured, the interstitial punctures much more transverse than in any other.

***Aulobaris amplexa*** n. sp.—Stout, oval, convex, dark piceous, the elytra and legs rufous; surface strongly shining; beak in the female arcuate, not very slender, as long as the head and prothorax and finely, not densely punctate; prothorax two-fifths wider than long, the sides arcuate and rather strongly converging from base to the apical tubulation, which is half as wide as the very feebly bisinuate base, the lobe moderately conspicuous and rounded; punctures rather small but deep, distinctly separated, gradually a little stronger and dense laterad, the smooth line subobsolete; scutellum with numerous punctures, slightly transverse, angulate behind; elytra not a fourth longer than wide, slightly wider than the prothorax and four-sevenths longer, obtusely ovoidal in form, the humeral callus moderate; grooves and intervals nearly as in the preceding, the former somewhat coarser; interstitial punctures small, feeble, moderately separated and in subeven single series, more confused basally, not evidently transverse in form; under surface rather coarsely and closely punctate, the legs somewhat slender. Length (♀) 3.65 mm.; width 1.65 mm. Indiana (near Evansville).

Related to *scolopax* but relatively broader or decidedly less elongate, also with finer thoracic as well as interstitial punctures and less abbreviated scutellum; the beak is more finely and less rugosely punctate.

***Aulobaris misera*** n. sp.—Much smaller, rather stout, rufo-ferruginous throughout, except the under surface, which is blackish; beak shorter, feebly arcuate, not very slender, shorter than the head and prothorax in both sexes, slightly shorter and stouter and with more rugose sculpture (♂), or more slender, with fine punctulation (♀); prothorax shorter than usual, a third to nearly half wider than long, the sides strongly converging and arcuate from the base to the constriction, which is feeble, the apex fully half as wide as the base, sometimes rather more; punctures

small and well separated, stronger and close laterally, the smooth median line obsolete or short and feebly defined; scutellum slightly transverse, angulate behind, medially impressed; elytra obtusely ovoidal, a fifth longer than wide, slightly wider than the prothorax and nearly three-fourths longer, the humeral callus rather prominent; grooves moderate; intervals from less to more than three times as wide as the grooves, with moderate and very uneven punctures, larger and in subeven single line or smaller and confused; under surface strongly, closely punctate as usual. Length ( $\sigma^7$  ♀) 2.4–2.5 mm.; width 1.2 mm. Indiana (near Evansville). Two examples.

Although from the same region, there seems to be no close affinity between this species and the preceding. The very small size, shorter prothorax and beak, especially in the male, and other features, showing that they can only be regarded as distinct taxonomic forms and almost certainly specific. *Scolopax* is one of the larger species of the genus, elongate-oval, always pale and with notably distinct scales lying within the coarse punctures of the under surface.

#### Desmoglyptus Csy.

I now have at hand three specimens of typical *crenatus* Lec., taken by Ulke in the District of Columbia; it was described from Maryland and Virginia. Further comparisons with the Arizona specimens, which I formerly regarded as *crenatus*, show that, though rather closely allied, they represent a different species, which may be described as follows:

**Desmoglyptus arizonicus** n. sp.—Body cylindrical, subopaque and pale ferruginous throughout; beak in the male rather thick, evenly arcuate and as long as the prothorax, densely sculptured; prothorax as long as wide, the sides parallel and nearly straight, gradually rounding from slightly before the middle to the pronounced apical constriction; apex three-fourths as wide as the base, the basal lobe small and feeble; punctures coarse and dense, the smooth median line wanting; scutellum small, rounded, but little wider than long; elytra slightly more than one-half longer than wide, distinctly wider than the prothorax and three-fourths longer, the sides parallel and nearly straight, oblique in apical two-fifths to the rather obtuse apex, the humeri distinctly prominent; grooves very coarse and coarsely, closely punctate, the intervals not as wide as the grooves, opaculate but not evidently punctate; under surface coarsely, closely punctate and dull, the abdomen more shining, with the punctures small and well separated, larger and closer laterad, becoming somewhat coarse at the sides of the first segment; there is a deep elongate basal impression in the male, extending well upon the second segment; legs short. Length ( $\sigma^7$ ) 2.65 mm.; width 0.8 mm. Arizona (locality unrecorded).

The male type of this species differs from the male of *crenatus* in its more abbreviated form and more elongate prothorax, this being somewhat shorter than wide and less than half as long as the elytra in *crenatus*, where the stria punctures are coarser and more widely separated than in *arizonicus*; it also differs from *crenatus* in its shorter legs and rather deeper and more acutely defined abdominal impression in the male, as well as in the closer abdominal punctures.

#### **Baridiellus** n. gen.

The body is oblong, convex and clothed not densely with slender squamules, the beak very thick, separated from the head by a transverse depression, the mandibles closely decussate, the antennæ rather short, with relatively large, oblong-oval and abrupt club, having its basal joint very large—much more than half the mass. The anterior coxæ are separated by about their own width, the prosternum unmodified and flat, the scutellum transversely ovoidal, finely sculptured and somewhat setulose and the elytra each broadly rounded at apex; the pygidium is vertical and closely sculptured. The claws are nearly straight, moderately divergent and are connate at base. The type is the following:

\***Baridiellus solidulus** n. sp.—Somewhat stout, strongly convex, the elytra somewhat shining; squamules above yellowish, long and slender, almost uniformly distributed, forming single lines on the stria intervals, smaller and sparse beneath; beak in the male thick, cylindric, finely but rather strongly punctured, evenly and feebly arcuate and as long as the head and prothorax, the antennæ at four-sevenths; prothorax a third wider than long, the sides parallel, feebly arcuate, rapidly rounding in apical fourth to the tubulate apex, which is nearly three-fifths as wide as the base; punctures rather strong, very close but not confluent, the smooth line wanting; elytra only a fifth longer than wide, at the feebly tumid humeri nearly a fourth wider than the prothorax, very nearly twice as long, the sides but just visibly converging and feebly arcuate to the broadly rounded and very obtuse apex; striæ fine but deep and nearly smooth; intervals three or four times as wide as the striæ, finely, loosely and confusedly punctate, the abdomen not densely punctulate, not impressed in the male, the prosternum unarmed. Length (♂) 1.8 mm.; width 0.83 mm. Mexico (Frontera, in Tabasco).

The genus *Baridiellus* probably belongs in the neighborhood of *Chrysobaris* Chmp., but the elytra are broadly rounded behind and there are other differences, especially in the prosternum.

**Pseudobaris** Lec.

Additional material received since my revision of this genus, together with more careful discrimination of that there utilized, reveals the fact that our species of *Pseudobaris* are really very numerous, and, as a rule, are smaller, narrower and more densely sculptured than the abundant tropical species; they also, in general, resemble each other very closely to superficial view, so that much care should be taken in attempts to identify them from description. It is to be regretted that they also seem to be less gregarious than in *Baris*, *Aulobaris* and some other genera, so that most of the species are now represented only by single specimens.

Before attempting to identify the species, care should be taken to fix the status of two important specific landmarks, *nigrina* Say and *angusta* Lec. These are both small or very moderate species; the former, described from Pennsylvania, is said to be a tenth of an inch long—that is 2.5 mm.—and to have a few scattered white hair-like scales on the elytra; I have selected a New Jersey specimen in my collection as being entirely typical; the range of the species is from Rhode Island to Indiana, so far as my series shows and the dimensions are 2.6–3.1 by 1.0–1.2 mm. The other species, described originally as *Baridius angustus*, is still smaller and especially more slender, my authentically typical representative being 2.5 by 0.9 mm. in dimensions; it is distinguishable from others that resemble it very closely and are always confused with it, by the structure of the antennæ, these having been insufficiently studied in my former work; they are unusually short, the three outer joints of the funicle transverse and the club rather small and very briefly oval; the prothorax is cylindrical and much narrower than the elytra. The elytra have no scattered white hairs, as they have in *nigrina* and some related species, and the sculpture of the stria intervals has an imbricated appearance toward the sides.

***Pseudobaris porcina*** n. sp.—Broadly suboblong-oval, strongly convex, shining, deep black throughout, the tibiæ feebly rufescent; beak in the male rather stout, feebly arcuate, closely punctate and as long as the prothorax, which is a third wider than long, with the arcuate upper profile very strongly declivous anteriorly; sides broadly arcuate, a little more so apically and gradually almost parallel basally, the constriction feeble; apex not quite half as wide as the base, which is gradually but strongly lobed medially; punctures coarse and dense laterally, gradually

much smaller and widely separated medially, the impunctate line evident only centrally; scutellum punctate and transverse, obtusely angulate behind; elytra very obtusely subovoidal, slightly wider than the prothorax and three-fifths longer, the humeral callus large, moderately prominent; grooves coarse and deep, with small close-set punctures; intervals twice as wide as the grooves to somewhat more, with strong and uneven punctures, confused or in single series, always evidently separated; setæ small, even, silvery and evident, with a large loose cluster at the base of the third interval; pygidium opaque, very densely punctate; abdomen rather coarsely and closely but not densely punctate, the medio-basal surface flattened and with finer and denser punctures in the male; femora distinctly punctate, unarmed. Length ( $\sigma^7$ ) 4.5-4.7 mm.; width 2.2-2.5 mm. Kansas (Sylvia). Two examples.

Allied to *farcta* Lec., but much less elongate, deep black in color, with smaller scutellum and deeper and less transverse interstitial punctures.

The two species *porcina* and *farcta* differ greatly from the others in habitus, due to their very obese oval form, anteriorly declivous prothorax and greater convexity, allying them more closely with *Aulobaris*; they may take the subgeneric name **Pseudobaridia** (n. subgen.).

**Pseudobaris lustrans** n. sp.—Narrower, suboblong-oval, less convex, polished, deep black throughout; beak strongly arcuate, closely punctate and about as long as the head and prothorax, the latter two-fifths wider than long, with evenly and feebly arcuate upper profile, as usual in the genus, the sides feebly converging and broadly, evenly arcuate from base to the apical constriction, the tubulate apex half as wide as the base, the basal lobe abrupt, prominent and rounded; punctures coarse, deep and close-set throughout, although not in mutual contact, the smooth median line obsolescent anteriorly; scutellum short, transverse; elytra two-fifths longer than wide, distinctly wider than the prothorax and almost twice as long, the sides feebly converging and barely arcuate to the broadly obtuse apex, the humeri prominent; grooves deep and rather coarse; intervals about twice as wide as the grooves, with rather strong punctures in even single series and closely or widely spaced or sometimes in part confused; setæ very minute and inconspicuous, the cluster at the base of the third interval small and loose; abdomen with rather close-set punctures, not quite so coarse medially, where there is a small sub-basal impression in the apparent male. Length ( $\sigma^7$ ) 3.8 mm.; width 1.65 mm. Pennsylvania (Bethlehem).

A very distinct species, not closely related to any other thus far described. *Sobrina* Blatch., which I have from Posey Co., Indiana, and the Black Mts. of North Carolina, is a more narrowly elongate-oval species, having a more conical and more coarsely and densely

punctured prothorax, also coarser, much more close-set and more even interstitial punctuation; the abdomen in *sobrina* is much more coarsely and densely punctate; the beak in both these species is very evenly arcuate above from apex to the frontal impression, in sharp contrast with the following:

***Pseudobaris gibbirostris*** n. sp.—Slightly narrower than the preceding and somewhat smaller, rather more convex, deep black throughout and shining, similarly non-metallic; beak in the female rather slender, somewhat longer than the head and prothorax, closely and rugosely punctured at the sides basally, elsewhere almost smooth, evenly arcuate, the upper surface tumid at base in front of the transverse impression; prothorax shorter, one-half wider than long, the sides subparallel and arcuate, more rapidly rounding and strongly converging in somewhat less than apical half, the briefly tubulate apex half as wide as the base, which becomes gradually oblique inwardly to the tip of the moderately prominent lobe; punctures deep and coarse, slightly less so medially, well separated, close-set at the sides, the impunctate line only central; scutellum slightly transverse, angulate behind; elytra two-fifths longer than wide, only a little wider than the prothorax and about four-fifths longer, obtusely ovoidal in form, the humeri only moderately prominent; grooves deep, very coarse, a little less so posteriorly; second and third intervals fully twice as wide as the grooves, the others less, the interstitial series composed of rather coarse but not very deep, separated, sometimes subtransverse and often somewhat confused punctures; setæ indistinct, the cluster at the base of the third interval moderate; abdomen loosely and rather finely punctate, more strongly and less loosely toward the sides; femora as in *sobrina*, less deeply emarginate beneath than in *lustrans*. Length (♀) 3.65 mm.; width 1.45 mm. Florida (locality unrecorded).

This species, also very distinct, may follow the preceding and *sobrina* in the lists. I am uncertain whether or not the rostral swelling may be variable or to some extent sexual.

The following five species are from the mountainous regions of Colorado to the coastal regions of the Pacific, and, as species, are remarkably local; this will serve as an efficient index in identifying them; all except *oscitans* have at least traces of remotely scattered longer pale setæ on the elytra.

***Pseudobaris oscitans*** n. sp.—Elongate, subcylindric-oval and convex, rather shining and deep black throughout; beak in the female arcuate, rather slender, feebly punctulate, strongly latero-basally and scarcely as long as the head and prothorax; the latter is not quite a third wider than long, the sides subparallel and feebly arcuate, gradually broadly and moderately rounded and converging in about apical third, the feebly subtubulate apex half as wide as the base, the median lobe of which is rather small, abrupt but short and broadly rounded; punctures deep but

only very moderate in size and notably dense throughout, the smooth line narrow though evident in about basal half; scutellum rather transverse, only feebly and very obtusely angulate behind; elytra nearly one-half longer than wide, elongate-ovoidal in outline, only barely wider than the prothorax and a little more than twice as long, the humeral callus feeble, the apex evenly rounded and not very obtuse; grooves deep but not coarse; intervals about three times as wide as the grooves, and with single series of not very fine but feeble, well separated punctures, closer laterally; setæ not evident, the cluster at the base of the third interval apparently altogether wanting; abdomen rather finely, somewhat loosely punctate, a little more coarsely and closely toward the sides. Length (♀) 3.25 mm.; width 1.2 mm. Colorado (probably from near Denver).

Not closely allied to any other, being distinguishable by the not coarse though very dense thoracic punctures and absence of squamules on the elytra. The upper line of the beak is evenly arcuate from tip to sulcus, as usual in the genus.

*Pseudobaris satyrica* n. sp.—Elongate-oval, convex, rather shining and deep black throughout; beak in the male not very slender, evenly arcuate, closely and deeply though not coarsely punctate or rugulose throughout and a little longer than the prothorax, which is a fourth wider than long, the sides feebly converging and but slightly arcuate to fully apical third, there gradually and moderately rounding to the tubulate apex, which is fully half as wide as the base, the basal lobe rather abruptly formed, well developed and evenly rounded; punctures rather coarse, dense laterally, gradually very narrowly separated medially, the median smooth line evident but not entire; scutellum transversely suboval; elytra a little shorter and relatively somewhat broader than in the preceding, more feebly narrowing and more obtusely oval at apex, slightly wider than the prothorax and barely twice as long, the humeral callus rather small and feeble; grooves slightly coarser, deep; intervals twice as wide as the grooves to much less, each with a single series of rather small but distinct and well separated punctures; setæ small but silvery, everywhere distinct, and there are also a very few widely scattered scale-like hairs; cluster at the base of the third interval well developed, denser and distinct; pygidium convex, slightly shining, with small but deep and very close-set punctures; abdomen rather coarsely but shallowly punctate, having a deep elongate basal impression in the male. Length (♂) 3.15 mm.; width 1.22 mm. Colorado (Greeley),—Wickham.

Differs from *nigrina* in its stouter form, coarser pronotal punctures, longer, thicker and more punctate beak in the male and in the much deeper and longer basal abdominal impression in that sex, there being but little more than a flattening in *nigrina*; it differs very much from *oscitans* in the coarser and rather less dense thoracic punctures and in the squamuliform hairs of the elytra.



**Pseudobaris sonomæ** n. sp.—Suboval, convex, rather shining and deep black throughout; beak in the female as long as the head and prothorax, arcuate, rather flattened, smooth above, rugosely punctured at the sides, the upper surface feebly swollen at base; prothorax only about a fifth wider than long, the sides feebly converging and straight to about apical fourth, there moderately rounding to the subtubulate apex, which is distinctly more than half as wide as the base, the basal lobe small and moderately prominent; punctures moderately coarse and close, a little smaller medially, small and sparse at apex, the smooth line distinct and subentire; scutellum small, transversely oval; elytra two-fifths longer than wide, distinctly wider than the prothorax and about twice as long, the sides subparallel, gradually rounding in posterior half, the humeral callus rather small and somewhat prominent; grooves deep, moderate; intervals twice as wide as the grooves, each with a single series of relatively coarse, deep, rounded and close-set punctures; setæ small, the scattered longer hairs extremely few in number and scarcely discoverable, the basal spots small, white; abdomen with moderately coarse, even, close-set punctures. Length (♀) 3.1 mm.; width 1.2 mm. California (Lake Co.),—Fuchs. One example.

A distinct species in the converging and straight sides of the prothorax and unusually broad apex, and also in the strong, close-set series of even circular interstitial punctures. The feeble basal swelling of the beak is much less obvious than in *gibbistrostris*, but of the same character.

**Pseudobaris californica** n. sp.—Larger and sensibly stouter than the preceding, oblong-suboval, rather convex, shining and deep black, the tip of the beak feebly rufescent; beak in the female nearly as in *sonomæ*, but without sensible dorsal swelling at base; prothorax much shorter, two-fifths wider than long, the sides slightly converging and broadly, evenly arcuate from base to the rather feeble apical constriction, the apex broad, more than half as wide as the base, the lobe of which is rather abrupt and distinct, rounded; punctures strong and close, fine and sparse at apex, the smooth line distinct and subentire; scutellum almost rounded, centrally impressed; elytra almost as in *sonomæ* but broader, evidently more than twice as long as the prothorax; grooves, punctures and setæ nearly similar, the scattered longer hairs few in number but longer and more conspicuous, the basal condensations nearly similar; abdomen with rather small but strong, well separated punctures, becoming coarse and close-set laterad. Length (♀) 3.3 mm.; width 1.33 mm. California (Hoopa Valley, Humboldt Co.). One example.

Separable readily from *sonomæ* by its shorter, laterally rounded and somewhat more coarsely punctured prothorax, more nearly circular and more sculptured scutellum and medially sparse and much less uniform abdominal punctuation.

***Pseudobaris vafra*** n. sp.—Larger and still stouter, oblong-suboval, rather convex, polished and deep black; beak in the male strongly, evenly arcuate, closely punctate and a little longer than the head and prothorax, the latter rather short, fully two-fifths wider than long, the sides converging and nearly straight—medially feebly sinuate, somewhat as in *Baris deformis*—rapidly rounding in apical third or fourth, the subtubulate apex just half as wide as the base, the median lobe abrupt and prominent but small, narrowly rounded; punctures rather coarse, deep, close laterally but elsewhere distinctly though not widely separated, the median smooth line narrow, short and imperfect; scutellum transversely oval, nearly smooth; elytra obtusely ovulate in outline, three-sevenths longer than wide, slightly wider than the prothorax and distinctly more than twice as long, the humeri rather prominent; grooves coarser than in the two preceding, deep, the intervals not quite twice as wide as the grooves, with single series of coarse punctures, in some of the rows so close as to be transversely oval, less coarse or strong and more separated on the second and third; setæ very small and indistinct, the longer hairs extremely few in number, the basal condensations feeble; abdomen with moderate but deep, everywhere close-set punctures, having an oval and not sharply defined impression at base in the male. Length (♂) 3.5 mm.; width 1.4 mm. California (locality not recorded). One example.

This species is easily identifiable by the rather short prothorax, with coarse loose punctures and medially subsinuate sides, coarse, close interstitial punctures and close-set punctuation of the abdomen; it is not closely related to either of the preceding.

The four following species, represented by uniques, have no trace of sparse longer hairs on the elytra, the first two without trace of a condensation at the base of the third interval, the last two with only the smallest and feeblest possible development of those clusters; these species are all much stouter and more oval than *angusta* Lec.:

***Pseudobaris brevior*** n. sp.—Oblong-suboval, convex, shining, deep black throughout; beak in the male barely as long as the prothorax, moderately arcuate, densely punctate at the sides, very minutely and feebly dorsally toward apex; prothorax between a fourth and third wider than long, the sides feebly converging and but slightly arcuate, broadly and gradually rounding in almost anterior half, the briefly tubulate apex barely half as wide as the base, the lobe of the latter rather abrupt and prominent; punctures moderately coarse, deep, well separated, close and longitudinally subconfluent at the sides, the smooth line narrow, abbreviated, the scutellum transversely suboval; elytra very obtusely ovoidal, two-fifths longer than wide, slightly wider than the prothorax and not quite twice as long, the humeri rather prominent; grooves deep, half as wide as the intervals, which have single series of

moderately large, close-set punctures, finer and more confused on the broader second and third, the setæ small; abdomen with rather small loose punctures, coarser and closer at the sides, having a shallow medio-basal, indefinitely limited impression in the male. Length (♂) 3.0 mm.; width 1.4 mm. Texas (locality unrecorded).

A very distinct form, of shorter and stouter build than any of the others in this vicinity, and with rather coarse deep loose pronotal punctuation; the upper profile of the beak is evenly arcuate basally.

***Pseudobaris missouriana*** n. sp.—Much more elongate-oval, convex, rather shining, deep black throughout; beak in the female very slender, evenly arcuate, opaque at the sides basally, finely and feebly, sparsely punctulate and fully as long as the head and prothorax, the latter only about a fifth wider than long, the moderately converging sides straight, broadly and gradually rounding in fully apical third, the subtubulate apex half as wide as the base, the lobe moderate and rather gradually and broadly rounded; punctures moderate in size and very dense, more or less confluent throughout, the median smooth line narrowly traceable centrally; scutellum small, subquadrate, slightly transverse; elytra not quite one-half longer than wide, a little wider than the prothorax and about twice as long, elongate-suboval in outline, with obtuse apex, the humeral callus shining and prominent; grooves rather coarse, deep, the intervals one-half or more wider, each with a single close-set series of rather coarse and conspicuous punctures, feebler and less close-set on the scarcely wider second and third; setæ very small and inconspicuous; abdomen with very moderate and somewhat separated punctures, becoming rather coarse and rugulose at the sides. Length (♀) 3.3 mm.; width 1.2 mm. Missouri (locality unrecorded, but probably from near St. Louis).

This is also a rather isolated species, much more elongate than the preceding and with dense thoracic punctuation and coarse interstitial punctures.

***Pseudobaris scæva*** n. sp.—Oblong-oval, moderately stout, convex, rather shining, deep black throughout; beak in the male rather thick, moderately arcuate, not quite as long as the head and prothorax and densely, longitudinally rugulate and punctate at the sides, the upper surface very obsoletely swollen basally; prothorax fully a third wider than long, the sides converging and broadly, evenly arcuate from base to the apical constriction, the apex half as wide as the base, the basal lobe small, rapidly formed and somewhat sharply rounded; punctures rather coarse, dense and partially subconfluent throughout, the smooth median line narrow, distinct but not attaining the apex; scutellum small, somewhat ogival; elytra ovulate, with the sides more rapidly rounding behind, two-fifths longer than wide, not evidently wider than the prothorax, except at the obtusely rounded humeri, and barely twice as long, the grooves rather coarse and deep, the punctures along the bottom widely separated; intervals twice as wide as the grooves, with

single series of coarse and close-set subtransverse punctures, smaller, sparser and confused along the middle of the second and third, which are evidently wider; setæ indistinct, except a minute cluster of three or four at the base of the third interval; abdomen with small but deep, loose punctures, coarse and close at the sides, with a very shallow medio-basal impression in the male. Length ( $\sigma^7$ ) 3.25 mm.; width 1.3 mm. Missouri (Schuster). Probably from St. Louis.

Distinct in the oblong-suboval form, though obtuse behind, in the transverse, densely and strongly punctured prothorax, with evenly arcuato-convergent sides and in the single series of coarse subtransverse interstitial punctures.

***Pseudobaris vacunalis*** n. sp.—Much smaller, oblong-oval, moderately shining and convex and deep black throughout; beak in the apparent male moderately arcuate, somewhat thick and densely, subrugosely punctate, tapering, flattened and less sculptured apically and as long as the head and prothorax, the latter a fourth wider than long, the sides converging and straight to about the middle, there gradually rounding to the constriction, the apex slightly more than half as wide as the base, the basal lobe relatively rather large, broadly rounded; punctures somewhat coarse, deep and dense, the smooth median line narrow but distinct from base to apical third; scutellum transverse, broadly angulate behind; elytra feebly ovulate, rapidly subcircularly rounding in about apical third, two-fifths longer than wide, distinctly wider than the prothorax and not quite twice as long, the humeri moderately prominent; grooves rather coarse, deep; intervals one-half wider than the grooves, with single series of relatively coarse though separated, subtransverse punctures, the second and third a little wider, with single even series of somewhat less coarse punctures; setæ distinct though small, with two or three forming a minute cluster at the base of the third interval; abdomen with fine loose medial, and coarser dense lateral, punctuation, the medio-basal region scarcely more than feebly flattened in the type. Length ( $\sigma^7$ ) 2.75 mm.; width 1.15 mm. Texas (locality unrecorded).

Easily distinguishable from most of the immediately preceding species by the very obvious short and uniform elytral setæ in single series; it is relatively shorter and stouter than any of the forms allied to *nigrina*, and has no scattered white hair-like scales on the elytra.

The following four species form a distinct group, to which *cælata* and *nigrina* should be attached, characterized by a few widely scattered but very distinct long white hair-like suberect scales on the elytra; the group includes some of the smallest species of the genus:

***Pseudobaris rabida*** n. sp.—Oblong-suboval, rather convex, moderately shining, deep black throughout; beak in the female long, arcuate, finely

and not densely punctate, rather longer than the head and prothorax, with the upper surface very feebly swollen basally; prothorax a fourth wider than long, the sides just visibly converging and straight, gradually rounding in nearly anterior half to the constriction, the apex broad, three-fifths as wide as the base, the lobe rounded, rather abruptly formed; punctures coarse, dense and partially confluent, the smooth median line central only; scutellum small, subquadrate, slightly transverse; elytra suboval, rather rapidly and broadly rounding behind, only about a third longer than wide, distinctly wider than the prothorax and less than twice as long, the humeral callus moderate but rather prominent; grooves moderately coarse and very deep, the intervals one-half wider than the grooves, with single series of coarse and close-set punctures, the second and third wider, with the uniserial punctures less coarse; short setæ small, the long distinct only on intervals 3-5-7-9; condensation at base of the third very distinct; abdomen strongly, rather densely punctate. Length (♀) 3.0 mm.; width 1.25 mm. Florida (Key West).

To be known readily from *nigrina* by its more robust outline, coarser pronotal sculpture, coarser and closer interstitial punctures and more conspicuous white squamules of the elytra; the abdominal punctures are also slightly denser and the prothorax is larger.

***Pseudobaris carolinæ*** n. sp.—Form, deep black color and rather shining lustre as in *nigrina*; beak nearly similar in the sexes, arcuate, rather closely punctulate at the sides and about as long as the head and prothorax, not very slender; prothorax between a fourth and third wider than long, the sides just visibly converging and barely arcuate to about apical fourth, there rapidly rounding to the tubulate apex, which is distinctly more than half as wide as the base, the latter transverse, with somewhat abrupt rounded lobe; punctures moderate, dense and partially confluent throughout, the smooth median line distinct centrally; scutellum transversely oval; elytra feebly ovulate, rather obtusely rounded behind, two-fifths longer than wide, very little wider than the prothorax and twice as long, the humeral callus very moderate; grooves deep, a little more than half as wide as the intervals, the single series composed of punctures rather close-set and half as wide as the intervals; setæ indistinct, the white squamules long, sparse but distinct on the alternate intervals; basal clusters moderate; abdomen rather strongly and closely, at the sides more densely and rugosely, punctate, the basal impression of the male long though feeble. Length (♂ ♀) 2.4-2.8 mm.; width 0.9-1.25 mm. North Carolina (Black Mts.),—Beutenmüller.

Very close to *nigrina* in size and general appearance, but differing in the form of the prothorax, the sides of which in that species are gradually rounding anteriorly from very near the middle, with the apex not quite so wide and the tubulation less marked; the pronotal punctures, also, are a trifle larger in *nigrina*, the elytra manifestly broader and relatively shorter than in *carolinæ*.

T. L. Casey, Mem. Col. IX, Feb. 1920.

**Pseudobaris verecunda** n. sp.—Elongate-oval, convex, shining and deep black throughout, very small in size; beak ( $\sigma^7$ ) rather thick, evenly arcuate, closely punctulate and as long as the head and prothorax, or ( $\varphi$ ) more slender, smoother and very slightly longer; prothorax shorter, a third wider than long, the sides subparallel and very feebly arcuate for two-thirds, then gradually rounding to the tubulate apex, which is three-fifths as wide as the base, the lobe of the latter rather gradual and not very broadly rounded at apex; punctures moderate but very dense throughout, the smooth median line distinct and entire or nearly so; scutellum small, transversely oval; elytra very gradually subovoidal, obtuse behind, three-sevenths longer than wide, very slightly wider than the prothorax and distinctly more than twice as long, the grooves deep, moderate, half as wide as the intervals, the single series of which are composed of rather small, feeble and separated punctures; setæ small, the erect sparse squamules very few, the basal spots rather diffuse; abdomen finely and sparsely, toward the sides more coarsely and closely, punctate, the basal impression of the male deep, abrupt and somewhat transversely oval. Length ( $\sigma^7$   $\varphi$ ) 2.3–2.6 mm.; width 0.8–1.0 mm. Indiana. Levette collection. Said to occur on the golden-rod.

This species, while allied to *nigrina*, differs in its still smaller size, shorter prothorax and rather narrower and more elongate elytra, with less coarse grooves and much finer and feebler interstitial punctures.

**Pseudobaris providens** n. sp.—Stouter, convex, elongate-suboval, deep black and shining, the beak ( $\sigma^7$ ) rather thick, arcuate, closely punctulate and but little longer than the prothorax, or ( $\varphi$ ) not so thick, though closely punctulate at the sides, and slightly longer than the head and prothorax, the latter fully two-fifths wider than long, the sides just visibly converging and nearly straight to about the middle, there gradually rounding and more convergent to the subtubulate apex, which is not quite half as wide as the base, the lobe of which is rather large and abrupt but short and broadly rounded; punctures relatively coarse, deep and dense throughout, but confluent only at the sides, the smooth line distinct, not quite entire; the punctures at apex are small and sparse; scutellum transversely suboval, feebly canaliculate along the middle; elytra very obtusely suboval, two-fifths longer than wide, slightly wider than the prothorax and about twice as long, the humeri rather prominent; grooves somewhat coarse, very deep, about half as wide as the intervals, the uniserial punctures of which are rather coarse but shallow, moderately separated, less coarse posteriad, the setæ very small and indistinct, the longer white squamiform hairs thicker than usual, very sparse, sometimes more evident along the first interval subbasally, the basal clusters distinct; abdomen moderately and rather closely punctate, with a distinct elongate-oval medio-basal impression in the male. Length ( $\sigma^7$   $\varphi$ ) 3.3–3.5 mm.; width 1.28–1.5 mm. Indiana. Levette collection. Four examples.

Not closely allied to any other described species, being twice as large as *nigrina* and stouter, with much larger, more coarsely and somewhat less densely punctate prothorax. The punctures of the inner intervals are finer than those of the others, as is frequently the case.

The following four species are more or less close relatives of *angusta* Lec., differing from those of the *nigrina* section in the generally more slender outline, absence of the longer white squamules of the elytra and obsolete or feeble condensation at the base of the third interval; also in the finer and more widely separated punctures of the interstitial series. By longitudinally reflected light there is generally a more or less evident imbricate sculpture visible on the lateral intervals. The very much larger *discreta*, from Texas, is also to be placed in this *angusta* section, although much less slender than the others and with coarser pronotal and larger, though shallow, interstitial punctures, and with somewhat coarser grooves:

***Pseudobaris tradita*** n. sp.—Elongate-oval, convex, rather shining and deep black throughout; beak in the male rather slender, evenly arcuate, subopaque and somewhat closely punctulate, fully as long as the head and prothorax, the latter barely a fourth wider than long, the sides converging and nearly straight to about apical third, there rounding rather rapidly to the tubulate apex, which is just visibly more than half as wide as the base, the basal lobe short, gradual and broadly rounded; punctures relatively coarse and dense throughout though not in contact or confluent, the median impunctate line wholly wanting; scutellum small, transversely suboval; elytra elongate and obtusely subovoidal, nearly one-half longer than wide, a little wider than the prothorax and twice as long, the humeral callus rather prominent, the grooves deep, moderately coarse; intervals a little less than twice as wide as the grooves, with feeble, well separated, transversely sublineate punctures; setæ indistinct, the basal condensations small but evident; abdomen with small but deep, close but separated punctures, becoming coarser, longitudinal and subrugose at the sides, the medio-basal impression of the male rather long and narrow though shallow. Length (♂) 2.8 mm.; width 1.12 mm. Missouri,—Schuster.

Stouter than *angusta*, with less cylindrical prothorax, the sides of which are more rapidly rounded and more anteriorly; also with distinctly coarser pronotal punctures. I have associated with the male type a female from Keokuk, Iowa, which resembles it very closely but is much smaller in size.

**Pseudobaris illini** n. sp.—Resembles the preceding rather closely but somewhat stouter, the beak in the male a little shorter, barely longer than the prothorax, opaculate and punctulate at the sides; prothorax only a fifth wider than long, the sides converging and straight to beyond apical fourth, there gradually and feebly rounding for a short distance to the tubulate apex, which is more than half as wide as the base, the lobe of the latter smaller and more narrowly rounded than in *tradita*; punctures coarse and dense; median smooth line well developed but abbreviated; scutellum very short and transverse, impressed; elytra shorter, two-fifths longer than wide, a little wider than the prothorax and slightly less than twice as long, the sides more parallel, gradually rounding behind the middle, the humeral callus smaller but somewhat prominent; grooves not quite so coarse; intervals nearly twice as wide as the grooves, each with a single loose series of fine punctures, which are not transverse as they are in *tradita*; setæ indistinct, the basal condensations minute and feeble; abdomen with close-set and rather strong punctures, coarse and closer at the sides, the medio-basal impression of the male very shallow. Length (♂) 3.0 mm.; width 1.2 mm. Illinois (locality unrecorded),—Webster.

Differs from *tradita* in its shorter and stouter form, especially in the hind body, in having the subapical rounding of the thoracic sides still feebler and more anterior, in the smooth thoracic line and smaller basal lobe and in the finer and non-transverse interstitial punctures.

**Pseudobaris levettei** n. sp.—Suboblong-elongate, obtuse behind, deep black, slightly alutaceous; beak in the female slender, arcuate, shining except on the punctured basal part of the sides, distinctly longer than the head and prothorax, the latter only a fifth or sixth wider than long, the sides slightly converging and very feebly arcuate, gradually rounding and feebly converging in about anterior third, the subtubulate apex more than half as wide as the base, the lobe of the latter small, obtusely triangular; punctures moderate in size, deep and dense, but not coalescent except at the sides; median impunctate line distinct though only centrally, the scutellum small, transverse; elytra nearly one-half longer than wide, barely visibly wider than the prothorax and twice as long, the sides feebly arcuate, barely at all converging to the evenly but obtusely rounded apex, the humeri prominent; grooves moderate, very deep; intervals subopaque, twice as wide as the grooves, each with a close-set series of moderate rounded punctures; setæ small but distinct; basal condensations very small, loose and obsolescent; abdomen rather coarsely but shallowly, closely punctate, rugose at the sides. Length (♀) 3.25 mm.; width 1.2 mm. A single specimen unlabeled in the Levette collection, but in all probability taken in Indiana.

This species is distinct in the rather long, subparallel and obtusely rounded elytra, with opaculate intervals and in several other features, as may be inferred from the description.



***Pseudobaris kansana*** n. sp.—More narrowly elongate-oval, much less obtuse behind, convex, deep black and not very shining; beak in the male short, feebly punctate, opaculate, only slightly arcuate and a little longer than the prothorax, which is shorter, fully a fifth wider than long, the sides feebly converging and nearly straight, rounding gradually from only slightly beyond the middle, the subtubulate apex more than half as wide as the base, the basal lobe nearly as in *levettei*; punctures coarse but not very deep, dense, the smooth median line feebly traceable medially but not definite; scutellum small, transverse, coarsely sculptured; elytra nearly one-half longer than wide, barely wider than the prothorax and somewhat more than twice as long, elongate, suboval, more narrowly rounded behind than in *levettei*, the humeral callus less prominent; grooves deep, very moderate; intervals nearly twice as wide as the grooves, each with a single line of shallow and well spaced, subtransverse punctures; setæ inconspicuous, the basal clusters obsolete; abdomen polished as usual, with fine, deep and evidently separated punctures, becoming rather coarse though not at all dense at the sides, the medio-basal impression of the male small, oval and very shallow. Length (♂) 3.0 mm.; width 1.1 mm. Kansas.

Distinguishable easily from *levettei* by the characters given above, and, from *angusta*, the typical locality of which is also Kansas, it may be known by the very much larger prothorax, with evidently converging sides and less parallel elytra, which are less distinctly wider than the prothorax; the latter in *angusta* is small, cylindric, arcuately rounding at the sides in apical two-fifths, only four-fifths as wide as the elytra and much less than half as long.

### ***Hesperobaris*** Csy.

In this genus of very small, oval, convex species, the pygidium in the male is vertical and rather well developed; in the female, however, it is very short, not visible from behind and forms a part of the abdomen in even continuation of the convexity of the latter. In my original work on *Hesperobaris*, I placed with the type, named *suavis* and founded upon the female, a male specimen from Missouri; it appears now, however, that this Missouri specimen represents another species, the differences being unaccountable on the score of sex:

***Hesperobaris ovulum*** n. sp.—Evenly elongate-oval, strongly convex, rather shining, deep black, the legs and beak rufo-piceous; beak in the male moderately thick and arcuate, closely punctured and equal in length to the prothorax, the antennal club narrow, elongate-oval and pubescent throughout; prothorax a fourth wider than long, the sides feebly convergent and nearly straight, gradually slightly arcuate and feebly con-

verging in about apical third, the constriction barely traceable; apex distinctly more than half as wide as the base, the lobe of the latter extremely small and feeble; punctures coarse, deep and very close, though not in actual contact throughout, the medium smooth line wholly wanting; scutellum small, rounded, not shining; elytra two-fifths longer than wide, oval, gradually obtusely acuminate behind, evidently wider than the prothorax and fully twice as long, the humeral callus obsolete; grooves deep, finely, feebly and closely crenulate basally; intervals one-half wider than the grooves, each with a single series of relatively very coarse but separated, perforate punctures, the third wider and with smaller, loosely confused punctures; setæ very small though distinct, even, with no condensed spot; abdomen rather coarsely, deeply and somewhat closely punctate, with a distinct oval medio-basal impression in the male. Length ( $\sigma^7$ ) 2.2 mm.; width 0.8 mm. Missouri (locality unrecorded).

Differs from *suavis* in the shorter prothorax, without trace of the narrow subentire median smooth line of that species, also in the smaller basal lobe, and it also differs in the coarser, much deeper and perforate punctures of the interstitial series. The humeral callus is obsolete in *ovulum*, but is visible, though feebly developed, in *suavis*.

#### Trichobaris Lec.

This is a large genus, but the species are to great extent confused in collections. The character of the scaly vestiture is comparatively constant in each species, but it is subject to partial or even entire removal. Probably most of the species live on or near the ground, and the constant friction against detritus removes or breaks the scales, so that the general appearance of the insect may be greatly changed; there are several specimens at hand in which almost every vestige of the scaly covering has disappeared, a condition which does not seem to occur among the more arboreal scaly forms of the subfamily. The pygidium is much larger and usually more vertical in the male than in the female.

The following seven species belong to the *mucorea* and *vestita* section of the genus:

**Trichobaris striatula** n. sp.—Elongate, subparallel, moderately convex, black throughout, including legs and antennæ, slightly shining; beak subsimilar in the sexes, very little longer in the female and about as long as the prothorax, moderately arcuate, punctate, loosely clothed with narrow pale scales above and gibbous at base; prothorax but slightly wider than long, the sides feebly converging, more oblique at apex, deeply and densely punctate, the punctures forming longitudinal rugæ;

transverse vestiture not very dense, the slender squamules becoming larger, denser scales at apex; elytra parallel, rounded at apex, four-sevenths longer than wide, about a fourth wider than the prothorax and much more than twice as long, the humeral callus very obtuse, feeble and closely sculptured; striæ not very coarse, deep, punctured and subcrenate, the confused interstitial squamules hair-like and not at all dense, more or less oblique at the sides of the closely and strongly punctured intervals; scutellum and two basal thoracic spots as in *trinotata*; abdomen very densely clothed with broader and elongate-oval white scales, not sparser but less broad medially, where there is a feeble subbasal impression in the male, the usual polished spot at the middle of the third and fourth segments very abruptly defined in both sexes. Length (♂ ♀) 4.0–6.0 mm.; width 1.7–2.3 mm. Arizona (Tuçson). Seventeen specimens.

There is much less sexual difference in the pygidium here than in *trinotata*; in the present species it is a little larger and more transverse in the male, with the pale scales confined to a single anterior transverse fascia, while in the female the pale scales are uniformly dense throughout; it is subvertical in both sexes. This species is rather closely allied to *mucoorea*, but is slightly narrower, with more elongate elytra, having deeper striæ and more convex intervals, and there is less sexual difference in the beak; the pygidial and abdominal characters are similar, but the scales of the under surface are not so broad as in *mucoorea*, which latter seems to be confined to southern California, the neighboring parts of Arizona, and the upper part of Lower California. The coarsely punctate propleura are almost entirely denuded in both species.

**Trichobaris nanella** n. sp.—General characters nearly as in the preceding, but much smaller in size, with shorter beak and distinctly shorter and more compact antennæ, black, slightly shining, the legs rufo-piceous; beak less abruptly declivous above at base than in either *striatula* or *mucoorea*, thick, feebly arcuate and almost as long as the head and prothorax in the female; prothorax shorter, fully a fourth wider than long, the sides parallel, rounding for a short distance anteriorly to the apical constriction; sculpture and smooth tumid median line nearly similar, the transverse vestiture very fine, sparse and inconspicuous, the basal spots and scutellum as usual; elytra shorter, less than one-half longer than wide, parallel, more abruptly obtuse at apex, the humeral callus more prominent; striæ coarser and less crenulate; intervals only between two and three times as wide as the striæ, nearly flat, confusedly punctatorugulose, the pale hair-like scales still finer and sparser; pygidium similar; abdomen with the squamules slender and much less dense, in fact distinctly separated. Length (♀) 3.4 mm.; width 1.4 mm. Arizona (near Tuçson),—Tucker. One example.

Distinguishable from the preceding by its small size, more abbreviated outline, finer, sparser and inconspicuous vestiture, shorter and more compact antennæ and other characters.

*Trichobaris latipennis* n. sp.—Oblong, moderately convex, somewhat shining, black throughout; beak in the male very thick, only slightly arcuate, rapidly but arcuately declivous at base above, moderately clothed with pale scales, densely sculptured and fully as long as the prothorax, the antennæ long; prothorax large, a fifth wider than long, the sides distinctly converging, feebly sinuate at the middle, gradually rounding anteriorly to the constriction; sculpture consisting of long sinuous rugæ, the tumid smooth median line distinct; pale scales largely denuded in the type but slender; basal spots and scutellum of the *trinotata* type; elytra one-half longer than wide, parallel, circularly rounding in posterior fourth or slightly more, nearly a third wider than the prothorax, the humeral callus moderate; striæ not coarse, deep, not clearly punctate, the intervals convex, finely, confusedly and subrugulose punctate, the fine hair-like pale scales unusually short, not close and rather inconspicuous; abdomen nearly as in *mucorea* and *striatula*, impressed broadly toward base in the male, the fifth segment similarly having a small medial ligula at tip. Length (♂) 5.7 mm.; width 2.4 mm. Texas.

Resembles *striatula* somewhat but with broader elytra and still more convex intervals, larger and slightly more transverse prothorax and still stouter beak.

*Trichobaris apicata* n. sp.—Oblong-elongate, rather convex, black, closely covered with slender whitish hair-like scales, not in mutual contact but obscuring the integuments, with three denuded spots as in *trinotata*; the scales become larger and dense in an apical fascia on the pronotum; on the under surface and legs throughout they are large, oval and in mutual contact, except on the subdenuded propleura and in the usual subapical polished spot of the abdomen; beak in the male rather thick, squamose, feebly arcuate and barely as long as the prothorax, the upper surface abruptly almost vertically declivous at base; prothorax a sixth wider than long, the feebly convergent sides subsinuate medially, rounding anteriorly to the constriction, the punctures coarse, dense and rugulose confluent; elytra scarcely one-half longer than wide, parallel, rounded at apex and fully a fourth wider than the prothorax, the humeral callus not evident; striæ and sculpture largely concealed by the vestiture, the striæ sometimes indicated by slight parting of the latter; abdominal depression of the male very feeble, densely covered with large and unmodified scales. Length (♂) 4.7–5.7 mm.; width 1.9–2.2 mm. Utah (St. George) to Columbus, Texas, and San Diego, California. Eight specimens, the female unrepresented.

Allied rather closely to *mucorea*, but with denser and more conspicuous vestiture, also by the form of the short ligula at the apex

of the fifth ventral in the male; this in *mucoorea* is only slightly wider than long, while in *apicata* it is strongly transverse.

**Trichobaris arida** n. sp.—Subparallel, with rather small but subparallel prothorax, black, rather dull in lustre, the vestiture fine, not at all dense, whitish but not concealing the integuments, arranged as usual in *trinotata* but less distinct, close-set on the abdomen though more lineiform than in *mucoorea*; beak ( $\sigma^7$ ) barely as long as the prothorax, or ( $\varphi$ ) a little longer and thinner, sculptured and clothed as usual, arcuate, the upper surface less abruptly declivous at base than usual; prothorax a third or fourth wider than long, the sides parallel and nearly straight, obliquely rounding in about apical third, the constriction feeble; punctures coarse, confluent, the longitudinal rugæ usually evident, the tumid median line obsolescent basally; elytra cylindric, with parallel straight sides, rapidly very obtuse in apical fifth, a third wider than the prothorax and two and one-half times as long ( $\varphi$ ), a little less ( $\sigma^7$ ), the humeral callus very obtuse; striæ moderate, the intervals flat and with the usual confused sculpture; abdomen with the subapical polished spot involving nearly half of the fifth segment, the apical ligula of the male as in *mucoorea*. Length ( $\sigma^7$   $\varphi$ ) 4.0–4.2 mm.; width 1.6–1.8 mm. Texas. Levette collection. Two examples.

As in *trinotata*, the male is rather stouter than the female. This species differs from *mucoorea* in its smaller size, smaller, shorter and more parallel prothorax and more slender and lineiform scales of the abdomen.

**Trichobaris jejuniola** n. sp.—Parallel, moderately convex, deep black and rather dull; beak in the female moderate in thickness and feebly arcuate, normally sculptured and clothed and not quite as long as the head and prothorax, the upper surface rapidly declivous at base; prothorax between a third and fourth wider than long, the sides nearly parallel and barely at all arcuate, rounding anteriorly to the distinct constriction; punctures close-set but differing from those of the preceding species in being circular, deep and not crowded, the fine tumid smooth line evident; lineiform transverse squamules very fine, not concealing the integument, the denuded basal spots and scutellum as in *trinotata*; elytra barely one-half longer than wide and only a fifth wider than the prothorax, parallel, rounding in about apical third, the humeral callus large, obtusely subprominent; vestiture of very short pale hair-like scales not concealing the surface; striæ moderate but deep; intervals broad, flat, rather coarsely and densely punctato-rugose; abdomen with rather coarse punctures not filled by the scales, which are therefore isolated, and, within the concavity of the male becoming linear and rather widely separated, the terminal ligula of that sex short, small and subtriangular. Length ( $\sigma^7$ ) 4.4 mm.; width 1.7 mm. A single example without label in the collection of Levette, probably from Colorado.

This species is not closely related to any other, differing in the distinct circular punctures of the prothorax, and, from any of the

preceding, in peculiarities of abdominal vestiture; the humeral protuberance is more prominent than usual though rounded. The propleura are denuded in two separated spots.

\**Trichobaris rugulicollis* n. sp.—Stout, subparallel and only feebly convex, black and feebly shining where denuded; vestiture of lineiform whitish scales coarser than in *mucorea* but not denser, more condensed at the thoracic apex, with the denuded spots as in *trinotata*, the under surface with large and oval dense scales, denuded in two separated propleural spots, the polished abdominal spot confined to the third and fourth segments; beak (♀) short, arcuate, stout and cylindrical, barely as long as the prothorax, partially squamulose and closely punctate, the upper surface not abruptly declivous at base; prothorax a fourth wider than long, the sides distinctly converging, moderately and evenly arcuate, more rounding for a short distance anteriorly to the constriction; punctures strong, in great part forming longitudinal rugulosity, the smooth median line cariniform; elytra broad, parallel, rapidly very obtuse at apex, three-sevenths longer than wide, two-fifths wider than the prothorax and two and one-half times as long, the humeral angles obtusely subprominent; striæ moderate, punctate, the broad and nearly flat intervals with the usual rugose sculpture; squamules oblique at the sides of the intervals as in *mucorea* and others of this section. Length (♀) 5.8 mm.; width 2.6 mm. Mexico (Durango City, Durango),—Wickham.

Differs from *mucorea* in its relatively much shorter and broader elytra, shorter and stouter beak and broader lineiform squamules of the entire upper surface.

It is interesting, on forming series of the males and females of *trinotata*, to observe the sexual differences, which are peculiarly marked in that species, occurring rather abundantly over the eastern parts from Kansas to New England and southward to Key West, Florida. The male is notably shorter and broader than the female, the outline in the latter sex being peculiarly elongate-oval and narrow; at first sight these series might be thought to represent different species. The terminal abdominal ligula of the male is extremely small and feeble and is obtusely angulate. The following species is evidently allied to *trinotata* but is much smaller and more slender:

*Trichobaris impotens* n. sp.—Slender, cylindrical, moderately convex, deep black, barely at all shining; the vestiture of the upper surface is loose, not concealing the integuments and consists of small lineiform scales, even smaller and finer than in *trinotata*; on the under surface they are but little broader, isolated, but denser and a little broader at the extreme sides, the propleura denuded in two spots; beak arcuate, a

little thicker and less smooth in the male, more declivous above at base but not very abruptly, as long as the head and prothorax in the female; antennal club rather large; prothorax shorter, smaller and more cylindrical, more than a fourth wider than long, the sides parallel and straight, oblique and feebly rounding in nearly apical half; punctures strong, in great part longitudinally rugulose, the smooth median line not very distinctly defined, although somewhat tumid; elytra parallel, obtusely rounded behind in more than apical third, one-half longer than wide, nearly a fourth wider than the prothorax, the humeral callus moderate though distinctly prominent; striæ moderate, the intervals nearly flat and rugulose, the squamules not oblique at the sides of the intervals; abdominal depression of the male with narrow, sparse squamules, the terminal ligula very short and broadly angulate; subapical quadrate polished spot involving also about half of the length of the fifth segment. Length (♂ ♀) 2.8-3.1 mm.; width 0.9-1.1 mm. North Carolina (Black Mts.),—Beutenmüller.

Besides the much smaller size and more slender form, this species differs from *trinotata* in the shorter and basally more parallel prothorax, shorter, basally less declivous upper surface of the beak and much shorter legs. In both species the pygidium of the male is vertical and well developed, while in the female it is not only smaller but more oblique and more concealed by the elytra. This is by far the smallest species of the genus known thus far.

The next four species are allied more or less closely to *compacta* Csy., having a short and more convex form of body and notably dense vestiture:

***Trichobaris brevipennis*** n. sp.—Oblong, convex, black, clothed with brownish-white scales, which are parallel-sided in form and very close, though not in actual contact above, much larger and broadly oval, whiter in color and in mutual contact beneath, a little smaller and less dense though oval in the feeble male abdominal impression, the third and fourth segments not entirely nude at the middle, having a thin line of hair-like scales at the apex; scutellum denuded, the two basal spots of the pronotum very small; beak in the male short, thick, densely squamose, angularly gibbous at base above and not quite as long as the prothorax, the antennæ compact; prothorax a third wider than long, the sides feebly converging to beyond the middle, then more rounded and gradually convergent to the apex, the constriction obsolete; punctures very dense and not distinctly defined under the vestiture; elytra three-sevenths longer than wide and parallel, rounding in about apical third, almost a third wider than the prothorax and more than two and one-half times as long, the rounded humeri but slightly tumid; vestiture concealing the sculpture, the striæ indicated by fine and obscure partings, the scales at the sides of the intervals not oblique; terminal abdominal ligula of the male very minute. Length (♂) 4.5 mm.; width 2.15 mm. California (southern—the locality not more definitely indicated).

Allied to *compacta* but differing in its more abbreviated form and shorter prothorax, elytra and beak; the scales of the upper surface are more broadly linear in form and are still denser.

**Trichobaris retrusa** n. sp.—Oblong-suboval, moderately convex, black, the vestiture of the upper surface consisting of close-set lineiform scales, which are however much less dense and not so broad as in the preceding, the basal thoracic spots very small; the under surface is nearly as in *brevipennis* and *compacta*, except that the dense scales are less broadly oval; beak in the male feebly arcuate, rather thick, densely squamulose, angularly gibbous above at base and as long as the prothorax, which is formed nearly as in *brevipennis* but rather less abbreviated; punctures coarse and close but separately circular and not forming rugulæ; elytra not quite one-half longer than wide, parallel, obtusely, evenly rounding in somewhat less than apical third or fourth, wider than the prothorax and evidently more than twice as long; striæ moderate, sometimes clearly indicated by parting of the rather close-set scales, which however are less dense than in any of the other species of the *compacta* section. Length (♂) 4.6–5.0 mm.; width 1.8–2.2 mm. Arizona (Tuçson),—Tucker. Three specimens.

The vestiture of the three species *brevipennis*, *compacta* and *retrusa* is of the same character but decreases in density in the order named, being very dense in the first, a little less so in the second and very notably so in *retrusa*. The prothorax is smaller and shorter than in *compacta*, but not so abbreviated as in *brevipennis*, and the beak of the male is less thick than in either of the other two.

The species which immediately follows differs from either of the three just mentioned, in having the scales which clothe the feeble abdominal impression of the male as large and dense as those toward the sides:

**Trichobaris utensis** n. sp.—Oblong, somewhat convex, black, very closely clothed above with rather broad but lineiform gray scales, the striæ only indicated by slight obliquity of the scales along the sides of the intervals, the pronotal spots very small; scales of the under surface dense, oval, fan-shaped on the propleura; beak in the male nearly as long as the head and prothorax, thick, densely squamose and angularly gibbous on the upper surface at base; prothorax a fourth wider than long, the sides rather strongly converging and nearly straight for three-fifths, then rounding and more convergent to the apex; sculpture dense, obscured by the broad linear scales; elytra two-fifths longer than wide, nearly a third wider than the prothorax and two and one-half times as long, parallel, the sides gradually arcuate in posterior two-fifths to the obtusely rounded apex; sculpture concealed by the very close though not contiguous scales; pygidium convex, with long and close, suberect scales above, smaller and sparser beneath; median third of the fifth



ventral with small and sparse lineiform scales, the ligula minute and feeble. Length ( $\sigma^7$ ) 4.3 mm.; width 1.9 mm. Utah (St. George),—Wickham.

The very close covering of rather broad gray lineiform scales, oblique, and intermatted at the sides of the strial intervals, as well as peculiarities of abdominal vestiture, as related above, will serve to distinguish this species in the *compacta* section of the genus.

The following is the largest of the *compacta* series and has the scales of the male abdominal impression nearly as large as those at the sides, though distinctly separated:

**Trichobaris densata** n. sp.—Oblong, rather convex, black, the scales of the upper surface closely decumbent, ochreous and so broad as to approach the oval in form, dense as possible without being in mutual contact, the striæ indicated by feeble obliquity of the scales at the sides of the intervals; two basal thoracic spots more developed than in others of the *compacta* section; scales of the under surface and femora large, oval, very dense and yellowish-white in color; beak very thick, slightly arcuate and densely squamose, differing but little sexually, barely as long as the prothorax in the female, angularly gibbous above at base; prothorax less transverse than in the others, barely a fifth wider than long, nearly similar in outline, the sinuation of the sides near the middle rather more distinct; dense coarse sculpture concealed by the vestiture; elytra longer than in any other of the *compacta* section, three-fifths longer than wide, the parallel sides more gradually rounding behind from near the middle, barely a fourth wider than the prothorax and between two and three times as long; humeri barely inflated. Length ( $\sigma^7$  ♀) 5.0–5.8 mm.; width 2.2–2.45 mm. California (San Diego). Four examples.

To be identified by the short and very thick beak, dense vestiture, longer, more gradually rounded and less apically obtuse elytra and more developed basal spots of the pronotum, among other characters.

The Mexican *soror* of Champion, is well represented in my collection by three examples taken by Wickham near Durango City. It is a stout species, clothed very closely above with broad lineiform ochreous-brown scales, the striæ being indicated by feeble obliquity of the adjacent scales, the two basal thoracic spots well developed. The whitish scales of the under surface are large, oval and dense, and, in the feeble abdominal impression of the male, become only narrowly separated and a little less broad; the polished subapical area is not continuous, both the third and fourth segments having plentiful scales except basally, and the fifth segment is faintly and

minutely tumid at apex, the ligula obsolete, being represented only by a feebly arcuate part of the margin. The chief peculiarity of the species resides in the unusually long, nearly straight and slender beak of the female, that of the male normally thick though rather longer than the head and prothorax, densely squamulose and angularly gibbous above at base. The following is another species of the *soror* section, being smaller and much narrower, with finer and much less dense vestiture above:

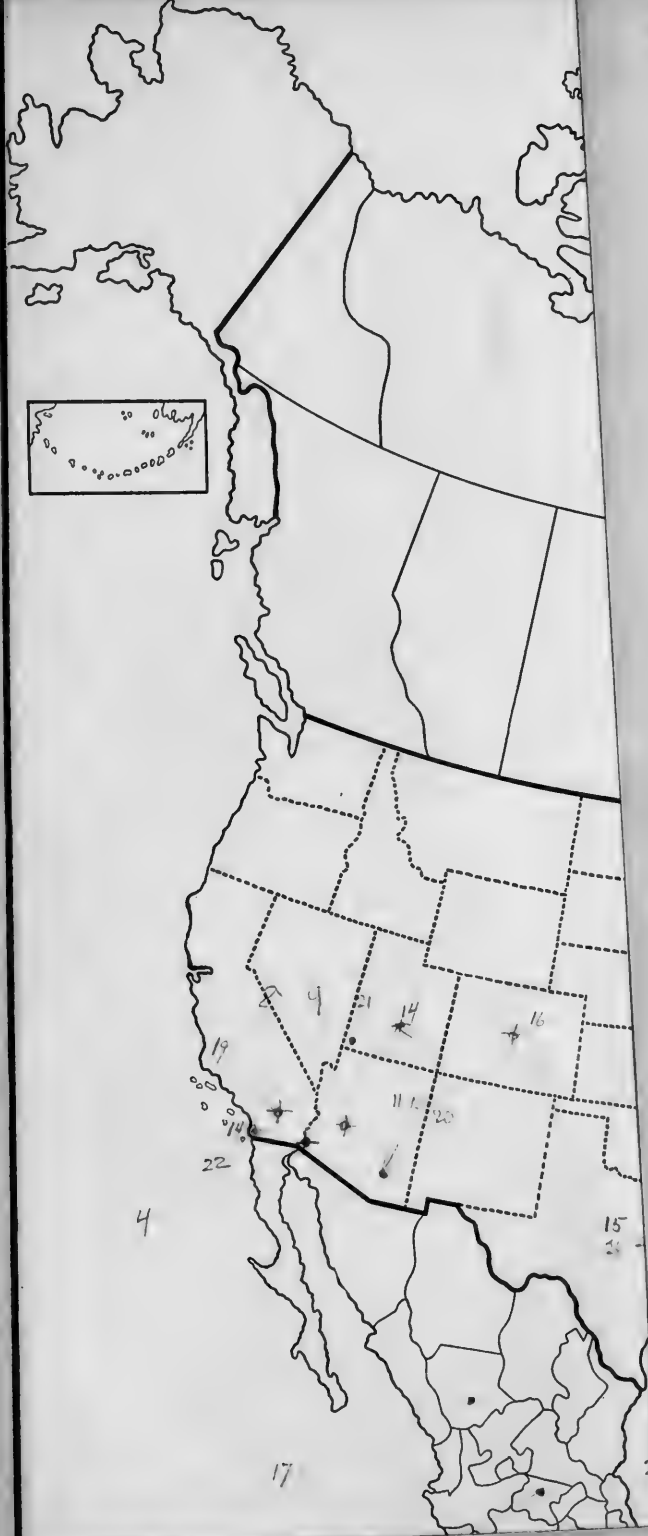
\***Trichobaris pueblana** n. sp.—Oblong, rather convex, black, clothed above with slender reddish-gray decumbent scales, by no means so close-set as in *soror*, the abdominal concavity of the male with scales nearly as dense as those at the sides but of narrower form; beak ( $\sigma^7$ ) nearly as in *soror* but shorter and slightly less thick, or ( $\varphi$ ) also as in that species but still straighter and less thickened toward base; prothorax nearly similar, small, a fourth wider than long, the sides strongly converging, rounding and oblique in apical third, the sculpture apparently coarser and in the form of long sinuous rugulae; elytra one-half ( $\sigma^7$ ) to two-thirds ( $\varphi$ ) longer than wide, parallel, rapidly very obtuse at apex, a third ( $\sigma^7$ ) to a fourth ( $\varphi$ ) wider than the prothorax, the striae coarse and deep, indicated by feeble partings of the vestiture when normally clothed, the intervals confusedly punctato-rugose; abdomen nearly as in *soror*, the fifth segment narrower and more rounded at apex. Length ( $\sigma^7$   $\varphi$ ) 4.6–5.0 mm.; width 1.8–2.15 mm. Mexico (Puebla). Communicated by the Mexican National Museum. Three examples.

The much narrower outline, smaller size and finer, less dense vestiture of the upper surface, will readily distinguish this species from the rather closely related *soror*. The male is relatively broader than the female, a feature not observable in *soror*.

A small section, represented by *texana*, *cylindrica* and *insolita*, differs from any of the preceding, excepting the *trinotata* section, in the narrower and more cylindrical form of the body, and from all others it differs in having no small denuded spots at the base of the pronotum. The scales of the upper surface are usually more oval and denser, but in specimens collected by Wickham at Puente de Ixtla, they, though rather dense, become much more lineate in form. Mr. Champion unites *pellicea* Boh., with *texana* Lec., but if these Ixtla specimens represent the former—and from this locality cited for it also in the "Biologia," they would seem to be so considered by Mr. Champion—it is quite impossible for me to agree; the prothorax in *pellicea* has a peculiarly transverse, subquadrate-oval form, with parallel and arcuate sides, notably different from

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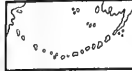
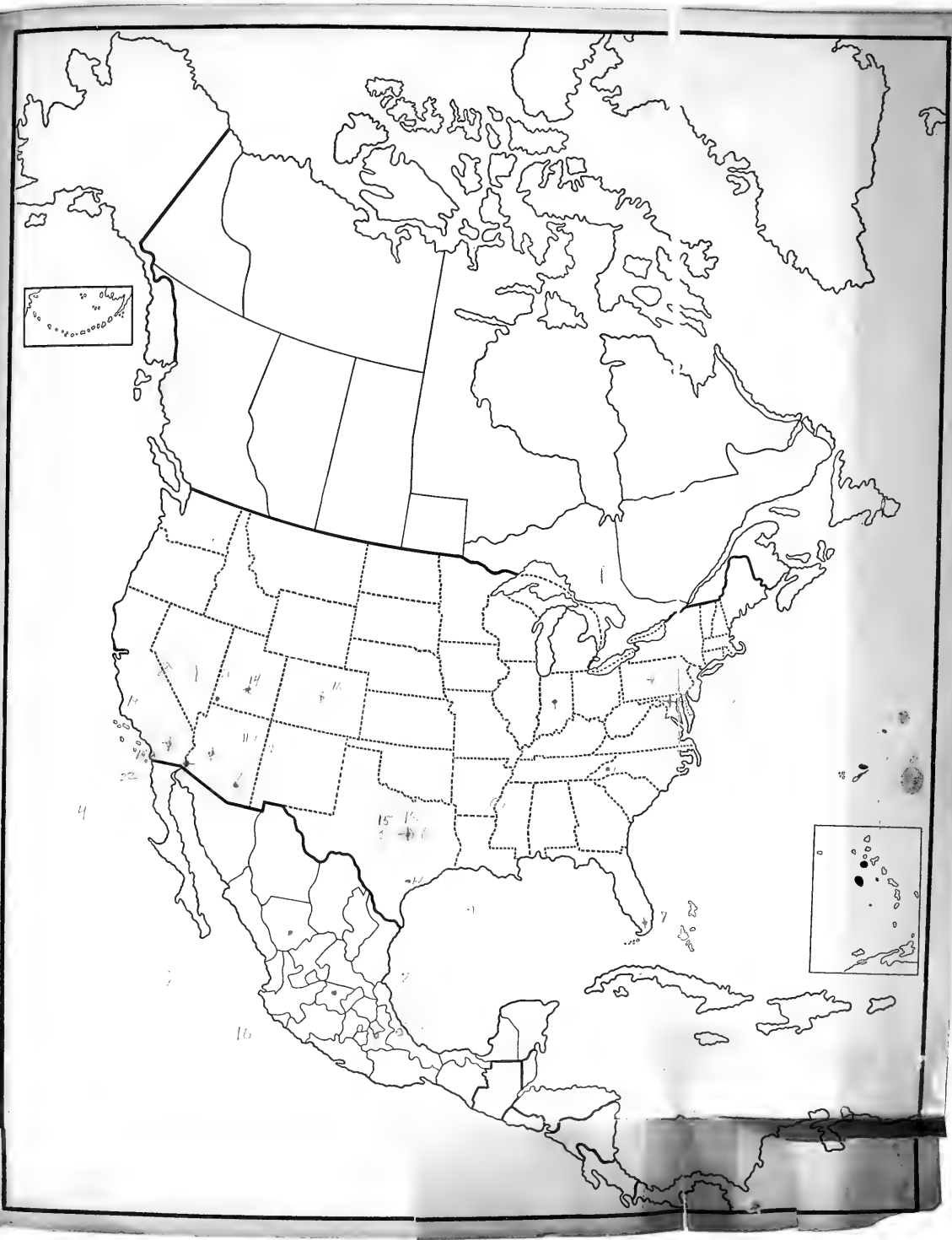
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the form of that part in *texana*, and the vestiture is quite different, owing to the dense oval scales of *texana*. The following is another species distinctly different from *texana*:

**Trichobaris amplicollis** n. sp.—Oblong-elongate and parallel, convex, black; upper surface clothed very densely with elongate-oval ashy scales, concealing the surface, transverse as usual on the pronotum, the elytral striæ indicated by fine and feebly marked partings; under surface with very dense oval or truncate scales of the same color, the median basal part of segments three, four and five glabrous; beak in the female arcuate, rather thick, densely squamulose and as long as the prothorax, gibbous on the upper surface at base; prothorax transverse, not quite one-half wider than long, the sides parallel, feebly arcuate, rounding in about apical third; sculpture deep and moderately coarse, dense but not very coalescent; elytra three-fifths longer than wide and parallel, gradually rounding behind, scarcely a fifth wider than the prothorax and between two and three times as long, the humeri rather prominent. Length (♀) 5.4 mm.; width 2.2 mm. Texas (Terrell).

Distinguishable from *texana* by the much more elongate elytra and shorter prothorax; in both species, a slightly denuded crevice between the bases of the prothorax and elytra near the humeri, replaces the more discal denuded spots of the *trinitata* type.

#### **Rhaptinus** n. gen.

The body in this genus is subcylindric but not slender, convex, the integuments nude, excepting sharply defined dense patches of scales, variously disposed according to the species. The beak is stout, cylindrical, slightly arcuate, about as long as the prothorax, distinctly sculptured and may sometimes be tumid and densely scaly at base above, as in the preceding genus; the antennæ are nearly similar but smaller, the club oval and pubescent. The prothorax is rapidly contracted at apex and often subtubulate, parallel or rounded at the sides, the punctures strong, not dense, and very notably evanescent medio-basally as in many Madarids, the scutellum rounded or subquadrate, sometimes feebly canaliculate. Elytra rather short, parallel, only slightly wider than the prothorax, obtuse at apex and without humeral callus, the striæ fine, sometimes coarser and crenate basally; the intervals are flat and with minute sparse punctures. Pygidium vertical and distinct in both sexes. Prosternum flat, unmodified, separating the coxæ by their own width to a little less, the anterior and post-coxal part divided by a suture at the middle of the coxæ, the hind margin

transverse, not intruding in any way upon the mesosternum. Femora unarmed, the third tarsal joint broad and bilobed, the fourth joint long and the claws closely united toward base. The male has a medio-basal abdominal impression, which sometimes bears a central prominence bristling with slender scales.

The type of this interesting genus is *Baridius quadrimaculatus* Boh., of Cuba, and the Porto Rican *Baris torquata* Oliv., also belongs to *Rhaptinus*, which is in all probability an essentially Antillean type. It has many bonds of affinity with *Trichobaris*, although having a very different system of sculpture, vestiture and striation.

#### Orthoris Lec.

The distinguishing characters of this genus are the slender and often nearly straight beak, rather approximate anterior coxæ, oblique pygidium in both sexes, elongate antennal club and absence of the terminal tibial spur. The body is oblong, clothed sparsely with coarse whitish hair, the prothorax small and subconical and the tarsal claws are free. More careful observation shows that the species of *Orthoris* are rather numerous, those now at hand being the following:

- Beak long, very much longer than the head and prothorax.....2  
 Beak short in both sexes, not or but little longer than the head and prothorax.....7  
 2—Beak abruptly tumid dorsally at base. Body oblong, shining, deep black throughout; beak in the female three-sevenths as long as the body, just visibly arcuate, cylindric, strongly sculptured and rather slender, the antennæ barely behind the middle, the club cylindric, not quite as long as the funicle; prothorax over a fourth wider than long, the converging sides feebly, evenly arcuate throughout; apex more than half as wide as the base; punctures strong, separated by their own diameters, without median smooth line; elytra oblong, with parallel straight sides, obtusely rounded at apex, two-fifths wider than the prothorax and more than three times as long; striæ deep, moderate; intervals flat, with distinct and confused though sparse punctures. Length (♀) 3.4 mm.; width 1.3 mm. Wyoming (Cheyenne).....**tumidirostris** n. sp.  
 Beak not abruptly tumid though sometimes slightly prominent at the extreme base, due to a rapid turn of the surface toward the head...3  
 3—Beak relatively longer, nearly straight.....4  
 Beak moderately long and evenly, though very feebly, arcuate; descriptions drawn from the female.....5  
 4—Body larger, deep black, shining, clothed as in *crotchi*; beak in the female not quite half as long as the body, slender, scarcely visibly



arcuate, with bristling vestiture above behind the antennæ, which are at the middle, the club much shorter than the funicle; prothorax nearly as in the preceding but with the punctures narrowly though evidently separated and distinctly coarser; elytra shorter, oblong, much wider than the prothorax and distinctly less than three times as long, the interstitial punctures small, uniserial on many of the intervals; abdomen finely, sparsely punctulate. Length (♀) 3.3-3.5 mm.; width 1.35-1.4 mm. Colorado (Colorado Springs).

**tenuirostris** n. sp.

Body very much smaller and more slender, black, rather shining, the elytral hairs subuniserial; beak in the female virtually straight, nearly half as long as the body, pubescent and bristling above behind the antennæ, which are at the middle, the club not quite as long as the funicle; prothorax bristling with long sparse hairs, only a little wider than long, the sides feebly converging and broadly arcuate; apex two-thirds as wide as the base; punctures moderate and rather well separated; elytra parallel, nearly three times as long as the prothorax and about a third wider; interstitial punctures fine, confused. Length (♀) 2.6 mm.; width 0.9 mm. California (locality unrecorded).....

**angustula** n. sp.

5—Pronotal punctures notably coarse and almost in mutual contact. Body stout, moderately shining, black; beak in the female two-fifths as long as the body, slightly thickened and notably bristling toward base, the antennæ near the middle, the club slightly shorter than the funicle; prothorax fully a third wider than long, the converging sides broadly arcuate; apex fully half as wide as the base; elytra oblong, a fourth wider than the prothorax and evidently less than three times as long; striæ rather coarse; intervals not quite flat, the fine punctures confused, rather strong and somewhat more close-set than usual, the squamules in about two irregular series. Length (♀) 3.5 mm.; width 1.6 mm. California (locality unrecorded).....

**robustula** n. sp.

Pronotal punctures everywhere distinctly separated; body not so stout.....6

6—Integuments more shining, the pronotal punctures rather coarse and deep; beak (♀) nearly two-fifths as long as the body, almost straight, the upper surface curving rapidly upon the head at base, or (♂) very little shorter and somewhat more evidently arcuate; antennæ at the middle (♀), a trifle beyond (♂), the beak in both sexes in great part with very bristling pubescence; prothorax small, nearly a third wider than long, the converging sides arcuate; elytra more gradually rounded behind than usual, two-fifths wider than the prothorax and distinctly more than three times as long, the humeri rather prominent; interstitial punctures confused and well separated though rather strong. Length (♂ ♀) 3.6-3.8 mm.; width 1.35-1.4 mm. California (Ontario). Three specimens.....

**captiosa** n. sp.

Integuments only moderately shining, deep black, the size smaller than in *captiosa*; beak rather thick, slightly but evidently arcuate, slightly longer than the prothorax (♂), distinctly so (♀), almost similar in

- the sexes; antennal club about as long as the funicle (♂) or little shorter (♀); prothorax larger than in the preceding, the arcuate sides somewhat less converging; punctures not quite so coarse, narrowly but distinctly separated; elytra shorter, of the usual oblong form, more rapidly obtuse at apex than in *captiosa*, a third wider than the prothorax and not quite three times as long; interstitial punctures finer and rather sparser, confused, the suberect setiform squamules a little shorter; male abdomen moderately impressed medio-basally through nearly the first two segments. Length (♂ ♀) 3.2-3.6 mm.; width 1.2-1.35 mm. California (southern coast regions). Nine specimens. . . . . **crotchi** Lec.
- 7—Body smaller, not so stout, shining, black; beak subsimilar in the sexes, feebly arcuate, bristling and densely sculptured, more slender than in the preceding, barely (♂) or distinctly (♀) longer than the head and prothorax, the antennal club fully as long as the funicle or longer, especially in the male; prothorax less strongly conical, the apex more than half as wide as the base, the sides subevenly but rather strongly arcuate; punctures notably coarse and deep, narrowly separated; elytra in outline as in the preceding but fully two-fifths wider than the prothorax and about three times as long; striae rather coarse and deep; intervals equal, barely more than twice as wide as the grooves, not quite flat, with stronger and subuniseriate punctures; male abdomen very feebly impressed medio-basally. Length (♂ ♀) 2.8-3.1 mm.; width 1.15-1.25 mm. Arizona (probably southern). Two examples. . . . . **cylindrifera** Csy.

These various forms are mingled together in most collections, but closer study shows that there are a number of very evident structural differences among them.

#### **Geræus** Pasc.

As previously stated (Ann. N. Y. Acad., VI, p. 573), under subgenus IV, there is a certain peculiarity in mandibular structure, which distinguishes *Centrinus senilis* Gyll., from any of the allied forms, they being divaricate apically, with more or less arcuate inner margin. This should be considered a generic, rather than subgeneric, character, and affords a beginning for the division of the very numerous small *Centrinus*-like North American species into separate genera. *Centrinus senilis* was made the type of *Geræus* by Pascoe, and several specimens sent me by Mr. Champion show that the Arizona species, which I described in some detail under the name *senilis*, is not that species at all. I therefore assign to it a new name as follows:

**Geræus balteatus** n. sp.—*Centrinus senilis* Csy., nec Gyll. (l. c., p. 589); *senilis* Chmp. (Biol. Cent.-Amer., IV, 5, p. 265). Arizona (Sta. Rita Mts.).

The type of this species is a female and is very much smaller than *senilis* Gyll.; it differs also in the more narrowly oval outline and much finer sculpture. The black elytral maculation takes the form of a regular transverse submedian fascia from side to side, interrupted only at the suture and a broader one near the apex, also suturally interrupted and not clearly attaining the sides. The beak in the female is very much shorter, with the antennæ less post-median in insertion than in *senilis*.

The following are two additional species of this genus:

\****Geræus omissus*** n. sp.—Elongate-rhomboidal, rather convex, slightly shining, dark piceous-brown in color in the type; beak in the female evenly arcuate, slender, gradually somewhat thickened, as well as laterally sulcate and feebly punctate, basally, as long as the elytra, the long slender antennæ inserted at the middle; prothorax a third wider than long, the sides evenly and rather strongly arcuate, becoming parallel basally, the apical tubulation strong, three-sevenths as wide as the base, the basal lobe rather abrupt; punctures coarse, close but not in mutual contact, each with a long and slender, yellowish-white scale; elytra arcuately acuminate from the base, much wider than the prothorax and not quite twice as long; striæ moderate, rather deep, minutely punctate; intervals three times as wide as the striæ, rather finely, sparsely and confusedly punctate, the punctures bearing each a long slender yellowish scale, coarser than those of the pronotum, and replaced in a dark submedian and subapical fascia, both interrupted suturally and not attaining the sides, by finer obscure fulvous squamules; under surface coarsely punctate and with linear but coarser and closer pale squamules; legs long and rather slender. Length (♀) 4.5 mm.; width 1.8 mm. Mexico (Temax, in N. Yucatan),—Gauger.

A single example was kindly communicated by Mr. Champion. This species differs from *senilis*, which is well represented before me from Guerrero, Jalapa and Managua, in its slightly smaller size, distinctly narrower form and especially by the coarser and more sharply and individually defined punctures of the prothorax. The antennæ of the female are inserted at the middle of the beak and not well behind the middle as they are in *senilis*.

\****Geræus bellax*** n. sp.—Elongate-rhomboidal, rather convex, slightly shining, piceous-black; beak nearly as in the preceding, slender, as long as the elytra, with the antennæ inserted at the middle (♂) or at three-sevenths (♀); prothorax a fourth to third wider than long, the converging sides evenly arcuate to the short and feebly defined apical tubulation; punctures somewhat coarse but shallow, dense and sometimes subcoalescent, the lustre dull, the vestiture of long slender whitish scales distinct but loose; elytra arcuately acuminate, with rather tumid humeri,

a fourth ( $\sigma^7$ ) or a fifth ( $\varphi$ ) wider than the prothorax and fully twice as long; striæ moderately coarse, deep, the intervals rather more than three times as wide as the striæ, the punctures small, sparse and confused, the squamules long, sparse and whitish, replaced by fulvous squamules in two moderate and not well defined spots on each elytron; under surface with the stout lineiform whitish squamules more or less dense. Length ( $\sigma^7$   $\varphi$ ) 4.7-5.7 mm.; width 2.1-2.4 mm. Mexico (Puebla).

Distinguishable from *senilis* by its smaller prothorax and sparser, more whitish lineiform squamules of the upper surface. The antecoxal spines of the male are shorter in the type, although otherwise similar and the dark spots on the elytra are much less definite.

### **Pachygeræus** n. gen.

The type of this proposed genus is a rather large, oblong-oval species, named *Centrinus levirostris* by LeConte. The beak is relatively rather short and stout, at least in the male; the only sex known to me, the antennæ only moderately elongate, the club rather broadly oval, with its first joint constituting about half the mass, the mandibles small, coming together along a straight internal line. The prothorax is relatively large, densely but not coarsely punctured, the anterior coxæ rather narrowly separated, the spine before them in the male erect basally, flexed forward thence to the tip, and, between them, there is a large and very deep perforate fovea. The elytra are oblong, narrowing near the apex and the legs are long, the third tarsal joint very broad and strongly bilobed. The following species has been heretofore overlooked:

**Pachygeræus æsopus** n. sp.—Oblong-oval, convex, densely sculptured, the vestiture of pale yellowish elongate-oval scales dense on intervals 1-5-9, and moderately dense on 3-7, also dense in a sublateral vitta on the prothorax; under surface with more or less dense oval yellowish-white scales; integuments rufo-ferruginous; beak in the male barely longer than the head and prothorax with the antennæ inserted at the middle, smooth and minutely, sparsely punctured apically, coarsely and densely at the sides basally; prothorax a third wider than long, the sides strongly convergent and evenly arcuate from base to the apical tubulation, which is two-fifths as wide as the base; punctures moderate, very dense throughout and partially coalescent, without evident median smoother line; scutellum small, subquadrate, the basal thoracic lobe rounded, rather abrupt; elytral striæ rather coarse and deep; intervals densely and confusedly punctate, alternating in width, the narrower not three times as wide as the striæ; outline evenly elongate-oval, one-half longer than wide, slightly wider than the prothorax and somewhat more than twice as long; abdomen broadly, feebly impressed basally in the

male. Length ( $\sigma^7$ ) 4.4 mm.; width 1.82 mm. Nebraska (Holt Co.). One example.

Differs from *lævirostris* in its much smaller size and narrower form, more evenly elongate-oval elytra and paler coloration; the elytral striæ are much less coarse than in *lævirostris*, where also the stria punctures are far coarser and more conspicuous.

#### **Pycnogeræus** n. gen.

The body in this genus is short, thick and strongly convex, with loose coarse punctuation and vestiture as a rule, the strong thoracic tubulation deeply constricted. The beak is thick in the more typical forms, the antennal club nearly as in the preceding, and the male has two very moderate erect ante-coxal spines, the surface between them flat, but anteriorly there is a deep transverse fossa. The basal thoracic lobe is well marked, the scutellum oblong, emarginate behind, the elytral striæ coarse and deep, the intervals moderate, with coarse, confused sculpture and clothed with small slender dark squamules, with large oval or broad linear pale scales somewhat evenly intermingled, the linear scales of *striatirostris* much denser than the oval scales of *modestus* and *tortuosus*. Besides these three species, the genus will possibly comprise the Central American *arcuatirostris* of Champion, although in my single female representative from Villa Nueva, Guatemala (3000 ft. elev.), the more strongly arcuate beak is very much more slender, relatively longer and with the point of antennal insertion much more basal; the sparsely scattered pale scales in this species are narrowly linear. The type of the genus is *Centrinus modestus* Boh.

#### **Geræopsis** n. gen.

The type of this genus is *Geræus tumidirostris* Chmp., from Sinanja, on the Atlantic slope of Guatemala, a specimen of which I am glad to have from the author. In general appearance *tumidirostris*, is remarkably isolated among the other allies of *Geræus*, its elongate-rhomboidal outline and convex, polished and feebly sculptured integuments, with a few scattered whitish scales on the elytra, becoming dense beneath, and narrow, rectilinearly conical prothorax, being notably exceptional external features. The beak is long, slender, arcuate, tumid toward base, with the antennæ

inserted only a little behind apical third in the male, the club narrowly oval, with its basal joint unusually long, constituting about two-thirds of the mass. The anterior coxæ are narrowly separated, the spines arising before them sharp, moderate in length and nearly straight. The prosternal surface is wholly unmodified, excepting a fine feeble canaliculation, barely observable under the dense crust of pale scales. The humeral prominence is distinct, the scutellum small and subquadrate, enlarged slightly toward the emarginate apex. The third tarsal joint is greatly dilated and bilobed, the mandibles very small but conforming well with those of *Centrinaspis* and allied forms.

**Linogeræus** n. gen.

A number of tropical species may be separated under this name; they differ greatly from any of the other associable forms, in having clearly defined dense vittæ of pale scales on the upper surface, rendered conspicuous on the black background. The body is rhomboid-oval, the prothorax not abruptly constricted at apex, the beak rather long, usually more or less thickened at base in the female, the antennæ long with narrowly oval club, the anterior coxæ moderately separated, the prosternal surface not greatly modified, and the ante-coxal spines of the male are long, straight and porrect as in *lineellus*, or shorter and less porrect as in *trivittatus*. The type of the genus is *Centrinus lineellus* Lec. *Geræus tæniatus* Chmp., will also enter this genus and probably *albolineatus* as well.

There are several species allied to *lineellus*, of which the following is one that seems to have been overlooked hitherto:

\***Linogeræus merens** n. sp.—Subrhomboid-oval, convex, black, densely clothed throughout with broad oblong decumbent scales, which are white on the prothorax, excepting a narrow brownish-black vitta at each side and two submedian, which are much narrower than the white vittæ; on the elytra the second interval is densely white throughout, the third also, except in basal fifth, the fourth from base for four-sevenths, and the sixth, seventh and eighth almost entirely, white, the sutural and fifth are virtually wholly brownish-black; the under surface has dense whitish scales throughout, these radiating on the prosternum from a point near the apex; beak in the female strongly arcuate, cylindric, scarcely at all thickened basally and slightly longer than the head and prothorax, loosely punctate, the antennæ inserted at the middle; prothorax a third wider than long, the sides evenly converging and very evenly arcuate from base to apex, the non-tubulate apex half as wide as the base, the

median basal lobe rather abrupt, rounded; elytra but little longer than wide, arcuately acuminate from the base, slightly wider than the prothorax and two-thirds longer, the humeri moderately prominent. Length (♀) 3.0 mm.; width 1.28 mm. British Honduras (Rio Hondo),—Blancaneau. Received from Mr. Champion.

Differs from two species, which are both labeled *lineellus*, in its smaller size and different disposition of the dense white vittæ of the elytra; in both the forms referred to, supposed to represent *lineellus* Lec. (erroneously described as from California), the fourth stria interval is densely whitish only in basal fourth, and the white scaly crust of the sixth only extends to barely beyond the middle of the length.

#### *Centrinaspis* n. gen.

This genus, the type of which is *Centrinus perscillus* Gyll., is a very large one. The body is of moderate to very small size, ovulate and convex, suboval or rhomboidal, the surface as a rule densely clothed with decumbent scales, lineiform or suboval, and the prosternum of the male has an erect spine, very moderate to small in size, or frequently wholly wanting. The anterior coxæ are generally rather well separated, and the prosternal surface unmodified, excepting sometimes in an anterior pit as in *podagrosa*. Besides *perscillus*, our fauna includes *perscitus* and *picumnus* Hbst., *neglectus* Lec., and *albotectus*, *grisescens*, *finitimus*, *exulans* and *clarescens* Csy. Among the Mexican representatives are *pugnax*, *podagrosus*, *crucifer*, *basinotatus* and *submaculatus* of Champion, all originally referred to *Geræus*, and also *Centrinus lentiginosus* Boh.

*Centrinaspis vitula* n. sp.—Elongate-oval and rather convex, black throughout and clothed closely with elongate slender yellowish scales, mingled with some darker ones on the elytra, the under surface with denser and more oval whitish scales; beak arcuate, about half as long as the body, rather thick and cylindric, with the antennæ inserted at four-sevenths (♂), or thick basally but very thin and smooth beyond the antennæ, which are inserted near the middle, (♀), antennæ slender, the first funicular joint as long as the next three; prothorax a fourth (♂) to a third (♀) wider than long, the sides feebly converging and nearly straight, obliquely rounding in apical third, the apex but feebly constricted and much less than half as wide as the base; punctures coarse and in mutual contact but not coalescent; median line narrow, subentire, smooth; elytra two-fifths (♀) to a little more (♂) longer than wide, slightly wider than the prothorax and not quite twice as long, arcuately and obtusely acuminate throughout; striæ deep, the intervals coarsely,

closely and confusedly punctate, nearly four times as wide as the striae; male with short thick conical spines before the coxæ, the prosternum not excavated anteriorly. Length ( $\sigma^7$  ♀) 4.0-4.2 mm.; width 1.8 mm. Ohio and Kentucky.

Differs from *neglectus* in its larger size and more broadly oval form, with the beak in the female more rapidly thinner beyond the antennæ and the pronotal vestiture not abruptly dense toward the sides. It more closely resembles *grisescens*, especially in the structure of the beak of the female, but the prothorax is not so abbreviated and is more coarsely punctate; the scales of the elytra are similarly intermingled with darker scales, but all are narrower than in *grisescens*, which is known solely thus far from the mountains of western North Carolina.

***Centrinaspis furtiva*** n. sp.—More abbreviated and broadly suboval, moderately convex, black, with rufo-piceous legs, densely clothed above with broad linear ochreous-yellow scales, uniform in color and distribution, not quite so close on the pronotum, densely clothed beneath with more oval whitish scales; beak in the female half as long as the body, stout basally, thinner apically, arcuate, a little more so basally; antennæ inserted at the middle, the second funicular joint long, as long as the next two; prothorax short, two-fifths wider than long, the sides strongly arcuate, becoming gradually subparallel basally, the apex tubulate and about half as wide as the base; punctures dense and rather coarse, the smooth median line very narrow and central only; elytra narrowly parabolic, scarcely more than a third longer than wide, but slightly wider than the prothorax and three-fourths longer; striae coarse and deep; intervals from two and one-half to three times as wide as the striae, densely and confusedly, rather coarsely punctate. Length (♀) 3.4-3.6 mm.; width 1.65-1.7 mm. Missouri,—Schuster. Two examples.

Not closely allied to any other species described, and represented so far only by the female.

***Centrinaspis proxima*** n. sp.—Elongate-suboval, moderately convex, black throughout, densely clothed above with uniform and broadly linear, decumbent and dark yellowish-gray scales, a little narrower and less dense on the pronotum but very uniform, dense, more oval and whitish and with feeble metallic lustre on the under surface and femora; beak in the male arcuate, moderately thick, very feebly and gradually tapering, somewhat more than half as long as the body, the antennæ inserted only a little beyond the middle, the first funicular joint not quite as long as the next three, the second almost as long as the succeeding two, the club narrowly oval as usual; prothorax scarcely a fourth wider than long, the sides feebly converging and nearly straight, broadly rounding and oblique in about apical two-fifths, the apex scarcely constricted, almost half as wide as the base; punctures very dense, the median



smooth line indistinct and partial; elytra two-fifths longer than wide, at the swollen humeri evidently wider than the prothorax, three-fourths longer; striæ not coarse; intervals broad, densely and confusedly punctate; male with a very short erect conical process before each anterior coxa. Length (♂) 3.8 mm.; width 1.75 mm. Kansas (Fort Scott). One example.

Comparable only with *perscilla*, but larger, more elongate and with a larger, basally more arcuate beak and basally less parallel prothorax; the dense and uniform vestiture of *perscilla* is whiter and less yellowish.

The species *perscilla* Gyll., is now represented in my collection by six specimens from southern Illinois, Missouri, Kansas and Minnesota; the following resembles it rather closely but is more rhomboidal in outline, and has the scales of the upper surface shorter and somewhat less dense:

**Centrinaspis æqualis** n. sp.—Rhomboid-oval, moderately convex, deep black throughout, including the legs and antennæ; vestiture faintly yellowish-white, linear and not very dense above, the scales more oval and larger beneath, very dense but separated on the metasternum and mes-epimera; beak in the female evenly arcuate, distinctly longer than the head and prothorax, slender, gradually slightly thickened behind the antennæ, which are inserted at or barely beyond the middle, slender, the club narrowly oval; prothorax two-fifths wider than long, the sides evenly arcuate from base to the very feeble apical constriction, subparallel basally; apex half as wide as the base; punctures moderate, dense, the median line not smooth but faintly tumid; basal lobe short, broadly rounded, a fourth the total width; elytra with distinctly oblique and broadly arcuate sides and moderately obtuse rounded apex, at the very moderate humeral prominences slightly though evidently wider than the prothorax, about twice as long; striæ narrow, the intervals broad, subequal, at least four times as wide as the striæ, with the squamules disposed in about three lines on each. Length (♀) 3.75 mm.; width 1.65 mm. Colorado (Greeley),—Wickham. One example.

Differs from *perscilla*, besides as above mentioned, in the relatively longer prothorax and shorter elytra, the former with more evenly arcuate sides and the latter with more oblique and less rounded sides; the less dense scales of the parts of the under surface mentioned in the description is a feature not at all traceable in *perscilla* or *proxima*, the latter also having denser vestiture above and a much larger prothorax, with the sides more rapidly rounding anteriorly.

*Centrinus finitimus* Csy., described as from Dallas, Texas, differs

from *perscilla* in its smaller size, more abbreviated form and more rapidly acuminate elytra; the scales of the upper surface are broadly linear and brownish-white and dense, though similarly not concealing the striæ. The following is a species even smaller than *finitima* and notably narrower, though agreeing very well in many respects:

**Centrinaspis profecta** n. sp.—More evenly and less broadly oval than *finitima*, black, with more or less rufescent legs; scales of the upper surface rather broadly linear, pale yellowish and close-set, larger, whiter and dense on the under surface; beak arcuate, nearly half as long as the body, distinctly thicker basally and thinner apically in the female, but only little longer; antennæ inserted somewhat behind (♀) to distinctly beyond (♂) the middle; prothorax two-fifths to nearly one-half wider than long, the sides broadly arcuate, more so anteriorly, becoming gradually subparallel basally, the apex feebly subtubulate, slightly less than half as wide as the base; punctures moderate and dense; scutellum small; elytra parabolic, narrow at tip, a third longer than wide, only very slightly wider than the prothorax and two-thirds longer; striæ moderately coarse, deep, the intervals alternating but slightly in width, between two and three times as wide as the striæ; prosternum with feeble apical constriction, separating the coxæ by nearly their own width, the spines of the male short and erect; second funicular joint of the antennæ slender, shorter and thinner than the first but as long as the next two. Length 2.65–3.4 mm.; width 1.15–1.45 mm. Alabama (Mobile) and Texas (Columbus). Many specimens.

Differs from *finitima* in its narrower and less rhomboidal outline, the prothorax being more nearly equal in width to the elytra, and in its slightly shorter beak; it varies considerably in size of the body.

**Centrinaspis nacta** n. sp.—Rather stout, subparallel, attenuate behind, black, the legs and antennæ rufescent; upper surface clothed loosely with narrow ashy scales, not concealing the integument and forming two irregular lines on each stria interval, the under surface with larger whitish scales, which are narrowly separated; beak in the male evenly arcuate and very feebly tapering throughout, slightly more than half as long as the body, the antennæ inserted slightly beyond the middle, the second funicular joint long and slender but shorter and much narrower than the first, the third slightly elongate, the club narrowly oval, with its first joint constituting about two-fifths of the mass; prothorax large, fully two-fifths wider than long, the sides subevenly rounded but becoming parallel gradually toward base, the apex briefly and feebly constricted and much less than half as wide as the base; punctures rather coarse, close and partially confluent, the smooth line irregularly traceable centrally; elytra two-fifths longer than wide, arcuately acuminate and with narrowly obtuse apex, subequal in width to the prothorax and four-fifths longer; striæ moderate, deep; intervals between two and

three times as wide as the striæ and loosely, coarsely punctato-rugose, shining; male with the prosternum deeply excavated centrally, the coxæ well separated, the spines erect and rather short. Length ( $\sigma^7$ ) 3.5 mm.; width 1.55 mm. Texas (Houston),—Wickham.

This rather distinct species differs from both *profecta* and *finitima* in the deep central excavation of the prosternum in the male, in the sparser whiter vestiture of more slender scales, forming only two lines on each stria interspace, and in the somewhat longer beak.

**Centrinaspis debilis** n. sp.—Smaller and narrower than *profecta*, narrowly subrhomboid-oval, piceo-rufous in color, the legs brighter rufous; upper surface clothed with linear yellowish scales, conspicuous but everywhere slightly separated; under surface with broader, oval, denser scales; beak in the male evenly arcuate, nearly half as long as the body, rather slender, punctured and squamulose, the antennæ inserted near four-sevenths; prothorax nearly a third wider than long, the sides feebly converging and slightly arcuate, gradually more so before about the middle, the apex scarcely constricted; punctures dense, in great part longitudinally confluent, the smooth median line traceable in part; elytra a third to nearly half longer than wide, gradually obtusely acuminate, with arcuate sides and feeble humeral swellings, very slightly wider than the prothorax and three-fifths to three-fourths longer; grooves moderate; intervals rather more than twice as wide as the grooves, not very densely rugulose, the scales disposed in two lines on each; scales of the abdomen distinctly and evenly separated. Length ( $\sigma^7$ ) 2.25–2.7 mm.; width 0.8–1.15 mm. Alabama (Mobile). Two specimens.

Differs from *profecta* in its narrower outline, paler coloration, narrower prothorax, the punctures of which are more longitudinally confluent, and in the bilineate and not broadly confused scales of the stria intervals.

**Centrinaspis tenuicula** n. sp.—Body narrowly subrhomboid, attenuate behind from the slightly swollen humeri, black, not at all shining, the legs and antennæ slightly rufescent; upper surface clothed with decumbent lineiform ochreous scales, evenly distributed over the pronotum and comparatively narrow interstrial surfaces, more oval, dense and whitish on the under surface; beak in the male moderately arcuate, gradually tapering, half as long as the body and squamose basally; antennæ inserted just beyond the middle, nearly as in *nacta*; prothorax smaller, between a third and fourth wider than long, the sides just visibly converging and very feebly arcuate, gradually rounding before the middle, the obsolete constricted apex about half as wide as the base; punctures moderately coarse, dense, the smooth median line not visible; elytra more than two-fifths longer than wide, with the long converging sides only very feebly arcuate and the apex rather narrowly rounded, distinctly wider than the prothorax and fully three-fourths longer; striæ deep, somewhat coarse, the intervals about twice as wide as the striæ; male

with the prosternum indented anteriorly and clothed with scales which radiate from the central point, the coxæ separated by three-fifths of their width, the erect spines rather slender but very short. Length (♂) 2.9 mm.; width 1.15 mm. Missouri (locality unrecorded). One example.

A distinct and rather isolated species coming near *projecta*, but narrower and with longer, gradually more sharply attenuate elytra and smaller and narrower prothorax, coarser elytral striæ and narrower interstitial surfaces; the beak and antennæ are nearly similar, differing from those of the next species.

***Centrinaspis repens*** n. sp.—Rather short and broadly suboval, shining, black, the legs, beak and antennæ rufous; upper surface with sparse slender white scales, condensed and broader near outer fourth of the thoracic base and also on the first three or four elytral intervals for a short distance near apical third, the under surface with similar dense lineiform scales on the propleura and larger, more oval, unevenly condensed scales over the hind body, the scales all white as on the upper surface; beak in the female scarcely longer than the head and prothorax, slender and nearly straight, rapidly arcuate and broader at base, the antennæ inserted slightly behind the middle, long, the first funicular joint about as long as the next four, the second much more slender, elongate, the club small, briefly oval, the first joint nearly half the mass; prothorax almost one-half wider than long, the sides subevenly arcuate, becoming gradually parallel basally, the feebly constricted apex half as wide as the base; punctures rather coarse, evidently though not at all widely separated, the smooth median line distinct and entire; scutellum transverse, very small and rugulose; elytra but little longer than wide, rapidly parabolic, slightly wider than the prothorax and three-fifths longer, the apices narrowly but separately rounded; striæ rather coarse, very deep; intervals about twice as wide as the striæ, loosely but rather coarsely, feebly punctato-rugose and shining, the squamules in about two lines on each; prosternum evenly convex, the coxæ separated by one-half their width. Length (♀) 3.4 mm.; width 1.7 mm. Florida (Gulfport).

There is no other species with which this can be closely compared. The shining upper surface, with rather sparse white vestiture, long basal funicular joint and small oval antennal club, with the rather broadly suboval outline of the body, are the most striking external features.

***Centrinaspis regressa*** n. sp.—Rhomboidal, moderately convex, black, the legs and antennæ rufo-piceous; upper surface with variegated vestiture of broad whitish scales at the sides of the pronotum and slender sparser brown scales, with a few paler intermingled, over the rest of the pronotal surface, broad, dark brown and very dense throughout the

elytra, excepting a dense whitish streak behind the scutellum and some sparse isolated pale scales elsewhere; on the under surface throughout rather small, more oval, luteous and close though perceptibly separated; beak in the female thick, evenly and moderately arcuate, cylindric and scarcely as long as the head and prothorax, the antennæ inserted at the middle, the basal funicular joint long but notably thick, the club rather elongate-oval; prothorax three-sevenths wider than long, the sides converging, evenly and moderately arcuate throughout, the apex uncontracted and fully half as wide as the base; punctures rather coarse and close-set; elytra at the swollen humeri markedly wider than the prothorax, not quite twice as long, only a fifth longer than wide, rapidly parabolic, with narrow apex; striæ deep and abrupt, clearly defined, the intervals uniformly and densely clothed and between three and four times as wide as the striæ; anterior coxæ separated by a little less than half their width. Length (♀) 2.7 mm.; width 1.25 mm. Mississippi (Warcloud). One example.

This species is allied to *perscita* Hbst., but not very closely; it is stouter, the outline more evenly rhomboidal; the prothorax is relatively smaller and evenly and arcuately narrowed from base to apex and not more rapidly narrowed apically as in that species; the elytra are broader, the integuments blacker, the condensation of pale scales at the sides of the pronotum broader, the small condensation of paler scales at the base of the third interval—distinct in *perscita*—altogether wanting, and the pale scattered scales, which are scarcely observable in that species, are very conspicuous. The beak is still shorter. My representatives of *perscita* are from New Jersey and Indiana.

**Centrinaspis connivens** n. sp.—Rather broadly, obtusely oval, obscure rufous, clothed above densely with broad whitish scales, replaced by narrower and less dense, pale fulvous squamules in median three-fifths of the pronotum and on the elytra, except behind the scutellum, at the humeri, at base of the third interval, at a point on the fourth interval at the middle and to some extent broadly toward the sides; under surface with well separated whitish scales, denser at the posterior end of the met-episterna and closer and more linear on the propleura; beak in the male short, thick, cylindric and evenly arcuate, as long as the head and prothorax, the antennæ short, inserted at the middle, the club oval, as long as the preceding six joints; prothorax large, three-fifths wider than long, with converging and evenly arcuate sides from base to apex; punctures close-set; scutellum rather large, flat, squamulose and trapezoidal; elytra broadly parabolic, barely longer than wide, slightly wider than the prothorax and about twice as long; striæ deep, not concealed; intervals varying from more than two to over three times as wide as the striæ; prosternum (♂) with two short erect spines and a deep rounded pit between them, the coxæ separated by slightly less than their own

width. Length ( $\sigma^7$ ) 2.5–2.7 mm.; width 1.25–1.3 mm. Nebraska (Lincoln). Two specimens.

Distinguishable at once from any of the other species allied to *perscita*, by the larger, flatter and more trapezoidal scutellum; *exulans*, from New Mexico, is decidedly larger, with less abbreviated prothorax and different arrangement of the elytral vestiture near the scutellum.

Of the *picumnus* section, besides that species and *albotecta*, I am obliged to recognize below five additional species as follows:

**Centrinaspis floridensis** n. sp.—Evenly oval, convex, blackish, with rufescent legs, beak and antennæ, clothed densely throughout with decumbent whitish scales, linear in form, moderately wide and uniform on the upper surface, merely a little broader beneath; beak in the female evenly arcuate, rather slender, gradually feebly tapering and as long as the elytra, the antennæ slender, inserted at three-sevenths, the first funicular joint as long as the next four and much thicker, the second slightly longer than the third; club rather small, oval, as long as the preceding four joints; prothorax two-fifths wider than long, the sides rather strongly converging and evenly arcuate from base to the very feeble apical situation; apex much less than half as wide as the base; punctures close, moderately large; scutellum small, densely squamose; elytra only very slightly longer than wide, rapidly parabolic, with somewhat swollen humeri, slightly wider than the prothorax and three-fifths longer; striæ moderately coarse, deep; intervals from two and one-half to three times as wide as the striæ, confusedly and closely punctat rugulose, the sculpture concealed however. Length ( $\varphi$ ) 2.7 mm.; width 1.28–1.3 mm. Florida (locality unrecorded). Two specimens.

Separable easily from *picumnus* by its larger size, more broadly oval, rather more convex form, white—not yellowish—and distinctly wider scales, longer beak and somewhat longer and stouter legs. From *albotecta* it differs in its distinctly larger size, stouter form and much longer beak in the female; *albotecta* is abundant in Florida, and I also have a specimen from Covington, Louisiana, which is almost typical, being merely somewhat narrower in outline. The following, however, though closely allied to *albotecta*, I believe to be different:

**Centrinaspis lasciva** n. sp.—Similar to *albotecta*, except that the body is still smaller and narrower, the scales somewhat more obscure whitish in tint and more slender, the beak in the female decidedly shorter and less arcuate, being only half as long as the body, the prothorax smaller and relatively shorter, nearly one-half wider than long and distinctly less than one-half as long as the elytra, the legs shorter and more slender. Length ( $\varphi$ ) 1.9 mm.; width 0.8 mm. Texas (Alpine,—4400 ft. elev.),—Wickham.

There is at hand but a single example, but the differential characters given above will easily enable one to identify the species.

The species described by Herbst under the specific name *picumnus* is abundant, but is much more restricted in range than I formerly thought, the more than forty specimens in my collection being from Massachusetts (Sherborn) and North Carolina, westward to Nebraska and Kansas and southward to Mississippi and Louisiana; it does not seem to occur in either Florida or Texas, and the Arizona examples at hand form still another species as follows:

**Centrinaspis paulula** n. sp.—Rather narrower and less evenly oval than in *picumnus*, the prothorax relatively narrower, almost similarly clothed, the scales a little broader and almost pure white; beak, antennæ and sexual characters almost similar; prothorax slightly over a fourth wider than long, similar in outline, except that the apex is more distinctly tubulate; elytra almost similar in outline and sculpture, but with more prominent humeri. Length (♂ ♀) 2.4–2.65 mm.; width 0.95–1.15 mm. Arizona (locality unrecorded). Six examples.

In *picumnus* the elytra are only very slightly wider than the prothorax and approximately twice as long, while in *paulula* they are fully a fourth wider than the prothorax and evidently less than twice as long, besides having white and not more or less fulvous vestiture. From *compacta* it differs in its narrower and less abbreviated outline. All of these species are closely allied in type of structure and vestiture, but differ in form and proportion of the parts, coloration and other features and undoubtedly have different food-plants.

**Centrinaspis compacta** n. sp.—Form and vestiture somewhat as in *picumnus* but more abbreviated and with the dense lineiform scales above silvery white; beak in the female similar but relatively somewhat longer, being very nearly as long as the elytra; prothorax relatively longer and not so transverse, being only a fourth wider than long, the sides similarly converging and evenly, though a little more strongly, arcuate, the apex more tubulately prolonged; elytra shorter, though of almost similar outline, the very dense confused vestiture leaving the deep striæ sharply defined, evidently wider than the prothorax in similar manner, but only two-thirds longer and not about twice as long as they are in *picumnus*; legs similarly obscure rufous. Length (♂ ♀) 2.5–2.6 mm.; width 1.15–1.2 mm. Texas (Columbus). Two examples.

The description is taken from the female type and is compared with the same sex of *picumnus*; the male is slightly more narrowly oval, but the prothorax is similarly larger and more apically tubulate and the elytra relatively shorter than in the male of *picumnus*.

**Centrinaspis perpusilla** n. sp.—Narrowly suboval, strongly convex, black, the legs and antennæ more or less piceous; vestiture white throughout, dense, linear and decumbent above, the scales broader than in any other of the forms near *picumnus*, concealing the sculpture, more oval and still denser beneath though similarly white; beak in the female evenly and strongly arcuate, slender, nearly smooth and slightly less than half as long as the body; prothorax only a fourth or fifth wider than long, the moderately converging sides broadly, subevenly arcuate to the pronounced apical tubulation, which is distinctly more than half as wide as the base, the basal lobe abrupt, prominent and rounded as usual; punctures dense, without smooth median line; elytra fully a third longer than wide, distinctly wider than the prothorax at the rather prominent humeri and four-fifths longer; striæ moderate but deep, the intervals with moderate ruguliform punctuation. Length (♀) 1.8 mm.; width 0.7 mm. Texas (Columbus).

This species seems to be one of the more isolated of the *picumnus* section in its minute size, narrow outline, broad and white though subparallel scales of the upper surface and rather short, smooth and strongly arcuate beak, with the antennæ inserted at two-fifths; the beak is more slender distally, a little shorter and much more arcuate than in the female of *picumnus*.

It is highly probable that the Central American material assigned by Mr. Champion to *picumnus*, pertains to one or more allied but distinct species.

\***Centrinaspis segregans** n. sp.—Oval, convex, shining, black, clothed sparsely above with long slender yellowish squamules, the legs, beak and antennæ piceous; beak in the female half as long as the body, smooth, slender and nearly straight, rapidly arcuate, thickened and punctate at base; antennæ inserted at the middle, the basal funicular joint longer than the club; prothorax large, a fourth wider than long, the converging sides evenly arcuate to the rather long subtubular apex, which is less than half as wide as the base; punctures moderately coarse, not very deep and separated by their own diameters or more, with an entire smooth median line, the scales broader and close in basal spots at lateral fourth; elytra evenly, rapidly parabolic, a fourth longer than wide, at the somewhat swollen humeri slightly wider than the prothorax, three-fifths longer; striæ rather coarse, deep; intervals between two and three times as wide as the striæ, not coarsely, rather sparsely and subrugulose punctate, the slender squamules forming about two lines on each, coarser and closer near the scutellum, very gradually closer on intervals two to four from three-sevenths to four-fifths, nowhere mingled with darker squamules; under surface with linear scales on the propleura, shorter, more oval and separated elsewhere, but coarser and denser at the sides of the hind body. Length (♀) 4.0 mm.; width 1.85 mm. Mexico (Temax, in northern Yucatan),—Champion.



This species is allied to *submaculata* Chmp., from the same region, though probably having a different food-plant; it differs in its larger size, larger prothorax and in the elytral vestiture, which in that species is more or less mingled with dark hair-like squamules, the larger whitish condensed scales forming sharply limited areas about the scutellum and in a large, transversely subquadrate sutural region just behind the middle. The prosternal spines of the male in *submaculata* are very peculiar, being short, slender, erect, perfectly straight and cylindrical.

\**Centrinaspis plagiatelylla* n. sp.—Oval, convex, rather shining, black, the legs, beak and antennæ more or less rufous; upper surface clothed with elongate yellowish squamules, well separated and even on the pronotum, confused but not dense on the stria intervals, broader and condensed in short lines on intervals three and five near an oblong, sharply defined, chocolate-brown sutural spot from just before the middle to apical fifth, shorter and more or less dense on the under surface; beak in the female rather thick, feebly tapering, strongly, subevenly arcuate and a little longer than the head and prothorax; antennæ inserted barely behind the middle, the club narrowly oval and with its first joint two-fifths of the mass, as long as the preceding four joints, the first funicular joint as long as the next three; prothorax short, one-half wider than long, the sides converging, subevenly and rather strongly arcuate to the distinctly tubulate apex, which is half as wide as the base; punctures rather coarse, slightly separated, the median punctureless line entire but not very shining; scutellum subquadrate, broadly emarginate behind; elytra barely a sixth longer than wide, evenly parabolic, rather evidently wider than the prothorax and not quite twice as long, the humeri oblique to the base though scarcely at all tumid; striæ deep but not very coarse, the confusedly and loosely punctato-rugose intervals nearly three times as wide as the striæ. Length (♀) 2.4 mm.; width 1.25 mm. Mexico (near Orizaba).

Allied to *lentiginosa* Boh., represented in my collection by specimens taken in Tabasco, but it differs in its less conical and more transverse prothorax, with much more arcuate sides and more distinct tubulation of the apex, in the broader, more obtusely parabolic elytra, with the post-median sutural brown spot much more sharply defined, and in its smaller antennal club.

\**Centrinaspis delumbis* n. sp.—Subrhomboid-oval, black, with piceo-rufous legs and beak, the upper surface clothed with linear squamules, pale yellowish in color, replaced by smaller dark squamules on the pronotum at each side of the median pale streak, and, on the elytra, forming two or sometimes three lines on each stria interval, becoming dark brown in a feebly defined narrow sutural area behind the middle

and in two more external posterior spots on each elytron; under surface with very dense white scales throughout; beak subsimilar in the sexes, subcylindric, strongly, evenly arcuate, dull in lustre and squamulose basally, a little longer than the head and prothorax, the antennæ inserted at (♀) or distinctly beyond (♂) the middle; prothorax feebly conical, one-half wider than long, the sides evenly and moderately arcuate from base to the feebly constricted apex, which is not quite half as wide as the base; scutellum very small, squamulose; elytra parabolic, with strongly arcuate sides and rather narrowly rounded apex, at the feebly tumid humeri distinctly wider than the prothorax and about twice as long; striæ moderate; intervals rather finely, loosely punctate, between two and three times as wide as the striæ; male with the abdomen broadly, feebly impressed and more finely, sparsely squamulose medio-basally, the prosternal spines slender, finely pointed and slightly bent forward. Length (♂ ♀) 2.4 mm.; width 1.18–1.2 mm. Costa Rica (San José). Two specimens.

Allied rather closely to a species said to be *lentiginosa* Boh., by Mr. Champion, and taken at Teapa, in Tabasco, Mexico; it is, however, decidedly less stout than that species, rather smaller in size and with shorter, more slender and still more arcuate beak.

Of *Geræus basinotatus* Chmp., I have two examples agreeing in every particular with the description, taken by Townsend in the Sierra Madre Mts., of Chihuahua—a long distance from its typical locality in Guerrero. It is a very isolated seminude species, with extremely coarse pronotal punctures and a triangular spot of dense white scales at each side of the scutellum.

The following evidently belongs in the vicinity of *basinotata* and *pugnax*:

\**Centrinaspis cubensis* n. sp.—Subrhomboid-oval, strongly convex, black throughout and somewhat shining; elongate squamules of the upper surface scattered, whitish and few in number toward the sides of the pronotum, the latter otherwise glabrous, on the elytra sparse, brown and decumbent in about two lines on each interval and inconspicuous, with a spot of white scales on the median line of each near the apex; there are also a few widely scattered white scales; under surface with rather dense long white scales; beak in the female long, very slender and smooth, thickening a little and punctate basally, as long as the elytra, the antennæ slender, inserted rather behind basal third, the first two funicular joints much elongated, the seventh a little thicker and with fine pubescence, nearly like that of the narrowly oval club; prothorax a third wider than long, the sides converging and very moderately arcuate to the apical constriction, the tubulate apex half as wide as the base; punctures coarse and rather dense, the median smooth line evident but not entire; scutellum quadrate, tricuspid behind, roughly and densely punctate and nude in the type, the basal thoracic lobe deeply emarginate;

elytra acutely parabolic, at the swollen humeri distinctly wider than the prothorax, three-fourths longer, the apex narrowly rounded; grooves moderate but deep; intervals flat, with moderate, confused and well spaced punctures; claws slender and well separated at base. Length (♀) 3.3 mm.; width 1.7 mm. Cuba (Guantanamo).

Recognizable easily by the long slender beak, deep emargination of the basal thoracic lobe and sparse vestiture above; the surface is less coarsely sculptured than in either *basinotata* or *pugnax*.

The following group comprising *Centrinus penicellus* Hbst., *capillatus* and *falsus* Lec., and *hospes*, *globifer*, *nubeculus* and *clientulus* Csy., as well as the Mexican *tonsilis* Boh., and *scutatus*, *gaumeri* and *bicruciatulus* Chmp., resembles the preceding very closely, though the body is usually more rhomboidal and the male never has any trace of spines before the anterior coxæ; this diversity or inconstancy of the species occurs in other genera, as will be noted under *Centrinopus*, which is as unequivocally defined by the mandibles as is the present genus.

The species which I described under the name *Centrinus acuminatus*, proves to be merely the male of *hospes*, but I am now of the opinion that *nubeculus* is different from *capillatus*, with which it was united some years ago. The female of the latter is much narrower than that of *nubeculus*, with feebler pronotal punctures and with complete absence of the sutural condensation of broader scales just behind the middle of the elytra characterizing *nubeculus*. In the case of *falsus* Lec., its characters must be admitted to be somewhat aberrant, the beak being relatively shorter and much thicker than usual, the elytra less acuminate and the base of the prothorax without the usual small median lobe, but it may be included in *Centrinaspis* for the present.

The following two species are allied to *penicella*:

\**Centrinaspis tomentosa* n. sp. (Klug, i. litt.).—Rhomboidal, shorter and relatively stouter than *penicella*, blacker, the legs and antennæ black or nearly so; vestiture white in color throughout, shorter and more even above and not concealing the integuments, having on the elytra similar but more developed black quasi-denuded areas, the scales of the under surface more oval and denser, less elongate than in *penicella*; beak (♂) distinctly shorter, but little over half as long as the body, with the antennæ inserted at about the middle, or (♀) a little longer though scarcely at all thinner and very nearly as long as the elytra, with the antennæ inserted barely visibly behind the middle; prothorax nearly as in *penicella* but still shorter, a third or more wider than long; scutellum

similarly closely squamose; elytra only a third longer than wide, in shape and relationship with the prothorax nearly as in *penicella*, the striæ a little coarser; abdomen ( $\sigma^7$ ) with the very feebly impressed medio-basal part more finely and sparsely squamulose. Length ( $\sigma^7$  ♀) 3.2–3.65 mm.; width 1.6–1.85 mm. Cuba,—Baker. Four examples.

Not very closely comparable with *penicella*, although regarded as a variety of that species by Gyllenhal. Not only is the vestiture notably shorter and less shaggy, but it is almost pure white in color, more squamiform beneath, and the beak in both sexes is shorter, with the antennal insertion more nearly similar in the sexes and much less basal in the female. The denuded spaces on the elytra are much larger and more conspicuous.

\**Centrinaspis nimbata* n. sp.—Smaller and much narrower than *penicella*, black, the legs and antennæ black; surface above and beneath with uniform slender yellowish squamules, loose and somewhat shaggy on the elytra, without denuded spots in the type, denser and less yellow beneath but still long and linear; beak in the male feebly arcuate, somewhat thicker basally, only a little more than half as long as the body, with the antennæ inserted at the middle; prothorax a fourth wider than long, the sides subparallel and nearly straight in basal, rounding in apical, half; punctures coarse and dense, the scutellum somewhat transverse, evenly squamose throughout; elytra fully a third longer than wide, subacutely parabolic, at the tumid humeri distinctly wider than the prothorax, two-thirds longer; striæ moderate, almost concealed by the shaggy vestiture; abdomen apparently not distinctly modified at base. Length ( $\sigma^7$ ) 3.0 mm.; width 1.25 mm. Mexico (Cuernavaca),—Wickham. One example.

Much smaller and narrower than *penicella*, with basally more parallel prothorax, and probably never with so evident quasi-denuded areas on the elytra as in that species; the antennal club is somewhat smaller. The dimensions of my series of nine examples of the true *penicella* are 3.2–4.2 by 1.45–2.0 mm.

\**Centrinaspis parens* n. sp.—Subrhomboid-oval, convex and slightly shining, black throughout, the antennæ piceo-rufous; upper surface loosely clothed with white squamules, very fine and linear on the pronotum, a little coarser and in two or three lines on the strial intervals, uniform throughout both parts; beak (♀) evenly arcuate, very slender and smooth, abruptly very thick and densely sculptured in rather more than basal two-fifths, nearly as long as the elytra, or ( $\sigma^7$ ), less arcuate and thicker, but about as long and still thickened somewhat basally, the antennæ inserted at two-fifths (♀) or at the middle ( $\sigma^7$ ), rather long, the club elongate-oval, having its joints almost equal in length; prothorax a third wider than long, the converging sides evenly arcuate to the feeble apical constriction; apex not quite half as wide as the base;

punctures coarse and close but with polished interspaces, the median line not well defined; elytra subacutely parabolic, two-fifths ( $\sigma^7$ ) to a fourth ( $\varphi$ ) longer than wide, at the rather prominent humeri much wider than the prothorax and a little less than twice as long; striæ rather coarse and deep; intervals twice as wide as the striæ or a little more, rugosely punctate and somewhat dull; abdomen strongly convex, not modified in the male; entire under surface densely clothed with broader, suboval, white scales. Length ( $\sigma^7$   $\varphi$ ) 3.0-3.1 mm.; width 1.35 mm. Costa Rica (Escazu),—Biolley. Communicated by Mr. Champion.

This is the Central American species doubtfully referred to *hospes* by Mr. Champion, but it differs in its smaller size, smaller and sparser white squamules of the upper surface, relatively shorter slender smooth part of the beak in the female, and in several other features; the male differs from the male of *hospes*—described as *acuminatus* by the writer—in its relatively much longer beak, as well as in the more general characters just mentioned.

\**Centrinaspis rejecta* n. sp.—Elongate-rhomboid, rather more slender and with relatively smaller prothorax, similar in coloration but less shining, the vestiture nearly similar but longer and denser above, more closely resembling that of *hospes*; beak ( $\varphi$ ) shorter, three-fourths as long as the elytra, otherwise resembling that of *parens* and *hospes*, evenly arcuate, smooth and black, abruptly thick and rugose in basal two-fifths; antennal club oval, its basal joint more than a third of the mass; prothorax small, fully a third wider than long, the converging sides somewhat strongly arcuate to the feebly prolonged apex, which is a little less than half as wide as the base; punctures strong and very dense; scutellum small, albido-squamose; elytra three-sevenths longer than wide, elongate-ogival, with narrowly obtuse apex, at the somewhat prominent humeri a third wider than the prothorax, almost two and one-half times as long; striæ deep, not coarse, the rugose intervals from much less to more than three times as wide as the striæ; abdomen very convex; under surface and legs densely albido-squamose. Length ( $\varphi$ ) 3.4 mm.; width 1.4 mm. Mexico (Puebla).

Differs very much from the preceding in its narrower form, longer, closer vestiture above and longer elytra, and, from both *parens* and *hospes*, in its smaller prothorax, from the latter also in its smaller size and narrower outline.

*Centrinaspis optiva* n. sp.—Oblong, subparallel, elongate and convex, clothed closely above with yellowish-white lineiform scales, rather broad on the pronotum, still broader and closer on the elytra, the scutellum very densely albido-squamose, the under surface with very dense white scales, those of the anterior and middle femora smaller, narrower and less dense than those of the posterior femora; beak ( $\sigma^7$ ) short, arcuate, thick and cylindrical, rather smooth and only about as long as the pro-

thorax, the antennæ inserted at four-sevenths, the first funicular joint as long as the next three, the club oval, with its first joint less than half the mass; prothorax barely a fifth wider than long, the sides subparallel, broadly, feebly rounding from near the middle, the apex not constricted or evidently prolonged and half as wide as the base, the basal lobe well developed; punctures rather coarse, dense, somewhat confluent longitudinally in part, the median line very narrow; elytra three-sevenths longer than wide, at the feebly tumid humeri only slightly wider than the prothorax, a little less than twice as long, the sides rather feebly converging and arcuate to the somewhat obtusely rounded apex; striæ very deep, moderately coarse; intervals alternating in width from three to four times as wide as the striæ, very densely and confusedly sculptured and squamose; male with the abdomen very feebly impressed medially toward base and without modification of the dense vestiture. Length (♂) 4.1 mm.; width 1.75 mm. Kansas (Medora),—Knaus. One example.

This remarkably isolated species has some suggestive resemblance to *falsa*, having an almost similar though still shorter beak, but the prothorax is much more elongate and more coarsely, though less densely, punctate, and has the median lobe of the base—absent in *falsa*—very well developed; it also differs in the broader lineiform scales, and, in *falsa*, the strial intervals do not alternate in width in the same way. With the Mexican *tonsilis* type it has less affinity, the beak being more evenly cylindrical and the body more parallel in outline.

There is before me an interesting series of allied forms from various parts of Mexico and Central America; they have an elongate rhomboid-oval convex body, rather smooth and sparsely clothed above with more or less slender hair-like scales. In the subjoined table they are all described as new and can be regarded as species or subspecies according to the predilection of the cataloguer; they can be held as subspecies of the first name given, or as subspecies of *tonsilis* Boh., although, if the latter course is taken, I cannot harmonize any of them with certain statements made by Boheman in his description. For instance the pronotum is said to sparsely, at the sides more densely, albido-squamulose, and the elytra at base not at all wider than the thoracic base; these two statements are not even approximately borne out in any of the six forms here described, in all of which the loose lineato-squamulose thoracic vestiture is distributed with perfect uniformity and is not in the least different or denser toward the sides, and in all of them the

elytra at the somewhat tumid humeri are notably wider than the thoracic base. Those at hand may be briefly defined as follows:

- Vestiture above and beneath pure white, the scales more oval and denser beneath..... 2
- Vestiture throughout ochreous or pale yellowish, constituted as in the preceding..... 4
- 2—Prothorax much shorter than wide. Form stouter than in any other here brought to notice, black throughout; beak (♂) not quite half as long as the body, arcuate, subcylindric, slightly more bent at point of attachment, the antennæ inserted very slightly beyond the middle; prothorax nearly a third wider than long, the very evenly arcuato-convergent sides sinuate at the subtubulate apex, which is about half as wide as the base; punctures deep but very moderate in size and well separated, the smooth line entire, even and rather wide; scutellum nude, flaring, emarginate behind; elytra parabolic, three-sevenths longer than wide, four-fifths longer than the prothorax; striæ rather coarse and deep; intervals finely, sparsely, confusedly punctate and two to three times as wide as the striæ, the slender squamules in about two irregular series; abdomen unmodified basally. Length (♂) 4.5 mm.; width 2.0 mm. Guatemala (Yzabal,—elev. 100 feet)..... **scenica**
- Prothorax as long as wide; body much narrower; lineate squamules of the upper surface thicker and closer, much more conspicuous.... 3
- 3—Thoracic punctures rather coarse, deep and dense though scarcely in mutual contact, the smooth median line narrow and well defined, though not entire; basal lobe feeble; elytral striæ moderately coarse, the intervals loosely punctulate and subrugose though shining; beak in the male much longer than the head and prothorax, thick, arcuate and squamulose, the antennæ inserted beyond the middle; abdomen in that sex with a deep medio-basal impression clothed more sparsely with smaller scales. Length (♂) 4.0 mm.; width 1.65 mm. Mexico (Cuernavaca)..... **compar**
- Thoracic punctures not so coarse or close, rather more shallow, the general surface between the very even white squamules more polished, the median smooth line still narrower but subentire; basal lobe larger and more developed, abrupt and rounded; elytra slightly more elongate, the converging sides rather less arcuate, the striation and sculpture almost similar, the white squamules less elongate and somewhat more numerous; beak nearly similar; abdomen of the male with a medio-basal, less squamose impression, which is more elongate and not quite so well defined as in the preceding. Length (♂) 4.2–4.6 mm.; width 1.68–1.78 mm. Mexico (Iguala, in Guerrero),—Wickham. Three specimens..... **retracta**
- 4—Prothorax narrower, barely visibly wider than long, the sides feebly converging and nearly straight to the middle, there broadly rounding and thence moderately oblique and barely at all arcuate to the unconstricted apex; basal lobe short, almost a third as wide as the base and broadly rounded; punctures moderately coarse, deep and

separated by narrow shining interspaces, the smooth median line distinct and entire; elytra with the converging sides evenly and notably arcuate throughout, the apex more acutely ogival than in any of the preceding; sculpture nearly similar, the yellow squamules rather longer and broader; beak in the female evenly arcuate, moderately slender, gradually thicker basally, fully half as long as the body, with the antennæ inserted very slightly behind the middle. Length (♀) 4.6 mm.; width 1.8 mm. Mexico (State of Hidalgo).

**nugax**

Prothorax very distinctly wider than long, the basal lobe smaller, more abruptly formed and narrowly rounded at tip. . . . . 5

5—Sides of the prothorax converging and feebly arcuate, gradually more so anteriorly to the distinctly tubulate and prolonged apex, which is evidently less than half as wide as the base; punctures rather strong and close, the median line evident and entire; elytra nearly as in the preceding, but with the apex rather less sharply ogival, two-fifths longer than wide, the striation and sculpture nearly as in all the preceding forms; beak in the male thick, moderately arcuate, feebly tapering and but little longer than the head and prothorax, the antennæ inserted evidently beyond the middle; abdomen in that sex only very feebly impressed medio-basally, the impression clothed with scarcely different scales. Length (♂) 4.3-4.5 mm.; width 1.7-1.8 mm. Mexico (Temax, in northern Yucatan),—Gaumer. Sent by Mr. Champion. Three specimens.

**logica**

Sides of the prothorax more parallel basally, more rapidly and strongly rounded anteriorly to the less tubulate apex, which is half as wide as the base, the punctures moderate in size, rather shallow and well separated, the smooth median line sharply defined, even and entire; elytra as in the preceding; beak in the male less thick than in the preceding and slightly longer, almost half as long as the body, the antennæ inserted very slightly beyond the middle, the scape as usual almost attaining the eye; abdomen in that sex barely perceptibly impressed medio-basally and with the vestiture scarcely differing. Length (♂) 4.5 mm.; width 1.9 mm. Mexico (Chilpancingo, in Guerrero),—Höge. Communicated by Mr. Champion under the name *tonsilis* Boh. . . . . **sparsella**

The male seems to be notably more abundant than the female throughout this group of closely allied though recognizably different forms.

**Stereogeræus n. gen.**

The type of this genus is *Geræus tenebricosus* Chmp., of Guerrero, Mexico, and it is separated from *Centrinaspis* and *Geræus* because of marked habitual peculiarities, residing in its large size, very stout form, dense sculpture and tuberculate but not spiniform armature of the prosternum in the male. The following species will also enter



this genus in all probability, but is represented only by the female, so far as now known:

\**Stereogeræus robustulus* n. sp.—Body somewhat as in *Centrinaspis parens*, but very much larger and stouter, convex, oval, with very prominent but rounded humeral prominences, deep black in color throughout the body, legs and antennæ, very evenly clothed above with white and slender squamules, everywhere well separated among themselves; under surface with more oval dense white scales, more slender and separated on the femora; beak in the female long, very slender and nude, evenly arcuate, becoming thick and sparsely squamulose basally, except along a polished median line, the antennæ inserted behind the middle, the basal funicular joint elongate; prothorax a third wider than long, the sides evenly arcuate, becoming parallel at base, the apex distinctly subtubulate, prolonged and almost half as wide as the base, the lobe abrupt, rounded and distinct; punctures rather coarse, evenly very close-set, without distinct median line; scutellum nude, quadrate, emarginate behind; elytra barely a fifth longer than wide, broadly and obtusely parabolic, at the swollen humeri distinctly wider than the prothorax, very nearly twice as long; striæ very moderate, the punctures bearing each a more slender suberect squamule; intervals broad, with moderate and confused, separated and rounded punctures; anterior coxæ rather narrowly separated. Length (♀) 4.6 mm.; width 2.4 mm. Guatemala (Esquintla).

A very distinct species, widely different from any known *Centrinaspis* in its very stout form and more prominent humeri; it differs from *tenebricosus* Chmp., in its conspicuous uniform white vestiture and much less dense sculpture.

#### *Conocentrinus* n. gen.

In this proposed new genus the body is subrhomboidal in outline, with large and elongate subogival elytra and comparatively small but broad and conical prothorax. The scales above, and especially beneath, are dense and uniform, generally whitish in color. The type may be described from the female as follows:

\**Conocentrinus tenuirostris* n. sp.—Deep black throughout the body, legs and antennæ, the integuments rather smooth and finely sculptured; upper surface with small whitish scales, very abundant and uniform but distinctly separated among themselves, fine and transverse on the pronotum and in about three irregular series on the strial intervals, larger, snow-white and extremely dense throughout the under surface; beak in the female very long and filiform, not at all thickened basally, although flatter and thinner distally, subevenly and strongly arcuate and almost twice as long as the head and prothorax; antennæ long, inserted at about the middle, the first funicular joint very long, the second almost as long

as the three following, the club elongate-ovoidal; prothorax one-half wider than long, rapidly conical and with feebly arcuate sides from base to apex, which is much less than half as wide as the base, the latter transverse, the lobe abrupt, small, rounded and somewhat more coarsely and closely squamose; punctures fine, not very dense but forming longitudinal ruguliform lines, the smooth median line not entire; scutellum nude; elytra with converging and broadly arcuate sides throughout, not quite one-half longer than wide, at the feebly tumid humeri much wider than the prothorax, two and one-half times as long, the humeri gradually rounding to the base; striæ moderately coarse, deep, the intervals feebly punctulate and nearly three times as wide as the striæ; anterior coxæ separated by a third of their width. Length (♀) 3.7-3.9 mm.; width 1.65-1.75 mm. Guatemala (near the city). Two examples.

After searching the work of Mr. Champion carefully I am unable to find anything approaching this species and so conclude that it is undescribed.

The two following, although apparently belonging to the same genus, differ considerably in the less elongate beak, which is notably thickened and sometimes more arcuate basally:

\***Conocentrinus incrustatus** n. sp.—Rather stouter, rhomboidal, deep black throughout the body, legs and antennæ; upper surface clothed very closely with uniform brownish-white scales, only a little less broad and transversely arranged on the pronotum and in about three close irregular series on the strial intervals; under surface with larger and extremely dense white scales; beak in the male a little longer than the head and prothorax, evenly arcuate throughout, gradually thickened basally, smooth, squamulose sparsely at the sides basally, the antennæ inserted distinctly beyond the middle, and, in structure, nearly as in the preceding species; prothorax two-fifths wider than long, evenly conical, the very oblique sides barely at all arcuate, the apex feebly subtubulate and narrow, barely over two-fifths as wide as the base, the basal lobe gradually formed, distinct; punctures rather coarse, opaque and densely coalescent, with very narrow and slightly tumid median line; scutellum nude; elytra rapidly parabolic, rather narrow at tip, with somewhat tumid humeri, a little though evidently wider than the prothorax and distinctly more than twice as long, the striæ rather deep, moderately coarse, not at all concealed; prosternum canaliculate throughout but with unbroken crust of scales, the coxæ separated by less than half their width; abdomen unmodified in the type. Length (♂) 4.2 mm.; width 2.0 mm. Guatemala (Capetillo). One example.

For some time I regarded the type of this species as the female of *Geræus spiniger* Chmp., but the structure of the beak seems certainly to indicate the male, although there are no abdominal modifications and no prosternal spines or prominences. In the

female of *spiniger* the antennæ are said to be inserted behind the middle of the beak.

\**Conocentrinus canorus* n. sp.—Smaller and narrower, deep black throughout, the upper surface clothed very closely with uniform ochreous scales, transverse and a little smaller and thinner on the pronotum and confusedly arranged throughout the stria intervals; beak in the female one-half longer than the head and prothorax, slender and nude, broadly arcuate, becoming rapidly more arcuate and thickened at base, the antennæ inserted at three-sevenths, the basal parts finely and sparsely squamulose; first funicular joint very long, the second much shorter, as long as the following two, the club normal; prothorax rapidly conical, with medially very feebly arcuate sides, the apex not obviously constricted and barely three-sevenths as wide as the base, the lobe of the latter small, gradually cuspidiform; punctures dense and subopaque; scutellum very small, nude; elytra elongate-ogival, narrow at tip, at the narrowly subprominent humeri distinctly wider than the prothorax, the surface somewhat undulated, the sides subparallel and feebly sinuate for a short distance behind the humeri; the subapical umbones are rather prominent; striæ somewhat fine but deep; under surface with rather small but very close whitish scales; anterior coxæ separated by a third of their width. Length (♀) 3.6 mm.; width 1.65 mm. Guatemala (near the city). One example.

I am unable to recall the source from which any one of the above four examples was received; they have been undetermined in my collection for many years.

It is more than probable that *Geræus tenuistriatus* Chmp., also belongs to this genus.

#### *Leptocorynus* n. gen.

The type of this proposed genus is the Mexican *Geræus aspersus* Chmp. (Biol. Cent.-Amer., IV, 5, p. 290). It is distinguished primarily by the very elongate antennal club of the male, this being always longer than the entire funicle and sometimes nearly twice as long. Besides *aspersus*, the genus will comprise *scutatus*, *longiclava* and *tenuiclava* of Champion, assigned originally to *Geræus*.

The rather numerous genera proposed in the foregoing pages at the expense of *Geræus*, in the enlarged scope given it by Mr. Champion, are founded upon peculiarities of habitus, supplemented by more or less radical differences in the structural characters of the male. This method of defining genera is frequently convenient in large groups, which are deficient in strongly marked structural

characters of a general nature, as among the *Amarinæ* and *Pterostichinæ* of the *Carabidæ* for example, and also in the large genus *Reichenbachius* of the *Pselaphidæ*.

### **Odontocorynus Schön.**

This is another genus founded solely upon sexual peculiarities of the male, the antennal funicle in that sex frequently being enlarged and denticulate distally, and the club having a lateral basal tooth. As stated in my revision (p. 577), there are two well defined groups, which are also of a sexual nature, one, represented by *scutellum-album*, having the beak nearly similar in form in the two sexes, and the other having a strongly sculptured and basally bent beak in the male, but cylindrical, in great part smooth and more evenly arcuate in the female. The scutellum and basal thoracic lobe are conspicuously albido-squamose in all the species of both groups. The species of the second group are in reality very numerous in our fauna, but the first, or *scutellum-album* group, is rather more limited, though still extensive. *Odontocorynus* is in fact by far the largest Centrinid genus of our fauna, and it was largely because of the multiplicity of forms having, in some parts of the series, very puzzling superficial resemblances, that I passed over it without much discriminative study in my revision of the *Barinæ*. The delimitation of the species has cost a vast amount of time, given as occasion permitted during some years past, and I hope that the various taxonomic forms defined below as species may prove to be of permanent value; there is not the slightest doubt that this will prove to be the case with most of them at all events. The following table contains those species allied to *scutellum-album*:

Strial intervals with generally confused sculpture and vestiture, sometimes partially unilinear. . . . .	2
Strial intervals each with a single line of scales, narrowly confused toward base on some of the intervals; body small in size. . . . .	14
2—Prothorax widest before the base, the sides curving inward basally. Stout, oval, strongly convex, shining, black, the elytra and legs faintly subpiceous, the beak and antennæ black; beak in the female slender and finely, sparsely punctured throughout, feebly arcuate, abruptly more so at base, as long as the elytra, the antennæ inserted at four-sevenths; prothorax transverse, three-fifths wider than long, the sides strongly converging and broadly, evenly arcuate from near basal fourth to the wholly unconstricted apex, the basal lobe	

feeble and with some coarse pale scales; punctures coarse, separated, confluent and rugulate laterally, the linear scales very small and inconspicuous; median smooth line partially evident; scutellum transverse, densely albedo-squamose; elytra parabolic, a fifth longer than wide, at the rather prominent humeri much wider than the prothorax, twice as long; grooves very coarse, finely, remotely punctate and opaculate; intervals subequal, less than twice as wide as the grooves, shining, with coarse and close punctures which are generally narrowly confused, but forming single series in some places, the fine slender scales pale and evident, not at all close; under surface with the oval whitish scales, more or less separated and lying within coarse punctures. Length (♀) 4.0 mm.; width 1.85 mm. Oklahoma (Atoka),—Wickham. One example.

**atokanus** n. sp.

- Prothorax widest at base.....3
- 3—Sides of the prothorax feebly converging and subevenly arcuate, or gradually more arcuate apically.....4
- Sides moderately converging and evenly, just visibly arcuate to just behind the apex, where they are rapidly turned inward for some distance to the apex; body small.....13
- 4—Body, and especially the elytra, rufous in color.....5
- Body black, sometimes uniformly blackish-brown.....6
- 5—Body not very stout, subrhomboid-oval, obscure rufous, the anterior parts generally darker; antennæ inserted at four-sevenths (♀), or rather beyond three-fifths (♂), the tooth of the club obtuse, the last funicular joint but slightly transverse; prothorax short, one-half wider than long, subevenly rounded at the sides, the punctures coarse and close-set but not very dense, smaller medially, the median line partial and indefinite; elytra a fourth longer than wide, parabolic and with obtuse apex, twice as long as the prothorax, the humeri somewhat prominent; grooves rather coarse, the intervals flat, sometimes distinctly alternating in width, the punctures moderate, confused or forming in great part single series, the scales yellowish; under surface with broad dense whitish scales as usual. Length (♂ ♀) 3.5-4.2 mm.; width 1.4-2.0 mm. Northern Illinois. Six specimens.....

**rufobrunneus** n. sp.

- Body stout, nearly as in the preceding in coloration, the elytra relatively more elongate; beak in the female slightly longer than in the same sex of *rufobrunneus*, four-fifths as long as the elytra, the antennæ nearly similar, except that the club is thicker and more oblong-oval; prothorax fully one-half wider than long, the sides more converging than in the preceding, arcuate, the punctures not quite so coarse and more widely separated—by fully half their diameters, the median line indistinct; small squamules denser toward the sides in a manner not elsewhere noticeable; elytra nearly a third longer than wide, somewhat over twice as long as the prothorax, the grooves still coarser, the intervals alternating, the narrower scarcely wider than the grooves; scales more broadly oval, pale yellow, close-set and confused; legs brighter rufous. Length (♀) 4.4 mm.; width 2.2 mm. Missouri (St. Louis),—Schuster.....

**lineatellus** n. sp.

Body smaller and more narrowly rhomboid-oval, rather shining, bright rufous, the head and beak blackish; squamules above yellowish, minute, slender, sparse and very inconspicuous, the broad whiter scales beneath very narrowly separated; beak in the male a little longer than the head and prothorax, nearly straight, abruptly bent at base and vertically thicker at the middle than between this and the basal arcuation, this being the usual structure; antennæ inserted at apical third, the tooth of the club prominent, obtuse, the last funicular joint transverse, pointed within; prothorax much less transverse than in the two preceding, a third wider than long, the sides converging and barely visibly arcuate, rounding at apex; punctures very moderate in size, rather dense throughout, the median smooth line indistinct; elytra with prominent humeri, the oblique sides only feebly arcuate, the apex obtuse, not quite a fourth longer than wide and not twice as long as the prothorax, the grooves coarse, deep, punctate; intervals one or two times as wide as the grooves, confusedly and coarsely punctate. Length (♂) 3.5 mm.; width 1.6 mm. New York.....**semiruber** n. sp.

6—Prothorax very short and transverse, three-fifths wider than long. Body and legs deep black throughout, the squamules of the upper surface small, whitish and not conspicuous on the elytra, white, oval and dense beneath; beak in the female shining, coarsely, sparsely punctate, three-fourths as long as the elytra, abruptly bent at base, the antennæ inserted near two-thirds, the club rather large, elongate-oval; prothorax with the converging sides broadly, subevenly arcuate; surface impressed slightly near the apex; punctures not very coarse, deep, close but not quite in contact, the median line narrow and irregular though subentire; elytra relatively longer than usual, with very prominent but obtuse humeri, moderately oblique sides and rather broadly obtuse apex, much more than twice as long as the prothorax; grooves rather coarse, deep, punctured; intervals subequal, nearly twice as wide as the grooves, the punctures moderately coarse and confused. Length (♀) 3.8 mm.; width 1.9 mm. A single example received from a foreign dealer, with the locality "Columbia" and with a MS name by an undecipherable author.....**advena** n. sp.

Prothorax much less transverse, the elytra relatively normal in length...7

7—Legs throughout somewhat obscure rufous. Body larger than in any other of this section, stout, subrhomboid-oval, scarcely shining, brownish-black; beak in the female straight or very nearly so, abruptly bent at base, barely at all shorter than the elytra, the antennæ inserted at three-fifths, the club normal, oval; prothorax not quite one-half wider than long, the sides subevenly arcuate, becoming more parallel at base; punctures decidedly coarse, deep, close but not in actual contact, the smooth line distinct but not entire; elytra short, parabolic, with prominent humeri, evidently not twice as long as the prothorax; grooves coarse, deep and abrupt, the intervals subequal, twice as wide as the grooves to evidently less, coarsely and confusedly punctate, the squamules small and slender, sparse, pale but not at all conspicuous. Length (♀) 4.2—

- 4.7 mm.; width 2.0-2.35 mm. Massachusetts (Cambridge) to Florida. Five specimens..... **scutellum-album** Say
- Legs, or at least the femora, always black, the tibiæ sometimes faintly rufescent; body smaller in size, except in *divisus*..... 8
- 8—Thoracic punctures loose, distinctly separated except at the sides, rather coarse but smaller along the middle. Body much smaller than in the preceding and narrower, deep black, the legs black throughout; beak thicker, more strongly sculptured and more bent at base in the male; antennæ inserted near four-sevenths (♀) or three-fourths (♂), the male club excavated and obtusely dentate basally; prothorax unusually short, one-half wider than long, the sides converging and moderately, subevenly arcuate throughout; surface broadly and feebly impressed transversely near the apex; elytra parabolic, fully twice as long as the prothorax, with rather prominent humeri and coarse deep grooves; intervals only one-half wider than the grooves to somewhat more, very coarsely, closely punctate—often in single series, the squamules small and sparse but rather brilliant white and distinct. Length (♂ ♀) 3.5-3.8 mm.; width 1.65-1.85 mm. Rhode Island, Pennsylvania and North Carolina (Southern Pines). Six examples..... **adjunctus** n. sp.
- Thoracic punctures notably dense throughout, the prothorax less abbreviated..... 9
- 9—White squamose crust of the scutellum divided along the middle; body larger. Oval, strongly convex, deep black throughout, the legs and antennæ black, slightly shining, the squamules above minute and scarcely distinct on the pronotum, small, slender and sparse on the elytra but white and evident, the large white scales of the under surface generally separated but dense on the abdomen and met-episterna posteriorly; beak in the male nearly straight, bent at base, longer than the head and prothorax, deeply sulcate, squamulose, the lower margin at the middle strongly arcuate; antennæ inserted near three-fourths, the two outer joints of the funicle simple, symmetric, oval and one-half wider than long, the elongate-oval club with a strong erect and acutely triangular basal tooth; prothorax a third wider than long, the sides converging and evenly, rather strongly arcuate throughout, the punctures coarse, narrowly separated, with a short median smooth line; elytra rather short, with prominent humeri, only three-fourths longer than the prothorax; grooves very coarse; intervals one-half wider than the grooves and coarsely punctate, becoming very narrow suturally toward tip. Length (♂) 4.6 mm.; width 2.18 mm. Indiana. Levette collection..... **divisus** n. sp.
- White squamose crust even as usual, not divided; body smaller..... 10
- 10—Tooth of the male antennal club large, broadly triangular..... 11
- Tooth small, slender and spiniform..... 12
- 11—Form rhomboid, the pronotum somewhat shining, black or feebly picescent, the tibiæ obscure rufous; beak in the male rather slender, feebly arcuate, more so at base, as long as the head and prothorax, punctate, the antennæ inserted at apical fourth, the last funicular joint but slightly transverse, with a small abrupt internal tooth,

the club large, elongate-oval; prothorax two-fifths wider than long, the converging and feebly arcuate sides more rounded apically; punctures coarse, subconfluent, becoming fine and sparse medio-apically, the smooth line obsolete; elytra very obtusely parabolic, fully twice as long as the prothorax, with only moderately prominent humeri, the grooves deep; intervals alternating from one-half wider than the grooves to twice as wide as the latter, the very coarse crowded punctures bearing each a small but whitish and very distinct squamule. Length ( $\sigma^7$ ) 4.2 mm.; width 1.9 mm. A single example received from a foreign dealer, labeled "N. Am.—D. Wehneke.".....**incertus** n. sp.

Form nearly similar but narrower, black throughout, rather shining; beak in the male punctate, rather shorter, barely as long as the head and prothorax, the antennæ inserted near two-thirds, the last funicular joint slightly transverse, oblique within, the club large, elongate-oval; prothorax a third wider than long, the converging sides feebly, subevenly arcuate, only just visibly more so apically; punctures moderate in size, very close-set but scarcely in contact, with a partial smooth median line; elytra less obtusely parabolic, evidently less than twice as long as the prothorax, the grooves less coarse, very deep; intervals more equal, nearly twice as wide as the grooves, the punctures much less coarse and not so dense, bearing small and slender, white but much less conspicuous squamules. Length ( $\sigma^7$ ) 3.3 mm.; width 1.6 mm. New York (locality unrecorded).....**fultoni** n. sp.

12—Body elongate-oval, convex, black throughout, slightly shining, the squamules of the upper surface whitish but very small, sparse and barely at all evident; beak in the male feebly arcuate, bent at base, longer than the head and prothorax, the antennæ rather beyond two-thirds, the last funicular joint transversely cuneiform, shortest within, the club large, elongate-oval, the tooth slender, very prominent; prothorax fully a third wider than long, the sides very feebly converging and but slightly arcuate, rounding apically; punctures moderate, very dense and confluent basally and laterally, finer and separated medio-apically, the smooth line obsolete; elytra evenly parabolic, with moderately prominent humeri, about twice as long as the prothorax; grooves moderate, very abrupt and deep, punctate at bottom as usual; intervals about twice as wide as the grooves, the punctures moderately coarse, dense, sometimes in looser single series. Length ( $\sigma^7$ ) 3.6 mm.; width 1.55 mm. Northern Illinois, —Webster.....**illini** n. sp.

Body rather stouter, oval, convex, scarcely shining, black, the tibiæ rufescent; squamules of the upper surface small, slender and sparse, whitish and evident, though not at all conspicuous; beak in the male nearly straight, abruptly bent at base; antennæ inserted beyond apical third, nearly as in the preceding in structure; prothorax larger, barely a third wider than long, the moderately converging sides distinctly and subevenly arcuate, only a little more so apically; punctures moderate, deep and very dense, somewhat looser medio-apically, the median line not smooth though feebly tumid basally;



elytra short, broadly parabolic, with moderate humeri, barely three-fourths longer than the prothorax; grooves deep; intervals less or more than twice as wide as the grooves, moderately coarsely, strongly and very densely punctate; under surface with dense white oval scales as usual. Length ( $\sigma^7$ ) 3.3-3.8 mm.; width 1.5-1.8 mm. Delaware (Milford).....**subaffinis** n. sp.

13—Oblong-suboval, rather narrow, black throughout, feebly shining; squamules of the upper surface very small, slender, sparse and indistinct, the white scales beneath narrowly separated; beak in the male only moderately stout, feebly arcuate, shorter than usual, barely as long as the head and prothorax, the antennæ inserted beyond apical third, the outer funicular joints transverse and compact, the last two pointed within, the club elongate-oval, with a prominent and acutely triangular basal tooth; prothorax two-fifths wider than long, moderately coarsely and very densely punctate throughout; elytra evenly parabolic, with moderately prominent humeri, not quite twice as long as the prothorax, the grooves moderate, very deep; intervals from less than two to two and one-half times as wide as the grooves, the punctures smaller than usual, confused throughout but not very dense. Length ( $\sigma^7$ ) 3.0 mm.; width 1.35 mm. New York (Long Island)....**subabruptus** n. sp.

14—Body narrowly oblong-suboval, slightly shining, black, the tibiæ obscure rufous; beak in the female rather slender, sparsely punctate, feebly arcuate, broadly and feebly constricted near basal third and nearly half as long as the body, the antennæ slender, inserted at four-sevenths; prothorax short, four-sevenths wider than long, the sides feebly converging and very slightly arcuate, gradually broadly rounding before the middle; punctures very moderate and well separated, dense toward the sides, the imperfect smooth line narrow though traceable; elytra narrowly parabolic, two and a third times as long as the prothorax, with rather prominent humeri, the grooves coarse, deep, the intervals less than twice as wide as the grooves, with single series of moderately coarse punctures, which are more or less confused on the sixth, except behind the middle, the squamules white and linear but rather broad and conspicuous. Length ( $\varphi$ ) 2.7 mm.; width 1.2 mm. New York (locality unrecorded). One example.....**amputatus** n. sp.

Body a little larger and stouter, oblong-suboval, somewhat shining, piceous-black; beak in the female almost as in the preceding but somewhat thicker and less constricted near basal third, the antennæ almost similar; prothorax of different outline, trapezoidal, one-half wider than long, the converging sides very evenly and but slightly arcuate from base to apex; basal lobe larger and more prominent; punctures coarser, distinctly separated, dense laterally, the smooth median line barely traceable and only centrally; elytra similar but more broadly parabolic, only three-fourths longer than the prothorax, almost similarly grooved and punctate and with similar conspicuous squamules. Length ( $\varphi$ ) 3.2 mm.; width 1.4 mm. New Jersey.....**unilineatus** n. sp.

There may be some doubt if all representatives of *semiruber* are as pale rufous in color as the type, but I have noted that throughout *Odontocorynus*, wherever species are represented by good series, there is no decided variation in color to be observed.

The following table embraces all the species of the *salebrosus* type that have come to me so far:

- Elytra with more or less dense, pale and very conspicuous parallel-sided scales. Rocky Mountain regions, excepting *inspectus* and *boonei*, having nude strial punctures and which occur east of the Mississippi River.....2
- Elytra and pronotum with separated linear scales, which are so numerous however as to render the vestiture conspicuous; strial punctures each with a distinct slender white squamule.....8
- Elytra and pronotum more remotely clothed with small, sparse, slender and inconspicuous squamules; strial punctures never squamiferous.....9
- 2—Strial punctures each with a conspicuous squamule; body very stout; first funicular joint notably elongate.....3
- Strial punctures each with a very minute, slender and barely discoverable squamule; body less stout; first funicular joint evidently shorter..4
- Strial punctures without apparent squamules; first funicular joint somewhat diversified in length according to the species.....7
- 3—Body stout, oblong-suboval, not shining, black, the legs and antennæ black throughout; upper surface clothed densely with rather large white scales, intermingled with some that are darker on the elytra, the under surface, as usual, with dense oval white scales; beak in the female smooth, cylindric, only feebly tapering, nearly straight, bent at base, about half as long as the body, the antennæ inserted barely visibly beyond the middle, the funicular joints with coronæ of white squamules; prothorax four-sevenths wider than long, the sides subevenly and strongly arcuate, becoming parallel basally, the apex faintly constricted; basal lobe a fourth the total width; punctures moderately coarse and very dense, with a smooth median line centrally; elytra broadly, obtusely parabolic, a fourth longer than wide, at the moderately prominent humeri but very slightly wider than the prothorax, four-fifths longer; striæ not very coarse, the intervals broad, subequal, not very coarsely, confusedly punctate. Length (♀) 5.0 mm.; width 2.35 mm. Eastern Colorado.  
**coloradensis** n. sp.

Body less stout, black, less obtuse behind, clothed very densely throughout above with large yellowish-white scales, still larger, denser and whiter beneath, the squamules of the strial punctures very distinct, the interstitial scales of perfectly uniform tint; beak in the female smooth, feebly arcuate, slightly tapering, bent at base and not quite half as long as the body, the antennæ nearly similar, the funicle slightly longer; prothorax of nearly similar outline, except that the arcuate sides become parallel only much nearer the base, the basal

lobe larger, almost a third the total width; punctures moderate, very dense, the smooth median line not evident; elytra with more converging arcuate sides and less obtuse rounded apex, at the rather more prominent humeri much wider than the prothorax, three-fourths longer; striæ decidedly coarser, the closely and confusedly punctate intervals slightly more than twice as wide as the striæ and subequal in width among themselves. Length (♀) 4.7 mm.; width 2.2 mm. Colorado (locality unrecorded).....**densissimus** n. sp.

4—Sides of the prothorax regularly arcuate, gradually less so and subparallel in about basal half.....5

Sides subparallel and very feebly arcuate, rounding only in about apical third.....6

5—Form oblong-suboval, stout, closely clothed above with white scales, smaller and more slender and less dense on the pronotum, except at apex and as usual on the basal lobe, larger, broad and dense on the strial intervals, dense and white on the under surface; beak in the female smooth, feebly tapering, slightly arcuate, subevenly more arcuate in about basal half, a little less than half as long as the body, the antennæ inserted submedially, the first two funicular joints elongate, the first less so than in the two preceding but as long as the next two together; prothorax one-half wider than long; apex barely at all constricted, not quite half as wide as the base, the basal lobe a fourth the total width; punctures moderate, dense, though slightly separated medially, without smooth line; elytra very obtusely parabolic, at the moderate humeral prominences only just visibly wider than the prothorax, three-fourths longer; striæ deep, the squamules inconspicuous; intervals confusedly punctate, three or four times as wide as the striæ. Length (♀) 4.5 mm.; width 2.1 mm. Dakota (locality unrecorded)....**dakotanus** n. sp.

Form narrower, relatively somewhat more elongate, black, the tibiæ rufescent; upper surface clothed densely with uniform ochreous scales, which are nearly as wide on the pronotum as on the strial intervals, but not quite so dense; beak in the female arcuate, smooth, feebly tapering, nearly as in the preceding but more abruptly bent at the immediate base, the antennæ nearly similar and inserted just visibly beyond the middle; prothorax somewhat less than one-half wider than long, deeply, moderately and very closely punctate, sometimes with a median smooth line centrally; apex half as wide as the base, the basal lobe rather more than a fourth the total width; elytra obtusely parabolic, at the feebly prominent humeri barely visibly wider than the prothorax, three-fourths to four-fifths longer; striæ deep and abrupt, with minute and remote squamules, the intervals densely punctured and squamose, three or four times as wide as the striæ, the scales uniform. Length (♀) 4.3-4.6 mm.; width 1.8-2.0 mm. Colorado (locality unrecorded). Three examples.....**ochreosus** n. sp.

Form still narrower and even more cuneiform posteriorly, the upper surface clothed with white scales, more slender and less dense than in *ochreosus* and not broadly dense and confused on the strial intervals as in the preceding, but evidently separated, although very

conspicuous, forming about two irregular lines on each; beak (♀) nearly as in the preceding, except that the antennæ are inserted more evidently beyond the middle though similar otherwise, or (♂) more quadrate in section, sculptured, squamulose and subopaque, rather more tapering, more abruptly bent at base but not differing much in length, the antennæ inserted only a little further forward and not so apical as in *scutellum-album* and allied species; outer funicular joints not evidently wider or transverse, the basal tooth of the club small and feeble; prothorax two-fifths wider than long, rather coarsely, very densely punctate, sometimes with traces of a narrow impunctate line centrally; elytra more elongate, fully two-fifths longer than wide, at the obtuse humeral prominences only very slightly wider than the prothorax, four-fifths longer, the striæ rather coarse, with scarcely discoverable squamules, the intervals coarsely, closely punctate and two to three times as wide as the striæ. Length (♂ ♀) 3.65-4.5 mm.; width 1.5-1.9 mm. Colorado (Greeley),—Wickham. Three examples.....**greeleyi** n. sp.

- 6—Oblong, black, with more or less rufescent legs, dull, clothed with numerous whitish scales above, slender and well separated on the pronotum, linear but broader on the strial intervals, where they are loosely arranged in about two lines on each; scales beneath large, white and dense; beak in the female nearly straight and feebly tapering, broadly arcuate in about basal half, smooth, but little longer than the head and prothorax; antennæ inserted slightly beyond the middle, rufous, with piceous club; prothorax not quite one-half wider than long, the apex feebly constricted, fully half as wide as the base, the basal lobe a fourth the total width; punctures rather coarse, very dense, the smooth median line narrow and much abbreviated; elytra with broadly arcuate oblique sides and not very obtuse apex, nearly a third longer than wide, at the rather prominent humeri only slightly wider than the prothorax, three-fourths longer, the striæ moderate; intervals from two to three times as wide as the striæ, rather coarsely punctato-rugose. Length (♀) 3.7-4.4 mm.; width 1.5-2.0 mm. Dakota. Four examples...**quadricollis** n. sp.
- 7—Form rather narrowly rhomboid-oval (♂) or stouter (♀), black throughout, clothed above with conspicuous though not compactly dense white scales, slender and well separated on the pronotum, linear but thick, very white and arranged in two loose uneven rows on each strial interval, large, oval, dense and white beneath; beak (♂) stout, dull, squamulose, evenly arcuate, longer than the head and prothorax, with the antennæ inserted well beyond the middle and the tooth of the club small and inconspicuous, or (♀) a little more slender but not longer, smooth, arcuate, somewhat more so at base, with the antennæ similarly inserted; prothorax a third to one-half wider than long, the parallel and nearly straight sides broadly rounding and converging in about apical half; punctures rather coarse, very dense, with feeble smooth line centrally; scutellum quadrate, densely albido-squamose; elytra a third to fourth longer than wide, the notably oblique sides only very feebly arcuate, the apex rapidly obtuse, at the moderate humeral prominences

distinctly wider than the prothorax, almost twice as long; striæ rather coarse; intervals generally two to three times as wide as the striæ, rugosely punctate, becoming very narrow toward the suture posteriorly. Length (♂ ♀) 3.2-3.7 mm.; width 1.35-1.6 mm. Kentucky (locality unrecorded). Five examples. . . **inspectus** n. sp.

Form elongate-subovoidal, convex, much larger, black throughout, the squamules of the pronotum small, slender, sparse and very inconspicuous, those of the stria intervals large, suboval, bright yellowish, in two or three irregular series and close, though not dense, those of the under surface oval, white and dense; beak in the male not quite as long as the head and prothorax, stout, feebly arcuate and slightly tapering, roughly sculptured, opaculate, with the antennæ inserted distinctly beyond the middle, the tooth of the club small, obtuse and not very prominent; prothorax unusually large, barely a fifth wider than long, the sides evenly and distinctly arcuate, rounding inward basally, widest before the base; apex feebly constricted, half as wide as the base, which is bisinuate, the lobe moderate; punctures moderate but very dense, with vestiges of a narrow smooth line centrally, the scutellum subogival, densely squamose; elytra very obtusely parabolic, a third longer than wide, at the moderate humeral prominences barely at all wider than the prothorax, only about three-fifths longer; striæ very deep, rather coarse and abrupt; intervals from two to nearly three times as wide as the striæ, punctato-rugose, the first much narrowed posteriorly. Length (♂) 4.8 mm.; width 2.1 mm. Kentucky (locality unrecorded). One example. . . . . **boonei** n. sp.

8—Outline broadly subrhombic-oval, black throughout, dull in lustre, the white lineiform scales well separated but subequal throughout the upper surface, broad and dense scales of the under surface white; beak nearly straight, abruptly bent at base in both sexes, half as long as the body and smooth (♀), or shorter, opaque, stouter, more quadrate in section and sparsely squamulose (♂); antennæ inserted at four-sevenths (♀) or three-fifths (♂); prothorax two-fifths (♂) to one-half (♀) wider than long, the sides broadly, subevenly arcuate, becoming parallel basally and oblique apically; apex about half as wide as the base; punctures coarse, deep and very dense, with feeble vestiges of smooth line centrally; basal lobe a fourth the total width; elytra broadly parabolic, at the obtusely prominent humeri distinctly wider than the prothorax, two-thirds (♂) to three-fourths (♀) longer; striæ rather coarse; intervals subequal, between two and three times as wide as the striæ, with very coarse contiguous punctures, the scales each decumbent within a puncture. Length (♂ ♀) 4.2-4.8 mm.; width 2.0-2.25 mm. North Carolina. . . . . **pulverulentus** Csy.

Outline somewhat similar but more abbreviated, deep black, the prothorax feebly rufo-piceous; vestiture similar, as is also the beak in the female, the antennal funicle somewhat longer; prothorax three-sevenths wider than long, the sides less evenly arcuate, parallel and feebly arcuate basally, becoming gradually rounded, oblique and nearly straight anteriorly; apex narrower, much less than half as

- wide as the base, the basal lobe narrower; punctures coarse and dense, the smooth median line distinct, narrow, even and almost entire, being slightly abbreviated at apex; elytra still shorter, barely a fifth longer than wide, obtusely parabolic, at the humeral swellings distinctly wider than the prothorax, three-fourths longer; striæ, intervals and sculpture nearly as in the preceding; met-episterna a little shorter and narrower, their inner margin somewhat more strongly sinuous. Length (♀) 4.0 mm.; width 2.0 mm. Texas (Luling),—Wickham..... **lulingensis** n. sp.
- 9—Prothorax more or less inflated, especially in the female, and widest before the base..... 10
- Prothorax widest at the base, not inflated laterally..... 20
- 10—Pronotal punctures more or less coarse and isolated, circular; larger species, excepting *convergens*..... 11
- Pronotal punctures not so coarse and denser as a rule, often crowded.. 13
- 11—Prothorax nearly as long as wide, the basal lobe very feeble. Elongate-oval, convex, rather shining, deep black throughout; squamules of the upper surface small, slender, sparse and inconspicuous though whitish, the under surface with large dense white scales; beak in the male longer than the head and prothorax, feebly arcuate, gradually more so basally, sulcate and coarsely punctate; antennæ inserted at four-sevenths, the funicle slender, with only its last joint wider, the first elongate, the club with the tooth basal and rather small; prothorax only a sixth wider than long, the sides evenly converging, broadly and evenly arcuate from very near the base, the apex sinuate medially and much less than half as wide as the base; punctures rather coarse, deep, separated by a third to half their diameters, with dense and longitudinally ruguliform sculpture at the sides; elytra with oblique and feebly arcuate sides and obtusely rounded apex, three-sevenths longer than wide, at the prominent humeri distinctly wider than the prothorax, only two-thirds longer, the grooves coarse, abrupt and very deep; intervals from one-half wider than, to twice as wide as, the grooves, rather coarsely, confusedly punctato-rugose. Length (♂) 5.7 mm.; width 2.6 mm. Kansas (Douglas Co.),—Snow..... **snowi** n. sp.
- Prothorax much shorter than wide, more inflated and with well developed basal lobe..... 12
- 12—Body (♀) broadly oblong-suboval, convex, rather shining, deep black; squamules of the upper surface minute, very sparse and wholly inconspicuous, beneath large, whitish and dense as usual; beak in the female smooth, subcylindric, sensibly arcuate, more so basally and nearly half as long as the body; antennæ inserted barely beyond the middle, the funicle very slender; prothorax large, nearly one-half wider than long, widest barely behind the middle, the sides strongly, subevenly arcuate, gradually strongly converging from slightly before the middle; apex sinuate at the middle, barely three-sevenths as wide as the base; surface with unusually arcuate profile above, rapidly sloping anteriorly; punctures coarse, deep, separated by half their diameters or more, with a smooth median line centrally and at apex; elytra obtusely parabolic, at the swollen humeri but

little wider than the widest part of the prothorax, fully three-fourths longer; grooves coarse, very abrupt and deep; intervals from less than two to about three times as wide as the grooves, coarsely, closely and confusedly punctate. Length (♀) 6.0 mm.; width 2.8 mm. Kansas (locality unrecorded). . . . . **robustus** n. sp.

Body less broadly and more rhomboidally oval, convex, not so shining and more densely sculptured, black throughout; squamules of the upper surface small and slender, whitish, sparse but distinct; beak (♂) arcuate, stout and sulcate, punctate, dull, minutely, sparsely squamulose and a little longer than the head and prothorax, or (♀) a little longer, smooth and more cylindric, similarly more rapidly arcuate at base; antennæ (♂) moderate in length, the last funicular joint transverse, the club large, rather thick, with distinct triangular internal basal tooth, or (♀) with longer, very much more slender funicle and smaller, narrower club; prothorax almost one-half wider than long, the sides subevenly rounded, more converging anteriorly, widest but little before the base; punctures not quite so coarse as in the preceding and almost in mutual contact, with more or less evident smooth line centrally; elytra parabolic, a sixth (♀) to a fourth (♂) longer than wide, at the prominent humeri distinctly wider than the prothorax, the grooves very deep and abrupt; intervals two to three times as wide as the grooves, coarsely, closely punctate. Length (♂ ♀) 5.6–5.75 mm.; width 2.65 mm. North Carolina. . . . . **denticornis** Csy.

Body rather smaller and less stout, oval or oblong-oval, convex, black throughout, slightly shining, the squamules above small and whitish but sparse and rather inconspicuous though very evident on the elytra, oval, dense and white beneath, fine and rather sparse on the femora; beak (♂) rather thick, dull and strongly sculptured, much longer than the head and prothorax, nearly straight, gradually arcuate basally, or (♀) somewhat longer, smooth, gradually and distinctly tapering, arcuate, rapidly more so in about basal half; antennæ inserted at three-fifths (♂) or four-sevenths (♀), the funicle (♂) with the last joint much larger and transverse, the tooth of the club relatively small, or (♀) very slender, the club smaller; prothorax a third (♂) to nearly one-half (♀) wider than long, the sides subevenly arcuate, more so in the female; punctures deep, rather coarse and very close though narrowly separated, the median smooth line narrow, more or less distinct and somewhat tumid; elytra obtusely parabolic, very much wider in the female, only very slightly wider than the prothorax and three-fourths longer; grooves moderately coarse, very deep; intervals two to nearly three times as wide as the grooves, coarsely, closely punctate. Length (♂ ♀) 4.75–5.0 mm.; width 2.0–2.3 mm. Missouri and Mississippi (Vicksburg). Five specimens. . . . . **missourianus** n. sp.

Body very much smaller than in any of the preceding species of this section, rather narrow and gradually attenuate behind, black, somewhat shining; upper squamules small, slender, not close and inconspicuous; beak in the female slender, smooth, arcuate, nearly half as long as the body, the antennæ inserted just beyond the middle,

- the funicle long and very slender; prothorax nearly a third wider than long, the sides subevenly arcuate, gradually more converging anteriorly; apex truncate, half as wide as the base, the punctures relatively rather coarse, deep and close but not quite in mutual contact; median smooth line entire, narrow anteriorly, broad posteriorly; basal lobe very short, broadly rounded; elytra three-sevenths longer than wide, at the rather prominent humeri scarcely at all wider than the widest part of the prothorax, almost four-fifths longer; sides converging and barely visibly arcuate to the obtusely rounded apex, which is however rather narrower than usual; grooves moderate but very abrupt and deep; intervals not alternating much and between two and three times as wide as the grooves, coarsely punctato-rugose. Length (♀) 3.6 mm.; width 1.38 mm. Kentucky..... *convergens* n. sp.
- 13—Prothorax not evidently narrower than the elytra..... 14  
 Prothorax distinctly narrower than the elytra..... 15
- 14—Oblong, not shining, black, the legs and antennæ rufescent; squamules above small but evident on the pronotum, broader though linear, well separated but rather conspicuous and whitish on the elytra, oval, dense and yellowish-white beneath; beak in the male thick, rather tapering, very feebly arcuate, dull and strongly sculptured, longer than the head and prothorax, the antennæ inserted near three-fifths, the club with a very minute basal tooth; prothorax not quite one-half wider than long, the broadly arcuate sides but little more rounding and converging in about apical half; punctures rather small and very densely crowded throughout, with the narrow irregular smooth median line not quite entire; elytra very obtusely subparabolic, the converging sides but feebly arcuate, the apex obtusely rounded, scarcely a fourth longer than wide, with the humeral prominences feeble, two-thirds longer than the prothorax; striæ rather coarse, deep; intervals not regularly alternating but between two and three times as wide as the striæ. Length (♂) 4.2 mm.; width 1.9 mm. Arkansas (Little Rock).  
*pinguiscens* Csy.
- Oblong-suboval, more elongate, more convex and with more inflated prothorax, black, not shining; beak in the male thick, strongly sculptured, evenly and moderately arcuate, not quite as long as the head and prothorax, the antennæ inserted rather beyond three-fifths, the basal tooth of the club acutely angulate, moderate but distinct; prothorax two-fifths wider than long, the sides strongly and subevenly arcuate throughout, widest just behind the middle; apex fully half as wide as the base, the basal lobe rather prominent; punctures not coarse though larger than in the preceding, very dense throughout, without smooth median line, the squamules brownish-white, small, not very slender but numerous and distinct; elytra more regularly parabolic and longer, a third longer than wide, hardly as wide as the widest part of the prothorax and about three-fourths longer, the humeral swellings feeble; grooves deep; intervals subequal, between two and three times as wide as the grooves, coarsely punctato-rugose and with broadly linear and rather sparse



- but conspicuous, whitish scales; white scales of the under surface large and dense. Length (♂) 4.35 mm.; width 1.9 mm. Kentucky..... *inflaticollis* n. sp.
- 15—Body notably broad. Oblong-suboval, only moderately convex, black, the prothorax and antennal club dull rufous; scales of the upper surface yellowish, fine but numerous and evident on the pronotum, broader though linear, well separated, confused and notably conspicuous throughout on the striae intervals; beak in the female smooth, evenly arcuate and gradually tapering from base to apex, distinctly longer than the head and prothorax, the antennæ inserted at the middle; prothorax nearly one-half wider than long, widest very near the base, the sides thence slightly converging and very feebly arcuate, more rapidly, obliquely rounding in apical third; apex feebly constricted, half as wide as the base, the basal lobe rather abrupt; punctures not very small, deep, circular, very close but rarely in mutual contact, recalling somewhat the sculpture in *denticornis* and related forms but finer; median smooth line distinct and subentire; elytra with the sides slightly oblique and very moderately arcuate, the apex broadly and obtusely rounded; grooves deep but not very coarse; intervals subequal, about three times as wide as the grooves, closely, coarsely and confusedly punctate. Length (♀) 4.4 mm.; width 2.1 mm. Missouri (locality unrecorded)..... *latiusculus* n. sp.
- Body never very notably broad in outline..... 16
- 16—Species very small in size, with narrower prothorax and prominent humeri. Rather narrow, convex, deep black throughout; squamules of the upper surface small, sparse and inconspicuous, the larger oval white scales beneath narrowly separated among themselves; beak in the male stout, subopaque and strongly sculptured, nearly straight, abruptly bent at base, almost half as long as the body; antennæ inserted near three-fifths, the tooth of the club basal and very small; prothorax a third wider than long, widest very nearly at the base, the sides feebly converging and broadly arcuate, gradually more converging and arcuate before about the middle; apex scarcely at all constricted, rather more than half as wide as the base; punctures relatively somewhat coarse and deep but dense, with traces of a smooth line centrally; basal lobe strongly binodulate at apex; elytra with the oblique sides feebly arcuate to the rapidly rounded but not very obtuse apex, two-fifths longer than wide, much wider than the prothorax and nearly twice as long; grooves moderate; intervals equal, two and one-half times as wide as the grooves and somewhat coarsely punctato-rugose. Length (♂) 3.0 mm.; width 1.2 mm. District of Columbia. A single example. *prominens* n. sp.
- Species similarly very small, still narrower and with less prominent humeri. Narrow and convex, more parallel, black, the tarsi rufopiceous; squamules of the upper surface rather small, indistinct on the pronotum, whitish, less slender and evident though sparse on the elytra, in one to two or three rows on the intervals; beak in the male rather strongly, subevenly arcuate, longer than the head

and prothorax, thick, dull in lustre, the antennæ inserted behind three-fifths, with slender funicle and small and feeble basal tooth of the club; prothorax less than a third wider than long, the sides subparallel and feebly arcuate, rounding in apical third or fourth, also rounding at the immediate base; punctures strong and dense, the median smooth line briefly and faintly traceable centrally; upper profile evenly but rather strongly arcuate; base broadly bisinuate; elytra nearly a third longer than wide, the sides feebly oblique and slightly arcuate to the rather obtusely rounded apex, at the feebly tumid humeri slightly wider than the prothorax, three-fourths longer; grooves moderate, one-half to a third as wide as the coarsely punctato-rugose intervals; white rounded scales beneath dense though slightly separated. Length ( $\sigma^7$ ) 2.7 mm.; width 1.2 mm. Kentucky..... **pusillus** n. sp.

Species of average size or somewhat above, much larger than the two preceding..... 17

17—Prothorax widest slightly behind the middle, the sides strongly arcuate..... 18

Prothorax widest only very little before the base, the sides subparallel and but feebly arcuate, gradually rounding from about the middle.. 19

18—Body rather narrowly subrhomboid-oval, convex, not shining, black throughout; squamules above small and slender, scarcely discoverable on the pronotum, visible but very inconspicuous on the elytra; beak in the male thick, dull and sculptured, feebly, subevenly arcuate and slightly longer than the head and prothorax; antennæ inserted at three-fifths, the club rufescent; prothorax barely more than a fourth wider than long, the sides subevenly arcuate throughout, a little more converging apically than basally; apex four-sevenths as wide as the base; surface convex, evenly arcuate above in profile; punctures not very coarse but strong, deep and very dense, the smooth median line narrow, subentire; basal lobe short; scutellum deeply emarginate, with prominent angles, denuded in the type; elytra a fourth longer than wide, the rather strongly oblique sides feebly arcuate to the evenly rounded apex, with the humeral prominences feeble, three-fourths longer than the prothorax; grooves not coarse but deep; intervals punctato-rugose, alternating slightly, from three to four times as wide as the grooves; white scales of the under surface narrowly separated. Length ( $\sigma^7$ ) 3.5 mm.; width 1.5 mm. Texas (Dallas),—Wickham. A single example..... **rotundicollis** n. sp.

Body ( $\sigma^7$ ): oblong, subrhomboid and convex, dull black throughout, the prothorax scarcely a third wider than long, with subevenly but feebly arcuate sides, more converging anteriorly and with small and densely crowded punctures, the squamules of the upper surface small, whitish, fine, sparse and wholly inconspicuous, except at apex and base on the pronotum, more visible on the elytra, the beak feebly arcuate, thick, flat, sculptured and opaque at the sides as usual and barely as long as the head and prothorax, with the antennæ inserted at three-fifths, or ( $\varphi$ ) distinctly stouter and more abbreviated, the prothorax almost one-half wider than long, more

rounded at the sides, more oblique anteriorly, with the punctures distinctly larger and much less closely crowded, the elytra shorter, with somewhat more oblique and more arcuate sides, the beak longer, slender, smooth, about half as long as the body, feebly arcuate, bent at base and with the antennæ inserted at four-sevenths. In both sexes the thoracic apex is more than half as wide as the base, the elytral apex obtusely rounded, the humeral swellings rather prominent and the stria intervals subequal and between two and three times as wide as the grooves, closely punctato-rugose as usual. Length ( $\sigma^7$   $\text{♀}$ ) 3.35-4.2 mm.; width 1.4-1.8 mm. Indiana, Kentucky and Missouri (St. Louis). Sixteen specimens.

**salebrosus** Csy.

- 19—Body larger, rather stouter and more convex than in the preceding, deep black throughout, somewhat shining, the squamules of the upper surface small, fine, sparse and very inconspicuous even on the elytra, the moderately large oval whitish scales of the under surface evidently though narrowly separated; beak in the male thick, feebly tapering, very slightly arcuate, bent at base, strongly sculptured but not very much flattened at the sides, as long as the head and prothorax; antennæ inserted at three-fifths, the outer funicular joints barely wider than long, the tooth of the club obtuse and inconspicuous; prothorax large, very convex, with the upper profile strongly arcuate and obliquely sloping and straight anteriorly, only a fifth wider than long, the sides subparallel and feebly, evenly arcuate, gradually a little more so and strongly converging anteriorly; apex scarcely half as wide as the base; punctures very moderate and extremely dense throughout, the smooth median line evident centrally; elytra evenly parabolic, scarcely a fourth longer than wide, at the rather prominent humeri evidently wider than the prothorax, only about three-fifths longer, the grooves rather narrow but deep, the punctato-rugose intervals subequal and from slightly less to more than three times as wide as the grooves. Length ( $\sigma^7$ ) 4.2-4.75 mm.; width 1.65-2.0 mm. Indiana. Two examples.

**convexus** n. sp.

- 20—Prothorax coarsely punctate. Body oblong-suboval, convex, somewhat shining, pale ferruginous-red in the type, the squamules of the upper surface small, sparse and entirely inconspicuous; beak in the female smooth, rufo-piceous, feebly tapering, distinctly arcuate, straighter apically, not half as long as the body, the antennæ inserted just beyond the middle; prothorax short, one-half wider than long, the upper profile strongly arcuate, obliquely sloping and straighter anteriorly; sides evenly and strongly rounded in about anterior, becoming parallel and nearly straight in basal, half; apex feebly constricted and not quite half as wide as the base, the basal lobe short and broad; punctures close-set or subcontiguous; smooth median line visible except toward base and apex and somewhat tumid; elytra subparabolic with the apex rather rapidly obtuse, a fourth longer than wide, at the moderate humeri very little wider than the prothorax, four-fifths longer; grooves moderate, deep, the strongly punctato-rugose intervals subequal and about three times

- as wide as the grooves. Length (♀) 3.4 mm.; width 1.7 mm. Iowa (Iowa City),—Wickham. One example. . . . . *iowensis* n. sp.
- Prothorax less coarsely to finely and usually very densely punctate, at least in the male. . . . . 21
- 21—Prothorax dilated anteriorly, so that it is wider before the middle than at base. Form subparallel, convex, black, the legs rufescent; squamules of the upper surface small and linear, whitish and evident on the elytra; beak in the male almost evenly arcuate, feebly tapering, dull in lustre and half as long as the body, the antennæ inserted at fully three-fifths, the first and second funicular joints equal in length, the last transverse, the club paler, apparently without basal denticle; prothorax not quite a third wider than long, the sides strongly rounded before the middle, straight and feebly converging thence to the base; apex feebly constricted, half as wide as the base; punctures not coarse but strong, dense and distinctly defined, the median smooth line traceable medially; elytra feebly oblique and but slightly arcuate at the sides to the obtusely rounded apex, a fourth longer than wide, at the rather prominent humeri slightly wider than the prothorax, two-thirds longer; grooves moderate though abrupt and deep, a third to fourth as wide as the densely and not very coarsely punctato-rugose intervals; under surface with dense white scales. Length (♂) 3.2 mm.; width 1.35 mm. Texas (Dallas),—Wickham. . . . . *parallelus* n. sp.
- Prothorax of the usual form. . . . . 22
- 22—Squamules of the elytra linear but white and distinct, arranged in single lines, becoming double basally on some of the intervals; basal thoracic lobe feeble. Body narrowly oval, strongly convex, black throughout, not shining; squamules of the pronotum small, sparse and inconspicuous; beak in the male evenly arcuate, not very thick, dull, strongly sculptured and half as long as the body; antennæ inserted but slightly beyond the middle, the first two funicular joints subequal in length, the club paler, narrower than usual in the male and not distinctly dentate at base; prothorax barely a fourth wider than long, the sides parallel in basal fourth, thence feebly converging and nearly straight to apical fourth, then gently rounding to the distinctly constricted apex, which is four-sevenths as wide as the base; punctures moderate and very dense throughout; smooth median line narrow and irregular, traceable centrally; elytra almost a third longer than wide, narrowly parabolic but with very feebly arcuate sides, at the feebly tumid humeri a little wider than the prothorax; grooves deep, the intervals slightly alternating, coarsely punctato-rugose and two to two and one-half times as wide as the grooves; white scales dense on the under surface. Length (♂) 3.0 mm.; width 1.25 mm. Kentucky. Levette collection. . . . . *defectus* n. sp.
- Squamules of the elytra linear, white and distinct though small and not close-set, in single series or rather broadly confused on the alternately very narrow and rather broad intervals. Body moderately stout, subrhomboid-oval, convex, black throughout, the pronotal squamules small, fine and inconspicuous, the dense scales of the under

surface white; beak in the female slender, smooth, feebly arcuate, slightly bent and thicker toward the head, half as long as the body; antennæ inserted just beyond the middle, slender; prothorax a third wider than long, the sides very evenly arcuate from base to apex, subparallel basally, converging apically, the apex not constricted and distinctly less than half as wide as the base; punctures moderately coarse, larger and less dense than in the preceding species, distinctly separated throughout, with the smooth median line very irregular but subentire; elytra in outline nearly as in *defectus*, at the more prominent humeri slightly wider than the large prothorax and only about three-fifths longer; grooves coarse; intervals as wide as the grooves to twice as wide; punctures rather coarse and very close but clearly defined. Length (♀) 3.7 mm.; width 1.65 mm. Kentucky. Levette collection. . . . . **alternans** n. sp.

Squamules of the elytra confused on all the intervals. . . . . 23

23—Prothorax unusually elongate, barely visibly shorter than wide. . . 24

Prothorax distinctly wider than long. . . . . 25

24—Form narrowly subrhomboidal, moderately convex, black, the legs not paler; squamules above very fine, whiter and distinct on the elytra; beak in the male notably slender, arcuate, dull and coarsely sculptured, slightly constricted near the base, half as long as the body, the antennæ piceo-rufous, inserted just beyond the middle, the second funicular joint distinctly shorter and narrower than the first, the last transversely cuneiform, the club large, the tooth very short, feeble and obtuse; prothorax a fifth or sixth wider than long, the sides feebly converging and nearly straight, gradually rounding in apical third; apex feebly constricted and half as wide as the base; punctures small, dense; smooth median line only vestigial centrally; elytra with rather prominent humeral swelling, slightly wider and three-fourths longer than the prothorax, a third longer than wide, the sides feebly oblique and slightly arcuate to the relatively somewhat broadly obtuse apex; grooves moderate; intervals equal, twice as wide as the grooves, the punctures rather coarse and very close but clearly outlined; large dense scales of the under surface almost white. Length (♂) 3.2 mm.; width 1.28 mm. Kentucky. Levette collection. . . . . **regularis** n. sp.

Form less narrow and more rhomboid, the sides of the elytra more oblique and barely arcuate to the relatively narrower, though obtusely rounded apex; coloration and vestiture nearly similar; beak in the male thicker, not constricted near the base, dull and strongly sculptured, more tapering, the sides flatter and more sulcate, similarly arcuate but shorter, not half as long as the body, the antennæ nearly similar, except that the tooth of the club is still smaller and more feeble; prothorax larger, longer, barely visibly wider than long, the sides and median line nearly similar; punctures much coarser, dense; elytra broader basally, more triangular, less obtuse at apex, a fourth longer than wide, at the prominent humeral swellings distinctly wider than the prothorax, scarcely two-thirds longer; grooves distinctly coarser than in *regularis*, the intervals subequal, much wider than in that species, though scarcely twice as wide as

- the grooves, rather more coarsely sculptured. Length ( $\sigma^7$ ) 3.7 mm.; width 1.65 mm. Kentucky. Levette collection. . . . **longicollis** n. sp.
- 25—Species inhabiting the Mississippi Valley, Kansas and Texas. . . . 26
- Species of the Atlantic coastal regions, east of the Appalachians. . . . 28
- 26—Prothorax evenly narrowed from base to apex, with evenly arcuate sides. Body rather stout and strongly convex, rhomboid-oval, black, the legs piceous; squamules above small and whitish, inconspicuous and sparse though evident on the elytra, large, dense, oval and white beneath; beak in the female smooth, moderately slender, arcuate, only as long as the head and prothorax, the antennæ inserted barely beyond the middle, the first funicular joint as long as the next two, the second elongate but thinner as usual; prothorax a third wider than long; apex scarcely constricted and not quite half as wide as the base; punctures moderate, somewhat uneven in distribution but for the most part dense, the smooth median line narrow but subentire; elytra broadly and obtusely parabolic, evidently wider than the prothorax and three-fourths longer, scarcely a fourth longer than wide, the humeral swellings moderate; grooves moderately coarse, very deep, twice—rarely nearly three times—as wide as the grooves, rugosely punctate. Length ( $\varphi$ ) 4.3 mm.; width 2.0 mm. Indiana. Levette collection.
- ignotus** n. sp.
- Prothorax with the sides subparallel and very feebly arcuate to about apical third, where they become more or less rapidly rounded to the apex. . . . . 27
- 27—Form elongate-suboval, convex, black, the legs sometimes rufopiceous; squamules of the upper surface small and inconspicuous, whiter, a little less slender and more distinct on the elytra; beak ( $\sigma^7$ ) not very thick, dull and sculptured, feebly, subevenly arcuate and slightly longer than the head and prothorax, the antennæ at three-fifths, the tooth of the club small and obtuse, or ( $\varphi$ ) smooth but nearly similar in length and degree of arcuation, the antennæ less apical and more slender; prothorax a fourth to third wider than long, the punctures not coarse, very dense, the smooth line obsolete; elytra slightly wider than the prothorax and three-fourths ( $\sigma^7$ ) to two-thirds ( $\varphi$ ) longer, the moderately oblique sides feebly arcuate to the somewhat obtuse apex; grooves very deep and abrupt, moderately coarse, fully half as wide as the rugosely punctate intervals, which are mutually subequal. Length ( $\sigma^7$   $\varphi$ ) 3.3–3.8 mm.; width 1.35–1.8 mm. Mississippi (Vicksburg). Taken by the writer. . . . . **vicksburgensis** n. sp.
- Form more oblong or subparallel, strongly convex, black, the squamules above slender, whitish, not very conspicuous, more so in the female; beak ( $\sigma^7$ ) thick, feebly arcuate, dull, the sides flattened, barely as long as the head and prothorax, the antennæ inserted rather beyond three-fifths, the tooth of the club small and obtuse, obscure, or ( $\varphi$ ) smooth, arcuate and slightly longer than the head and prothorax, the antennæ but slightly beyond the middle; prothorax a third wider than long, the barely at all constricted apex truncate and half as wide as the base; punctures rather small but distinct, coarser in

the female, dense, the smooth median line feebly tumescent, not entire; elytra a third (♂) or a fourth (♀) longer than wide, slightly wider than the prothorax and three-fourths (♂) to three-fifths (♀) longer, the very moderately oblique sides broadly arcuate to the rapidly rounding obtuse apex, the humeral prominences moderate; grooves deep and abrupt, one-half to a third as wide as the rugosely punctate intervals, which perceptibly alternate in width. Length (♂ ♀) 3.8–4.2 mm.; width 1.75–1.82 mm. Texas (Dallas),—Wickham.....**dallasianus** n. sp.

Form more rhomboid-oval, convex, slightly larger in size, black; squamules of the upper surface small and inconspicuous, white, broadly oval and dense beneath as usual; beak in the female slender, subevenly arcuate, smooth and subcylindric, half as long as the body, the antennæ inserted slightly beyond the middle; prothorax a third wider than long, in outline as in the preceding but with the somewhat coarsish punctures everywhere narrowly though evidently separated, and not very dense as they are in *dallasianus*, the base more deeply bisinuate, the truncate lobe more prominent; impunctate median line distinct but biabbreviated; elytra nearly a fourth longer than wide, the moderately oblique sides feebly arcuate to the rapidly rounded obtuse apex, at the moderately prominent humeri distinctly wider than the prothorax, two-thirds longer; grooves moderately coarse; intervals mutually equal, coarsely punctato-rugose, between two and three times as wide as the grooves. Length (♀) 4.5 mm.; width 2.1 mm. Kansas (Onaga),—Knaus.....**onagensis** n. sp.

28—Body elongate-oval, convex, deep black, the squamules above very small and slender, sparse and inconspicuous throughout, the oval scales of the under surface smaller than usual and distinctly separated; beak in the male evenly arcuate, rather thick, coarsely but not densely sculptured and distinctly longer than the head and prothorax, the antennæ inserted at three-fifths, the tooth of the club small and feeble, obtuse; prothorax not quite a third wider than long, the sides evenly and feebly converging and feebly, subevenly arcuate, a little more so approaching the slight apical constriction; apex briefly subtubulate, half as wide as the base; punctures rather strong, not notably small, irregularly dense, the smooth median line obsolete; basal lobe rather narrow and prominent; elytra at the slightly prominent humeri a little wider than the prothorax, three-fourths longer, very obtusely rounded at apex, the feebly oblique sides somewhat arcuate; grooves coarse and deep; intervals punctato-rugose, somewhat alternating in width, from one-half to four-fifths wider than the grooves. Length (♂) 3.5 mm.; width 1.4 mm. Massachusetts (Southboro),—Frost.....**cribrum** n. sp.

Body larger, more oblong-suboval, strongly convex, black throughout; squamules above very small, sparse, slender and inconspicuous, beneath rather dense, oval and whitish; beak in the male not very thick, longer than the head and prothorax, feebly arcuate, bent at base, strongly sculptured, the antennæ inserted near three-fifths, the subbasal tooth of the club small but prominent and sharply

angulate, the funicle simple, as usual in the forms here considered; prothorax a fourth wider than long, the sides feebly converging and only slightly arcuate to about apical third, where they become gradually rounded to the very faintly constricted apex, which is less than half as wide as the base; punctures rather coarsish, very distinct, irregularly dense, the smooth median line distinct and entire; elytra broadly and obtusely parabolic, with very moderately prominent humeri, only very slightly wider than the large prothorax and scarcely three-fifths longer; grooves moderately coarse, deep, abrupt; intervals alternating slightly in width, with coarse and dense but distinctly defined punctures, from less than twice to two and one-half times as wide as the grooves. Length ( $\sigma^7$ ) 4.3 mm.; width 1.9 mm. Pennsylvania (Conewago).. **pennianus** n. sp.

Body much smaller, more narrowly elongate-oval, convex, deep black, the squamules of the upper surface small, sparse and inconspicuous, white, rather evident and disposed in large part in single lines on the elytra; whitish scales of the under surface moderate in size and rather evidently separated; beak in the male not very thick, dull and sculptured, very feebly arcuate, gradually more so basally and much longer than the head and prothorax, the antennæ inserted just behind three-fifths, the basal tooth of the club small, feeble and obtuse; prothorax nearly a third wider than long, the sides converging and moderately and very evenly arcuate from base to apex, the latter truncate, not in the least constricted and fully half as wide as the base; punctures moderate, very dense, the smooth median line evident but irregular, not attaining the apex; elytra a third longer than wide, slightly wider than the prothorax and three-fourths longer, with moderately prominent humeri, obtusely rounded in nearly apical third, the sides thence feebly diverging and scarcely at all arcuate to the humeri; grooves moderate; intervals mutually equal, rather coarsely but not densely, often uniserially, punctate, and not quite twice as wide as the grooves. Length ( $\sigma^7$ ) 2.85 mm.; width 1.23 mm. New York (locality unrecorded).... **parvus** n. sp.

It is highly probable that the pale ferruginous coloration in the single type of *iowensis* may be due to immaturity, although there are no other evidences of this condition; the definition of the species is, however, based upon other features, and especially the short compact oblong outline and the very coarse pronotal punctures. *Defectus* and *alternans*, though coming from the same region and based upon unique types of different sexes, are, I think, amply distinct as species, their entire habitus, sculpture and elytral striation being strikingly different and in no way sexual, judging at least by series of males and females of other species. The large and densely squamose species of the *coloradensis* type, are evidently allied more or less closely to the Mexican *larvatus* Boh.; the author



states that the dense thoracic scales are rounded but does not allude in any way to the conspicuous white elongate squamules arising from the strial punctures in the species mentioned. Our only species having large and linearly suboval pronotal scales, have these strial squamules distinct, excepting *ochreosus*, where they become so small and slender as to be easily overlooked; but here, the vestiture is brownish-yellow and not white as stated of *larvatus*.

The following Mexican species is of a common Sonoran type in regard to form, sculpture and habitus, but the vestiture is longer and more bristling:

\***Odontocorynus histiculus** n. sp.—Oblong, moderately convex, black throughout, feebly shining, the squamules of the upper surface slender, white, much longer than usual, rather sparsely and uniformly distributed and in part suberect and bristling; scales of the under surface large, dense, white, oblong-suboval and closely decumbent as usual; beak in the female smooth, minutely and sparsely punctate, coarsely at base, cylindrical, feebly tapering, arcuate and half as long as the body, the antennæ inserted just beyond the middle, the first two funicular joints elongate, the first much the longer; prothorax short, not quite one-half wider than long, the sides feebly converging and slightly arcuate, gradually more rounding and oblique in fully apical third, the apex scarcely at all constricted and half as wide as the base; punctures coarse, close and subrugose, the median smooth line distinct and subentire but irregular; basal lobe abrupt and broadly rounded as usual; elytra broad, distinctly wider than the prothorax and almost twice as long, a fifth longer than wide, the humeral swellings very moderate; sides very slightly oblique and feebly arcuate; apex broadly and obtusely rounded; grooves moderate, deep, the intervals coarsely and confusedly punctatose, alternating slightly and from two to three times as wide as the grooves. Length (♀) 4.0 mm.; width 1.9 mm. Mexico (Cuernavaca), —Wickham.

In the more northern series this species may be placed just after *pulverulentus* and *lulingensis*, but the strial punctures are small and obscure and do not bear slender squamules.

The other Mexican species described below do not resemble any of the more northern forms of the genus, being more elongate and with sparser and more feeble vestiture and sparser sculpture. In all but *subglaber* and *subvittatus*, where the thoracic apex is as in our species, the sides of the more strongly tubulate apex are acutely dentate; this is the condition in *latiscapus* Chmp., also, but here the hair-like sparse vestiture is conspicuous, when compared with the almost glabrous upper surface of *limatulus* and *vernificollis*.

\**Odontocorynus subglaber* n. sp.—Elongate-suboval, convex, shining, deep black throughout, the squamules above almost wanting on the pronotum, very small, slender, sparse and inconspicuous on the elytra; under surface with fine close-set punctures, bearing small slender and rather well spaced white squamules, larger and denser toward the sides of the met-episterna and last three ventral segments; beak in the male very thick, moderately, subevenly arcuate, feebly tapering and as long as the head and prothorax, the sides flattened, deeply sulcate, punctate and dull; antennæ inserted at three-fifths, imperfect in the type, but the outer funicular joints are transverse and with coronæ of smaller and finer squamules than those of the preceding joints; prothorax only just visibly wider than long, the sides feebly converging and slightly arcuate, gradually and moderately convergent before about the middle, the apex feebly subtubulate, half as wide as the base and perfectly simple at the sides; punctures deep, moderately coarse, uniform and irregularly close-set, separated by evidently less than their diameters; smooth median line traceable centrally; scutellum small, quadrate, albedo-squamose, except along the middle posteriorly; elytra elongate, three-fourths longer than wide, much wider than the prothorax and more than twice as long, the sides feebly oblique, the humeri prominent and the apex circularly rounded; striæ moderately fine; intervals not coarsely but strongly, not very densely but rugulose punctate. Length ( $\sigma^7$ ) 5.7 mm.; width 2.3 mm. Mexico (Puebla).

There is no other species known to me with which this can be closely compared, the general form and subglabrous upper surface remind us of *limatulus* and *vernificollis*, but the thoracic apex is perfectly simple and not dentate at the sides, and, from any of the forms allied to *creperus* Boh., it may be known by the subglabrous dorsal surface, besides the absence of toothed sides of the thoracic apex.

\**Odontocorynus limatulus* n. sp.—Very elongate-oval and convex shining, subglabrous above, the fine sparse hair-like squamules of the elytra barely discernible; scutellum with some more distinct and close white squamules, extending also but more sparsely upon the basal thoracic lobe; under surface with slender white scales, very uniform and well spaced; beak in the male thick, not as long as the head and prothorax, strongly sculptured, straight, bent a little at the extreme base, and, beyond the antennæ, oblique; antennæ inserted at three-fifths, the outer funicular joints simple though gradually more transverse and perfoliate, the basal tooth of the club rather large and angulate; prothorax a fourth wider than long, the sides evenly arcuate, becoming parallel basally; apex constricted, impressed dorsally, more than half as wide as the base, the lateral tooth strong and acute; punctures coarse, separated by less than their diameters medially, more or less confluent laterally, the smooth median line distinct but not attaining the apex; elytra one-half longer than wide, at the prominent humeri much wider

than the prothorax, somewhat more than twice as long, the sides feebly oblique to the broadly and circularly rounded apex; striæ moderate, the intervals somewhat convex, coarsely, rugulose but not densely punctate, four to five times as wide as the striæ; abdomen with a small cariniform tubercle medially at base. Length ( $\sigma^7$ ) 4.65–4.9 mm.; width 1.8–2.0 mm. Mexico (Cuernavaca),—Wickham. Two examples.

Easily recognizable by the subglabrous and shining upper surface, rather coarse sculpture, elongate-oval, convex form and other characters as noted.

\**Odontocorynus vernicicollis* n. sp.—Elongate, subrhomboid-oval, moderately convex, deep black throughout, shining; vestiture very nearly as in the preceding; beak in the male nearly as in the preceding but as long as the head and prothorax, deeply sulcate at the sides, the antennæ inserted at three-fifths, the three outer funicular joints rapidly very transverse and perfoliate, the club large and subglobose, pointed apically, without distinct basal tooth; prothorax only a fifth or sixth wider than long, the sides evenly converging, evenly and moderately arcuate throughout to the apical constriction; apex evidently less than half as wide as the base, the lateral denticle acute and prominent; punctures much smaller than in the preceding, widely separated medially, rugosely confluent only at the extreme sides, having, near each side just behind the middle, a small irregular smooth spot; median line broadly impunctate but centrally only; elytra not quite one-half longer than wide, at the notably prominent humeri much wider than the prothorax and twice as long, or a little more, the sides more oblique and arcuate than in *limatulus*, the apex relatively somewhat more narrowly rounded; striæ slightly coarser; intervals feebly convex, with strong and confused, well spaced punctures, which are regularly circular, very close toward base of the fifth, alternating perceptibly in width, two to three times as wide as the striæ; abdomen with a rounded smooth spot not quite basal on the first segment, the centre of which has a very small cariniform tubercle. Length ( $\sigma^7$ ) 5.7–6.2 mm.; width 2.3–2.65 mm. Mexico (Puebla). Two specimens.

Allied to *limatulus* but differing in its larger size, more elongate and polished, less coarsely and more sparsely punctured prothorax, with relatively narrower apex, basally broader elytra, with coarser striæ, and in the antennal club, as may be inferred above.

\**Odontocorynus subvittatus* n. sp.—Slender, moderately convex, with narrowed prothorax, black throughout; pronotum with very fine sparse hair-like squamules, barely discernible, the basal lobe sparsely, the scutellum densely, albido-squamulose, the elytra with whitish squamules, fine and hair-like, sparse and indistinct but close-set and conspicuous on the first, third and fifth intervals; under surface with the white squamules coarser, abundant and distinct though not dense; beak in the male evenly cylindrical, feebly, evenly arcuate, densely sculptured and as long

as the head and prothorax; antennæ inserted at three-fifths, the outer four funicular joints gradually shorter and more transverse, greatly prolonged internally, the club oblong-oval, rapidly pointed, without tooth, its broad base resting against the wide terminal joint of the funicle, its first joint scarcely a third of the mass; prothorax small, conical, just visibly wider than long, the sides oblique and feebly arcuate from base to the moderate apical constriction, subsinuate medially, the apex briefly subtubulate and much more than half as wide as the base, not at all dentate at the sides; punctures very moderate, extremely dense throughout, the median line not impunctate but finely and feebly cariniform; elytra one-half longer than wide, obtusely parabolic, at the moderately prominent humeri fully a third wider than the prothorax, not quite two and one-half times as long; striæ not coarse but very deep; intervals more than three to five times as wide as the striæ, finely, confusedly and loosely punctate, densely on the first, the third basally and apically and the fifth almost throughout; abdomen very feebly impressed and less punctate subbasally, the impression inclosing an extremely minute feeble tubercle. Length ( $\sigma^7$ ) 4.0 mm.; width 1.6 mm. Mexico (Omiteme, Guerrero),—H. H. Smith.

Differs from *creperus* Boh., in its smaller size, in the absence of an erect spiculiform tooth at the base of the antennal club, in the absence of a medial impunctate line on the pronotum, in the relatively more elongate elytra, with alternately more punctate and pubescent intervals, and, apparently also, in the relatively smaller prothorax. Boheman does not allude to internally strongly produced outer joints of the antennal funicle in describing *creperus*. This is one of the forms included under *creperus* by Mr. Champion, but it is a distinct species in many ways.

A very constant peculiarity of the large genus *Odontocorynus* is the densely albido-squamose scutellum, and, to less degree, the adjacent basal thoracic lobe; this is in fact a generic character; in *sutura-flava* Chmp., the dense crust of scales extends posteriorly along the entire suture, giving to that species an exceptional habitus.

#### Centrinopus Csy.

This is a distinctly isolated genus, composed of minute squamose species and differing from *Centrinus*, or any of the genera closely allied to the latter, in having the mandibles small, feebly decussate and shallowly bifurcate within. The male has a small, erect, slightly curved and gradually pointed process before each anterior coxa, which however sometimes becomes obsolete as in *Centrinaspis*. The eleven species now at hand are separable as follows:

- Scutellum larger, densely squamose, species of more northern habitat... 2  
 Scutellum small, nude or with a few widely spaced squamules; species mostly tropical. . . . . 5  
 2—Prothorax but slightly narrower than the elytra. . . . . 3  
 Prothorax only about three-fourths as wide as the elytra, and more subcylindric. . . . . 4  
 3—Form subrhombic-oval, convex, very closely clothed above with parallel scales of pale ochreous color, more slender on the pronotum and somewhat denser on stria intervals 3-5-7, the first interval very narrow; under surface very densely yellowish-squamose at the sides, more finely and less densely on the metasternum; beak nearly similar in the sexes, slender, arcuate, distinctly longer than the head and prothorax, the antennæ inserted at the middle (♂) or distinctly behind the middle (♀); prothorax only a fifth or sixth wider than long, subconical, with the sides slightly more oblique in about apical third; punctures regular, dense; elytra oval, rather pointed behind, with moderate striæ and subequal intervals. Length (♂ ♀) 2.0-2.75 mm.; width 0.85-1.22 mm. Indiana, Illinois, Pennsylvania and District of Columbia. Eighteen specimens.

**helvinus** Csy.

Form more abbreviated than in *helvinus*, the size smaller; color nearly black, the elytra and tibiæ dark rufous; squamules above yellowish, abundant, close-set and distinct on the pronotum, slightly more distinct toward the sides and along the median line, the stria intervals alternating very greatly in width, almost as in *alternatus*, the broader densely clothed with whitish scales, the narrower with one or two series also of rather close-set squamules; beak in the male long, evenly arcuate, almost half as long as the body, the antennæ inserted near two-fifths; prothorax almost a fourth wider than long, the sides straight and feebly converging for four-sevenths, there becoming oblique and nearly straight to the apex; punctures strong and dense; elytra barely a fourth longer than wide, a fourth or fifth wider than the prothorax, the sides subparallel, rounding and subogival behind the middle; striæ moderately coarse, deep, the intervals alternately as wide as the striæ and fully twice as wide. Length (♂) 1.8 mm.; width 0.8 mm. Indiana. Levette collection.

**brevior** n. sp.

Form stouter, more oval and larger in size, the squamules of the upper surface paler yellowish-white, fine on the pronotum but coarser and closer toward the sides and in a narrow medial line, in a manner never more than faintly discernible in *helvinus*, the elytra with the stria intervals alternating much more markedly in width, the narrower with very few fine squamules, the broader densely squamulose, producing a conspicuously vittate appearance, the vittæ of the third and seventh intervals uniting near the apex, continuing thence to the apex as a single vitta; beak longer, nearly half as long as the body, more arcuate, the antennæ inserted slightly behind the middle (♂) or at basal third (♀); prothorax larger and more inflated than in *helvinus*, densely punctate, more than a fourth wider than long, the sides converging and broadly, strongly arcuate

from base to the faint apical constriction; apex less than half as wide as the base; elytra ovoidal, the striæ coarser and deeper than in *helvinus*. Length ( $\sigma^7$  ♀) 2.25-2.85 mm.; width 0.9-1.3 mm. Maryland and District of Columbia to Mississippi (Agricultural College). Six examples. . . . . **alternatus** Csy.

Form more abbreviated than in *alternatus*, the size smaller; color similarly obscure rufo-piceous; scales above pale yellowish, slender and moderately close on the pronotum, a little more visible laterally, the striae intervals almost uniformly but loosely clothed with slender squamules, not forming more than two irregular lines on each, but coarser and dense on the third behind the middle; beak shorter and less arcuate, the antennæ inserted slightly ( $\sigma^7$ ), or much (♀), behind the middle; prothorax distinctly shorter and more transverse, two-fifths to one-half wider than long, the sides strongly, subevenly arcuate, gradually becoming parallel basally; punctures dense; elytra shorter, broadly ovoidal, the striæ deep but only moderately coarse; intervals subequal and almost twice as wide as the striæ, the first much narrower as usual. Length ( $\sigma^7$  ♀) 1.8-2.25 mm.; width 0.78-1.0 mm. Illinois,—F. M. Webster.

**curtulatus** n. sp.

4—Body small, rather narrowly suboval, the elytra inflated and the prothorax narrow; color almost black; squamules of the upper surface yellowish, slender and uniform on the pronotum, not more distinct laterally and barely so along the median line, whiter and coarser on the elytra, which are obscure rufous in color, almost uniformly distributed but forming not more than two irregular lines on each interval; beak in the female moderate in thickness and curvature, slightly longer than the head and prothorax, the antennæ inserted far behind the middle; prothorax a fifth wider than long, the sides moderately converging, nearly straight, becoming broadly, feebly arcuate anteriorly; apex barely more than half as wide as the base; punctures dense; elytra ovoidal, rather pointed at apex, the individual apices narrowly rounded as usual in the genus; striæ deep, moderate; intervals subequal, twice as wide as the striæ, excepting the very narrow first interval. Length (♀) 1.8 mm.; width 0.7 mm. Indiana. Levette collection.

**angusticollis** n. sp.

5—Pronotum densely but subevenly punctate. . . . . 6  
Pronotum with the punctures more or less confluent, forming coarse broken longitudinal rugæ. . . . . 9

6—Pale scales of the elytra dense through most of intervals two and five, the pronotum with two broad and distinct vittæ of more fulvous and less conspicuous squamules. Body rhomboidal, nearly black, the legs rufo-piceous; pale scales above yellowish and glistening; beak in the male much longer than the head and prothorax, arcuate, the antennæ inserted slightly beyond the middle and the funicle longer than in the preceding section, the male prosternum unarmed; prothorax nearly one-half wider than long, the sides subevenly and strongly arcuate to the evident apical constriction, becoming parallel basally; apex half as wide as the base; elytra

with narrow apex and unusually oblique sides, which are broadly arcuate, at the obtuse humeri distinctly wider than the prothorax; intervals subequal and twice as wide as the striæ, with generally well spaced punctures, the first narrower; abdomen feebly impressed and with finer and sparser squamules medio-basally. Length (♂) 2.2 mm.; width 1.0 mm. Mexico (Teapa, in Tabasco). [*Geræus mendax* Chmp.].....\***mendax** Chmp.

Pale scales not forming distinct vittæ on the elytra, the pronotum never obviously vittate.....7

7—Squamules of the elytra long, slender, yellowish and forming a single series on each strial interval, slightly coarser and denser on the second interval anteriorly, and, on the fourth, in a short line near apical third. Body more narrowly rhomboid-oval, obscure rufous throughout; beak shorter and thicker than usual, evenly arcuate, much longer than the head and prothorax, the antennæ inserted at three-fifths (♂) or slightly beyond the middle (♀); prothorax short, two-fifths to one-half wider than long, coarsely, not very densely punctate, the converging sides broadly arcuate to the constricted apex, which is much more than half as wide as the base; elytra triangular, with arcuate sides and narrowly rounded apex, slightly wider than the prothorax and much more than twice as long, the striæ groove-like; intervals subequal, except the narrower first, and not quite twice as wide as the grooves, remotely and not coarsely punctate; male with a feeble and more sparsely and finely squamulose medio-basal impression, the prosternum with an extremely short, scarcely more than tuberculiform spine before each coxa. Length (♂ ♀) 1.8–2.0 mm.; width 0.8–0.9 mm. Mexico (Teapa, in Tabasco).....\***uniseriatus** n. sp.

Squamules of the elytra much more abundant, conspicuous.....8

8—Color black above, the legs and antennæ more or less rufous or piceous; squamules above subevenly close-set throughout and almost equally wide on the pronotum and elytra, though coarser and more distinct toward the thoracic sides and medially toward base, yellowish and rather lustrous, forming about two close-set irregular series on each strial interval, whitish and more or less dense beneath; scutellum with a few squamules; beak in the male rather slender, smooth, arcuate, longer than the head and prothorax, the antennæ inserted at three-fifths; prothorax a third wider than long, the sides slightly converging and nearly straight, rounding in apical two-fifths, the apex feebly subtubulate and barely more than half as wide as the base, the basal lobe prominent, a fourth the total width; elytra fully a third longer than wide, slightly wider than the prothorax and somewhat more than twice as long, the sides oblique, evenly and broadly arcuate throughout, the apex narrowly rounded; striæ not coarse; intervals rather more than twice as wide as the striæ, the punctures small, rather confused but not dense; male with feeble medio-basal abdominal impression, the prosternum not armed. Length (♂) 1.9 mm.; width 0.78 mm. Mexico (Vera Cruz).

\***lucifer** n. sp.

Color similar, the squamules above also nearly similar in color and lustre,

similarly distributed on the pronotum, but, on the elytra, they are not uniformly well separated as in *lucifer*, but dense on the second interval, and with the intervals alternating more noticeably in abundance of the scales; beak in the male a little shorter and thicker, more strongly sculptured and only about as long as the head and prothorax, the antennæ similarly inserted; prothorax somewhat larger, nearly one-half wider than long, the sides more strongly rounding anteriorly; apex more than half as wide as the base, the basal lobe smaller; punctures similarly strong and dense; scutellum with very few more slender and sparse, almost hair-like squamules; elytra almost similar in form but broader, only a little wider than the prothorax and twice as long, the striæ rather coarser, the intervals more alternating in width; male with nearly similar abdominal and prosternal characters, the usual spines wanting. Length (♂) 2.0 mm.; width 0.9 mm. Mexico (Teapa, in Tabasco). One example, received from Mr. Champion.....\**tabascanus* n. sp.

Color obscure rufous throughout; form somewhat narrowly subrhomboid-oval, convex, rather shining, the squamules of the upper surface slender but very distinct, slightly yellowish on the pronotum and narrowly denser along the median line basally, pure white on the elytra and arranged, without denser regions, in one or two series on the strial intervals, whitish but rather sparse and linear on the under surface; beak in the male slender, evenly arcuate, bright rufous, a little less than half as long as the body, the antennæ inserted just visibly behind the middle, slender; prothorax a fourth wider than long, the sides feebly converging and nearly straight, rather abruptly rounding near apical third to the constricted apex, which is much more than half as wide as the base, the basal lobe small, abruptly subtriangular; punctures deep, relatively coarse and very dense; scutellum small, parallel, with three or four very minute hair-like squamules; elytra two-fifths longer than wide, a little wider than the prothorax and twice as long; sides oblique and evenly, somewhat strongly arcuate throughout, the apex narrowly rounded; striæ moderate; intervals twice as wide as the striæ or a little less, somewhat finely and sparsely punctate; male with the abdomen narrowly subimpressed or flattened and more sparsely clothed with more slender squamules medio-basally, the prosternum not at all armed. Length (♂) 1.78 mm.; width 0.75 mm. Mississippi (Vicksburg).....*scutellinus* n. sp.

9—Form rhomboid-oval, convex, piceous, the legs and beak rufous; squamules above linear, pale yellowish and lustrous, replaced at each side of the dense medial line of the pronotum—broadly basally, narrowly toward apex—by smaller and more slender dark squamules, on the elytra larger, elongate and conspicuous, widely spaced in single lines on some of the intervals, but, on the second, denser in uneven double line basally and in dense single line apically, on the fourth dense except basally and apically, and, on the sixth, dense basally; beak in the female strongly, evenly arcuate, rather short, barely longer than the head and prothorax, distinctly tapering from base to apex, the antennæ inserted barely at all behind the middle;



prothorax nearly one-half wider than long, the sides converging and evenly, distinctly arcuate to the feeble constriction; sculpture coarse; basal lobe small; scutellum subquadrate, with six or eight slender squamules; elytra broad, with very oblique, evenly arcuate sides and narrowly rounded apex, a fourth longer than wide, slightly wider than the prothorax and more than twice as long; striæ moderate; intervals alternating slightly. Length (♀) 2.35 mm.; width 1.15 mm. Mexico (Vera Cruz)..... \**rugicollis* n. sp.

In my series of *helvinus*, there are several specimens which seemingly indicate that some subspecific forms are now confused with the typical species from Indiana, but I have neither time nor material at present to more than allude to this; it was the slightly greater concentration of scales on some of the strial intervals, that misled me, however, into the statement that *alternatus* and *helvinus* are subspecifically related; this is so far from being the case in reality, that attention should now be drawn to the fact of there being no close affinity whatever between these two species, the prothorax of *alternatus*—much broader and larger, with more arcuate sides and narrower apex—would alone prove them to be distinct; *alternatus* is the largest species of the genus known to me at present.

An examination of the mandibles shows that *mendax*, described under the genus *Geræus* by Mr. Champion, and kindly sent me by the author, comes truly under typical *Centrinopus*.

The specimens of *uniseriatus* described above, were sent to me by Mr. Champion under the name *Geræus simulator* Chmp., but *uniseriatus* is much smaller and has very sparse elytral squamules, for the greater part in single lines.

#### Centrinites Csy.

The slightly decussate and internally bidentate mandibles and peculiar strigilate sculpture of the prothorax, distinguish this genus from others more or less allied, as for example the much smaller and more abbreviated *Centrinopus*. A number of Mexican and Central American species have been described by Mr. Champion, and the following is allied to *strigicollis* but very much smaller:

*Centrinites egenus* n. sp.—Elongate-oval, much smaller and narrower than *strigicollis*, piceo-rufous in color and feebly shining; squamules of the pronotum small, dark and indistinct but pale and evident in a sub-lateral vitta and very narrowly along the median line toward base, on the elytra narrow, elongate, very sparse, almost uniform, inconspicuous

and not paler and denser on parts of certain strial intervals as they are in *strigicollis*, the white scales beneath separated, but dense along the sides of the body; beak nearly similar in the sexes, moderately arcuate, longer than the head and prothorax, subcylindric and coarsely punctate, the antennæ inserted well beyond the middle ( $\sigma^7$ ); barely less apical ( $\varphi$ ); prothorax two-fifths wider than long, the sides converging and nearly straight, rounding in apical two-fifths to the pronounced constriction; sculpture longitudinally vermicularly rugulose; scutellum small, nude; elytra three-sevenths ( $\sigma^7$ ) to a third ( $\varphi$ ) longer than wide, ovulate, slightly wider than the prothorax and between two and three times as long, striæ abrupt, deep, not very coarse; intervals distantly and subrugulose punctate, twice as wide as the grooves; male with the abdomen feebly impressed and more sparsely squamulose medio-basally, the prosternum not armed. Length ( $\sigma^7$   $\varphi$ ) 2.3–2.6 mm.; width 0.9–1.1 mm. Missouri. Two examples.

Differs from *strigicollis* as above stated, but especially in the sparse and subuniform, slender elongate squamules of the strial intervals; the strigilation of the pronotum seems to be coarser in the female than in the male, where it is even finer and feebler than in *strigicollis*. The female is stouter and relatively more abbreviated than the male in both species.

#### **Pseudogeræus Chmp.**

The following species seems to belong to this genus, but is widely different from *macropterus*, its type, as described from Guerrero specimens. The mandibles are small, somewhat decussate, forming a triangle when closed, and each has a small internal tooth:

\***Pseudogeræus championi** n. sp.—Elongate-oval, convex, deep black throughout and shining through the sparse vestiture, which is yellowish-white above, the squamules long, slender, almost evenly and sparsely distributed on the pronotum and sparsely and evenly arranged in single or double lines along the strial intervals, without admixed darker scales at any point; under surface with coarsely linear, rather sparse white scales throughout; beak in the female squamulose, evenly and moderately arcuate, thick, feebly tapering, coarsely sculptured and barely as long as the head and prothorax, the antennæ inserted at three-fifths, the club rather small, broadly oval, with its first joint fully half the mass; prothorax as long as wide, the sides broadly, subevenly arcuate to the strong apical constriction, becoming subparallel basally, the tubulate apex less than half as wide as the base, the median lobe almost obsolete; sculpture consisting of longitudinal vermiform rugæ, without trace of any kind of punctures, the smooth median line distinct and entire; scutellum quadrate, sparsely and finely squamulose; elytra nearly twice as long as wide, the sides gradually converging, broadly, evenly arcuate from the moderate humeral swellings to the evenly rounded apex, wider

than the prothorax and much more than twice as long; grooves deep, moderate; intervals three times as wide as the grooves, rather finely, sparsely, confusedly and subrugulose punctate. Length (♀) 4.8 mm.; width 1.8 mm. Mexico (Milpas in Durango).

One example was sent to me by Mr. Champion under the name *Pseudogeræus macropterus* Chmp., but there must certainly have been some oversight. In that species the pronotum is densely and finely punctate, and the upper surface is clothed with whitish and brownish scales condensed in vittæ on the pronotum and elytra; the figure of *macropterus*, on the plate, bears no resemblance whatever to the species here described, which I take pleasure in dedicating to Mr. Champion.

### **Pseudocentrinus** Chmp.

The following species differs very much from *ochraceus* in the large and perfectly uniform dense ferruginous scales clothing the upper surface; the mandibles are almost exactly as in *Centrinus*, they coming together on a straight line, their inner margins wholly unmodified; the anterior coxæ are narrowly separated:

\***Pseudocentrinus uniformis** n. sp.—Elongate, rhomboidal, moderately convex above, deep black throughout the body, legs and beak, the integuments shining where accidentally exposed; upper surface densely and equally clothed throughout with very broadly sublineate scales, broader on the elytra than on the pronotum, the scutellum less densely squamose; under surface with large and dense, pale yellowish scales; beak in the female long, slender, smooth, punctured and squamulose at base, barely tapering, evenly and moderately arcuate and fully half as long as the body, the antennæ inserted just beyond the middle; prothorax conical, about as long as wide, the evenly converging sides very feebly arcuate; apex barely at all constricted, feebly arcuate and less than half as wide as the base; punctures rather coarse, dense and more or less confluent, the median line concealed; elytra four-sevenths longer than wide, at the distinctly prominent humeri much wider than the prothorax, scarcely more than twice as long, the moderately oblique sides feebly and evenly arcuate, the apex rather broadly, circularly rounded; subapical umbones distinct; grooves fine, indicated by parting of the dense vestiture, the intervals where exposed coarsely, rugosely sculptured, at least four times as wide as the grooves; last abdominal segment in the female transversely tumid basally, the surface thence rapidly ascending to the completely concealed pygidium. Length (♀) 6.2 mm.; width 2.8 mm. Guatemala (Amatitlan,—3000 feet elev.). One example.

In this genus the pygidium is said to be large, vertical and fully exposed in the male, but wholly covered in the female, which would

seem to ally it with *Centrinogyna*, but the body in the latter genus is more parallel and less rhombiform, among other differences.

### Nicentrus Csy.

This genus is distinguished from *Centrinaspis* primarily by the elongate cylindrical form of the body. The mandibles close along their inner edge almost similarly, but their external outline is more rounded, and, along the inner edge, there is nearly always some crenulation. The prosternum is never armed in the male. The species are very numerous, those in my collection at present being definable as follows:

Prothorax inflated, rounded at the sides and fully as wide as the elytra.

Body larger than in any other species, rather stout, convex, piceous-black, the legs rufous; squamules of the upper surface yellowish, slender, uniform and not dense on the prothorax, and closer, conspicuous and in two to three series on the striae intervals; under surface with white scales, dense along the sides; beak stout, especially in the male, feebly arcuate, about as long as the head and prothorax, the antennæ inserted near three-fifths ( $\sigma^7$ ) or just beyond the middle ( $\text{♀}$ ); prothorax a fourth ( $\sigma^7$ ) to two-fifths ( $\text{♀}$ ) wider than long, arcuately narrowing before the middle, coarsely, rugosely and densely punctate but shining; elytra two-thirds longer than the prothorax, the very moderately oblique sides broadly arcuate, the apex somewhat obtusely rounded; striæ deep, abrupt, moderately coarse, the intervals flat, somewhat finely, loosely and confusedly punctate. Length ( $\sigma^7$   $\text{♀}$ ) 3.8-4.7 mm.; width 1.65-2.0 mm. Florida (Haw Creek).....**grossulus** Csy.

Prothorax not inflated, always at least somewhat narrower than the elytra.....2

2—Body parallel, subevenly clothed above, the size rather large; prothorax barely visibly narrower than the elytra. Piceous-black, the beak black, the legs rufous; squamules above slender, not close-set and yellowish, fine on the pronotum, coarser, conspicuous and in two or three irregular lines on the striae intervals; under surface with white scales, generally narrowly separated; beak in the female slightly arcuate, smooth, somewhat thickened, bent and squamulose at base; antennæ inserted just beyond the middle; prothorax three-sevenths wider than long, the sides parallel, feebly arcuate, rounding in about anterior half, the apex feebly subtubulate and half as wide as the base; punctures rather small, moderately close, the sculpture faintly ruguliform longitudinally, very much finer than in *grossulus*; smooth median line distinct centrally; scutellum albedo-squamose, quadrate; elytra four-fifths longer than the prothorax, the feebly oblique sides broadly and distinctly arcuate, the apex evenly, not broadly rounded; humeral swellings very feeble; striæ abrupt,

deep; intervals flat, finely, loosely and confusedly punctate. Length (♀) 3.8 mm.; width 1.4 mm. Florida (locality unrecorded).

**parallelus** n. sp.

Body nearly as in *parallelus* but a little smaller, deep black, with rufous legs; squamules above white and slender, not much more distinct toward the pronotal sides, conspicuous and in two uneven series on the strial intervals, the scutellum not transverse, densely albido-squamose; under surface with dense white scales; beak not quite as long as the head and prothorax, arcuate, more slender and less strongly sculptured in the female; antennæ inserted at four-sevenths (♀) or three-fifths (♂); prothorax not a third wider than long, the sides parallel and arcuate, more rounding before the middle; punctures moderate, dense and partially coalescent; elytra fully two-thirds longer and barely wider than the prothorax, elongate-parabolic, with very feeble humeri; grooves deep and rather coarse; intervals flat, finely, loosely and confusedly punctate; male with the abdomen narrowly and feebly impressed and a little less squamose medio-basally. Length (♂ ♀) 2.7-3.6 mm.; width 1.15-1.4 mm. Florida (Haw Creek). Three specimens.....

**decipiens** Lec.

Body very short and broadly oblong-oval, convex; color deep black, the surface somewhat alutaceous throughout, the legs not paler; vestiture above white, fine and sparse on the pronotum but more distinct toward the sides, coarse and dense on the transverse scutellum and adjacent thoracic lobe, distinct in about two irregular lines on each strial interval; beak in the female unusually long, smooth, arcuate, as long as the elytra, the antennæ barely beyond the middle; prothorax fully one-half wider than long, the evenly and strongly arcuate sides becoming parallel at base, the apex faintly subtubulate, half as wide as the base; punctures very moderate and not dense, the smooth median line visible in part; elytra short, but little longer than wide, three-fifths longer than the prothorax and but very little wider, parabolic, the striæ deep and unusually coarse; mandibles differing somewhat from the typical, being more gradually narrowed, straighter externally, the inner edge with a minute denticle near the base. Length (♀) 3.3 mm.; width 1.5 mm. Florida (Capron).....

**contractus** Csy.

Body broad, subrhomboid-oval, only moderately convex above, deep black, the tarsi piceous; linear squamules of the upper surface white, dense along the pronotal apex and in an abrupt lateral vitta, also in a large medio-basal spot, elsewhere almost wanting; on the elytra they are dense, except along the suture, broadly toward base and surrounding the rounded and densely squamose scutellum, also nearly wanting broadly along the sides; under surface strongly convex and densely albido-squamose; beak in the female cylindrical, feebly arcuate, sparsely punctulate, longer than the head and prothorax, the slender antennæ inserted at four-sevenths; prothorax nearly one-half wider than long, the sides slightly converging and evenly, just visibly arcuate nearly to the apex, there rapidly rounding inward, the apex scarcely at all constricted and more than half as wide as the base; punctures coarse, deep and very dense but well

- defined; elytra obtusely parabolic, with large but moderate humeral swellings, distinctly wider than the prothorax and about twice as long; striæ deep, moderately coarse; interstitial punctures somewhat strong where exposed. Length (♀) 4.15 mm.; width 1.7 mm. Mexico (Sierra Madre Mts., Chihuahua),—C. H. T. Townsend.....\**townsendi* n. sp.
- Body narrower, elongate, suboval or parallel, the prothorax always evidently narrower than the elytra.....3
- 3—Punctures of the elytral striæ strong, deep and shining, producing a catenulate effect but not at all crenate. Body narrowly elongate-oval, convex, black and subalutaceous, the under surface, beak distally, and the legs, rufescent; squamules above fine, whitish, very even and sparse on the pronotum, more distinct and forming even single interstitial lines on the elytra; scutellum small, narrow, emarginate, having only two or three minute slender squamules; white scales beneath more or less separated; beak in the female short, smooth, feebly arcuate, not as long as the prothorax, the antennæ shorter than usual but of the same general type, inserted near four-sevenths; mandibles forming a very obtuse ogive when closed, strongly crenate within; prothorax barely wider than long, the sides feebly converging, moderately and subevenly arcuate from base to the wholly unconstricted apex, which is rather more than half as wide as the base; punctures strong, even and somewhat close-set; elytra parallel basally, oval in apical half, with the humeral swelling feeble, slightly wider than the prothorax and twice as long, striæ deep, abrupt; intervals not quite twice as wide as the striæ, the punctures fine, not close and uniseriate. Length (♀) 2.8 mm.; width 0.9 mm. Brazil (Para),—Baker.....\**striatopunctatus* n. sp.
- Punctures of the striæ normal, never very conspicuous.....4
- 4—Thoracic punctures generally more or less coarse, always clearly defined and separated among themselves.....5
- Thoracic punctures clearly defined but relatively fine and notably dense; body small in size.....15
- Thoracic punctures in great or entire part confluent, forming long sub-sinuuous longitudinal rugæ.....16
- 5—Vestiture of the pronotum uneven, the squamules small, dark and inconspicuous, but becoming pale and more distinct along the median line and abruptly rather broadly toward the sides.....6
- Vestiture subuniform throughout the pronotum, sometimes gradually somewhat more evident toward the sides though never abruptly and never condensed along the median line.....11
- 6—Elytra notably elongate, about four-fifths longer than wide. Body narrow, black throughout; squamules above brownish-white, the three vittæ distinct on the pronotum; striae intervals each with about two irregular close-set series, the scutellum small, densely white; scales beneath white, for the most part narrowly separated, denser on the met-episterna; beak in the male thick, feebly arcuate, as long as the head and prothorax, dull and closely sculptured, the antennæ inserted near three-fifths; prothorax as long as wide, the sides barely visibly convergent and very nearly straight, gradually

- feebly rounding in apical third, the apex very faintly constricted and much more than half as wide as the base, the basal lobe distinct; punctures relatively rather coarse and separated by half their own diameters; elytra with feebly oblique and broadly, evenly arcuate sides and rather obtusely rounded apex, at the moderate humeral swellings fully a fifth wider than the prothorax, evidently more than twice as long, the striæ coarse, the sparsely punctate intervals nowhere more than twice as wide as the grooves; male with the abdomen distinctly, longitudinally impressed and less squamose medio-basally. Length (♂) 2.7 mm.; width 1.15 mm. Guatemala (near the city,—elev. 6500 ft.).....\**trilineatus* n. sp.
- Elytra much less elongate, never more than one-half longer than wide and generally less, subparabolic in outline.....7
- 7—Size much larger; north temperate in habitat. Body rather broadly subrhomboid-oval, feebly shining, black, the legs faintly rufescent; small squamules of the dark and clearly defined pronotal vittæ barely observable; whitish squamules of the strial intervals distinct and in two irregular lines, becoming a single line on the three or four sublateral intervals; whitish scales beneath dense; beak in the female feebly arcuate, nearly smooth, rapidly bent and more punctate basally and not quite as long as the head and prothorax, the antennæ at four-sevenths; prothorax large, a third wider than long, the sides slightly converging and broadly arcuate, becoming gradually more rounded apically, the apex much less than half as wide as the base; punctures moderate, separated by nearly their own diameters, the smooth median line distinct and entire; scutellum quadrate, densely squamose; elytra only a little wider than the prothorax and three-fourths longer; striæ coarse; intervals between once and twice as wide as the grooves. Length (♀) 3.8 mm.; width 1.6 mm. Illinois (southern).....*ingenus* Csy.
- Size smaller, the outline less stout; habitat tropical.....8
- 8—Prothorax broader, more narrowed apically, the apex half as wide as the base in both sexes.....9
- Prothorax narrower, less narrowed from base to apex, the latter distinctly more than half as wide as the base.....10
- 9—Body suboblong-oval, convex, rather shining, black, the legs rufous; squamules above yellowish in the three distinct pale vittæ of the pronotum, whiter and in one or sometimes two lines on the strial intervals, the scutellum conspicuously white; scales beneath white and dense; beak feebly arcuate, as long as the head and prothorax (♀), a little shorter and thicker (♂), sculptured in both sexes, the antennæ at three-fifths (♂) or only a little less apical (♀); prothorax but little wider than long, the sides feebly converging and nearly straight, gradually rounding from a slight distance before the middle; apex completely unconstricted; punctures moderately coarse, separated by fully half their diameters, the smooth median line narrow, entire; basal lobe very moderate; elytra at the moderately prominent humeri not quite a fifth wider than the prothorax, three-fourths longer, circularly rounded at tip; striæ moderate but deep; intervals sparsely punctulate, from two to three times as

wide as the striæ; male with the abdomen very faintly impressed and scarcely less squamose medio-basally. Length ( $\sigma^7$  ♀) 2.8–3.0 mm.; width 1.15–1.2 mm. Mexico (Vera Cruz). Three examples. . . . . \**ovulatus* n. sp.

Body less broadly oval and more subrhombic, convex, shining, black, the legs obscure rufous, the squamules above whitish throughout, the lateral pale pronotal vittæ rather well defined, the median usually loose and not so well defined; strial intervals for the most part with single lines of slender squamules, the scutellum small, densely clothed; white scales below dense; beak ( $\sigma^7$ ) thick, evenly arcuate, strongly sculptured and not quite as long as the head and prothorax, or (♀) distinctly more slender, only a little longer, less sculptured and feebly arcuate, but more rapidly arcuate and thickened at base; antennæ at three-fifths ( $\sigma^7$ ), or just beyond the middle (♀); prothorax a sixth wider than long, the sides broadly arcuate and converging in about apical half, more parallel and very feebly arcuate posteriad; apex very faintly constricted; punctures smaller and sparser than in the preceding, separated by nearly twice their diameters (♀), or by their diameters ( $\sigma^7$ ), being sensibly coarser in the male; elytra longer, narrower and more gradually and rectilinearly attenuated than in *ovulatus*, rounded at tip, at the rather prominent humeri distinctly wider than the prothorax, not quite twice as long, the striæ deep and abrupt; intervals about twice as wide as the striæ; male sexual characters nearly as in the preceding. Length ( $\sigma^7$  ♀) 2.7–2.8 mm.; width 1.1–1.15 mm. Costa Rica (Cachí),—Biolley. Two specimens. [*N. lineicollis* Chmp., nec Boh.—pars] . . . . . \**ordinatus* n. sp.

10—Form narrow, elongate-oval and convex, shining, black, the legs rufous; squamules above whitish, the three pronotal lines very loose and indistinct; scutellum and basal thoracic lobe densely albedo-pubescent; strial intervals each with a single line of long and slender white squamules; scales beneath white, dense; beak in the male thick and heavy, evenly cylindric and evenly arcuate, as long as the head and prothorax, strongly sculptured, the antennæ rather behind three-fifths; prothorax as long as wide, the sides just visibly converging and nearly straight, gradually feebly arcuate in nearly apical half, the apex unconstricted; punctures small but deep, separated by twice their diameters; elytra shorter than in *ordinatus*, the sides much less oblique and the apex more obtusely rounded, a little wider than the prothorax and three-fourths longer; striæ moderate, rather less than half as wide as the intervals; male with the abdomen feebly impressed and more scantily squamose medio-basally. Length ( $\sigma^7$ ) 2.3 mm.; width 0.9 mm. Costa Rica (Cachí),—Biolley. One example. . . . . \**convexus* n. sp.

Form very narrowly elongate-oval and convex, shining, black, the legs bright rufous; squamules above whitish, the three lines of the pronotum loose and not very definite in the type; scutellum and basal thoracic lobe closely squamose; strial intervals each with a single thin line of scales; under surface with the usual dense white scales; beak in the female thick, cylindric, moderately and evenly



arcuate, as long as the head and prothorax and strongly sculptured, the antennæ at four-sevenths; prothorax as long as wide, the sides parallel and straight, broadly rounding before the middle to the unconstricted apex; punctures deep and strong, moderately coarse, separated by their own diameters; elytra narrowly oval, at the moderate humeral swellings evidently wider than the prothorax, about three-fourths longer; apex rather obtusely though circularly rounded; striae grooves deep and sharply defined, the intervals each with a single series of well separated and moderate punctures, twice as wide as the grooves or less. Length (♀) 2.3 mm.; width 1.18 mm. Mexico (Vera Cruz).....\**rubripes* n. sp.

11—Species moderate in size and of the northern temperate regions... 12

Species very small, inhabiting the tropics..... 14

12—Prothorax with the sides rapidly rounding in scarcely more than apical fourth. Body narrowly suboval, black, somewhat shining, the legs obscure rufous; squamules above narrow and whitish, distinct, not dense, less evident on the median parts of the pronotum, generally in a single line on the striae intervals, though irregularly double on two or three; white scales dense beneath; beak in the male thick, cylindric, evenly and moderately arcuate and fully as long as the head and prothorax, deeply, not closely sculptured, the antennæ at four-sevenths; prothorax a fifth wider than long, the sides very feebly arcuate, rounded at apex, which is more than half as wide as the base; punctures moderate, not dense but irregular, the smooth line subentire; scutellum quadrate and densely albidosquamose; elytra nearly one-half longer than wide, three-fourths longer than the prothorax and slightly wider, the sides moderately oblique and subparabolically rounded; striae moderate; intervals flat, strongly punctured and of unequal widths; male with a but little less squamose medio-basal impression. Length (♂) 3.3 mm.; width 1.3 mm. Iowa (Hamburg),—Soltau.....*simulans* n. sp.

Prothorax with the sides gradually rounding and converging in fully apical half..... 13

13—Body elongate, subrhomboid-oval, rather convex and dullish black, the legs obscure rufous; whitish squamules of the upper surface nearly as in the preceding but more conspicuous, similarly arranged on the pronotum and scutellum, dense and white below; beak (♂) feebly arcuate, dull and strongly sculptured, slightly thickened at base, or (♀) nearly similar but more slender, about as long as the head and prothorax in both sexes, the antennæ at three-fifths (♂) or four-sevenths (♀); prothorax a fourth (♀) to a sixth (♂) wider than long, the sides becoming parallel in about basal half; punctures rather coarse and close-set; median smooth line narrow, entire; elytra nearly one-half (♂) to two-fifths (♀) longer than wide, elongate-parabolic, the apex somewhat obtusely rounded, at the rather prominent humeri distinctly wider than the prothorax, three-fourths longer; striae moderate, one-half as wide as the intervals or much more; interstitial punctures small, not dense; male with a

very feeble and scarcely less squamose medio-basal impression. Length ( $\sigma^7$  ♀) 3.5–3.6 mm.; width 1.5 mm. Colorado (Holly).

**montanus** n. sp.

Body nearly similar but stouter and with relatively larger prothorax, almost similar in coloration and vestiture; beak in the male similar but a trifle stouter and more coarsely, deeply sulcate at the sides, as long as the head and prothorax; antennæ inserted just behind apical third; prothorax a fourth wider than long, the broadly rounded sides becoming parallel more basally; apex similarly unstricted and about half as wide as the base; basal lobe relatively smaller; punctures rather coarse, clearly but narrowly and unequally separated, the smooth median line even and entire; elytra similar in form and parabolic, but shorter, only two-fifths longer than wide in the male and much less conspicuously broader than the prothorax, not quite three-fourths longer; striæ rather coarse, similar but with the punctures along the bottom much more distinct; intervals of different widths, flat, with single, the second, third and fifth with irregularly double, lines, of distinct elongate squamules; male abdomen nearly similar. Length ( $\sigma^7$ ) 3.6–3.8 mm.; width 1.6–1.75 mm. Iowa (Riverton) and Texas. . . . . **vacunalis** n. sp.

14—Form narrow, subparallel, convex, rather shining, black, the femora feebly rufescent; squamules of the upper surface small, grayish, very slender, sparse and rather inconspicuous, very uniform in distribution on the pronotum, forming single or partially double lines on the elytra, the scutellum and basal thoracic lobe densely albidosquamose; white squamules of the under surface parallel-sided and more or less distinctly separated; beak in the male evenly, moderately arcuate, rather thick, cylindrical and dull, somewhat strongly sculptured as usual, the antennæ at about three-fifths; prothorax about as long as wide, the sides feebly converging and nearly straight, gently rounding in about apical third, the apex unstricted and much more than half as wide as the base; punctures coarse, narrowly separated, the smooth line narrow and not well defined; elytra not quite one-half longer than wide, at the feebly prominent humeri distinctly wider than the prothorax, twice as long, the sides parallel and nearly straight, parabolically rounding in apical third; striæ moderate; intervals sparsely punctulate and fully twice as wide as the striæ; male abdomen broadly, feebly impressed basally. Length ( $\sigma^7$ ) 2.2 mm.; width 0.75 mm. Guatemala (locality unrecorded).

**\*cylindricollis** n. sp.

Form more dilated, less parallel, moderately convex, black, the legs bright rufous; squamules above slender and rather sparse but whitish, glistening and distinct, somewhat aggregated along the sides of the pronotum and loosely so on the basal lobe, elsewhere indistinct; on the elytra they form single interstitial lines, which are conspicuous; scutellum small, densely albidosquamose; white scales beneath narrowly separated; beak in the male feebly arcuate, rather thick, strongly sculptured and not quite as long as the head and prothorax, the antennæ at four-sevenths; prothorax very slightly wider than long, the sides subparallel and nearly straight in about

basal, gradually arcuate and converging in apical, half; apex un-constricted, rather more than half as wide as the base; punctures coarse, close though narrowly separated, the smooth line distinct except toward apex and base; elytra two-fifths longer than wide, rapidly parabolic, with arcuate sides and rather narrow apex, at the somewhat prominent humeri distinctly wider than the prothorax, two-thirds longer; striæ moderate; intervals with single series of distinct punctures and twice as wide as the striæ; male abdomen with feeble and less squamose medio-basal impression. Length (♂) 2.6 mm.; width 1.1 mm. Brazil (Para),—Baker... *\*parensis* n. sp.

- 15—Body oblong-suboval and moderately convex, black, the legs red; squamules above whitish, slender and well separated but rather closer in outer fourth on the pronotum, in single to double lines on the elytra; scutellum and thoracic lobe densely albido-squamose; white parallel scales beneath distinctly separated; beak in the female slightly arcuate, subcylindric, nearly smooth, except basally, and as long as the head and prothorax, the antennæ at about the middle; prothorax a fourth wider than long, the sides parallel and nearly straight in almost three-fifths, then rounding gradually to the un-constricted apex, which is somewhat more than half as wide as the base; punctures close, partially subconfluent; smooth line narrow; elytra not quite one-half longer than wide, evenly and gradually parabolic, at the feeble humeri only very slightly wider than the prothorax, twice as long; striæ moderate, though fully half as wide as the finely and remotely punctate flat intervals. Length (♀) 2.2 mm.; width 0.75 mm. Florida (Haw Creek)... *effetus* Csy.

Body narrowly elongate-suboval, convex, dull in lustre, black, the legs not paler; squamules above rather narrow, whitish, well separated and very evenly distributed, equally distinct throughout; they form loose double lines on most of the stria intervals; scutellum and thoracic lobe densely albido-squamose; white parallel scales beneath very even and narrowly separated; beak in the female straight and smooth, becoming arcuate and more sculptured, though but little thicker, in nearly basal half, somewhat longer than the head and prothorax; antennæ at the middle; prothorax a fifth wider than long, the sides feebly converging and not distinctly arcuate, becoming gently and gradually rounded anteriorly, the unconstricted apex three-fifths as wide as the base; punctures very even, narrowly separated, the smooth line indistinct; elytra long, two-thirds longer than wide, the sides feebly oblique and barely arcuate, gradually more so posteriorly and evenly rounded at apex, at the very moderate humeral swellings distinctly wider than the prothorax, two and one-half times as long; grooves abrupt; intervals with small but numerous confused punctures and from two to nearly three times as wide as the grooves. Length (♀) 2.5 mm.; width 0.85 mm. Guatemala (near the city)... *\*pistorinus* n. sp.

- 16—Punctures of the pronotum rather small and dense, but forming only short and feebly defined rugulosity. Body elongate-oval, black, the legs deep black; elongate scales above white, close-set and conspicuous, gradually coarser and rather closer toward the

sides of the pronotum and forming irregularly double lines on the strial intervals, the scutellum and thoracic lobe densely albidosquamose; under surface with dense white scales; beak in the male feebly, evenly arcuate, thick, strongly sculptured and almost as long as the head and prothorax, the antennæ just behind three-fifths; prothorax just visibly wider than long, the sides feebly converging and subevenly, moderately arcuate, from base to the unconstricted apex, which is half as wide as the base, becoming gradually subparallel basally; smooth median line evident in part; elytra nearly one-half longer than wide, parabolic, with obtusely rounded apex, at the moderately swollen humeri distinctly wider than the prothorax, about four-fifths longer; striæ moderate; intervals densely, coarsely and confusedly punctate and from two to nearly three times as wide as the striæ; male abdomen impressed shallowly medio-basally though scarcely less squamose. Length (♂) 3.6 mm.; width 1.4 mm. Texas (New Braunfels),—Wickham.

*texensis* n. sp.

- Punctures of the pronotum coarse, forming long longitudinal rugæ throughout.....17  
 17—The rugæ rather coarse.....18  
 The rugæ evidently finer and closer.....19  
 18—Form narrow, elongate-suboval, convex, black, the tibiæ piceorufous; squamules above distinct and white but rather sparse, a little finer on the median parts of the pronotum, forming single and double loose lines on the strial intervals, close and white beneath; beak in the male rather thick, feebly arcuate, strongly sculptured and fully as long as the head and prothorax, the antennæ near three-fifths; prothorax as long as wide, the sides moderately and evenly arcuate from base to the unconstricted truncate apex, which is much more than half as wide as the base; sculpture notably coarse, somewhat confused in part; elytra elongate-parabolic, with rather obtusely rounded apex, only slightly wider than the prothorax and fully four-fifths longer, fully three-fifths longer than wide; striæ moderate; intervals from two to nearly three times as wide as the striæ, distinctly but loosely, confusedly punctate; male abdomen feebly impressed medio-basally. Length (♂) 2.9 mm.; width 1.0 mm. Texas (Columbus).....*scitulus* Csy.  
 Form much broader and more oblong-suboval, deep black throughout the body and legs; squamules of the upper surface slender, glistening-white, almost obsolete on the pronotum, except along the sides and faintly along the feebly defined smooth median line; white scales beneath conspicuous, though slightly separated, fine and less evident on the propleura; beak (♂) cylindrical, coarsely sculptured, moderately thick, evenly, feebly arcuate and as long as the head and prothorax, the antennæ near four-sevenths, or (♀) a little longer, with the antennæ nearer the middle; prothorax nearly a fourth wider than long, the sides feebly, subevenly arcuate and convergent to the feeble apical constriction, the apex half as wide as the base; rugæ rather well defined; scutellum and thoracic lobe closely albidopubescent as usual; elytra three-sevenths longer than wide, at the

evident humeral swellings but slightly wider than the prothorax, about twice as long, the sides subparallel and feebly arcuate, evenly rounding in about apical third; striæ moderate; intervals from two to nearly three times as wide as the striæ, subalutaceous, with fine and well spaced punctures, the squamules forming a single line on each, though double on the third and fifth; male abdomen broadly, feebly impressed medio-basally and finely, sparsely squamulose. Length (♂ ♀) 3.4-3.6 mm.; width 1.3-1.45 mm. Mexico (Sierra Madre Mts., Chihuahua),—Townsend. . . . . \*chihuahuae n. sp.

19—Elytra longer, arcuately narrowing behind from near the humeral protuberances. . . . . 20

Elytra shorter and more parallel, narrowing arcuately only from behind the middle, the intervals in every case each with a very even single line of squamules. . . . . 23

20—Prothorax distinctly shorter than wide. Form oblong-suboval, rather convex, only feebly shining, deep black, the legs black to obscurely rufescent; squamules above nearly white, aggregated loosely but in well defined lateral vitta and finer median line on the pronotum, in single line on the strial intervals, double on the fifth basally; very small scutellum and the thoracic lobe densely albidosquamose; white scales of the under surface dense on the hind body, sparse on the metasternum; beak (♂) thick, cylindric, dull and sculptured, feebly and evenly arcuate and as long as the prothorax, with the antennæ at four-sevenths, or (♀) evidently thinner, with the antennæ just beyond the middle; prothorax a fourth to fifth wider than long, the sides subparallel, feebly arcuate, more rapidly rounding apically to the feebly constricted apex, which is more than half as wide as the base; smooth median line uneven but entire; elytra three-fifths longer than wide, very little wider than the prothorax and twice as long, the sides evidently arcuate, only very feebly converging from the distinct humeral swellings and with rapidly obtuse apex; intervals with rather small and well separated punctures, about three times as wide as the deep abrupt grooves; male abdomen feebly impressed and with smaller and sparser squamules medio-basally. Length (♂ ♀) 2.6-3.3 mm.; width 0.8-1.18 mm. Massachusetts (Natick,—Frost, and from an unrecorded locality). Four specimens. . . . . puritanus n. sp.

Prothorax about as long as wide; trilineate with loosely aggregated fine white squamules. . . . . 21

21—Body very small in size and narrow, the prothorax not evidently constricted at apex. Elongate, suboval, scarcely shining, black, the legs dark rufous; beak in the male rather large, thick, feebly, evenly arcuate and strongly sculptured, longer than the head and prothorax, the antennæ at four-sevenths; prothorax with the feebly arcuate sides subparallel, rounding gently near the apex, which is distinctly more than half as wide as the base; elytra very little wider than the prothorax and four-fifths longer, the sides almost straight and parallel in nearly basal half, broadly and feebly arcuate as a whole, the apex not very obtuse, the humeral swellings very moderate; intervals about twice as wide as the striæ, each with a

single line of squamules and moderate, uniseriate and well spaced punctures; under surface of the hind body densely albedo-squamose, the male abdomen feebly impressed medio-basally, the impression scarcely less squamulose than the other basal parts of the surface. Length ( $\sigma^7$ ) 2.2 mm.; width 0.7 mm. District of Columbia.

**pertenuis** n. sp.

Body larger and stouter, the prothorax constricted and briefly subtubulate at apex. . . . . 22

22—Form oblong-suboval, convex, with rather prominent humeri, deep black throughout, the legs black; pronotum abruptly though loosely clothed with yellowish-white squamules in fully lateral fourth, also sharply but narrowly along the median line; striae intervals each with a single regular line of whiter squamules, somewhat irregular on the third; hind body beneath with close white scales; beak missing in the only specimen at hand; prothorax with the sides just visibly converging and barely at all arcuate, abruptly rounding in about apical fourth; elytra four-sevenths longer than wide, at the notably though obtusely swollen humeri distinctly wider than the prothorax, four-fifths longer; sides very feebly converging and nearly straight, gradually rounding behind the middle, the apex narrowly obtuse; intervals not quite twice as wide as the grooves, each with a series of moderate though very distinct, well spaced punctures, somewhat confused on the third; male abdomen with a deep and subglabrous elongate medio-basal impression. Length ( $\sigma^7$ ) 3.25 mm.; width 1.3 mm. Texas. [*C. lineicollis* Lec. nec Boh.].

**lecontei** Chmp.

Form elongate, narrower, more evenly oval and rather more convex than the preceding, similar in coloration and vestiture, except that the loose lateral pronotal vitta of slender squamules is narrower, only a fifth or sixth the total width, the median line not distinctly albedo-squamulose except basally, and the white squamules of the striae intervals are in double series on the greater part of intervals 2-4-6, and also on some others basally, the white scales almost similarly dense beneath; beak in the male feebly arcuate, sculptured, fully as long as the head and prothorax and only moderately thick, the antennæ inserted very near the middle, much less apical than usual in that sex; prothorax with the sides sensibly converging and virtually straight to anterior fourth, there rapidly rounded to the apical constriction, the distinctly tubulate apex half as wide as the base; elytra more than one-half longer than wide, the sides evidently converging and very evenly arcuate from the moderate humeral swellings to the circularly rounded tip, slightly wider than the prothorax and not quite twice as long; intervals fully twice as wide as the striae, with small and not very distant, generally confused punctures; male sexual characters as in the preceding. Length ( $\sigma^7$ ) 3.15 mm.; width 1.2 mm. Kentucky. . . . **subtubulatus** n. sp.

23—Prothorax as long as wide and more cylindrical. Body subcylindrical, convex, black, with the legs feebly picescent; pale squamules above sparsely aggregated in lateral sixth of the pronotum and on the median line basally, more conspicuously white in single interstriae

lines, dense and white on the small scutellum; white scales of the under surface distinctly separated; beak in the male thick, feebly arcuate, sculptured and not quite as long as the head and prothorax, the antennæ at four-sevenths; prothorax with the sides just visibly converging and virtually straight, gently rounding in about apical third to the feebly constricted apex, which is much more than half as wide as the base; elytra short, only three-sevenths longer than wide, much wider than the prothorax and four-fifths longer, with rather prominent but small humeral swellings, parallel and nearly straight sides to behind the middle, then subevenly rounded through the apex; intervals subequal, fully twice as wide as the moderate striæ, each with a series of small though distinct and well spaced punctures; male abdomen but feebly modified. Length ( $\sigma^7$ ) 2.3 mm.; width 0.8 mm. Alabama (probably from near Mobile).

**alabamæ** n. sp.

Prothorax distinctly shorter than wide, more narrowed at apex. . . . 24  
 24—Body subcylindric, feebly shining, black, the legs obscure rufous; squamules above throughout very nearly as in the preceding, the lateral vitta of the pronotum a little wider, a fifth the total width; white scales of the under surface well separated, denser on the met-episterna; beak in the male nearly as in the preceding but much longer, being distinctly longer than the head and prothorax and with the antennæ near three-fifths; prothorax fully a fifth wider than long, the subparallel sides very feebly arcuate but distinctly, gradually rounded in about apical fourth to the very feebly constricted apex, the latter much more than half as wide as the base; elytra scarcely one-half longer than wide, only a little wider than the prothorax and almost twice as long, with small and feeble humeral swellings; sides parallel and straight in three-fifths, then rounding to the narrowly subobtuse apex; intervals twice as wide as the moderate striæ, each with a series of small but evident punctures; male abdomen distinctly impressed and semi-nude along the middle basally and also in the middle of the fifth segment. Length ( $\sigma^7$ ) 2.8 mm.; width 1.0 mm. Kentucky (locality unrecorded).

**piceipes** n. sp.

Body subcylindric but less convex, deep black, with rufo-piceous legs, slightly shining, the slender pronotal squamules as in the preceding but even more obliterated along the median line, similarly whiter and more conspicuous in very even single interstitial lines on the elytra, but with the squamules more separated longitudinally, the under surface similar; beak in the female moderately slender and sparsely sculptured, cylindric, less arcuate distally and longer than the head and prothorax, the antennæ just visibly beyond the middle; prothorax rather short, a third wider than long, the subparallel and nearly straight sides rounding gradually from slightly before the middle to the unconstricted apex, which is much more than half as wide as the base; elytra only slightly wider than the prothorax and distinctly more than twice as long, slightly more than one-half longer than wide, the humeral swellings obtuse and moderately prominent; sides subparallel, gradually arcuate about the parabolic

apex; intervals twice as wide as the striæ, each with a single loose series of rather large and conspicuous though somewhat shallow punctures. Length (♀) 2.7 mm.; width 0.9 mm. North Carolina (Black Mts.),—Beutenmüller. . . . . **uniseriatus** n. sp.

The very short beak and nude scutellum might be held to separate *striatopunctatus* as a different genus, but the same inconstancy in vestiture of the scutellum is observable in *Centrinopus*. *Convexulus* is from the same locality as *ordinatus* and comes rather near it in general structure, but it is much narrower, with shorter elytra and longer, laterally much less rounded prothorax, with decidedly finer and sparser punctures and rather longer beak, the comparisons being made from the male. These were both sent to me by Mr. Champion under the name *lineicollis* Boh., but Boheman states that in that species the pronotum is densely punctate, so that they cannot be considered as even closely allied. LeConte selected to represent *lineicollis*, one of our species with dense, longitudinally rugose pronotal sculpture, which is also an incorrect identification, as recognized by Champion, who renamed it *lecontei*. In fact I do not at present have anything corresponding closely with the Boheman description of *lineicollis*, and *ingenuus* Csy., which was placed in synonymy by Mr. Champion, is a distinctly different thing, with widely isolated thoracic punctures and more broadly rhomboid-oval body. The Florida species named *neglectus* by Blatchley, I have not seen.

The female is comparatively rare throughout this genus, as may be inferred from the sex identifications given in the above table.

#### **Acentrinops** n. gen.

The body in this genus is broadly oval and sparsely squamose, the beak separated from the head by a fine sulcus, the mandibles when closed forming an acute and prominent ogive, not at all decussate, the inner margins feebly emarginate near the apex; the antennal funicle is slender, the basal joint much, the second less, elongated, the club well developed, very abrupt and oblong-oval, its basal joint a third the mass. The anterior coxæ are separated by about one-half their width, the prosternum unarmed in the male, deeply foveate in anterior half, the tibiæ strongly mucronate within at tip, the third tarsal joint small, only feebly dilated and the tarsal claws



long, nearly straight, feebly diverging and connate at base. The basal thoracic lobe is abruptly formed and sinuato-truncate at apex, the scutellum small, nude and quadrate.

This genus, presenting a remarkable combination of characters, may be placed near *Centrinites* for the present; the type is the following:

**Acentrinops brevicollis** n. sp.—Evenly oval, rather convex and shining, deep black, the legs feebly picescent; squamules above long, slender, white, everywhere well separated but conspicuous in single or irregularly double series on the elytra and abruptly in lateral fifth of the pronotum, the remainder of the latter glabrous, the squamules beneath are still smaller, very slender and white, evenly and sparsely distributed throughout; beak in the male slender, cylindric, shining, loosely sculptured, feebly, evenly arcuate and a little longer than the head and prothorax, the antennæ at the middle; prothorax three-fifths wider than long, the sides strongly and evenly converging and evenly, feebly arcuate from base to the distinct apical tubulation, which is much less than half as wide as the base; punctures minute and sparse, rapidly coarser and rugulose toward the sides, the smooth median line distinct and entire; elytra oval, with evenly arcuate sides and rather narrowly rounded apex, three-sevenths longer than wide, at the moderately prominent humeri a little wider than the prothorax, two and one-half times as long; striæ moderate; intervals between three and four times as wide as the striæ, loosely, moderately and confusedly punctured; male with the abdomen distinctly impressed medially at base. Length (♂) 2.75 mm.; width 1.35 mm. Texas (Alpine),—Wickham.

The white vestiture of the prosternum medially throughout its length, is denser and more conspicuous than elsewhere on the under surface.

#### **Nicentrites** n. gen.

The general organization of this proposed genus is nearly as in *Nicentrus*, but the mandibles are entirely different and of very peculiar structure; they are sharply angulate within, and their outer contour is sinuate, so that the acute apex of each is everted. The only other character to which attention should be called, is the dense and very uniform vestiture throughout. The example at hand which I have identified as *Nicentrus testaceipes* Chmp., also belonging to this genus, came from near Guatemala City, and is ovulate, with subinflated elytra and rather small prothorax, in fact exactly like the figure given on the plate in the "Biologia"; the following, which may be assumed as the type of *Nicentrites*, is at

least quite different from this supposed example of *testaceipes* in general outline of the body:

\***Nicentrites hidalgoanus** n. sp.—Oblong-suboval and convex, black, densely clothed with sublinear scales, brownish-white above and white beneath, the legs, antennæ and distal part of the beak bright red, the first with finer, sparse squamules; beak in the male rather short and thick, evenly and feebly arcuate, not as long as the head and prothorax and closely squamulose to near the apex, the antennæ at three-fifths; prothorax two-fifths wider than long, the sides parallel and feebly arcuate in about basal, rounded and converging in apical, half, the apex barely at all constricted and half as wide as the base; punctures moderate and close-set, but clearly defined and separated; scutellum small, densely albido-squamose; elytra ovulate, a fifth wider than the prothorax and nearly two and one-half times as long, one-half longer than wide, gradually somewhat narrow at apex, the humeral prominences very feeble; striæ rather fine but deep; intervals flat, subequal, four or five times as wide as the striæ and finely, confusedly, rather closely punctate; male abdomen impressed and less squamulose medio-basally; anterior tibiæ with the terminal spur conspicuous and very sharp. Length (♂) 3.15 mm.; width 1.25 mm. Mexico (Hidalgo). One example.

Differs from the male example of *testaceipes*, at hand, in its larger size, more parallel form, larger and more transverse, laterally more rounded prothorax, with more distinct and entire median smooth line and in its more elongate and apically more gradually narrowed and rounded elytra. The flattening of the upper surface in *testaceipes*, alluded to by Mr. Champion, does not accord with my example, the surface of which is as strongly convex as in any *Nicentrus*.

#### **Glyptogeræus** n. gen.

The type of this proposed genus is *Centrinus punctatissimus* Boh., of Cuba. The body is subrhomboid-oval, convex and totally nude, excepting a very few small spots of aggregated white scales and a few others sparsely scattered, also small dark decumbent setæ from the elytral punctures as in *Pachybaris*. The beak is thick and strongly sculptured, feebly tapering apically and differing but little in the sexes, being a little more tapering and smoother apically in the female. The antennæ are inserted very slightly (♀) or much (♂) beyond the middle, and the joints, after the elongate first of the funicle, are all short—an important character distinguishing it from *Centrinaspis*. The pronotum is extremely coarsely punctate, the elytral grooves moderate and the intervals

convex, with a single series of strong asperulate punctures. The scutellum is small and nude. The mandibles and tarsal claws are exactly as in *Centrinaspis*, and the prosternum of the male is not armed.

#### **Pachybaris** Lec.

The very broadly oval form and nude surface of the body in this genus, are very different from anything observable in the preceding types of the Centrinini, though remindful somewhat of *Glyptogeræus*. The claws are free, the mandibles crenate within, coming together along their inner margin nearly as in *Centrinus* and forming a pointed ogive when closed. The anterior coxæ are separated widely, the prosternum flat, impressed slightly at apex. Sexual characters are very feeble. The type, named *porosa* by LeConte, inhabits lower Florida, the following is a smaller and less broadly oval species:

**Pachybaris ludoviciana** n. sp.—Broadly oval, moderately convex, shining, black and glabrous throughout, the legs rufous, coarsely punctured and with small sparse squamules; beak as in *porosa* but not quite so thick, the antennæ nearly similar; prothorax also as in *porosa* but with the coarse sparse punctures becoming much denser toward the sides, the median basal lobe less deeply emarginate for the scutellum; elytra almost similar but a little narrower and longer, the grooves coarse and deep; intervals nearly twice as wide as the grooves, with a single series of very coarse punctures, each having a slender dark decumbent and wholly inconspicuous squamule, the punctures a little smaller on the intervals toward the suture, usually somewhat confused on the second; sutural groove not attaining the base; scutellum small, rounded, flat and nude; under surface with moderately coarse punctures, rather close-set but not dense. Length (♂ ♀) 3.4–3.5 mm.; width 1.7–1.75 mm. Louisiana (Morgan City). Four examples.

The antennal club in this genus is very gradual in formation, narrowly oval, the outer funicular joints gradually wider in exact continuation of its outline and somewhat similarly micro-pubescent; the first funicular joint is as long as the next four, which are short and subequal. This formation of the antennæ is almost exactly as in the preceding *Glyptogeræus*, which also has a strongly sculptured and semi-glabrous body, but in the latter the anterior coxæ are separated by less than their own width and the mandibles are sharper, coming together along their straight and very even inner sides and forming, when closed, an acute triangle; the body, also, is rhomboidal and not evenly and broadly oval as it is in *Pachybaris*.

**Calandrinus Lec.**

The bodily form is here very different from that of the two preceding genera, being oblong-suboval, compact and very convex, and the mandibles are peculiar; they are not decussate, but individually prominent, and are strongly uni- or bidentate both externally and internally. The beak is rather long and smooth, the antennæ inserted near the middle and notably slender, the anterior coxæ separated by about their own width, the prosternum not sexually modified and the claws free and slender. The vestiture beneath is rather even though sparse, but on the elytra there are aggregations of pale scales, generally visible at the sides basally and subapically, together with other unevenly distributed darker squamules. The sexual characters seem to be extremely feeble. The following is the narrowest known species:

**Calandrinus angustulus** n. sp.—Elongate, constricted at the junction of the prothorax and elytra, very convex, shining and uniform pale red-brown throughout; sparse pale squamules of the pronotum rather more numerous but not close toward the sides; elytra with a spot of white scales at the sides basally and another near the apex, also narrowly along the suture before the middle, the scales brown, more linear and sparse on the disk basally, the surface elsewhere nearly glabrous; squamules beneath small, sparse, slender and yellowish, lying within the notably coarse punctures; beak (♂) long, slender, smooth, cylindric, evenly and moderately arcuate and half as long as the body, the antennæ only slightly beyond the middle, or (♀) nearly similar but with the antennæ at or just visibly behind the middle; prothorax as long as wide, the sides parallel, strongly and subevenly arcuate, more inflated before the middle, the apex constricted and three-fourths as wide as the base, the basal lobe subobsolete; punctures moderately coarse, well separated; smooth median line entire, widest centrally; scutellum very small, nude; elytra two-fifths longer than wide, at the middle slightly wider than the prothorax, one-half longer, the sides parallel and rather strongly arcuate, gradually converging behind about the middle to the somewhat narrowly rounded apex and feebly sinuate near apical fourth; humeral prominences completely wanting; striæ moderately coarse, abrupt but only moderately deep, the intervals not quite twice as wide as the grooves, each with a single series of small and well separated punctures. Length (♂ ♀) 2.6–2.7 mm.; width 0.9–1.0 mm. New Mexico (Jemez Springs),—Woodgate. Two examples.

This species is not closely allied to *obsoletus*, *grandicollis* or *insignis*, being very much narrower and more constricted at the waist than in any one of them.

**Centrinogyna** Csy.

The body in this genus in general outline is not at all unlike that of some forms allied to *Limnobaris*, and especially the genus *Dirabius*, but the mandibles are not decussate to any decided degree and are strongly toothed within, though the external teeth of the preceding genus are wanting. The prosternum is simple, separating the coxæ by less than their own width and the tarsal claws are free and slender. The most remarkable peculiarity of the genus, however, resides in the pygidium, which is vertical, well developed and baridiform in the male, but oblique and completely concealed beneath the elytra in the female, as in both sexes of *Centrinaspis* and other genera allied thereto. The following are four species of the genus hitherto undescribed:

**Centrinogyna canadensis** n. sp.—Oblong-elongate, moderately convex, only feebly shining, piceous in color, the legs slightly more rufous; squamules above very small, slender and obscure, not distinct on the pronotum, forming a single loose line on each stria interval, very minute and indistinct beneath; beak in the female cylindrical, nearly smooth, evenly and moderately arcuate and not longer than the prothorax, the antennæ at three-fifths; prothorax very slightly wider than long, the sides parallel, evenly and distinctly arcuate, widest at about the middle, rapidly constricted at the tubulate apex, which is fully two-thirds as wide as the base; surface with rather coarse and dense longitudinal rugæ, the median line narrowly smooth, also with a small narrow irregular submedian discal spot at lateral fifth; scutellum very small, nude; elytra three-fourths longer than wide, as wide as the prothorax and about twice as long, the parallel sides nearly straight, gradually arcuately and in part subsinuously converging in apical third to the broadly obtuse apex; humeral prominences wholly wanting; grooves rather coarse and deep; intervals almost twice as wide as the grooves, each with a single series of small and moderately separated punctures, somewhat confused on the second and third; under surface coarsely punctate, less so and more sparsely on the abdomen. Length (♀) 4.6 mm.; width 1.6 mm. Canada (Winnipeg, Manitoba),—Hanham.

Allied to *strigata* Lec., but differs in its less distinct vestiture, in the rather less coarse pronotal rugæ, with sublateral smooth discal spot at each side and narrower median smooth line, and in the much finer punctures of the stria intervals; the beak, also, is a little shorter and thicker.

**Centrinogyna laramiensi** n. sp.—Narrow, parallel and rather convex, the elytra feebly shining, brownish-piceous, the tibiæ more rufous; squamules above minute, sparse, uniform and barely evident, forming

single interstitial lines, sparsely scattered and somewhat more distinct over the under surface; beak in the male rather thick but cylindrical and almost smooth, feebly arcuate, and as long as the head and prothorax, the antennæ at three-fifths; prothorax as long as wide, slightly widest about the middle, the sides parallel and broadly arcuate, abruptly constricted at the tubulate apex, which is two-thirds as wide as the base; surface with dense, elongate and anastomosing rugulæ, even throughout, the median line in part smooth but extremely narrow; scutellum small, nude; elytra not quite twice as long as wide, equal in width to the prothorax and four-fifths longer, the parallel sides straight, gradually arcuate and converging—partially subsinuate—to the obtusely rounded apex; striæ moderate, deep and abrupt; intervals nearly twice as wide as the grooves, each with a single series of rather close-set, distinct punctures, a third as wide as the intervals, confused on the somewhat wider third interval; under surface strongly but not densely punctate, the propleura rugulate; pygidium vertical, twice as wide as long, very convex and finely, sparsely punctate; abdomen deeply, rather narrowly impressed medially toward base. Length ( $\sigma^7$ ) 3.75 mm.; width 1.3 mm. Wyoming (Laramie).

Also allied to *strigata* but smaller, more slender, with less developed setiform squamules, much finer pronotal rugulæ and finer smooth median line, rather less coarsely sculptured elytra and more finely and sparsely punctulate pygidium in the male; from *canadensis* it differs in the finer interstitial punctures, smaller size and much more slender form; *canadensis* is a little stouter than *strigata*.

**Centrinogyna subæqualis** n. sp.—General characters more nearly as in *procera*, but shorter and much stouter; color black throughout, the lustre alutaceous; squamules above extremely sparse, very small and barely discoverable, uniform, only very little more evident beneath; beak in the female long, slender, evenly and moderately arcuate, almost smooth and distinctly longer than the head and prothorax, the antennæ near four-sevenths, the basal funicular joint as long as the next three, the club abrupt, obtusely oval, its first joint distinctly less than half the mass; prothorax barely visibly wider than long, the sides parallel and very moderately, subevenly arcuate, gradually rounding and converging before the middle to the tubulate apex, which is very short and scarcely more than half as wide as the base; punctures small, irregularly close-set, the smooth median line distinct, finer apically; scutellum narrower than long, smooth and polished, emarginate behind; elytra scarcely one-half longer than wide, a little wider than the prothorax and three-fourths longer, the sides subevenly arcuate to the rather narrowly rounded apex, becoming subparallel in about basal half, the humeral prominence small but evident; striæ rather coarse, finer behind except suturally, finely punctured along the bottom; intervals basally but little, posteriad nearly three times, wider than the striæ, with moderate and rather close-

set punctures, confused medially along the third. Length (♀) 4.1 mm.; width 1.76 mm. Canada (Winnipeg, Manitoba). Further determinative data unrecorded. One example.

Resembles the Californian *procera* very closely in color, sculpture and in its almost glabrous and subalutaceous surface, but it differs in its much shorter, stouter and rather more convex form and narrower tubulate apex of the prothorax.

\**Centrinogyna hispidula* n. sp.—Oblong, convex, piceous, the beak blackish; elytra, under surface and legs red-brown, slightly shining; vestiture above consisting of rather long and suberect coarse hairs, whitish in color, distinct throughout the pronotum but closer toward the sides, sparse but distinct throughout the elytra but closer on the third interval, especially in a dense basal spot, sparse but white and distinct on the under surface; beak in the female rather thick, subcylindric, feebly tapering, arcuate, minutely punctulate except basally and as long as the head and prothorax, the antennæ at three-fifths; prothorax a third wider than long, the sides parallel, broadly arcuate, rounding rapidly before the middle to the tubulate apex, which is four-sevenths as wide as the base; sculpture strong and dense, consisting of long anastomosing rugæ, the smooth median line entire; scutellum small, narrow, nude, polished and black; elytra one-half longer than wide, a little wider than the prothorax and nearly four-fifths longer, the sides feebly converging and subevenly, moderately arcuate from the almost obsolete humeral swellings to the rapidly obtuse apex, immediately before which the sides are faintly sinuate; grooves deep, punctate; intervals one-half wider than, to twice as wide as, the grooves, strongly, loosely and confusedly punctate; mes-episterna visible at the waist; under surface strongly, not densely punctate, with sparse, hair-like white squamules. Length (♀) 4.0–4.3 mm.; width 1.45–1.65 mm. Mexico (Sierra Madre Mts., Chihuahua),—Townsend. Two specimens.

This species is quite unlike any other known to me in the peculiar sparse subhispid vestiture; the male might exhibit some special characters.

#### *Anacentrus* n. gen.

In this genus, the type of which is *Limnobaris bracata* Csy., the body is of small or very moderate size, oblong-oval and rather stout to very slender, the mandibles decussate, with large internal tooth, the second funicular joint small, though slightly elongate, the first about as long as the next three as a rule, the club ovate, with its first joint very large, constituting rather more than half the mass. The anterior coxæ are well separated, the prosternum unmodified and never armed in the male, and the upper surface has the punc-

tures and vestiture very much diversified. The genus is related to *Centrinogyna* in having the apical part of the male pygidium exposed, but it is very oblique and not vertical as it is in the latter genus. It constituted the first subgeneric division of *Limnobaris* in my revision of the subfamily, but I find under more careful comparative study, that neither this nor any other of the types which I placed under *Limnobaris* really belongs there, and *Limnobaris*, as exemplified by *T. album* and *pusio*, does not occur in America. Our described species of *Anacentrus* are *punctiger* and *nasutus* of LeConte, and *bracatus*, *limbifer*, *blanditus*, *tabidus*, *deplanatus*, *denudatus*, *planiusculus*, *oblitus* and *seclusus* Csy. As an addition to these, the following should be made known:

**Anacentrus ornatus** n. sp.—Somewhat broadly oval, rather convex, scarcely shining, the body and beak deep black, the legs obscure rufous; vestiture above coarsely squamiform and yellowish, dense toward the sides of the pronotum and toward the basal lobe, broadly dispersed medially on the elytra, forming partial, rather close lines, single but more broadly confused on the third interval behind the middle and the third and fifth toward base, wanting in a large discal area from the suture to the fourth groove and narrowly along the suture posteriorly, the scutellum nude, the scales beneath white and separated, finer on the abdomen; beak in the female slender, cylindric, nearly smooth, feebly arcuate and as long as the head and prothorax, the antennæ at four-sevenths; prothorax two-fifths wider than long, the sides subevenly arcuate, parallel basally, the feebly constricted apex more than half as wide as the base; punctures moderately coarse, dense, the smooth line evident only in about basal half; elytra a fourth longer than wide, parabolic, at the moderately tumid humeri evidently wider than the prothorax, three-fourths longer; grooves coarse; intervals not twice as wide as the grooves, with moderate punctures in single lines, in some parts confused. Length (♀) 2.6–2.8 mm.; width 1.15–1.35 mm.; Missouri (St. Louis), Tennessee (Memphis) and Indiana.

More closely allied to *bracatus* than to any other described species, but differs in its smaller size and less obese form, closer pronotal punctures and more squamose striae intervals; the single line of long remote pale scales on the third interval in *bracatus* is wholly wanting here.

**Anacentrus ovulatus** n. sp.—Broadly ovulate, small in size, convex, slightly shining, black, the legs piceous; upper surface with the whitish scales close along the sides of the pronotum and sparse medio-basally, elsewhere wanting, on the elytra arranged somewhat as in *ornatus* but less dense and conspicuous where present, beneath sparse, each lying within a coarse puncture; beak in the female cylindric, nearly smooth,



feebly and evenly arcuate, slightly longer than the head and prothorax, the antennæ just beyond the middle; prothorax a fourth wider than long, the sides parallel, evenly and moderately arcuate, rapidly rounding inward in apical third to the tubulate apex, which is four-sevenths as wide as the base; punctures relatively somewhat coarse and close-set, sparser and isolated basally, the smooth median line obsolete apically; elytra at the feebly tumid humeri slightly wider than the prothorax, two-thirds longer, a fifth longer than wide, evenly parabolic; grooves deep, abrupt; intervals a little less to more than one-half wider than the grooves, each with a series—sometimes partially confused—of fine, feeble and not dense punctures. Length (♀) 2.18 mm.; width 1.1 mm. North Carolina (Southern Pines),—Manee.

Differs from *ornatus* in its much smaller size, less dense sculpture and less dense scales in the irregular spots and lines of the upper surface.

**Anacentrus decorus** n. sp.—More elongate-oval than in *ornatus*, convex, shining, pale brownish-red in color throughout; scales of the upper surface whitish, close toward the pronotal sides and less so toward the basal lobe, elsewhere dark, fine and very inconspicuous or wanting, the scutellum nude; on the elytra they are fine, sparse and in single lines, a little coarser, more irregular and distinct on the third and fifth intervals—throughout the length of the latter; beneath fine and sparse, lying within the notably coarse punctures; beak (♂) cylindrical, smooth, evenly and moderately arcuate, minutely and sparsely punctate and barely longer than the prothorax, or (♀) similar but longer, rather longer than the head and prothorax; antennæ behind three-fifths (♂) or at four-sevenths (♀); prothorax barely a fifth wider than long, the sides subparallel, very feebly arcuate, gradually rounding before the middle to the short, feebly constricted apex, which is rather more than half as wide as the base; punctures moderately coarse, separated by their own diameters or more, the smooth median line subentire; elytra two-fifths (♂) to one-half (♀) longer than wide, only a little wider than the prothorax and less than twice as long, elongate-oval in form, the apex rather acutely ogival; grooves somewhat coarse; intervals one-half wider than the grooves, with single, sometimes slightly impressed series of moderately coarse, not very widely separated punctures; male with a deep rounded impression at the base of the abdomen. Length (♂ ♀) 3.2–3.6 mm.; width 1.2–1.4 mm. Colorado (locality unrecorded).

This species would seem to be related to the Texan *punctiger* Lec., which is wanting in my collection, but, from the description which I drew up from the type, *punctiger* certainly has more elongate elytra, narrower thoracic apex and more even and sparser pronotal punctures. The prothorax in *decorus* is apparently more elongate than in *punctiger*, where it is said to be a third wider than long and less than half as long as the elytra.

T. L. Casey, Mem. Col. IX, Feb. 1920.

**Anacentrus oklahomæ** n. sp.—Oblong-oval, convex, black, the elytra piceous, the legs and beak rufous; upper surface with fine, hair-like and very sparse vestiture, slightly more evident toward the thoracic sides, in a single very inconspicuous series on the stria intervals, but with a denser spot of whitish squamules at the base of the third, and having very coarse, loose punctures throughout the under surface, each enclosing a very small and slender squamule; beak in the male slender, perfectly cylindrical, minutely, sparsely punctulate, feebly and evenly arcuate and as long as the head and prothorax, the antennæ at three-fifths; prothorax fully a third wider than long, the sides parallel, evenly and moderately arcuate, rapidly transversely rounding apically to the large and strongly tubulate apex, which is much more than half as wide as the base: punctures coarse, less so and well isolated medially but coarse and longitudinally confluent laterally, forming anastomosing rugæ; scutellum very small, nude, black; elytra just visibly wider than the prothorax and twice as long, elongate, ovulate, not very obtusely rounded at apex; humeral swellings feeble, the mes-epimera distinct from above, the grooves rather fine, somewhat deep; intervals twice as wide as the grooves to more, each with a single series of moderate, well separated and distinct punctures; abdomen of the male deeply impressed medio-basally. Length (♂) 2.9 mm.; width 1.18 mm. Oklahoma (Atoka),—Wickham.

This is another species allied to *punctiger*, but the elytral striæ are finer, and the intervals—described as one-half wider than the striæ in *punctiger*—relatively much broader. The apex of the prothorax, also, is more abruptly and strongly constricted and more broadly tubulate.

**Anacentrus minuens** n. sp.—Body very small, oblong-suboval, only very moderately convex, scarcely shining, rufo-piceous in color, the beak blackish; scales above yellowish-white and dense along the sides of the prothorax and before the basal lobe, elsewhere fine, sparse, darker and inconspicuous, on the elytra distinct on parts of the third and fifth intervals, but otherwise darker and inconspicuous, though not much smaller, rather sparse but distinct beneath; beak in the male slender, distinctly punctulate, squamose at base, cylindrical, very feebly but evenly arcuate and not longer than the prothorax, the antennæ near three-fifths; prothorax a fourth wider than long, the sides parallel, evenly, feebly arcuate, rounding and rapidly more convergent in less than apical third, the tubulate apex four-sevenths as wide as the base; punctures deep, even, moderately coarse and dense though clearly defined, the median smooth line entire; elytra short, abruptly a good deal wider than the prothorax, with rather prominent humeral swellings, three-fifths longer, scarcely a fourth longer than wide, the sides subparallel in anterior, ogivally rounded in posterior, half; grooves very moderate; intervals two to three times as wide as the grooves, with moderate loose punctuation; abdomen in the male narrowly and deeply impressed medio-basally. Length (♂) 2.2 mm.; width 0.9 mm. Arizona.

Related rather closely to the southern California *seclusus* and included with the type of that species in my former work, but it is much smaller, the beak very much too small even allowing for difference of sex, the prothorax smaller, shorter, less coarsely and more closely punctate, and the elytral striæ finer and not distinctly punctate; in the female type of *seclusus* the striæ are remotely, strongly and crenately punctate, the intervals relatively not so wide and with the punctures twice as numerous; the elytra in *seclusus*, when compared with the prothorax, are relatively much smaller than in *minuens*. The length and width of the type of *minuens* given in my revision are too great.

**Anacentrus validulus** n. sp.—Form, coloration, lustre and facies somewhat as in *blanditus*, but much larger and stouter, polished, rufo-piceous, the elytra clearer red-brown; upper surface nearly glabrous, the pale yellowish scales forming a narrow and rather dense abrupt pronotal margin and an elongate spot at the base of the third stria interval, the elytral surface elsewhere with only a few widely dispersed yellowish scales; under surface with very small slender squamules lying within the coarse punctures, the met-episterna alone densely squamose, less so posteriorly; beak in the female cylindrical, evenly and moderately arcuate, finely, sparsely punctate and shining, about as long as the head and prothorax, the antennæ at four-sevenths; prothorax a little wider than long, the sides rounding gradually from behind the middle to the feebly constricted apex, which is more than half as wide as the base; punctures small and widely separated, the smooth line not entire; elytra parabolic, just visibly wider than the prothorax and three-fourths longer, the grooves moderate, feebly crenulate; intervals three to nearly four times as wide as the grooves, with fine, rather confused punctures, having also single series of larger punctures bearing the scales and very remotely separated along intervals 3-5-7. Length (♀) 3.7 mm.; width 1.65 mm. Texas (Austin).

Separable easily from *blanditus*, occurring in the same region, by its much larger size and stouter form, somewhat larger and more elongate antennal club, much more convex pronotum, as shown by the more arcuate median line in lateral profile, and other characters; the elytral sculpture is, however, almost identical in the two species.

**Anacentrus subtropicus** n. sp.—Rather short, oblong-oval and convex, moderately shining, black, the legs rufous; entire upper surface completely glabrous; punctures of the under surface bearing slender and very sparse, inconspicuous squamules; beak in the female slender, evenly cylindrical, nearly smooth, very evenly, moderately arcuate and scarcely as long as the head and prothorax, the antennæ near three-fifths; prothorax between a fourth and third wider than long, the sides parallel and

evenly, distinctly arcuate, very gradually and coarcuately rounding anteriorly to the briefly subtubulate apex, which is barely more than half as wide as the base; punctures fine, rather sparse, larger and forming some rugulæ at the extreme sides; smooth median line sharply defined and entire; scutellum flat, smooth, bicuspid behind; elytra nearly one-half longer than wide, only slightly wider than the prothorax and two-thirds longer, the humeri obtusely tumid; outline subparabolic, the apex somewhat obtuse; striæ moderate, feebly and minutely, subcrenately punctate; intervals three to four times as wide as the striæ, with single or confused series of very fine punctures, those of the third and fifth also with some noticeably larger punctures at remote intervals in the series; abdomen shining, finely, rather sparsely punctulate. Length (♀) 2.8 mm.; width 1.3 mm. Texas (Brownsville),—Wickham.

There is no other species known to me with which this can be closely compared; probably it belongs to a more tropical structural type. The species which I described under the name *Limnobaris oblita*, has a similar perfectly nude and even more alutaceous upper surface, but in the latter the body is more elongate and less convex, and the sculpture throughout much stronger and decidedly closer.

**Anacentrus apertus** n. sp.—Elongate, oblong-oval, rather depressed, polished, deep black throughout, glabrous, the striae intervals with single series of minute and inconspicuous setiform squamules; those beneath also very small and sparse; beak slender, cylindrical, as long as the head and prothorax, a little shorter in the male, finely, sparsely punctulate, evenly and feebly arcuate, the antennæ slender, at three-fifths (♂) or but just behind this point (♀); first joint of club more than half the mass, pubescent; prothorax fully as long as wide, the sides parallel, broadly, subevenly arcuate, just visibly more converging before the middle to the apical constriction, the tubulate apex evidently more than half as wide as the base; punctures not coarse but distinct, well separated, sometimes rugulose confluent at the extreme sides; median smooth line slightly traceable centrally; scutellum very small, emarginate behind; elytra one-half longer than wide and subparabolic, with only feebly marked and obtuse humeri, slightly wider than the prothorax and four-fifths longer; striæ sharply defined but not very coarse or deep; intervals between two and three times as wide as the grooves, each with a single line of minute and widely spaced punctures; male with the apical part of the pygidium exposed, the abdomen shallowly impressed medio-basally. Length (♂ ♀) 3.5–3.8 mm.; width 1.2–1.33 mm. Utah (Provo and near St. George) and Texas (western),—Dunn. Seven specimens.

Allied to the Californian *nasutus* Lec., but much smaller, with narrower elytral striæ and relatively wider intervals and also finer and still sparser punctures of the under surface. In *nasutus* the prothorax is more abruptly constricted at apex than in *apertus*.

**Anacentrus subcrenatus** n. sp.—A little larger and stouter than *apertus*, similarly subdepressed and shining, black throughout, the sparse and minute hair-like squamules similar; beak similar, the antennæ slightly longer, the basal funicular joint more notably elongate; prothorax similar but with the punctures stronger, notably coarser and more rugose toward the sides; elytra nearly similar but with the somewhat coarser grooves more coarsely and subcrenately punctate, the punctures of the interstitial series small but stronger than in *apertus*. Length (♀) 3.5 mm.; width 1.4 mm. Texas (El Paso),—Dunn.

This species is not as large as *nasutus*, and the elytral grooves are less coarse and more crenately punctate; the beak is relatively a little longer and more arcuate and the sculpture toward the sides of the pronotum coarser, dense and more rugose.

**Anacentrus franciscus** n. sp.—Body nearly as in *nasutus* but much smaller, similar in color and in general features of sculpture and vestiture; beak in the female nearly similar but shorter, not longer than the prothorax and more arcuate; prothorax similar but with the apex still more abruptly tubulate, the punctures finer and more numerous, a little coarser and moderately close at the sides; elytra almost similar but shorter, only three-fourths longer than the prothorax, the small punctures along the bottom of the striæ more distinct and sharply defined but not at all crenate; interstitial serial punctures still smaller. Length (♀) 3.4 mm.; width 1.3 mm. California (San Francisco). A single example, taken by the writer.

The four forms *nasutus*, *apertus*, *subcrenatus* and *franciscus*, form a compact small group of the genus and are undeniably closely interallied, so that they might appropriately be considered, perhaps, as subspecifically related to one another. *Nasutus* is the largest, being somewhat over 4 mm. in average length, and is from southern California—described from Tejon—and in my collection is represented by a series of five specimens from Los Angeles Co.

**Anacentrus angustus** n. sp.—Form narrow, very elongate and somewhat depressed, the upper profile of the pronotum only just visibly arcuate, the color dark red-brown throughout, the lustre moderately shining; squamules of the upper surface small, slender and yellowish, indistinct on the pronotum except along the sides, where they are sparse and very minute, forming single lines on the striae intervals, minute and sparse beneath; beak in the female rather short, scarcely as long as the prothorax, cylindric, evenly and moderately arcuate, finely punctulate, the antennæ near four-sevenths, the first joint of the club much more than half the mass; prothorax distinctly longer than wide, the sides parallel and straight, gradually and moderately rounding before the middle, the tubulate apex two-thirds as wide as the base; punctures moderate and well separated, coarser and rugulose confluent at the

sides, the median smooth line wider centrally, subentire; scutellum very small; elytra more than three-fourths longer than wide, very narrowly subparabolic, barely wider than the prothorax and three-fourths longer, the humeri scarcely at all prominent; striæ deep and groove-like, moderately coarse, the intervals twice as wide as the grooves to somewhat less, with single series of moderate though strong and widely spaced punctures, the punctures beneath moderate and sparse; anterior coxæ separated by more than their own width. Length (♀) 3.0 mm.; width 0.8 mm. Oregon (Huntington). One specimen.

Not closely allied to any other species and distinguishable readily by its slender, subparallel form and other characters noted above. It belongs to the *nasutus* section however.

\**Anacentrus guatemalensis* n. sp.—Elongate-oval, polished and convex, piceous-black, the elytra less dark than the prothorax; scales above yellowish and conspicuous though sparse along the sides of the pronotum, in a small denser spot at each side of the base and on the basal lobe, elsewhere wanting; on the elytra they are slender, darker and sparse in single interstitial lines and more scale-like and paler, though slender and sparse, in a sublateral vitta extending to the apex and thence along the suture in apical third; on the under surface they are slender, white and sparse throughout within the coarse and somewhat close-set punctures; beak in the female cylindric, evenly and slightly arcuate, finely, sparsely punctulate and as long as the head and prothorax, the antennæ at four-sevenths, the club narrow; prothorax a sixth wider than long, parallel, the sides slightly rounding anteriorly, the subtubulate apex two-thirds as wide as the base; punctures sparse, deep and rather coarse, with a sublateral smoother area, the median line also smooth; scutellum very small, nude; elytra one-half longer than wide, subparabolic, slightly wider than the prothorax and four-fifths longer, the striæ moderate; intervals three times as wide as the striæ, each with a single line of moderate, deep and widely spaced punctures. Length (♀) 3.0 mm.; width 1.15 mm. Guatemala (Mauricio,—elev. 500 ft.). One example.

A distinctly differentiated species in its polished surface, coarse, rather sparse punctures and in peculiarities of ornamentation.

\**Anacentrus politus* n. sp.—Subparallel, narrower than the preceding, convex, polished, piceous-black throughout; whitish scales of the upper surface loosely aggregated along the sides of the pronotum and denser in a spot on the basal lobe, the squamules elsewhere invisible; on the elytra they are very small, slender and scarcely visible but become more distinct though slender and sparse toward the suture apically, the very small scutellum nude as usual; beneath, the squamules are fine and very sparse within the very coarse, rather close-set punctures; beak in the female slender, cylindric, evenly but only feebly arcuate, finely, sparsely punctulate and only as long as the prothorax, the antennæ at four-sevenths, the club narrow as in the preceding; prothorax very nearly as long as wide, the parallel sides distinctly, subevenly arcuate

from base to the tubulate apex, which is nearly three-fourths as wide as the base; punctures small but deep, sparse, separated by two or three times their diameters, a little larger and closer laterally, the smooth median line traceable in basal half; elytra three-fifths longer than wide, barely wider than the prothorax and fully twice as long, the sides parallel and nearly straight, slightly converging and partially sinuate posteriorly to the obtusely rounded apex; striæ deep but not coarse; intervals fully three times as wide as the striæ, each with a single line of very fine and widely spaced punctures. Length (♀) 2.6 mm.; width 0.75 mm. Guatemala (Yzabal,—elev. 100 ft.). One specimen.

This species is peculiar in the form of the elytra, the posterior partially sinuous obliquity toward the obtusely rounded apex, exactly as in *Centrinogyna*, indicating again that *Anacentrus* is a genus rather closely allied to *Centrinogyna*, but differing in the small size of the body and in having only the tip of the oblique pygidium exposed in the male. I cannot find that either of these Guatemalan species was described by Mr. Champion, and I kept no record of the source from which they were received many years ago.

#### **Dirabius** n. gen.

The body here is much larger than in the preceding genus and is subglabrous, the squamules above and beneath always minute, grayish, very sparse and inconspicuous, the integuments at first view being glabrous. The beak is rather long and slender, cylindric and sometimes almost straight in the female, but, unlike the preceding genus and more nearly as in *Odontocorynus*, it becomes thick and strongly sculptured in the male; the surface of the beak joins the head without constriction but there is generally a frontal puncture. The mandibles are decussate, with large internal tooth, the antennæ slender, the first two funicular joints notably elongate and often subequal and the club peculiarly narrow, gradually pointed and with long basal joint; the anterior coxæ are well separated and the prosternum simple in both sexes. The type of the genus is *Centrinus rectirostris* Lec., which I erroneously referred to *Limnobaris* in my revision. *Centrinus calvus* Lec., from Georgia and Florida, also belongs to this genus, but is not now represented in my collection; the others at hand may best be treated in tabular form as follows:

Body broader and oblong, convex, the prothorax sometimes inflated at the sides. [Subg. DIRABIUS in sp.].....2

- Body more elongate, narrower, subcylindric or feebly anteriorly narrowed, the habitus extremely similar to that of *Limnobaris T-album* and *pusio*. [Subg. LIMNOBAROPSIS nov.] . . . . . 7
- 2—Prothorax not inflated at the sides. . . . . 3
- Prothorax more or less strongly, laterally inflated and rounded, apparently in both sexes. . . . . 6
- 3—Head half as wide as the thoracic base. Body elongate-suboval, strongly convex, feebly alutaceous, deep black; beak in the female much longer than the head and prothorax, cylindric, nearly straight, just visibly and evenly arcuate, finely, not densely punctate, the antennæ at the middle; prothorax a fourth wider than long, the sides moderately convergent and just visibly arcuate, rounding at apical third to the strongly tubulate apex, which is much more than half as wide as the base; punctures moderately coarse but not deep, finer medially, everywhere well separated, the propleura rugulose; median smooth line entire; elytra four-fifths longer than wide, evidently wider than the prothorax and more than twice as long, the humeral swellings broad but feeble; sides parallel and feebly arcuate, broadly and circularly rounding in about apical third; grooves narrow but very deep and abrupt; intervals at least three times as wide as the grooves, with fine and subconfused, slightly transverse, loose punctuation; abdomen finely, sparsely punctate; legs slightly picescent. Length (♀) 4.7 mm.; width 1.75 mm. Illinois. . . . . **rectirostris** Lec.
- Head much less than half as wide as the thoracic base. . . . . 4
- 4—Elytral grooves smooth, though closely punctate along the bottom. Body larger in size, polished and deep black throughout; beak in the male thick, very strongly sculptured, straight, becoming slightly arcuate in about apical half, as long as the prothorax, the antennæ at four-sevenths, the club extremely slender, fully three times as long as wide, as long as the four preceding joints; prothorax between a fourth and third wider than long, the sides subparallel and very feebly arcuate, rapidly rounding at apical third, becoming subtransverse to the notably long tubular apex, which is half as wide as the base; punctures not very coarse, shallow and well separated, with a submedian elongate impunctate spot at each side near outer fourth and an entire impunctate median line; base very obtusely and feebly cuspidate medially, the scutellum smooth flat and quadrate; elytra three-fourths longer than wide; only slightly wider than the prothorax and more than twice as long, with rather prominent humeral swellings, the sides parallel and straight, gradually converging and broadly, circularly rounding behind, the grooves very moderate; intervals three to nearly four times as wide as the grooves, the punctures subtransverse, moderately strong, confusedly subserial and not dense; abdominal punctures, fine, not close, the abdomen strongly impressed medially at base in the male; anterior coxæ separated by rather less than half their width. Length (♂) 5.8 mm.; width 2.25 mm. North Carolina (Southern Pines),—Manee.
- nimius** n. sp.



Elytral grooves coarser, more or less distinctly crenate, at least in part; body smaller. . . . . 5

5—Body oblong, convex, shining, deep black, the legs piceo-rufous; beak in the male nearly as in the preceding in form, thick, deeply and strongly sculptured, about as long as the head and prothorax, the antennæ beyond the middle, shorter than in *nimius*; prothorax shorter, two-fifths wider than long, the sides parallel, evenly and distinctly arcuate, rapidly rounding in apical fourth, becoming subtransverse to the long tubular apex, which is less than half as wide as the base; punctures small and moderately separated, gradually larger, deeply and rugulately coalescent laterally, the smooth median line narrow and not entire, the discal smooth spots of the preceding wanting; elytra three-fifths longer than wide, barely at all wider than the prothorax and evidently more than twice as long, the humeral callus distinctly prominent; sides just visibly converging and very feebly arcuate, gradually more rounding behind to the broad and obtusely rounded apex; grooves deep, feebly crenulate basally; intervals two and one-half to three times as wide as the grooves, the punctures fine, feeble and loosely confused throughout the surface; abdomen rather feebly impressed medio-basally, the punctures more numerous than in *nimius*. Length ( $\sigma^7$ ) 4.2 mm.; width 1.6 mm. North Carolina (Southern Pines).—Manee. . . . . **atromicans** n. sp.

Body broadly oblong-suboval, convex, less shining, faintly alutaceous, black, the legs obscure rufous; beak in the female cylindric and rather slender, distinctly and subevenly arcuate, finely punctulate and as long as the head and prothorax, the antennæ at the middle; prothorax fully two-fifths wider than long, the sides sensibly converging from the base and feebly arcuate, more so basally, rather rapidly but evenly rounding in apical fourth to the tubulate apex, which is distinctly less than half as wide as the base; surface notably convex, the punctures moderate, separated by their own widths, gradually closer and stronger laterally, longitudinally rugose at the sides, without discal smooth spots, the impunctate median line distinct though obsolete anteriorly; scutellum quadrate, flat, not very small; elytra two-thirds longer than wide, very slightly wider than the prothorax and much more than twice as long, with very moderate humeral prominences; sides parallel, evenly and moderately arcuate, obtusely and circularly rounded behind; grooves decidedly coarse, finer suturally behind, almost everywhere strongly crenate; intervals two to two and one-half times as wide as the grooves, with fine and loosely confused punctures. Length ( $\varnothing$ ) 4.3 mm.; width 1.8 mm. Florida (Enterprise). . . . . **promptus** n. sp.

6—Form oblong, convex, moderately shining, black, the tibiæ and tarsi piceous; small slender squamules more abundant and distinct than in the preceding species; beak in the male thick, strongly and deeply sculptured, feebly but very evenly arcuate and as long as the head and prothorax, the antennæ at four-sevenths, the club very narrow as usual; prothorax transverse, nearly one-half wider than long, much wider near the middle than at base, the parallel sides strongly,

subevenly arcuate, strongly converging in apical fourth to the long tubulate apex, which is distinctly less than half as wide as the base; punctures not very coarse but deep and close-set, longitudinally rugose laterally, with a small elongate vacant spot at each side near outer fifth, the smooth median line only visible centrally; scutellum quadrate, impressed along the middle and more emarginate behind than in the preceding species; elytra three-fifths longer than wide, somewhat narrower than the prothorax and barely twice as long, with moderate humeral callus; sides subparallel and feebly arcuate, gradually more arcuate behind to the broadly obtuse and circularly rounded apex; grooves deep and abrupt, not at all crenulate; intervals three times as wide as the grooves, with fine and rather close-set but loosely confused punctuation. Length ( $\sigma^7$ ) 4.2 mm.; width 1.72 mm. North Carolina (Southern Pines).—Mancee.

*inflaticollis* n. sp.

Form oblong, more parallel, convex, black, the elytra feebly picescent, the legs and antennæ piceo-rufous, moderately shining, the elytra subalutaceous, the fine sparse squamules distinct, alternately confused and in nearly single line on the elytra; beak in the male thick, strongly sculptured, straight in basal, arcuate in apical, half, as long as the head and prothorax, the antennæ at four-sevenths; prothorax fully a third wider than long, the sides parallel, evenly and rather strongly arcuate, very abruptly, subtransversely rounded anteriorly to the long tubulate apex, which is fully half as wide as the base; punctures not very coarse but strong, very close-set, less so basally, larger and more impressed laterally, the median smooth line distinct; entire surface notably convex as in the preceding; scutellum quadrate, impressed along the middle; elytra equal in width to the prothorax and more than twice as long, fully three-fourths longer than wide, the humeral callus only moderate but evident; sides feebly converging and broadly arcuate, gradually more arcuate behind to the obtusely but not very broadly rounded apex; grooves deep, sharply defined, not at all crenulate; intervals alternating, two to three times as wide as the grooves; punctures numerous, strong, confused on the third and fifth, densely so basally, in uneven single line on most of the others; male with the abdomen impressed medially toward base, the anterior coxæ separated by a third their width. Length ( $\sigma^7$ ) 4.3 mm.; width 1.7 mm. Pennsylvania.....

*rotundicollis* n. sp.

7—Body elongate and rather narrow, subcylindrically convex, black throughout, the sparse, minute and setiform squamules everywhere very indistinct; beak nearly similar in the sexes, deeply sculptured and rather thick, barely as long as the head and prothorax ( $\sigma^7$ ), a little longer ( $\varphi$ ), almost straight, the antennæ slightly beyond the middle in both sexes; prothorax but slightly wider than long, the sides just visibly converging and feebly subsinuate, rounding rapidly in apical third to the broad tubulate apex, which is two-thirds as wide as the base; punctures very moderate and shallow, rather close-set, sparser basally, the smooth line subobsolete anteriorly; scutellum quadrate, not canaliculate; elytra twice as long as wide, evi-

dently wider than the prothorax and much more than twice as long, the humeral swellings feeble but evident, the sides parallel, feebly arcuate, gradually rounding behind; striæ narrow; intervals four or five times as wide as the grooves, with fine and sparse, very feeble and loosely confused punctuation and approximately single series of minute and indistinct squamules; male with the abdomen impressed medio-basally; anterior coxæ separated by slightly less than half their widths. Length ( $\sigma^7$   $\text{♀}$ ) 4.3-4.5 mm.; width 1.5-1.7 mm. Indiana. Four specimens. . . . . **tentus** n. sp.

Body relatively less elongate and slightly stouter, parallel, convex, slightly shining, black, the legs partially picescent, the sparse fine squamules forming a single line on the stria intervals; beak in the male nearly as in the preceding but somewhat shorter, deeply sculptured, thick and nearly straight, the antennæ more apical, inserted at three-fifths; prothorax shorter, about a fourth wider than long, the sides subparallel, very feebly arcuate, gradually more rounding before the middle to the tabulate apex, which is three-fifths as wide as the base; punctures small, unevenly somewhat dense to sparse; median smooth line uneven, sometimes entire; scutellum flat, quadrate, more truncate behind and less emarginate than in *tentus*; elytra three-fourths longer than wide, barely visibly wider than the prothorax and evidently more than twice as long, the sides parallel, feebly arcuate, the apex obtusely rounded; grooves as in *tentus*; intervals more equal, four times as wide as the striæ, finely, very feebly and sparsely, unilineately punctulate; anterior coxæ separated by a third their width. Length ( $\sigma^7$ ) 4.0-4.2 mm.; width 1.5-1.6 mm. California (locality unrecorded). Two specimens.

**californicus** n. sp.

The species described above under the name *rotundicollis* seems to make the closest approach to *calvus* Lec., but, from the description which I drew from the original type, the size in the former is very much smaller, the prothorax more rounded at the sides and the elytra not wider than the prothorax and relatively very much longer.

The last two species of the table are of a peculiar type, strongly recalling the European *Limnobaris T-album*, but the sides of the body beneath completely lack the dense scales characterizing *Limnobaris*; the beak is longer, still thicker and straighter, the antennal club much narrower and the ventral pygidium of the male more exposed at tip.

#### **Trichodirabius** n. gen.

This genus is allied to the preceding in some general characters, but differs radically in others; the prothorax, for example, is not so

abruptly or strongly tubulate at apex, often in fact without distinct trace of constriction, and the body is conspicuously clothed with slender white scales, almost uniformly distributed above, but more rounded and becoming denser toward the sides beneath. The antennæ are almost similar, but the club is smaller and not so attenuate. The beak is strongly sculptured and rather thick in the male, much longer, nearly smooth and cylindric in the female. The type of *Trichodirabius* is *Centrinus canus* Lec., from Florida, and the Texan *Centrinus longulus* Lec., of which I now have a male and female from Brownsville, also belongs here. The following is a hitherto undescribed species:

\**Trichodirabius indutus* n. sp.—Elongate-oval, convex, deep black throughout, alutaceous, clothed closely above with linear white scales, confusedly and closely arranged on all the strial intervals, slightly separated beneath, but narrowly dense along the sides of the body; beak in the female long, cylindric, smooth, black and evenly, moderately arcuate, abruptly squamose at base and slightly longer than the head and prothorax; the antennæ slightly behind the middle and black; prothorax between a fourth and third wider than long, the sides feebly converging, broadly and subevenly arcuate to a slight apical sinus, defining the feebly subtubulate apex, which is fully half as wide as the base; punctures moderately strong, close to well separated, the smooth median line distinct and entire; scutellum flat, quadrate and nude; elytra fully four-fifths longer than wide, with parallel and arcuate sides, gradually obtusely rounding behind, at the middle slightly wider than the prothorax, evidently more than twice as long; striæ moderate, distinct by reason of abrupt partings of the vestiture; intervals alternating somewhat, two to three times as wide as the striæ, finely, unevenly and loosely punctulate. Length (♀) 3.9–5.0 mm.; width 1.4–1.8 mm. Mexico (Vera Cruz),—Wickham. Four specimens.

The antennal club is relatively very small, oval, the first two funicular joints elongate, the anterior coxæ separated by nearly their own width, the third and fourth abdominal segments glabrous in anterior half, somewhat as in *Trichobaris*, and the femora are as conspicuously albido-squamulose as the median parts of the under surface. This species is allied to *longulus* Lec., but is more elongate and has denser punctuation and vestiture; my four specimens are females.

#### **Barilepis** n. gen.

The body in this genus is abbreviated, oblong-suboval, densely clothed with large scales above and beneath, the beak rather short,

arcuate, the antennæ also somewhat short, with relatively large, stout and ovate 4-jointed club, which is as long as the preceding six joints of the funicle; the first funicular joint is nearly as long as the next four; the anterior coxæ are separated by more than their own width, with flat prosternum, unarmed in the male; the scutellum is quadrate or narrower and nude. There are three species at hand, of which *Centrinus griseus* Lec., may be regarded as the type; they can be described as follows from the female:

Prothorax larger, only a fourth wider than long. Body stout, oval, convex, piceous, with rufous legs; scales above almost white, dense on the prothorax, especially toward the sides, generally in single line on the stria intervals, irregularly doubled on the second and third and toward base of the fifth, close-set beneath; beak fully as long as the head and prothorax, cylindrical, strongly arcuate and feebly sculptured, with the antennæ rather behind the middle; prothorax somewhat coarsely, deeply and densely punctate, with narrow and incomplete median smooth line, the sides parallel, slightly arcuate, rounding before the middle to the feebly constricted apex, which is three-fifths as wide as the base; basal lobe a third the total width; elytra subparabolic, a fourth longer than wide, obtuse at apex, slightly wider than the prothorax and only four-sevenths longer, the grooves rather coarse. Length (♀) 3.0 mm.; width 1.35 mm. Texas (Galveston)..... *grisea* Lec.

Prothorax shorter and more transverse..... 2

2—Elytra evenly parabolic, not very obtuse, being somewhat strongly rounded behind; body oblong-oval, convex, piceous, the elytra and legs more rufous; scales above yellowish, large and broadly dense toward the pronotal sides and in a broad medial area, elsewhere smaller and less conspicuous; on the elytra they are dense and confused on the second, third and thence on the alternate intervals to the sides, irregularly uniseriate on the others; they are close and conspicuous beneath, fine and indistinct on the pro- and mesopleura; beak (♂) arcuate, rather thick, more punctate and not longer than the head and prothorax, or (♀) longer, less stout and smooth except basally; antennæ at three-fifths (♂) or a little beyond the middle (♀); prothorax two-fifths wider than long, the parallel sides distinctly and subevenly arcuate, more oblique anteriorly to the unconstricted apex, which is half as wide as the base, the basal lobe as in *grisea*; elytra a third longer than wide, slightly wider than the prothorax and four-fifths longer, the grooves rather coarse; male with the abdomen feebly impressed medially near the base. Length (♂ ♀) 3.0-3.2 mm.; width 1.25 mm. Arizona (locality unrecorded). Two examples..... *apacheana* n. sp.

Elytra with the sides only feebly oblique and slightly arcuate to the very broadly rounded and obtuse apex; outline oblong, rather stout; color piceous-black, the legs obscure rufous; scales above large, pale yellowish and dense, slightly less so just within the lateral

dense pronotal areas, dense on the stria intervals, narrowly on the outer intervals as well as the first and fourth; beneath they are distinct but widely separated, dense on anterior two-thirds of the met-episterna, evident on most of the pro- and mesopleura; beak strongly, evenly arcuate, moderately slender, black, feebly punctulate and not longer than the prothorax, the antennæ barely beyond the middle; prothorax a third wider than long, subinflated before the middle, the sides parallel and moderately arcuate, oblique anteriorly to the unconstricted apex, which is slightly more than half as wide as the base; punctures moderate and dense, the smooth line narrow and incomplete; elytra but little more than a fourth longer than wide, slightly wider than the prothorax and three-fifths longer, the grooves not so coarse as in the two preceding. Length (♀) 3.3 mm.; width 1.28 mm. Virginia (Fort Monroe).

*virginica* n. sp.

These species adhere closely to a common type but I believe them to be distinct as described. Individually, they seem to be rare.

#### *Sibariops* n. gen.

The species of this genus, the type of which is *Centrinus confinis* Lec., are very numerous, but only a few of them have been described. The general structure is not very unlike *Dirabius*, but the body is smaller, frequently minute, the outline sometimes more abbreviated and the surface more or less convex. On segregating the species, a marked peculiarity of habitus is seen to pervade the genus, and it differs from any of the preceding members of the *Limnobaris* series in having a slender, subporrect spine before each anterior coxa and a deep prosternal pit between the spines; these however often become obsolete, in which case the deep rounded pit also disappears. The second funicular joint is elongate, though much smaller than the first, and the club is more or less narrowly oval, with large pubescent basal joint.

In drawing up the following table the specific descriptions can be curtailed by not repeating characters that are virtually uniform throughout. The vestiture is always sparse, consisting of fine and more or less inconspicuous squamules, usually uniseriate on the stria intervals, and but seldom much more conspicuous and never squamiform on the under surface; the color of the body and legs may be known to be black, except where the coloration is specially stated:

Pronotal punctures never very coarse but deep and notably close-set,  
sometimes dense..... 2

- Pronotal punctures more or less sparse or at least well separated. . . . 10
- 2—Legs black as usual. . . . . 3
- Legs piceo-rufous. . . . . 9
- 3—Interstitial punctures confused on some or all of the intervals. . . . 4
- Interstitial punctures in even or uneven, at least approximately, single series almost throughout. . . . . 6
- 4—Elytral punctures moderately strong and dense throughout. Form rather broad but oblong-oval; beak shorter than the prothorax in both sexes, feebly arcuate, more slender and smoother in the female as usual; antennæ inserted near three-fifths ( $\sigma^7$ ), or just behind the middle ( $\varphi$ ); prothorax but slightly shorter than wide, the parallel and feebly arcuate sides oblique in less than apical third, the apex feebly constricted and fully half as wide as the base; punctures deep and very close, the smooth median line distinct, entire; elytra a little wider than the prothorax and very nearly twice as long, obtusely rounded at apex; grooves moderately coarse, closely punctate, not crenate; intervals from less to more than twice as wide as the grooves; prosternal spines of the male long, slender and porrect. Length ( $\sigma^7$   $\varphi$ ) 3.0–3.4 mm.; width 1.2–1.4 mm. Indiana, Mississippi (Vicksburg) and Nebraska. Nine specimens. . . *confusa* Boh.
- Elytral punctures coarser, similarly dense. Form more broadly oblong-oval and larger in size, black throughout, sublutaceous, the fine gray squamules rather sparse but everywhere evident, confused throughout on the elytra; beak in the female very nearly as long as the prothorax, very smooth and slender, feebly tapering, rather strongly arcuate, the antennæ slightly behind the middle; prothorax larger than in *confusa*, very slightly wider than long, the subparallel and feebly arcuate sides more rapidly and more transversely rounded just behind the tubulate apex, which is fully half as wide as the base; sculpture similar, except that the punctures are a little coarser; elytra longer and with more converging arcuate sides, three-fifths longer than wide, the apex similarly not very obtuse and with somewhat individually distinct tips, distinctly wider than the prothorax and almost twice as long; striæ similar; interstitial sculpture dense and much coarser and deeper. Length ( $\varphi$ ) 3.65 mm.; width 1.45 mm. Kansas (locality unrecorded).
- kansana* n. sp.
- Elytral punctures more loosely confused, having a tendency to form single series on some of the intervals. . . . . 5
- 5—Interstitial punctures nearly as strong as in *confusa*, the beak in the female unusually arcuate. Body more ventricose, with relatively wider elytra; beak in the female slightly longer than the prothorax, slender, smooth and strongly arcuate, slightly tumid and more punctulate at base, the antennæ barely behind the middle; prothorax shorter, a fifth wider than long, the parallel sides more arcuate, more gradually oblique anteriorly, the feebly tubulate apex rather more than half as wide as the base; elytra shorter, fully a fifth wider than the prothorax and twice as long, obtusely subparabolic, with moderate humeral callus; grooves moderately coarse, not very deep; intervals twice as wide as the grooves, the

punctures a little smaller and sparser than in *confusa*, those of the third and fifth tending to form single lines, except basally. Length (♀) 3.0 mm.; width 1.3 mm. Mississippi (Vicksburg).

**latipennis** n. sp.

Interstitial punctures nearly as in *confusa* and almost equally dense but confused only on the second, third and fifth intervals, forming even single close-set series on all the others. Body oblong-oval, moderately convex, dull above throughout and with small but evident squamulæ, more shining and with whiter and more evident though fine sparse squamules beneath; beak in the male rather thick, slightly tapering, strongly but finely sculptured, arcuate, straighter basally and nearly as long as the prothorax, the antennæ near three-fifths; prothorax slightly wider than long, the sides gradually converging, broadly and evenly arcuate, parallel behind about the middle, the apex only feebly constricted and rather more than half as wide as the base; sculpture as in *confusa*; elytra notably short, a third longer than wide, very little wider than the prothorax and nearly four-fifths longer, the sides parallel, rounding in apical half, the humeral callus moderate; grooves rather coarse; intervals from less to more than twice as wide as the grooves; male abdomen distinctly impressed medio-basally, the prosternal spines extending to the thoracic apex. Length (♂) 2.7 mm.; width 1.2 mm. North Carolina (Asheville).....

**obesella** n. sp.

Interstitial punctures notably fine, well separated.....6

6—Form oblong-oval, moderately shining; beak in the female as in *latipennis*, but not quite so arcuate and a little shorter, though somewhat longer than the prothorax, the antennæ similar; prothorax still shorter, fully a third wider than long, the sides more evenly arcuate from base to the rather strongly tubulate apex, which is much more than half as wide as the base; sculpture nearly similar, the smooth median line entire; elytra narrower, obtusely subparabolic, with feebler humeral prominences, slightly wider than the prothorax and fully twice as long; grooves less coarse; intervals somewhat more than twice as wide as the grooves; punctures fine, confused throughout basally but tending to form finer single series posteriorly. Length (♀) 2.7 mm.; width 1.15 mm. Florida (Enterprise).....

**tubifera** n. sp.

F m more elongate, somewhat more shining; beak in the male rather thick, feebly arcuate, dull, distinctly sculptured and not quite as long as the prothorax, the antennæ at four-sevenths; prothorax narrower and longer, about as long as wide, the sides very evenly and moderately arcuate in anterior, becoming less so and parallel in basal, half, the moderately constricted apex much more than half as wide as the base; punctures nearly similar, the smooth line barely attaining the apex; elytra fully a fourth wider than the prothorax and twice as long, the sides parallel and nearly straight behind the feeble humeral prominences, rounding in about apical half to the obtuse apex, with traces of feeble subapical *Centrinogyna*-like sinuation; striæ and punctures nearly as in the preceding; abdomen of the male with a deep rounded impression medially at base, the



porrect prosternal spines slender, shorter than in *confusa*. Length (♂) 3.3 mm.; width 1.2 mm. Illinois (southern)... **illiniana** n. sp.

6—Prothorax nearly as long as wide.....7

Prothorax much more abbreviated, distinctly shorter than wide.....8

7—Body small, elongate-oval, convex, feebly shining; beak notably short in both sexes, dull and sculptured, nearly straight, but arcuate apically (♂), or very slender, slightly and evenly arcuate and nearly smooth (♀), the antennæ at four-sevenths (♂) or slightly behind the middle (♀); prothorax with the sides feebly converging, gradually a little more arcuate apically, the feebly constricted apex much more than half as wide as the base; punctures moderately close-set and distinct, the median smooth line not quite attaining the apex; basal lobe short and broadly rounded; scutellum small, nude as usual; elytra parabolic, a little wider than the prothorax and about twice as long; grooves moderate but deep, not crenulate, the intervals twice as wide as the grooves to somewhat less; prosternum of the male with a narrow anterior fossa, devoid of any trace of spines, the abdomen with rounded basal impression. Length (♂ ♀) 2.2–2.4 mm.; width 0.9–1.1 mm. Florida (Enterprise). Five specimens..... **fraterculus** Csy.

Body larger and stouter, more oblong-oval and less convex, subalutaceous; beak in both sexes nearly as in the preceding; prothorax larger and broader, not quite so nearly as long as wide, the sides similar, the more distinctly tubulate apex slightly more than half as wide as the base; punctures and smooth median line similar; elytra much broader, more ovulate, with similarly very feeble humeral prominences, distinctly wider than the prothorax and about twice as long; grooves, intervals and sculpture nearly similar, the slender setiform squamules more numerous; prosternum of the male with a very deep circular pit and two slender and well developed porrect spines, the abdomen more acutely and narrowly impressed at the middle of the rather strongly punctured first segment. Length (♂ ♀) 2.6–2.8 mm.; width 1.15–1.25 mm. Florida, Alabama and New Jersey (Newark). Seven specimens..... **diffidens** n. sp.

Body more narrowly oval and rather more convex, feebly shining; beak in the male short, not as long as the prothorax, moderately thick, more shining and less closely punctate than usual in that sex, similar in form to that of the preceding and with similar small dorsal tumidity adjoining the feeble transverse impression of the head; prothorax as long as wide, longer and narrower than in *diffidens*, the sides gently rounding, becoming straighter and subparallel behind the middle, the subtubulate apex narrower, not more than half as wide as the base; punctures somewhat more separated, the smooth median line biabbreviated; elytra narrower and with the similarly feebly oblique sides less arcuate, distinctly wider than the prothorax and not quite twice as long, the subuniseriate to confused punctures closer and evidently stronger; intervals twice as wide as the grooves to distinctly less; male with prosternal porrect spines and deep perforate fovea, the deep medio-basal impression of the abdomen

- much longer, extending almost through the second segment. Length (♂) 2.8 mm.; width 1.15 mm. New York (locality unrecorded). One example..... *fultonica* n. sp.
- 8—Form narrowly oblong-oval, not very convex, rather dull in lustre; beak in the female very slender, evenly arcuate, as long as the prothorax, smooth, squamulose at each side above basally, the antennæ at the middle; prothorax a fifth wider than long, the sides parallel in basal half, rounding gently thence to the subtubulate apex, which is three-fifths as wide as the base; punctures small but close-set, the narrow smooth line not attaining the apex; elytra narrowly subparabolic, almost one-half longer than wide, rather obtusely rounded at apex, only slightly wider than the prothorax and somewhat more than twice as long; grooves moderate, deep; intervals about twice as wide as the grooves, each with a single regular series of distinct punctures. Length (♀) 2.25 mm.; width 0.85 mm. Mississippi (Vicksburg). One example.... *ægra* n. sp.
- Form broader, oblong-suboval, with wider and relatively shorter elytra, slightly more shining; beak (♂) sparsely punctate and shining, of the usual form and much shorter than the prothorax, or (♀) equal to the latter, slender, smooth and more arcuate; antennæ well beyond or slightly behind the middle respectively; prothorax a fourth to fifth wider than long, the sides as in the preceding, the subtubulate apex about three-fifths as wide as the base; punctures stronger and less close-set than in the preceding, the smooth line not attaining the apex; elytra a fourth longer than wide, the sides less oblique and more arcuate with the apex obtusely rounded, distinctly wider than the prothorax but not quite twice as long, the sculpture similar, except that the punctures of the interstitial series are finer and less close-set; abdomen of the male strongly impressed medially through the first segment, the prosternum not deeply fossate and with two very short and slender, porrect spines. Length (♂ ♀) 2.3–2.45 mm.; width 0.95–1.0 mm. North Carolina (Asheville and Black Mts.)..... *ashevillensis* n. sp.
- 9—Body oblong-oval, moderately stout, feebly shining, piceous-black; beak in the female very slender, moderately arcuate and in great part smooth, unusually short, not as long as the prothorax, feebly swollen above at base and more punctulate; antennæ barely behind the middle; prothorax a fifth or sixth wider than long, the sides broadly arcuate, becoming parallel behind the middle, the short tubulate apex slightly more than half as wide as the base; punctures moderate, close-set, the smooth line not quite entire; elytra obtusely parabolic, slightly wider than the prothorax and twice as long; striæ moderate, the intervals two or three times as wide as the grooves, minutely, loosely and more or less confusedly punctulate, the punctures occasionally forming partial single series. Length (♀) 2.8 mm.; width 1.15 mm. Colorado.... *curtulirostris* n. sp.
- Body much larger and stouter, oblong-suboval, alutaceous, black; beak in the male three-fourths as long as the prothorax, sparsely punctate, straight, bent at the point of antennal insertion near four-sevenths; prothorax a fifth wider than long, the sides parallel, broadly arcuate,

more rapidly rounding near the apex, which is tubulate and half as wide as the base; punctures moderately small, separated medially by nearly twice their widths, gradually dense and longitudinally subrugulose laterally; smooth line distinct; elytra evenly parabolic, a third longer than wide, distinctly wider than the prothorax but only three-fourths longer; grooves deep, shining; intervals twice as wide as the grooves, with fine and well spaced punctures, loosely confused more or less on all the intervals; male abdomen distinctly impressed medio-basally, the prosternum with a very deep but unusually small perforation and two porrect spines, extending beyond the apex. Length ( $\sigma^7$ ) 3.35 mm.; width 1.45 mm. Florida.

**surrufipes** n. sp.

10—Body oval or subventricose, smooth, the pronotal punctures small and rather inconspicuous.....11

Body narrow, parallel, the pronotum with rather coarse and conspicuous punctuation, the vestiture of slender squamules more or less distinct; size always very small; beak strongly sculptured in both sexes...32

11—Vestiture of slender sparse squamules distinct on the elytra....12

Vestiture very fine, sparse and inconspicuous, sometimes distinct on the elytra at base.....15

12—Body shorter, smaller in size and subventricose.....13

Body larger, elongate-oval in outline; beak more elongate.....14

13—Body short and stout, rather shining and convex, deep black throughout; beak in the male of the usual form, moderately thick and sculptured, not as long as the prothorax, the antennæ at four-sevenths; prothorax a fourth wider than long, with the sides broadly, subevenly arcuate, becoming parallel and less arcuate basally, the subtubulate apex half as wide as the base; punctures shallow, well separated, becoming fine near the entire smooth line, the squamules feebly evident laterally; elytra barely a fourth longer than wide, broad, the sides feebly oblique and distinctly arcuate, with the apex broadly obtuse, a fifth wider than the prothorax and four-fifths longer, the humeral prominences moderate but distinct; grooves narrow, deep and with small distinct punctures, the intervals between two and three times as wide as the grooves, finely, rather sparsely and confusedly punctate throughout and with the slender squamules whitish, rather close-set and conspicuous, in single lines except on the second and third; squamules beneath very small, slender and sparse but whitish and evident; prosternum of the male with a large and very deeply perforate oval fossa and two well developed porrect spines, extending beyond the head; abdominal impression very faint. Length ( $\sigma^7$ ) 3.0 mm.; width 1.3 mm. Texas (Brownsville).....**mundula** n. sp.

Body more elongate and with relatively still smaller prothorax, the elytral squamules not quite so distinct though evident, becoming rather conspicuous at base, indistinct on the pronotum, notably evident throughout beneath though sparse; color black, the lustre somewhat shining; beak in the female very slender, smooth, feebly arcuate and as long as the head and prothorax, with a few punctures and fine squamules at each side of the base above, the antennæ

slightly behind the middle; prothorax small, a fifth wider than long, the sides evenly and moderately arcuate, becoming gradually parallel basally, the distinctly tubulate apex more than half as wide as the base; punctures moderate, shallow, distinctly separated, with a smooth discal spot at each side, the impunctate median line not attaining the apex; elytra not quite one-half longer than wide, a third wider than the prothorax and much more than twice as long, the humeral callus distinct; sides parallel and nearly straight, rapidly rounding in about apical half, the apex strongly rounded; grooves deep; intervals more than twice as wide as the grooves, with fine and well separated, uniserial subtransverse punctures and single lines of squamules, more confused on the second. Length (♀) 3.35 mm.; width 1.3 mm. North Carolina (Black Mts.),—Beutenmüller.....**caudex** n. sp.

- 14—Form elongate-oval, convex, black throughout and subalutaceous; beak in the female long, rather slender and feebly, evenly arcuate, moderately punctate and finely subsulcate, longer than the head and prothorax, the antennæ about at the middle; prothorax nearly as long as wide, the sides broadly, subevenly arcuate, becoming straighter and parallel basally, the subtubulate apex fully half as wide as the base, the punctures fine and sparse, rather coarse and rugulose at the sides, where the very inconspicuous squamules become more distinct; median smooth line entire; elytra one-half longer than wide, only very slightly wider than the prothorax and about twice as long, the humeral prominences feeble; sides only feebly oblique and subevenly, distinctly arcuate to the broadly rounded and obtuse apex; grooves deep and conspicuous; intervals twice as wide as the grooves, the punctures moderately small, strong and distinct, well spaced in single or narrowly confused lines, the setæ small and gray, not close-set but very evident, in single, sometimes irregular lines, more confused on the third; squamules beneath small, sparse and very inconspicuous. Length (♀) 3.75 mm.; width 1.5 mm. Florida (Enterprise).....**incolumis** n. sp.

Form nearly similar but larger and relatively stouter, black, similarly alutaceous, the vestiture similar, except that the setæ of the elytra are more confused on most of the intervals, smaller and less distinct, except at base throughout the width, where the whitish hair-like squamules become close and rather conspicuous; beak in the female long, slender, smoother than in the preceding, still somewhat longer and almost perfectly straight, much longer than the head and prothorax, the antennæ at the middle, slender, with still longer and very slender club; prothorax a sixth wider than long, the subevenly arcuate sides becoming parallel at base, the feebly constricted apex half as wide as the base; punctures well separated, very fine medially, stronger and dense laterally, the smooth line abbreviated anteriorly; basal lobe similarly small and feeble; scutellum narrow, nude, emarginate at tip; elytra obtusely ovoidal, slightly wider than the prothorax and barely twice as long; grooves deep and conspicuous; intervals twice as wide as the grooves to slightly more, sparsely,

finely and in general confusedly punctate. Length (♀) 4.0 mm.; width 1.65 mm. Mississippi (Vicksburg). One specimen.

**definita** n. sp.

15—Form narrowly and subevenly oval, notably elongate and almost cylindrical.....16

Form stouter and, even when small and less stout, evidently subventricose.....18

16—Size larger, alutaceous, the elytra slightly more shining. Convex, deep black; beak in the female feebly arcuate, not quite as long as the head and prothorax, nearly smooth, punctulate closely toward base; prothorax nearly as long as wide, the sides parallel, feebly arcuate, rounding apically, the subtubulate apex much more than half as wide as the base; punctures rather small, shallow and widely separated, closer and stronger laterally; elytra one-half longer than wide, the sides parallel and feebly arcuate, rapidly obtusely, ogivally rounded behind, barely visibly wider than the prothorax and fully twice as long; grooves deep; intervals between two and three times as wide as the striæ, with single series of small and moderately separated punctures. Length (♀) 3.4 mm.; width 1.28 mm. Nebraska.....**seminitida** Csy.

Size smaller, the entire surface polished and deep black.....17

17—Body narrow, parallel, convex, subglabrous; beak in the male rather thick, feebly, subevenly arcuate, rather shining, not densely though distinctly sculptured, about as long as the prothorax, the antennæ barely beyond the middle; prothorax about as long as wide, the sides broadly, moderately arcuate, becoming gradually parallel in almost basal half, the subtubulate apex broad, two-thirds as wide as the base; punctures small, sparse; smooth median line obliterated from slightly before the middle; elytra parallel, three-fifths longer than wide, barely visibly wider than the prothorax and more than twice as long, the sides nearly straight, subcircularly rounded in about apical third; striæ deep but not coarse; intervals more than three times as wide as the grooves, with single series of small and widely spaced punctures; male abdomen feebly impressed medially at base, the prosternum not perforate and with very short, broadly angulate elevations in place of spines. Length (♂) 2.85 mm.; width 1.1 mm. Florida (Enterprise).....**mediocris** n. sp.

Body smaller, parallel, moderately convex, subglabrous, the legs piceous; beak in the male rather thick, very short, feebly, subevenly arcuate, slightly shining though evidently sculptured, not as long as the prothorax, the antennæ near three-fifths, piceo-rufous; prothorax nearly a fourth wider than long, rather wider at the middle than at base, the sides parallel and feebly, subevenly arcuate, the somewhat abruptly tubulate apex three-fifths as wide as the base; punctures fine and sparse, very minute anteriorly; elytra two-fifths longer than wide, barely visibly wider than the prothorax and more than twice as long, with small but evident humeral callus; sides parallel and nearly straight, gradually rounding behind the middle; grooves fine; intervals four times as wide as the grooves, each with a single series of very minute, remotely separated punctures; male abdomen

- impressed medially at base, the prosternum unarmed, feebly impressed along the middle. Length ( $\sigma^7$ ) 2.1 mm.; width 0.8 mm. District of Columbia. . . . . **lucidula** n. sp.
- 18—Size moderate to rather large, the prosternum with well defined ante-coxal spines in the male. . . . . 19
- Size very small, the spiniform processes wanting or very feebly developed. . . . . 28
- 19—Body not very evidently ventricose, the elytra but little wider than the prothorax. . . . . 20
- Body very evidently subventricose, the elytra decidedly wider than the prothorax. . . . . 24
- 20—Prothorax subinflated, widest just behind the middle, the sides subparallel and broadly, subevenly arcuate. Body very stout; convex, deep black, rather shining; beak in the female much longer than the head and prothorax, nearly straight, evenly and but just visibly arcuate, nearly smooth; prothorax fully a fifth wider than long, the apex evidently constricted and slightly more than half as wide as the base; punctures fine and sparse; smooth line lost anteriorly; elytra two-fifths longer than wide, slightly wider than the prothorax and not quite twice as long, with feeble humeral callus; sides parallel, gradually and obtusely, ogivally rounded in apical half; grooves deep; intervals alternating in width, from more than two to more than three times as wide as the grooves, with small but distinct, sparse punctures, alternately in single line and confused. Length ( $\text{♀}$ ) 3.6 mm.; width 1.5 mm. Texas (Columbus).  
**ebena** Csy.
- Prothorax not inflated, widest at or near the base. . . . . 21
- 21—Prothorax with the sides converging from the base. . . . . 22
- Prothorax with the sides parallel and feebly, subevenly arcuate, gradually a little more so toward the briefly subtubulate apex; integuments throughout rather shining. . . . . 23
- 22—Prothorax but little shorter than wide, the converging sides becoming gradually and but slightly more arcuate anteriorly, the tubulate apex fully half as wide as the base, black throughout; beak evenly and very feebly arcuate in both sexes, thick ( $\sigma^7$ ), strongly sculptured and rather sulcate, as long as the head and prothorax, or ( $\text{♀}$ ), very thin, smoother and distinctly longer; antennæ very slightly behind the middle ( $\text{♀}$ ) or at four-sevenths ( $\sigma^7$ ); prothorax a fifth wider than long, the sides moderately and subevenly arcuate, slightly converging throughout; punctures distinct, well separated, gradually minute toward the imperfect median smooth line; elytra two-fifths longer than wide, only slightly wider than the prothorax and fully twice as long, parallel, obtusely and ogivally rounded in about apical half; grooves deep, very feebly subcrenulate basally; intervals only just visibly alternating, flat, with punctures as in the preceding but very much more minute; male abdomen feebly impressed medio-basally, the prosternal spines extending rather beyond the apex. Length ( $\sigma^7$   $\text{♀}$ ) 3.5-3.75 mm.; width 1.33-1.4 mm. Mississippi (Vicksburg). Three specimens. . . . . **corvina** n. sp.
- Prothorax much shorter than wide, the feebly converging sides evenly

and very feebly arcuate, rapidly rounding and becoming more transverse in apical fourth to the short but strongly tubulate apex, which is fully half as wide as the base; color black, the surface less convex than in *corvina*, moderately shining; beak in the female slender, much shorter than in *corvina*, barely as long as the prothorax, only just visibly arcuate and nearly smooth, the antennæ submedial; prothorax fully a third wider than long, the punctures distinct, rather well separated, the smooth line not entire; elytra relatively long, more than one-half longer than wide, only slightly wider than the prothorax and nearly two and one-half times as long; striæ deep, feebly subcrenulate; intervals subequal, about three times as wide as the grooves, the punctures sparse, minute and subuniseriate. Length (♀) 3.2 mm.; width 1.28 mm. Missouri.

*longipennis* n. sp.

23—Form oblong-oval, rather convex, black throughout, the sparse setuliform squamæ of the upper surface rather more evident than usual in this section; beak in the female slender, smooth, almost straight and as long as the head and prothorax, the antennæ medial; prothorax a fourth wider than long, the sides gradually a little more rounding in apical third to the feebly constricted apex, which is rather more than half as wide as the base; punctures small but somewhat strong and well separated, the broad smooth line lost anteriorly; elytra three-sevenths longer than wide, slightly wider than the prothorax and distinctly more than twice as long, the sides just visibly converging and very slightly arcuate, obtusely parabolic in apical third; grooves deep, not at all crenulate and half to a third as wide as the intervals, which are finely, loosely and unevenly uniseriately punctate. Length (♀) 3.0 mm.; width 1.2 mm. Missouri (locality unrecorded). One example. . . . *rivularis* n. sp.

Form elongate-suboval, smaller and narrower than the preceding, convex, rather strongly shining, deep black; beak in the female a little longer, perceptibly but feebly, evenly arcuate, feebly and sparsely sculptured and slightly longer than the head and prothorax, the antennæ medial; prothorax a fifth wider than long, the sides arcuate, a little more so in apical fourth to the very broad, feebly constricted apex, which is two-thirds as wide as the base; punctures fine, well separated, the smooth line narrower, not entire; elytra with nearly obsolete squamulæ, three-sevenths longer than wide, slightly though evidently wider than the prothorax and much more than twice as long, the sides parallel, rounding in apical half, less obtuse at tip than in the preceding; striæ finer but deep, not crenulate; intervals fully four times as wide as the grooves, minutely and loosely, not very evenly uniseriately punctate. Length (♀) 2.7 mm.; width 1.1 mm. Texas (Austin). One specimen, taken by the writer. . . . *austiniana* n. sp.

Form nearly as in *rivularis* but with the thoracic sides a little less parallel, being just visibly converging, also more rapidly rounding apically to the tubulate apex, which is more than half as wide as the base; beak in the female nearly as in *rivularis*, but a trifle less slender, in the male moderately thick, more sculptured, short, not longer than

- the prothorax, the antennæ at four-sevenths, where the beak is gradually and feebly bent; prothorax nearly as in *rivularis* but somewhat more finely punctate; elytra two-fifths longer and perceptibly wider than the prothorax and twice as long ( $\sigma^7$ ), or more ( $\varphi$ ), the sides parallel, obtusely rounded in nearly apical half; striæ and intervals almost as in *rivularis* in form and sculpture, but with the latter slightly convex; male with the abdominal basal impression very faint, the prosternum perforately fossate, with two very moderate spines, extending but little more than half way to the apex. Length ( $1\sigma^7$ ,  $4\varphi$ ) 2.8-3.1 mm.; width 1.15-1.25 mm. Louisiana (Covington)..... **difficilis** n. sp.
- 24—Male with two short prosternal spines.....25  
 Male with the prosternal spines long and porrect; body much stouter in form.....26  
 Male without trace of prosternal spines and only feebly impressed...27
- 25—Prothorax much shorter than wide; beak unusually short in both sexes; body narrow, convex, deep black and somewhat shining; beak ( $\sigma^7$ ) rather thick, evenly, feebly arcuate, dull and densely sculptured, not as long as the prothorax, or ( $\varphi$ ), more slender, feebly arcuate; rather strongly sculptured and about as long as the prothorax; antennæ at four-sevenths ( $\sigma^7$ ) or barely beyond the middle ( $\varphi$ ); prothorax between a fourth and third wider than long, the subparallel and feebly arcuate sides more rounding anteriorly, the tubulate apex much more than half as wide as the base; punctures small and rather sparse, the smooth line not entire; elytra a little more than one-half longer than wide, much wider than the prothorax and two and one-half times as long; grooves narrow; intervals between three and four times as wide as the grooves, with very fine and remote punctures in single series; male abdomen distinctly impressed medio-basally, the prosternal pit very deep, the spines semi-erect. Length ( $\sigma^7$   $\varphi$ ) 2.7-2.85 mm.; width 1.15-1.2 mm. Indiana and Kansas..... **puteifera** Csy.
- Prothorax subcylindric, narrow and as long as wide; beak less abbreviated; body rather strongly shining, deep black; beak in the male rather shining, though somewhat closely sculptured, thick, evenly but barely visibly arcuate and fully as long as the head and prothorax, the antennæ near three-fifths; prothorax with the parallel sides feebly arcuate, slightly more so apically, the tubulate apex broad, two-thirds as wide as the base; punctures small but rather deep and distinct, well separated, the smooth line as in the preceding; surface more shining; elytra shorter, only a third longer than wide, two-sevenths wider than the prothorax and twice as long, the parallel and nearly straight sides rounding behind the middle, the humeral callus feeble; striæ moderate, deep; intervals almost three times as wide as the grooves, with irregularly single series of fine and very feeble, rather well separated punctures; male with the abdomen distinctly impressed medially through the first two segments; prosternum nearly as in the preceding. Length ( $\sigma^7$ ) 2.65 mm.; width 1.15 mm. Illinois (locality unrecorded).  
**sectator** n. sp.



26—Body rather stout, oblong-suboval, convex, deep black, somewhat shining, a little more so in the male; beak in that sex just visibly arcuate, strongly sculptured, moderately thick and about as long as the prothorax, or (♀), very slender, similarly very feebly, evenly arcuate, almost smooth and not quite as long as the head and prothorax; antennæ at the middle (♀), or at four-sevenths (♂); prothorax slightly shorter than wide, the sides very feebly converging (♀) or parallel (♂), feebly, subevenly arcuate, gradually more so anteriorly, the feebly constricted apex half as wide as the base, somewhat less in the female; elytra only two-fifths longer than wide, a fifth wider than the prothorax and a little more than twice as long, parallel, obtusely rounded in apical half; striæ moderately coarse; intervals between two and three times as wide as the grooves, with fine and loose punctuation, generally in single series but confused on the second, third and fifth, less so in the male, the intervals subequal in width throughout; male abdomen feebly impressed medially at base, the prosternum with a deep perforation, the spines extending far beyond the thoracic apex. Length (♂ ♀) 3.2–3.5 mm.; width 1.25–1.6 mm. Indiana, Illinois and Missouri.

**convexula** n. sp.

27—Form narrower than in *convexula*, elongate-oval, convex, feebly, the elytra more strongly, shining, deep black throughout; beak (♂) only moderately stout and sculptured, straight, bent slightly at the antennal insertion at three-fifths, as long as the prothorax, or (♀), very slender, nearly smooth, evenly and very moderately arcuate and distinctly longer than the head and prothorax, the antennæ medial; prothorax slightly shorter than wide, the subparallel sides broadly arcuate, the subtubulate apex a little more than half as wide as the base; punctures moderate, well separated, the smooth line as in the preceding species; elytra almost one-half longer than wide, a fourth to fifth wider than the prothorax and distinctly more than twice as long, subparallel, rounding in apical half; grooves moderate; intervals from two to three times as wide as the grooves, with single or confused series of small but evident, well separated punctures; male abdomen broadly impressed at the middle of the first segment; prosternum feebly impressed. Length (♂ ♀) 2.65–3.1 mm.; width 1.0–1.28 mm. District of Columbia.

**concurrans** Csy.

28—Body comparatively stout.....29  
 Body notably slender.....31

29—Prothorax large, only very slightly narrower than the elytra. Body oblong-suboval, convex, shining, deep black throughout; beak in the male rather thick, somewhat closely sculptured, just visibly arcuate and as long as the prothorax, the antennæ near three-fifths; prothorax between a fourth and third wider than long, the sides broadly arcuate, becoming nearly straight and parallel in about basal half; punctures rather strong, moderately well separated, with a smooth discal spot at each side and a nearly entire smooth median line; elytra two-fifths longer than wide, evidently more than twice as long as the prothorax, oblong, subparallel, obtusely though

- gradually rounded behind; striæ deep but not very coarse; intervals between two and three times as wide as the striæ, each with a single line of very distinct, not very small though shallow, moderately separated punctures; prosternum impressed along the median line. Length ( $\sigma^7$ ) 2.65 mm.; width 1.0 mm. North Carolina (Southern Pines),—Manee. . . . . **erebea** n. sp.
- Prothorax relatively smaller, much narrower than the elytra. . . . . 30
- 30—Form oblong, moderately convex, deep black; beak ( $\sigma^7$ ) stout, feebly arcuate, strongly sculptured and as long as the prothorax, or ( $\varphi$ ), more slender, feebly arcuate, nearly but not quite smooth and fully as long as the head and prothorax; antennæ at four-sevenths ( $\sigma^7$ ) or at the middle ( $\varphi$ ); prothorax a sixth ( $\sigma^7$ ) or a fifth ( $\varphi$ ) wider than long, the sides feebly converging and broadly, subequally arcuate, the very short subtubulate apex three-fifths as wide as the base; punctures fine, sparse, the smooth line not entire; surface alutaceous; elytra shining, a third to two-fifths longer than wide, a fourth wider than the prothorax and much more than twice as long, parallel and nearly straight at the sides, rounding rapidly in about apical third; striæ moderate, the intervals about three times as wide as the grooves, each with a single series of minute but evident, remotely spaced punctures. Length ( $\sigma^7$   $\varphi$ ) 2.4–2.6 mm.; width 0.85–1.1 mm. Southern Illinois and Missouri (St. Louis). Five examples. . . . . **annicola** n. sp.
- Form oblong, more shining throughout, deep black; beak ( $\varphi$ ) only moderately slender and distinctly sculptured, feebly arcuate and as long as the head and prothorax, the antennæ at about the middle; prothorax small, between a fourth and third wider than long, the sides parallel, rounding beyond the middle to the tubulate apex, which is three-fifths as wide as the base; punctures fine and sparse, the smooth line distinct; elytra more elongate, fully one-half longer than wide, more than a fourth wider than the prothorax and two and two-thirds times as long; sides parallel and straight, obtusely rounded in about apical half; grooves fine but deep; intervals four times as wide as the grooves, each with a single series of extremely minute and feeble, well separated punctures, invisible except under careful observation. Length ( $\varphi$ ) 2.5 mm.; width 0.9 mm. North Carolina (Southern Pines),—Manee. . . . . **nanella** n. sp.
- 31—Body elongate-suboval, rather convex, somewhat shining, deep black; beak in the male short, not quite as long as the prothorax, moderately thick, not very densely sculptured and just visibly arcuate, the antennæ at three-fifths; prothorax a fifth wider than long, the sides converging and feebly, evenly arcuate from base to the tubulate apex, which is three-fifths as wide as the base; punctures fine and rather sparse; elytra oblong, two-fifths longer than wide, a fourth wider than the prothorax and two and one-half times as long, parallel, gradually rounded behind the middle; striæ moderate, deep; intervals rather more than three times as wide as the grooves, each with a single series of minute but evident, remotely spaced punctures; male abdomen moderately impressed at the

middle of the first segment. Length ( $\sigma^7$ ) 2.35 mm.; width 0.8 mm. New York..... **confinis** Lec.

Body nearly similar to that of *confinis* but with the beak in the male not so short, being as long as the prothorax, with the antennæ at four-sevenths; prothorax nearly similar, but with the sides less converging and more strongly, subevenly arcuate to the apex, which is more briefly and less sharply tubulate; elytra longer, one-half longer than wide, only a fifth wider than the prothorax and more than two and one-half times as long, more gradually and narrowly rounding behind; striæ almost similar but relatively coarser at base; interstitial series composed of very minute, distant and feeble punctures, even less distinct than in *confinis*. Length ( $\sigma^7$ ) 2.35 mm.; width 0.78 mm. Iowa..... **civica** n. sp.

Body more narrowly elongate-oval, deep black and shining throughout; beak in the male feebly, evenly arcuate but more so than in *confinis*, equal in length to the prothorax, the antennæ at four-sevenths, the sculpture strong but loose; prothorax smaller, a sixth wider than long, the sides less converging, parallel basally, evenly and rather strongly arcuate throughout, the apex only very feebly and briefly constricted and almost two-thirds as wide as the base; punctures much deeper, coarser and separated by scarcely more than their own diameters, the smooth line indistinct; elytra narrower and longer, three-fifths longer than wide, nearly a fourth wider than the prothorax and two and three-fourths times as long; sides just visibly converging, evenly and moderately arcuate throughout to the rather rapidly rounding apex; striæ moderate; intervals fully three times as wide as the grooves, each with a single series of extremely minute though observable, widely spaced punctures. Length ( $\sigma^7$ ) 2.25 mm.; width 0.75 mm. Virginia (locality unrecorded).

**micans** n. sp.

32—Elytral striæ remotely, moderately punctate and crenulate. Body oblong, moderately convex, alutaceous and deep black throughout; squamules above white, rather sparse but broader than usual and very distinct, forming a single line on each stria interval; beneath closer and more conspicuous than usual and rather dense on the met-episterna; beak in the female roughly sculptured, slender, feebly arcuate and as long as the prothorax, the antennæ medial, short, the club longer and thicker than in preceding types, as long as the five preceding joints; prothorax a fifth wider than long, the sides parallel, gently rounding in about apical half, the apex tubulate and three-fifths as wide as the base; punctures sparse, distinct, the smooth median line not well defined; elytra oblong, with subparallel arcuate sides and obtuse apex, just visibly wider than the prothorax and barely twice as long; striæ not coarse; intervals three times as wide as the striæ, with single series of fine and well spaced punctures; prosternum with two small foveæ arranged transversely at apex. Length ( $\varphi$ ) 2.2 mm.; width 0.75 mm. Texas (Columbus)..... **benigna** n. sp.

Elytral striæ with the punctures widely separated, not crenulating the interstices..... 33

- 33—Form stout, oblong, convex, deep black and subalutaceous; squamules above white, distinct but sparse and finer and less conspicuous than in the preceding, forming single interstitial lines, short and sparse on the under surface, denser on the met-episterna; beak in the female evenly, moderately arcuate, distinctly sculptured, slender and not quite as long as the prothorax, the antennæ medial, the club narrower than in *benigna*; prothorax large, scarcely at all wider than long, the sides parallel, gently rounding from before the middle, the tubulate apex two-thirds as wide as the base; punctures rather coarse, close anteriorly, sparser basally, the median smooth line narrow but well defined and entire; elytra short, the sides feebly arcuate to the obtusely rounded apex, as wide as the prothorax and three-fourths longer; striæ moderate, the punctures widely spaced but evident; intervals nearly as in the preceding, the punctures sparse and very minute; prosternum similar. Length (♀) 2.35 mm.; width 0.88 mm. Florida (Baldwin)...*amica* n. sp.
- Form very much narrower, less convex, deep submetallic black, the lustre rather shining; squamules above sparse and rather fine but distinct in single interstitial lines, on the under surface sparse but closer on the met-episterna; beak sculptured in both sexes and feebly arcuate, as long as the prothorax in the female, evidently shorter and rather more arcuate in the male; prothorax as long as wide, the sides parallel, rounding rather rapidly near the tubulate apex, which is two-thirds as wide as the base; punctures strong and well separated throughout; elytra two-fifths (♂) to one-half (♀) longer than wide, the sides parallel and nearly straight, rounding rather rapidly behind, as wide as the prothorax and three-fourths longer; striæ notably fine; intervals with minute and widely separated serial punctures. Length (♂ ♀) 1.65–1.9 mm.; width 0.5–0.7 mm. Florida (Enterprise and elsewhere) and North Carolina (Southern Pines). Ten specimens.....*concinna* Lec.
- Form intermediate in stoutness between the two preceding species, parallel, deep black, slightly shining, the sparse squamules as in *concinna*, shorter and less conspicuous than in *amica*; beak in the male rather slender, conspicuously sculptured, feebly and subevenly arcuate and as long as the prothorax, the antennæ at four-sevenths; prothorax nearly as long as wide, the sides feebly, subevenly arcuate, gradually parallel basally, the apex only feebly constricted and three-fifths as wide as the base; punctures coarser than in *concinna*, these and the median line nearly as in *amica*; elytra nearly as in *concinna* but broader, three-fourths longer than the prothorax and exactly equal in width; striæ not so fine, the fine remote interstitial punctures nearly similar, much feebler and less conspicuous than in *amica*; anterior coxæ separated by half their width. Length (♂) 2.0 mm.; width 0.65 mm. Texas (Houston)...*houstoni* n. sp.

The species of this genus are very numerous but are well defined as a rule, and should be easily identified by the characters recorded above. The *concinna* section is very strongly differentiated, as is

also the *confusa* section, the latter having notably strong and close thoracic punctuation. In stating the length of the beak, the language here used should be taken literally; comparisons are made with the prothorax alone, or with the head and prothorax, the former should never be interpreted as equivalent to the latter.

### *Cylindridia* n. gen.

In this group the body is narrow, convex, parallel and cylindric in form, subglabrous and with shining and very sparsely, finely punctured integuments. In the male the prosternal spines are greatly developed, extending, from a dorsal viewpoint, far in front of the head as a rule, and, just in front of them, there is a deep rounded fossa. The antennæ are of the usual type in the preceding genus, the beak not separated from the head by a decided depression, and the scutellum is nude and subquadrate. Besides the type of the genus, *Centrinus prolixus* Lec., and *Limnobaris nitidissima* Csy., we have the two following species:

*Cylindridia simulator* n. sp.—Slender, cylindric, rather strongly shining, deep black, with piceous tarsi, the squamules above very small and remote, slightly more visible at the thoracic sides; beneath they are extremely small and sparse but closer, whiter and more distinct on the met-episterna; beak (♂) stout, feebly arcuate, moderately punctulate and as long as the prothorax, or (♀), more slender and smoother, feebly arcuate and a little longer than the prothorax; antennæ at the middle (♂) or slightly behind the middle (♀); prothorax barely as long as wide (♀), or longer than wide (♂), the parallel and almost straight sides rapidly rounded apically to the tubulate apex, which is nearly three-fifths as wide as the base; punctures very fine and sparse, more distinct laterally; elytra more than twice as long as wide, very slightly wider than the prothorax and distinctly more than twice as long, the sides parallel and straight, obtusely rounded in about apical third; humeral callus small but evident and abrupt; striæ fine; intervals nearly five times as wide as the grooves, each with a single series of small and widely distant punctures; male with the tip of the pygidium exposed, the abdomen narrowly impressed medio-basally, the prosternal spines long and testaceous, curving outwardly beyond the head. Length (♂ ♀) 2.6–3.2 mm.; width 0.7–0.9 mm. Colorado (Greeley),—Wickham. Four examples.

Differs from *prolixa* in its smaller size, more slender form and more rapidly and apically rounded sides of the prothorax toward the base of the tubular apex.

*Cylindridia perexilis* n. sp.—Still much smaller and more slender than the preceding, but similar in color, lustre, sculpture and in the small,

very remote and inconspicuous squamules; beak in the female thicker and more arcuate, also more strongly sculptured than in the same sex of *simulator*, and as long as the head and prothorax, the antennæ behind the middle; prothorax narrower, longer than wide, the parallel sides rounding more gradually from anterior third to the tubulate apex, which is fully two-thirds as wide as the base; punctures nearly similar; elytra between two and three times as long as wide, evidently wider than the prothorax and two and one-half times as long, otherwise as in the preceding throughout and, similarly, with a very feeble sinuation at each side of the rounding apex as in *Limnobaris*. Length (♀) 2.15 mm.; width 0.55 mm. Colorado (Greeley).—Wickham. One specimen.

Coming from the same source and locality as the types of *simulator*, I hesitated a long time before deciding to separate this as a distinct species, but the different form of beak, much narrower and more elongate prothorax, with more gradually rounded sides anteriorly, as well as the much smaller size and still more slender outline of the body, seemed to be decisive.

The species named *Limnobaris tenuis*—inadvertently published in the erroneous form "*tenua*"—by Mr. Blatchley, possibly belongs to this genus, but I have not seen it.

#### **Limnobaroides** Chmp.

This remarkable genus serves to show how large and complex groups may and often do refuse to lend themselves to consistent systematic treatment. Judging by the temperate fauna of North America, for instance, there could be no doubt that a division on the visibility of the pygidium in both sexes is entirely natural and clearly cut, but in *Limnobaroides*, we have a genus that combines the characters of the two subdivisions mentioned, for in no known instance among the northern species, do male prosternal spines—a purely Centrinid character—appear in species having the pygidium exposed and vertical in both sexes, but in *Limnobaroides* this aberrant character suddenly appears in well developed form. The genus is purely tropical, extending from southern Mexico to the Amazon. The following is a hitherto undescribed species from the former region:

\***Limnobaroides sculpturatus** n. sp.—Very stout, oblong-oval and convex, feebly shining, deep black, the legs obscure rufous, the prosternal spines testaceous, long, slender, evenly curved and extending somewhat beyond the head; vestiture above consisting of sparse, slender, rather long and conspicuous squamules, wanting in a large medial pronotal

area and forming single interstitial lines, becoming finer, darker and indistinct on the elytral flanks; squamules beneath whiter, sparse and slender on the propleura, shorter, broader and close-set on the hind body; beak ( $\sigma^7$ ) thick, fully half as long as the body, strongly, evenly arcuate, gradually tapering and distinctly sculptured throughout, the antennæ at three-sevenths, or ( $\text{♀}$ ), smaller, more slender and shorter than in the male, more feebly arcuate, slightly longer than the head and prothorax, tapering, nearly smooth except basally, with the antennæ also at three-sevenths; prothorax two-fifths wider than long, the sides strongly, evenly arcuate, becoming less so and parallel in basal half, the feebly constricted apex much less than half as wide as the base; punctures very coarse, narrowly separated; scutellum obtriangular, smooth, flat and nude; elytra scarcely longer than wide, parabolic, a little wider than the prothorax and one-half longer; grooves rather coarse; intervals one-half wider than the grooves, each with a series of coarse and rounded punctures; under surface strongly and closely punctate; anterior coxæ separated by their own width, the prosternal surface flat and coarsely punctate in the male. Length ( $\sigma^7$   $\text{♀}$ ) 2.65–2.8 mm.; width 1.2–1.35 mm. Mexico (Frontera, in Tabasco),—Townsend. Three specimens.

The much larger and longer beak in the male than in the female, is a very exceptional character, but also occurs, I believe, in some of the Madarids. The female is also smaller and slightly narrower than the male. In the present species the pygidium of the male is vertical, prominently convex and separated from the propygidium by a transverse suture; in the female it is not quite so convex and is sensibly oblique, though entirely exposed; the body is larger, the form more obese and the pubescence much more conspicuous than in *expositus* Chmp.

The following species has the beak in the male similarly large, stout, arcuate and strongly sculptured, though less tapering and relatively not quite so long, the body more narrowly oval and very convex, and the elytral striæ very much finer:

\**Limnobaroides bakeri* n. sp.—Rather stout, oval, only moderately convex above, deep black and shining, the legs short and clear rufous; scales of the upper surface whitish, sparse and slender on the pronotum and forming single incomplete series on the strial intervals, close and more distinct beneath, though mostly denuded in the type; beak in the male rather strongly sculptured and dull, moderately and subevenly arcuate and fully half as long as the body, feebly tapering from base to apex; prothorax a third wider than long, the sides subparallel and broadly arcuate, gradually more rounding anteriorly to the tubulate apex, which is fully half as wide as the base; punctures coarse, separated by their own diameters, the smooth median line entire; scutellum quadrate, nude and flat, broadly emarginate behind, with acute angles; elytra barely a fourth longer than wide, very obtusely, subevenly parabolic, slightly wider

than the prothorax and one-half longer, the humeri very obtuse; grooves moderate, with small and distant punctures at the bottom; intervals twice as wide as the grooves, each with a single series of fine and widely separated punctures; under surface closely but not very coarsely punctate. Length (♂) 2.4 mm.; width 1.2 mm. Brazil (Para),—Baker.

The spine before each anterior coxa is erect, slender and straight, and is one-half longer than the thickness of the anterior femora.

#### Haplostethops n. gen.

The type of this proposed genus was described by me under the name *Idiostethus ellipsoideus*, but, with the discovery of several other allied forms, it becomes apparent that the discrepancies between it and species of the *tubulatus* type, are generic, rather than merely specific. The body is of different outline, being sub-evenly elongate-oval, the humeral callus much less evident, and, beneath, the generally very small remote and inconspicuous squamules, become dense white scales broadly toward the sides of the hind body, almost exactly as in *Limnobaris T-album* and *pusio*; there is no trace of this character in any of the rather numerous species allied to *tubulatus* and constituting the true *Idiostethus*. The prosternum is not armed in the male and the rather deep sulcus of *Idiostethus* is almost obsolete. Our six species, so far as discovered, may be described as follows:

- Form moderately stout, but little more than twice as long as wide.... 2  
 Form notably slender, much more than twice as long as wide in both sexes..... 4  
 2—Prothorax less abbreviated, with clearly defined punctures, except at the sides. Body oval, somewhat convex, deep black throughout, moderately shining, the minute remote squamules above scarcely discoverable, closer and more distinct beneath and dense at the sides of the hind body; beak in the female long, not quite half as long as the body, cylindric, evenly and strongly arcuate and distinctly sculptured, the antennæ at the middle; prothorax fully one-half wider than long, the sides converging and feebly arcuate, a little more so toward the tubulate apex, which is more than half as wide as the base; punctures rather strong and close, especially in a longitudinal direction; smooth median line biabbreviated; scutellum small, nude, emarginate behind; elytra one-half longer than wide, an even ogive in outline from base to the narrow apex, slightly wider than the prothorax and two and one-half times as long, the humeral prominences feeble; striæ rather coarse, with small distant punctures at the bottom; intervals twice as wide as the grooves, with very fine and loosely confused punctures; under surface rather



- strongly and very densely punctate. Length (♀) 3.8 mm.; width 1.7 mm. Missouri (St. Louis).—Schuster. . . . . *fusiformis* n. sp. Prothorax shorter, with long anastomosing longitudinal rugæ, the punctures more or less isolated basally. . . . . 3
- 3—Form notably stout, convex, shining, deep black, the legs piceous; squamules of the upper surface very sparse but longer and more distinct than in the preceding, especially on the elytra and in a narrow sublateral thoracic line; under surface nearly similar; beak (♂) thick, strongly arcuate, densely sculptured and slightly longer than the head and prothorax, or (♀), longer, more slender and less sculptured though not very smooth, strongly, evenly arcuate and not quite half as long as the body; antennæ near three-fifths (♂), or at the middle (♀); prothorax one-half (♂) to three-fifths (♀) wider than long, the converging and feebly arcuate sides very rapidly rounded apically to the tubulate apex, especially in the male, the apex barely half as wide as the base; smooth line obliterated (♂), distinct (♀); elytra slightly less elongate than in *fusiformis*, otherwise nearly similar, though more obtuse at apex, nearly three times as long as the prothorax in the female—this sex smaller in size than the male—and with stronger interstitial punctures. Length (♂ ♀) 3.4–3.6 mm.; width 1.4–1.5 mm.; Missouri (St. Louis). Taken by the writer. Two specimens.

*gravidula* n. sp.

- Form less obese but nearly similar in coloration, lustre and vestiture, the elytra differing in outline, being parallel to behind the middle and then obliquely rounding to the apex; beak in the male a little longer, still more evidently longer than the head and prothorax, the latter similar, but with the apex rather more than half as wide as the base; elytra one-half longer than wide, distinctly wider than the prothorax and two and two-thirds times as long; striation nearly similar; intervals having the punctures similar but more inclined to uniserial arrangement on some of the intervals, the punctures very much coarser than in *fusiformis*. Length (♂) 3.0 mm.; width 1.35 mm. Iowa. . . . . *ellipsoidea* Csy.
- 4—Prothorax smaller, with more rapidly converging sides; size small. Narrowly fusiform, convex, polished, black, the legs piceous; squamules above very slender, almost invisible, more evident though sparse near the sides of the prothorax and on the median line just before the basal lobe; under surface as in the preceding species; beak in the male unusually long and moderately thick, arcuate, densely sculptured and much longer than the head and prothorax, the antennæ at four-sevenths; prothorax more than one-half wider than long, the sides strongly converging from the base and straight, moderately arcuate anteriorly, with the constriction very deep, the tubulate apex more than half as wide as the base; punctures rather coarse, in general well separated, partially subconfluent, the smooth line entire and sharply defined; elytra ovulate, more than one-half longer than wide, nearly a fourth wider than the prothorax and between two and three times as long; interstitial punctures not very
- T. L. Casey, Mem. Col. IX, Feb. 1920.

- small but extremely shallow, moderately separated in single series; anterior coxæ separated by less than half their width, the prosternum feebly impressed. Length (♂) 2.4 mm.; width 1.1 mm. Missouri (near St. Louis). Two examples.....**scaphinella** n. sp.
- Prothorax larger, with less converging sides and less deeply constricted apex.....5
- 5—Body more oblong-oval, convex, shining, black, the legs black, sometimes rufescent; scanty squamules above nearly as in the preceding; beak (♂) rather thick, more arcuate but straighter basally, sculptured densely and much longer than the head and prothorax, or (♀), longer and much more slender, more evenly and strongly arcuate, smoother and not quite half as long as the body; antennæ (♂) at three-fifths, or (♀) at the middle; prothorax more than one-half wider than long, less trapezoidal than in *scaphinella*, the sides very moderately converging and straight, rapidly rounding to the tubulate apex, which is much more than half as wide as the base; punctures moderate, less coarse in the female, in great part confluent, isolated basally; elytra ovoidal, much longer in the male, slightly wider than the prothorax and between two and three times as long; sculpture nearly as in the preceding, but with the interstitial punctures smaller, closer and less regularly uniserial. Length (♂ ♀) 2.5-3.0 mm.; width 1.0-1.2 mm. Missouri (St. Louis). Four specimens.....**marginata** n. sp.
- Body more elongate and more regularly oval, black, subalutaceous, with rufous legs; beak in the male a little longer and thinner and more evenly arcuate than in the preceding, not quite so densely sculptured, much longer than the head and prothorax, the antennæ near three-fifths; prothorax less transverse, only two-fifths wider than long, the sides, apex and sculpture nearly similar, the smooth median line sharply defined and entire; elytra elongate-oval, only slightly wider than the prothorax and two and one-half times as long; striæ somewhat coarser, the uniserial interstitial punctures larger but very shallow; prosternum of the male feebly impressed along the middle anteriorly, the coxæ separated by much less than half their width, the prosternal surface distinctly though loosely albido-squamulose as usual in the genus. Length (♂) 3.15 mm.; width 1.2 mm. Missouri (St. Louis).....**elongata** n. sp.

. In this genus, as well as *Limnobaroides*, the female is apparently smaller and rather less elongate than the male. *Haplostethops* seems to be singularly restricted geographically; I have never seen an example of it taken far from the median section of the Mississippi River, and nearly all my representatives were, in fact, taken very near St. Louis.

#### **Idiostethus** Csy.

In this genus the body is much shorter and relatively stouter than in the preceding, with more prominent humeral callus, subglabrous

throughout and without trace of the condensation of white scales broadly along the sides of the hind body beneath. The male has the prosternum similarly unarmed, except in cases to be mentioned below, but, anteriorly, there is a deep fossa and the prosternal surface is devoid of the conspicuous clothing of pale scales to be noted in *Haplostethops*; the female seems to be similarly smaller than the male. The genus is widely distributed over the Atlantic states, and the species now at hand may be known as follows:

- Pronotum coarsely sculptured; prosternum spinose or tuberculate before the coxæ.....2
- Pronotum finely and in general more densely sculptured, the body very much smaller in size, except in *dispersus*; prosternum never armed in the male.....9
- 2—Punctures of the striae small though distinct.....3
- Punctures rather coarse and relatively conspicuous.....7
- 3—Pronotum coarsely punctate, the punctures isolated basally but elsewhere generally confluent in short longitudinal rugæ, especially toward the middle.....4
- Pronotum deeply, longitudinally rugose throughout; body less broadly oval.....6
- 4—Apical tubulation of the prothorax notably long and clearly defined. Body broadly suboval, strongly convex, shining, black throughout and virtually glabrous, the squamules of the elytral series very small and barely discoverable; beak in the female much longer than the head and prothorax, moderately sculptured and arcuate; antennæ at the middle; prothorax two-thirds wider than long, the sides strongly converging and straight, rounding before the middle to the strongly tubulate apex, which is less than half as wide as the base, the tube between a fifth and sixth as long as the entire pronotum; punctures isolated basally though generally more or less confluent longitudinally, the median smooth line very narrow but subentire, the scutellum small, emarginate behind; elytra broadly ovoidal and convex, a third longer than wide, much wider than the prothorax and two and one-half times as long; grooves rather coarse; intervals not quite twice as wide as the grooves, the punctures uniseriate and only moderately separated; under surface strongly punctured, rather densely on the abdomen. Length (♀) 3.5 mm.; width 1.75 mm. Pennsylvania (Allegheny),—Hamilton. [*Id. strigapunctus* Ham.].....**tubulatus** Say
- Apical tubulation very short and barely noticeable.....5
- 5—Form very stout, ovoidal and convex, polished and deep black; beak (♂) much longer than the head and prothorax, evenly and moderately arcuate, strongly sculptured, the antennæ near three-fifths, or (♀), shorter, thick, similar to that of the male but less sculptured, the antennæ near the middle; prothorax almost as in *tubulatus*, except that the apical tubulation is very short, not half as wide as the base; elytra almost as in *tubulatus*, except that the

punctures of the single interstitial series are more minute and much more widely separated; male with a distinct spine before each anterior coxa, about as long as the basal thickness of the beak and suberect and very acute, the abdomen feebly, indefinitely impressed medio-basally. Length ( $\sigma^7$  ♀) 3.0-3.35 mm.; width 1.4-1.7 mm. Pennsylvania. Two specimens.....**spiniger** n. sp.

Form not quite so stout, similar in coloration, lustre and sculpture; beak ( $\sigma^7$ ) almost similar but less arcuate, much longer than the head and prothorax, with the antennæ near three-fifths; prothorax nearly similar but shorter, three-fourths wider than long, the smooth median line similarly narrow and well defined; apical tubulation similar; elytra similar but not so inflated, the grooves not quite so coarse and the remote punctures along the bottom less evident; intervals similar; legs much more conspicuously clothed with longer and more bristling squamules, the abdomen similar, the prosternum with a short and broadly angulate tubercle before each coxa; female smaller than the male, with shorter beak, having the antennæ at the middle and the pronotal apex relatively broader than in the male. Length ( $\sigma^7$  ♀) 2.8-3.25 mm.; width 1.25-1.6 mm. Indiana.

**proximus** n. sp.

6—Body smaller and more narrowly oval than in any of the preceding, similarly black and shining; beak in the male evenly and distinctly arcuate, rather thick, strongly sculptured and much longer than the head and prothorax, the antennæ rather beyond four-sevenths; prothorax transverse, the sides less rapidly rounding anteriorly than in either of the preceding, rounding before the middle, sub-parallel basally, the sculpture closer, consisting of very large, oval, subcontiguous punctures basally and close but coarse long rugæ elsewhere; smooth median line obliterated; elytra broadly ovoidal, much wider than the prothorax and two and one-half times as long, the sculpture as in *proximus*; male with a feeble medio-basal abdominal impression, the prosternum without distinguishable modification before the coxæ; legs piceo-rufous. Length ( $\sigma^7$ ) 2.85 mm.; width 1.4 mm. New York.....**strigocollis** n. sp.

—Pronotal punctures everywhere isolated and distinctly defined, even at the sides and also beneath on the propleura; sparse setiform squamules of the upper surface unusually distinct. Body very stout, rounded-oval and convex, shining, black, the legs rufous; beak in the male evenly, moderately arcuate, slightly tapering, a little longer than the head and prothorax, the antennæ somewhat beyond four-sevenths; prothorax three-fifths wider than long, the slightly converging and nearly straight sides broadly, evenly rounding in apical third to the short but strong tubulation, which is half as wide as the base; median smooth line strongly defined and entire; elytra barely visibly longer than wide, evenly elliptic, wider than the prothorax and more than twice as long; grooves rather coarse, intervals twice as wide as the grooves, the well separated uniserial setæ very distinct; male with a very short spiniform tubercle before each anterior coxa. Length ( $\sigma^7$ ) 3.1 mm.; width 1.5 mm. Iowa (Iowa City),—Wickham.....**puncticollis** n. sp.

- Pronotal punctures less coarse but isolated basally and on the propleura, elsewhere tending to longitudinal confluence and coarse rugulosity; descriptions drawn from the female. . . . . 8
- 8—Body larger than in any other species, stout, oblong-oval, convex, shining and black throughout, the legs black; beak (♀) cylindrical, evenly and moderately arcuate, sparsely but distinctly sculptured and much longer than the head and prothorax, the antennæ just visibly beyond the middle; prothorax one-half wider than long, the converging sides nearly straight, rapidly rounding anteriorly, the strongly tubulate apex half as wide as the base, the smooth line well developed, sharply defined and entire; elytra fully a third longer than wide, elliptic, the sides near the obtusely rounded apex feebly sinuate as in *Limnobaris*, distinctly wider than the prothorax and two and one-half times as long, the humeral prominences distinct; grooves coarse, deep, punctured along the bottom; intervals about twice as wide as the grooves, the squamules from the large but very shallow punctures not distinct. Length (♀) 4.0 mm.; width 1.9 mm. Florida (locality unrecorded). . . . . **illustris** n. sp.
- Body in size and general form almost as in *spiniger*, deep black, shining, the legs piceo-rufous; setiform squamules not evident above, very minute within the coarse punctures beneath; beak (♀) moderately stout, cylindrical, sparsely sculptured, evenly and distinctly arcuate and much longer than the head and prothorax, the antennæ slightly though evidently beyond the middle; prothorax transverse, nearly four-fifths wider than long, the sides feebly converging and just visibly arcuate, broadly rounding from slightly before the middle, the briefly but sharply tubulate apex half as wide as the base; surface strongly rugose, only a small lateral area at base being discretely punctate; smooth median line very narrow and subcariniform; elytra a fourth longer than wide, subelliptic, with rather prominent humeri, wider than the prothorax and two and three-fourths times as long; grooves deep, strongly punctate along the bottom; intervals barely twice as wide as the grooves, the setiform squamules indistinct. Length (♀) 3.2 mm.; width 1.7 mm. Northern Illinois. . . . . **rugicollis** n. sp.
- Body smaller and more abbreviated, very convex, black and shining, the legs black; beak (♀) thicker and slightly shorter than in the preceding, strongly, closely sculptured, distinctly longer than the head and prothorax and similarly arcuate, the antennæ exactly at the middle; prothorax less transverse, two-thirds wider than long, the sides converging and distinctly, subevenly arcuate from base to the briefly tubulate apex, which is more than half as wide as the base; surface and median line nearly as in *rugicollis*; elytra shorter, a fifth longer than wide, much wider than the prothorax and less than two and one-half times as long; grooves strongly punctured along the bottom and about half as wide as the intervals, the punctures of the single series of the latter not quite so coarse but well defined and well separated, bearing very distinct setiform squamules. Length (♀) 2.7 mm.; width 1.4 mm. Illinois (locality unrecorded). . . . . **ovulatus** n. sp.

- 9—Size of the body agreeing very well with that of the preceding section. Form stout, oval, convex, not very shining, black, the legs piceo-rufous; pale slender squamules of the upper surface very small and indistinct but longer, closer and distinct toward the sides of the pronotum and on the median line at base, the interstitial series having larger and paler squamules, remotely separated and sub-erect; beneath they are indistinct but become dense at the sides of the last three ventral segments and at apex; beak in the male short and thick, feebly arcuate, densely sculptured and not as long as the head and prothorax, the antennæ at three-fifths; prothorax two-thirds wider than long, strongly constricted at apex; punctures very moderate, isolated at base but elsewhere forming long rugulæ, except in a smooth discal spot at each side, the median smooth line well developed, sharply defined and entire; scutellum very small; elytra semi-elliptic, a third longer than wide, distinctly wider than the prothorax and two and one-half times as long, the humeral callus obsolete; grooves coarse, with extremely remote punctures along the bottom; intervals one-half wider than the grooves, with single series of moderate and rather close-set punctures; abdomen of the male impressed medio-basally, the prosternum moderately sulcate and without ante-coxal prominences. Length ( $\sigma^7$ ) 3.2 mm.; width 1.5 mm. Alabama..... **dispersus** Csy.
- Size of the body very much smaller, sometimes relatively minute. . . . 10
- 10—Prothorax more transverse, the sides but feebly converging, very rapidly and strongly rounded anteriorly to the tubulate apex. Body rhombic, convex, rather shining, black throughout, the legs black; squamules above almost wanting but forming evident single interstitial lines, slender and sparse but evident beneath; beak nearly similar in the sexes, rather slender, finely sculptured basally, smoother apically, as long as the head and prothorax ( $\sigma^7$ ), distinctly longer ( $\text{♀}$ ), the antennæ submedial in both sexes; prothorax three-fifths wider than long, finely, densely rugulose, the smooth line fine but entire; tubulate apex more than half as wide as the base, the constriction deep; elytra obtusely attenuate, with arcuate sides, a third longer than wide, at the very prominent humeri a third wider than the prothorax, nearly three times as long; grooves moderate, impunctate; intervals three times as wide as the grooves, each with a single series of small but distinct and widely separated punctures. Length ( $\sigma^7$   $\text{♀}$ ) 2.3–2.6 mm.; width 1.15–1.2 mm. Kentucky. Four examples..... **humeralis** n. sp.
- Prothorax smaller, the sides more converging from the base, only slightly rounded anteriorly as a rule. . . . . 11
- 11—Elytra only slightly elongate in either sex and with notably prominent humeri. . . . . 12
- Elytra distinctly elongate. . . . . 14
- 12—Body very small in size. Form subrhomboidal, convex, rather shining, black throughout; squamules almost wanting above, very minute, sparse and slender beneath; beak in the male unusually slender, feebly arcuate, densely sculptured and distinctly longer than the head and prothorax, the antennæ at four-sevenths; prothorax

less than one-half wider than long, the converging sides straight, rapidly and strongly rounding anteriorly, but for only a very short distance, to the tubulate apex, which is half as wide as the base; surface finely, densely rugulose; smooth line distinct only toward base; elytra but little over a fourth longer than wide, the sides feebly converging in basal, more rapidly oblique and rounded in apical, half, a third wider than the prothorax and rather less than two and one-half times as long; striæ fine, about a fourth as wide as the intervals, the single series composed of minute and widely separated punctures. Length (♂) 1.8 mm., width 0.85 mm. Pennsylvania. A single typical example.....**subcalvus** Lec.

Body less minute, convex and very much stouter in form, the humeri similarly prominent; fine darkish squamules above minute and very inconspicuous, more evident and whiter beneath.....13

- 13—Form subrhombic, very stout and convex, shining, black, the legs black; beak in the female rather long, feebly arcuate, distinctly sculptured and very much longer than the head and prothorax, the antennæ at about the middle; prothorax conical, scarcely one-half wider than long, the strongly converging sides very feebly, subevenly arcuate throughout, the constriction not deep, the subtubulate apex half as wide as the base; surface finely, densely rugulose, the smooth line narrow, distinct only toward base; elytra a fourth longer than wide, a third wider than the prothorax and more than two and one-half times as long, the sides behind the prominent humeri parallel and straight, rounding and oblique in apical half to the narrowly rounded apex; striæ moderate; intervals three times as wide as the striæ, with single series of fine and distant punctures. Length (♀) 2.15 mm.; width 1.15 mm. Missouri (locality unrecorded).

**nanulus** n. sp.

Form very broadly oval, convex, black and shining, the legs black; beak moderately thick, evenly, very feebly arcuate, distinctly longer than the head and prothorax and strongly sculptured; antennæ at four-sevenths; prothorax nearly as in the preceding but more transverse and with more strongly converging sides, notably arcuate only for a very short distance at the tubulate apex, which is more than half as wide as the base, two-thirds wider than long, very densely rugulose, the fine smooth line traceable only basally; elytra broader, barely a fifth longer than wide, subelliptic, with narrowly rounded apex, a fourth wider than the prothorax and two and one-half times as long; striæ moderate; intervals between three and four times as wide as the grooves, the punctures fine and distant, forming rather less regular single series than usual. Length (♂) 2.25 mm.; width 1.2 mm. Kentucky. One example.....**brevipennis** n. sp.

- 14—Fine and suberect, setiform squamules of the elytra forming even single lines and very distinct. Body fusiform, narrowly rounded behind, convex, moderately shining, black, the legs partially piceous; squamules on the pronotum more evident in a small spot at the basal lobe, inconspicuous beneath; beak in the male slender, sculptured, evenly and feebly arcuate and evidently longer than the head and prothorax, the antennæ at four-sevenths; prothorax not quite one-

half wider than long, subconical, the converging straight sides becoming broadly arcuate anteriorly, the tubulate apex half as wide as the base, the surface densely rugulose, the narrow smooth line obliterated anteriorly; elytra two-fifths longer than wide, the oblique sides evenly and rather strongly arcuate from the very moderate humeral prominences to the somewhat acute apex, nearly a third wider than the prothorax and between two and three times as long; striæ deep; intervals rather less than three times as wide as the grooves, the punctures small, widely spaced in single series, more close-set on the second and third, confused on the fifth basally; squamules beneath denser on the last three abdominal segments. Length (♂) 2.3 mm.; width 1.15 mm. Missouri,—Schuster.

**densicollis** n. sp.

Fine squamules above indistinct or very inconspicuous throughout. . . 15

15—Form somewhat as in the preceding but narrower, the sides of the elytra subevenly oblique but less arcuate, with the apex similarly narrowly subogival; color black, somewhat shining, the legs black; beak in the female slender, nearly smooth distally, evenly and feebly arcuate and distinctly longer than the head and prothorax, the antennæ at the middle; prothorax short, three-fifths wider than long, trapezoidal, the strongly converging sides nearly straight to the fine strong apical constriction, the apex more than half as wide as the base; surface with dense but relatively not very fine rugulosity, the median smooth line obsolete; elytra three-sevenths longer than wide, scarcely a fourth wider than the prothorax and between two and three times as long; sides subparallel and nearly straight, oblique and rounded in apical half, the humeral callus feebler than usual in this section; striæ moderate; intervals between three and four times as wide as the striæ, each with a single remotely spaced series of very small punctures. Length (♀) 1.7 mm.; width 0.78 mm. Indiana. Levette collection. . . . . **minutus** n. sp.

Form stouter, the sides of the elytra less oblique, more feebly, subevenly arcuate, the apex much more obtuse than in either of the two preceding; color black, rather shining, the pronotum and under surface densely sculptured and dull; beak in the female slender, only just visibly arcuate, nearly smooth distally, about as long as the head and prothorax, the antennæ barely perceptibly beyond the middle; prothorax small, conical, with broadly arcuate, basally straighter sides, scarcely one-half wider than long, the subtubulate apex fully half as wide as the base; surface finely, very densely rugose, the median smooth line wholly obliterated; elytra two-fifths longer than wide, at the very prominent humeri fully two-fifths wider than the prothorax, nearly three times as long; striæ moderate; intervals about three times as wide as the grooves, each with a single series of small and well separated punctures. Length (♀) 2.5 mm.; width 1.2 mm. Indiana. Levette collection. . . . . **parvicollis** n. sp.

The *strigapunctus*, of Hamilton, I find from a typical specimen sent by the author, is none other than the true *tubulatus* of Say.



The tubulation in the allied species, hitherto associated with it, is so brief, that it certainly would not have been made the basis for the very appropriate specific name given by Say.

The short spines and acute tubercles that appear on the prosternum before the coxæ in the larger and stout, coarsely sculptured species of the *tubulatus* type, were overlooked by me in my revision, as stated by Blatchley; they do not appear, however, in the minute forms allied to *subcalvus*, or in *dispersus*, and it is interesting to note in the latter, the peculiar and extremely dense vestiture at the sides of the under surface, characterizing *Haplostethops* and *Limnobaris*, but here it is confined to the last three segments of the abdomen. In the minute *densicollis* it also appears, but in a looser or less compact and more erect form; there seems to be no trace of it in any other of the minute species, or in any of the larger forms allied to *tubulatus*.

The female appears to be smaller than the male throughout the genus, less stout and sometimes with relatively shorter beak, as is the case in the preceding genus, as well as *Limnobaroides*; this is a rather singular character to be encountered in the Barinæ, which however, constitute a group of the Coleoptera characterized by inconsistencies of all sorts.

#### Stethobaris Lec.

The eastern smooth species of this genus can be assigned to two well defined sections, one having the prothorax shouldered, that is with feebly converging sides from the base, becoming broadly and strongly rounded anteriorly, and the other having a more conical form of this part, the sides more strongly converging from the base, and feebly and not at all abruptly, if at all, more rounded anteriorly. The language of LeConte (Proc. Am. Phil. Soc., XV, p. 302) "prothorax rapidly narrowed in front, very strongly and tubularly constricted near the tip," shows that the prothorax in *ovata* has the form of the first section just noted. In regard to the interstitial punctuation of *ovata*, the wording under the original description is "with rows of small but deep punctures," and, under the subsequent reference (p. 303), "the interspaces are narrow, each with a row of fine but distinct punctures." All this seems to show that under my description of *ovata* (Rev. p. 656), in stating that the inter-

stitial punctures are confused, I have probably given an incorrect identification of *ovata*, and the name *commixta* given by Blatchley to my *ovata* Lec., may be regarded as warranted. But the species described by me under the name *congermana*, is by no means *ovata*, as stated by the author quoted, but a distinct and valid species; for the prothorax has a conical form, with the sides scarcely at all more rounded anteriorly, and the single rows on the strial intervals are composed of punctures so very fine and feeble as to be observable only by careful observation and under rather high magnification, and the language of LeConte quoted above would therefore not apply at all. The Massachusetts type of *congermana* is a male, and I now have a female of the species, agreeing absolutely in all specific characters, from Buffalo, New York. There is now at hand a specimen taken by Mr. Frost at Hopkinton, Mass., which satisfies all of LeConte's description of *ovata*, and I therefore regard it as a typical example of that species; the interstitial punctures are in single rows, and, though small, are deep and distinct, and the sides of the prothorax are broadly and strongly rounded anteriorly and deeply constricted at the notably marked tubulation, which doubtless led LeConte to regard the species as *tubulatus* Say. In *congermana* this tubulation is shorter and less conspicuous than in *ovata*. As Mr. Blatchley states that his *commixta* is a name given for the Massachusetts species that I had described as *ovata* Lec., I regard this specimen described by me as properly the type of *commixta*; it is represented in my collection also from Virginia and the mountains of western North Carolina.

The following is another species allied to *congermana*, in having a subconical prothorax:

**Stethobaris convergens** n. sp.—Stout and very convex, polished, deep black throughout and glabrous; beak in the female thick, evenly and moderately arcuate, shining, though rather strongly, sparsely sculptured and much longer than the head and prothorax, the antennæ at the middle; prothorax one-half wider than long, the sides strongly converging, almost evenly and moderately arcuate from base to the apical constriction, which is tubulate and slightly less than half as wide as the base; punctures strong, separated by about their own diameters, smaller and closer toward the well defined median smooth line, which is entire as usual, close but not in mutual contact on the propleura; basal lobe moderate but rather abrupt and distinct; scutellum small, quadrate, impressed along the middle; elytra large, a fourth longer than wide, very obtusely parabolic, with distinct though obtuse humeral promi-

nences, a fifth wider than the prothorax and two and one-half times as long; grooves deep, rather coarse, with only moderate punctures, not at all crenulate; intervals from less to more than twice as wide as the grooves, the fine punctures distinct, generally rather close-set in single series, but confused along the middle of the second and third, and throughout the width of the fifth toward base; under surface strongly and closely punctured. Length (♀) 3.15 mm.; width 1.65 mm. Missouri (locality unrecorded).

Differs from *congermana* in its rather larger size and much stouter form, in the slightly longer beak in the female, in the larger and less abbreviated prothorax, much feebler punctures at the bottom of the elytral grooves, and in the distinct and not subobsolete punctures of the strial intervals.

The following species belongs to the *ovata* section, near *incompta*:

**Stethobaris collaris** n. sp.—Stout, oblong-oval and convex, polished, black, the legs and beak piceous; surface glabrous; beak thick, evenly and moderately arcuate, shining, sparsely sculptured and but little longer than the head and prothorax, the antennæ submedian; prothorax large, one-half wider than long, the sides subparallel in basal half, broadly and transversely rounding thence to the deep apical constriction, the conspicuously tubulate apex being almost half as wide as the base; punctures very fine and remote, somewhat coarse though separated by nearly twice their diameters laterally, obliquely rugulose on parts of the propleura; smooth median line feebly defined, basal lobe broadly rounded; elytra broadly oval, barely a fourth longer than wide, distinctly wider than the prothorax but only a little more than twice as long, the humeri obtusely prominent; grooves rather coarse, deep, not at all crenulate, the punctures along the bottom remote and distinct; intervals alternating from two to nearly three times as wide as the grooves, the narrower with single rows, the broader with confused, very fine punctures; under surface coarsely, loosely punctate, the abdomen behind the first segment finely and sparsely. Length (♀) 3.0 mm.; width 1.5 mm. Florida (Enterprise). One specimen.

This species differs from *incompta* in its larger and less abbreviated prothorax, with much broader apical tubulation, this in that species being very much less than half as wide as the base; in *incompta*, also, the elytral grooves are crenulate basally.

The following belongs to an aberrant group of the genus, peculiar to the Arizona region and with very much coarser sculpture than the eastern species:

**Stethobaris arizonica** n. sp.—Oblong-subrhomboidal, black, the legs picescent, the elytra dull rufous, moderately shining, glabrous; beak in the female thick, evenly arcuate, distinctly tapering apically and with coarse close sculpture throughout, about as long as the head and pro-

thorax, the antennæ at the middle; prothorax only a third wider than long, the sides evenly converging, evenly and rather strongly arcuate from base to the apical constriction, the tubulate apex a little less than half as wide as the base; punctures coarse, separated by their own diameters, dense laterally, the propleura rugulate; impunctate median line only visible in basal half; elytra three-sevenths longer than wide, a fourth wider than the prothorax and a little more than twice as long, the feebly oblique sides nearly straight to the broad, circularly rounded apex, the humeral prominences large; grooves rather coarse, with small, remote punctures along the bottom, the intervals subequal, only one-half wider than the grooves, each with a single series of strong and close-set punctures, which are two-fifths as wide as the interval; sterna very coarsely, densely punctate, the abdomen much more finely and loosely. Length (♀) 2.65 mm.; width 1.35 mm. Arizona (locality unrecorded but different from that of the type of *egregia*). One specimen.

The type of this species I considered in connection with the type of the larger *egregia*, in my revision, but it seems to be a different species, differing in its smaller size, smaller and less transverse prothorax, with more evenly arcuate sides and very much less dense punctuation, and with less coarse and more evenly serial interstitial punctures; the metasternal punctures are coarser though equally dense.

#### **Cholinobaris** n. gen.

The body in this genus is strongly remindful of *Oomorphidius erasus*, being rhomboidal, very convex and smooth, with virtually glabrous integuments, but the prothorax is not tubulate at apex above, and the elytral sculpture is quite different. The beak is very thick, with strongly decussate mandibles, the antennal funicle rather compact, the club abrupt but very small, almost circular, its basal joint fully one-half the mass. The anterior coxæ are somewhat widely separated and the prosternum unmodified. The prothorax is similarly without basal lobe, but the scutellum is very different, being notably elongate and posteriorly attenuate, though small. The third tarsal joint is rather narrowly dilated but is bilobed, and the tarsal claws seem to be very small and free, though on all except one tarsus of the type specimen, and this partially concealed from view, the claws have been broken away. The type may be described as follows:

**Cholinobaris rhomboidea** n. sp.—Rhomboidal, very convex, moderately shining, though alutaceous and glabrous above; under surface smooth and glabrous, excepting the sterna of the hind body and the

abdomen at base between the coxæ, where there are sparse and rather strong punctures, each enclosing a minute scale; beak in the male very thick, cylindric, smooth and rather shining, finely, somewhat closely punctate, evenly, moderately arcuate and nearly as long as the head and prothorax, the antennæ at about the middle; prothorax large, almost as long as wide, the sides converging and straight for three-fifths, then rounded, becoming sinuously oblique to the apex, which is half as wide as the base, constricted and tubulate only beneath; base broadly, evenly arcuate from side to side; punctures extremely minute and remote, becoming more visible toward apex; elytra a fourth longer than wide, inflated, with rounded sides near basal fourth, and there a fourth wider than the prothorax, fully three-fourths longer, the sides behind basal fourth oblique and broadly arcuate to the narrowly rounded apex; striæ fine and extremely feeble, almost obliterated, but with very large, widely spaced and conspicuous punctures, the intervals with extremely minute, sparse and confused punctures; male with the abdomen broadly, feebly impressed and strongly punctured at base; tibiæ with coarse fulvous decumbent vestiture internally. Length ( $\sigma^7$ ) 3.5 mm.; width 2.0 mm. North Carolina (Southern Pines),—Manee.

This is one of the remarkable apterous rhomboidal species, such as *Oomorhidius* and *Eisonyx*; they are probably the remains of a very ancient fauna, and, at the present time, nearly all that are known constitute monotypic genera. The upper profile of the body, viewed from the side, is strongly and evenly arcuate from front to elytral apex, in this species more strongly so than in *Oomorhidius erasus*, a specimen of which, from Iowa, is now in my collection.

#### *Zygobarella* n. gen.

In this genus the body is small in size, oval, rather coarsely sculptured and subglabrous, the elytra with remotely scattered linear white scales. In the last-named feature, as well as in the general structure of the beak, mandibles and prosternum, as well as in the connate tarsal claws, it resembles *Zygobaris* Lec., but in the type of elytral sculpture, form of the distal parts of the antennæ and in the much smaller body, it differs conspicuously. The outer part of the antennal funicle does not merge gradually into the outline of the club as it does in *Zygobaris*, but the club is abrupt in formation and its basal joint is not a third the total length as in that genus, but fully one-half the mass or only slightly less. The elytral striæ are coarser, and are finely to obscurely punctate along the bottom, and not fine, with very large punctures as in *Zygobaris*; the interstitial sculpture, also, is altogether different. The type

of this genus is *Zygobaris xanthoxyli* Pierce, and the Mexican *Z. tristicula* Chmp., also belongs here. *Zygobaris nitens* Lec., is at present the only species assignable to the true *Zygobaris*.

#### **Neocratus** n. gen.

The body in this genus is somewhat larger than in *Zygobaris*, with much larger and longer prothorax and very different sculpture. The beak is long but thick and strongly sculptured, the mandibles similarly decussate, the antennal funicle unmodified apically, the club abrupt, rather small and gradually pointed, with its first joint about half the mass. The prosternum is flat and unmodified, unarmed in the male, the coxæ well separated and the tarsal claws approximate, becoming strongly connate basally as in *Zygobaris*. The scutellum is smooth, obovoidal and strongly rounded at tip. The type is the following:

\***Neocratus nudus** n. sp.—Evenly rhomboid-oval, strongly convex, polished, black and completely glabrous above, the coarse punctures of the under surface—smaller and sparser on the abdomen—each enclosing a very small and slender squamule; the prosternum is clothed with dense elongate ochreous scales; legs, beak and antennæ black; beak in the male, thick, feebly tapering, shining though coarsely sculptured throughout, strongly, subevenly arcuate and a little more than half as long as the body, the antennæ near four-sevenths, the scape far from attaining the finely faceted eyes; prothorax barely a fourth wider than long, the sides evenly converging and very evenly, moderately arcuate from base to the moderate apical constriction, the subtubulate apex but slightly more than a third as wide as the base, the basal lobe abrupt, moderate in size, with its apex truncate at the scutellum; punctures well separated, fine medially, gradually becoming coarser laterally, forming coarse rugæ at the sides and on the propleura; elytra very broad, only a fifth or sixth longer than wide, subtriangular, with evenly arcuate sides and rather narrowly rounded apex, at the prominent humeri distinctly wider than the prothorax and only one-half longer; striæ moderately coarse, not very abrupt, finely punctate along the bottom; intervals between two and three times as wide as the striæ, not very flat, coarsely, closely and confusedly punctate, less coarsely and more loosely toward the suture; abdomen of the male distinctly impressed medio-basally. Length (♂) 4.5 mm.; width 2.35 mm. Mexico (Frontera, in Tabasco),—Townsend.

Possibly this species may have been described, but I can find nothing resembling it in the work of Mr. Champion.

**Catapastus** Csy.

This genus of minute species, allied somewhat closely to the Zygozarid series, proves to have an extended range over the more southern parts of the North American continent. The following three species are to be added in our own fauna:

**Catapastus simplex** n. sp.—Rhomboidal, convex and feebly shining, piceous-black throughout, the legs not paler; upper surface with slender brown decumbent scales, sparse but evident on the pronotum, especially toward the sides, also on the flanks of the elytra, but not medially, the stria punctures each with a very small slender whitish scale; scattered pale scales wholly wanting; beneath, the scales are larger, white and well separated, closer on the met-episterna; beak in the female thick, moderately arcuate, slightly tapering and as long as the head and prothorax, sculptured and dullish, finely, sparsely squamulose basally, the antennæ at about the middle; prothorax large, two-fifths wider than long, the sides parallel, rapidly rounding and oblique before the middle, the feebly constricted apex more than half as wide as the base; punctures coarse and dense, the median smooth line vestigial and central only; scutellum albido-squamose; elytra two-fifths longer than wide, parabolic, with individually rounded apices and prominent humeri, a fifth wider than the prothorax and slightly more than twice as long; striæ moderate; intervals twice as wide as the grooves, with single series of well separated, moderate and subtransverse punctures; under surface strongly and densely punctured throughout. Length (♀) 2.0 mm.; width 0.85 mm. A single example, without locality label, but probably from Florida.

When compared with *conspersus*, this species is much stouter, with larger and more transverse prothorax, sparser interstitial punctures and with completely obsolete scattered pale scales.

**Catapastus squamirostris** n. sp.—Narrowly and feebly rhomboidal, convex, dull black, the legs not definitely paler; upper surface with conspicuous elongate pale ochreous squamules, sparse but very uniformly distributed on the pronotum and in single close-set conspicuous lines on the stria intervals, more broadly confused toward base on the second and third, without scattered scales; on the under surface large, less yellow, well separated, very dense on the prosternum and finer and rather close on the met-episterna, narrow but distinct on the legs; beak in the male short, barely as long as the prothorax, thick basally, rapidly tapering to the apex, evenly, moderately arcuate, rather closely clothed throughout with conspicuous yellowish scales, the antennæ beneath and beyond the middle, rather thick and compact; prothorax only a little wider than long, the moderately converging sides slightly and subevenly arcuate; apex more than half as wide as the base, the basal lobe small but abrupt and strong; punctures coarse, very close and even throughout, without trace of smooth median line; scutellum small, semi-glabrous; elytra two-fifths longer than wide, rapidly subparabolic, somewhat narrowly

rounded at apex, the oblique sides feebly arcuate, a fourth wider than the prothorax and scarcely twice as long; striæ moderate, half as wide as the intervals, the punctures of the latter small, rather well separated and unevenly uniserial, confused throughout the broader second and third; male with a feeble rounded medio-basal impression, which is semi-glabrous. Length ( $\sigma^7$ ) 1.85 mm.; width 0.8 mm. Texas (Brownsville),—Wickham.

A very distinct and isolated form, easily recognizable by the clearly marked single lines of ochreous scales on the elytra and the conspicuously squamulose beak.

**Catapastus seriatus** n. sp.—Narrowly subrhomboidal, more obtuse behind, feebly shining, black throughout; squamules of the upper surface long, slender, sparse and whitish, evenly distributed on the pronotum and in single lines on the stria intervals, becoming rapidly and broadly confused only very near the base on the second interspace; scattered scales wanting; under surface with slender and close-set scales, larger and sparser throughout the prosternum; beak in the female moderately thick, feebly tapering, strongly, evenly arcuate, moderately sculptured and a little longer than the head and prothorax, the surface with some fine, sparse squamules basally; antennæ inserted beneath and at the middle; prothorax a fourth wider than long, the sides converging and straight, rounding and oblique only in apical fourth, the apex three-fifths as wide as the base; punctures coarse, much less close-set than in the preceding and with a well developed, entire, polished and impunctate median line; scutellum semi-squamose, small; elytra a fourth longer than wide, the sides feebly oblique and rather strongly, subevenly arcuate to the somewhat obtusely rounded apex, the humeri not distinctly tumid, a fifth wider than the prothorax and distinctly more than twice as long; intervals distinctly and uniserially punctate. Length ( $\text{♀}$ ) 1.75 mm.; width 0.75 mm. Texas (Brownsville),—Wickham. One example, as in the preceding.

Although this species and the preceding were taken at the same place and by the same collector, one represented only by the male and the other by the female, and both characterized by somewhat the same unilineate arrangement of the elytral squamules, I have no doubt at all that they represent different species. The form and sculpture of the prothorax differs very much, this being a feature not greatly subject to sexual modification.

Of *C. albonotatus* Linell, I have two specimens, one from Lake Worth, taken by Kinzel, and the other from Eleuthera Island; it is the smallest species known to me, being 1.5 by 0.62 mm. in dimensions; the basal spots of white scales, from which it derives its name, are minute and rather inconspicuous.



**Barinus** Csy.

The species of this genus are moderately numerous and were included under *Barilepton* by LeConte, but the general habitus of the body is very different, lacking the narrow and subcylindric outline of that genus, as well as some of its more distinctive structural characters. The two following species are hitherto undescribed:

**Barinus ferruginosus** n. sp.—Oblong and moderately convex, black throughout, the integuments shining where exposed, the upper surface densely clothed with large, oblong, ferruginous scales, abruptly glabrous in a large oval median area on the pronotum; under surface and femora with very minute and slender, sparse squamules, more distinct at the outer sides of the anterior coxæ and becoming dense whitish scales on the met-episterna and sides of the last three ventral segments; beak in the female thick, smooth, finely punctulate, strongly arcuate basally, straighter apically, and distinctly shorter than the prothorax, the antennæ at the middle subinferiorly; prothorax nearly one-half wider than long, the sides parallel and arcuate, gradually more converging before the middle, the feebly constricted apex fully three-fifths as wide as the base; punctures rather coarse, separated by less than their diameters, the median smooth line distinct and entire; scutellum rounded, nude; elytra two-fifths longer than wide, about as wide as the prothorax and two and one-half times as long, the sides parallel, gradually rounding in apical two-fifths to the narrowly obtuse apex, the humeral prominences feeble; striæ indicated by clefts in the dense vestiture; abdomen finely, sparsely punctate and polished, more strongly and closely punctate on the first segment; anterior coxæ separated by less than half their width. Length (♀) 3.0 mm.; width 1.2 mm. Missouri (St. Louis),—Schuster.

Related to *curticollis* but broader, more oblong, with still more transverse and laterally more rounded prothorax and denser and more ferruginous vestiture of the upper surface; it seems to be related also to *lutescens* Lec.

**Barinus debilis** n. sp.—Oblong, parallel, rather convex and shining, black, the legs piceo-rufous; elongate scales of the upper surface whitish and rather sparse, more distinct, though not denser toward the sides of the pronotum, narrowly and loosely confused on the stria intervals, the squamulation beneath as in the preceding species and *curticollis*; beak in the male thick, strongly, evenly arcuate, strongly punctate but shining, only about three-fourths as long as the prothorax, the antennæ slightly beyond the middle, the funicle and club together about as long as the beak; prothorax a fourth wider than long, the sides nearly straight, subparallel or very feebly diverging, rapidly rounding and oblique in apical third, the feebly constricted apex three-fifths as wide as the base; punctures rather coarse, separated by nearly their diameters, smaller

apically, the smooth line distinct but not quite entire; elytra parallel, with straight sides, rounding at apex, about as wide as the prothorax and slightly more than twice as long, about one-half longer than wide; striæ narrow, the intervals fully four times as wide, with fine and loosely confused punctures. Length ( $\sigma^7$ ) 2.4 mm.; width 0.85 mm. Louisiana. One example.

This species also belongs to the *curticollis* section, but is much smaller and with less abbreviated prothorax, apparently somewhat wider before the middle than at base, in its more parallel, more obtusely rounded and more finely striate elytra and in general appearance.

#### Barilepton Lec.

The following species is allied somewhat to *quadricollis*, but differs in the shorter and relatively stouter beak, larger prothorax and more scanty vestiture:

**Barilepton productum** n. sp.—Elongate, parallel, strongly convex and cylindrical, moderately shining, deep black, with obscurely rufous legs; squamules above whitish, fine and sparse on the pronotum but closer though not dense along the sides, coarser and forming single or partially double interstitial lines, and more broadly condensed at the base of the second interval and on the third posteriorly; beneath sparse but distinct, white, dense on the met-episterna and close but not very dense almost throughout the last three ventral segments; beak in the male thick, cylindrical, finely, sparsely punctate and shining, very strongly arcuate basally, less so apically and distinctly shorter than the prothorax, the antennæ slightly beyond the middle; prothorax about as long as wide, the parallel sides feebly arcuate, rounding and oblique in apical two-fifths, the subtubulate apex three-fifths as wide as the base; punctures somewhat small, moderately and unevenly separated, the smooth line distinct but extending only slightly beyond the middle; scutellum tumid, nude; elytra exactly as wide as the prothorax and more than twice as long, with straight, parallel sides, gradually parabolic behind the middle, not quite twice as long as wide; grooves fine but deep, the intervals with uneven series of small and feeble punctures; male abdomen narrowly impressed medio-basally and more broadly and feebly at the middle of the last segment. Length ( $\sigma^7$ ) 3.3 mm.; width 1.0 mm. Louisiana (southern). One example.

The rather common eastern species, named *quadricollis* by LeConte, is very densely clothed above, thus having a widely different appearance from *productum*.

#### Zaglyptus Lec.

In this genus, which includes the most minute of the Barinæ, the body is rather abbreviated and very convex, with sparse coarse

recurved hairs and widely scattered long erect setæ above, the under surface wholly glabrous. The anterior coxæ are widely separated, the prosternum feebly impressed, the third tarsal joint narrow and undilated, the claws slender and free and the antennæ slender, with narrow pubescent club, its first joint constituting about half the mass. The species *sulcatus* is very stout, with wide deep, coarsely punctate and sulciform striæ; the others are all much less stout and have series of less coarse elytral punctures, the series never more than moderately impressed. LeConte gives the length of the Pennsylvania *striatus* as 1.8 mm. A specimen from District of Columbia, which apparently represents this species, measures 1.65 by 0.7 mm.

The following two species are much more minute and may be described as follows:

**Zaglyptus perminutus** n. sp.—Smaller and more abbreviated than *striatus*, convex, shining and castaneous; coarse matted hairs of the pronotum very numerous and conspicuous; beak (♂) two-fifths as long as the body, rather slender, very feebly arcuate, with the antennæ barely beyond the middle, or (♀), nearly half as long as the body, smoother apically, the antennæ at about the middle; prothorax fully a third wider than long, coarsely, densely punctate, the sides converging and rather strongly arcuate; scutellum as usual in the genus, minute and obtriangular, emarginate and sharply bicuspid at apex; elytra barely at all longer than wide, evenly, obtusely semi-elliptic, a fourth wider than the prothorax and twice as long, the serial punctures strong and rather close-set, the series not impressed, except feebly toward the suture, the intervals smooth and virtually impunctate. Length (♂ ♀) 1.25 mm.; width 0.7 mm. District of Columbia,—Ulke. Three specimens.

Nearly similar to *striatus*, but smaller and with notably shorter prothorax; in *striatus* the more conical prothorax is but little wider than long in the male.

**Zaglyptus atomicus** n. sp.—Still more abbreviated than in *perminutus* and more pallid in color; beak in the female nearly as in that species but not quite so long; prothorax shorter, nearly one-half wider than long, the basally subinflated sides more constricted apically, the punctures not quite so coarse but still denser; vestiture of coarse hairs sparser and much less conspicuous, not hiding the sculpture; elytra similar in form but not barely twice as long as the prothorax as in *perminutus*, but distinctly more than twice as long as that part; punctures of the unimpressed striæ distinctly coarser and less close-set than in the preceding. Length (♀) 1.18 mm.; width 0.65 mm. Mississippi (Vicksburg). One specimen.

Easily distinguishable from *perminutus* by the shorter, less pubescent and more densely punctate prothorax and coarser, less close-set punctures of the elytral series.

I am of the opinion that *Eunyssobia* Csy. (*Euchætes* Lec.), suppressed by Mr. Champion, is a valid genus; its habitus is quite different from that of *Plocamus*, as can be seen from the figures; and there are many special differences relating to the beak, prothorax and character of the bristling spines.

#### ERRATUM

In Memoirs VIII, a ter *Bembidion acutifrons*, in the first line of the list at the bottom of page 222, for "Cal." read Col.

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All generic and specific names without designation of authorship in the following index, refer to new descriptions in the preceding pages of this work. Names merely incidentally mentioned are frequently omitted.

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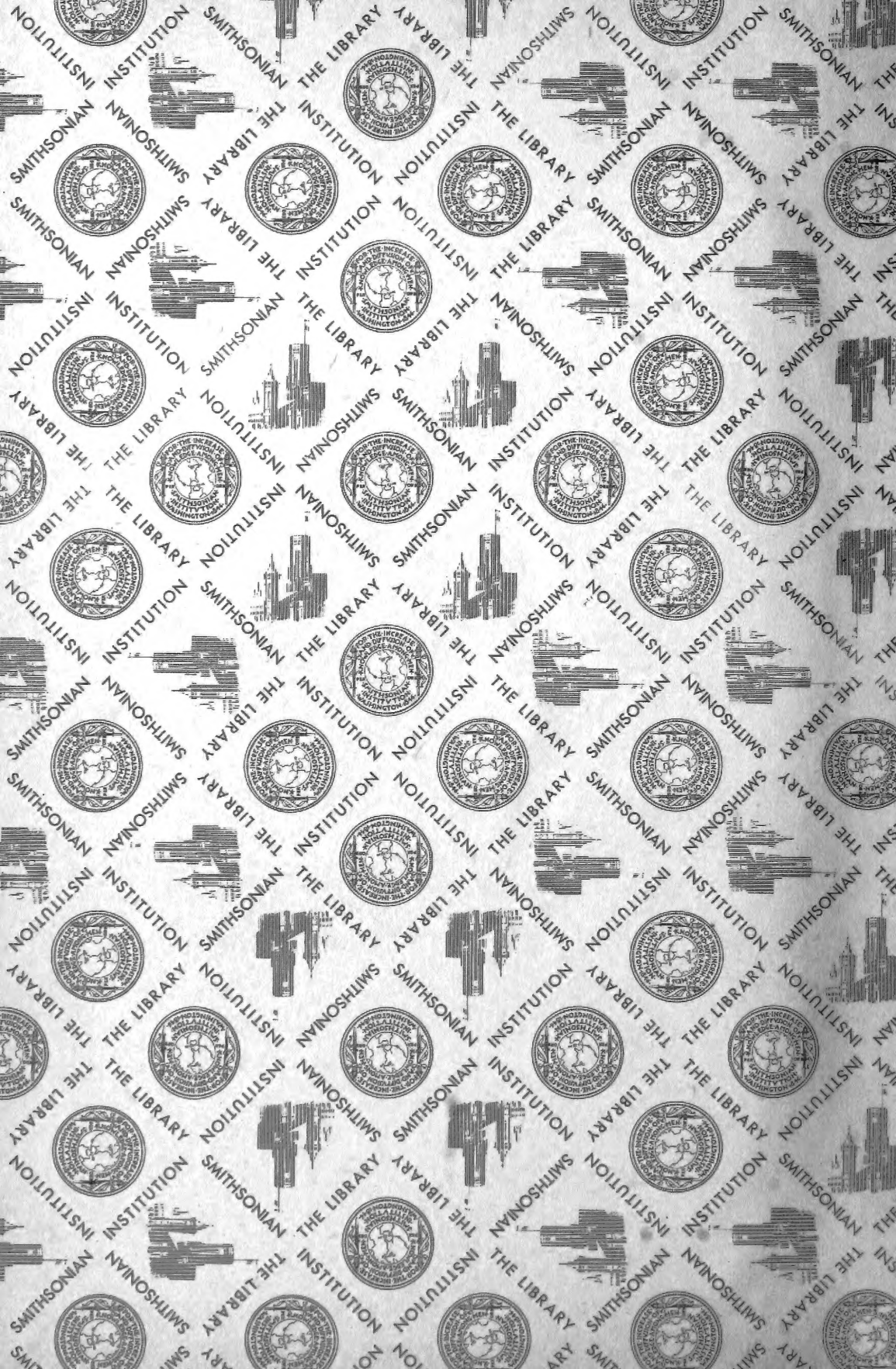
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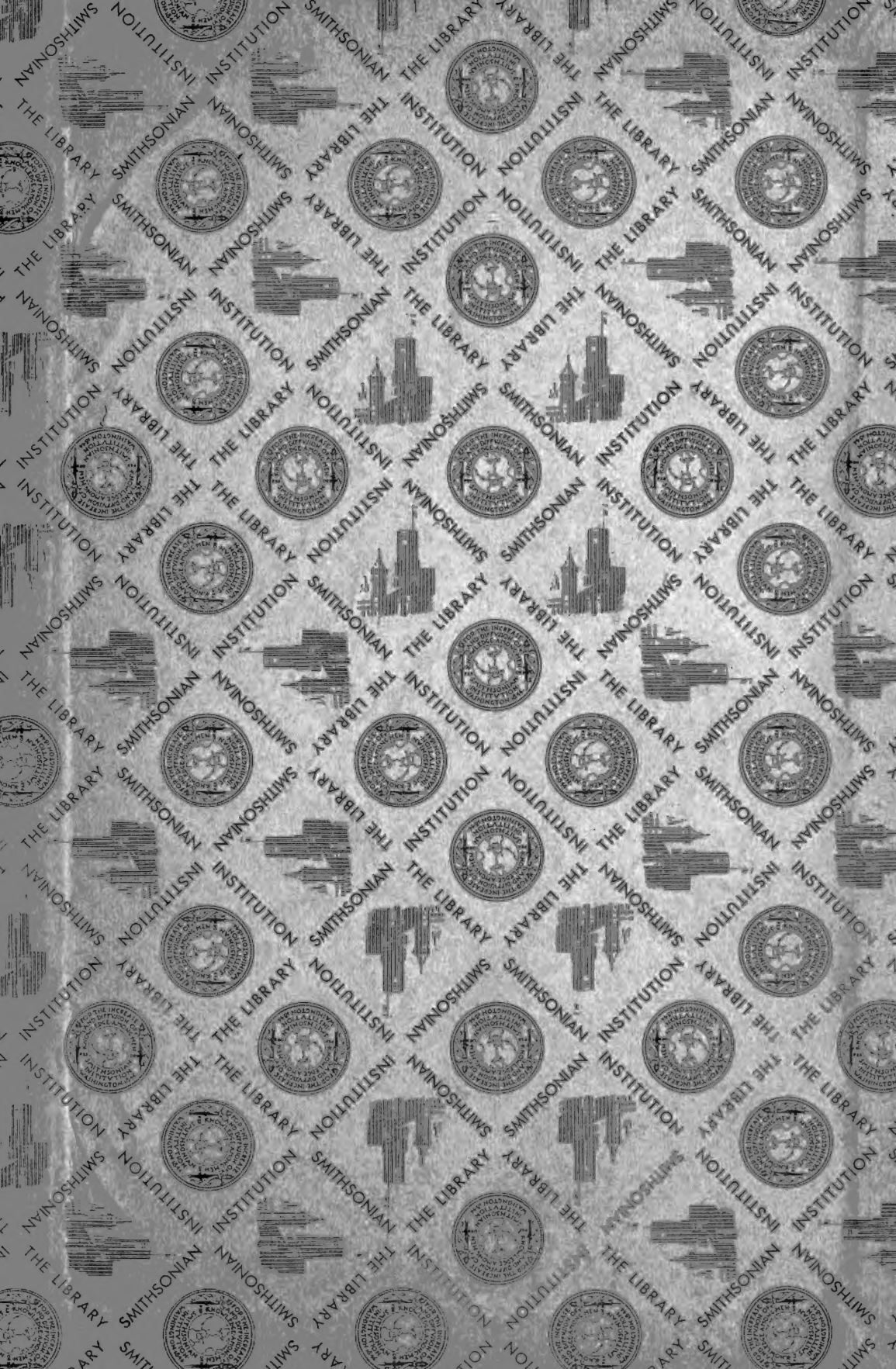












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