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NOTES ON SOME CLERIDÆ OF
MIDDLE AND NORTH AMERICA
WITH DESCRIPTIONS OF NEW SPECIES.

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CHICAGO, U. S. A.

May, 1910.

NOTES ON SOME CLERIDÆ OF MIDDLE AND NORTH AMERICA, WITH DESCRIPTIONS OF NEW SPECIES.

BY A. B. WOLCOTT.

The twenty-four new species described in the following paper, together with the notes on others, a few of which are species new to our faunal region, embody the partial results of spare moments devoted to a study of this family for several years.

It is hoped that the details figured in the plate, which were prepared with some care, will assist the student to a proper understanding of the structure of the parts, and that the tabulating and re-describing of the species of *Monophylla*, *Aulicus*, *Trichodes*, and *Cregya* will render them recognizable and awaken interest in these beautiful but much neglected insects.

To the many friends and correspondents who have loaned or given to the writer, in many instances, their choicest captures in this family his heartiest thanks are due. Especially does the author feel under deep obligations to Prof. H. F. Wickham, who from time to time has very generously placed at the writer's disposal the rich and extensive Clerid material taken by him on various expeditions to Mexico and the western parts of North America.

Monophylla Spinola.

Monophylla Spin., Rev. Zool., 1841, p. 75; Mon. Clér., 1, 1844.
p. 385.

Macrotelus Klug, Abh. Akad. Berl., 1842, p. 274; Schklg., Gen. Ins., Cleridæ, 1903, p. 8.

Elasmocerus Lec., Ann. Lyc. Nat. Hist. N. Y., v, 1849, p. 13;
Lac., Gen. Col., iv, 1857, p. 426.

The term *Elasmocerus* was proposed by Dr. LeConte for the supposedly preoccupied generic names — *Monophylla* Spinola and *Macrotelus* Klug, which are not, however, under the one letter rule, homonyms of the earlier described generic terms *Monophyllus* Leach and *Macroteleia* Westwood. Under the one letter rule generic names

differing from earlier names only in some minor detail — as termination indicating gender, etc.,— cannot be considered as being homonymous. It seems almost certain that the adoption of this rule will sooner or later become universal,— the more surely as it makes for stability of nomenclature. Mr. Sigmund Schenkling, while citing Spinola's term, places the species in *Macrotelus* Klug, but this name is antedated by *Monophylla* Spin., to which the species may properly be referred. The species may be separated by aid of the following key:

KEY TO THE SPECIES OF MONOPHYLLA.

- a. Elytra more or less striate.
- b. Size small (4 mm.); elytra distinctly punctate striate near suture only; head black. *substriata*, 340
- bb. Larger (8 mm.); elytra entirely punctate striate; head yellow. *cinctipennis*, 341
- aa. Elytra uniformly punctate, not at all striate.
- c. Prothorax rather elongate; elytra finely, rather sparsely punctate; legs bicolored. *californica*, 341
- cc. Prothorax broader; elytra more coarsely and densely punctate; legs black. *terminata*, 342

***Monophylla substriata* sp. nov.**

Form of *californica* but less elongate. Clothed with moderately dense, semi-erect, whitish pubescence. Head black; front before the eyes pale brownish, very coarsely, densely punctate; antennæ(♂) eight-jointed, pale brownish, intermediate joints darker. Thorax one-fourth longer than wide; disk and flanks black, apical and basal margins very narrowly, obscurely testaceous; surface very finely, densely punctate. Elytra pale brownish; a broad pale fascia at middle, the anterior margin of which is vaguely limited, the posterior margin bordered with fuscous; a rather large infusate spot on each side near scutellum. Meso- and metasternum black. Abdomen pale brownish testaceous; anterior margin of ventral segments two, three, and four obscurely fuscous. Legs pale brownish; anterior and middle femora somewhat infusate; hind femora with a large piceous spot near apex; tarsi slightly infusate. Length 4 millim.

Differs from *cinctipennis* in coloration, size, and sculpture of elytra as indicated in the above table. *Cinctipennis* has the antennæ eleven-jointed (probably ten-jointed in the male), while the male of

substriata has the antennæ eight-jointed. Also allied to *californica*, from which it differs in having the head more coarsely punctate, the thorax more sparsely and the elytra more densely punctate with two or three distinct striæ near suture, and the different coloration.

One specimen, a male. St. George, Utah. Type in collection of Prof. Wickham.

Monophylla cinctipennis Chevrolat.

Macrotelus ? *cinctipennis* Chevrolat, Rev. et Mag. Zool., 1874, p. 281.

"Elongatus, niger, capite, prothorace, femoribus (genua quarta antica), elytris que in sutura et in margine flavis; confertim punctato striatis, oculis et antennis elongatis nigris; capite rotundato convexo, sulco tenue; inter oculos, prothorace vix longior quam latior, antice semi-cylindrico, postice recte truncato lateribus modice rotundato, longitudine convexo, trifossulato; scutello punctiforme fusco; elytris elongatis, parallelis, singulatim rotundatis, tibiis tarsisque nigrofuscis.

"Antennæ undecim articulatae, 1° articulo elongato, clavato, 2° breve, 3° longitudinis primi, 4° paululum minore, 5° conico, 6-10 brevibus subnodosis, coarctatis ultimo longo cylindrico spongioso.

"Long° 8, Lat° 3 mill. — Ins. Cuba, Mus. D. Gundlach." (Chevrolat.)

The original description is given in full above, owing to the rarity of the publication in which it first appeared. This species is unknown in nature to the author, the characters given in the table of species having been drawn from Chevrolat's description.

Monophylla californica Fall.

Elasmocerus californicus Fall, Occas. Papers, Cal. Acad. Sci., VIII, 1901, p. 251.

Macrotelus terminatus var. *pallipes* Schaeff., Jour. N. Y. Ent. Soc., XVI, 1908, p. 128.

This species may be differentiated from *terminata*, which it resembles in general form, by the slightly narrower thorax, the more finely punctured elytra, the nearly or entirely black pronotum, the usually brownish elytra with the margins not pale before the median fascia or spot, and by the color of the abdomen, which is yellowish red, more or less black at the sides. Length 5.5-6.3 millim.

Specimens of *californica* in the author's collection from Brownsville, Texas, agree in every detail with the brief description of the recently described variety *pallipes*, the type of which is also from Brownsville, Texas, hence they are united.

Lower California north to middle California; Southern Arizona and Texas (Brownsville region) south through Mexico to Costa Rica.

Monophylla terminata Say.

Tillus terminatus Say, Bost. Jour. Nat. Hist., I, Pt. 2, 1835, p. 160;

Say's Compl. Writ., Lec. ed., II, 1859, p. 637.

Macrotelus terminatus Klug, Abh. Akad. Berl., 1842; p. 274, pl. 2, fig. 4; Schklg., Gen. Ins., 1903, p. 9, pl. 5, fig. 1.

Monophylla megatoma Spin., (♂), Mon. Clér., I, 1844, p. 385; II, 1844, p. 126, pl. 28, fig. 5.

Monophylla terminata Spin., Mon. Clér., II, 1844, p. 126, pl. 6, fig. 3; Wolc., Bull. Wis. Nat. Hist. Soc., VII, 1909, p. 17.

Elasmocerus megatoma Lec., Ann. Lyc. Nat. Hist. N. Y., V, 1849, p. 13.

Elasmocerus terminatus Lec., Ann. Lyc. Nat. Hist. N. Y., V, 1849, p. 14; Lec., Say's Compl. Writ., Lec. ed., II, 1859, p. 638;

Fall, Occas. Papers, Cal. Acad. Sci., VIII, 1901, p. 251.

Readily separated from *californica* and *substriata* by the thorax being yellow, with a black discal spot of variable size but never covering entire pronotum, the elytra more coarsely, densely punctate, the lateral margin pale before the middle and the abdomen entirely yellow or red in the male, the apical segment black in the female. The antennæ of the male in this species are ten-jointed; in the male of *californica* and *substriata* they are eight-jointed.

Occurs in Georgia, Virginia, District of Columbia, New Jersey, Pennsylvania, Indiana, Ohio, Illinois, Iowa, Missouri, Louisiana, and Texas.

Cymatodera soror sp. nov.

Form of *usta* Lec. Dark brown; head and thorax piceous; antennæ, body beneath and legs paler; abdomen pale reddish brown. Pubescence short and moderately sparse. Head coarsely, deeply, and densely punctate; eyes prominent. Antennæ slender, equal to three-fourths length of body; second and third joints equal, small, obconic, together much shorter than joint four; joints four to ten elongate, serrate, subequal in length, but gradually narrower; last joint very slender, one-half longer than the tenth joint. Thorax one-half longer than wide; base slightly narrower than apex; sides feebly constricted in front of the middle, feebly compressed behind; surface coarsely and densely punctate; ante-scutellar impression wanting. Elytra nearly twice as wide as the thorax at base; humeri

distinct; sides at basal third parallel, posteriorly very slightly broader; apices conjointly rounded; disk rather strongly convex; striate with rows of moderately large, closely placed quadrate punctures, becoming finer posteriorly and entirely obliterated at apical fifth; the lateral striæ slightly longer; intervals feebly convex, slightly narrower than the punctures, very finely and sparsely punctate. Abdomen very finely and densely punctate. Length 8 millim.

Female. Fifth ventral segment arcuate-truncate at apex; sixth very short, arcuate-truncate at apex; fifth dorsal short, truncate at apex; last dorsal short, truncate at apex; angles obtusely rounded. (Pl. VI, figs. 1, 2.)

Differs from *longicornis*, to which it is nearest related, by having the head densely punctate, the thorax coarsely and densely punctate, the absence of ante-scutellar impression, the rows of elytral punctures longer, the form of apical segments of abdomen, structure of the antennæ, and the unicolorous brown elytra. From *usta* Lec., which it also resembles, it may be separated by the much longer antennæ, the second and third joints of which are shorter and less conical, the more densely punctate head and thorax, the elytra narrower at base and the secondary sexual characters of the female.

Nogales, Arizona, August. One specimen. Type in cabinet of Prof. H. F. Wickham.

Cymatodera subsimilis sp. nov.

Yellowish testaceous; head, thorax, and antennæ slightly darker; elytra shining pale yellowish, base narrowly, scutellar region broadly, sutural and lateral margins and an oblique fascia at apical two-fifths slightly darker, clothed with moderately short, erect, rather dense, pale brownish hairs. Antennæ stout, nearly half as long as body; joints two to four small, each much shorter than joint five or any of the remaining joints; joints three and four much narrower than joint two; eleventh joint one-third longer than joint ten. Head finely, not very densely punctate; eyes only moderately prominent. Thorax nearly one-half longer than wide; base slightly narrower than apex, rather strongly constricted subapically, more strongly compressed behind the middle; disk finely and rather sparsely punctate; ante-scutellar impression very feeble. Elytra parallel, less than twice as wide as the thorax at base; humeri distinct; apices conjointly rounded; disk feebly convex; striate with large rounded punctures which become finer posteriorly but extend nearly to apex, the apices somewhat scabrous; second, third, and fourth intervals broader than

the punctures, remaining intervals equal in width to the punctures; intervals convex, with two rows of fine punctures from each of which, two hairs, a long and a short one, arise. Body beneath very sparsely pubescent; mesosternum coarsely and closely, metasternum rather coarsely and very sparsely punctate; abdomen finely, very densely punctate. Legs roughly sculptured and sparsely pubescent. Length 5.5-7 millim.

Female. Fifth ventral segment broadly but very feebly arcuate-emarginate; sixth ventral short, broadly rounded. Last dorsal short, identical in size and shape with last ventral, but with a deep foveate impression at middle of apex. (Pl. VI, figs. 3, 4.)

By the structure of the antennæ this species belongs near *uniformis* Schaeffer, from which it differs in having the thorax more finely punctured, the pubescence finer, sides of elytra parallel, the intervals distinctly punctate and not rugose near sides and the quite distinct coloration. Also allied to *pallida* Schaeffer, but differing from that species in having the surface more densely pubescent, the eyes less prominent, the thorax more strongly constricted before the middle, and many other details including coloration.

Baboquivaria Mts., Arizona. Dr. F. H. Snow. Two females. Types in collection of the author and in collection Kansas State University.

Cymatodera tuta sp. nov.

Pale yellowish, head and thorax very slightly darker, the latter somewhat infusate at apex; elytra pale yellowish, with an irregular fuscous maculation or incomplete fascia at apical two-fifths; shining; very sparsely clothed with short, pale pubescence. Antennæ dark brown, rather stout, extending to base of elytra; second joint scarcely two-thirds as long as the third; joints three to ten of equal width but becoming gradually shorter towards apex; eleventh one-third longer than tenth, apex acute. Head rather finely and sparsely punctate; front between the eyes with two large depressions; eyes rather prominent. Thorax one-fourth longer than wide, feebly constricted subapically, very strongly compressed behind the middle; surface very finely and sparsely punctate; ante-scutellar impression small but distinct. Elytra parallel, at base less than twice as wide as thorax; humeral angles obtuse; apices conjointly rounded; disk rather flat; striate with coarse, perforate punctures which become finer towards the apex and which are entirely obliterated at apical two-fifths; the lateral rows of punctures slightly longer; punctures of three sutural

rows on each elytron smaller and more sparsely placed than those of the outer rows; three sutural intervals more than twice as wide as punctures; the lateral intervals slightly narrower than the punctures; intervals flat, rather sparsely and finely but distinctly punctate. Pro-, meso- and metasternum finely, sparsely punctate; abdomen more finely and densely punctate. Legs pale yellowish, the femora at apex with faint infuscate cloud. Length 7.9–8.8 millim.

Male. Fifth ventral segment broadly but very feebly emarginate; sixth ventral with sides rounded, narrowly and feebly arcuate-truncate at apex; last dorsal as long as broad, much larger than last ventral, sides narrowing to apex, which is nearly truncate. (Pl. VI, fig. 5.)

Female. Fifth ventral feebly sinuate at apex; sixth ventral short, broad, rounded, slightly smaller and shorter than last dorsal, which is semicircular. (Pl. VI, fig. 6.)

Closely related to *lævicollis* Schaef., but differs from that species by the secondary sexual characters of the abdomen, somewhat longer antennal joints, the second joint however being shorter, the thorax not infuscate at the sides and the apex of elytra entirely pale. From *xanti*, to which it is also allied, it may be separated by the different form of the terminal segments of abdomen, the presence of an ante-scutellar impression, the elytral intervals rather more densely punctate and the two marginal rows of elytral punctures extending well beyond the middle.

Escondido, New Mexico, August 30. Two specimens. Type in collection of Prof. H. F. Wickham.

***Cymatodera isabellæ* sp. nov.**

Slender, pale-honey yellow; head, antennæ, apex and base of thorax, narrowly, and a large rounded sutural maculation at apical one-third very slightly darker, being pale yellowish testaceous in color; moderately pubescent and shining. Head rather coarsely, vertex densely, front more sparsely punctate; eyes moderately prominent. Antennæ half as long as body; joints two and three short, equal, conical, together not longer than joint four; joints four to ten elongate, subequal in length, feebly serrate; joint eleven, one-third longer than tenth. Thorax one-third longer than wide at apex; base narrower than apex, subapical constriction moderate; at basal third strongly compressed; no ante-scutellar impression; surface very finely, sparsely rugulose. Scutellum transversely oval. Elytra nearly twice as wide as base of thorax; humeri distinct; sides parallel, apices nearly conjointly rounded, the sutural angles slightly rounded;

disk feebly convex, with rows of fine, well separated punctures which become very fine and feebly impressed posteriorly and are obliterated at apical fifth; intervals very feebly convex, three times as wide as rows of punctures. Metasternum and abdomen feebly, sparsely punctate. Length 5.8 millim.

Male. Fifth ventral segment broadly feebly emarginate; sixth much shorter and narrower than last dorsal, broadly and very deeply sinuately emarginate at apex. Last dorsal nearly as long as broad, arcuately truncate, broadly, feebly incised at middle of apex. (Pl. VI, fig. 7.)

Allied by antennal structure to *usta* and *antennata*, but the form is more slender, the color much paler, the rows of elytral punctures finer, the second and third joints of antennæ proportionately shorter, and the terminal segments of the abdomen are of a different form.

St. George, Utah. July. One specimen. Collected and loaned the author for study by Prof. Wickham. Named in memory of my mother.

Cymatodera peninsularis Schaeffer. (Pl. V, fig. 1.)

Cymatodera peninsularis Schaeff., Jour. N. Y. Ent. Soc., XII, 1904, p. 214.

A specimen of this oddly marked species was sent to the writer by the late Dr. F. H. Snow, by whom it was taken in the Baboquivaria Mountains, Arizona.

The specimen is a male and differs from the type as described by having the head and prothorax entirely pale, the antennæ, knees, and tarsi slightly darker. The type of this species was taken at San Felipe, Lower California. It is described as having the "thorax as long as broad" and the elytral "apices separately rounded"; in the Arizona specimen the thorax is slightly longer than broad and the elytral apices are nearly conjointly rounded, the sutural angles being only minutely rounded. The secondary sexual characters of the male are the same as those given for that sex by Mr. Schaeffer. The figure given represents the Arizona specimen.

Cymatodera usta LeConte.

Cymatodera usta Lec., Proc. Acad. Nat. Sci., Phila., 1858, p. 71.

Twenty-nine years ago Dr. George H. Horn¹ referred *usta* Lec. to the synonymy, remarking "does not differ from *C. cylindricollis* Chev., from Mexico." The accuracy of this assignment has never

¹ Transactions Amer. Ent. Soc., VIII, 1880, p. 149.

been questioned, nor has it ever been verified; in what manner the decision regarding the identity of the species was reached by Dr. Horn is not known, but it seems very probable that wrongly determined Mexican material may have been responsible for the statement. Be that as it may, the fact remains that the description of *cylindricollis* fails to agree with the description and specimens of *usta* in several very important characters.

Cylindricollis is described by Chevrolat as having the "*Corselet trois fois plus long que large, Elytres . . . avec-neuf stries chacune . . . Les antennes sont de la longueur d'une élytre, à articles allongés et de même grosseur; le dernier allongé, terminé en pointe.*" (Col. Mex., cent. 1, fasc. 1, 1833.)

In *usta* the prothorax is but one-third longer than wide; the elytra are each 10-striate and the antennæ have the second and third joints obconical, equal and short, together being but little longer than the fourth joint.

It being clearly impossible to reconcile the many discrepancies between these two species, *usta* should be removed from the synonymy.

Cymatodera torosa sp. nov.

Robust, dark brown; antennæ, palpi, legs, and abdomen brownish testaceous; moderately clothed with rather short pale pubescence. Head very coarsely, densely punctate; eyes prominent. Antennæ slightly longer than head and thorax; joints two and three short, conical, equal, together shorter than joint four; joints four, five, and six strongly serrate; joints four to ten subequal in length but gradually narrower toward apex; eleventh joint one-third longer than tenth. Thorax nearly twice as long as wide at apex; base slightly narrower than apex; sides before the middle feebly constricted; behind the middle moderately compressed; ante-scutellar impression feeble; disk rather coarsely and densely punctate. Scutellum subcordate, feebly emarginate at base. Elytra twice as wide at base as thorax; humeral angles obtusely rounded; sides nearly parallel; disk convex, each with ten rows of coarse quadrate punctures becoming slightly smaller posteriorly and extending nearly to apex; the extreme apex rather roughly sculptured; punctures of first lateral stria scarcely extending to the middle; intervals rather convex, equally as wide as the punctures, finely irregularly punctate. Promeso- and metasternum finely and rather sparsely punctate; abdomen very finely and densely punctate. Length 9.5 millim.

Male. Fifth ventral segment truncate; sixth ventral narrower and much shorter than last dorsal, the posterior angles slightly prolonged and broadly rounded between which the tip is truncate. Last dorsal truncate at apex, angles rounded. (Pl. VI, fig. 8.)

From *usta* to which this species seems nearest related, it differs in many details. However, the coarsely and densely punctured head and prothorax, the presence of an ante-scutellar impression, the somewhat longer rows of elytral punctures and the probably different form of the terminal segments of abdomen in the male will serve to distinguish this species.

Albuquerque, New Mexico. One specimen (Wickham). Type in cabinet of Prof. H. F. Wickham.

***Cymatodera æmula* sp. nov.**

Slender, piceous; elytra with humeral callus obscurely and a narrow very indistinct median fascia, which scarcely attains the suture, dull testaceous; antennæ, palpi, meso-, and metasternum, abdomen, base of femora, apex of tibiæ and the tarsi brownish; pubescence very short and sparse. Head densely, not very coarsely punctate; eyes feebly prominent. Antennæ slightly longer than head and thorax; joint two slightly shorter than joint three; three to ten subequal, elongate, serrate; eleventh one-half longer than the tenth. Thorax one-half longer than wide; sides feebly constricted before the middle, rather strongly compressed behind; base much narrower than apex; ante-scutellar impression distinct; surface rather coarsely and densely punctate. Elytra nearly three times as long as thorax, much wider at base than thorax at widest part; humeri distinct; sides slightly broader posteriorly; apices conjointly rounded; striate with rows of moderate punctures, becoming finer posteriorly but scarcely reaching beyond the middle; punctuation of apical portion fine and confused. Meso-, metasternum, and abdomen moderately coarsely, but rather sparsely punctate. Length, 10.5 millim.

Male. Fifth ventral broadly emarginate at apex; sixth short, narrower than last dorsal, broadly rounded, slightly incised at apex. Last dorsal short but extending beyond last ventral; sides strongly arcuate, narrowing to apex, which is broadly triangularly emarginate. (Pl. VI, fig. 9.)

Only comparable to *fascifera* Lec., from which it differs by the more elongate form, proportionately longer antennæ and prothorax, sexual characters of the male, and somewhat different sculpture and coloration.

Santa Rita Mountains, Arizona. One specimen (Wickham). Type in cabinet of Prof. Wickham.

Cymatodera horni sp. nov.

Cymatodera californica† Horn, ♀, Trans. Amer. Ent. Soc., v. 1876, p. 225, pl. 1, fig. 9.

Mr. Charles Schaeffer (Sci. Bull. Brookl. Inst. Arts and Sci., Vol. 1, no. 7, 1905, p. 152) has called attention to the fact that what Dr. Horn described and figured as the abdominal characters of the male of *californica* are really those of the female, and further states that the female described by Dr. Horn was very likely a different species. The type of *californica* as first described (Trans. Amer. Ent. Soc., Aug., 1868, p. 134) is what was later erroneously described as the male; this leaves unnamed the other species, also represented by the female, and the name *horni* is here proposed for it.

The female of *horni* differs from both sexes of *californica* in having the elytral apices rounded, the sutural angle not prolonged and the different sexual characters, whereas in *californica* the elytral apices are truncate and the sutural angles are often prolonged, the sexual characters being also different, as figured by Dr. Horn, (t. c. pl. 1, fig. 9, ♀). In the description the sixth ventral is described as "semi-circular, apex rounded," but the apex is really truncate as in the figure. The male of *horni* is unknown to the writer. Length 21 millim.

Santa Rita Mountains, Arizona, 5,000–8,000 ft., June. Collected by the late Dr. F. H. Snow. Type in museum of the University of Kansas.

Cymatodera snowi sp. nov.

Cymatodera arizonæ Wolcott MS., Trans. Kas. Acad. Sci., xx, Pt. 1, 1906, p. 168.

Form elongate, dark brown; antennæ, labrum, palpi, mandibles, tarsi, coxæ, base of femora, knees, and middle of ventral segments of abdomen pale brown. Antennæ slender, reaching to base of prothorax; joints two to ten subequal; joint eleven one-half longer than the tenth. Head coarsely, deeply, and densely punctate, sparsely pubescent. Thorax subcylindrical, one-fourth longer than wide; base slightly narrower than apex; feebly constricted behind the apex; more strongly compressed behind the middle; surface densely but less deeply punctured than the head; pubescence sparse; ante-scutellar impression deep and rather broad. Elytra wider than the

thorax; humeri distinct; sides straight, slightly divergent to about the middle, thence arcuate to apex; broadest at apical one-fourth; the apices sinuate, the sutural angle prolonged (♀), or conjointly rounded, the sutural angles not prolonged (♂); disk feebly convex, with striæ of quadrate punctures, arranged in pairs, becoming obliterated behind the middle; scutellar region depressed; surface sparsely pubescent; lateral margins at middle with a very obscure and vaguely limited testaceous maculation. Body beneath densely and moderately coarsely punctured; abdomen more sparsely punctured. Length, 9.5–12.5 millim.

Male. The fifth ventral segment truncate; last ventral shorter than last dorsal, equally as long as broad, deeply triangularly emarginate at apex, the angles very acute, impressed at base, and at middle a transverse lunate impression; fifth dorsal feebly triangularly emarginate at apex; last dorsal one-third longer than broad, strongly narrowed to apex, the apex triangularly incised and longitudinally impressed at middle.

Female. Fifth ventral segment very feebly emarginate at apex, longitudinally broadly depressed from base to near apical margin, the margin elevated, last ventral semicircular, wider than the last dorsal, feebly depressed at apex; last dorsal feebly impressed at tip, apex nearly truncate.

This species is allied to *californica*, *hopei*, and *horni*, agreeing with these in having the elytral striæ arranged in pairs, the alternate intervals broader, the last ventral segment broader than the last dorsal and a similar structure of antennæ. It differs from all these in color, in the much smaller size and the form of the terminal abdominal segments; also by having the prothorax proportionately broader and the elytra more coarsely striate.

San Bernardino Ranch, Cochise county, Arizona, 3,750 ft. el. August. Collected by and named in remembrance of the late Dr. Francis Huntington Snow. Type in entomological collection Kansas State University.

Cymatodera æthiops sp. nov.

Slender, piceous, brown; head, apex of thorax, an indistinct median elytral fascia, meso- and metasternum, knees and tibiæ at apex obscurely testaceous; antennæ, palpi, labrum and tarsi pale testaceous; moderately clothed with short, erect pubescence with long sparse hairs intermixed. Head coarsely and densely punctate, eyes moderately prominent. Antennæ slightly longer than head and thorax, rather

stout, joints nearly equal; second joint slightly shorter than the third; eleventh joint one-third longer than the tenth. Thorax nearly twice as long as wide; sides very feebly constricted at apical fourth, strongly compressed behind the middle; base much narrower than the apex; surface coarsely and rather densely punctate, slightly transversely rugose; ante-scutellar impression deep and broad. Elytra at base much wider than thorax; humeri distinct; sides feebly divergent; apices conjointly rounded; disk feebly convex, with rows of punctures moderately coarse at base, finer and less deeply impressed towards apex; the lateral striæ extending to apical fifth, the sutural striæ shorter, the first two extending to middle and the next two slightly beyond the middle; interval scarcely as wide as punctures, finely and densely punctulate. Body beneath coarsely and very sparsely punctate; color piceous, the middle of ventral segments and ventral and dorsal surface of last segment paler. Length, 9.5-10.7 millim.

Male. Fifth ventral segment feebly emarginate, the middle longitudinally and apical margin feebly elevated; sixth ventral broader than long, broadly oval with a slight triangular incision at apex; fifth dorsal truncate at apex; sixth much narrower but slightly longer than last ventral, sides feebly rounded, apex broadly rounded, narrowly incised at apex. (Pl. VI, figs. 10, 11.)

Female. Fifth ventral broadly but rather feebly emarginate, the middle and the apical margin elevated; sixth ventral broader than long, sides feebly rounded, apex nearly truncate, the angles obtuse; fifth dorsal truncate at apex; sixth dorsal nearly as long as wide, narrower than last ventral, sides feebly arcuate, apex arcuate-truncate, angles obtuse. (Pl. VI, figs. 12, 13.)

This species is very closely allied to *santarosæ* Schaeffer. Judging by the description, the present species differs from *santarosæ* in being much more slender, in having the head more coarsely punctured, sides of the thorax more strongly compressed behind, base of thorax narrower, and body beneath less densely punctured. The abdominal sexual characters are also unlike those of *santarosæ*.

The type (♂) is from El Paso, Texas, July 8-9, 3,700-3,800 ft. el. (Wickham); a cotype (♂) is from Tucson, Arizona, July 13-15, 2,300-2,500 ft. el. (Wickham). Type in cabinet of Prof. Wickham.

Cymatodera comans sp. nov.

Moderately slender, pale, brown; antennæ, palpi, body beneath, abdomen, and legs, pale testaceous; elytra variable but always with

a broad irregular, pale median fascia; clothed with rather dense, semierect, moderately long, coarse, pale hairs, intermixed with longer, sparse, erect, pale hairs; pubescence densest on head and thorax. Head rather coarsely, irregularly but not very densely punctate, front with two large feeble impressions between the not very prominent eyes. Antennæ moderately slender, extending to basal fourth of elytra; the second, third, fourth, and fifth joints elongate, equal, subcylindrical; the outer joints gradually shorter and subserrate; the last joint longer than the tenth, acuminate at apex. Thorax two-thirds longer than broad; sides moderately constricted before the middle, strongly constricted behind; base narrower than apex; ante-scutellar impression distinct; punctuation similar to that of head but slightly finer. Elytra less than twice as wide as thorax at base; humeri distinct; sides parallel nearly to middle, then arcuately broadening to apical fourth, then narrowing to the conjointly rounded apices; disk moderately convex, striate with rows of coarse perforate, quadrate punctures, which become rather suddenly finer at the middle and obsolete at apical fifth; intervals flat, as wide as punctures at the base, finely punctulate; a very broad, irregular, pale testaceous fascia at the middle, broadest at the flanks, the posterior edge usually margined with fuscous. Body beneath and abdomen densely and rather coarsely punctate. Length 7.8–8.5 millim.

Male. Fifth ventral segment deeply emarginate at apex; sixth ventral longer than broad, sides moderately narrowing to apex, which is broadly emarginate, the angles prolonged and turned upward; last dorsal longer than broad, narrower towards apex than last ventral, sides strongly narrowing to apex, the angles prolonged into long upward curving spines between which the apex is very deeply triangularly emarginate. (Pl. VI, figs. 14, 15.)

Female. Fifth ventral feebly arcuate, nearly truncate at apex; sixth ventral short, rounded; sixth dorsal slightly longer than last ventral, sides nearly parallel, apex broadly rounded, angles obtusely rounded. (Pl. VI, fig. 16.)

Greatly resembles *fuchsii* Schaeffer, from which it may be distinguished by the thorax having a distinct ante-scutellar impression and the sides more strongly compressed towards base; the form of the elytra, the conjointly rounded apices, and the very curious abdominal characters of the male are also distinguishing characters.

This species is variable in elytral markings. In the type the basal half of the elytra is but slightly darker than the fascia, the anterior margin of which is blended into the color of base; behind the fascia

the fuscous area is narrow at the flanks and suture, but very broad and prolonged apically at the middle of each elytron, the apex behind this being nearly as pale as the fascia. A female specimen from Utah has the elytra brown with the median fascia distinctly limited, and the suture, humeri, and apex slightly paler than the ground color. A male from Arizona has the elytra brown, the fascia distinct, the suture, the second interval at base, the humeri, and the fifth and sixth intervals from the humeri to fascia as pale as the fascia, and the extreme elytral apex quite pale.

St. George, Utah, July (Wickham); Arizona (author's colln.); Texas (Milwaukee Public Museum colln.). Type in cabinet of Prof. Wickham; cotypes in collection of the author.

Cymatodera duplicata sp. nov.

Moderately robust, pale brownish testaceous, head and thorax slightly darker, moderately shining, sparsely pubescent; elytra with an indistinct broad fascia at middle and the apex paler. Antennæ nearly half as long as body, moderately stout; joint two short, conical, slightly shorter than joint three; joints two and three together scarcely longer than joint four; four to ten gradually shorter toward tip, longer than broad, subserrate; joint eleven one-half longer than joint ten, very acuminate at apex. Head sparsely, finely punctate; eyes moderately prominent. Thorax nearly twice as long as broad; base narrower than apex; sides feebly constricted before the middle, strongly compressed behind the middle; no ante-scutellar impression; disk strongly convex, at basal third finely, transversely rugose; flanks finely, rather sparsely and irregularly punctate. Elytra nearly twice as wide at base as thorax at base; disk feebly convex; sides broadening posteriorly; apices conjointly rounded; each elytron with ten rows of coarse, rounded punctures which become obsolete at apical fifth, lateral striæ scarcely longer; intervals slightly broader than the punctures. Metasternum very finely, sparsely punctate. Abdomen and legs pale testaceous, the former densely, finely punctate. Length 7.3-8.7 millim.

Male. Fifth ventral segment broadly, very feebly emarginate; sixth ventral short, sides nearly parallel at base, apex truncate, angles oblique; last dorsal trapezoidal, longer than last ventral, feebly sinuate and incised at tip. (Pl. VI, figs. 17, 18.)

Female. Fifth ventral segment truncate at apex, the posterior margin slightly elevated; sixth ventral very slightly shorter than last dorsal, semicircular; last dorsal semicircular. (Pl. VI, fig. 19.)

Resembles in some respects *angulifera* Gorham known only from Guatemala; but is readily separated from Gorham's species by the rounded elytral punctures, which are never oblong, the color and markings, and the less shining surface. In *angulifera* the abdomen is piceous, each segment being spotted with red at the flanks; in *duplicata* the entire abdomen is pale with no suggestion of spots.

Two specimens, the male from Toluca, eastern Mexico, and the female from Mexico D. F., Mexico, were taken by Prof. Wickham. The type of this species is in his collection.

Cymatodera wickhami sp. nov.

Elongate, fuscous, finely, very sparsely pubescent, feebly shining; antennæ, palpi, metasternum, and legs pale testaceous; elytra pale, with irregularly disposed, linear, fuscous markings. Antennæ rather slender, longer than the head and thorax; first joint stout; two to eleven long, subequal in length, the outer joints subserrate. Head slightly wider than the thorax, coarsely and very densely punctate, feebly rugose. Thorax nearly one-half longer than wide, scarcely wider at apex than at base; subapical constriction very feeble; sides at middle very slightly broader, moderately compressed behind the middle; flanks coarsely densely punctate; disk rather coarsely transversely rugose; apical margin very finely sparsely punctate; antescutellar impression longitudinal, deep, surface each side of impression strongly elevated. Elytra nearly parallel, slightly broadening posteriorly; disk rather depressed; surface with large, very shallow rounded punctures, rather feebly arranged in series; the alternate intervals slightly broader, extending nearly to apex, very rough and distinctly punctulate; apices conjointly rounded; color pale, with irregular, linear, fuscous markings, the arrangement of which tends to form an irregularly limited subbasal, median, and subapical pale fascia, the humeri and lateral margins being also pale. Body beneath finely, sparsely punctate, the abdomen more coarsely and densely punctate and moderately clothed with short, recumbent, grayish pubescence. Length 11.2 millim.

One specimen, a male, has the fifth ventral segment broadly but feebly arcuate-emarginate; the sixth ventral as long as broad, sides arcuately narrowing to apex, apex broadly rounded, rather deeply triangularly incised at middle; last dorsal slightly longer than last ventral.

Allied to *grandis* Gorham (Biol. Centr.-Amer., III, Pt. 2, p. 130), but differing from that species, to judge by the description, in ab-

dominal sexual characters and in other details. The male of *grandis* is said to have "the fifth ventral plate widely emarginate with a carina from each side of the excision." No carinæ are present in the male of *wickhami* and, in addition, the form of the body is different, being not truly parallel; the elytral punctuation is less deep and the series less conspicuously, arranged in pairs. In *grandis* the legs are fuscous, the tarsi pale, and the disk of prothorax finely, transversely wrinkled.

Mexico City, Mexico. Received from Prof. Wickham, by whom the type has been retained.

Cymatodera discoidalis Chevrolat.

Cymatodera discoidalis Chevr., Rev. et Mag. Zool., 1843, p. 10.

A female specimen from Jalapa, Mexico, given the writer by Prof. Wickham is 13.3 millimeters in length. The form is rather slender and the color markings of elytra are as in the type specimen, except that the ante-median fuscous fascia is narrow, very irregular in outline and widely interrupted at the suture. The structure of the antennæ is not given in the original description. The form of the apical abdominal segments and antennal structure are, however, of such value that species known to be distinct could not well be separated by use of other characters. In *discoidalis* the antennæ are slender, longer than head and thorax; the basal joint large and stout; joints two to eleven much more slender, feebly serrate, the second to ninth gradually increasing in length; the tenth slightly shorter but the eleventh slightly longer than the ninth. The abdominal sexual characters of the male are given by Rev. H. S. Gorham (Biol. Centr.-Amer., III, Pt. 2, p. 131). In the female the ventral segments are wider than the corresponding dorsal segments; the fifth ventral very deeply and broadly arcuately emarginate; the sixth ventral shorter than the last dorsal, deeply depressed at the middle, deeply and broadly emarginate at apex, the sides arcuately elevated; the last dorsal truncate. In the specimen before the author the first to fourth ventral segments have the sides and posterior margins testaceous, the fifth and sixth are entirely testaceous. (Pl. VI, fig. 20.)

Cymatodera grossa Gorham.

Cymatodera grossa Gorh., Biol. Centr.-Amer., III, Pt. 2, 1882, p. 188.

A specimen of this species from Cuernavaca, Mexico, taken by Prof. Wickham, exceeds in size the type specimens, being 15.3 millimeters in length (types 10-13 mm.). The antennæ extend to base

of elytra and are similar to those of *discoidalis*, but stouter and more strongly serrate. The specimen is a male, the abdominal sexual characters being identical with those given for that sex by Gorham; the ventral plates are broader than the dorsal. The rows of elytral punctures are arranged in pairs, the alternate intervals being wider.

Priocera lecontei sp. nov. (Pl. V, fig. 2.)

Closely resembles *castanea* Newman, from which it differs in the following characters: Size larger and form much more robust; head feebly, sparsely and finely punctate; thorax not conspicuously punctate (nearly impunctate); the elytra have the humeri more prominent; the femora are more strongly clavate, and the head, flanks of prothorax, and legs are clothed with a long, dense, yellowish pilosity. The coloration in general is the same, excepting that the reddish-brown portions of the dorsal surface in *castanea* are here replaced with pitchy black, the extreme elytral apices being dull orange. The arrangement of the yellow maculations is precisely as in *castanea*, but the ante-median and post-median pairs are much larger and very irregular in form. Length 10 millim.

The specimen before the author was determined many years ago as "*Priocera* near *castanea*, n. sp." by Dr. LeConte, to whose memory this fine species is dedicated.

Lecontei cannot well be confused with Newman's species, the form being very broad, and the width of the elytra at base equal to one-third the total length, while in *castanea* the width of the elytra at base is equal to but one-fourth of the total length.

California, without definite locality. Type in Bolter Colln., Illinois State Laboratory of Natural History.

Adelphoclerus¹ gen. nov.

Head declivious, not wider than prothorax; eyes finely granulate, moderately deeply but narrowly emarginate; mandibles very prominent, nearly as long as the head, stout, a strong tooth on inner margin one-third from apex; palpi as in *Clerus*; antennæ slender, hairy; club compact, three-jointed, abruptly formed, much larger than preceding joints; form very strongly convex; tarsi moderately long and dilated, claws broadly dilated at base. Type of the genus is the following new species:

¹ ἀδελφός, frater; *Clerus*.

Adelphoclerus nitidus sp. nov.

Entirely black (except labial palpi which are pale yellow, the last joint fuscous), shining. Head not wider than the thorax, sparsely punctate; front longitudinally impressed at each side; pubescence black and white, the white denser at the sides. Antennæ shorter than the head and thorax, distinctly clubbed. Thorax much narrower than elytra at base, longer than broad, finely alutaceous, a few, fine scattered punctures; pubescence black, at the sides yellowish white and dense. Elytra strongly convex; sides parallel; pilose with long, erect sparse black hairs and semirecumbent white hairs, the latter more conspicuous towards the apex; punctures scarcely visible. Length 6 millim.

Jalapa, Mexico. Type in collection of the writer; cotype in the cabinet of Prof. Wickham.

Thanasimus monticola sp. nov. (Pl. V, fig. 3.)

Form of *dubius* Fab. and similar in color but differing as follows: More shining; head and thorax black, more sparsely and finely punctate; head densely clothed with long recumbent and erect gray hairs; thorax distinctly longer than broad, apical transverse impression feeble; thorax and elytra rather densely clothed with long, erect, black hairs. Elytra with the humeri only rufous; anterior fascia more acutely and deeply angulate, the posterior fascia very narrow at the sides but very broad at the suture; rows of coarse punctures obsolete, except at basal fourth, where there are four feebly impressed rows. Body beneath black; legs (except the knees), bright sanguineous. Length 9 millim.

This species resembles in color the variety *rubriventris* more closely than it does the typical *dubius*, but the legs and humeri in *rubriventris* are black and the rows of coarse elytral punctures long, as they also are in the typical *dubius*, the outer rows extending beyond the middle.

Mt. Whitney, California, 11,000 ft. el., July 22, 1899. Collected and kindly given the writer by Mr. F. S. Daggett.

Clerus Fabricius

Clerus Fabr., Syst. Ent., 1775, p. 157 (*nec. Clerus* Schklg., Gen. Ins., Cleridæ, 1903, p. 40). Type *mutillarius* Fabr.

Pseudoclerops J. du Val., Gen. Col. Eur., 1861, p. 196. Type *mutillarius* Fabr.

The American species heretofore referred to *Clerus* Fabr., are not

congeneric with the true type of the genus and will in all probability have to be renamed, no term now in the literature apparently being available.

When the genus *Pæcilochroa* was proposed by Chevrolat (Mémoire, 1876, p. 5), no type was indicated, but *Clerus cyanipennis* Klug (= *dasytoides* White), *thoracicus* Oliv., and *haagi* nov. sp. were placed as members of the genus. Gorham subsequently designated the first of the above mentioned species as the type; and as *cyanipennis* is a *Clerus* (as characterized by Schenkl) and, like *haagi* a synonym of *thoracicus* the term would be available for use, were it not for the fact that it is a homonym, being antedated by *Pæcilochroa* Westring (Bemerk. u. d. Arach., Abh., v, Thorell, 1874).

Clerus viduus Klug.

Clerus viduus Klug, Abh. Berl. Akad., 1842, p. 297.

Clerus erythrogaster Spin., Mon. Clér., 1, 1844, p. 272.

Clerus viduus Spin., Mon. Clér., Atlas, 1844, pl. 27, fig. 3.

Clerus rufiventris Chev., Rev. et. Mag. Zool., 1843, p. 11.

Clerus cuprescens Gorh., Cist. Ent., 1876, p. 81.

This species, which was stricken from our lists upon the supposition that it was not a member of our fauna, was taken at Alpine, Texas, June, 28-30, 4,400-6,000 ft. el., by Prof. Wickham. A specimen sent the author for identification is 8 mm. in length.

The form is that of *sphægeus*; the color is purpurescent, slightly æneous; the meso-, metasternum, and abdomen are red, the legs black, knees, femora at base, and tibiæ at apex narrowly red, basal joint of antennæ beneath and palpi reddish. Clothed with rather short, fine, recumbent, ashy hairs and long, sparse, erect, black hairs; upon each elytron two large somewhat arcuate spots in which the ashy hairs are wanting. The first of these subbasal, extending from near the flanks nearly to the suture, the other behind the middle attains the flanks but not the suture; the elytra are conjointly rounded at apex; the legs are clothed with rather short, grayish white, and longer erect black hairs; the abdomen and body very sparsely clothed with long, very pale hairs.

The labrum and the abdomen above are reddish, the color of the legs is quite variable. Spinola merely describes the legs as red, while Klug in the original description states that they are black, with the intermediate femora above and the posterior femora and tibiæ totally red. In other descriptions the legs are said to be red, with the tarsi fuscous.

Clerus badeni Gorham.

Clerus Badeni Gorh., Cist. Ent., II, 1876, p. 80.

This species, which was described from Mexico, although recorded as occurring in our fauna, has not as yet found a place in our lists. The writer has a specimen from Los Angeles County, California, and Mr. Sigmund Schenkling (Deutsche Ent. Zeitschr., 1906, p. 277) gives as localities California, Texas and Mexico.

Closely resembling *quadrisignatus*, with which it agrees in size; it may be known by the less convex form; the ante-apical fascia indistinct, reduced to a small ante-apical spot, or entirely wanting; the general color is as variable as in *quadrisignatus*. At each side of the scutellum there is usually a minute spot of reddish hairs.

Clerus lunatus Klug.

Clerus lunatus Klug, Abh. Berl. Akad., 1842, p. 294.

Clerus lunatus Spin., Mon. Clér., I, 1844, p. 255, pl. XXIV, fig. 2.

Clerus bicolor Melsh., Proc. Acad. Nat. Sci. Phila., II, 1846, p. 307.

This species has been invariably accredited to Spinola. Klug cites the name from Sturm's Cat., I, p. 120. The locality is not given, but some of the individuals from New Jersey in the collection of the author agree with Klug's description in every detail.

Clerus nigriventris LeConte.

This species is referred to *Thanasimus* by Mr. Sigmund Schenkling and, if *Thanasimus*, which is feebly differentiated from *Clerus*, is to stand, the assignment is the correct one. It seems probable, however, that *Thanasimus* will have to give way to *Clerus*, as some known species seem to bridge over the generic differences. The name *nigriventris* is preoccupied in *Clerus* by *C. nigriventris* Blanchard (Voy. d. Orb., 1842, p. 90, pl. 6, fig. 3) described from the Argentine Republic, LeConte's species dating from 1861 (Proc. Acad. Nat. Sci. Phila., 1861, p. 351). Should the species be reassigned to the genus *Clerus*, the specific name of *lecontei* is suggested for it.

Clerus bimaculatus Skinner.

Clerus bimaculatus Skin., Ent. News, XVI, 1905, p. 291; Schaef., Can. Ent., 1906, p. 21.

Clerus bioculatus, Schaef., Sci. Bull. Brookl. Inst. Arts and Sci., I, no. 7, 1905, p. 154; Schaef., Journ. N. Y. Ent. Soc., XVI, 1908, p. 127.

This is a variable species in coloration. A specimen from the

Huachuca Mountains, Arizona, in the collection of the Field Museum of Natural History, agrees with the type in most respects, but has the head, thorax, and base of elytra dull reddish, the entire ventral surface of body, abdomen, and femora above red, the tarsi pitchy.

The name *bioculatus* cited above was evidently a slip of the pen, but owing to the fact that both names have appeared in a recent paper as though pertaining to distinct species, it will serve, the writer believes, a useful purpose to thus record them.

Clerus bombycinus Chevrolat.

Clerus bombycinus Chevr., Col. Mex., cent. I, 1833, fasc. 1; Klug. Abh. Berl. Akad., 1842, p. 295.

Clerus æneicollis Spin., Mon. Clér., I, 1844, p. 254, pl. 24, fig. 1.

A fine series of this species from Cuernavaca, Mexico, was sent the author by Prof. Wickham. The specimens range in size from 6.5–8.7 millimeters. The color pattern is very constant, but the color is quite variable, forms being represented in the series from those with typical markings to almost entirely black specimens; in the latter the whitish fasciæ are distinct, but the median angulated fascia is divided (except at the lateral margins) by the black into two narrow fasciæ; the base of elytra narrowly red, the red prolonged at the suture and the flanks; the knees, tibiæ, and tarsi very obscurely testaceous.

Clerus latefasciatus sp. nov.

Form of *opifex* Gorh. Rufous, very shining; apical joint of maxillary palpi pitchy; antennæ rufo-piceous, becoming gradually darker towards apex, the club dull piceous, basal joint rufous; coxæ, trochanters, and metasternum with disk at middle and posterior margin broadly pitchy black; tarsi entirely shining black; elytra with a very broad black fascia which does not reach the extreme lateral margin and which is narrowly interrupted at the suture. Pubescence moderately dense, black, erect and semierect, with shorter semierect and recumbent golden yellow hairs on head, flanks of thorax, legs, and elytra; the golden yellow hairs most conspicuous on head, humeral region of elytra, and ventral surface; abdomen moderately clothed with silky, yellowish recumbent pubescence, with a few long black hairs at apex. Head, including the eyes, narrower than the thorax, finely sparsely punctate, front with two deep impressions between the eyes. Thorax broad, narrower than elytra; disk sparsely and finely but unevenly punctate; flanks very finely, sparsely punc-

tate. Elytra subparallel; humeri very prominent; basal tubercles nearly obsolete; basal striga feeble, yellowish; surface moderately coarsely and very densely punctate, more feebly and sparsely at apex; a broad, black, slightly ante-median fascia extending from reflected portion of lateral margin to the suture, where it is narrowly interrupted; anterior and basal margins of fascia slightly irregular. Ventral surface and abdomen rather finely and sparsely punctate. Length 7.25 millim.

This species appears to be quite distinct from any other occurring in the fauna treated of in this paper. The median dark fascia is equal in width to half the length of the elytra and as a whole is situated mostly before the middle, in other words the basal one-sixth and apical one-third of elytra are red, the fascia occupying the intervening space.

Rio Balsas, Guerrero, Mexico. One specimen. Type in cabinet of Prof. Wickham.

Clerus decussatus Klug.

Clerus decussatus Klug, Abh. Berl. Akad., 1842, p. 296.

Clerus Hopfneri Spin., Mon. Clér., 1, 1844, p. 256, pl. 25, fig. 1.

Clerus decussatus var. *ornatus* Spin., Mon. Clér., 1, 1844, p. 257, pl. 25, fig. 2.

A single specimen was taken by Prof. Wickham at Cuernavaca. As indicated by the synonymy this is a variable species in coloration. The Cuernavaca specimen has the head, under surface, and legs black, the tarsi obscurely testaceous, the thorax reddish, somewhat infusate, especially across the middle. The elytra fasciæ are about as figured by Spinola (pl. 25, f. 1) except that the lunate median fascia, while interrupted at the suture, is confluent with the common triangular shaped maculation. The apical portion of elytra is black, with an oblique ante-apical fascia interrupted at the suture; the space between the ante-apical and median fascia and the anterior margin of the latter black; basal portion red. The three terminal and the basal joints of the antennæ red, the intermediate joints gradually becoming darker from the club to the base. The specimen is 7.8 millimeters in length.

Clerus salvini Gorham.

Clerus Salvini Gorh., Cist. Ent., 11, 1876, p. 78.

Two specimens of this species labeled "Mex.," without other data, have been in the possession of the writer for a number of years. This species has been recorded only from Guatemala and Costa Rica.

Clerus vulneratus Klug.

Clerus vulneratus Klug, Abh. Berl. Akad., 1842, p. 302.

This, in the writer's opinion, is as handsome a species of *Clerus* as any known from North America. Two specimens were taken at Cuernavaca by Prof. Wickham. The general color is dark blue, the antennæ and palpi black. Both specimens have the ground color of elytra coppery (as it was in Rev. Gorham's specimen from Parada, Mex.), and have the bright sanguineous red fascia widely interrupted at the suture; at the lateral margins the red extends posteriorly to nearly twice the width of fascia elsewhere. The ashy pubescence clothing the elytral apices is quite conspicuous.

Clerus quadrisignatus Say.

Clerus quadrisignatus Say, Bost. Jour. Nat. Hist., I, 1835, p. 6.

Dr. George H. Horn (Proc. Calif. Acad. Sci., ser. 2, IV, 1893-94, p. 331), records this species from San Jose del Cabo, Lower California. A specimen from the same identical locality given the writer by Prof. Wickham differs greatly from the typical form in coloration, being nearest to the variety *laticinctus* Lec., from "Colorado River and Sonora." The specimen at hand is red to a greater degree and extent than in *laticinctus*, being entirely of a rather pale red, the venter and abdomen pale yellow, the elytra wholly red excepting a broad median and a narrower subapical fascia which are white, the median fascia very narrowly bordered with black, the antennæ and legs entirely red. As no difference of form, sculpture, etc., exists between this and typical specimens, the author refrains from following the all too common practice, that of giving a name to mere color varieties.

Clerus thoracicus Olivier.

Clerus thoracicus Oliv., Ent., IV, 1795, no. 76, p. 18, pl. 2, fig. 22 a, b.

Clerus cyanipennis Klug, Abh. Berl. Akad., 1842, p. 307.

Thanasimus monilis Melsh., Proc. Acad. Nat. Sci. Phila., II, 1845, p. 307.

Systemoderes dastoides White, Cat. Cler. Brit. Mus., 1849, p. 50.

Pæcilochroa cyanipennis Chevr., Mémoire, 1876, pp. 5, et 12.

Pæcilichroa Haagi Chevr., l. c., p. 12.

Cleronomus ornatcollis Lec., Trans. Amer. Ent. Soc., VIII, 1880, p. 194.

As indicated by the synonymy, *thoracicus* is quite variable in

color. *Cyanipennis* Klug is the type of Chevrolat's genus *Pæcilochoa*, but it differs from the typical form only by being blue instead of black, the thorax being red with the basal margin narrowly and the apical margin broadly blue, and the elytra are a somewhat lighter shade of blue than the other parts. A specimen of the blue form from Texas has the coloration as usual, except that the sutural margin is narrowly but distinctly green; forms are known, however, in which the elytra are green with the prothorax entirely blue.

Placopterus¹ gen. nov.

Eyes emarginate; labrum emarginate; maxillary palpi cylindrical; labial palpi dilated, securiform; tarsi distinctly five-jointed, claws dentate near base; antennæ slender, hairy, eleven-jointed, joints of funicle short, subequal, club distinct, rather lax, three-jointed; thorax short, strongly convex; body cylindrical.

A genus rendered necessary for the reception of *Pæcilochoa plumbea* Gorh., which is left without generic standing as a result of sinking the genus *Pæcilochoa* Chevr. *P. frontalis* Gorh. from Guatemala, *P. varia* Gorh. and *P. rufipes* Schklg. from Mexico, are also provisionally referred to this genus.

Clerosoma² gen. nov.

Eyes distinctly emarginate; labrum emarginate; maxillary palpi subcylindrical; labial palpi strongly dilated; tarsi five-jointed, claws strongly toothed at base; antennæ rather stout, eleven-jointed, last three joints only slightly larger than preceding joints.

This genus is proposed to receive *Pæcilochoa (Colyphus) gracilis* Gorh., a species of Panama. Its affinities are with *Cleronomus*, but the *facies* is quite different, the elytra being very elongate and parallel. The antennæ are longer than the head and thorax and almost clubbed at their apices, the last three joints being only slightly larger than the preceding ones; the tenth joint is, however, distinctly wider than the ninth, and also larger than the short terminal joint.

Thaneroclerus girodi Chevrolat.

Thaneroclerus Girodi Chevr., Bull. Soc. Ent. France, ser. 5, x, 1880, p. 31.

Two examples of this Cuban species were found and presented to the writer by Mr. Alexander Colletti. The specimens were found

¹ πλάξ, πλακός, lamina; πτερον, ala.

² Clerus; σῶμα, corpus.

dead among the scraps and dust of tobacco remaining in one of the boxes in which leaf tobacco had been shipped from Havana, Cuba, to a Chicago cigar factory. In the same box there were also found many specimens of a small brownish Hemipter and a species of *Catorama*, besides fully twenty other species of Coleoptera, most of which were minute forms. The Hemipterous insects and the *Catorama* had been preyed upon by some other insect, presumably by *T. girodi*.

The original types of this species came from Cuba under exactly the same conditions, and were stated by Chevrolat to be indebted for nourishment to the larvæ and perfect insects of the genus *Catorama*.

Compared with *sanguineus* Say, this species is larger, has the prothorax less densely, more coarsely punctate, the longitudinal median depression deeper and better defined, the elytra somewhat more sparsely punctate and not uniformly convex but longitudinally depressed each side of suture at the middle.

***Aulicus monticola* Gorham.**

Aulicus monticola Gorh., Biol. Centr.-Amer., III, Pt. 2, 1882, p. 146, pl. VIII, fig. 18.

This species, described from Mexico, and which is new to the fauna of America north of Mexico, was taken in August at Alpine, Texas, by Prof. Wickham, to whom the writer is indebted for examples of this species and *A. nero*.

The typical form is black; the head red, the antennæ, palpi, and mandibles black; rugosely punctate above; the prothorax sparsely, strongly punctate, red, anterior margin and a wide median vitta black, pilosity grayish; elytra chalybeous, the humeri, a post-median fascia interrupted at the suture, and the lateral margins before the fascia red; abdomen (the apex excepted) red. Length 8-13 millim.

The specimen before the author differs from the type in color pattern to some slight extent: The second and third antennal joints are red; both the anterior and basal margins of the thorax are black, the latter broadly, the former abbreviated towards the flanks; the red elytral markings are reduced in extent, preserving, however, the typical style of ornamentation; the abdomen is black, the apical angles of the fifth ventral segment alone being red; the length is 9.5 millim.

In the remarks following the description, Rev. Gorham states that the tarsal claws are simple; in the specimen at hand they are incrassate at base, as they are also in *nero*.

Aulicus nero Spinola.

Aulicus nero Spin., Mon. Clér., 1, 1844, p. 330, pl. xxvii, fig. 5.

This species was also originally described from Mexican specimens, but all recent records pertain to its occurrence within our faunal limits. The writer has seen specimens from Water Canyon, New Mexico (Snow), Alpine, Texas, 4,400–6,000 ft. el. (Wickham), and San Bernardino Ranch, Cochise County, Arizona, and is informed by Dr. H. C. Fall that it occurs at Palm Springs, southern California; Horn recorded it from the southern Coast Range of California and from El Chinche, Lower California: Wickham took it in the Santa Rita Mountains, southern Arizona; it was unknown to the Rev. H. S. Gorham, author of that portion of the *Biologia Centrali-Americana* (Vol. III, part 2), which deals with the family Cleridæ.

An exceedingly variable species in coloration and closely allied to *monticola*, but averaging smaller in size. Head, thorax, body, scutellum, and feet brilliant blue varying to shining blue black, with feeble metallic luster. Antennæ black, first five or six joints reddish. Elytra red, the suture, apex, and often a band of variable proportions at basal third, blue. Abdomen red varying to black, broadly bordered at sides and apex with red. Length 6.8–7.5 millim.

Spinola gives the length as "4½ lignes" (=9.5 mm.); the line given on the plate is, however, 6 lines in length (12.5 mm.) and is no doubt in excess of the actual size. The writer has seen no specimens exceeding 7.5 millimeters in length.

Mr. Sigmund Schenkling (*Bull. Mus. Hist. Nat. Paris*, 1902, p. 325) states that the type specimen has the elytra dull reddish with only the suture and the apex blue; the same writer also mentions seeing several specimens in the collection of the Museum d'Histoire Naturelle de Paris, in which the elytra are entirely blue with only a portion of the epipleuræ red.

A. monticola and *A. nero* may be separated as follows:

- a. Sides of prothorax strongly constricted near apex; pubescence of dorsal surface short, less dense; elytra coarsely rugose; metasternum at sides coarsely, sparsely punctate; flanks of prothorax in great part red. *monticola*.
- aa. Sides of prothorax very feebly constricted near apex; pubescence longer and moderately dense; elytra more finely but densely rugose; metasternum at sides finely, very densely, rugose; prothorax entirely blue or black. *nero*.

Xenoclerus edwardsii Horn.

Trogodendron Edwardsii Horn, Trans. Amer. Ent. Soc., VIII, 1880, p. 149.

This is one of our largest Clerids, the size ranging from 15 to 19 millimeters. It occurs at El Chinche (2,000 ft. el.), Lower California (Horn), in San Diego County, California, (Fall, Fuchs), and the writer has before him specimens from Bill Williams Fork, Arizona (Snow), and Tucson, Arizona, (Wickham) both of which were taken in August. The Tucson specimen is the largest that the author has seen; the sides of the ventral abdominal segments are broadly red, the apical segments entirely red. The black elytral markings are quite variable in extent but the fascia is always well before the middle, not median as stated in the original description.

Mr. Schenkling (Bull. Mus. Hist. Nat. Paris, 1902, p. 327), has erected the genus *Xenoclerus* for the above American species, *Trogodendron* being retained for the Australian species.

In *Trogodendron* the anterior half of the elytra is covered with large, profound, seriate punctures. In *Xenoclerus* the same part is finely, irregularly punctate, posteriorly the punctures are closer but still very fine, the humeri are elevated but the subbasal gibbositities (which are very distinct in *Trogodendron*) do not exist; the thorax is not granulate, but smooth and shining, sparsely, finely, but deeply punctate; the anterior transverse line is strongly marked; a rather feeble fovea each side of disk; the antennæ are less stout, the fourth to tenth joints are not dentate, the eleventh joint pyriform, the inner margin not straight but arcuately excavated; and the posterior femora do not attain the apex of the elytra or abdomen.

Xenoclerus is said to have the second joint of the antennæ not globular but nearly as long as the third joint, and the tarsal claws thickened and obtusely dentate at the middle. The writer is unable after examining several specimens of the typical species of *Trogodendron* (*fasciculatum*, Schreib.), and two specimens of *X. edwardsii*, to find any difference of moment in the structure of these parts: the claws are obtusely toothed in both genera, not at the middle but near the base, and the second joint of the antennæ in *Xenoclerus* is much shorter than the third joint and subglobular in form.

Trichodes Herbst.

Dr. George H. Horn in his synopsis of the species of *Trichodes* (Trans. Amer. Ent. Soc., v, 1876, pp. 231-232) recognized six species, including *illustris* which was then first made known, as occurring

in our fauna. Two species new to science have recently been given the author and these, with two described by Dr. Horn after the publication of his synopsis, give a total of ten species now known from the entire continent of North America.

The color and markings are extremely variable in several of the species, consequently the writer has sought other characters than those used by Dr. Horn.

KEY TO THE SPECIES OF TRICHODES.

- a. Very slender, sides of elytra parallel.
- b. Pubescence of abdomen long, evenly distributed. *oresterus* 368
- bb. Pubescence of abdomen very short and sparse, longer and dense at the sides on posterior margin of segments two, three, and four.
- c. Head rather sparsely punctate; antennæ entirely black; elytral pile erect, black. *peninsularis*, 369
- cc. Head very densely punctate; antennæ rufous, mass often darker; elytral pile in part pale. *illustris*, 369
- aa. Robust, sides of elytra broadest behind the middle.
- d. Elytral apices (♂) truncate, sutural angles prolonged; thorax very coarsely, densely punctate; thoracic pubescence very long. *simulator*, 370
- dd. Elytral apices (♂, ♀) rounded; thorax densely but less coarsely punctate; pubescence shorter.
- e. Antennal club broadly triangular.
- f. Prothorax in great part reddish. *bibalteatus*, 371
- ff. Prothorax entirely blue, violaceous, or greenish.
- g. Elytra feebly shining, black or purplish with faint cupreous surface luster, trifasciate with yellow; abdomen in part red. *nexus*, 372
- gg. Elytra shining, blue, fasciate or maculate with yellow (rarely unicolorous); abdomen shining blue.
- h. Prothorax with sides compressed apically, strongly compressed at base. *ornatus*, 372
- hh. Prothorax subquadrate, sides slightly compressed at base. *bimaculatus*, 374
- ee. Antennal club elongately triangular.
- i. Elytra sparsely, not very coarsely or deeply punctate. *nuttalli*, 374
- ii. Elytra densely, coarsely, cribrate-punctate. *apivorus*, 375

Trichodes oresterus sp. nov. (Pl. V, fig. 4.)

Slender, bright metallic blue; abdomen usually in part, flanks of elytra, a broad basal fascia, a median fascia and on arcuate vitta red. Antennæ shining black, club red. Head coarsely, densely punctate, clothed with long, rather dense, ashy white pubescence; palpi pale. Thorax as wide as long; disk convex; postapical constriction feeble; apex truncate; flanks arcuately narrowing to basal constriction; surface coarsely, densely punctate; a longitudinal smooth depression at middle of base; pubescence long, erect, ashy white at apex and flanks, black on disk. Elytral parallel; apices arcuate-truncate, the sutural angle prolonged but rounded; surface coarsely cribrately punctate, very feebly striate: color violaceous; the flanks narrowly, a basal fascia prolonged along the suture, a median feebly undulate fascia and a vitta starting at the flanks at apical fourth curving to near the suture thence continuing arcuately to the median fascia with which it is confluent one-third from the suture, red; all the fasciæ broadest at flanks; the red margin extends from base to outer end of arcuate vitta. Sides of metasternum densely clothed with long, whitish hairs. Abdomen clothed with long, whitish, evenly distributed pubescence. Length 8.5-11.4 millim.

Allied to *peninsularis* but has the head densely punctate, the punctuation of thoracic disk denser at the sides, the elytral pubescence pale on the red parts and the abdomen evenly clothed with whitish pubescence; the color and markings are also somewhat different.

That *oresterus* is a variable species in coloration is evident as shown by the series before the writer. In an example from Marfa the antennæ are black, the club very obscurely reddish, the abdomen entirely red, and the prothorax black with apical fourth and base narrowly blue: The median fascia is sometimes interrupted at the suture and in the type specimen the basal fascia extends along the suture to the median fascia with which it is confluent. The abdomen usually has the first and second ventral segments and the anterior half and the sides of the others excepting the sixth broadly sanguineous red, but in one specimen nearly the entire abdomen is pitchy black. (Elytral markings, pl. VI, fig. 21.)

Alpine, Texas, 4,400-6,000 ft. el; Marfa, Texas, 4,600-4,800 ft. el.; Pecos, Texas. Type in cabinet of Prof. Wickham, to whom the writer is indebted for a cotype.

Trichodes peninsularis Horn.

Trichodes peninsularis Horn, Proc. Cal. Acad. Sci., IV, ser. 2, 1894, p. 382, pl. 8, fig. 7.

Similar in form and size to *oresterus* but less slender; head and thorax violaceous, elytra dull blue black, with three yellow fasciæ; body beneath and abdomen shining olivaceous green. Antennæ entirely black. Head rather sparsely punctate, thinly clothed with rather long hair; palpi pale. Thorax as long as wide, surface coarsely punctate, dense at the sides, more sparse on disk; disk convex, a slight depression at middle of base. Elytra parallel; surface coarsely cribrately punctate, feebly striate; apices truncate, sutural angle distinct; hairs short, black and erect; fasciæ narrow, yellow; a basal fascia, broad at the humeri, extends slightly obliquely to near the suture, thence turns abruptly parallel with the suture; a median and a posterior fascia at apical fourth very slightly arcuate. Sides of metasternum and the posterior margins of ventral segments two, three, and four, clothed with long, dense, white hair. Abdomen shining, smooth. Legs black, with bluish green luster. (Elytral markings, pl. VI, fig. 22.)

Closely allied to *illustris* Horn, but possessing distinctive characters of apparently sufficient value to justify its retention as a valid species.

Occurs in Lower California at El Chinche.

Trichodes illustris Horn.

Trichodes illustris Horn, Trans. Amer. Ent. Soc., v, 1876, p. 231, fig.

This species resembles both *oresterus* and *peninsularis* in form and to some extent in markings. The more finely punctured head, red antennal funicle, less evenly distributed abdominal hairs, size, color, and markings will easily separate it from *oresterus*. From *peninsularis* this species differs in having the head coarsely, densely punctate, the legs (usually) and antennæ red, the three apical joints of the latter sometimes black, the ground color of the elytra dull ferruginous, the fasciæ and flanks bordered with black; the fasciæ are also of somewhat different form, the first keeping close to the basal margin and prolonged posteriorly *on the suture*, the median fascia is more strongly arcuate and the posterior fascia much more oblique.

The writer has not seen the male of this species, all the specimens at hand having the apices of elytra truncate and sinuate. In a specimen from Fort Huachuca, Arizona, kindly loaned by Mr. F. S.

Daggett, the elytra are much darker than in the writer's specimens from San Bernardino Ranch, Cochise County, Arizona, the reddish brown portions being greatly reduced in extent, the legs are bluish black, the femora having a more conspicuous bluish tint, the knees are just touched with ferruginous, tibiæ at base dark, but becoming gradually ferruginous towards the apices, the tarsi ferruginous. In all the author's specimens the antennæ are entirely red, thus differing from the type which has the last three joints black. Length 13-15.5 millim. (Elytral markings, pl. VI, fig. 23.)

Known only from southern Arizona.

Trichodes simulator Horn.

Trichodes simulator Horn, Trans. Amer. Ent. Soc., VIII, 1880, p. 149.

Trichodes simulator var. *flavescens* Ckll., New Mex. Agr. Exp. Sta., Bull. no. 28, Dec., 1898, p. 155.

Rather robust, dark blue; head and scutellum with purplish or greenish tint; elytra varying from yellow to orange-red, with two fasciæ and apex blue to bluish black. Head, thorax, and elytra at base clothed with very long yellowish pubescence. Antennæ obscurely reddish, club blue black. Head densely punctate. Prothorax dark blue, coarsely and very densely punctate, punctures confluent. Elytra clothed with pale yellowish pubescence, short except at base; coarsely, densely and deeply punctate, substriate; apices (♂) truncate, the sutural angle slightly prolonged in a sharp spine; at about basal fourth a rather broad, slightly undulate fascia; behind the middle a much broader fascia and the apex broadly blue to blue black. Body beneath and abdomen dark blue. Legs a lighter more brilliant blue, and with the venter, clothed with long yellowish hairs. Length 13-15 millim. (Elytral markings, pl. VI, fig. 24.)

The markings in this species are quite similar to those of *apivorus*, from which it may be distinguished by the form of the antennal club which is here very short, being only about one-half longer than the width of the apical joint, the thorax is more coarsely (nearly cribately) punctate, and the elytral apices of the male are truncate. The punctuation of the elytra is more dense and confluent than in *bibatteatus*, *apivorus*, or *illustris*, and its allies.

The so-called variety, *flavescens* Ckll., is placed as a synonym, as it seems unwise to retain a variety founded on a slight variation in the color of the elytra, especially in genera where the species are known to vary so greatly in this respect as they do in the genus *Trichodes*.

Occurs in Arizona, in New Mexico (Santa Fe, Albuquerque, Pecos), and in Wyoming.

Trichodes bibalteatus LeConte.

Trichodes bibalteatus Lec., Jour. Acad. Nat. Sci. Phil., IV, 1858, ser. 2, p. 18; Horn, Trans. Amer. Ent. Soc., V, 1876, p. 231, pl. 1, fig. 27.

Moderately robust, feebly shining; head, thorax, and base of elytra clothed with moderately long, reddish yellow pilosity. Head dull red, varying to pitchy black, very densely but not very coarsely punctate, as is also the thorax; palpi pale; antennæ varying from pale testaceous to obscurely red, the club from brownish red to black. Thorax dull red, the basal portion often more or less pitchy black; slightly longer than broad, broadest behind the middle; sides very slightly arcuate, feebly compressed at apical fourth. Scutellum black. Elytra orange-red to pale yellow, with two rather broad fasciæ, one just before the middle and the other midway between the middle and the apex, black; the fasciæ clothed with very short, dense black pubescence; surface rather sparsely coarsely, cribrate-punctate; apex immaculate. Body beneath, legs and abdomen, shining, black, frequently with a purplish, bluish or greenish tinge; the apical segments of the abdomen often red, the tarsi sometimes paler. Length 10-16 millim. (Elytral markings, pl. VI, fig. 25.)

Slightly resembles both *simulator* and *apivorus*, from both of which it may be known by the apices of the elytra being never blue or black but always reddish or yellow. The pilosity of the head and thorax is much shorter, the apices of elytra are always rounded and the thorax is more finely punctate than in *simulator*; from *apivorus* it differs in having the club of antennæ shorter, punctuation of elytra less dense, the pilosity of the head and thorax paler, and the thorax to a more or less extent reddish. The color of the elytral fasciæ is black, in *apivorus* purplish or blue black.

Most of the specimens in collections are labeled "Texas," which was the locality given by LeConte in the original description. Prof. Wickham has taken *bibalteatus* at Winslow, Arizona, and also at Alpine, Texas (4,400-6,000 ft. el.). A specimen from the last locality has the orange-red of elytra, a much stronger shade than in any other example the author has seen.

Trichodes nexus sp. nov. (Pl. V, fig. 5.)

Form of *ornatus* but slightly more robust and elytra more strongly convex; green, shining, sparsely clothed with moderately long, erect, yellow hairs. Head rather finely and densely punctate; antennæ and palpi red, basal joint of the former infuscate above. Thorax as broad as long, broadest at the middle; subapical constriction feeble, rather strongly compressed at base; surface coarsely, rather sparsely punctate. Elytra black or violaceous, feebly shining, with faint cupreous reflections in certain lights; pubescence (except on fasciæ) black; surface rather coarsely, deeply, roughly but not densely punctate; markings somewhat similar to *ornatus*; a basal fascia prolonged posteriorly, parallel with but distant from the suture and acuminate at apex; a median fascia feebly arcuate, very slightly oblique and widely interrupted at the suture, and a very oblique fascia at apical fourth, narrow, yellow; the humeral umbones black; apices very obtuse, nearly truncate. Body beneath and abdomen dark green, the latter with ventral segments two, three, and four at posterior angles broadly and two apical segments entirely sanguineous red. Legs black, with a slight bluish tint. Length 8.2–11 millim. (Elytral markings, pl. VI, fig. 26.)

Allied to *ornatus*, from which it may be known by its more strongly convex form, the more finely and densely punctured head, and the more deeply, coarsely, roughly sculptured and less shining elytra. The markings of elytra and color alone would seem distinct enough to make recognition of this species an easy matter. The extent of red abdominal markings is quite variable; one specimen has the abdomen entirely green, except the posterior margin of the fifth dorsal and ventral; another has the posterior angles of the second and third, the posterior margin of the fourth, and the fifth and sixth ventral segments entirely red; while still another has the fifth and sixth entirely red, the other segments being without markings. The writer has examined over three hundred specimens of *ornatus*, not one of which has shown a trace of red on the ventral surface of the abdomen. The tarsi are sometimes red, the middle and posterior pair often infuscate.

Four specimens, San Jose del Cabo, Lower California. Type in collection of the author; cotypes in cabinet of Prof. Wickham.

Trichodes ornatus Say.

Trichodes ornatus Say, Jour. Acad. Nat. Sci. Phila., III, 1823, p. 189; Klug, Abh. Berl. Akad., 1842, p. 340; Spinola, Mon.

Clér., 1, 1844, p. 327, pl. 31, fig. 5; LeConte, Ann. Lyc. Nat. Hist. N. Y., v, 1849, p. 18; Say's Comp. Writ., Lec. ed., II, 1859, p. 120; Horn, Trans. Amer. Ent. Soc., v, 1876, p. 231; Horn, Ent. News, II, 1891, p. 6; Cockerell, Trans. Amer. Ent. Soc., xx, 1893, p. 329; Wickham, Can. Ent., xxvii, 1895, p. 249.

Trichodes Hartwegianus White, Cat. Cler. Brit. Mus., iv, 1849, p. 60; Cockerell, l. c., p. 329.

Trichodes Douglassianus White, l. c., p. 60; Cockerell, l. c., p. 329.

Moderately robust, shining, dark blue, clothed with long, rather sparse pubescence; fasciæ of elytra red or yellow and variable in extent, often greatly reduced. Head blue or green, moderately, not very densely punctate. Thorax about equally as broad as long; sides at apical fourth somewhat compressed, strongly compressed at base; surface moderately coarsely, rather densely punctate. Elytra blue; a basal fascia, broad at the shoulders (the umbones blue), extends across base to near suture along which is it prolonged posteriorly, and is generally dilated at its apex; a more or less oblique median fascia, usually interrupted at the suture, is narrowly united at the flanks with the basal fascia; an oblique fascia at apical fourth is likewise frequently interrupted at the suture; surface feebly but rather densely punctate. Body beneath, abdomen and legs blue; the tibiæ usually and the tarsi pale testaceous. Length 6.7-14.5 millim. (Elytral markings, pl. VI, fig. 27.)

Var. *tenellus* LeConte. (*Trichodes tenellus* Lec., Proc. Acad. Nat. Sci. Phila., 1858, p. 72; Horn, Ent. News, II, 1891, p. 6.)

This variety occurs in Colorado, New Mexico, and southern California. It differs from the typical form in being more slender, the elytra more coarsely, regularly punctured and the markings are also slightly different, the median fascia being very oblique; the size averages smaller, being 5.5-8 millimeters. This seems quite poorly connected with the typical form, but as *ornatus* is known to be an extremely variable species in color markings and size, the writer does not feel warranted in placing *tenellus* as a valid species. Dr. Horn (Ent. News, II, 1891, p. 6) gave a valuable contribution on the variation of the elytral markings in this species; in some examples the elytra may be almost entirely red, while in others they may be blue with a reddish spot at middle of their length, but this spot is never contiguous to the lateral margin.

This is a western species, while *nuttalli* is found in the eastern

states. The only points known where both species occur are as follows: Custer and Englewood, South Dakota (Haggard collector); War Bonnet and Monroe canyons in Sioux County, and Pine Ridge, Nebraska.

The smallest specimen (6.7 mm.) seen by the writer is from War Bonnet Canyon, Nebraska, while the largest (14.5 mm.) is from Pike's Peak, Colorado, 10,000 ft. el., July 20 (L. Brunner).

Occurs in South Dakota, Nebraska, Alberta, Montana, Idaho, Wyoming, Colorado, Utah, Nevada, New Mexico, Arizona, California, Oregon, Washington and north to Vancouver Island.

Trichodes bimaculatus LeConte.

Trichodes bimaculatus Lec., Trans. Amer. Ent. Soc., v, 1874, p. 63.

Trichodes bisignatus Horn, (err. cler.), Trans. Amer. Ent. Soc., v, 1876, p. 231.

Moderately robust, dark blue, shining, clothed with moderately long, erect, soft, yellowish pubescence. Antennæ black, basal joints sometimes pale testaceous; palpi testaceous. Head rather sparsely and moderately finely punctate. Thorax subquadrate, strongly convex; sides anteriorly very feebly constricted, posteriorly feebly compressed; rather coarsely, rugosely punctate; a narrow median space near base smooth. Elytra densely, coarsely punctate; punctures substrate near suture; blue with a rounded reddish yellow spot at middle, contiguous with the lateral flanks. Body beneath, abdomen and legs blue. Length 8.5–10 millim. (Elytral markings, pl. VI, fig. 28.)

Most closely related to *nuttalli* Kirby, from which it differs in having the club of antennæ broadly triangular, the head more sparsely and the thorax more coarsely punctate and the dissimilar elytral markings, which in *nuttalli* are rather constant. From *ornatus* Say, to which it is also allied, it may be separated by the elytral color markings, which are always contiguous with the flanks in *bimaculatus*, and the more strongly convex thorax, which is less compressed near apex and towards base.

Known only from California (Pasadena, in author's collection), and Oregon.

Trichodes nuttalli Kirby.

Clerus Nuttalli Kirby, Trans. Linn. Soc. London, xii, 1818, p. 394.

Trichodes Nuttalli Say, Bost. Jour. Nat. Hist., i, 1835, p. 164,

Klug, Abh. Berl. Akad., 1842, p. 337; Spin., Mon. Clér., i, 1844,

p. 317, pl. xxxi, fig. 2; Lec., Ann. Lyc. Nat. Hist. N. Y., v, 1849, p. 18; Horn, Trans. Amer. Ent. Soc., v, 1876, p. 231; Wickh., Can. Ent., xxvii, 1895, p. 249, fig. 17.

Moderately robust, blue, shining, elytra fasciate with red or reddish yellow; head and thorax clothed with moderately long, rather dense, grayish pubescence, much shorter and less dense on elytra. Head finely, moderately densely punctate; antennæ and palpi pale testaceous, the former with the outer joints more or less infusate. Thorax slightly longer than broad; anterior constriction feeble; sides gradually narrowing behind the middle, strongly compressed at base; surface rather finely and moderately densely punctate. Elytra sparsely, rather finely punctate; an annulate humeral maculation, the flanks from the humeri to the middle, a median fascia, and a slightly oblique ante-apical fascia red; the fasciæ usually interrupted at the suture. Length 7.2–9.5 millim. (Elytral markings, pl. VI, fig. 29.)

Nuttalli is quite similar in form and markings to typical *ornatus*, but the color pattern is much less variable, the humeral annulate markings are never prolonged posteriorly near suture, and the median fascia is not usually oblique. The form of the antennal club and the proportionately longer prothorax, the sides of which are more strongly but gradually obliquely narrowed posteriorly, make this species easily distinguishable from *ornatus*.

Occurs in Florida, Louisiana, New York, Vermont, Massachusetts, Pennsylvania, Michigan, Indiana, Illinois, Missouri, Kansas, Colorado, Nebraska, Iowa, South Dakota, Minnesota, Wisconsin, and Ontario.

Trichodes apivorus Germar.

Trichodes apivorus Germ., Ins. Spec. Nov., 1, 1824, p. 81; Klug, Abh. Berl. Akad., 1842, p. 332; Spin., Mon. Clér., 1, 1844, p. 307, pl. xxx, fig. 4; Lec., Ann. Lyc. Nat. Hist. N. Y., v, 1849, p. 18; Horn, Trans. Amer. Ent. Soc., v, 1876, p. 231; Wickh., Can. Ent., xxvii, 1895, p. 249.

Moderately robust, purplish or bluish black; elytra red, with two broad fasciæ and apex bluish or purplish black; feebly shining. Head and thorax densely punctate, very densely clothed with ferruginous hairs. Antennæ piceous, rarely paler towards base; basal joint usually red, with a large black spot above. Thorax distinctly longer than broad; sides moderately constricted at apical third, abruptly, strongly compressed at base; anterior transverse impressed line distinct. Elytra red or yellow; pubescence pale, that of fasciæ

black; a broad fascia before and another behind the middle, and the apex purplish or bluish black; the margin of the fasciæ arcuate upon each elytron, the convexity being towards base of elytra; the fasciæ sometimes interrupted at the suture (= *var. interruptus* Lec.); surface densely cribrate-punctate. Body beneath, legs, and abdomen clothed with long gray hairs, blue to blue black; the apical and the first and second ventral segments usually broadly red at the sides; the apical segment usually with a large discoidal black spot. Length 8.2–15 millim. (Elytral markings, pl. VI, fig. 30.)

The only species in our fauna with elytral markings at all similar to this species is *simulator* Horn, in the description of which some of the differential characters are given.

Var interruptus Lec. (*Trichodes apivorus* *var. interruptus* Lec., Ann. Lyc. Nat. Hist. N. Y., v, 1849, p. 18.)

Specimens from Westfield, Massachusetts, and Spring Hill, Alabama, given the writer by Prof. Wickham are referable to this variety. The Massachusetts specimen is quite small, being but 8.2 millimeters in length; the anterior fascia is reduced to a large, rounded spot on each elytron, the post median fascia is widely interrupted at the suture but attains the flanks; the apex, which is a much lighter blue than the fasciæ, has its anterior margin narrowly but deeply incised with red along the suture; in all other respects the specimen is typical. The Alabama specimen has the elytra less deeply and coarsely punctate than in the typical form, but this is very likely merely an instance of individual variation, a specimen from Marion County, Florida, being intermediate between this and the forms with normal sculpture.

Occurs in Florida, Alabama, North Carolina, New Jersey, New York, District of Columbia, Massachusetts, Canada, Nebraska, Texas, and New Mexico.

Isolemidia cariniceps sp. nov. (Pl. V, fig. 6.)

Elongate, piceous black, feebly shining; thorax, sutural, and basal half of lateral margins of elytra bright yellow; mouth and base of antennæ pale yellowish, five apical joints of the latter dusky; legs pale; the anterior tibiæ, medial femora near apex, and middle and posterior tibiæ at base and apex piceous; middle and hind tarsi infuscate. Head with the large, prominent eyes slightly wider than the elytra; eyes nearly contiguous in front; occiput and front with obtuse but distinct carina; surface very finely densely punctate, clothed

with fine, rather dense silvery white pubescence. Antennæ short, stout, as long as the head; apical joint obtuse at tip. Thorax broader than long, very finely rugosely punctate; pubescence sparse, yellowish; sides moderately dilated at middle; subapical constriction strong, posteriorly gradually convergent; lateral foveæ tranverse, feeble; anterior transverse impressed line distinct; subbasal impressed line deep, toward the flanks turning forward and extending to extreme margin immediately behind the middle. Elytra much shorter than the abdomen, densely, rather coarsely perforate-punctate; sides parallel, very sparsely pubescent but with more conspicuous, short, semierect, silvery white hairs on apical half; apices obtusely, separately rounded, with a few well developed teeth, widely dehiscent at suture. Legs moderately long, sparsely pubescent. Length 4.7 millim.

Chinandega, Nicaragua. Collected by C. F. Baker. The type specimen is in the collection of the Field Museum of Natural History.

Hydnocera niveifascia Schaeffer.

Hydnocera niveifascia Schaeff., Sci. Bull. Brookl. Inst. Arts and Sci., I, no. 7, 1905, p. 156.

A specimen of this species taken in Cuernavaca by Prof. Wickham differs in no way from specimens collected in Arizona. It has not been recorded as occurring elsewhere than in Arizona, whence came the type.

Hydnocera hæmatica Gorham. (Pl. V, fig. 7.)

Hydnocera hæmatica Gorh., Biol. Centr.-Amer., III, Pt. 2, 1883, p. 172.

In this species the elytra are black; at base of each elytron there is a large red maculation extending to extreme lateral margin at the shoulders but narrowly interrupted at the suture; this marking is frequently prolonged posteriorly near the flanks, reaching in some individuals the anterior margin of the tumid portion of apices.

This species is an extremely variable one in coloration. In a long series from Cuernavaca, Mexico, collected by Prof. Wickham, only one example has the elytra entirely black; in this specimen the knees are just touched with pale testaceous and the posterior side of anterior femora and basal joints of antennæ are testaceous, this being the nearest approach to an entirely melanotic form. In one extremely pale specimen the elytra are red excepting a longitudinal, oval, sutural maculation at the middle and the apices which are

black, and which are connected by a faint brownish stain on suture; the lateral margin behind the middle very slightly infusate; the legs entirely pale, the tarsi alone being black. This is the only specimen in which the legs (tarsi excepted) are entirely pale, and in no individual seen were the legs entirely black; several specimens, however, have the legs black, excepting the apices of femora and tibiæ of front legs. This species more commonly has the front and middle legs pale, the outer margin of the femora and tibiæ with a linear black marking which extends the entire length of these parts; the hind femora are pale at base, the front and middle tarsi infusate. The black of the apical portion of posterior femora is very persistent, being present in several otherwise pale legged specimens. The hind femora are rather strongly clavate.

Hydnocera gorhami sp. nov. (Pl. V, fig. 8.)

General form of *hæmatica* Gorh., but less elongate. Black, subopaque; maxillary palpi, three or four basal joints of antennæ, and basal fourth of elytra reddish yellow; elytra violaceous black; scutellum black. Head and thorax very densely but not very coarsely rugosely punctate, the latter with middle of disk at base sparsely punctate; head including the eyes slightly wider than thorax but slightly narrower than elytra at base; front rather densely clothed with short, silvery white, shining pubescence; thorax one-fourth wider than long, sides at middle strongly dilated, pubescence short, sparse and inconspicuous. Elytra slightly shorter than abdomen, moderately convergent posteriorly; humeri protuberant; surface coarsely cribrate, punctuation denser and somewhat rugose at apex; lateral margin posteriorly and apices thickly, not very strongly serrate; apices obtusely separately rounded, dehiscent at suture; color violaceous black; basal fourth reddish yellow (the scutellum alone being black), the hind margin of red portion nearly straight; posterior femora rather strongly clavate, extending to apex of abdomen. Length 4-5 millim.

This appears to be the same as the species placed doubtfully as the female of *hæmatica* by Gorham (Biol. Centr.-Amer., III, Pt. 2, p. 172). The writer has seen about thirty specimens from Cuernavaca (from which locality Gorham's examples were obtained) which exhibit, as noted under that species, a great deal of variation in coloration and which, having the red at base of elytra prolonged posteriorly, as well as possessing the other and more important characters attributed to the supposed male, he therefore refers to *hæmatica*.

Gorhami differs from *hæmatica* in its slightly less elongate form, less shining surface; coarsely densely punctate elytral apices, which are tumid and nearly smooth in *hæmatica*, much coarser, denser elytral sculpture, distinctly, densely rugose disk of thorax and color pattern of elytra, the last being identical in all the specimens before the writer.

Named in honor of Rev. Henry Steven Gorham, whose unflagging zeal and ability has accomplished much towards making known the Clerid fauna of Middle America.

Cuernavaca, Morelos, Mexico. Six specimens. Type in cabinet of Prof. Wickham; cotypes in collection of the author.

Hydnocera gahani sp. nov.

Form of *discoidea* Lec., but more elongate. Aeneous black, feebly shining; palpi, antennæ, basal and apical margins of thorax, legs (the posterior femora and tibiæ infusate near knees), and a vitta on each elytron yellowish testaceous. Head, including the eyes, wider than the prothorax, rather finely but densely rugose and densely clothed with short, whitish pubescence; eyes prominent. Thorax as long as wide; sides distinctly constricted near apex, moderately dilated at middle, nearly parallel at base; surface smooth at middle, rather finely but densely rugose elsewhere; lateral foveæ feeble; subapical and basal transverse impressed lines distinct; apical margin broadly, basal margin narrowly, yellowish testaceous. Elytra normally covering the abdomen, slightly narrowing to apex where they are dehiscent; humeri distinct; apices separately rounded, tumid and strongly serrate; punctuation coarse but very sparse; apical portion more finely and densely punctate; rather sparsely clothed with short, semierect whitish pubescence; a broad yellowish vitta, remote from sutural and lateral margins, parallel sided at base, gradually constricted near middle and rounded at apex, extends from base to apical fourth of each elytron. Body beneath rather sparsely pubescent. Length 3 millim.

El Paso, Texas. One specimen, generously given the author by Mr. Warren Knaus and named in honor of my esteemed correspondent, Mr. Charles J. Gahan of the British Museum of Natural History.

Hydnocera aspera sp. nov.

Elongate, black, subopaque; body beneath shining; palpi and basal joints of antennæ reddish; pubescence sparse, grayish. Head and thorax rather coarsely and very densely rugose, disk of latter with longitudinal, less densely punctate, feebly elevated carina.

Head distinctly wider than thorax; front with two, large, feeble impressions; vertex with short longitudinal carina. Thorax one-fourth broader than long; sides broadly, moderately dilated at apical third; subapical constriction strong. Elytra bluish black, nearly covering the abdomen; flanks very slightly convergent posteriorly; slightly wider than the head; humeri distinct; coarsely, deeply, very densely and roughly punctate, punctures more or less confluent especially at base; apices obtusely separately rounded, moderately strongly serrate; hind femora extending to tip of abdomen. Length 4.5-5 millim.

Closely allied to *nigro-ænea* Gorb., but differing from that species by the wider prothorax, much less convex form, coarser elytral punctation, more coarsely, densely punctate head and thorax, and absence of upright black pilosity.

Cuernavaca, Morelos, Mexico. Five specimens. Type and three of the cotypes in cabinet of Prof. Wickham; one of the cotypes in possession of the author.

Hydnocera spinolæ sp. nov.

Moderately elongate, black, shining; head and thorax with faint coppery reflections; antennæ pale, basal joint and apex of club fuscous; knees, tarsi, and hind tibiæ obscurely testaceous. Head as broad as elytra at base, densely, finely rugulose; front not impressed; a small distinct rounded fovea on occiput; clothed with short, moderately dense, ashy, recumbent pubescence and rather sparse, erect, black pile. Thorax slightly narrower than the head, as long as broad, rather finely, irregularly rugosely punctate; sides not very strongly dilated; pubescence grayish, very sparse, black pile longer, coarser, and more dense than on head. Elytra scarcely shorter than the abdomen, nearly parallel, more strongly convergent behind the middle of their length; humeri distinct; shoulders carinate, the carinæ short but distinct; disk feebly convex; suture strongly depressed at base; ashy pubescence rather conspicuous especially towards the apices, erect black pile conspicuous at basal third; rather coarsely, somewhat confluent punctate; apical third finely scabrous; apices separately obtusely rounded, very finely, feebly serrate, narrowly dehiscent at suture. Length 4 millim.

Named in honor of the Marquis Maximilien Spinola, author of the only monograph of the family Cleridæ.

Cuernavaca, Morelos, Mexico. One specimen. Type in cabinet of Prof. Wickham.

Pyticera humeralis Horn.

Enoplium humerale Horn., Trans. Amer. Ent. Soc., II, 1868, p. 135; Gorh., Trans. Ent. Soc. London, xxv, 1877, p. 426; Horn, Trans. Amer. Ent. Soc., x, 1883, p. 289.

Pelonium militare Chev., Rev. et Mag. Zool., 1874, p. 234; Horn, Trans. Amer. Ent. Soc., v, 1875, p. 149; Chev., Mémoire, 1876, p. 48.

Pyticera militare, Gorh., Biol. Centr.-Amer., III, Pt. 2, 1882, p. 184.

This is an exceedingly variable species in respect to elytral coloration. In the type the shoulders, including all the space anterior to an oblique line drawn from near the scutellum to a point on the flanks slightly behind the middle, are yellow. Chevrolat's specimen was similarly colored. A female specimen from the Santa Rita Mts., Arizona, 5,000-8,000 ft. el. (Snow), differs from the type in having the elytra entirely black and being slightly smaller, .20 inch (= 5 mm.); Horn's type was described as .24 inch (= 6 mm.) in length; Chevrolat's specimen as 10 mm. (= .40 inch). A specimen from Oak Creek Canyon, Arizona, given the writer by the late Dr. F. H. Snow, is .21 inch (= 5.25 mm.) in length and in elytral color goes nearly to the other extreme, being entirely red except the apical fourth which is black, the red color extending broadly into the black at flanks and suture. In both specimens the thoracic markings are as in the type, except that the color at flanks is red, not yellow.

Occurs in New Mexico, Arizona, and Mexico.

The genus *Pyticera* of Spinola is distinguished from *Enoplium* Latreille by the fact that the tarsi, when viewed from above, are distinctly four-jointed, whereas in the latter genus they are apparently three-jointed, the basal joint being concealed from above. Lacordaire (Gen. Col., IV, p. 477) united *Pyticera* with *Platynoptera* Chevrolat, the two genera, however, are distinct: in *Pyticera* the antennæ have ten joints, the short, transverse joints beginning with the third or fourth and the elytra are ovate. *Platynoptera* has 11-jointed antennæ, joints two to eight being short, transverse, compact, and pilose, and the elytra are widened behind. These two genera are now recognized as valid by such eminent authorities as Rev. H. S. Gorham, Sigmund Schenkling, and Reinhard Lohde. An examination of the tarsi of *humeralis* and also of *Enoplium quadri-punctatum* leaves no room for doubt as to their belonging to *Pyticera*, since four joints of each tarsus are easily discernible from above.

Spinola (Mon. Clér., II, p. 69), and Lacordaire (Gen. Col., IV, p. 478), describe the antennæ as nine-jointed; Gorham (Biol. Centr.-

Amer., III, Pt. 2, p. 183) states that they are apparently ten-jointed. Schenkling (Gen. Ins., Cleridæ, p. 104) describes them in detail and states that they are ten-jointed; this the writer finds to be true of the present species. The antennal funicle is seven-jointed, very short, little more than one-fourth the total length of antennæ; the basal joint is large, slightly arcuate and more than one-third length of funicle; second joint subpyriform, half as long as basal joint and less stout; joint three as broad as long, narrower than joint two; joints four to seven subequal in width to joint three, very short, closely united; three apical joints, very large, the first two joints produced near the anterior apical angle into long, stout rami which overlap the succeeding joint, apical joint long and rather slender.

Pyticera quadripunctata Say.

Enoplium quadripunctatum Say, Jour. Acad. Nat. Sci. Phila., III, 1823, p. 188.

Enoplium quadrinotatum Hald., Proc. Acad. Nat. Sci. Phila., VI, 1853, p. 362.

Mr. Charles Schaeffer (Jour. N. Y. Ent. Soc., XII, 1904, p. 221) questions the distinctness of the above two species. The writer has sought in vain for characters, other than the very feeble and variable one of color, to distinguish these species, and, after as thorough a study of the subject as the few specimens at hand permit, can only conclude that they are synonymous. Say's name having priority, it must, of course, be retained; for the convenience of collectors, however, it is deemed expedient to use the name proposed by Haldeman for the variety which has the head and prothorax wholly or in part red.

This variety occurs in Texas, while the forms with entirely black head and thorax occur from Indiana to Texas but more commonly northward.

Chariessa texana Wolcott.

Chariessa texana Wolc., Ent. News, XIX, 1908, p. 72.

In the entomological collection of the Field Museum of Natural History there are two specimens of this species which the writer had not seen prior to the publication of the original description. Both the specimens are males and are of the varietal form mentioned in the description; they vary greatly in size, one being 11.5 millimeters, the other 16.7 millimeters in length.

In both specimens the margins of the elytra are pale. In the larger example the black orbicular maculations of the apical margin

of the thorax are wanting and are represented by a mere stain which is, however, coalescent at the middle; the smaller specimen has the spots each side distinct and well separated. The ground color of the elytra is black, with a very slight bluish tinge.

Cregya LeConte.

Cregya Lec., Class. Col. N. Amer., 1861, p. 197; Lec., Smiths. Misc. Coll., VI, 1865, p. 98; Gorh., Trans. Ent. Soc. Lond., I, 1877, p. 417.

The generic name *Pelonium* Spinola (Mon. Clér., I, 1844, p. 347) must, much as the writer regrets the fact, be abandoned in favor of the more recently proposed term *Cregya*. Spinola having failed to designate a type for *Pelonium*, Rev. Gorham in 1877 (l. c., p. 417) selected and fixed the type, choosing Forster's *Lampyris pilosa*, but this species is a true *Chariessa*, consequently the name *Pelonium* becomes a synonym of that genus which has fourteen years priority.

The characters usually given for the separation of the genera, *Chariessa* and *Pelonium*, are as follows:

Body short, convex; sides of prothorax rounded, *Chariessa*.

Body longer, less strongly convex; sides of prothorax posteriorly angulately enlarged, *Pelonium*.

In *Chariessa pilosa* and the other species of the genus of the region north of Mexico the prothorax is somewhat broader posteriorly as, indeed, is true of the type of *Chariessa (ramicornis)* Perty, but the sides are rounded and neither angulate nor constricted before base. The form of body is valueless in separating the two genera; starting with *ramicornis*, in which the form is very short and broad, the species grade through *vestita*, *elegans*, *dichroa*, and *pilosa* to the elongate *texana* so gradually that it is impossible to draw a line of demarcation.

To the genus *Cregya* may be referred all those species having the lateral flanks angulate and constricted, this being apparently the sole character which distinguishes them from the species of *Chariessa*. The outer margin of the anterior tibiæ may be either smooth, irregular, or serrate, this character varying within specific limits.

The species occurring in America north of Mexico may be differentiated as follows:

KEY TO THE SPECIES OF CREGYA.

- a. Antennæ 11-jointed.
- b. Surface of thorax very uneven; elytra coarsely, sparsely punctate at apex. *leucophæa*, 384
- bb. Surface of thorax nearly or quite even.
- c. Thoracic punctures deep; dense, and confluent; elytral punctures subquadrate, seriate, apices punctate. *granulosa*, 386
- cc. Thoracic punctures annuliform;¹ elytral punctures seriate, quadrate, apices smooth. *fasciata*, 386
- ccc. Thoracic punctures simple; elytral punctures non-seriate, rounded, apices punctate. *maculicollis*, 388
- aa. Antennæ 10-jointed.
- d. Pronotum with longitudinal discoidal area sparsely, rather finely punctate; elytra pitchy black, the sutural and lateral margins pale. *oculata*, 389
- dd. Pronotum with discoidal area coarsely, rather densely but somewhat irregularly punctate; elytra pale with black maculations.
- e. Prothorax not broader at apex than at base. *mixta*, 391
- ee. Prothorax much broader at apex than at base. *quadrisignata*, 392

Cregya leucophæa Klug.

- Enoplium leucophæum* Klug, Abh. Berl. Akad., 1842, p. 366.
- Pelonium vetustum* Spin., Mon. Clér., 1, 1844, p. 360, pl. 35, f. 4;
Lec., Ann. Lyc. Nat. Hist. N. Y., v, 1849, p. 32.
- Priocera albomaculata* Ziegl., Proc. Acad. Nat. Sci. Phila., 11, 1845,
p. 268.
- Enoplium venustum* Hald.(err. typ.), Proc. Acad. Nat. Sci. Phila.,
111, 1846, p. 126.
- Enoplium vetustum* Melsh., Cat. Col., 1853, p. 84.
- Pelonium leucophæum* Chev., Mémoire, 1876, p. 7; Schklg., Gen.
Ins., Cleridæ, 1903, p. 107; Wolc., Bull. Wis. Nat. Hist. Soc.,
VII, 1909, p. 24.
- Cregya vetusta* Lec., Smiths. Misc. Coll., VI, 1865, p. 98; Lec.,
List Col. N. Amer., 1866; Lec., Trans. Amer. Ent. Soc., IX,
1881, p. 111; Henshaw, List Col. Amer. N. of Mex., 1885, p. 82;
Horn, Proc. Cal. Acad. Sci., v, ser. 2, Suppl. 1, 1895, p. 228;
Lohde, Cleridarum Catalogus, 1900, p. 103; Schklg., Deutsch.

¹Rounded, shallow punctures, the base of which is flattened, enclosing a small tubercle.

Ent. Zeit., 1903, p. 16; Schklg., Gen. Ins., Cleridæ, 1903, p. 108; Schaef., Jour. N. Y. Ent. Soc., XII, 1904, p. 220.

Cregya leucophaea Schklg., Deutsch. Ent. Zeit., 1906, p. 316; Schklg., Deutsch. Ent. Zeit., 1907, p. 299.

Elongate, fuscous, clothed with semierect pale hairs; head and thorax maculate with luteous; elytra with broad median fascia white, basal portion fuscous, more or less maculate with luteous and white, apical fourth luteous. Antennæ eleven-jointed, pale testaceous; last three joints (apex of eleventh excepted) fuscous. Head densely punctate, finely scabrous, fuscous, with a median longitudinal luteous maculation; eyes rather prominent. Thorax slightly longer than broad, narrower at base than at apex; sides at apical third feebly arcuate and subparallel, at basal third somewhat broader, then suddenly narrowing to base; disk convex, surface very irregular, the elevations luteous; a fine impressed median line sometimes present; rather finely, not very densely punctate. Elytra three times as long as the thorax; sides of basal fourth parallel, moderately widening posteriorly; apices separately rounded, very coarsely, deeply punctate; seriate except at apex and at base, where the punctures are more or less confluent; punctures smaller and very sparse at middle near suture; fuscous, with a very broad, irregular median white fascia, which sometimes ascends along the suture to the scutellum and is usually marked with small fuscous spots at the middle and near the flanks; the white fascia bordered posteriorly by an irregular fuscous line of variable proportions; the fuscous base and luteous apex maculate with white; the humeri usually luteous. Body beneath and abdomen fuscous, the apical segment and usually a large lateral maculation on all the others yellowish. Legs pale; the anterior pair fuscous, except at base of femora and apex of tibiæ; the middle and posterior pair with a fuscous fascia at middle; the tibiæ rarely with the apical half fuscous; tarsi pale. Length 7.5-11 millim.

No species of *Cregya* has, perhaps, been the cause of greater confusion than the present one, as is shown by the synonymy given above. Klug in the original description of this species gives Brazil as the habitat, but Mr. Sigmund Schenkling, by whom the type specimen has been examined, states that the locality label thereon bears the words "Amer. Sept."

Occurs on *Rhus radians* (LeConte).

Hab.—Florida (Enterprise); Alabama; Washington, D. C.; New Jersey (Westville); Pennsylvania (Allegheny Co.); Illinois

(Lexington); Missouri; Kansas (Lawrence, Topeka); Louisiana (Lake Ponchartrain Region); Texas south to San José del Cabo, Lower California, and Guerrero in Mexico.

Owing to the great difficulty in recognizing the species of *Cregya*, the author deems it best to redescribe at some length the species of our fauna, *maculicollis* Schaeffer alone being given in its original form.

Cregya granulosa Wolcott. (Pl. V, fig. 9.)

Pelonium granulosum Wolc., Bull. Wis. Nat. Hist. Soc., VII, 1909, p. 24.

General form and size of *leucophæa*, which it somewhat resembles in color and from which it differs as follows: The eyes more nearly approximate in front. The thorax subopaque, proportionately longer and with elevated areas wanting; the sides of prothorax anterior to the dilation nearly straight, gradually convergent to near apex, the apical angles oblique; sides behind the dilation very suddenly and strongly constricted, the dilation more remote from base; surface more densely and deeply umbilicately punctate. Elytra more shining; punctures coarse and deep but less sharply defined, not smaller nor wanting in a subsutural space behind the middle; apices conjointly rounded, the sutural angle rectangular. The entire insect is clothed with denser, longer yellowish hairs, most conspicuous on head and thorax; but color and markings are nearly as in *leucophæa* except that the whitish median fascia is wanting, being replaced by an irregular whitish area situate almost entirely before the middle. Length 6.4–9.7 mm.

The markings are more suffused than in *leucophæa*, and the median whitish area is marked with several large blackish spots. In both the type and the cotype the vertex of the head and the anterior margin of thorax are dull testaceous. The elytra are divergent from the humeri and slightly more than twice as long as the thorax, while in *leucophæa* the sides at basal fourth are parallel and the elytra are equal to more than three times the length of thorax. The peculiar sculpture gives to the elytra a granulose appearance.

Hab.—Texas.

Cregya fasciata LeConte.

Enoplium fasciatum Lec., Ann. Lyc. Nat. Hist. N. Y., v, 1852, p. 214; Melsh., Cat. Col., 1853, p. 84.

Cregya fasciata Lec., Smiths. Misc. Coll., VI, 1865, p. 98; Lec.,

List Col. N. Amer., 1866; Henshaw, List Col. Amer. N. of Mex., 1885, p. 82; Lohde, Cleridarum Catalogus, 1900, p. 103; Fall, Occas. Papers, Cal. Acad. Sci., VIII, 1900, p. 128; Schklg., Gen. Ins., Cleridæ, 1903, p. 108; Schklg., Deutsch. Ent. Zeit., 1906, p. 316.

Pelonium fasciatum Wolc., Bull. Wis. Nat. Hist. Soc., VII, 1909, p. 25.

Elongate, piceous, shining; sparsely clothed with pale hairs, longest on head and thorax; thorax piceous, margins rarely pale; elytra with an ante-median, arcuate, pale fascia, sometimes obscure or wanting. Antennæ eleven-jointed, pale testaceous, the last three joints (except at base) fuscous. Head piceous, densely punctate, punctures annuliform. Thorax broader than long, narrower at base than apex; sides subtuberculate at apex, moderately compressed at apical third and strongly dilate at basal third, then suddenly and rather strongly narrowing to base; disk convex; surface even, at most with faint indication of elevated areas, densely punctate; punctures shallow; piceous; apical and basal margins and the flanks rarely testaceous. Elytra three times as long as thorax, feebly widening posteriorly; apices separately rounded; punctures coarse, deep, quadrate, and seriate, obsolete at apex; piceous with æneous reflection; a pale testaceous fascia extending from the suture at basal third arcuately forward to near the lateral margins which with the suture and humeri are sometimes also obscurely testaceous; the elytra rarely entirely piceous. Body beneath and abdomen piceous, the latter rarely obscurely testaceous. Legs varying in color from entirely pale to fuscous, the base of femora and tibiæ alone being testaceous. Length 4.7-6.5 millim.

Some examples of this species resemble at first sight *oculata*, from which species it is, however, quite distinct. Dr. H. C. Fall has recorded the capture in San Bernardino Mountains (California) of an example which has the elytra entirely piceous. In a specimen before the writer the fascia extends obscurely to the humeri which are also testaceous. Another specimen, a female, from California is much paler than in the usual form; the legs and antennæ pale testaceous, only the apical portion of the last three joints of the latter being fuscous; the thorax pale reddish, with a vaguely limited, obscure fuscous vitta extending from the apex to behind the middle; the elytra reddish testaceous especially at base, irregularly obscurely infuscate in apical half; the paler ante-median fascia is, however, quite distinct. Apparently a rare species.

Hab.— Washington (Orcas Island, W. M. Mann); California

(northern part, San Diego, Los Angeles, San Bernardino Mountains, San Jose, Alameda County), and Texas (Brownsville).

Cregya maculicollis Schaeffer.

Pelonium maculicolle Schaeff., Jour. N. Y. Ent. Soc., XII, 1904,
p. 219.

"Form and size of *Cregya vetusta* Lec. [= *leucophæa* Klug]; testaceous, clothed with semi-erect' pale hairs, thorax maculate with black, elytra with base more or less black, on each side about middle of disk three black spots, the two upper ones oblique and near the suture, the two lower ones generally confluent, a broad black fascia, narrower towards suture and irregular in outline, at about apical two-fifths. Antennæ eleven-jointed, half as long as the body in the male, shorter in the female, club longer than the preceding joints in the male, shorter in the female, last three joints black. Head coarsely, densely punctured, black, with a longitudinal pale line, variable in distinctness, eyes prominent. Thorax nearly as long as broad, narrower at base than apex, sides gradually widening from apex to about basal third, then suddenly narrowing to base, disk slightly convex, even, with a slightly impressed median line, somewhat coarsely and densely punctate, a black median line and three or four spots on each side from the middle to the base, the spots at sides more or less confluent. Elytra nearly three times as long as the thorax, slightly widening towards the apex, apices separately rounded, very coarsely, irregularly punctured, the space between the black median spots and the fascia devoid of these punctures, the base with a large black spot on each, below the humeral umbone a smaller one, sometimes connected with the basal spot, at about middle one oblique black spot on each side near suture, below this two others, mostly connected assuming a zigzag form, at about apical two-fifths a broad black fascia of irregular outline, narrower towards suture. Anterior femora at apex and anterior tibiæ at base black, middle and hind tibiæ sometimes with a black fascia at middle. Anterior tibiæ serrate, in the smaller specimens faintly. Length, 7-11 mm." (Schaeffer.)

A topotype of this interesting species in the collection of the author has the last three joints of the antennæ black, but the base of these joints and the apex of the eleventh are testaceous. The thoracic markings are variable to some extent, the black median line being reduced to a minute elongate spot; the lateral spots, which are here two in number, are moderately large and well separated;

the dilated portion at basal third also with a large black maculation; the pro-, meso-, and metasternum piceous. The elytral markings and the color of the legs are as in the type. The elytra are distinctly punctured at their apices.

Hab.—Known only from Brownsville, Texas.

***Cregya oculata* Say.**

Clerus oculatus Say, Bost. Jour. Nat. Hist., I, 1835, p. 163; Klug, Abh. Berl. Akad., 1842, p. 387.

Pelonium marginipenne Spin., Mon. Clér., I, 1844, p. 363, pl. 35, fig. 6.

Enoplium oculatum Lec., Ann. Lyc. Nat. Hist. N. Y., v, 1849, p. 32; Melsh., Cat. Col., 1853, p. 84; Lec., Say's Compl. Writ., Lec. ed., II, 1859, p. 639.

Cregya oculata Lec., Smiths. Misc. Coll., VI, 1865, p. 98; Lec., List Col. N. Amer., 1866; Henshaw, List Col. Amer. N. of Mex., 1885, p. 82; Lohde, Cleridarum Catalogus, 1900, p. 103; Schklg., Gen. Ins., Cleridæ, 1903, p. 108; Schklg. Deutsch. Ent. Zeit., 1906, p. 317.

Pelonium oculatum Wolc., Bull. Wis. Nat. Hist. Soc., VII, 1909, p. 25.

? *Pelonium lineolatum* Gorh., Biol. Centr.-Amer., III, Pt. 2, 1883, p. 191, pl. IX, f. 14.

Less elongate than *fasciata*, black or piceous, shining, moderately clothed with erect and semierect pale hairs, longest on head and thorax; thorax pale yellowish, with a longitudinal vitta each side black; elytra black, the sutural and lateral margins pale. Antennæ ten-jointed, pale yellow; joints seven to ten usually entirely fuscous. Head black; parts of the mouth (the mandibles excepted) and usually the front between upper portion of the eyes pale; coarsely, densely punctate. Thorax slightly longer than broad, scarcely narrower at base than at apex; sides dilated at basal two-fifths, behind this suddenly but not very strongly compressed and nearly parallel to base; apical third rather strongly convergent to apex; disk convex, at middle rather finely and sparsely, at flanks more densely punctate; surface even or at most with very feebly elevated area at middle near base; yellow, with a black vitta each side, usually abbreviated at apex and base, very rarely reduced to a small maculation or entirely wanting. Elytra about two and one-half times as long as thorax; sides nearly parallel; apices nearly conjointly rounded (very slightly dehiscent, with angles minutely rounded at suture); punc-

tures coarse, deep, quadrate, and seriate, becoming finer posteriorly and obsolete at apex; interstices rugose; black, the sutural and lateral margins pale yellow. Pro- and mesosternum yellow, the former rarely piceous; abdomen varying from entirely piceous to piceous with two apical segments and posterior margin of remaining segments yellowish. Legs pale yellowish, the knees and anterior tibiæ and tarsi often piceous. Length 4-6.5 millim.

This is a widely distributed and well known species and one which cannot easily be confused with any other. The elytral markings are rather constant; practically the only variation is the frequent failure of the pale border of the lateral margins to reach the base of the elytra, in some instances attaining a point but little beyond the middle; the thoracic markings are, on the contrary, quite variable. An example from Massachusetts, has the pronotum entirely piceous except at middle of apex and of base, where there is a small triangular yellow maculation, the base of which is at the margins; thus forms may be expected to occur with the pronotum entirely piceous.

Pelonium lineolatum Gorh., described from Guatemala, to judge by the description, agrees perfectly with this species, in form, structure of the antennæ, sculpture, and size; it differs only very slightly in color, the head being somewhat paler. The author, however, has seen no specimens of *oculata* from Mexico or Central America and hence must leave the identity of the species in doubt, with the hope that those to whom the type of Gorham's species is accessible will ere long make known the differential characters, if such exist.

Hab.— Florida (Tampa); Alabama; New Jersey (Hudson County, Atlantic City, Woodbury); Washington, D. C.; New York; Massachusetts (South Amherst); Pennsylvania (southwestern); Ohio, (Cincinnati); Indiana (Lawrence County); Kansas (Lawrence); Louisiana (Lake Pontchartrain region); Texas (Dallas, Brownsville); ? Guatemala.

The writer wishes to call attention here to an error which has apparently escaped correction. *Oculata* was placed by Dr. LeConte (Ann. Lyc. Nat. Hist. N. Y., v, 1849, p. 32) in a group characterized as possessing eleven-jointed antennæ; and again later on (Smiths. Misc. Coll., VI, 1865, p. 98) the same author states that the antennæ are eleven-jointed, *vetusta*, *fasciata*, *oculata*, and *mixta* being specifically mentioned; a careful examination of the antennæ of the various species reveals the fact that this is true of *leucophæa* (*vetusta*), *fasciata*, and *maculicollis*, but certainly not of *oculata*, *mixta*, and *quadrisignata*, the antennæ of which are but ten-jointed.

Cregya mixta LeConte.

Cregya mixta Lec., Smiths. Misc. Coll., VI, 1865, p. 98; Lec., List Col. N. Amer., 1866; Gorh., Trans. Ent. Soc. London, 1877, p. 417; Henshaw, List Col. Amer. N. of Mex., 1885, p. 82; Lohde, Cleridarum Catalogus, 1900, p. 103; Schklg., Gen. Ins., Cleridæ, 1903, p. 108; Schklg., Deutsch. Ent. Zeit., 1906, p. 317.

Cregya oculata ‡ Henshaw, Trans. Amer. Ent. Soc., IX, 1882, p. 245.

Pelonium mixtum Wolc., Bull. Wis. Nat. Hist. Soc., VII, 1909, p. 25.

General form of *oculata*; pale yellowish testaceous; the head, thorax, and elytra with piceous markings of variable extent; moderately shining; clothed with erect and semierect fine pale hairs, not noticeably longer on head and thorax. Antennæ ten-jointed, pale yellow; three terminal joints sometimes fuscous. Head testaceous; the occiput and a large interocular maculation piceous; rarely entirely piceous above and below; palpi pale; coarsely not very densely punctate. Thorax slightly longer than wide, similar in form to that of *oculata*, but much less suddenly and strongly constricted at base, sides anteriorly a little more gradually narrowing; disk at middle broadly flattened; surface nearly even, at middle coarsely, rather densely and irregularly punctate; flanks densely punctate; yellowish testaceous, bordered with piceous at the sides, rarely with a small subbasal maculation each side of middle and a narrow longitudinal one near apex. Elytra slightly more than twice as long as thorax; sides feebly widening posteriorly; apices nearly conjointly rounded; punctures coarse, deep, quadrate, and seriate, rows of punctures terminating rather abruptly at about apical fourth, obsolete at apex; pale yellowish varying to testaceous; humeri with a large quadrate maculation which is sometimes prolonged posteriorly to and becomes confluent with a more or less broad irregular post-median fascia; the latter sometimes extending very nearly to apex, rarely reduced to a large irregular maculation on each elytron. Body beneath pale testaceous, very rarely piceous; the abdomen piceous; the first, second, fifth, and sixth segments often testaceous. Legs pale yellow; the knees and tarsi rarely slightly fuscous. Length 3-4.2 millim.

A difficult species to describe properly owing to the great variation in markings. Many specimens have, in addition to the elytral markings given above, a small, ante-median, piceous spot at the

middle of each elytron, and a longer median one near the flanks; in this form the humeral markings are distinctly quadrate (the umbones obscurely testaceous) and the fascia is generally rather narrower than in the specimens with elongate humeral markings; this form was taken by the writer in some numbers on *Acacia* and *Diospyros* at Brownsville, Texas.

Hab.— Washington, D. C.; Maryland; Kentucky; Ohio (Cincinnati); Louisiana and Texas.

***Cregya quadrisignata* Spinola.**

Pelonium quadrisignatum Spin., Mon. Clér., I, 1844, p. 365, pl. xxxiii, fig. 3; Gorh., Biol. Centr.-Amer., III, Pt. 2, 1883, p. 190; Lohde, Cleridarum Catalogus, 1900, p. 107; Schklg., Gen. Ins., Cleridæ, 1903, p. 107.

Pelonium bilineicolle Chev., Rev. et Mag. Zool., 1874, p. 327; Gorh., Biol. Centr.-Amer., III, Pt. 2, 1883, p. 190; pl. 9, fig. 12; Lohde, Cleridarum Catalogus, 1900, p. 105; Schklg., Gen. Ins., Cleridæ, 1903, p. 107.

Pelonium quadrinotatum Chev., Rev. et Mag. Zool., 1874, p. 328; Lohde, Cleridarum Catalogus, 1900, p. 107; Schklg., Gen. Ins., Cleridæ, 1903, p. 107.

Similar in form to *mixta*; pale yellowish; head, thorax, and elytra with variable markings; feebly shining; moderately clothed with not very dense, semierect, pale hairs. Antennæ ten-jointed, entirely pale or with three apical joints black. Head varying from rufous testaceous to black, usually black with inner margin of the eyes, large frontal maculation, labrum, and other parts of the mouth testaceous; the mandibles black; very coarsely and densely punctate. Thorax very slightly longer than broad; apical and posterior angles obtusely rounded; sides at apical third nearly straight, behind the middle acutely dilated, suddenly and strongly constricted before base, which is much narrower than apex; convex, surface even; disk coarsely, rather densely, flanks very densely, somewhat rugosely punctate; entirely pale or pale with two discal slightly converging black vittæ, or with several small black spots, those near base transversely placed and sometimes confluent. Elytra slightly more than two and one-half times as long as thorax; sides subparallel; apices conjointly rounded; punctures coarse, deep and seriate, extending from base to apical third, obsolete at apex, pale yellowish; each elytron with a large quadrate or lunate humeral spot (sometimes wanting) and at apical fourth a large, more or less rounded discal

spot or with these black spots confluent, forming an angulate fascia which does not attain the lateral margins. Body beneath and abdomen black, varying to entirely yellow. Legs pale, the tarsi sometimes black. Length 4-5.5 millim.

Typical *quadrisignata* has the head black; inner margin of eyes, a frontal maculation and the mouth parts (except the mandibles) pale; a large quadrate humeral maculation, a rounded one at apical fourth, body beneath, abdomen, and tarsi black. In the form described by Chevrolat as *bilineicolle*, the thorax is pale with two slightly converging black lines; the humeral maculations are wanting and the subapical spots form an angulated fascia; the club of the antennæ and the tarsi are pale. *Quadrinotata* Chevr. was described from Texas, but appears to have escaped the attention of students, as the writer finds no mention of the species in any work or list dealing exclusively with North American Coleoptera. In this form the thoracic spots are small, more numerous than usual, those that are subbasal are transversely arranged; the humeral maculation is lunate, the maculation before the apex rounded; abdomen pale, fasciate with black.

Rev. Gorham (loc. cit., p. 190) expresses strong doubt as to *bilineicollis* being distinct from *quadrisignata*. Material before the writer shows that his doubt was well founded and that not only *bilineicollis* but *quadrinotata* also should go to the synonymy, the three forms being connected by intergrades so completely as to leave no reasonable doubt of their specific identity.

Hab.—Occurs from Texas (Brownsville) south through Mexico, Guatemala, Honduras, Nicaragua, and Panama to Colombia.

Orthopleura Spinola.

The species of this genus are in a very chaotic condition and sadly in need of the attention of some worker, to whom the types of the various species are accessible.

Orthopleura quadraticollis Spinola.

Orthopleura quadraticollis Spin., Mon. Clér., II, 1844, p. 167, note 14, pl. xxxii, fig. 4.

This species, for the determination of which we are almost entirely dependent upon the above cited figure, is listed both by Lohde (Cleridarum Catalogus) and by Schenkling (Gen. Ins., Cleridæ) as being from Pennsylvania, but upon what authority the writer does not know. Spinola failed to mention the country from which his

specimen was derived. This fact is commented on by Chevrolat who in 1874 (Rev. et Mag. Zool., 1874, p. 278) placed this species as a synonym of *damicornis* Fabr., but later on (Mémoire, 1876, p. 42) the same author stated that it was very distinct from *damicornis*. No species or this or neighboring genera known to the author seems to be referable to this species, the occurrence of which within our faunal limits is extremely doubtful. Chevrolat's varieties C and D (Rev. et Mag. Zool., 1874, p. 329) described from Cuba, may possibly be identical; Chevrolat, however, places them as synonyms of *damicornis* Fabr. The figure given by Spinola represents an insect somewhat similar in form and markings to *Chariessa pilosa* var. *onusta* Say, the form being, however, slightly more slender; the head is narrow; the prothorax as long as wide, quadrate; the head, antennæ, elytra (sutural and lateral margins excepted), and the legs dark brown; the thorax reddish. The structure of the antennæ is similar to that of the female of *C. pilosa*. The antennæ are eleven-jointed; the funicle is clothed with rather long sparse hairs, the three terminal joints forming a large, lax club, the inner margin of which is finely pubescent. The length as indicated on the plate is 12 millimeters.

Orthopleura texana Bland.

Orthopleura texana Bland, Proc. Ent. Soc. Phila., 1, 1863, p. 356.

This species appears to be quite rare in collections, in fact the writer has seen but three specimens which were, beyond doubt, *texana*. *Damicornis* occurs in many collections labeled as *texana*. Indeed these two species are so variable in color that forms occur which, upon color alone, may be assigned to either of the species; the sculpture is also nearly identical. The writer is unable to give any distinctive characters of a stable nature to aid in their recognition, other than those employed in the table following *damicornis*. Usually however, in *texana* the thorax is dark piceous; the antennæ (except club) reddish; the upper surface clothed with long, yellowish, rather conspicuous hairs, and the legs are black. The elytra are a little more coarsely, and the thorax is slightly more densely punctate than in *damicornis*.

An example before the writer has the basal half of thorax dull reddish; in another specimen only the extreme apical margin of the thorax and the legs are reddish, with the knees and tibiæ very slightly infuscate.

This species has been reported as occurring at Washington, D. C. It is known to the author from Texas only.

Orthopleura damicornis Fabricius.

Tillus damicornis Fabr., Ent. Syst., Suppl., I, 1798, p. 117.

Orthopleura damicornis Spin., Mon. Clér., II, 1844, p. 80, pl. XLII, fig. 4.

Orthopleura nigripennis Spin., l. c., p. 82.

? *Orthopleura bimaculata* Melsh., Proc. Acad. Nat. Sci. Phila., II, 1845, p. 307.

Enoplium thoracicum Say, Jour. Acad. Nat. Sci. Phila., III, 1823, p. 188.

Enoplium punctatissimum Chevr., Ann. Soc. Ent. France, 1843, p. 34.

Pelonium pennsylvanicum Chevr., Rev. et Mag. Zool., 1874, p. 325.

? var. A-D, Chevr., Rev. et Mag. Zool., 1874, p. 329.

Only the principal synonymy is recorded above; the *O. bimaculata* of Melsheimer and the varieties C and D of Chevrolat are included, but it is very doubtful whether they are really identical with *damicornis*. To judge by the description, *bimaculata* is quite a different insect. Melsheimer, however, (Cat. Col., 1853, p. 84) placed it as a synonym of *punctatissima*, which species is now considered synonymous with *damicornis*. The original description by Fabricius is as follows:

"1-2. *damicornis*. T. villosus niger thorace rufo, antennarum articulis duobus ultimis dilata compressis acutis.

"Habitat in America boreali Dom Hirshell.

"Statura et magnitudo omnino T. elongati. Antennæ singulares, nigræ articulis duobus ultimis majoribus dilatatis, compressis, acuminatis. Corpus totum villosum, nigrum, obscurum thorace solo rufo."

It seems evident that the antennæ of Fabricius's type specimen were defective and that but two of the three large dilated terminal joints were present. The insect now identified as *damicornis* has the three outer joints of antennæ very large, broadly dilated; club of male more than two-thirds total length, of female more than one-half total length of antennæ.

This species usually has the antennæ and legs black; the thorax reddish, the sides and basal margin narrowly bordered with black. The elytra are black, varying to blue, usually clothed with semierect black hairs. In both this species and *texana* there is often a more or less distinct, post-median, testaceous fascia. This species is fully as variable as *texana*, the prothorax being sometimes entirely black and the legs and ventral surface being frequently obscurely testaceous.

Chevrolat's varieties A, B, C, and D were described from Cuba; in the var. C the prothorax is red, the elytra bordered with yellow; the variety D is similar, but the suture is bordered with yellow.

Occurs in Cuba, Florida, Georgia, New Jersey, Pennsylvania, District of Columbia, Ohio, Indiana, Michigan, Illinois, Iowa, Missouri, Kansas, Louisiana, Texas, Lower California, and Mexico.

The principal distinguishing characters of the two preceding species may be briefly summarized as follows:

- a. Antennæ black; sides of prothorax sinuate, widest at basal fourth, narrowing to apex, posterior angles obtuse. (Pronotum pl. VI, fig. 31.) *damicornis*.
- aa. Antennæ red, club black; sides of prothorax nearly straight and parallel, not convergent towards apex, posterior angles rounded. (Pronotum pl. VI, fig. 32.) *texana*.

Prionodera¹ gen. nov.

Body narrow, cylindrical. Head narrow; eyes not prominent, rather finely granulate, feebly emarginate in front; antennæ 11-jointed, club three-jointed, slightly enlarged and compact. Apical joints of labial palpi large, dilated; apical joint of maxillary palpi narrow, cylindrical, obtuse at apex. Thorax with the sides nearly straight, feebly obliquely narrowing from the middle to the base; the base strongly reflexed; disk convex; posterior angles distinct, minutely obtuse; lateral flanks dilated, the coarse sculpture giving margin a serrate aspect. Elytra elongate, parallel; sutural region feebly depressed near base; basal portion deeply, coarsely punctured. Legs moderately long; tarsi four-jointed; the anterior pair moderately dilated, the median and posterior pair narrow, furnished with membranous lobes; ungues simple. Type *P. tantilla* Lec. [*Clerus* (*Thaneroclerus*) *tantillus* Lec.], Smiths. Misc. Coll., VI, 1865, p. 96.

The characters given above show that this genus should enter the subfamily Corynetini, where it is best placed near the South African genus *Dolichopsis* Gorh.

It is impossible to understand why Dr. LeConte associated the type of this genus with *Clerus* and later with *Thaneroclerus*, as several of the characters mentioned in the original description clearly demonstrate that this species is not assignable even to the subfamily Clerini.

P. tantilla has been recorded only from Washington, D. C., and Alabama. The specimen upon which the present generic description

¹πρίων, *serra*; δέμη, *collum*.

is based was received several years ago from Mr. Frederick Knab, by whom it was taken in the pupal stage beneath a stone at Chicopee, Massachusetts.

Lebasiella pallipes Klug.

Corynetes pallipes Klug, Abh. Berl. Akad., 1842, p. 353.

Lebasiella pallipes Lac., Gen. Col., iv, 1857, p. 489, note; Crotch, Check List Col. Amer. N. of Mex., 1873, p. 80; Gorh., Biol. Centr.-Amer., III, 1883, Pt. 2, p. 192, pl. 9, fig. 25.

Lebasiella nigripennis Lec., Smiths. Misc. Coll., vi, 1865, p. 99; Lec., List Col. N. A., 1866; Lec., Proc. Acad. Nat. Sci. Phila., 1873, p. 334; Crotch (= *pallipes*), Check List Col. Amer. N. of Mex., 1873, p. 80; Henshaw (= *pallipes*), Trans. Amer. Ent. Soc., ix, 1882, p. 245.

This species has appeared but once in our lists under the name of *pallipes* and is not given in the Henshaw List. The species was stricken from our catalogues upon the supposition that it did not belong to our fauna, but that it was a species of Mexico, from which country Klug's type specimen is thought to have been sent. There can, however, be no doubt of its occurrence in our fauna as well as in that of Mexico. Dr. LeConte in describing *nigripennis* gave as the locality York County, Pennsylvania (collected by Dr. Melsheimer); Dr. Castle has since taken it in the Blue Mountains, Pennsylvania (*vide* Ent. News, 1902, p. 61); the writer also has before him a specimen taken in Texas. This species should, therefore, be restored to our lists.

Lebasiella marginella Chevr.

Corynetes marginellus Chevr., Ann. Soc. Ent. France, ser. 2, 1, 1843, p. 42; Lec., Ann. Lyc. Nat. Hist. N. Y., v, 1849, p. 34; Lec., List Col. N. A., 1866.

Necrobia marginellus Melsh., Cat. Col., 1853, p. 84; Henshaw List Col. Amer. N. of Mex., 1885, p. 82.

Lebasiella marginella Lac., Gen. Col., iv, 1857, p. 489, note; Lohde, Cler. Cat., 1900, p. 113; Schklg., Gen. Ins., Cleridæ, 1903, p. 117.

This species was described from California and Mexico, the latter locality with a query. Lacordaire was apparently the first writer to place the species in *Lebasiella*. In nature it is unknown to the author and evidently is a very rare species.

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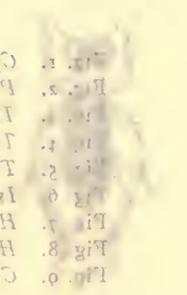
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EXPLANATION OF PLATE V.

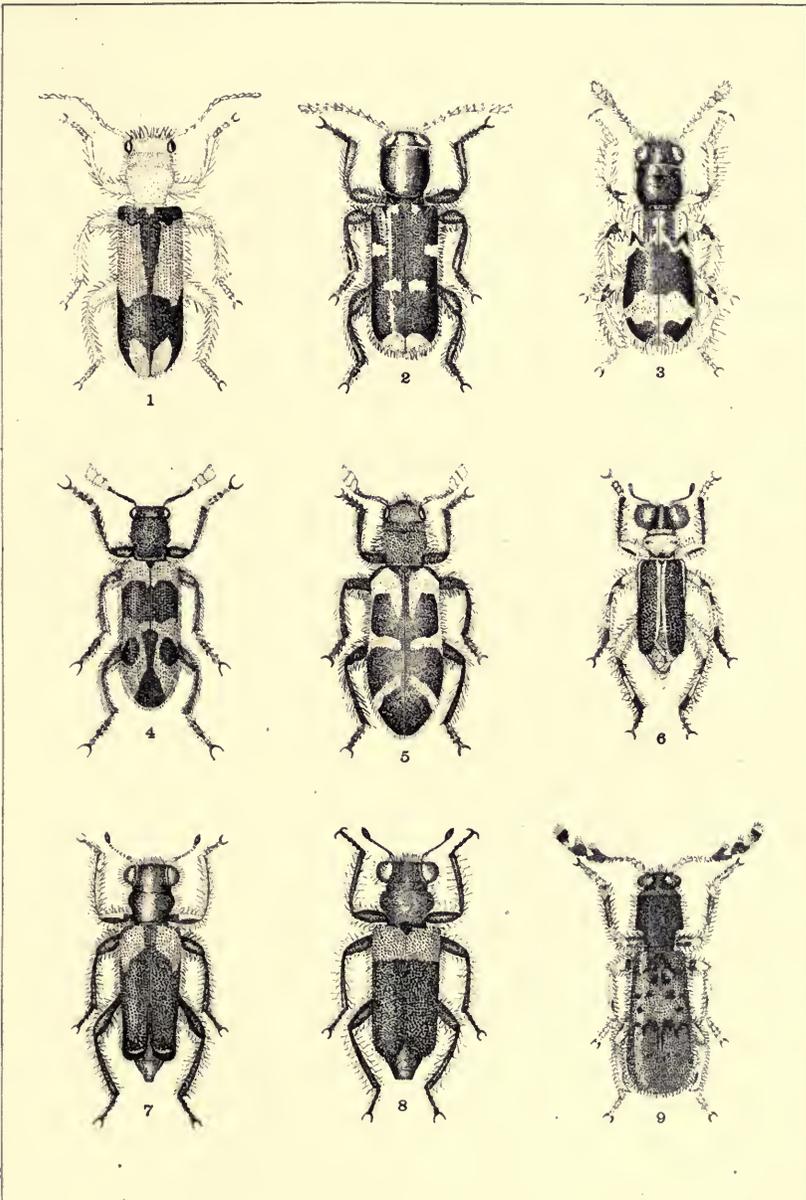


- Fig. 1. *Cynadonta pumilio* Schaeffer.
- Fig. 2. *Pylocera lecontei* n. sp.
- Fig. 3. *Tanaisius monticola* n. sp.
- Fig. 4. *Trichodes obscurus* n. sp.
- Fig. 5. *Trichodes obscurus* n. sp.
- Fig. 6. *Isobrycon* n. sp.
- Fig. 7. *Hydroscelus* n. sp.
- Fig. 8. *Hydroscelus* n. sp.
- Fig. 9. *Cicada grandiosa* Wolcott.



EXPLANATION OF PLATE V.

- Fig. 1. *Cymatodera peninsularis* Schaeffer.
Fig. 2. *Priocera lecontei* n. sp.
Fig. 3. *Thanasimus monticola* n. sp.
Fig. 4. *Trichodes oresterus* n. sp.
Fig. 5. *Trichodes nexus* n. sp.
Fig. 6. *Isolemidia cariniceps* n. sp.
Fig. 7. *Hydnocera hæmatica* Gorham.
Fig. 8. *Hydnocera gorhami* n. sp.
Fig. 9. *Cregya granulosa* Wolcott.



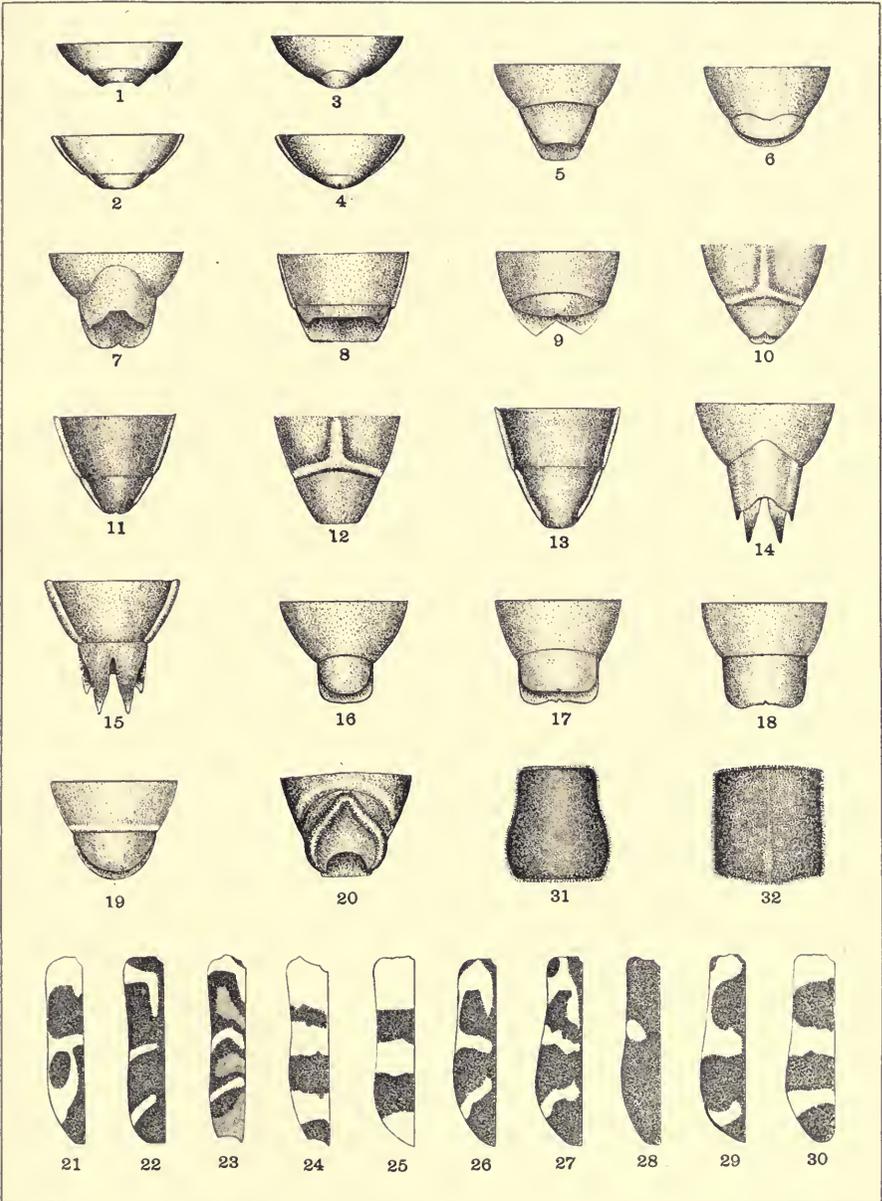
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EXPLANATION OF PLATE VI.

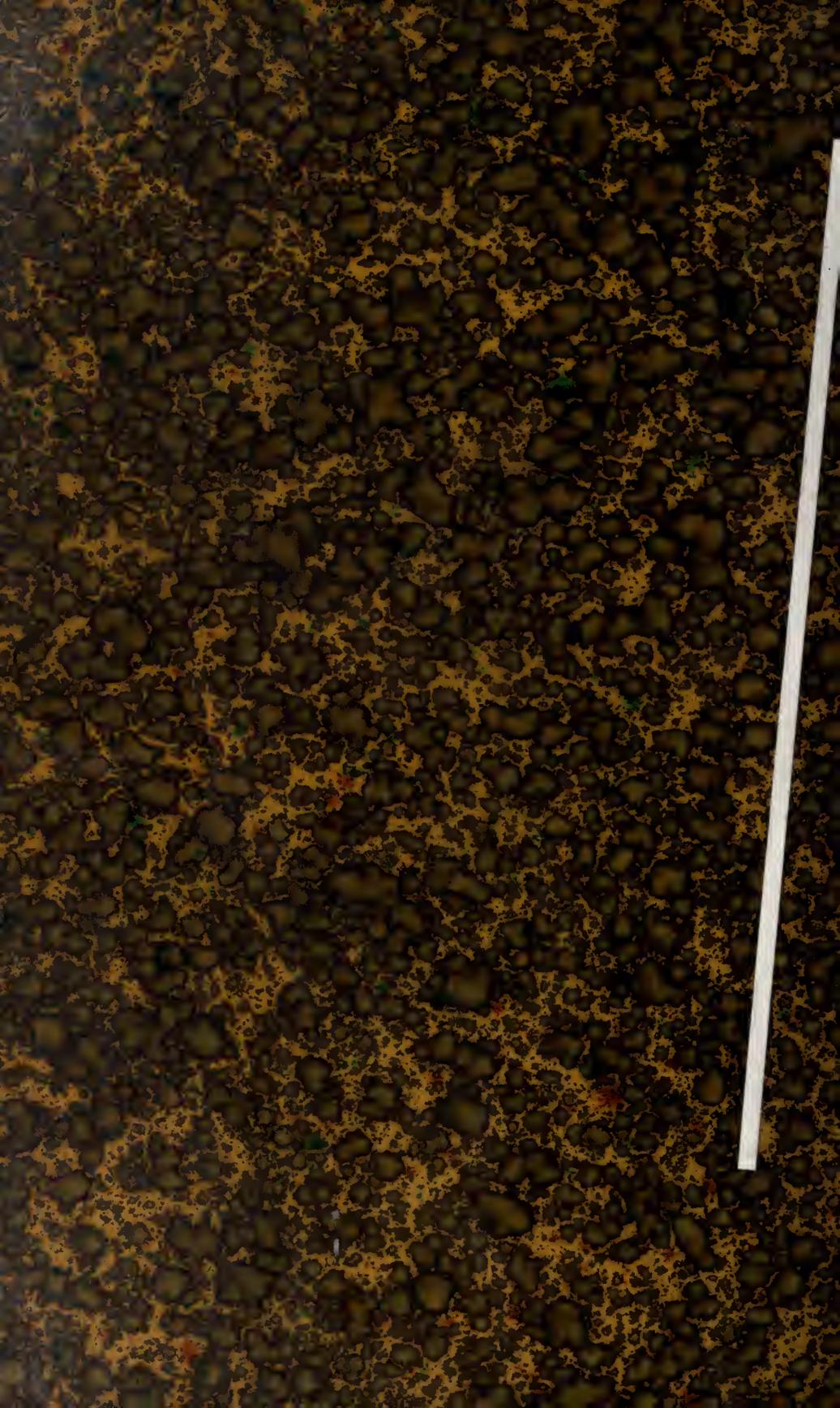
- Fig. 1. *C. submarginatus* Wolf. Ventral view of 5th and 6th abdominal segments.
- Fig. 2. *C. submarginatus* Wolf. Ventral view of 5th and 6th abdominal segments.
- Fig. 3. *C. submarginatus* Wolf. Ventral view of 5th and 6th abdominal segments.
- Fig. 4. *C. submarginatus* Wolf. Dorsal view of 5th and 6th abdominal segments.
- Fig. 5. *C. submarginatus* Wolf. Ventral view of 5th and 6th abdominal segments.
- Fig. 6. *C. submarginatus* Wolf. Ventral view of 5th and 6th abdominal segments.
- Fig. 7. *C. submarginatus* Wolf. Ventral view of 5th and 6th abdominal segments.
- Fig. 8. *C. submarginatus* Wolf. Ventral view of 5th and 6th abdominal segments.
- Fig. 9. *C. submarginatus* Wolf. Ventral view of 5th and 6th abdominal segments.
- Fig. 10. *C. submarginatus* Wolf. Ventral view of 5th and 6th abdominal segments.
- Fig. 11. *C. submarginatus* Wolf. Dorsal view of 5th and 6th abdominal segments.
- Fig. 12. *C. submarginatus* Wolf. Ventral view of 5th and 6th abdominal segments.
- Fig. 13. *C. submarginatus* Wolf. Dorsal view of 5th and 6th abdominal segments.
- Fig. 14. *C. submarginatus* Wolf. Ventral view of 5th and 6th abdominal segments.
- Fig. 15. *C. submarginatus* Wolf. Dorsal view of 5th and 6th abdominal segments.
- Fig. 16. *C. submarginatus* Wolf. Ventral view of 5th and 6th abdominal segments.
- Fig. 17. *C. submarginatus* Wolf. Ventral view of 5th and 6th abdominal segments.
- Fig. 18. *C. submarginatus* Wolf. Dorsal view of 5th and 6th abdominal segments.
- Fig. 19. *C. submarginatus* Wolf. Ventral view of 5th and 6th abdominal segments.
- Fig. 20. *C. submarginatus* Wolf. Ventral view of 5th and 6th abdominal segments.
- Fig. 21. *C. submarginatus* Wolf. Ventral view of 5th and 6th abdominal segments.
- Fig. 22. Same of *T. minutus* Horn.
- Fig. 23. Same of *T. minutus* Horn.
- Fig. 24. Same of *T. minutus* Horn.
- Fig. 25. Same of *T. minutus* Horn.
- Fig. 26. Same of *T. minutus* Horn.
- Fig. 27. Same of *T. minutus* Horn.
- Fig. 28. Same of *T. minutus* Horn.
- Fig. 29. Same of *T. minutus* Horn.
- Fig. 30. Same of *T. minutus* Horn.
- Fig. 31. Same of *T. minutus* Horn.
- Fig. 32. Same of *T. minutus* Horn.

EXPLANATION OF PLATE VI.

- Fig. 1. *Cymatodera soror* Wolc. Ventral view of ♀ fifth and sixth abdominal segments.
- Fig. 2. *C. soror* Wolc. Dorsal view of ♀ fifth and sixth segments.
- Fig. 3. *C. subsimilis* Wolc. Ventral view of ♀ fifth and sixth segments.
- Fig. 4. *C. subsimilis* Wolc. Dorsal view of ♀ fifth and sixth segments.
- Fig. 5. *C. tuta* Wolc. Ventral view of ♂ fifth and sixth segments, showing flanks and apex of last dorsal segment.
- Fig. 6. *C. tuta* Wolc. Ventral view of ♀ fifth and sixth segments, showing larger last dorsal segment.
- Fig. 7. *C. isabellæ* Wolc. Ventral view of ♂ fifth and sixth and apex of last dorsal segment.
- Fig. 8. *C. torosa* Wolc. Ventral view of ♂ same as above.
- Fig. 9. *C. æmula* Wolc. Ventral view of ♂ same as above.
- Fig. 10. *C. æthiops* Wolc. Ventral view of ♂ same as above.
- Fig. 11. *C. æthiops* Wolc. Dorsal view of ♂ fifth and sixth segments.
- Fig. 12. *C. æthiops* Wolc. Ventral view of ♀ fifth and sixth segments.
- Fig. 13. *C. æthiops* Wolc. Dorsal view of ♀ fifth and sixth segments.
- Fig. 14. *C. comans* Wolc. Ventral view of ♂ fifth and sixth and prolonged apices of last dorsal segment.
- Fig. 15. *C. comans* Wolc. Dorsal view of ♂ fifth and sixth segments.
- Fig. 16. *C. comans* Wolc. Ventral view of ♀ fifth and sixth and apex of last dorsal segment.
- Fig. 17. *C. duplicata* Wolc. Ventral view of ♂ fifth and sixth and apex of last dorsal segment.
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- Fig. 19. *C. duplicata* Wolc. Ventral view of ♀ fifth and sixth and apex of last dorsal segment.
- Fig. 20. *C. discoidalis* Chev. Ventral view of ♀ fifth and sixth and apex of last dorsal segment.
- Fig. 21. Elytral markings of *Trichodes oresterus* Wolc.
- Fig. 22. Same of *T. peninsularis* Horn.
- Fig. 23. Same of *T. illustris* Horn.
- Fig. 24. Same of *T. simulator* Horn.
- Fig. 25. Same of *T. bibalteatus* Lec.
- Fig. 26. Same of *T. nexus* Wolc.
- Fig. 27. Same of *T. ornatus* Say.
- Fig. 28. Same of *T. bimaculatus* Lec.
- Fig. 29. Same of *T. nuttali* Kirby.
- Fig. 30. Same of *T. apivorus* Germ.
- Fig. 31. Pronotum of *Orthopleura damicornis* Fabr.
- Fig. 32. Pronotum of *O. texana* Bland.



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