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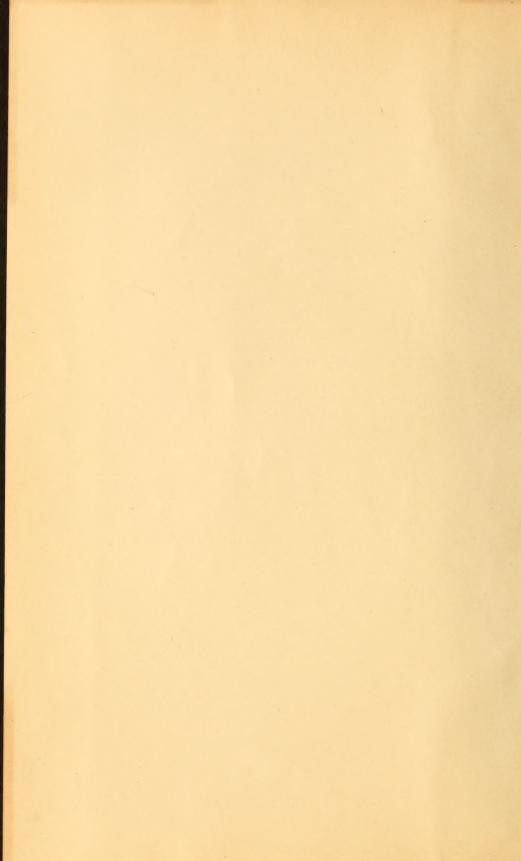
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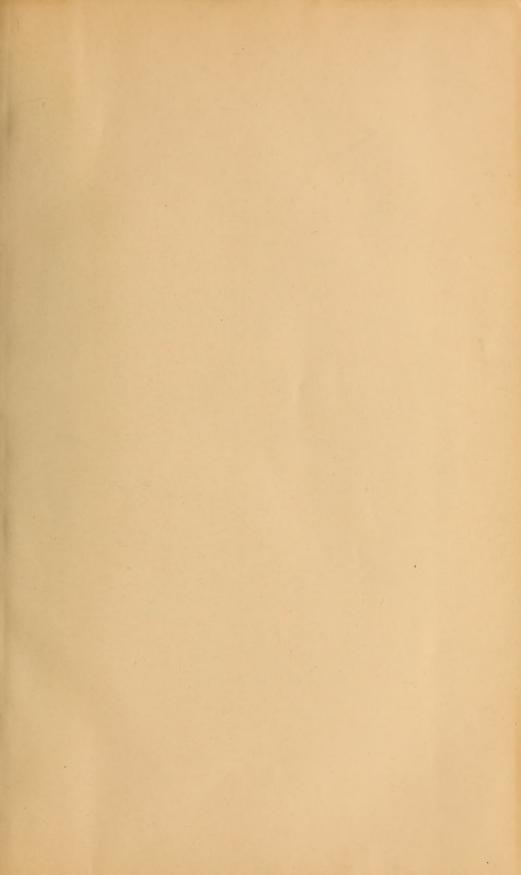
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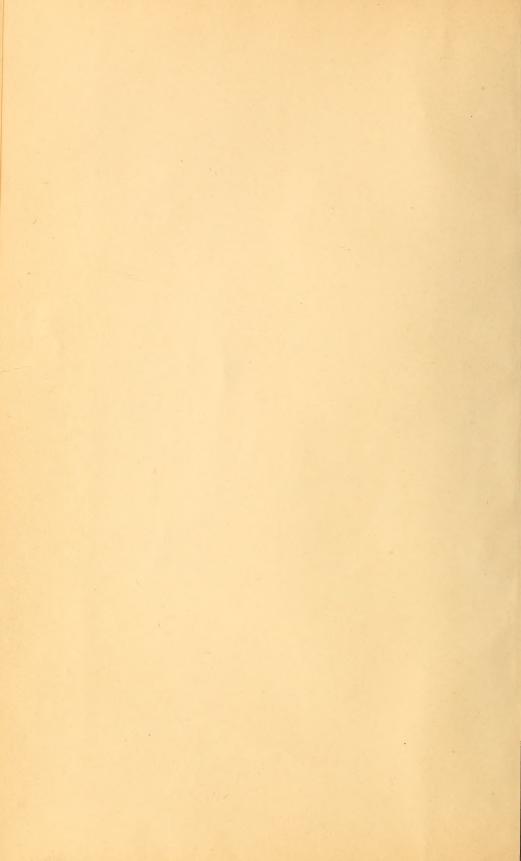
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UNITED STATES OF AMERICA









26

COLEOPTERA

OF

FLORIDA AND MICHIGAN,

BY

H. G. HUBBARD AND E. A. SCHWARZ.

DESCRIPTIONS BY

JOHN L. LeCONTE, M. D. and E. A. SCHWARZ.

From the Proceedings of the American Philosophical Society, Feb. 1, 1878, and April 18, 1878.

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The Coleoptera of Florida.

By E. A. SCHWARZ.*

(Read before the American Philosophical Society, Feb. 1, 1878.)

The following list is founded upon material collected during two expeditions to Florida. In the spring of 1875 collections were made at Haulover near the northern end of Indian River from February 23d to March 20th, at Ft. Capron, on the same lagoon about a hundred miles south of Haulover, from March 26th to April 28th, at Enterprise on the upper St. Johns River from May 7th to 28th, at Cedar Keys, on the gulf coast, from June 2d to 9th. In the following year collections were made at Tampa from March 24th to April 30th, and again at Enterprise from May 15th to June 27th.

On both trips smaller collections were made at various points: Fernandina April 16th, Palatka February 13th, Sand Point on the Indian River February 19th to 22d, Lake Harney on the upper St. Johns River in the beginning of May, at Baldwin on the Jacksonville and Mobile R. R. on June 1st and June 10th, Lake Ashby in Volusia County and New Smyrna in the beginning of June. A number of interesting species were also obtained on the journey across the peninsula from Tampa to Enterprise during the first half of May.

As the localities where the most extensive collections were made differ greatly in character, and as no points in north-western Florida, nor at the southern extremity of the peninsula were visited, I must abstain from drawing any conclusions concerning the local distribution of Coleoptera in Florida. The sandy plains at Haulover, covered with scrub-oak and saw-palmetto, were not found elsewhere; the ocean and lagoon beaches of the eastern shore, especially at Capron, are rich in peculiar forms, and as the Gulf Stream here flows only six or eight miles off the coast, it is quite possible that many of these species are direct importations brought in the West Indian seeds and drift-wood constantly being thrown upon this low and sandy coast.

The Coleoptera from Enterprise represent the fauna of the "hammocks," a term applied in Florida to the dense hard-wood and palmetto forests, as distinguished from the open and sandy pine lands or cypress swamps. At Tampa special attention was paid to the fauna of the pine forests. In all districts covered with pine woods occur depressions, which in the dry season become swampy meadows, with a fauna remarkably rich in species and in specimens, and nearly identical in character throughout the State.

Notwithstanding the very uniform temperature during the entire year, the dry season, which corresponds with the winter months, causes a disappearance of insects in Florida almost as complete as in the north; in the beginning of March they appear suddenly with the first leaves of the oak,

*With additional descriptions of new species by John L. LeConte, M. D. .

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but there is no spring flight of Coleoptera. The beginning of the rainy season about the end of May brings out the full summer fauna.

Though far from complete, the following enumeration of species is judged sufficiently extensive to give a tolerably clear idea of the character of the Floridian fauna.

I desire to express my indebtedness to Dr. LeConte, without whose aid in the determination of species, this list could not have been prepared.

The following abbreviations for localities are used in the List of Species.

A.—Lake Ashby.	K.—Cedar Keys.
B.—Baldwin.	L.—Lake Harney.
C.—Ft. Capron.	N. S.—New Smyrna.
E.—Enterprise.	P.—Palatka.
F.—Fernandina.	S.—Sand Point.
H.—Haulover.	T.—Tampa.
*—Species recorded from	Florida not collected by myself.

Descriptions of New Species.

By E. A. SCHWARZ.

1. **Lebia rhodopus**, n. sp.—Head and thorax greenish or bluish black, subopaque; the former large, wider than the thorax, finely alutaceous, sparsely and obsoletely punctulate; antennæ more than half the length of the body, outer joints stout, joint 3 and base of joint 4 testaceous; palpi black. Thorax small, transverse, on the sides very little rounded and subsinuate before the hind angles, which are rectangular; side margin less broadly reflexed than in *L. viridis;* finely alutaceous, indistinctly transversely rugose or obsoletely punctulate. Elytra blue or greenish blue, shining, very finely alutaceous, striæ finer and more obsolete than in *L. viridis*, interstices subconvex. Beneath bluish black, legs, including the coxe, bright rufo-testaceous, tarsi blackish, claws pectinate. Length 4.5 mm.: .17-.18 inch.

Allied to *L. viridis* and *pumila*; from the former distinguished by its larger head, which as well as the thorax, is hardly shining, and by the color of antennæ and legs; from the latter by its larger size and the coloration of the upper side and of the legs; from either species by the long and stout antennæ.

Two specimens from Tampa, found in April on the blossoms of Chamærops serrulata.

2. **Apenes angustata**, n. sp.—Shining, head and thorax metallic green, elytra dark coppery; beneath black, antennæ, palpi and legs testaceous. Head a little narrower than the thorax, longitudinally strigose,

with some scattered punctures, clypeus alutaceous, minutely and sparsely punctulate. Thorax in front but little wider than long, at the sides less rounded and less narrowed behind than in A. lucidula; hind angles indicated by an interruption of the reflexed margin, transversely rugulose and sparsely punctulate, near the front margin more evidently punctate, punctures sometimes confluent in longitudinal rugosities. Elytra of a dark coppery color with an oblong yellow spot at the base of the 6th interval, finely but deeply striate, striæ distinctly punctulate, interstices flat, alutaceous, sparsely and obsoletely punctured. Length 9.25 mm.; .37 inch.

Of the same size as A. lucidula, but narrower and with a different form of the thorax; the sculpture of head and thorax is finer, the elytra are darker colored with the scattered punctures on the interstices less evident.

Enterprise; three specimens, apparently females.

CYCLONOTUM.

The four North American species before me may be distinguished by the following table:

I. Antennæ with more or less solid club; prosternum carinated in front, prolonged behind between the coxæ and almost reaching the mesosternum; first ventral segment carinate; elytra with distinctly impressed sutural striæ at apex:

Antennal club solid, prosternum very short in front of the coxæ: metasternum in the middle slightly but abruptly raised in an oblong shining plate, which is narrowed in front. Size small, rows of punctures on the elytra very obsolete...........palmarum.

II. Antennæ with a loosely jointed club of three joints, prosternum feebly prolonged between the coxæ; metasternum strongly longitudinally carinated, carina shining, more or less punctulate, but not sharply limited laterally; first ventral segment not carinated; elytra without sutural stria.

Larger, rounded-oval, elytra moderately densely punctulate, legs piceous black, tibiæ distinctly punctulateestriatum. Smaller, rounded, almost hemispherical, elytra less densely punctulate, legs stouter, piceous red, tibiæ smooth.....semiglobosum.

3. **Cyclonotum palmarum,** n. sp.—Rounded-oval, convex, above black, shining, anterior part of head, sides of thorax and tip of elytra sometimes red, beneath red, metasternum darker in the middle, antennæ, mouth and legs bright rufo-testaceous. Head very finely aciculate and

obsoletely remotely punctulate, antennæ with the first joint elongated, but much less so than in C. cacti, 2d joint as thick as the first, longer than wide, 3d much narrower but also longer than wide, 4th very small subtransverse, 5th and 6th very small strongly transverse; the three last joints are absorbed in a large, elongate-oval, solid annulated club, which is almost as long as the first joint and less compressed than in C. cacti. Mentum transverse, flat, subopaque, testaceous, not visibly punctured, broadly emarginate in front. Prothorax sculptured as the head, broadly emarginate in front, sides feebly rounded, base straight, anterior angles distinct, not rounded, hind angles obtuse. Scutellum shining, very finely sparsely punctulate. Elytra shining, not densely, finely punctured, with traces of rows of stronger punctures at the apex near the side margin; sutural stria finely impressed and reaching almost to the middle. Prosternum in front of the coxe very short, linear, carina more prominent in front, intercoxal process long, almost reaching the mesosternum. Carina of mesosternum with the free angle almost rectangular, not mucronate. Metasternum on each side opaque, not visibly punctured, in the middle slightly but abruptly elevated in an oblong, shining plate, which is somewhat narrowed in front and finely remotely punctulate. Abdomen opaque, first segment carinated in the middle. Legs stout, femora punctulate, tibiæ smooth. Length 1.75 mm.; .07 inch.

Enterprise; five specimens, found in May and June, on cut down palmetto trees feeding on the fermenting juice.

C. semiglobosum Zimm. (Trans. Am. Ent. Soc. 1869, p. 250), is in my opinion well distinguished from C. estriatum. It is always smaller, shorter and more convex, the front margin of thorax distinctly produced in the middle, the punctation of head and thorax is much finer, that of the elytra less dense, fine in the scutellar region, stronger at apex and at the sides; the legs are stouter and less dark colored, the tibiæ smooth.

4. Sacium mollinum, n.sp.—Elongate-oval, shining, above piceous, thorax semicircular with the apex and sides pale, diaphanous anteriorly, finely and moderately densely punctulate. Elytra minutely sparsely punctulate, pubescent, a humeral spot, a curved fascia at the apical third, and the side margin yellowish-testaceous. Beneath piceo-testaceous, abdomen and legs pale, metasternum densely punctulate. The yellow side margin is connected with the humeral spot and with the fascia; the latter is sometimes abbreviated at the sides or reduced to a spot on the disc. Length 1 mm,; .04-.05 inch.

Tampa and Enterprise, many specimens; abundant on Pinus palustris in April and June. Shorter and more regularly oval than the other species and of different coloration.

5. Sacium splendens, n. sp.—Elongate-elliptical, very shining, thorax semicircular, reddish with an indefinite dark spot in front of middle, apex and sides pale, very finely sparsely punctulate. Elytra piceous-black with an indistinct reddish basal spot inside of the humerus and a common, broad, testaceous fascia behind the middle, exceedingly finely remotely punctulate, pubescence only visible under a very high power. Underside reddish-brown, shining, hardly visibly punctulate, abdomen paler at apex, legs yellowish-testaceous. Length 7 mm.; .03-.04 inch

Tampa; many specimens beaten from dead leaves of Pinus palustris in April. Varies with the fascia interrupted by the suture, or not reaching the side margin. The apparently unpubescent and very shining elytra with the very fine punctuation will easily distinguish this species.

6. Scydmænus divisus, n. sp.—Fusiform, shining; head and thorax brown, impunctate, with coarse, erect, moderately long, brownish pubescence. Head not immersed in the thorax, with a thick brush of hairs each side behind the eyes; antennæ red, stout, longer than head and thorax, intermediate joints as long as wide, club 4-jointed, 8th joint globular twice as large as the preceding, joints 9 and 10 subtransverse, each very little larger than the 8th, terminal joint oval, shorter than the two preceding together; maxillary palpi with the penultimate joint slender, clavate, last joint not visible. Thorax trapezoid, very little longer than wide at base, smooth, transverse basal impression feeble, interrupted at the middle. Elytra not forming an angle with the thorax, with sparse, long, erect, grayish pubesence, red, evidently punctate anteriorly and smooth behind the middle; punctate part divided in an inner and outer portion by a broad smooth humeral band, inner portion more finely and sparsely, outer portion more coarsely and densely punctured; humeral callus moderately elevated; two distinct basal foveæ each side of almost equal size; suture not elevated. Beneath piceous, abdomen pale at tip, legs red, femora moderately clavate. Length 1.15 mm.; 4.5 inch.

Enterprise; two specimens. Belongs in the group of S. capillosulus and is easily distinguished by the peculiar sculpture of the elytra.

7. Languria marginipennis, n. sp.—Red; head, and small rounded discoidal spot on the thorax, scutellum, outer half of femora, the larger part of the tibiæ and the tarsi blackish-green; antennæ, metasternum, with the exception of the front margin, and the last ventral segment black; elytra greenish-blue or blue, margin and epipleuræ red. Head alutaceous, distinctly not densely punctured, antennæ with joints 3–6 slender, 7–11 forming an abrupt club, joints 7–10 produced within. Thorax longer than wide, finely aciculate and distinctly not densely punctured, on the sides very little rounded and slightly sinuate before the hind angles; the

more or less rounded spot in the centre and occupies usually the fourth part of the length of the thorax, but is in some specimens reduced in size. Elytra shining, strongly striate-punctate, punctures finer towards the apex, interstices flat, finely alutaceous, obsoletely remotely punctulate; the red color is usually confined to the thickened margin and to the epipleuræ, but in two specimens the last interstice also is indistinctly red in the middle. Prosternum sparsely punctured, almost smooth in front, mesosternum coarsely punctured, metasternum almost smooth, abdomen finely, remotely punctulate. The red and green colors on the tibiæ are not sharply separated; the base and the upper edge, however, are always dark and the largest part of the lower edge always red. Length 7-9 mm.; .28-.35 inch.

- Ft. Capron, Tampa, and Enterprise; six specimens. This species resembles in form *L. tædata*, it is, however, a little more elongate with the thorax longer.
- 8. **Tomarus hirtellus**, n. sp.—Oblong-oval, convex, shining, fusco-testaceous. Head and thorax finely, sparsely punctulate, sparsely pubescent; antennæ less slender than in *T. pulchellus*. Thorax twice as wide as long, on the sides subsinuate before and slightly undulate behind the middle, base sinuated each side, basal impressions deep. Elytra with sparse, suberect, grayish pubescence, and with some scattered long erect hairs, strongly irregularly punctate in front, punctures becoming finer and obsolete towards the apex; an indefinite, often abbreviated, fascia at the middle and another on the apical third black. Beneath finely, sparsely pubescent, pro- and metasternum evidently punctulate; legs pale. Length 1.25–1.5 mm; .05–.06 inch.

Smaller and shorter than *T. pulchellus* and easily distinguished by its more evident pubescence and stronger punctuation on the elytra. The pubescence of *T. hirtellus* and the form of the thorax, whose side margin has the tendency to become serrulate, bring the genus *Tomarus* still nearer to *Paramecosoma*.

9. Lathropus pictus, n. sp.—Opaque, head and thorax ferrugineotestaceous, the former densely rugosely punctulate, emarginate in front, antennæ ferrugineous, second joint and the club blackish, joints 3—8 very small, together hardly as long as the club. Thorax transverse, side margins undulate, apical margin and base straight, anterior angles almost rectangular, hind angles prominent; finely and densely rugosely punctulate, without any trace of impressions, lateral lines feeble. Scutellum small, transverse. Elytra much less elongate than in L. vernalis, fuscotestaceous, finely punctate-striate, with numerous rows of exceedingly short, rigid, whitish hairs; a circumscutellar cloud and a common fascia, concave and dentate anteriorly, blackish. This fascia is formed of three indefinite spots on each elytron, the first at the suture a little behind the

middle, the second, oblong, in front and outside of the first, the third at the side margin. Metasternum and abdomen piceous, finely sparsely punctulate; legs pale. Length .05 inch; 1.25 mm.

Smaller and especially shorter than *L. vernalis* and distinct by the disc of the thorax without impressions, by the sculpture and pubescence of the elytra and by the color.

Haulover Canal, Volusia County; four specimens found under bark of a dead Quercus virens.

- 10. Læmophlæus Chamæropis, n. sp.-Less elongate, depressed, glabrous, shining, bright rufo-testaceous, elytra pale ochreous. Head large, transverse, flat, not impressed on the disc and without median line, finely and sparsely punctulate, marginal line close to the margin in front and at the sides, base not margined; antennæ with distinct 3-jointed club; labrum large, transverse, truncate in front. Thorax finely, sparsely punctulate, with a single lateral line joining the basal marginal line and with an impressed puncture of moderate size each side in the middle outside of the lateral line; anterior angles not prominent in either sex. Scutellum transverse, triangular. Elytra at base very little wider than the thorax, slightly dilated behind the humeri, which are obtuse but not rounded; each elytron with six fine striæ: the humeral stria more distinct and impunctate, 5th stria also more distinct, obsoletely punctulate, the inner striæ less distinct and feebly punctulate, sutural striæ at apex more impressed than in front. Interstices flat impunctate. Head beneath, pro- and mesosternum impunctate, metasternum and abdomen finely sparsely, last ventral segment more densely punctulate. Length 1.5-2 mm.; .06-.08 inch.
- d' Head wider than the thorax, front produced, emarginate at middle, distinctly sinuate each side, with the teeth long and acuminate; antennæ slender, more than half the length of the body, with all the joints longer than wide. Thorax strongly transverse, sides oblique, convergent towards the base and subsinuate before the hind angles, which are obtuse; lateral line oblique; elytra as long as head and thorax together.
- P Head as wide as the thorax, front produced, emarginate in middle, hardly sinuate at the sides, teeth much less prominent; antennæ less slender, outer joints as long as wide. Thorax less transverse, sides sub-parallel, slightly arcuate and sinuate before the hind angles, which are rectangular, lateral line straight; elytra a little longer than head and thorax together.

11. Nemicelus marginipennis Lec.—The two sexes differ from each other most remarkably and might be easily mistaken for two distinct species. The form described by LeConte (Proc. Ac. Nat. Sc. 1854, p.79), I take to be the A. The female differs chiefly by the following characters: Less elongate, opaque above, color of upper and underside darker. Head densely rugosely punctulate with an obtuse tooth behind the eyes, eyes smaller, less elongate and less oblique, more convex; antennæ with the first joint only one-half longer than wide, shorter than the two following together. Thorax hardly longer than wide anteriorly, more dilated in front, not emarginate at apex, apical edge thickened, base much less lobed in the middle, surface densely rugosely punctulate. Elytra almost entirely covering the abdomen, less truncate at apex, distinctly pubescent, densely punctulate, striæ less evident. Prosternum shining, punctate, process between the front coxe hardly visible, propleure opaque, sculptured as the thorax; mesosternum much smaller, less broadly rounded in front, dilated behind, shining punctate; metasternum and abdomen opaque, the latter less elongate, last segment not longer than the preceding with a large shallow impression. Hind tarsi 4-jointed as in the male.

The genus Nemicelus was first described by Dr. LeConte, and is certainly distinct from Hemipeplus.

12. Nemicelus microphthalmus, In.sp.-Linear, pale, yellowtestaceous. Head quadrate, subconvex, behind the eyes straight, then suddenly narrowed and forming a short neck, somewhat shining, sparsely and obsoletely rugose; eyes small, round, convex, very coarsely granulated, mandibles deeply emarginate and black at tip; antennæ a little longer than head and thorax, first joint stout one-half longer than wide, shorter than the two following together, joint 2 globular, the following 4 joints as long as wide, equal, 7 and 8 a little larger than the preceding, the three last joints abruptly larger, 9 and 10 hardly transverse, terminal joint oval acuminate. Thorax but little longer than wide anteriorly, feebly and broadly emarginate in front, sides oblique, convergent towards the base, subsinuate anteriorly and broadly sinuate before the hind angles; base almost straight, not lobed, apical edge thickened, anterior angles obtuse; rounded at tip, posterior angles obtuse; surface somewhat shining, indistinctly, rugosely punctulate with a faint trace of an impressed median line, basal impressions large and deep. Scutellum opaque, subquadrate and a little broader behind, apical side rounded. Elytra almost covering the abdomen, subopaque, paler than the head and thorax, darker at the sides and with a short dark line on each elytron near the suture at the apical fourth, densely and equally rugosely punctulate with hardly any trace of striæ. Pro- and mesosternum shining, sparsely punctulate, propleuræ opaque, sculptured as the thorax, front coxe very narrowly separated, metasternum and abdomen subopaque densely and finely punctulate, last ventral segment hardly longer than the preceding with a round impression, occupying nearly the whole surface. Length 3.25 mm.; .13 inch.

d' Unknown to me.

A single specimen from Enterprise, found in May, attracted by the light, is before me, another specimen from Tampa is in the cabinet of Dr. LeConte. Smaller and narrower than the smallest females of *N. marginipennis* and very distinct, especially by the form of the head and by the small, round eyes.

13. **Philothermus puberulus**, n. sp.—Elongate-elliptical, transversely convex, dark chestnut-colored, shining, above with distinct, fine, erect pubescence and with some longer hairs at the sides. Head sparsely punctured, antennæ shorter than in *Ph. glabriculus*, apparently 10-jointed, joints 2 and 3 slender, the following six joints small, 7-9 strongly transverse, joints 10 and 11 forming a solid club as in *Cerylon*. Thorax less transverse and less strongly margined than in *Ph. glabriculus*, rounded on the sides, moderately sparsely punctured. Scutellum transverse, shining, with a few punctures. Elytra strongly striate-punctate, interstices finely, sparsely punctulate. Prosternum and propleuræ distinctly, not densely, metasternum and first ventral segment in the middle finely and sparsely, at the sides very coarsely punctured, segment 2-4 each with two transverse rows of strong punctures, last segment more finely punctulate; legs testaceous. Length 2 mm.; .075 inch.

Abundant in Florida under old bark of Pinus palustris. Smaller, narrower and more convex transversely than Ph. glabriculus, with the sculpture above and beneath stronger and at once distinguished by the much more evident pubescence and by the form of the antennal club. By this last character Ph. puberulus forms a passage to Cerylon. Sexual characters are not evident; some specimens have the sides of thorax less rounded; these are probably the males.

14. Olibrus princeps, n. sp—.Rounded-oval, pale rufo-testaceous, thorax with a large brownish discoidal spot. Elytra black each with a large, oval, bright orange-colored spot at the suture before the middle, outer half of the basal margin and the lateral margin narrowly, apex broader yellow; very finely striate, striæ minutely and remotely punctulate, interstices obsoletely sparsely punctulate, punctures more distinct near the lateral margin. The sutural stria alone is deeper impressed; mesosternum not protuberant. Length 2.5 mm.; .10 inch.

One specimen in the collection of Mr. H. G. Hubbard from New Smyrna; another specimen found by me at Enterprise in May is in the cabinet of Dr. LeConte. A very striking species by its color, belonging in the group of O. apicalis.

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- 15. **Brachyacantha querceti**, n. sp.—Rounded, convex, shining, black; head and thorax finely not densely, elytra somewhat more strongly punctured. Each elytron with a large, transverse humeral spot, which is obliquely truncate inside and leaves a very narrow basal margin black and with a smaller, rounded-oval spot at the outer apical angle not touching the margin, orange-red. Side pieces of metasternum and sides of abdomen densely punctured, propleuræ and legs yellow, femora infuscate at base. Length 2–2.75 mm.; .08–.11 inch.
- ♂ Head, front margin of thorax narrowly, anterior angles and side margins more broadly, epimera of mesosternum entirely whitish-yellow.
- \cite{Q} Head black, or piceous in front, thorax black or with the front margin and front angles narrowly piceous-testaceous, epimera black or piceous.

var. a Humeral spot small and narrow.

var. β Humeral spot interrupted at middle.

Widely distributed in Florida; abundant on oak shrubs.

- 16. **Hyperaspis paludicola**, n. sp.—Oblong-oval, less convex, black; head subopaque, finely alutaceous, obsoletely sparsely punctulate; thorax opaque, sides yellow, sculptured as the head. Elytra shining, distinctly moderately densely punctate, an oval discoidal spot, the side margin and the apex yellow. The yellow side margin is throughout of equal width, following the undulation of the side margin of the elytra; at the apex it turns inwards and becomes broader, but does not reach the suture. Mouth, antennæ, epipleuræ, legs, sides and apex of abdomen, yellow. Length 1.35–2.25 mm.; .07–.09 inch.
 - \nearrow Head and front margin of thorax yellow.

Very common in Florida on swampy meadows in the Pine lands. Resembles in coloration certain varieties of H. undulata, but it is longer, less convex and also a little smaller, with the thorax opaque and less distinctly punctulate; the yellow side margin is always of equal width and never broken into spots.

17. Strigoderma exigua, n. sp.—Oblong-oval, convex, shining, above glabrous and only at the sides fringed with a row of longer hairs. Head piceous with greenish reflection, transversely convex behind, flattened in front, moderately sparsely punctate and not rugose, vertex more remotely punctulate; clypeus parabolical, not separated from the front, broadly rounded at apex and strongly reflexed; antennæ piceous. Thorax transversely convex, emarginate at apex, at the sides strongly rounded and narrowed in front of middle, not angulated in the middle, slightly narrowed towards the base, which is straight and not produced in the middle; hind angles obtuse, rounded; surface piceous with greenish reflexion, apex and sides pale ochreous, sparsely punctured without impressions. Elytra fusco-testaceous, punctate-striate, alternate intervals more elevated, con-

vex, smooth, pale ochreous yellow. Beneath piceous, with sparse long pubescence, legs testaceous, femora infuscate; front tibiæ not dentate, the apical tooth being a mere prolongation of the outer apical angle in the axis of the tibiæ, upper edge therefore almost straight, only very slightly sinuate at the base of the apical process, outer side neither carinate nor sulcate, smooth with exception of a row of punctures along the upper edge; first four tarsal joints short, claws strongly incurved at base Length 4-4.5 mm.; .16-.18 inch.

Three specimens are before me which I found on oak shrubs on the sand hills east of Lake Altapopka in May. Easily distinguished from our two other species by its smaller size, more regularly oval, convex form, by the glabrous upper surface, by the sculpture of head, thorax and elytra and by the formation of the front tibiæ.

18. Taphrocerus puncticollis, n. sp.-Elongate, above blackish-blue, or black with faint æneous tinge, shining. Head less strongly excavate, very finely alutaceous, distinctly, moderately sparsely punctate, punctures deeper than in T. gracilis. Thorax transverse, narrowed in front when viewed from above, sides sinuate before the hind angles, which are rectangular, base strongly lobed in the middle, lobe broadly emarginate; surface uneven with a distinct carina in front of the hind angles, very finely alutaceous, coarsely unequally punctured, each puncture bearing a very short scale-like hair. Scutellum transverse, shining. Elytra impressed at base, impressions on the disc not obvious, serrate at the outer apical angle; anteriorly moderately strongly striate-punctate, punctures obsolete towards the apex, each with a very fine, short hair, interstices on the disc unequal; the striæ therefore appear subgeminate; humeral carina broadly interrupted at middle. Beneath bluish-black or black, metasternum coarsely punctured; abdomen with sparse shallow punctures, last segment with a deep, semicircular marginal sulcus. Length 5 mm.; .20 inch.

Enterprise and Cedar Keys; two specimens. More elongate than *T. gracilis* and distinguished by the deeper punctuation of head, thorax and metasternum and by the elytra less even, without patches of pubescence; from *T. agriloides* it differs chiefly by the form of the thorax, which in the latter species is not narrowed in front when viewed from above.

19. **Brachys fascifera**, n. sp.—Similar to *B. ovata*, but shorter, broader in front and more attenuate behind, and easily distinguished by the broad white fascia on the elytra and by the formation of the prosternum. Head and thorax as in *B. ovata*, the former less strongly excavated. Elytra striate-punctate, punctures finer and obsolete towards the apex, anteriorly with irregular lines and patches of fulvous and whitish pubescence.

behind the middle with a broad fascia of dense whitish pubescence, with only a few fulvous hairs intermixed; behind this with two other undulated fasciæ composed of fulvous hairs bordered anteriorly with white; humeral and marginal carina as in $B.\ ovata$. Fissure of prosternum not reaching the hind margin, but leaving a comparatively broad margin intact, apex of metasternum in the middle suddenly and deeply emarginate. Last ventral segment with the usual marginal sulcus, not emarginate in the male; broadly rounded in the $\mathcal Q$, less broadly in the $\mathcal O$; anus very finely pectinate. Length 4.5–5 mm.; .18–.20 inch.

Widely distributed in Florida and not rare; lives on Quercus virens. In *B. ovata* and *tesselata* the undivided portion of the prosternum is very narrow and the metasternum is broadly triangularly emarginate in front.

- 20. Pachyscelus cæruleus, n. sp.—Short ovate, black, head and thorax bluish-black or black with æneous tinge, scutellum and elytra bright blue, shining. Head deeply channeled, alutaceous, obsoletely punctulate, thorax without lateral depression and with sparse shallow punctures almost obliterated on the disc, more obvious at the sides, finely alutaceous at the sides. Elytra with a deep impression at the sides before the middle, and with another obsolete one near the suture behind the middle, plainly punctured, with traces of regular rows on the disc. Length 2–3 mm.; .08–.12 inch.
- O' Last ventral segment with an oblong impression at apex, apical margin produced in the middle into two prominent processes each of which terminates in four small teeth.
- $\ensuremath{\,\widehat{\vee}\,}$ Last ventral segment not impressed, apical margin produced in the middle in an acute point.

Very abundant everywhere in Florida. In form and size this species resembles P. lævigatus; the elytra are however less triangular and more rounded at the sides; it differs also by its color and by the thorax not being impressed at the sides. Very probably there will also be a difference in the sexual characters of the males but I have not seen the \mathcal{S} of P. lævigatus. In P. purpureus the last ventral segment of the \mathcal{S} has a similar impression but the two processes are more separated from each other and each terminates in three teeth.

21. **Temnopsophus impressus** n. sp.—Black, shining; head piceous or piceous-red, finely alutaceous and sparsely punctulate with a fine median line on the vertex, antennæ two-thirds as long the body, piceous-red at base. Thorax almost longer than wide in front, strongly convex,

transversely depressed before the base, strongly rounded at apex and produced in the middle, at the sides rounded anteriorly, towards the base narrowed and subsinuate; base distinctly emarginate and finely margined; surface piceous or piceous-red, smooth in the middle, finely alutaceous and obsoletely punctulate towards the sides. Scutellum semicircular, opaque. Elytra elongate-oval, widened behind, basal third strongly depressed and transversely impressed, apical two-thirds ventricose, convex, sides sinuate in front of middle; color black with a large yellow marginal spot behind the humerus, base frequently piceous-red; depressed part coarsely, densely, ventricose part sparsely punctured, each puncture bearing a short whitish hair. Legs piceous-black or piceous-red, hind tibiæ slender, slightly curved. Length 2–2.5 mm.; .08–.10 inch.

♀ Sides of head rounded anteriorly, first joint of antennæ not dilated, a little longer than the two following together, elytra strongly convex and ventricose behind.

Eight specimens are before me, found on the meadows north of Lake Ashby, Volusia county, in June.

The yellow humeral spot extends sometimes so as to nearly reach the suture.

Easily known from T. bimaculatus by the form of the elytra.

22. Eupactus viticola, n. sp.—Piceous or piceous-red, glabrous, shining. Head distinctly punctulate, frontal lines before the eyes, and transverse suture evident; clypeus opaque, rugosely punctulate; eyes not prominent, moderately coarsely granulated. Antennæ piceous-red; first joint large, shining, punctulate, strongly curved, narrowed towards the extremity; second joint as wide as the first, as long as wide, not curved inwards; joint 3 as large as joint 2, triangular; joints 4, 6 and 8 very small, strongly transverse; joints 5 and 7 a little larger, strongly transverse, and produced inwards; last three joints strongly compressed, the 9th twice as long as wide, as long as 2-8 together, and as long as 10 and 11 together, outer margin straight, inner margin convex, inner front angle somewhat produced, inner basal angle rounded; joint 10 longer than wide, truncate at tip, outer margin straight, inner margin strongly sinuate at the basal half; joint 11 closely applied to the 10th, as long as wide, rounded at tip; maxillary palpi with the last joint large, triangular. Thorax anteriorly a little wider than long in the middle, very convex transversely, apical margin slightly produced at middle, and feebly sinuate each side, sides straight, strongly convergent in front, base lobed at middle, feebly sinuate each side; front angles strongly deflexed, acute, but not prominent, hind angles obtuse, rounded; finely, sparsely punctulate, more densely towards the anterior angles, and with an impressed marginal line at the sides. Scutellum acuminate at apex, sides rounded with a few fine punctures. Elytra with an indefinite longitudinal impression at the sides behind the middle, suture very feebly elevated behind the scutellum, very finely and sparsely punctulate, punctures on the disc hardly visible, and with a single, sometimes obsolete, row of fine punctures not far from the suture on the basal half. Metasternum shining, very finely; remotely punctulate, coxal plates hardly widened externally, evidently punctate. First ventral segment finely and sparsely punctulate, excavated parts opaque, rugose, second segment longer than the first, very finely and remotely punctulate; third and fourth segments of equal length, each shorter than the second, and similarly punctulate, punctures denser and stronger at the sides; last segment as long as the second, moderately sparsely punctulate. Length 2–3 mm.; .08–.12 inch.

Enterprise, many specimens beaten in June, from dead vines of a species of Vitis.

23. Metachroma maculipenne n. sp.—Oblong, convex, shining. Head testaceous with the ocular sulci strongly marked, meeting in the middle, and with a distinct median line; clypeus coarsely punctured, broadly emarginate anteriorly, front less coarsely and less densely punctured; labrum trilobed, middle lobe triangular, lateral lobes broad, trun-Thorax transverse, convex, at apex a little produced, at the sides strongly rounded and margined; anterior angles auriculate, posterior angles dentiform, prominent; brownish-red with three indefinite spots often confluent in an M-like mark; coarsely, not densely punctured, on the disc finely, at the sides more distinctly alutaceous. Scutellum piceous, smooth, or with a few punctures. Elytra parallel at the sides, broadly rounded at apex, strongly, regularly striate-punctate, punctures fine at apex; interstices very finely, remotely punctulate, eighth insterstice broad, including two striæ; fusco-testaceous, suture infuscate, each elytron with three black spots: one at the margin behind the humerus, the second on the fifth interstice before the middle, the third between the sixth and eighth stria a little behind the middle. Epipleuræ of thorax black, smooth; metasternum piceous, shining, sparsely rugose; abdomen reddish-testaceous, sub-opaque. alutaceous and obsoletely punctate; legs pale. Length 3.5-4.25 mm.; .14 -.17 inch.

Enterprise, many specimens found in June, mostly on Quercus virens. This species resembles very much certain varieties of *Paria sexnotata*.

24. Chrysomela Cephalanthi, n.sp.—Oval convex; head opaque: brown, almost smooth, maxillary palpi with the last joint a little longer than in *C.similis*, but not dilated. Thorax short, emarginate at apex, straight at the sides, uniformly brown, opaque, with a few scattered punctures on the disc, side margin not thickened, coarsely punctured. Elytra yellow, shining, with three regular brown vittee not joining each other: one on

the suture not abbreviated, but very little narrower at apex than in front and including two regular striæ of moderately coarse punctures; the second and third abbreviated at base and apex, the former limited each side by a regular striæ of punctures and including two short irregular striæ behind the middle with a few punctures in front; the outer vitta is margined interiorly with a striæ of punctures and includes two long almost regular striæ; the outer marginal striæ is broadly interrupted at middle; the yellow parts are impunctate with the exception of a humeral line of very fine punctures. Underside, including the epipleuræ, brown with scattered moderately fine punctures; legs very coarsely punctured, claw joint not dentate, claws stout, distant. Length 6–7.25 mm.; .24–.29 inch.

Ft. Capron and Lake Harney, two specimens; also found at Tampa; lives on the Button Bush. Belongs to Calligrapha Er. and is to be placed near C. similis, from which it differs by its more elongate form, by the straight side margin and less punctured disc of the thorax, by the regular vittæ and sculpture of the elytra and by the coarsely punctured legs.

25. **Systena pallipes**, n. sp.—Elongate-elliptical, convex, shining, black; head and thorax often reddish-brown, base of antennæ and legs pale testaceous. Head carinate in front, impressed median line fine, smooth anteriorly; sculpture of posterior part variable, either finely, remotely punctulate or more coarsely punctate with indistinct transverse rugæ. Antennæ pale, the last four or five joints black, second joint slender, twice as long as wide. Thorax as in *S. frontalis*, but much more convex transversely, sculpture variable, either shining, finely, sparsely punctate, or less shining, alutaceous, with the punctures coarser and less sparse. Scutellum smooth, shining. Elytra elongate, very little broader at base than the thorax, humeri rounded, shining, evidently not densely punctate, with traces of an impressed sutural line. Length 3-4 mm.; .12-.16 inch.

Many specimens from different parts of Florida, abundant on the swampy meadows in May and June. More elongate, narrower and more convex than *S. frontalis*, with the elytra narrower at base, and easily distinguished by its pale legs.

26. **Epitrix brevis**, n. sp.—Short-ovate, black, shining, antennæ, mouth and legs red, posterior femora infuscate. Head impunctate; thorax shining, more finely punctulate than in *E. cucumeris*, basal impression very feeble. Elytra with the striæ on the disc hardly impressed, punctures finer than in *E. cucumeris*, interstices on the disc flat, at the sides narrower and convex. Length 1–1.25 mm.; .04–.05 inch.

Ft. Capron and Enterprise, seven specimens; occurs also in Ohio. Allied to *E. cucumeris*, and of the same color and

with the thorax also shining, but smaller, much shorter, and with the basal impression of the thorax much less evident.

27. Chatocnema crenulata, n. sp.—Broadly-oval, very convex, but little narrowed in front, elytra strongly and suddenly declivous behind, broadly rounded at apex; head and thorax sub-opaque, dark brassy, elytra shining, dark æneous; beneath black, antennæ and tibiæ testaceous, femora black. Head very little prominent, almost vertical, flat in front, very wide between the eyes, ocular sulci connected by a strongly curved line; not pubescent in front, finely alutaceous, impunctate; eyes large, moderately convex, touching the thorax; antennæ slender, last joint infuscate at tip, labrum shining, impunctate, denticulate in front. Thorax twice as wide as long in the middle, at apex produced in the middle and slightly sinuate behind the eyes, at the sides almost straight, strongly margined, base broadly rounded, finely margined; front angles rectangular, hind angles obtuse, rounded at tip; surface alutaceous, strongly, sparsely and unequally punctured. Scutellum shining, impunctate. Elytra regularly, coarsely punctate-striate, striæ hardly impressed on the disc, scutellar stria not reaching the middle, interstices sub-convex on the disc, convex at the sides, finely and obsoletely punctulate. Pleuræ of thorax and prosternum smooth, shining; the latter not margined between the coxæ; mesoternum not visible, metasternum short, smooth, shining, strongly narrowed each side and emarginated by the middle and hind coxe, anteriorly margined by a row of coarse punctures, posteriorly each side with an impressed, feebly punctured line, lateral marginal line impunctate, medial line very fine, side pieces opaque, impunctate. First and second ventral segment shining, sparsely punctate, the remaining segments less shining, alutaceous, punctulate. Posterior femora strongly incrassate.

Crotch, Proc. Acad. Nat. Sc. Phila., 1873, 74.

Sumter County, four specimens. Distinct by the form of the body, and by the characters of the underside mentioned above.

28. Chaetocnema quadricollis, n. sp.—Ovate, less convex, shining, above æneous, head and thorax often brassy; antennæ and legs bright testaceous-red, hind femora more or less infuscate. Head prominent oblique, deeply transversely impressed in front, not very wide between the eyes, ocular sulci connected by a transverse impression, which is foveiform in the middle; very finely alutaceous with a few scattered punctures; eyes smaller, convex, labrum with a transverse row of punctures in front; antennæ slender, last joint infuscate at tip. Thorax large, less convex, twice as wide as long, a little wider in front than at base, on the sides slightly rounded and distinctly margined, base rounded, finely margined; front angles moderately deflexed, thickened, hind angles distinct, obtuse; surface more or less distinctly alutaceous, sparsely punctulate. Scutellum small, shining, impunctate. Elytra at base evidently wider than the thorax, not acuminate at apex, regularly, moderately coarsely punctate-

striate, scutellar stria not reaching the middle, interstices smooth, subconvex. Beneath, black; epipleuræ of thorax shining, impunctate, prosternum coarsely punctate, sometimes with a smooth space in the middle, margined between the front coxæ, mesosternum visible, declivous, metasternum moderately long, smooth, shining, hind margin almost straight and not emarginated by the hind coxæ, marginal line feebly punctulate in front, simple behind and at the sides, side pieces opaque, abdomen often alutaceous, first and second segment shining, sparsely punctate, the remaining segments less shining, punctulate. Hind femora moderately incrassate, more or less infuscate, sometimes entirely testaceous. Length 1.50–1.75 mm.; .06—.075 inch.

Enterprise and New Smyrna, many specimens, in May and June. This species has exactly the aspect of a small *Crepidodera* and is distinguished by its less convex form, by the quadrate thorax, which is much narrower at the base than the elytra, and by the form of the metasternum. The sculpture of head and thorax is subject to variations as in the other species; but the form and sculpture of the sterna appear to offer more reliable characters.

29. **Microrhopala floridana**, n. sp.—Elongate, parallel at the sides, moderately shining, uniformly blackish-blue. Head sculptured as in *M. cyanea*, second joint of antennæ as long as wide, third joint a little longer. Thorax at base but little wider than long, narrowed in front, transversely convex, at the sides almost straight, base lobed in the middle and strongly sinuate each side, anterior angles acute, prominent, posterior angles obtuse; very coarsely punctured and in some specimens with a fine, impressed median line. Elytra with eight regular rows of very coarse punctures, alternate interstices evidently carinate. Prosternum with coarse punctures, metasternum punctate at the sides, abdomen sub-opaque, indistinctly punctulate. Length 3.75–4.5 mm.; .15–.18 inch.

Differs from *M. cyanea* by its narrower and more elongate form, less transverse thorax, and by the costate elytra. One specimen is almost pure black above.

Sumter county, many specimens, also found in Tampa and Enterprise.

30. **Strongylium anthrax**, n. sp.—Sub-opaque, deep black, and only the last joint of antennæ yellowish. Head formed as in *S. tenuicolle*, anteriorly sparsely and finely, posteriorly more strongly and densely punctulate; antennæ slender. Thorax at base a little wider than long, at the sides slightly rounded anteriorly, parallel posteriorly, base feebly sinuate each side, front angles rounded, hind angles rectangular, not densely punctulate, and not grooved, basal margin less thickened than in *S. tenuicolle*. Elytra

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with eight rows of coarse punctures, the inner two strice sub-impressed, interstices hardly convex, impunctate. Length 13.50 mm.; .54 inch.

One specimen from Enterprise; another from the same locality is in the cabinet of Dr. LeConte; lives on dead oak twigs. Of the size of *S. tenuicolle*, but less convex and easily distinguished by the sculpture of the elytra.

31. **Hymenorus dorsalis** Zimm., MS.—Elongate-oval, sub-impressed, above sub-opaque, with sparse, long, sub-erect pubescence, beneath shining, piceous-red, antennæ and legs red, elytra black, broadly red at base. Head strongly and sparsely punctate, angulated each side in front of eyes, which are larger and more approximate than in any other species before me, antennæ stout, two-thirds as long as the body, outer joints more than twice as long as wide, last joint of maxillary palpi with the apical side decidedly longer than the external. Thorax at base almost twice as wide as long, semicircular, finely margined, base feebly lobed in the middle, hind angles rectangular, moderately strongly not densely punctured. Elytra punctate striate, striæ hardly impressed with the punctures finer than those of the thorax and not closely placed, interstices flat, finely and sparsely punctulate; the red color occupies not quite one-third of the length of the elytra.

Tampa and Enterprise, two specimens, beaten from old palmetto leaves. Distinguished from the other sub-opaque species by the larger eyes, by the not dense punctuation of the thorax, by the sculpture of the elytra and by its color.

32. Isomira valida, n. sp.—Elongate-oval, convex, piccous, less shining, with moderately dense sericeous pubescence; antennæ, palpi, tibiæ and tarsi dark red. Head densely punctured, eyes very large, coarsely granulated, much less widely separated from each other than in I. 4-striata, antennæ slender, more than half the length of the body, second joint not quite half as long as the third, the latter as long as each of the following joints, last joint of maxillary palpi less broadly triangular than in I. 4striata, apical side shorter than the external, inner side straight. Thorax twice as wide as long, on the sides strongly rounded, and strongly narrowed from base to apex, base slightly sinuate each side, finely margined, hind angles rectangular; densely punctate, in front of the scutellum with a short smooth, impressed median line, basal impressions feeble. Elytra at base twice as wide as the thorax, and three and a half times as long, densely, less finely punctulate, punctures forming transverse rugosities, obsoletely striate-punctate, the two inner striæ impressed behind. Epipleuræ of thorax, pro- and mesosternum densely rugosely punctulate, metasternum strongly punctured, posteriorly smooth, shining; abdomen densely, finely punctulate. Length 6.75-7.50 mm.; .27-.30 inch

Enterprise, four specimens, found in May, under old leaves.

Larger and broader than *I. quadristriata*, with the eyes much larger, the thorax wider, more arcuate on the sides, elytra denser and stronger punctate with the striæ on the disc more evident, underside less shining, more densely punctate. The elytra are in fact regularly striate-punctate, but the striæ are not impressed and the fine lines of punctures are confused by the equally strong punctuation of the interstices.

33. Xylophilus quercicola, n. sp.-More elongate than any other species before me, having the appearance of a small Anthicus. Head, with the eyes, a little wider than the thorax, convex behind, piceous, finely, not densely pubescent, minutely and sparsely punctulate, eyes widely separated, not oblique, antennæ red, longer than head and thorax, with moderately long, soft pubescence, intermediate joints longer than wide, outer joints as long as wide, penultimate joints subtransverse, terminal joint black, larger than the preceding, ovate, acuminate. Thorax as long as wide, at the sides rounded anteriorly, a little narrowed behind, base straight, hind angles obtuse, disc moderately convex with an obsolete impression each side in the middle, without basal impression; sub-opaque, finely pubescent, minutely, sparsely punctulate; color variable, testaceous at base, more or less black in front, or entirely testaceous. Elytra at base almost twice as wide as the thorax, elongate, parallel on the sides; on the disc anteriorly depressed, sub-opaque, alutaceous, moderately strongly, not densely punctate, smooth at apex; whitish pubescent, testaceous, an indefinite circum scutellar spot, a large spot each side behind the middle, the apex and sometimes the side margins black, the black color of the apex ascends along the suture. The pubescence is sparse on the black and dense on the testaceous parts. Beneath rufous, pubescent, sub-opaque, punctate, abdomen often blackish, impunctate; legs testaceous. Length 1.75 mm.; .07 inch.

Tampa, seven specimens, on oak shrubs, in April. I do not perceive any sexual characters.

34. **Xylophilus ptinoides,** n. sp.—Piceous, sub-opaque, sparsely pubescent. Head, with the eyes, wider than the thorax, immersed in the thorax almost as far as the eyes, neck and hind margin of head, therefore, not visible; front but little convex transversely; finely and densely punctulate, eyes large, oblique; antennæ slender, two-thirds as long as the body, with long, stiff pubescence, pale yellow, third and fourth joint more than twice as long as wide, the outer joints still longer; last joint as long, and a little wider than the preceding, obtusely rounded at tip, infuscate. Thorax as long as wide, quadrate, very convex transversely, not rounded on the sides, front margin straight, base rounded, opaque, densely and finely punctured; sparsely whitish pubescent, the margins and lateral vitta each side more densely pubescent, upper surface uneven with some shallow

indefinite impressions, with no distinct basal impression; color piceous, base and apex reddish. Elytra oblong, at base twice as wide as the thorax, parallel at the sides, somewhat shining, coarser and less densely punctured than the thorax; near the base with a reddish, angulated, whitish, pubescent fascia, near the apex with several other whitish pubescent spots, which form two interrupted fasciæ. Beneath piceous; sterna opaque, finely pubescent, densely punctulate; abdomen glabrous, shining, at base coarsely, at tip finely punctulate. Front legs and all the tibiæ pale, intermediate femora infuscate at base, hind femora piceous. Length 1.5 mm.; .06 inch.

Enterprise and New Smyrna, two specimens, in which I do not see sexual characters. This species has the appearance of a small *Ptinus*, and is distinguished at once from all species, except the *X. ventricosus* Lec., by the form of the head. The latter species has the head still more immersed in the thorax, the eyes touching the front margin of the thorax, but is otherwise quite distinct from *X. ptinoides*.

35. Glipa hieroglyphica, n. sp.—Elongate, cuneiform, black, head anteriorly densely covered with yellowish cinereous pubescence, posteriorly more sparsely pubescent, hind margin fringed with cinereous pubescence; antennæ from the fourth joint broadly serrate; maxillary palpi testaceous, upper edge black, last joint very broadly securiform, flat, apical edge not hollowed out. Thorax transverse, at apex produced in the middle, basal lobe rounded; densely punctulate, cinereo-pubescent, with the usual black spots. Scutellum rounded triangular, densely whitish pubescent. Elytra opaque, densely punctured, grayish pubescent; each with a narrowed angulated line, which begins at the scutellum and ends at the side margin a little before the middle, resembling rudely the figure 5 on the left, and on the right elytron the same figure reversed, and with a narrow oblique fascia at the apical third, cinero-pubescent. Beneath densely cinereo-pubescent; anterior femora pale testaceous, black at tip, anal style long, carinate above, at the tip emarginate, and densely cinereopubescent, fifth ventral segment longitudinally excavated. Length 10.5-11.25 mm.; .42-.45 inch.

Enterprise, four specimens in May. In one specimen the penultimate joint of the maxillary palpi is fringed internally with dense whitish pubescence; this is probably the \mathcal{I} . I have not been able to compare this species with G. hilaris, which, according to the description given by Dr. LeConte (Proc. Ac. Nat. Sc., Phil., 1862, p. 46), has the last joint of the maxillary palpi hollowed out, and which has different markings on the elytra.*

^{*}In four specimens of G, hilaris examined the 5th ventral segment is not longitudinally impressed, Lec.

Additional Descriptions of New Species.

By John L. LeConte, M. D.

1. **Dyschirius falciger**, n. sp.—Rather slender, black, very shining, with a slight brown-metallic tinge; palpi, antennæ and legs ferruginous. Head smooth, convex, with the frontal and tranverse impressions deep; front truncate, with small, acute lateral angles. Eyes convex, prominent, as usual. Prothorax about as wide as long, rounded on the sides, narrowed in front, lateral impressed line not continued to the base. Elytra with striæ coarsely punctured at base, gradually becoming finer, obliterated at about three-fourths of the length; tip with faint traces of striæ, and a rather large, oblique impression, representing the end of the 7th stria. Front tibiæ with a small, acute tooth above the apical prolongation, which is straight and slender; apical spur very long and strongly curved. Length 3 mm.; .12 inch.

Tampa and Lake Harney; received also from Dr. Emil Brendel. This species is not as slender as D. terminatus, but is proportioned like D. analis, from which the characters given above easily distinguish it. D. curvispinus Putz., is described as having the apical spur of the front tibiæ curved, but it is otherwise quite distinct by the ferruginous color, and by the striæ of the elytra not obliterated towards the tip. The præscutellar puncture in this species is large, and the dorsal punctures usually seen on the 3d interspace are not apparent.

2. Onota trivittata, n. sp.—Elongate, depressed; bright rufo-testaceous, shining. Head narrowed and rounded behind the eyes, flat, without impressions; edges larger and more prominent than usual. Prothorax not as wide as the head with the eyes, longer than wide, narrowed behind, sides rounded in front, then sinuate to the basal angles which are not rounded, and slightly divergent; side margin reflexed, not very narrow, dorsal line fine, basal impressions small. Elytra wider than the prothorax, oblong, truncate at base, somewhat obliquely, broadly truncate at tip, flat, side margin reflexed, striæ composed of very fine punctures; ornamented with a common sutural black stripe, and a sub-marginal one, which extends along the apical truncature to meet the sutural one; the latter extends to the 2d stria, and behind the middle is slightly dilated for one-fourth the length to reach the 4th stria. Beneath uniform rufo-testaceous. Length 5 mm.; .20 inch.

Florida, collected by Mr. A. Bolter, of Chicago, to whom

I am indebted for two specimens. This beautiful species is easily recognized by the peculiar coloration. I have referred it to *Onota* Chaud.. because the 4th joint of the tarsi is broad, and deeply bilobed, and the claws are pectinate. The teeth of the claws are only four in number, and are much larger than in the other species. The tarsi are glabrous on the upper surface. The last joint of the maxillary palpi is cylindrical, slightly oval, and more than twice as long as the penultimate joint; the last joint of the labial palpi is oval, pointed and somewhat flattened. Mentum not toothed. It is by this last character that it mainly differs from *Callida*, with which it agrees in having two bristles near the tip of the ligula.

3. **Platynus floridanus,** n. sp.—Dark green, shining, slightly bronzed, antennæ, legs and under surface piceous-black. Prothorax scarcely longer than wide, sides broadly rounded, and finely margined; apex emarginate, front angles slightly rounded; base broadly sub-truncate, oblique towards the side angles, which are obtuse and almost rounded; basal impressions rather long, not punctured; dorsal line extending to the posterior transverse impression, which is faint. Elytra one-third wider than the prothorax, emarginate at base, obsoletely sinuate at tip; striæ fine, but well impressed, not punctured; interspaces flat, 3d with usually 6 small dorsal punctures, the 1st and 2d adjacent to the 3d stria, 3d and 5th upon the interspace, 4th and 6th adjacent to the 2d stria. Hind tarsi with the 1st, 2d, and 3d joints broadly grooved on the outer side. Length 9.6 mm.; .35 inch.

Capron and Lake Harney, abundant. This species is closely related to *P. californicus*, and differs only by the hind angles of the prothorax being much less distinctly defined; in fact, almost rounded. The size is usually larger, so that the smallest individuals of *P. floridanus* are equal to the largest of *californicus*, but this is a character of small importance. Closely allied to these two is the following:

4. **Platynus texanus**, n. sp.—Less shining, with a green-metallic reflection. Antennæ black; under part of 1st joint, palpi and legs testaceous; knees, tarsi and tips of tibiæ blackish-piceous. Prothorax, as in *P. floridanus*, except that it is a little wider than long. Elytra similarly striate and punctured, but with the striæ a little deeper; epipleuræ testaceous, under surface black. Groove of the outer side of the hind tarsi on the joints 1–3 deep Length 9–10 mm.; 35–40 inch.

Abundant in Texas. For a good set I am indebted to Mr. G. W. Belfrage, of Clifton, Bosque county.

Several new species of Loxandrus were collected in Florida by Messrs. Schwarz and Hubbard, and full sets of previously known, but rare species were obtained. Under these circumstances, though I cannot, without reference to types contained in Baron Chaudoir's cabinet, prepare an exhaustive synopsis of the genus, the following table of the differences between the species I have examined may be found useful:

Table of Species of Loxandrus.

A. Side margin of prothorax explanate and reflexed towards the hind angles, which are entirely rounded into the base and sides; antennæ and palpi rufo-piceous, legs dark: (species large and middle sized).

B. Side margin of prothorax not explanate towards the hind angles, which are not rectangular: (species large and small).

C. Side margin of prothorax not explanate towards the hind angles, which are rectangular: (species small).

Α.

A.
Large species (length 13.3-10 mm.; .5240 inch)2.
Smaller species, with hind angles of prothorax less broadly rounded
(length 10–7.8 mm.; .40–.31 inch)
2. Side margin of prothorax broader and more distinctly reflexed towards
the base; elytra with more finely punctulate striæ, iridescent reflec-
tions less brilliant
Side margin of prothorax less definitely limited towards the base;
elytra with less finely punctured striæ; iridescent reflections very
bright
3. Prothorax regularly narrowed from base to tip, sides feebly explanate
towards the base
Prothorax but slightly narrowed in front; sides more distinctly ex-
planate towards the base4. floridanus, n. sp.
В.
Larger species (length 13-9.3 mm.; .5037 inch)2.
Small species (length 7.7-5.8 mm.; .32225 inch)4.
2. Legs dark3.
Legs ferruginous, prothorax wider than long, hind angles obtuse, blunt
or rounded at tip
3. Prothorax wider than long, hind angles slightly obtuse, not at all rounded
Prothorax very slightly wider than long, hind angles rounded at the
extreme tip
Proth not wider than long, hind angles not rounded8. erraticus.

- 4. Legs dark, hind angles of prothorax not rounded; elytra with a round Legs dark, hind angles of prothorax rounded at tip; varies with the legs brown-ferruginous, seems to pass insensibly to L. velox. .10. agilis. Legs yellow, hind angles of prothorax rounded at tip......11. velox. a. Prothorax rounded on the sides; not conspiculously wider than long;
- velox.
- β. Prothorax rounded on the sides, conspicuously wider than long; pusillus.
- y. Prothorax nearly square, less rounded on the sides; taniatus, piciventris.

C.

Legs dark, elytral striæ feebly punctured.,.....12. rectangulus, n. sp. Legs yellow, elytral striæ coarsely punctured.............13. crenatus.

5. Loxandrus reflexus, n. sp.—Black, very shining, with iridescent reflection. Prothorax wider than long, feebly emarginate at apex, equally feebly rounded at base, sides and hind angles rounded; side margin reflexed, narrow in front, becoming much wider behind, so as to extend at the base to the basal impressions, which are linear and deep; dorsal line very fine, transverse impressions obsolete. Elytra not wider than the prothorax, striæ finely punctured in front, deeper and not punctured behind, antennæ, palpi and tarsi piceous-brown. Length 10-13 mm.; .40-.50 inch.

Tampa, not rare. This fine species has much resemblance to L. saphyrinus, which occurs in Louisiana; but on comparison, the iridescent reflection is less vivid, the prothorax is less rounded on the sides, the broad part of the reflexed side margin towards the base is much better defined, and finally the elytral strize are much more finely punctured from the base to the middle.

6. Loxandrus calathinus, n. sp.—Elongate-oval, black, very shining, slightly iridescent; tarsi and antennæ piceous, the latter with joints 1-3d, and palpi dark ferruginous. Prothorax wider than long, much narrower in front than behind, broadly rounded on the sides, which are broadly but not strongly explanate towards the base; hind angles distinctly rounded at tip, basal impressions linear, as usual deep. Elytra with the striæ finely but distinctly punctured. Length 8.8-10 mm.; .35-.40 inch.

Tampa, Florida; not common.

7. Loxandrus floridanus, n. sp.—Black, very shining, iridescent; antennæ and legs piceous or blackish, base of the former, palpi and tarsi ferruginous. Prothorax wider than long, scarcely narrower in front than at base, sides rounded, broadly but slightly explanate towards the base; hind angles obtuse and more rounded at the tip than in L. calathinus, basal impressions linear, not very deep. Elytra with the striæ feebly and finely punctulate. Length 7.4–8.5 mm.; .29–.33 inch.

Capron and Enterprise; abundant. Varies in color according to maturity, so that the tibiæ and sides of the thighs also become yellow-brown. In some specimens the sides of the prothorax are less distinctly explanate, and such, except by their larger size, are difficult to distinguish from L. agilis.

8. **Loxandrus rectangulus**, n. sp.—Black, very shining; slightly iridescent; antennæ and legs piceous, or blackish. Prothorax wider than long, slightly narrower at tip than at base, sides rounded, not sinuate behind, hind angles rectangular, not at all rounded; side margin more broadly reflexed towards the base, sides not explanate; base with a few scattered punctures, impressions linear, deep. Elytra distinctly wider than the prothorax, striæ not punctured. Length 6.5 mm.; .25 inch.

Enterprise, May; rare. This species and *crenatus*, by havthe elytra wider than the prothorax resemble in form certain Platyni and Bembidia. There are but two specimens before me; in the ? the elytral striæ are much deeper than in the 3.

9. **Selenophorus excisus**, n. sp.—Oblong, æneous, sub-depressed; legs and antennæ piceous, first joint of antennæ ferruginous. Prothorax nearly twice as wide as long, rounded on the sides, which are finely margined, a little narrower at base than at tip; hind angles rounded, basal impressions shallow, not punctured. Elytra deeply sinuate at tip; humeri rounded, striæ fine, interspaces flat; punctures of the three series rather large and conspicuous. Hind tarsi long and slender, Length 5.5 mm.; .22 inch.

Southern Florida, Dr. Palmer, 3 specimens. Of the same size, form and characters as S. fatuus, from which it differs by the punctures of the three elytral series being much larger, and by the hind angles of the prothorax more obtuse and more rounded. The outer interspaces of the elytra are not all punctulate.

10. **Hydroporus seminulum**, n. sp.—Broadly ovate, obliquely attenuate behind, rounded in front, not very convex; rufo-testaceous, shining. Prothorax scarcely perceptibly punctulate, with a fine short basal stria each side, which does not extend upon the elytra; the latter very finely, though distinctly punctulate. Beneath sparsely but strongly punctured. Length 1.3 mm.; .05 inch.

Enterprise, one specimen. Of the same size as *H. granum*, but very different by the body being strongly narrowed PROC. AMER. PHILOS. SOC. XVII. 101. 2U. PRINTED APRIL 19, 1878.

behind the middle, and pointed at the posterior end. Differs also from all previously known small species of the United States, by the thorax having a very short basal stria not continued on the elytra.

11. **Dineutes angustus**, n. sp.—Narrower, smaller and more convex than D. discolor, elongate-oval, slightly narrowed in front, bluish-black, with slight metallic gloss. Prothorax very little wider than the head, sides straight, slightly oblique, transversely very convex. Elytra sparsely, finely punctured, striæ obliterated; sides feebly and narrowly explanate, scarcely undulated near the apex, which is (φ) obtusely prolonged. Under surface and legs rufo-testaceous. Length 9.5 mm.; .375 inch; breadth 4.5 mm.; .175 inch.

Three females, collected by Dr. Palmer. The marginal line of the front margin of the prothorax is less interrupted in these specimens than in *D. discolor*, but I do not think this a character of any value.

Table of Species of Ochthebius.

The number of species of *Ochthebius* in our fauna has increased to such an extent, that the recognition of the three new species collected by Mr. Schwarz would be facilitated by the description of those from other parts of the country. The following table contains those which I have been able to examine:

Prothorax much wider than long, strongly rounded on the sides, disc strongly punctured and deeply channeled
Prothorax much wider than long, disc lobed at the sides, discoidal impressions foveate, dorsal channel deep
Prothorax sub-quadrate, less rounded on the sides
Prothorax with deep discoidal impressions each side of dorsal channel;
pellucid margin suddenly dilated inwards at the base
Prothorax with discoidal impressions faint or wanting; pellucid margin
slightly wider towards the base4.
Discoidal impressions united, forming a groove each side of the dorsal
channel, sides of disc of prothorax curved1. puncticollis.
Discoidal impressions separate, sides of disc of prothorax curved
2. discretus, n. sp.
Discoidal impressions separate, sides of disc of prothorax straight
3. rectus, n. sp.
Lateral impressions large and broad, discoidal ones wanting
4. cribricollis.
Lateral impressions smaller, discoidal small, faint5. attritus, n. sp.
Lateral impressions small, discoidal wanting 6. simplex, n. sp.

5.	Prothorax shining, elytral striæ usually composed of distant punctures. 6.
	Prothorax less shining, elytral striæ of small, less distant punctures7.
6.	Elytra with striæ of small, close-set punctures, not effaced behind
	7. tuberculatus, n. sp.
	Elytra with striæ of large, distant punctures, effaced behind 8. nitidus.
	Elytra more convex and more oval, striæ effaced. 9. lævipennis, n. sp.
7.	Disc of prothorax lobed behind the front angles10. foveicollis, n. sp.
	Disc of prothorax not lobed behind the front angles
	11. benefossus, n. sp.
8.	Prothorax with dorsal channel fine, interrupted, or obsolete9.
	Prothorax with dorsal channel deep, entire10.
9.	Discoidal impressions of prothorax forming sinuate lines; dorsal line in-
	terrupted12. sculptus, n. sp.
	Discoidal impressions vague, connected transversely; dorsal line obso-
	lete13. Holmbergi.
	Discoidal impressions forming fine, sinuate lines; dorsal line fine, ab-
	breviated at each end14. lineatus.
40	TO: 1771 . 7

10. Discoidal impressions deep, not confluent, prothorax more transverse, and feebly punctured (reverts towards No. 4).......15. interruptus.

12. Ochthebius discretus, n. sp.—Dull brownish-bronze, elongate-oval, moderately convex; head with strongly impressed frontal suture; front sparsely, hind part coarsely punctured, with two large foveæ, and a small posterior impression. Prothorax twice as wide as long, much rounded on the sides, pellucid margin very narrow, dilated inwards at base; disc greenish-bronze, strongly punctured, deeply channeled, with two deep, oblong impressions each side, and another half way to the lateral margin. Elytra but slightly wider than the prothorax, striæ deep, closely punctured, fainter and nearly obliterated at tip. Legs and under surface dull testaceous. Length 2 mm.; .075 inch.

California, San Mateo, Gilroy and San Diego; Mr. G. R. Crotch; Dr. Horn has received a smaller specimen from Canada. Resembles O. puncticollis, but is smaller and less robust, and the outer dorsal lines are interrupted so as to form two deep impressions.

13. **Ochthebius rectus,** n. sp.—Oval, convex, dark bronzed, not very shining. Prothorax twice as wide as long, pellucid margin rather broad, rounded on the sides, suddenly dilated inwards near the base; disc with the outline straight from the front angles to the posterior deep emargination; convex, deeply and coarsely punctured; dorsal line deep, discoidal impressions deep, nearly united, lateral impressions large, deep. Elytra with strike of large and deep quadrate punctures. Legs dark-testaceous. Length 14 mm.; .06 inch.

Fort Tejon, Cal.; Mr. Crotch, one specimen. Related to

- O. discretus, but very different by the sides of the disc of the prothorax being quite straight for nearly two-thirds the length.
- 14. **Ochthebius attritus,** n. sp.—Elongate oval, bronzed. Head sparsely but strongly punctured, with two occipital foveæ, and deep frontal suture. Prothorax wider than long, narrowed behind, pellucid margin very narrow, visible only behind the middle; disc strongly punctured, not lobed at the sides, dorsal channel deep, discoidal impressions small, separate, lateral impression broad, shallow. Elytra less shining, striæ composed of nearly square, close-set punctures, not obliterated at the tip. Beneath blackish, legs testaceous. Length 1.5 mm.; .06 inch.

Haulover, March, one specimen. Related to O. cribricollis, but much narrower and smaller, and with distinct, though not deep, discoidal impressions.

15. Ochthebius simplex, n. sp.—Oval, more convex, bronzed, less shining. Head sparsely, strongly punctured, with two occipital foveæ, and deep frontal suture. Prothorax wider than long, slightly narrowed behind, pellucid margin very narrow, visible behind the middle; disc strongly punctured, not lobed at the sides, dorsal channel deep, discoidal impressions scarcely visible; lateral impressions nearly obsolete; a small, shallow fovea is seen near the hind angle. Elytra with rows of close-set, not very fine punctures, not obliterated behind. Legs testaceous. Length 1.2 mm.; .048 inch.

Haulover, March, one specimen. Very much smaller and more convex than *O. cribricollis*, with the lateral impressions small and indistinct.

16. Ochthebius tuberculatus, n. sp.—Longer and less convex than A. nitidus, piceous-bronze, shining. Head with two large foveæ, and deep, transverse suture. Prothorax wider than long, sides moderately rounded, pellucid margin represented only by a small lateral spot, and one at the hind angles; disc not punctured, dorsal channel very deep, discoidal impressions very deep; each side a small, round fovea in front of the middle, a longer slightly oblique one behind the middle, and another one near the side, which is strongly lobed; the prolongations of the disc to the anterior angles are very convex, forming a large tubercle. Elytra with striæ composed of small, close-set punctures. Beneath piceo-testaceous. Length 1.5 mm.; .06 inch.

Moqui villages, New Mexico, Dr. Horn.

Ochthebius nitidus Lec., Agassiz, Lake Superior, 217; O. fossatus Lec. Proc. Acad. Nat. Sc. Phila. 1855, 362.

Lake Superior; Fort Yuma, Cal. The synonym belongs

to a specimen which differs only by the punctures of the elytral striæ being less distant. Allied to this, but apparently distinct is:

17. Ochthebius lævipennis, n. sp.—Dark piceous-bronze, very convex, shining, of the same form as O. nitidus. Head with two large deep foveæ, and a deep transverse suture. Prothorax with deep dorsal line, two small foveæ each side in front of the middle, a deep impression near the apical margin, towards the anterior angle; sides deeply lobed as in O. nitidus, pellucid margin broad, with an undulated outline. Elytra with deep, humeral fossæ; striæ obsolete, traced only by a few fine, distant punctures near the base. Under surface piceous, legs testaceous. Length 1.3 mm.; .05 inch.

Tejon, California; one specimen, Dr. Horn. It is possible that this is an extreme variety of *O. nitidus*, but until the intermediate forms are collected, it should properly be known under a different name.

18. Ochthebius foveicollis, n. sp.—Closely resembles O. nitidus, but the elytra are longer, more obliquely narrowed behind, and the striæ are composed of rather large, close-set punctures, not less distinct towards the tip. From O. tuberculatus, it differs by broader prothorax, with larger lateral pellucid spot, and broader anterior lobes of the disc. Length 1.2 mm.; .048 inch.

Enterprise and Lake Harney, Florida, May; not rare.

19. Ochthebius benefossus, n. sp.—Oval, moderately convex, bronzed, shining. Head sparsely punctured, with two very large foveæ connected behind; transverse suture deep. Prothorax wider than long (pellucid margin?) disc with the sides straight from the anterior angles to the middle, then strongly narrowed to the base (making a concave outline which must be filled with membrane in well preserved specimens); sparsely punctured, dorsal channel very deep, discoidal impressions deep, the posterior ones connected in a horse-shoe form. Elytra with striæ composed of punctures distant from each other about their own diameters, basal fossæ small. Beneath piceous, legs testaceous. Length 1.5 mm.; .06 inch.

New Jersey, Dr. Horn. Nearly of the same form as Onitidus, but different by the disc of the prothorax not being lobed at the side behind the front angles, as well as by the style of sculpture, which is more simple, and tends towards O. Holmbergi and allies.

20. Ochthebius sculptus, n. sp.—Elongate-oval, greenish-piceous, slightly bronzed, shining. Head sparsely punctured with deep frontal su-

ture, and three occipital foveæ of equal size. Prothorax broader than long, distinctly narrowed behind; pellucid margin rounded, dilated inwards towards the base; disc feebly lobed at the sides; feebly punctulate at the middle, more distinctly towards the sides; with two vague transverse impressions, one before, the other behind the middle; dorsal line interrupted, sometimes obsolete, discoidal lines sinuate, well marked; lateral impression large. Elytra with rows of fine, close-set punctures, not effaced towards the tip. Legs dark testaceous. Length 1.5 mm.; .06 inch.

Gilroy, California, Mr. Crotch; Arizona, Dr. Horn. A nearly similar specimen from Canada is also in his collection; it is rather stouter in form, and the prothorax is more narrowed behind, but I am unwilling without a larger series of specimens to consider it distinct.

RHINOSCEPSIS n. g. (PSELAPHIDÆ.)

Head sub-pentagonal, a little longer than wide, sides parallel behind the eyes, base truncate, hind angles rectangular, rounded at tip. Antennæ inserted under a narrow frontal protuberance (which projects over the mouth, somewhat like the prothoracic horn of *Notoxus*), 1st and 2d joints thick, the former nearly twice as long; 3d–8th small, rounded; 9th rounded, a little larger; 10th slightly wider; 11th ovate, acute at tip, longer than the three preceding united. Maxillary palpi as long as the head, slender, last joint ovate acute, similar in form to the last joint of the antennæ. Prothorax pentagonal, not convex, with a deep sub-interrupted dorsal channel, and a transverse impression behind the middle. Elytra not convex, with a deep sutural stria, a fine dorsal one near the sutural, a sub-apical fovea near the sides, and a marginal stria nearly as deep as the sutural. Dorsal surface of abdomen broadly margined, segments 1–3d equal in length. Tarsi with a single claw.

- 3. Penultimate ventral segment strongly and broadly emarginate, last segment longitudinally impressed; front tibiæ much thicker at the middle-gradually attenuated at base and tip.
- $\ensuremath{\wp}.$ Last ventral segment large, semi-circularly impressed in front, with a few long hairs intermixed.
- 21. **R. bistriatus**, n. sp.—Brown, sub-depressed, not shining, finely pubescent. Head with two occipital foveæ and an elongate, but not deep frontal impression; eyes very small, rounded; prothorax scarcely wider than long, dorsal channel deepest at the intersection with the transverse impression. Elytra with sutural, and marginal striæ very deep, a fine dorsal stria near the sutural, and sub-apical fovea near the marginal stria; surface finely punctulate; wider than the prothorax, gradually broader from the base almost to the apical truncature. Abdomen a little longer than the elytra, finely punctulate. Length 1 mm.; .041 inch.

Enterprise and Tampa. This genus exhibits an odd mixture of characters. It resembles in form and sculpture the new species of *Rhexius* described below, and has also the appearance of *Trichonyx*, but it differs from those genera by the insertion of the antennæ, which are approximate, and situate under the frontal protuberance, which is longer than in any other genus yet known as belonging to our fauna. It resembles, so far as I can judge by the figure and description, the Grecian genus *Panaphantus* Kiesenw. Berl. Ent. Zeitschr. ii, 49, pl. 3, f. iv.

22. Rhexius substriatus, n. sp.—Larger, darker and less convex than R. insculptus. Head with two foveæ and a frontal impression; occiput very finely carinate; eyes small. Prothorax finely channeled, with three large impressions near the base. Elytra with basal margin elevated, | ost-basal foveæ deep, each with four faint striæ, of which the sub-sutural one is longer and more distinct, the others extending only to about the middle. Antennæ with the 9th and 10th joint less suddenly larger than in R. insculptus. Length 1.5 mm; .06 inch.

Tampa, April, one specimen, under old leaves.

23. **Trimium convexulum**, n. sp.—Pale rufo-testaceous, shining, slightly pubescent. Head with a large deep angulated impression, front concave, occiput convex, smooth. Prothorax longer than wide, convex, subcordate, rounded on the sides in front, then narrower and broadly sinuate; disc smooth, with a transverse impression near the base; this impression is slightly angulated at the middle, and extends on the sides, but does not terminate in a lateral fovea, as is the case in *T. parvulum*. Elytra convex, deeply bifoveate at base, sutural stria faint, dorsal one short. Length 7 mm.; .028 inch.

Tampa, May, one specimen. I have one quite similar from Illinois. Mr. Ulke has received specimens from Tennessee.

34. **Trimium californicum**, n. sp.—Allied to *T. globiferum*, but larger and stouter, bright red brown. Head with an angulated impression ending behind in two large foveæ; occiput convex, smooth. Prothorax rather wider than long not very convex, narrower behind; foveæ large, connected by a deep transverse line. Elytra nearly twice as wide as the prothorax, sparsely punctulate; basal foveæ small, sutural stria deep, dorsal fine, extending for two-thirds the length of the elytra. Antennæ with the last joint ovate, acute at tip, not so large as in *T. globiferum*. Length 1.3 mm.; 05 inch.

California, a specimen kindly given me by Dr. Horn.

The largest of our species and easily recognized. *T. clavicorne* Mäklin, may possibly be this, but the description is not sufficiently definite to permit its identification.

25. **Trimium puncticolle**, n. sp.—Elongate, red-brown; head with an angulated line, ending behind; in small foveæ; occiput broadly convex, not impressed. Prothorax convex, longer than wide, rounded on the sides in front, narrower behind; foveæ large, connecting line deep, disc finely and distinctly punctured. Elytra oblong-ovate, wider behind; basal foveæ large, sutural stria deep, dorsal stria short. Length .9 mm. .035 inch.

Arizona; many specimens were found in an ant's nest by Dr. Horn.

26. **Trimium simplex**, n. sp.—Very small, pale, rufo-testaceous, less shining, finely pubescent. Head with a deep, angulated impression, ending each side behind in a large fovea. Prothorax convex, longer than wide, with a large basal fovea on the declivity of the side, connecting transverse line obsolete. Elytra not very convex, bifoveate at base, sutural stria distinct, dorsal stria very short. Length .5 mm.; .02 inch.

Tampa, one specimen. This is the smallest Pselaphide known to me, being smaller even than *T. americanum*.

Four other species of *Trimium* in my collection, though not belonging to this zoölogical district may here be conveniently described.

27. **Trimium discolor**, n. sp.—Elongate, chestnut-brown, slightly pubescent, abdomen darker. Head with two small foveæ, and an arcuated frontal impression; vertex slightly punctulate, convex, faintly channeled or foveate behind. Prothorax longer than wide, convex, with a deep, angulated impression near the base, which terminates in a small, lateral fovea upon the deflexed part of the sides. Elytra bifoveate at base, outer fovea deeper than in the other species, sutural stria fine, dorsal one short. Antennæ and legs ferruginous. Palpi short, a little longer than the 1st and 2d joints of the antennæ: the 9th and 10th joints of the latter are transverse. Length .9 mm.; .035 inch.

One specimen, Louisiana. I have adopted the name proposed by Dr. Zimmermann.

28. **Trimium foveicolle**, n. sp.—Elongate, bright rufo-testaceous, very slightly pubescent. Head convex, smooth, with a fovea each side above the eyes, and a transverse angulated frontal impressed line. Prothorax longer than wide, convex, with three sub-basal foveæ, connected by a transverse impressed line; the lateral foveæ are larger, and situated on the declivity of the sides. Elytra bifoveate at base, sutural stria deep, dorsal one short. Antennæ with 9th and 10th joints transverse. Length .9 mm.; .035 inch.

Cambridge, Massachusetts; Mus. of Comp. Zoology; one specimen, collected in December, by Mr. H. G. Hubbard. The palpi are rather short, with the last joint ovate-pointed as in the preceding, but it differs from that, as from all the others in our fauna, by the foveæ of the head being much nearer the eyes. The eyes are more lateral and prominent, and have not a shallow groove and elevated margin above them. This margin, though not strongly marked, is seen in the other species, and separates the upper surface of the cranium from the sides.

Table of species of Trimium.

	Eyes far down on the sides of the head, with a shallow groove, and slightly elevated margin above them; foveæ on upper surface distant from the eyes
	Eyes lateral, more prominent, foveæ not distant from them; thoracic
	foveæ deep, connected as usual by a transverse line
^	1. foveicolle, n. sp.
2.	Protherax less convex, wider than long
	Prothorax more convex, longer than wide4.
3,	Head with deep arcuated impressions ending behind in large foveæ,
	front suddenly declivous; elytra deeply foveate at base, dorsal stria
	short
	Head with the anterior part of impression effaced or less deep, front ob-
	liquely declivous; elytra with small basal foveæ, dorsal stria fine, half
	the length of the elytra
	Head with an angulated impression ending behind in large foveæ;
	elytra with small basal foveæ, dorsal stria fine, two-thirds the length
	of the elytra4. californicum, n. sp.
4.	Lateral foveæ of prothorax large, connecting transverse line deep5.
	Lateral foveæ small
5.	Prothorax finely and distinctly punctured; head with a large angulated
	impression, occiput convex, smooth; elytra deeply foveate at base,
	sutural stria deep, dorsal stria very short5. puncticolle, n. sp.
	Prothorax not punctulate, head scarcely punctulate, with an arcuate
	impression, and two small foveæ; occiput convex, slightly channeled;
	color dark chestnut6. discolor, n. sp.
6.	Elytra oblong-ovate, as usual, moderately widened from the base7.
	Elytra strongly ovate, narrow at the base, gradually much wider
	behind10.
17.	Transverse line of prothorax very deep
• •	Transverse line of prothorax faint9.
8	Head scarcely punctulate, foveæ large, frontal impression a fine trans-
٠.	PROC. AMER. PHILOS. SOC. XVII. 101. 2V. PRINTED APRIL 20, 1878.
	PROU. AMER. PHILOS. SOC. XVII. 101. 2V. PRINTED APRIL 20, 1878.

verse line; occiput less convex, slightly impressed at the middle; prothorax less elongate, more rounded on the sides.......7. parvulum. Head smooth, with an angulated impression ending behind in foveæ; occiput convex, finely carinate.......8. convexulum, n. sp.

9. Head smooth, with a deep angulated impression, ending behind in foveæ; occiput convex not impressed. Size very small......

9. simplex, n. sp.

10. Head very distinctly punctulate, foveæ and impression broad not deep; occiput not channeled; (color pale rufo-testaceous).....10. dubium. Head smooth, with a deep angulated impression ending behind in foveæ; occiput with a shallow fovea; transverse line of prothorax very deep; elytra very convex, sutural stria faint......11. americanum.

Note.—In *T. foreicolle, globiferum, inpunctatum* and *californicum* there are two fine short impressed lines at the base of the dorsal surface of the abdomen, as in many species of *Bryaxis*.

29. **Euplectus debilis,** n. sp.—Elongate, somewhat depressed, brown; antennæ, palpi and legs paler. Head with a deep, acutely angulate impression ending behind in two foveæ; occiput elevated, not impressed. Prothorax with large lateral basal foveæ, an angulated posterior impression, and a deep, interrupted dorsal channel; the basal part extending to the transverse impression, the discoidal part attaining neither the impression nor the apical margin. Elytra with deep sutural stria, and short dorsal one; basal foveæ not large. Length .6 mm.; .026 inch.

Tampa, May, one specimen. Not larger than *E. pumilus*, but quite distinct by the more elongate and depressed form, and by the dorsal channel of the prothorax less deep, and more completely interrupted.

30. **Euplectus tenuis,** n. sp.—Elongate, less depressed, brown; elytra darker, antennæ, palpi, and legs paler. Head with a deep, arcuated impression ending behind in foveæ; occiput convex, very feebly impressed. Prothorax with large, lateral foveæ, and an angulated posterior impression, dorsal channel very fine, not extending to the apical margin, sub-interrupted near the transverse impression. Elytra with deep sutural stria; dorsal stria fine, extending to the middle. Length .7 mm.; .028 inch.

Capron, May, one specimen. Nearly related to *E. debilis*, but more pubescent, with the front more convex, the impression curved rather than angulated, and the dorsal line of the prothorax finer. The following species, though not belonging to the same district, is closely allied:

36. **Euplectus integer**, n. sp.—Elongate, dark brown, slightly pubescent, antennæ, palpi, and legs paler. Head with two large foveæ, not connected by an impression; front convex, but not prominent. Prothorax

with deep lateral foveæ; posterior angulated impression deep, dorsal line wanting. Elytra with deep sutural stria, dorsal stria wanting, represented only by the small basal fovea. Length .7 mm.; .028 inch.

Detroit, Michigan, one specimen; Messrs. Hubbard and Schwarz. This species resembles in specific characters certain *Trimium* (e. g. parvulum, convexulum), but is easily recognized by the less convex body, the more broadly margined abdomen, and smaller antennal club.

32. Euplectus cavicollis, n. sp.—Elongate, red-brown, finely pubescent. Head with a deep curved impression, ending behind in foveæ; front prominent, occiput moderately convex, not very shining. Prothorax more dilated on the sides than usual, with three very large posterior foveæ, not connected by a transverse line; dorsal line very fine, abbreviated in front. Elytra with sutural stria deep, basal foveæ small, dorsal striæ wanting. Length 1.2 mm.; .05 inch.

Tampa, May; one specimen. Very distinct from the other species in my collection by the large, separate foveæ of the prothorax.

33. **Acylophorus densus,** n. sp.—Black, shining; head and prothorax glabrous, of the same form and sculpture as in the other species. Elytra densely, not very finely punctured, sub-opaque, clothed with fine, dark pubescence. Abdomen slightly iridescent, pubescent, punctures becoming more sparse behind; ventral segments strongly iridescent. Legs (including front coxæ) reddish-brown. Antennæ piceous, black at base, joints 3-7 longer than wide, though not entirely equal either in length or breadth; 3d joint a little shorter than the 2d. Length 5.5 mm.; .21 inch.

Enterprise, May; one specimen. Larger than what I consider as A. pronus, equal to A. pratensis, but easily known by the punctures of the elytra more dense than in either.

34. Acylophorus flavipes, n. sp.—Shining black above, piceous beneath; head and prothorax as usual. Elytra coarsely and not densely punctured, sparsely pubescent. Abdomen hairy, strongly, not densely punctured. Legs (including front coxæ) testaceous. Antennæ not longer than the head and prothorax, piceous black, base of 1st joint nearly testaceous; joints 3–10 equal in length, gradually increasing in thickness, and closely approximated, outer ones transverse; 2d joint fully as long as the 3d and 4th united. Length 4.5 mm.; .18 inch.

Capron, May; one specimen. Smaller and more slender than A. pronus, with which it agrees in sculpture, but differs in the antennæ and color of the legs.

The species of this genus resemble each other very closely,

and except A. flavicollis, which has the prothorax yellow, are to be separated only by slight differences in the proportion of the joints of the antennæ, and the punctuation of the elytra.

Table of Species of Acylophorus.

- 2. Prothorax yellow, elytra densely, strongly punctured....1. flavicollis. Prothorax black, elytra less densely, but strongly punctured.2. pronus.

A. gilensis Lec. does not seem sufficiently distinct from A. pronus Er.

Mr. Fauvel (Faun. Gallo-Rhen. iii, 542) states that A. pratensis Lec. is the same with A. glabricollis of Europe. I have not compared specimens, but think that the finer punctuation of pratensis entitles it to distinct recognition, and that Mr. Fauvel's remark will apply better to some of the black-legged varieties of what we consider A. pronus.

35. Quedius ferox, n. sp.—Elongate, linear, black, very shining, antennæ and legs blackish or piceous. Head oval, strongly narrowed behind, and constricted at the neck, which is not slender; sides before and behind the eyes sparsely punctured; a series of five setigerous punctures each side above the eyes; nearer the middle, opposite the 5th one is a Eyes not prominent, occupying the middle third of the length of the head. Prothorax longer than wide, not narrowed in front, sides straight, parallel nearly to the apex, where they are moderately rounded, slightly sinuate near the base; apex emarginate, base rounded; there are 3 punctures each side on the apical margin, one near the margin, and one on the disc, about one-third the length; there is also a large, lateral puncture near the margin, in front of the middle; three small marginal ones behind the middle, and a few on the basal margin. Elytra smooth, with obsolete sutural stria, and 3 small sub-sutural punctures; there is also a dorsal series of 4 very small punctures. Dorsal segments slightly iridescent, rather densely punctured and pubescent, with long, lateral and apical setæ. Beneath blackish-piceous, strongly punctured, slightly iridescent. Length 8.5 mm.; .34 inch.

Enterprise, May; also found in Louisiana, Canada and

Massachusetts. The last ventral segment in the ♂ is broadly and feebly emarginated, and the front tarsi dilated.

Another species of the same group of the genus, which has not been thus far represented in our fauna is:

36. Quedius vernix, n. sp.-Less elongate, narrower in front and behind; black, very shining, antennæ, palpi, and legs also black. Head oval, moderately constricted at base, neck rather thick, punctulate each side; space behind the eyes, and extending beneath to the lateral line finely punctured; sub-ocular punctures two, supra-oculars also two; each side near the anterior one is one small puncture, and behind the posterior one, on the occipital declivity is another large one. Prothorax scarcely as long as the basal width, narrowed in front, sides rounded, apex emarginate, base strongly rounded; apical punctures three on each side; discoidal but one; lateral one, large, situated near the margin, and one-fourth the length from the front angle; there are but two small basal punctures, in the margin itself, the outer one at the much rounded hind angle. Scutellum large, smooth. Elytra smooth, sutural stria deep, with a puncture in front of the middle; dorsal series of 4 or 5 large punctures. Dorsal segments very sparsely punctured and pubescent, sides and apex with long setæ; ventral segments equally, sparsely punctured. Length 12 mm.; .48 inch.

Massachusetts, Michigan, Canada, rare. The front tarsi are dilated in both sexes; the last ventral segment is longer, and scarcely perceptibly emarginate in the σ .

37. [5]. Cryptobium floridanum, n. sp.—Shining, hairy, with erect pubescence, black, becoming brown towards the tip of the abdomen, antennæ brown, legs paler. Head as long as the prothorax, and wider than it, oblong, somewhat narrower in front of the eyes, which are convex and moderately prominent; base and hind angles rounded, surface strongly punctured, front nearly smooth. Prothorax one-half longer than wide, smooth dorsal stripe broad, sides strongly punctured, the punctures forming in places short irregular series. Elytra longer than the prothorax, strongly rather densely punctured. Abdomen, dorsal surface finely and sparsely punctured; ventral surface similarly punctured. Length 10.4 mm.; .41 inch.

Enterprise, May; one specimen. This species is similar in form and sculpture to C. badium, but the color is different, and the 3d apparent ventral segment (\mathcal{P}) has a transverse fold similar to that of the 2d. In C. carolinum the second ventral segment has (\mathcal{P}) a transverse fold, with a row of stiff

bristles, but the 3d segment is foveate as in the σ of the species of that group.

The species of this genus have become so numerous in our fauna, that the following table will be found useful for their recognition:

Table of Species of CRYPTOBIUM.

	Table of Species of CRYPTOBIUM.
2	Sides of head parallel, hind angles strongly rounded
A	of 3d ventral segment foveate near the base and with a long and broad apical process, extending over the next segment, and furnished with long stiff black setæ; 2d segment with a short transverse fold at the middle; ♀ with 2d, or 2d and 3d ventral segments each with a transverse fold or fovea
2.	Uniform chestnut brown, feet testaceous yellow
3.	 ♀ 2d ventral segment with a transverse fold at the middle1. badium. ♀ 2d ventral segment not impressed; head less convex and more parallel than in C. badium. ♀ 2d ventral segment not impressed; head with sides more gradually rounded behind; last two abdominal segments paler.3. texanum, n.sp.
4.	Q with 2d ventral segment foveate; head and abdomen black, last two segments pale
5.	
6.	Black, shining, antennæ dark brown, legs testaceous
7.	Antennæ brown; punctures of prothorax finer
8.	Prothorax strongly punctured; antennæ yellow9. flavicorne, n. sp. Sides of head parallel behind the eyes9. Head wider behind the eyes

- B. \circlearrowleft 6th ventral segment triangularly emarginate; \circlearrowleft 2d and 3d ventral segments not impressed. Prothorax with dorsal series of punctures; sides very sparsely punctured. Elytra very coarsely punctured. Last joint of maxillary palpi conical, half as long as the 3d in *serpentinum*, smaller in *cribratum*.
- C. Head short behind the eyes and semicircularly rounded; eyes large, prominent, looking forwards, in consequence of the front being suddenly contracted into a broad muzzle; antennæ more distant from the eyes than usual; maxillary palpi long and slender, last joint conical, one-third the length of the preceding; hind trochanters very acute at tip. \bigcirc with the 4th ventral segment prolonged behind into an acute triangular process extending to the hind margin of the 5th segment; slightly foveate at the middle; 2d and 3d segments tumid, with an acute edge near the hind margin; 7th ventral acutely emarginate except in lugubre; \bigcirc 3d ventral with a round flat tubercle.
 - Brown, sparsely setose, head sub-opaque, sparsely and finely punctured; prothorax sparsely and finely punctured, with a broad, smooth, dorsal stripe; elytra finely and densely punctured and pubescent; legs rufotestaceous.

 15. prospiciens, n. sp.
- D. Head prolonged behind the eyes, as usual; maxillary palpi with 3d joint more thickened at the tip, 4th small, acicular, conical, less than one-third as long as the 3d joint; δ with 3d ventral segment lobed behind. Black species, antennæ and legs pale rufous.

- Head opaque, finely and densely punctured, front sparsely punctured; φ 3d and 4th ventral segments deeply transversely impressed, setigerous at the middle; elytra densely punctured..........16. despectum.

^{*}This species seems allied to *C. Traili* Sharp, Staphyl. Amazon Valley, Trans. Lond. Ent. Soc. 1876, 224; these two species show an approach to the genus *Ophites*. †Cryptobium *angustum* and *cylindricum Sharp*, op. cit. supra, 220, seem allied by the form of the head to this remarkable species.

E. Head prolonged behind the eyes as usual; maxillary palpi with 3d joint tumid, 4th very small, acicular not conical, less than one-fourth the length of the 3d joint; \circlearrowleft with 3d ventral segment lobed behind.

- 38. [3.] **Cryptobium texanum**, n. sp.—Castaneous, sparsely pubescent, form and sculpture exactly as in *C. badium*, except that the segments 1-4 of the abdomen are black, and the 5th and 6th rufous, just as in *C. bicolor*. Length 8-11.2 mm.; .32-.44 inch.
- \vec{O} . 3d ventral segment with a long, obtusely rounded process, setose at the sides and tip, and a deep round fovea near the anterior margin; 2d segment with two small approximate setigerous foveæ at the middle.
 - 2. 2d and 3d ventral segments not impressed.

Bosque Co., Texas, Mr. G. W. Belfrage. Differs from *C. badium* only by the color of the abdomen, and by the impression of the 2d ventral segment, which in that species is a transverse fold in both sexes.

- 39. [8.] Cryptobium californicum. n. sp.—Shining, black, pubescence fine. Head elongate, parallel behind the eyes, hind angles and base rounded, strongly punctured; front smooth, with 4 or 6 distant punctures; eyes rather convex, as long as the space from their front margin to the insertion of the antennæ. Prothorax narrower than the head, smooth dorsal stripe wide, sides sparsely punctured, punctures rather irregularly placed. Elytra strongly and densely punctured, not longer than the prothorax, abdomen finely and rather densely punctured. Antennæ brown, legs piceo-testaceous. Length 8 mm.; 32 inch.
- 3. 6th ventral segment narrowly emarginate for one-half its length; base of emargination rounded.

California and Vancouver Island. Differs from *C. pallipes* by the much stronger punctuation, and much narrower and less triangular emargination of the 6th ventral segment of the male.

40. [9.] **Cryptobium flavicorne**, n. sp.—Black, shining, pubescence fine; head oblong-oval, less strongly punctured than in *C. californicum*, front smooth with a few scattered punctures. Prothorax scarcely narrower than the head, very slightly wider behind, smooth dorsal stripe wide, sides sparsely and strongly punctured, punctures not irregularly placed. Elytra densely less strongly punctured, less shining, not longer than the prothorax. Abdomen finely and densely punctured. Antennæ and legs yellow testaceous. Eyes of the same size as in *C. californicum*, but less convex. Length 8 mm.; .32 inch.

Massachusetts and Lake Superior, two females. Differs from *C. pallipes* by the head being longer and more parallel, and the antennæ yellow instead of brown. The elytra are more finely punctured, while those of the prothorax are quite perceptibly coarser.

41. [12.] Cryptobium tumidum, n. sp.—Slender, blackishbrown, pubescence fine. Head sub-ovate, gradually a little wider behind the eyes, which are rather smaller than in the two preceding species; densely punctured, front less shining, nearly smooth. Prothorax elongate-oblong, slightly but perceptibly narrower behind, smooth dorsal stripe broad, ill defined, sides sparsely and finely punctured. Elytra not longer than the prothorax, densely rather finely punctured. Abdomen finely punctured. Antennæ, palpi and legs dull ferruginous. Length 9.5 mm.; .875 inch.

3 6th ventral segment deeply emarginate for one-half of its length. San Jose, California; found by me in March, 1850.

42. [15.] Cryptobium prospiciens, n. sp.—Brown, less shining; pubescence fine. Head finely not densely punctured, semi-circularly rounded behind the eyes, which are large and prominent; front produced into a broad muzzle with high antennal ridges, so as to make a broad frontal concavity, which is nearly smooth, marked only by a few large punctures. Prothorax elongate, slightly rounded on the sides, narrower than the head; smooth dorsal stripe wide, not distinctly defined; sides very sparsely and finely punctured. Elytra not longer than prothorax, finely punctured. Abdomen not shining, scarcely perceptibly punctulate. Antennæ, palpi and legs paler brown. Length 8 mm.; .32 inch.

Bosque Co., Texas, Mr. G. W. Belfrage; Arizona, Dr. Horn. This species is an excellent example of what is not unfrequently seen in other families; the union of characters which define two or more separate groups of species, with some peculiar character. In this instance the sexual characters of the 33 of the two groups of § A are united, but the form of head is quite different from that seen in either of them.

43. [17.] C. lugubre, n. sp.—Slender cylindrical, shining black; legs, palpi and antennæ yellow, the latter darker at the base. Head as long as the prothorax and very little wider, sparsely strongly punctured, punctures

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smaller and indistinct upon the front. Prothorax with smooth dorsal stripe broad, sides strongly sparsely punctured. Elytra with rather large punctures arranged somewhat in rows. Abdomen sparsely finely punctured, tip and posterior border of segments brown; ventral segments brown. Length 6 mm.; .24 inch.

The last joint of the maxillary palpi is about one-third the length of the 3d joint. The elytra are a little shorter than the prothorax.

Tampa and Enterprise; three φ . On examining seven specimens, I find no difference in the ventral segments, except that in all of them the 2d (apparent) segment has a small transverse impression and fold, bearing spines; while in two of them the 3d segment has also a small round fovea at the middle, a little nearer the front than the hind margin. There is no difference in the size of the head.

- 44. [18.] **Cryptobium obliquum**, n. sp.—Slender, cylindrical, shining, black; antennæ, palpi, and legs yellow. Head as long as the prothorax, distinctly wider, sides oblique behind the eyes, and broadly rounded; eyes rather large, convex; sparsely punctured, front smooth, with only a few scattered punctures, the smooth space prolonged behind to between the eyes. Prothorax with smooth, dorsal stripe wide, not well defined; sides sparsely, strongly punctured, punctures arranged almost in rows. Elytra coarsely punctured, here and there almost in rows. Abdomen sparsely punctured, nearly smooth towards the tip, which is brown. Length 6 mm.; .24 inch.
- otin 3d ventral segment with a long, triangular setose process, rounded at tip; 2d and 3d segments not distinctly impressed.
 - \bigcirc 2d and 3d ventral segments, each with a very small bisetose fovea.

Tampa; April, one pair. Quite different from *C. lugubre* by the form of the head.

45. [19.] **Cryptobium parcum**, n. sp.—Cylindrical. shining, black, antennæ, palpi, and legs yellow. Head as long as the prothorax, distinctly wider, sides oblique behind the eyes and broadly rounded; eyes rather large, convex; punctured as in *C. obliquum*. Prothorax with smooth dorsal stripe, sides sparsely coarsely punctured in rows. Elytra as long as the prothorax, coarsely punctured, here and there in rows. Abdomen sparsely less finely punctured, tip brown. Length 6 mm.; .24 inch.

♀ 2d and 3d ventral segments not impressed

Cedar Keys; June, one \mathcal{P} . Differs from *C. obliquum* chiefly by the less slender form, coarser punctures of the prothorax, and absence of ventral impressions.

46. [21.] Cryptobium lepidum, n. sp.—Slender, less convex, ferruginous, shining, pubescence fine. Head oval, nearly as long as the prothorax, and wider than it, sides much rounded behind the eyes, which are rather large and convex; sparsely, equably punctured, front not less so than the rest of the surface; there are two long, but not deep frontal impressions. Prothorax with smooth dorsal stripe narrower than usual, limited each side by a row of points, which becomes a slightly impressed striatowards the base; sides rather sparsely punctured, almost in rows. Elytra distinctly longer than the prothorax densely, rather finely punctured. Abdomen sparsely punctured. Legs paler. Length 3.8 mm.; .15 inch.

Bosque County, Texas, Mr. G. W. Belfrage, two \circ . The ventral segments are not impressed. A very small and pretty species, less convex than the others in our fauna.

47. **Pæderus obliteratus,** n. sp.—Elongate, slender, reddish-yellow, shining; head and last two abdominal segments black; above yellow; elytra blue-black; antennæ brownish at the middle. Head sparsely punctured, slightly wider than the prothorax; the latter elongate-oval, feebly sparsely punctured, elytra not longer than the prothorax, sparsely but not coarsely punctured at the base, nearly smooth behind the middle. Dorsal segments very sparsely and finely punctured. Length 5 mm.; .20 inch.

♂ Sixth ventral cleft nearly to the base; cleft wide, rounded at the anterior extremity.

Southern part of Florida, Dr. Palmer; Mr. E. P. Austin gave me a similar specimen as found at Cambridge, Massachusetts. This species is easily distinguished by the finer punctures of the elytra becoming gradually obliterated behind.

Larger series of specimens have indicated to me the necessity of some modifications in the table of species of this genus published by Mr. Austin, (Proc. Bost. Soc. Nat. Hist. xix, 47); and I would propose to substitute for it the following synopsis:

Table of Species of Pæderus.

	Head not flattened in front2.
	Head flattened in frontfemoralis.
2.	Epistoma not margined in front
	Epistoma concave, strongly margined; half of thighs, knees and greater
	part of tibiæ duskygrandis.
	Epistoma not concave, finely marginedriparius.
3.	Antennæ brown, pale only at base4.
	Antennæ with base and outer joints pale5.

4. Prothorax ovatelittoreus	ö.
Prothorax ovalcompotens	
5. Prothorax ovate	
Prothorax oval	
6. Elytra shorter than prothorax, antennæ thickened externallypalustris	5.
Elytra as long as prothorax, antennæ very slightly thicker externally.	
littorarius	
7. Head as usual, rather broadly oval, elytra strongly punctured, longe	
than prothoraxfloridanus	
Head narrower, oval, but slightly wider than the prothorax; puncture	S
of elytra effaced behind*obliteratus, n. sp	
48. Palaminus flavipennis, n. sp.—Red-brown, shining, sparsely	
setose, elytra yellow-testaceous, scarcely longer than the prothorax. An	-

setose, elytra yellow-testaceous, scarcely longer than the prothorax. Antennæ, palpi and legs pale yellow. Sculpture as in the other species. Prothorax strongly punctured, disc sub-carinate towards the base; not wider than long, ovate, much narrowed behind, sides oblique, slightly rounded. Length 3.4 mm.; .13 inch.

Tampa, Enterprise and Capron; not rare. Agrees in color with *P. pallipes*, but differs by the smaller size, and by the elytra being as long as, or very little longer than the prothorax. Abdominal segments alike in both sexes.

The species of *Palaminus* agree in form and sculpture, and the antennæ, palpi and legs in all are pale yellow. The other characters enable those in our fauna to be distinguished as follows:

Table of Species of PALAMINUS.

	Piceous, elytra rufous or testaceous; terminal segments of abdomen
	alike in both sexes, not emarginate, nor incised2.
	Uniform pale testaceous, abdomen sometimes darker 3.
2.	Larger, elytra rufous, twice as long as prothorax
	Smaller, elytra as long as the prothorax2. flavipennis, n. sp.
3.	Elytra much longer than the prothorax4.
	Elytra scarcely longer, sometimes shorter than the prothorax5.
4.	of 7th ventral segment with two narrow incisions, middle lobe broad,
	rounded at tip; φ same segment feebly emarginate. 3. normalis, n. sp.
	77th ventral with middle lobe contorted and unsymmetrically curved,
	broadly truncate at tip; 2 same segment deeply and broadly trian.
	gularly emarginate4. testaceus.

^{*}Note.—I have omitted *P. ustus*, which belongs to a different group of species having the color nearly uniform testaceous. *P. nevadensis* Austin, does not differ from *compotens* Lec. By a confusion of specimens the remarks of Mr. Austin concerning *P. grandis* Austin, are incorrect; the species is easily known by the large size, equal to *P. femoralis*, and the strongly margined, concave epistome.

- 7th ventral with middle lobe longer and narrower, unsymmetrically curved, concave and truncate at tip; \(\sigma\) same segment deeply incised, 5. Elytra evidently larger than the prothorax...... 6. 6. Elytra with more distant and less coarse punctures; prothorax but Elytra with less distant and coarser punctures; prothorax much nar-Elytra with smaller punctures; prothorax less narrowed behind...... 8. pumilus, n. sp.
- 7. Elytra with large deep distant punctures......9. larvalis-
- 49. Palaminus normalis, n. sp.—Yellow-testaceous, shining, sparsely setose. Prothorax transverse, very slightly narrowed behind, rounded on the sides. Elytra twice as long as the prothorax, rather densely but not coarsely punctured. Length 2.8 mm.; .11 inch.
- 7 7th ventral segment with two narrow incisions extending about onethird the length; middle lobe broad, truncate behind.
 - ♀ 7th ventral segment feebly emarginate.

Georgia and South Carolina. Easily distinguished from P. testaceus and contortus by the sexual characters.

- 50. Palaminus testaceus Er. Staphyl. 683. Length 2.8 mm.; .11 inch.
- 7th ventral segment with two deep narrow incisions, middle lobe unsymmetrical, curved, broadly truncate at tip.
 - ♀ 7th ventral with a deep and broad triangular emargination. Illinois; one pair collected by Mr. B. D. Walsh.
- 51. Palaminus contortus, n. sp.—Of the same form and color as P. testaceus, yellow-testaceous, abdomen a little darker. Prothorax slightly
- narrowed behind, rounded on the sides. Elytra twice as long as the prothorax, less closely but more strongly punctured. Length 2.5 mm.; .10 inch. 7th ventral segment with two narrow deep incisions; middle lobe
- narrower, curved, convex, bent and emarginate at tip.
- ♀ 7th ventral deeply emarginate for one-half the length, emargination with parallel sides and rounded base.

Tampa, Sand Point, Enterprise; not rare.

52. Palaminus cribratus, n. sp.—Yellow-testaceous, shining, sparsely pilose; abdomen darker. Head and prothorax sparsely punctured, the latter nearly as long as wide, ovate, much narrowed behind, rounded on the sides. Elytra a little longer than the prothorax, coarsely, but not sparsely punctured. Length 2.8 mm.; .11 inch.

Tampa; one specimen, without sexual characters in the last abdominal segments.

- 53. **Palaminus pumilus**, n. sp.—Much smaller, yellow-testaceous, shining, sparsely pilose. Head and prothorax sparsely punctured, the latter nearly as long as wide, ovate, somewhat narrowed behind, rounded on the sides. Elytra a little longer than the prothorax, strongly not densely punctured. Length 2.1 mm.; .08 inch.
- $\ensuremath{{\nearrow}}$ 7(h ventral segment with the posterior margin obliquely truncate each side and angulate at the middle.
 - ♀ 7th ventral segment broadly rounded at tip.

Enterprise and Tampa; rare. Differs from *P. cribratus* by smaller size, prothorax less narrowed behind and elytra less coarsely punctured.

54. **Palaminus larvalis** Lec., New Sp. Coleopt. (Smiths. 8 vo.) 49. In this species the head and prothorax are sparsely and coarsely punctured; the prothorax is nearly as wide as long, ovate, strongly narrowed behind, and oblique on the sides, as in *P. cribratus*; the elytra are not longer than the prothorax and a little narrower, convex, very coarsely and sparsely punctured. Length 3.1 mm.; .12 inch.

New York, Tennessee; Palatka and Tampa, Florida. No sexual differences are apparent in four specimens examined. This species closely resembles *P. flavipennis*, but can be distinguished from immature specimens of that species by the elytra being a little narrower than the prothorax, and by the smooth dorsal line of the latter not being elevated towards the base.

55. **Brachypeplus glaber**, n. sp.—Elongate, very depressed, redbrown, abdomen piceous. Head and prothorax finely rather densely punctured, the latter more than one-half wider than long, scarcely narrower in front, sides nearly straight, slightly rounded near the anterior margin, which is truncate; sides finely margined, narrowly explanate towards the hind angles, which are rectangular. Scutellum finely punctured, transverse, 5-sided. Elytra about twice as long as the prothorax, striæ punctured, well impressed, interspaces flat, each with a row of punctures. Dorsal segments sparsely punctulate, *fimbriæ* widest behind, narrowest at the middle, with the inner outline concave; fimbria of last segment widest at base, gradually narrowed behind. Length 3.2 mm.; 13 inch.

Enterprise; May. Differs from all the tropical American species described by Murray (Trans. Linn. Soc., London, xxiv, 296), by the absence of pubescence. It therefore belongs to his sub-genus *Leiopeplus*, thus far known only from Western Africa.

SMICRIPS, n. g. (MONOTOMIDÆ).

Body elongate, sub-cylindrical, resembling in miniature a narrow species of Ips. Head as wide as the prothorax, not narrowed behind the eyes, which are small, rounded and convex; narrowed in front of the eyes, epistoma wider than long, with sides parallel, separated from the head by a very deep frontal suture. Labrum transverse, broadly rounded; mandibles strong, obtusely toothed. Palpi short, the labial ones broad. Mentum with parallel sides, longer than wide. Antennæ inserted in the clypeal suture, 11-jointed, joints 1 and 2 thick, 3–8 small, 9–11 forming a loose elongate club.

Prothorax nearly square, front angles rounded, side margin very fine; prosternum very narrow between the coxæ, which are very small, and far back, at the hind margin of the prothorax; coxal cavities small, oval. Middle coxæ separated by the narrow mesosternum. Hind coxæ widely separated. Ventral segments 5; 1st and 5th each as long as the three others united. Elytra parallel, scarcely wider than the prothorax, broadly truncate at tip, exposing a long pygidium. Legs rather short, tibiæ gradually thickened to the tip, where there are a few small spines; tarsi with the joints dilated, very short, last joint more than twice as long as the others united; claws rather large, simple.

56. **S. palmicola**, n. sp.—Elongate, reddish-testaceous, imperceptibly punctulate above and beneath, and finely pubescent; elytra with a transverse piceous cloud near the tip, and frequently another near the base. Length 1 mm.; .04 inch; varies a little larger or smaller.

of 5th ventral segment broadly impressed.

Tampa, Haulover and Enterprise; abundant on *Chamærops* palmetto. I have also a specimen from Georgia; a MS. drawing by my father bears the name *Nitidula minutissima* Dej. Cat.

The quadrangular epistoma and deep frontal suture will enable this small insect to be easily recognized. The maxillæ are unusually large and flat at the base, filling up the buccal cavity each side of the mentum.

57. **Scymnus balteatus.**—Elongate oval, brownish rufous, shining, punctulate and very finely, sparsely pubescent; elytratinged with piceous, ornamented with a broad oblique yellow band in front of the middle. Beneath finely and densely punctured, post-coxal arcs entire, not extending to the sides of the abdomen; antennæ and legs paler rufous. Length 1.5 mm.; .06 inch.

Haulover and Sand Point; rare. This and the next are more elongate than our other species, except S. punctatus Mels., which, however, is more coarsely punctured, and of a

different form, with the sides of the prothorax much less rounded.

58. Scymnus quadritæniatus.—Elongate-oval, dull brown, punctulate and clothed with fine short gray pubescence. Elytra black, each with two large yellow spots, one before, the other behind the middle; apical margin yellow. Prothorax rufous towards the sides, which are rounded and narrowed in front of the middle. Abdomen dark rufous, antennæ and legs paler. Beneath finely and densely punctured, post-coxal arcs extending to the 1st ventral suture, effaced on the outer side. Length 1.2-1.6 mm.; .05-.06 inch.

Varies with the yellow spots enlarged so as to become confluent.

Enterprise and Capron; rare. The variety is from Opelousas, La., and was kindly given me by Mr. Sallé. The anterior spot is oblique on the inner outline, and the posterior one is transverse, and slightly sinuate behind.

59. **Eneis pallida,** n. sp.—Broadly ovate, convex, impunctured, testaceous, shining, glabrous; prothorax finely margined at base; front tibiæ slender. Length 0.8 mm.; .035 inch.

Sand Point, one specimen. Precisely resembles E. pusilla in form and sculpture, but is very much smaller, and of a pale color.

60. **Pentilia misella**, n. sp. — Rounded-oval, convex, shining, black, glabrous. Prothorax finely margined at base, sides not explanate nor punctured. Elytra a little wider than the prothorax, distinctly punctured, suture finely margined. Length 1 mm.; .04 inch.

Tampa and Capron. A widely diffused species, found from Lake Superior to Florida, and from New York to Illinois. Sometimes abundant on the flowers of Thalyctrum. The two following species do not belong to this zöölogical province.

61. **Pentilia marginata**, n. sp.—Rounded-oval, convex, shining, black, glabrous; prothorax finely margined at base, sides sparsely punctured and narrowly explanate. Elytra finely punctured, suture finely margined behind the middle, wider than the prothorax at the base. Length 1.1 mm.; .045 inch.

Marquette, Lake Superior; Messrs. Hubbard and Schwarz. A little larger than *P. misella*, but of the same form.

62. Pentilia ovalis, n. sp.—Elliptical-oval, less convex, shining, dark brown, glabrous; prothorax finely margined at the base; sides impunctured, finely margined. Elytra scarcely wider at base than the pro-

thorax, finely punctured, suture finely margined behind the middle. Length 0.8 mm.; 03 inch.

Haulover and Enterprise; rare. Less broad than the other two species, and with the elytra more finely punctured.

63. Saprinus dentipes Mars. Mon. Histeroid. (Ann. Ent. Soc. Fr. 1855), 728; fig. 160. Convex-oval, bronzed. Head slightly rugose in front, marginal line deep with a badly impressed frontal chevron. Prothorax punctured at the sides and front, smooth at the middle; base with a narrow band of aciculate punctures. Elytra with a large, posterior subquadrate punctured space, extending from the sutural stria to the 3d dorsal, and from the end of the 1st dorsal to the apical margin; 1st and 2d dorsal a little longer than the 3d and 4th; the last named connected with the sutural, which is entire. Front tibiæ with 3 large and 3 small teeth; hind tibiæ with spines arranged in two rows; mesosternum smooth with the marginal line curved in front. Prosternum not compressed, striæ approximate, abbreviate in front, divergent behind. Length 3.2 mm., .125 inch.

Southern Florida; Dr. Palmer, two specimens. This and the next two species belong to my group VIII,* but it differs from those mentioned by Dr. Horn in having the punctured space of elytra limited in front by a transverse outline. The humeral stria, as usual, is long and fine, the external subhumeral wanting, the internal short, disconnected.

. This species has been previously known only from Mexico, and is perhaps only a variety of the next.

64. **Saprinus braziliensis** *Mars.* Mon. Hist. (Ann. Ent. Soc. Fr. 1855), 726, fig. 159; *Hister braz.* Payk. Mon. Hist. 66, pl. 6, fig. 2.

Southern Florida; one specimen, Dr. Palmer. This species only differs from the preceding by the punctures of the elytra being more densely placed, and extending nearly to the base between the 1st and 4th dorsal striæ; a smooth, rounded mirror is thus left.

65. **Saprinus permixtus**, n. sp.—Convex-oval, bronzed. Head slightly rugose in front, marginal line deep, with a badly impressed frontal chevron. Prothorax punctured at the sides and front, smooth at the middle, base with a narrow band of aciculate punctures. Elytra punctured, with the sides and a large basal mirror smooth, punctures extending to the base between the 1st and 2d dorsal striæ; 1st dorsal longer than the others, extending farther behind than the inner marginal, which is connected with the elongate fine humeral; 2d, 3d and 4th striæ nearly equal, one-half the

^{*} Vide Horn, Proc. Am. Phil. Soc. 1873, 342.

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length of the elytra; the last named connected with the sutural, which is entire. Front tibiæ with 3 large and 3 small teeth. Hind tibiæ with two rows of spines. Mesosternum smooth, with the marginal line curved in front. Prosternum with stria approximate, abbreviated in front, divergent behind. Length 3.8 mm.; .15 inch.

Cedar Keys; on the beach, rare. Also allied to the two preceding, and intermediate between them in the puncturing of the elytra. It differs chiefly by the first dorsal stria being prolonged behind, to within a short distance of the tip, as in S. fraternus, &c., though in a less degree.

66. **Epierus brunnipennis** *Mars.* Mon. Hister. (Λnn. Ent. Soc. Fr. 1854), 697, fig. 18.

Specimens found at Enterprise and Haulover, agree perfectly with the description of this Mexican species, except that the elytra are piceous-black. The form is oval-convex, and it is easily distinguished by the 4th and 5th dorsal striæ being abbreviated in front, at about one-fourth from the base.

67. Acritus salinus, n. sp.—Oblong-convex, shining black, indistinctly punctured. Prothorax without basal row of punctures. Elytra somewhat more distinctly punctured towards the suture, and slightly rugose behind; sides smooth. Prosternal strice strongly divergent in front, and twice as distant at the lobe as at base; mesosternum with sub-marginal stria entire. Front tibiæ moderately dilated, inner margin slightly curved. Length .8 mm.; .032 inch.

Cedar Keys, found only on the ocean shore.

68. Atænius sculptilis Harold, Col. Hefte, iii, 86.

A species found at Enterprise, agrees in all respects with the description of this Venezuelan insect. It is closely related to A. cylindrus Horn, but differs by larger size, and by the interspaces of the elytra being strongly costate. Length 4 mm.; .16 inch.

- 69. **Geotrupes chalybæus**, n. sp.—Rounded-oval, convex, very shining, blackish-blue, with metallic gloss. Prothorax with a few scattered punctures; sides much rounded, reflexed margin wider towards the base, which is distinctly margined. Elytra with rows of punctures in place of the striæ; sutural stria impressed, deeper towards the tip, which is armed with a small, acute sutural spine; side margin broadly flattened and reflexed near the base, narrower behind. Length about 21 mm.; .83 inch. Elytra 13.5 mm.; .525 inch.
 - Tront tibiæ with 4 large and several small conical teeth on the inner

margin; apical process large, bent rectangularly, proximal edge obliquely sinuate towards the tip.

Tampa. I have described this species from fragments found by Mr. Schwarz. It is much larger than the other species in our fauna, as the elytra of the largest specimen of semi-opacus in my collection are 12.5 mm.; .475 inch long.

This species seems to have a rather wide distribution in the Atlantic States. Dr. C. Zimmermann once told me that he had found a large blue *Geotrupes*, without impressed striæ, in South Carolina, and if I mistake not I have seen a similar specimen from Maryland, in Mr. Ulke's collection

70. **Diplotaxis languida**, n. sp.—Elongate, sub-cylindrical, pale-brown; head strongly punctured, epistoma depressed, margin strongly reflexed, broadly truncate in front, angles obtuse and rounded. Prothorax about twice as wide as its length, more narrowed in front, less narrowed behind, sides with an obtuse, rounded angle just behind the middle; disc strongly punctured. Elytra with the ordinary rows of punctures, interspaces coarsely and strongly punctured. Front tibiæ with two large teeth; claws cleft. Length 6.2 mm.; .25 inch.

Tampa; abundant.

71. Anomala (Rhombonyx) semilivida, n. sp.—Oval, piceous, shining, more or less whitish testaceous above, elytra usually entirely pale. Head sparsely punctulate, epistoma pale, concave, rounded in front, margin strongly reflexed. Prothorax twice as wide as long, much narrower in front. Sides rounded, very finely margined, base similarly margined; disc sparsely punctulate, with a large transverse dark cloud, sometimes occupying nearly the whole surface. Scutellum large, rounded behind, dark colored. Elytra with the usual punctured equidistant striæ. First interspace wider, with a confused row of punctures from the base to the middle; outer striæ somewhat effaced. Legs usually margined with pale; claws simple. Body beneath, thighs and margin of elytra with long hairs. Length 6.5 mm.; .25 inch.

Tampa and Capron. The inner claw of the front tarsi is toothed near the base and then suddenly bent, with the lower outline slightly sinuate to the tip in four specimens examined; this is probably a sexual mark of the \circlearrowleft , though one of the specimens is much stouter in form than the others.

72. **Taphrocerus lævicollis**, n. sp. —Very small, slender, convex, narrower behind, black-bronzed, shining. Head and prothorax nearly smooth, the former large, longitudinally impressed; the latter with very deep oblique impressions towards the sides, which are nearly straight and

sub-parallel. Elytra uneven, with vague rows of feebly impressed striæ. Length $2.5~\mathrm{mm}$.; $.10~\mathrm{inch}$.

Enterprise; one specimen. Easily recognized by the small size, large head, not narrower than the prothorax, and by the latter not being narrowed in front.

73. **Nematodes punctatus,** n. sp.—Elongate, scarcely narrower behind, brown, pubescent, strongly punctured. Epistoma at base equal in width to the space from it to the eyes. Antennæ nearly half as long as the body, with the 2d and 4th joints equal, 3d a little longer, 5th and 6th still longer, sub-equal; outer joints longer than wide, equal. Prothorax wider than long, scarcely narrowed in front, feebly channeled behind; strongly and densely punctured. Elytral striæ well-impressed, interspaces strongly punctured, feebly convex towards the base. Beneath punctured, last ventral obtusely pointed, and roughly asperate with elevated granules. Length 5.5 mm.; .21 inch.

Enterprise; one specimen. A specimen from Texas (Belfrage) agrees in all respects except that the antennæ are short and less slender, with the 3d joint more evidently longer than the 2d or 4th. I am disposed to think the difference is sexual.

74. Anchastus longulus, n. sp.—Elongate, pubescent, red-brown, elytra and legs paler. Head densely and strongly punctured, front not concave, margin fine, not reflexed. Prothorax nearly one-half longer than wide, strongly and densely, not coarsely punctured, narrowed in front, sides nearly straight, hind angles bicarinate. Elytra with punctured striæ, interspaces nearly flat, finely not densely punctured. Antennæ with 3d joint one-half longer than the 2d; united equal to the 4th. Length 10 mm.; 40 inch.

Enterprise; one specimen. A smaller specimen (7.2 mm.; .29 inch) from Louisiana was given me by Mr. Sallé, which is a little less elongate, but not otherwise different.

75. Anchastus fuscus, n. sp.—Elongate, pubescent, dark fuscous above, red-brown beneath. Head coarsely punctured; punctures umbilicate, front broadly concave. Prothorax coarsely punctured, longer than wide, gradually narrowed in front, sides straight, hind angles unicarinate. Elytra with coarsely punctured striæ, interspaces convex, sparsely and finely punctured. Antennæ brown, half as long as the body, strongly serrate, 2d joint very small, 3d as large as the 4th. Length 7.5 mm.; .30 inch.

Enterprise, June; one specimen.

76. Anchastus asper, n. sp.—Smaller and more robust, dark brown,

clothed with long pubescence. Head coarsely punctured, punctures not umbilicate, front flattened, not concave. Prothorax not longer than wide, narrowed in front, sides straight, hind angles unicarinate; disc strongly, sub-rugosely punctured. Elytra black, striæ well-impressed, interspaces convex, rough with strongly marked, but not densely placed small elevations. Antennæ longer than the head and prothorax, strongly serrate, 2d joint small, 3d as large as the 4th. Length 4.7 mm.; .18 inch.

Cedar Keys, June.

77. **Athous debilis,** n. sp.—Small, very elongate, rufo-testaceous, pubescent. Head punctured, front not concave, broadly rounded, or subtruncate anteriorly. Prothorax (3) nearly twice as long as wide, slightly narrower in front, hind angles produced, acute, not carinate, not divaricate; surface densely, rather finely punctured. Elytra with narrow sutural brown line, striæ deep, interspaces flat, punctulate. Antennæ not serrate, half as long as the body; 2d and 3d joints equal, together a little longer than the 4th. Length 4.6 mm.; .18 inch.

Lake Harney, May; one specimen. The 3d joint of the tarsi is very distinctly lobed.

78. **Cyphon impressus**, n. sp.—Elongate-oval, not convex, piceous, pubescent. Antennæ and legs piceo-testaceous. Head, prothorax and elytra equally densely punctulate, the last without elevated lines; about one-sixth from the base is a strong curved impression extending to the suture, and behind the middle a still deeper oblique one, not attaining the suture; between these two pairs of impressions the suture is slightly elevated. Antennæ with the 3d joint slender, equal in length to the 2d, not shorter than the 4th. Length 2.3 mm.; .09 inch.

Tampa, end of April. The impressions of the elytra and the suture behind the posterior one are paler and almost testaceous.

79. Lucidota luteicollis, n. sp.—Elongate, black, pubescent. Prothorax bright yellowish-red, sub-triangular, apical angle rounded, basal angles sub-acute; sides oblique, base broadly emarginate, side margins depressed and reflexed, more widely towards the base, apex and sides scabrous, disc nearly smooth, finely channeled. Scutellum red. Elytra finely and densely scabrous, each with two obsolete elevated lines, side margin narrow. Antennæ () nearly two-thirds as long as the body, compressed, joints only slightly narrowed at the base, so that they are very feebly serrate. Last two ventral segments rufo-testaceous. Length 8 mm.; .32 inch.

Sumter County; two \circlearrowleft . Resembles the New Mexican *Photinus collaris* Lec. in form and color, but differs in the antennæ being much longer and compressed, as in our other

Lucidotæ. L. thoracica from Mexico has been considered as identical with P. collaris, but differs by more robust form, red scutellum, coarser sculpture, and by the reflexed margin of the elytra being much broader. The abdomen of both sexes is entirely without phosphorescent organs, and the antennæ are more distinctly serrate than in L. luteicollis.

80. **Photinus** (Pyractomena) **ecostatus**, n. sp.—Elongate, head and prothorax pale; the latter a little longer than wide, rounded on the sides, narrower in front, and less broadly rounded at apex, sides depressed, scarcely punctured, edge dusky for the greater part of the length; disc finely carinate, with a dark stripe, narrow at the apex, broad at the base, which is bisinuate; hind angles rectangular, blunt at tip. Scutellum dark. Elytra finely and densely scabrous, narrowly margined, without discoidal elevated lines, sutural, lateral and apical margin pale; a narrow discoidal vitta extends from near the humerus to behind the middle. Antennæ dark, shorter than the prothorax. Beneath pale, meso- and metathorax, and two series of large transverse ventral spots dark; phosphorescent organs on 5th and 6th segments, as two pairs of oval slightly depressed spots of a honey yellow color. Legs piceous, trochanters and proximal half of thighs pale. Length 14.5 mm.; .57 inch.

Key West; one \mathcal{P} , Mr. Edw. Burgess. Allied to *Ph. borealis*, but differs by the elytra being more finely scabrous and entirely without elevated lines.

81. **Photinus** (Pyractosoma) **nitidiventris**, n. sp.—Very elongate, pale. Prothorax with sides broadly flattened, sparsely punctured, marked with an elongate lateral dusky spot, disc with a broad dark dorsal stripe. Elytra densely scabrous, without elevated lines, strongly margined; sutural, apical and lateral margins pale; a narrow dorsal vitta runs from near the humerus to beyond the middle. Meso-and metathorax fuscous; abdomen pale; 2d and 3d segments with a quadrate spot each side half way between the median line and the side; 4th segment with a large transverse dark spot each side, remaining segments bright yellow, 5th and 6th each with a pair of pits connected with the phosphorescent organs, resembling large spiracles. Antennæ shorter than the prothorax, dark, base pale-Legs dark, trochanters and base of thighs testaceous. Length 14 mm.; .55 inch.

Enterprise; one δ specimen. The scutellum is testaceous and the prothorax rather narrowly rounded at apex; in another specimen from Capron the scutellum is cloudy, and the apex of the prothorax is broadly rounded. Nearly allied to P. angustata, but in that species the sides of the prothorax are not dusky, while the head and the first four ventral seg-

ments are entirely dark. Also nearly allied, but different by the densely punctulate phosphorescent segments, is the following species.

82. **Photinus** (Pyractosoma) **punctiventris**, n. sp.—Very elongate, of the same form, size and color as *P. nitidiventris*, with the sides of the prothorax fuscous; the 1st-4th segments of abdomen are not spotted, but fuscous, a little paler at the edges. The phosphorescent segments are finely and densely punctulate. The discoidal elevated lines of the elytra are distinct. Length 13 mm.; .50 inch.

Texas; three ♂; Austin, Mrs. V. O. King; Bosque Co., G. W. Belfrage.

82. **Photinus** (Pyractosoma) **collustrans**, n. sp. — Elongate, fuscous. Prothorax yellow, tinged with orange at the middle, a little longer than wide, sides parallel behind, regularly rounded into the apex before the middle, margins widely reflexed, scabrous; disc sparsely punctulate, shining, finely channeled, between the middle and the apex is a transverse fuscous spot. Scutellum yellow. Elytra pubescent, coarsely scabrous, each with two faint elevated lines; sutural, apical and lateral margin narrowly bordered with yellow, side margin narrow, not reflexed. Beneath fusco-piceous, 5th and following ventral segments (3) yellow, 5th and 6th phosphorescent, each with a pair of rounded impressions, having a pore at the bottom. Antennæ fuscous, not longer than the prothorax. Legs fuscous, anterior and middle more or less testaceous. Length 7.2 mm.; .285 inch.

Tampa and Enterprise; two o.

- 84. **Photinus** (Pyractosoma) **umbratus**, n. sp.—Of the same size, form, color and sculpture as *P. collustrans*, but differs by the prothorax having an elongate black spot, extending from near the base to the anterior scabrous portion, this spot is wider in front than behind; the elytra are more strongly margined at the side. The antennæ are longer and more slender, extending beyond the base of the prothorax, and the 1st joint is pale. Length 7.5 mm.; .30 inch.
- 3 4th and following ventral segments yellow, 4th and 5th phosphorescent, each with a pair of small pits with a pore at the bottom; 5th broadly emarginate behind, 6th small, emarginate, 7th small, rounded at tip.
- Q The black spot of the prothorax extends to the apex; the ventral segments are black, and only the 4th has a transverse oval phosphorescent spot of pale yellow at the middle, the 5th segment is not emarginate, the 6th is flat, prominent and slightly notched at tip.

Tampa, Baldwin, Capron; May and June. Two much smaller females seem to indicate other species, which with more material may be properly defined. It seems to me unsafe to propose names for them at present.

- 1st. Capron. 5.5 mm.; .22 inch. The prothoracic black stripe extends from the base to the tip; the scutellum is dark, the 6th ventral segment has a small rounded pale yellow phosphorescent spot, besides the large one of the 4th segment.
- 2d. Cedar Keys. 3.8 mm.; ,15 inch. The prothoracic black stripe extends from the base nearly to the tip; the scutellum is dark, the epipleuræ are piceo-testaceous, and there is no phosphorescent spot on the 6th ventral.
- 85. **Ozognathus floridanus**, n. sp.—Black, shining, scarcely perceptibly and thinly clothed with very short pubescence, punctulate, antennæ and legs piceous. Prothorax twice as wide as long, convex, sides margined, very much rounded, hind angles very small, rectangular, slightly prominent. Length 1.4 mm.; .05 inch.

Tampa; two specimens, one of which was most kindly sent me by Mr. Schwarz. The sides of the prothorax are very much more rounded than in *O. cornutus*, and the pubescence is much shorter. The σ is not known.

This is an interesting addition to the genera common to Florida or the Antilles and California.

86. **Hemiptychus debilis**, n. sp.—Elongate-oval, convex, redbrown, shining, clothed with very fine prostrate pubescence, almost imperceptibly punctulate. Prothorax short, rounded at base, slightly emarginate at apex, side angles deflexed, sub-acute when viewed laterally. Elytra with two deep striæ extending from the middle nearly to the apex. Beneath sparsely, finely punctured with sparse shallow punctures on the sides in front of the middle. Antennæ and tarsi yellowish. Length 1.9 mm.; .075 inch.

Enterprise; one specimen. Resembles *H. ventralis*, but the lateral strike of the elytra are longer, and the surface is sparsely covered with shallow punctures at the sides near the base; the form is a little less elongate.

Hemiptychus similis, n. sp.—Elongate-oval, convex, less rounded in front than behind, blackish brown, less shining, finely densely punctulate and finely pubescent. Prothorax more distinctly punctured towards the sides. Elytra with two deep striæ extending from the middle to near the tip; punctures more distinct at the sides and in front. Beneath finely punctulate. Length 2.3 mm.; .09 inch.

Tampa; one specimen.

87. Hemiptychus abbreviatus, n. sp.—Oval, convex, equally rounded before and behind, dark-brown, with a slight reddish tinge, imperceptibly punctulate and very finely pubescent. Elytra sparsely, finely

punctulate, striæ two, deep, beginning about one-fourth from the apex; the outer one meets a very short trace of the sutural stria; the inner one is shorter than the outer one. Under surface scarcely perceptibly punctulate. Length 2.2 mm.; .085 inch.

Capron; one specimen. Easily known by the short striæ, and very fine pubescence.

88. **Hemiptychus auctus**, n. sp.—More elongate-oval, convex, equally rounded before and behind, sub-opaque, indistinctly punctulate, reddish-brown, densely clothed with short, yellowish pubescence. Elytra with the outer stria beginning just behind the middle, joining a short remant of the sutural stria; 2d stria beginning farther back, and joining a trace of the sub-sutural stria inside of the 2d stria; beginning at the middle, and running backwards for a short distance is an indistinct 3d stria, in the direction of which is situated a large granule. Beneath indistinctly punctulate. Length 1.5 mm.; .06 inch.

Capron; one specimen. I do not observe anything similar to the granule, or elevated puncture above mentioned in any other species. It is situated about one-fifth from the apex.

The species of *Hemiptychus* here described are to be incalated in the table (Proc. Acad. Nat. Sc. Phila. 1865, 239), between *H. ventralis* and obsoletus. Several other species allied to *H. gravis*, are indicated in the collections of Dr. Horn and myself, but until larger series of specimens are obtained, I think it is undesirable to describe them.

89. Catorama punctulata, n. sp,—Elongate-oval, convex, black-ish-fuscous, rather shining, thinly clothed with fine, prostrate, very short pubescence, distinctly but finely punctured. Beneath similarly punctured, antennæ and front tarsi yellow-brown. Length 2.5 mm.; .10 inch.

Tampa; one specimen. The pubescence has a sericeous reflection, where it is well preserved.

90. **Catorama holosericea**, n. sp.—Elongate-oval, convex, fuscous, densely clothed with short, gray, erect hair, producing a velvet silvery lustre; elytra each with a large, oblique spot about the middle, and a smaller round posterior one without lustre, and consequently appearing darker; surface imperceptibly punctulate. Length 1.5 mm.; .06 inch.

Enterprise; three specimens.

91. Catorama minuta, n. sp.—Oval, convex, fuscous brown, uniformly finely punctulate, and thinly clothed with fine pubescence. Length 1.1 mm.; .045 inch.

Enterprise; two specimens. This species is slightly more roproc. Amer. Philos. Soc. XVII. 101. 2V. PRINTED APRIL 20, 1878.

bust than the others, and is easily known by the very small size, and fine though not indistinct punctures.

The following species from California and Texas may be conveniently described at the present time.

92. Catorama frontalis, n. sp.—Sub-cylindrical, rounded at each end, brown, somewhat shining, very finely and densely punctulate, clothed with fine, short, sericeous pubescence. Head with the curved frontal impression deep, side margin of front stronger than in the other species, and narrowly reflexed. Prothorax with the hairs so arranged as to give the appearance of a slight elevation at the middle of the base. Length 4.2–6 mm.; .17–.25 inch.

Santa Barbara; one specimen, collected by Mr. G. R. Crotch. Of the same size, form, color and sculpture as *C. simplex*, but differs by the sericeous pubescence, and more strongly margined front. On comparison, the sides of the elytra are seen to be more broadly and distinctly concave, but this difference is not very obvious.

Catorama sectans, n. sp.—Elongate-oval, convex, blackish, clothed with extremely fine brown pubescence, distinctly punctulate. Elytra with the punctures towards the sides arranged somewhat in rows, and with indistinct traces of two striæ near the base. Beneath distinctly punctured, antennæ yellow-brown. Length 3.3 mm.; .13 inch.

Texas; Dr. Horn. Very like *C. punctulata*, but larger, with the fine punctures of the elytra arranged in rows near the sides and with slight traces of the two outer striæ near the base, thus showing a tendency towards *Hemiptychus*.

93. Catorama obsoleta, n. sp.—Elongate-oval, convex, brown, imperceptibly punctulate and finely pubescent. Elytra with some feeble traces of striæ at the sides, especially near the base. Length 2.4–3.3 mm.; 10–13 inch

Southern part of California; one specimen collected by Mr. Hardy was kindly given me by Dr. D. Sharp. This species is very similar to *C. punctulata*, but is of a browner color, and not distinctly punctulate.

Table of Species of CATORAMA.

	Larger sub-cylindrical, very finely and densely punctulate2	
	Smaller, elongate-oval	
2.	Front strongly margined at the sides, pubescence sericeous	,
	1. frontalis, n. sp	

Front as usual, finely margined at the sides, pubescence not sericeous..

2. simplex.

3. Pubescence coarse, sub-erect, velvety......3. holosericea, n. sp.

4. Blackish, distinctly punctulate, elytra with rows of punctures towards the sides.....4. sectans, n. sp. Blackish, distinctly punctulate, elytra without rows of punctures.....

5. punctulata, n. sp.

Red-brown, imperceptibly punctulate.................6. obsoleta, n. sp.

94. Dorcatoma granum, n. sp.—Sub-ovate, convex, blackishbrown, shining; pubescence sparse, fine, erect. Prothorax punctulate. Elytra sparsely, finely punctured, punctures arranged somewhat in rows; two outer striæ deep, and a short, less deep one at the margin near the base. Beneath brown, sparsely and finely punctured, metasternum truncate in front. Length 1.5 mm.; .06 inch.

Enterprise; two specimens. More robust than D. setulosum, and much smaller.

95. Dorcatoma tristriatum, n. sp.—Oval convex, less rounded in front, shining, black, thinly clothed with short, sub-erect gray pubescence. Hard and prothorax finely punctulate. Elytra finely, densely punctured. with three striæ near the side; these striæ begin in front of the middle, the outer two extend nearly to the tip, while the 3d is much shorter, ending about one-fourth from the tip. Beneath finely punctured (antennæ not seen). Length 2.5 mm.; .10 inch.

Bosque County, Texas; Mr. G. W. Belfrage, one specimen.

96. Cænocara lateralis, n. sp -Broadly ovate, convex, black, shining, sparsely and finely punctured, pubescence gray, sparse, erect. Prothorax more densely punctured towards the sides. Elytra with 1st and 2d striædeep, entire; the 3d extends from the base for one-third the length; the lateral lobe has a distinct marginal stria. Beneath strongly punctured. Length 1.5 mm.; .06 inch.

Enterprise; one specimen. This species closely resembles the small form of C. oculata, in shape, color, and sculpture, but differs by the lateral lobe of the elytra, which has a distinct marginal stria. The eyes, as in C. oculata, are almost divided by a narrow acute emargination. The antennæ are yellow-brown.

97. Cænocara intermedia, n. sp.—Ovate, convex, brownishblack, shining, finely sparsely pubescent. Head finely punctulate, emargination of the eyes rounded at the end, less deep. Prothorax finely punctulate. Elytra finely punctulate in rows; lateral lobe faintly striate; outer stria entire, deep, 2d stria deep from the base for three-fourths the length,

where it is abbreviated; 3d stria wanting. Beneath finely sparsely punctured. Antennæ and tarsi yellow-brown. Length 2 mm.; .08 inch.

North Carolina; Dr. Zimmermann, one specimen. This species resembles *Dorcatoma* in the sculpture, but the form is more robust, and the eyes emarginate to near the middle.

98. Cænocara californica, n. sp.—Broadly ovate, convex, black, shining, with fine sparse sub-erect hairs. Head and prothorax rather densely punctulate. Elytra less densely punctulate, with three striæ near the sides; 1st and 2d entire, 3d beginning at the base and extending one-third the length; there is no marginal stria. Beneath finely punctured (antennæ not seen). Eyes almost divided. Length 1.5 mm.; .06 inch.

California; one specimen received by Dr. Horn. Very similar to the small form of *C. oculata*, but differing by the more densely punctured prothorax, and more finely punctured under surface.

Table of Species of Cænocara.

Broadly ovate; eyes nearly divided by a deep narrow emargination; 1st and 2d striæ of elytra entire; 3d extending one-third the length. 2. Less broadly ovate, eyes emarginate only to the middle; 2d stria of elytra abbreviated behind, 3d obsolete..........5. intermedia, n. sp.

- 4. Head, prothorax and elytra very sparsely punctulate......1. oculata.

 Prothorax more densely punctulate......2. californica, n. sp.

BYRRHODES, nov. gen. (Anobiini.)

Body rounded, slightly oval, convex, pubescent with coarse hairs. Head inflexed, broad, mandibles resting against the metasternum in repose; undersurface—. Antennæ 10-jointed; 1st joint large, auriculate, 2d nodose, rather large, attenuated at base, 3d slender, 4th and 7th subtransverse, gradually slightly wider (4th appears to be indistinctly impressed transversely); 8th triangular, as long as the whole stem, from the 2d to the 7th; about twice as wide as long, remaining joints broken. Palpi not seen. Eyes not convex, not emarginate, partly covered behind by the prothorax. Prosternum not seen, front coxæ deeply sunk in the cavity, not seen. Mesosternum concealed by the metasternum, which is produced in front into a broad square process, the anterior margin of which is slightly rounded, and the front angles are acutely prominent laterally. The pos-

terior part of the metasternum is large, sparsely punctured, with a median impressed line, each side of which is a shallow round impression. Legs slender, rather long, middle coxæ separated by the metasternal process; middle legs received in transverse excavations, which extend on the epipleuræ; hind legs received in excavations which occupy the whole of the length of the 1st ventral segment, and extend to, but not upon, the edge of the elytra; tarsi broad, 1st joint not elongate, 5th not narrower nor longer than the 4th; claws small, divaricate, appendiculate, ventral segments 5, as usual; 1st short, occupied by the excavations for the hind legs; 2d, 3d and 4th equal, each about twice as long as the 1st; 5th nearly as long as the two preceding, broadly rounded; the sutures are equally plain and straight. Elytra striate.

This genus is allied to *Dorcatoma* and *Cænocara*, but differs from both by the elytra being striate, by the 2d joint of the antennæ being larger, and by the form of the metasternal process which is much narrowed at base in *Dorcatoma*, and very short in *Cænocara*. Having seen but one specimen, I am unwilling to risk it by an attempt to expose the prosternum, especially as the genus is very well characterized without reference to that part.

99. Byrrhodes setosus, n. sp.—Robust, oval, convex, obliquely narrowed in front, blackish-brown (somewhat shining where the hair is removed), densely clothed with coarse white curled hairs, very finely and densely punctulate. Head with a transverse frontal impressed line near the margin; sides obliquely margined. Prothorax short, of the same form as in Canocara, outline when viewed from above oblique. Scutellum flat, rounded. Elytra with well impressed striæ, the two outer ones deeper behind the middle; interspaces wide, flat, the outer ones slightly convex behind; lateral edge finely margined from base to tip. Beneath nearly smooth, very sparsely punctulate. Sterna glabrous (by abrasion?), abdomen hairy. Length 3.5 mm.; .14 inch.

Capron; one specimen. On superficial view, this insect might be readily mistaken for a small species of Byrrhus.

100. **Elaphidium tectum**, n. sp.-Elongate, slender, brown, clothed with short fine rather dense dirt-colored pubescence, scarcely mottled on the elytra. Antennæ (\bigcirc) as long as the body, joints 3-10 each with a spine at the inner apical margin; the spine of the 3d is about one-fourth as long as the 4th joint, the others diminish gradually in length; the outer apical angle of the joints 5-7 is also armed with a small spine. Prothorax a little wider than long, moderately rounded on the sides, densely punctured, with a smooth dorsal line more distinct behind the middle, and a discoidal round callus each side in front of the middle; on the deflexed sides near the base are seen a few large round punctures or foveæ. Elytra

coarsely not densely punctured, punctures smaller towards the tips, which are bispinous, the outer spine much longer than the sutural. Thighs of the hind legs with a short spine on the inner side. Length 15.6 mm.; .63 inch.

Cedar Keys; two \Im . This species is related to E. mucronatum and incertum, but the antennæ are not longer than the body, and the pubescence is more uniform; the punctures of the elytra are also more distant. It seems to resemble E. lanatum Chevr. (Am. Ent. Soc. Fr. 1862, 260) from Cuba, and I should consider it as the other sex of the same species, except that the outer angle of the 3d and 4th joints is not armed with a spine.

101. **Leptostylus transversatus** Chevr. Ann. Ent. Soc. France, 1862, 248.

Enterprise. The specimens agree perfectly with the description given of this Cuban species, which was not previously known in our fauna.

102. **Leptostylus arcuatus**, n. sp.—Fuscous, densely clothed with gray hair. Elytra flattened on the disc, hind third of surface smokybrown, limited in front by a curved blackish line, concave forwards; this line is angulated about the middle of the width, then again concave forwards, and joins a lateral narrow black line, which is dilated behind the humerus; asperities black, sparse, small, arranged in distant rows; tips strongly and obliquely truncate, outer angle prominent; punctures coarse, rather densely placed. Prothorax without discoidal inequalities, nearly twice as wide as long, sides oblique from apex to beyond the middle, where they are distinctly angulated, then narrowed to the base; there is a small black spot extending from the base to the lateral angle. Beneath brown, finely pubescent, not mottled, legs scarcely mottled; antennæ a little longer than the body, punctured and annulated. Length 8 mm.; .32 inch.

Tampa; one specimen. A very distinct species. The 1st joint of the hind tarsi is as long as the two following, and the lateral angle of the prothorax is obtuse, not rounded, but also not prominent, and is distinctly nearer the base than the apex, while in all the others in our fauna it is at the middle of the side, and obtusely rounded. It might be properly referred to Sternidius, but in that genus the lateral angle of the prothorax is more prominent. Until another revision of this division of Cerambycidæ is made, I prefer to place this species in Leptostylus, rather than to establish it as a separate genus.

ZAPLOUS, n. g. (CERAMBYCIDÆ, subf. LAMIIDÆ.)

Body small, not very robust, clothed with prostrate, short pubescence. Head rather short, not channeled, support of labrum coriaceous, eyes rather coarsely granulated, deeply emarginate, upper part much smaller than the lower. Antennæ a little shorter than the body, 11 jointed, with very few flying hairs on the lower edge; 1st joint long, slender, slightly clavate (very much as in Leptostylus, Liopus &c.); 2d joint cylindrical, nearly one third as long as the 1st; 3d and 4th elongate, together equal to the remaining ones united, which gradually diminish in length, but not in thickness. Prothorax wider than long, not tuberculate, sides rounded, sometimes indistinctly angulated; front coxal cavities widely angulated. Elytra wider than the prothorax, parallel, humeri well rounded, tips rounded, not truncate. Front coxe prominent, narrowly separated, middle coxe more widely separated, cavities open externally. Legs short, thighs stout, but not clavate; front tibiæ with inner groove feeble; middle tibiæ with a slight but distinct tubercle on outer margin. Tarsi short, not slender, 1st joint scarcely longer than 2d; last joint long, claws divaricate.

The small insect which indicates this genus belongs to the tribe Pogonocherini (Lec. Class. Col. N. Am. 340), but does not fit well into any of the groups thus far known in our fauna.*

103 Zaplous Hubbardi, n. sp.—Brown, clothed with short, prostrate yellowish-gray pubescence, somewhat mottled by unequal distribution. Prothorax very densely, rather finely punctured. Elytra more strongly and less densely punctured. Antennæ annulated with black, finely punctulate and pubescent, without mixture of large punctures. Length 3.3-5 mm.; .13-.20 inch.

Enterprise; frequently beaten from old vines, in May.

104. **Donacia rugosa**, n. sp.—Coppery-bronze, not shining, rugose, rather robust, sub-depressed. Head channeled in front, line deeper behind, and ceasing between the eyes; eyes convex, prominent, orbits wide. Prothorax quadrate, a little wider in front, where the angles are well-marked, sides not sinuate; surface densely rugose and punctured, dorsal line widely impressed but vague, feebly, transversely impressed near the base. Elytra obliquely narrowed towards the tips, which are truncate; discoidal impressions vague, the 1st small, near the scutellum; the 2d large, in front of the middle; the 3d small, near the suture, and behind the middle; striæ composed of elongate punctures, interspaces densely, transversely rugose. Beneath dark plumbeous, with fine, pruinose pubescence. Hind thighs (φ) not toothed, antennæ slender, three-fourths as long as the body, blackish. Length 9.2 mm.; .37 inch.

Enterprise; May, one specimen. Allied to D. subtilis, but * Vide Horn, Tr. Am. Ent. Soc. vii, 43; (Jan, 1878).

less shining, and more rugose, with the antennæ longer and more slender.

105. **Diabrotica vincta**, n. sp.—Black, prothorax bright yellow, quadrate, smooth, with two large discoidal foveæ, side margin narrowly reflexed. Elytra wider than prothorax, punctured somewhat in rows, with the lateral and apical border, and a narrow vitta from the base to the tip, occupying an elevated ridge parallel with the suture, pale yellow. Beneath yellow, meso- and metathorax, outer half of thighs, tibiæ and tarsi black. Antennæ black, base brownish; 3d joint longer than 2d, united equal to the 4th. Length 4 mm.; .16 inch.

Capron; April, one specimen.

106. **Ædionychis indigoptera**, n. sp.—Dull ferruginous, antennæ and legs piceous; elytra blue-black, strongly and densely punctured, narrowly margined. Head sparsely punctured, median line abbreviated in front, and interrupted at the vertex; there are two small rounded foveæ between the eyes. Prothorax transverse, narrowed in front, sub-sinuate, but scarcely rounded on the sides, which are broadly flattened; front angles small, prominent; disc smooth, not shining. Hind thighs very large, finely and sparsely punctured. Length 3 mm.; .12 inch.

Tampa; one specimen. The 5th ventral segment is widely concave at the tip. This species is not closely allied to any other known to me in our fauna; the middle tibiæ are angulate on the outer margin as in Œ. thyamoides Crotch.

106. Argopistes scyrtoides. n. sp.—Circular, not very convex, rufous, extremity of hind thighs, and the upper surface black, shining. Head brown. Prothorax very short, deeply emarginate in front, rounded at base, finely punctulate; a curved, transverse, rufous band extends from the base each side, near the hind angles; the sides are also rufous. Elytra scarcely perceptibly punctulate, marked with distant striæ composed of extremely fine punctures; each with a large, triangular, rufous spot, with the apex in front, extending to the suture behind the middle. Length 3.4 mm.; .135 inch.

Florida; two specimens given me by Mr. Ulke. The resemblance of this insect to a small *Exochomus* is marvellous. The genus is also remarkable for having occurred thus far only in north-eastern Asia. The mesosternum is entirely concealed between the pro- and metasternum, and the latter is very short. The hind thighs are immensely large in proportion to the size of the insect. Though the next species has not occurred as yet in Florida, its geographical distribution renders its appearance there very probable.

107. **Sphæroderma opima**, n. sp.—Rounded, nearly circular, convex, piceous-black, shining; antennæ and legs (except hind femora) darkbrown. Head punctured, eyes not immersed in the prothorax. Prothorax short, sides oblique, front angles rounded; surface finely punctulate. Elytra with irregular rows of sparse, coarse punctures, interspaces nearly smooth. Length 2.5 mm.; .10 inch.

North Carolina and Texas. I have adopted the manuscript specific name given by Dr. Zimmermann. This is the first introduction of the genus into the literature of our fauna; Sphæroderma insolita Mels. is the type of Cerataltica Crotch, and belongs in another group.

108. Chætocnema pinguis, n. sp.—Sub-ovate, convex, more pointed behind; coppery bronze, not very shining, base of antennæ, tibiæ and tarsi testaceous. Prothorax finely alutaceous, transverse, not narrowed in front, sides rounded near the front angles; disc finely punctured. Elytra with fine punctured stria, interspaces flat, smooth. Sides of last ventral segment finely punctured. Length 2.2 mm.; .09 inch.

Enterprise and New Smyrna, two specimens. Very like C. denticulata, but more pointed behind; the sculpture is much finer and the last ventral segment is not coarsely and sparsely punctured, but is nearly smooth at the middle and finely punctured towards the sides.

109. Chætocnema protensa, n. sp.—Very elongate-oval, moderately convex, coppery bronze, not very shining; antennæ black bronzed, tibiæ and tarsi brown. Head strongly and sparsely, front more densely punctured. Prothorax transverse, not narrowed in front, rounded on the sides, punctured. Elytra with striæ composed of large punctures, interspaces flat, smooth, ventral segments sparsely punctured. Length 2.8 mm.; .11 inch.

Detroit, Michigan; one specimen; Messrs. Hubbard and Schwarz. Much larger than *C. elongatula* Crotch, but of equally elongate form.

110. Chætocnema cylindrica, n. sp.—Elongate, sub-cylindrical, convex, coppery bronze, not very shining: antennæ and legs of the same color. Head and prothorax strongly, rather closely punctured, the latter transverse, not narrowed in front, rounded on the sides. Elytra a little wider than the prothorax, striæ composed of deeply impressed punctures, interspaces smooth. Ventral segments rather finely punctured. Length 2 mm.; .08 inch.

Detroit, Michigan; Messrs. Hubbard and Schwarz. Also found in Massachusetts. The punctures of the short scutel-PROC. AMER. PHILOS. SOC. XVII. 101. 2z. PRINTED APRIL 22, 1878. lar stria, and the base of the sutural stria are somewhat confused.

111. Chætocnema opacula, n. sp.—Elongate-oval, convex, elytra wider than the prothorax, dark black bronzed. Head opaque, impunctured. Prothorax transverse, not narrowed in front, sides broadly rounded, front angles not truncate; surface opaque, finely, densely punctured, base with an indistinct row of punctures. Elytra moderately shining, striæ composed of punctures of moderate size, not closely set, outer striæ impressed. Base of antennæ brown, legs dark. Length 1.5 mm.; .06 inch.

California, Gilroy; one specimen, Mr. G. R. Crotch. The antennæ are broken and but two basal joints remain.

112. Chætocnema flavicornis, n. sp.—Oval, convex, dark bronze, not very shining, antennæ yellow, scarcely darker at the outer extremity. Head smooth, with the usual impressions. Prothorax finely punctured, narrowed in front of the middle, post apical angle distinct; there is also a basal puncture each side opposite the base of the 6th stria. Elytral striæ composed of small, close-set punctures, interspaces obsoletely punctulate. Length 1.4 mm.; .055 inch.

Detroit, Michigan; one specimen. Easily known by the small size, robust form and yellow antennæ. The legs are dark, and the ventral segments sparsely punctured. The obliquely cut front angles of the prothorax and the basal puncture indicate a tendency toward *Crepidodera*.

113. Chætocnema obesula, n. sp.—Still smaller, oval, convex, black bronzed, not very shining, antennæ and legs dark. Head smooth, with the usual impressions. Prothorax transverse, sides oblique, narrowed in front, surface alutaceous, obsoletely punctulate; base finely margined with a transverse row of punctures. Elytral striæ composed of large strongly impressed punctures, interspaces slightly convex, smooth. Abdomen nearly smooth, slightly punctured at the sides and tip. Length 1.2 mm.; .05 inch.

Lake Ashby and Baldwin; two specimens.

114. Chætocnema decipiens, n. sp.—Narrower and less regularly oval, bronzed black, tibiæ, tarsi and antennæ testaceous, the last slightly brown at the extremity. Head smooth, with the usual impressions. Prothorax transverse, not narrowed in front, sides very slightly rounded; post-apical angle somewhat distinct, with a very long seta; disc punctured. Elytra a little wider than the prothorax, striæ impressed, punctured, interspaces convex, smooth. Abdomen nearly smooth. Length 1.5 mm.; .06 inch.

Kansas, one specimen. Of the same form as C. pulicaria

Mels. (vide Crotch, Proc. Acad. Nat. Sc. Phila., 187, 75), but easily distinguished by the strongly punctured prothorax.

115. Chætocnema cribrata, n. sp—Oval, convex, bright bronze, tibiæ and tarsi rufo-testaceous, base of antennæ brownish. Head deeply but not coarsely punctured. Prothorax transverse, gradually narrowed in front, slightly rounded on the sides, densely punctured. Elytra deeply and coarsely punctured, punctures forming striæ only on the posterior declivity and at the sides. Abdomen strongly punctured. Length 2.1 mm.; .085 inch.

Cambridge, Mass.; one specimen, collected by Mr. Schwarz in February, under moss.

Table of species of Chatocnema.

	Head punctured2.
	Head smooth or nearly so
2.	Inner striæ of elytra confused
	Striæ of elytra quite regular4.
3.	Oval convex, elytral striæ confused, punctures coarse 1. cribrata, n. sp.
	More elongate, less convex, elytral striæ confused only near the base
	and suture
	Elongate, cylindrical, elytral striæ slightly confused near the base and
	suture3. subcylindrica, n. sp.
4.	Robust oval, elytral striæ strong4. denticulata.
	Robust oval, elytral striæ fine
	Very elongate-oval, head more sparsely punctured6. protensa, n. sp.
5.	Oval or ovate, not very elongate6.
	Very elongate-oval, shining, head sparsely punctulate7.elongatula.
6.	Prothorax strongly punctured, base finely margined7.
	Prothorax punctured, base with a row of punctures8.
	Prothorax punctured, without basal row of punctures10.
	Prothorax obsoletely punctulate11.
7.	Greenish black, opaque, convex; striæ strongly punctured8. alutacea.
	Blue-green, rather shining; antennæ and front legs brown, elytral striæ
	closely punctured9. subviridis.
	Greenish-black, shining, more elongate, less convex; base of antennæ
	pale; elytral striæ impressed, closely punctured10. decipiens, n. sp.
	Greenish-black, convex, elytra wider than prothorax; antennæ and legs.
_	yellow; prothorax straight on the sides11. quadricollis Schwarz.
8.	Less robust, elytra wider than prothorax, which is finely punctured. 9.
0	Robust, ovate, prothorax strongly punctured10. crenulata.
9.	Bronzed, shining
	Black bronzed, head and prothorax opaque12. opacula, n. sp.
	Dark bronzed, shining, less convex

- 11. Robust, ovate, head and prothorax alutaceous, elytra more shining, with striæ composed of very large punctures....... 16. obesula, n. sp.
- 116. **Blapstinus fortis**, n. sp.—Elongate-oval, not convex, grayish-black, sparsely pubescent. Head strongly punctured. Prothorax one-half wider than long, narrower in front, sides slightly rounded, apex deeply emarginate, base bisinuate; surface densely, strongly punctured, punctures towards the sides somewhat elongated. Elytra with coarsely punctured striæ, interspaces moderately convex, punctured. Flanks of prothorax beneath coarsely punctured and aciculate, deeply concave and nearly smooth along the margin. Abdomen strongly punctured. Length 7 mm.; ·28 inch.
 - ♂. Joints 1–3 of front and middle tarsi dilated, spongy beneath.

Southern Florida; one specimen, collected by Dr. Palmer. This species is closely allied to *B. dilatatus*, but the prothorax is much less rounded on the sides, and proportionally a little longer.

116. **Blapstinus opacus**, n. sp.—Elongate-oval, rather convex, black opaque with a silky lustre. Head and prothorax sparsely punctulate, the latter nearly twice as wide as long, narrower in front, sides slightly rounded, finely margined; apex strongly emarginate; base strongly bisinuate, finely margined. Elytra with rows of small elongate punctures in place of striæ; 7th and 8th row as usual not attaining the base. Beneath nearly smooth, last ventral segment more distinctly punctured; flanks of prothorax with a few rugosities, concave along the margin. Length 6.1 mm.; .24 inch.

Southern Florida; one specimen, collected by Dr. Palmer. The β tarsi are dilated as in the preceding species.

117. **Blapstinus estriatus**, n. sp.—Robust oval, very convex, black, not shining. Head and prothorax distinctly punctured, the latter nearly twice as wide as long, narrower in front, very slightly rounded on the sides and finely margined; apex moderately emarginate, front angles less prominent than usual; base bisinuate, finely margined; margin obsolete at the middle. Elytra more finely punctured than the prothorax, with obsolete traces of striæ behind and at the sides. Beneath strongly and densely punctured. Length 4.3 mm.; .17 inch.

Haulover and Capron; not rare. The tarsi are not dilated in any of the specimens examined. Should the sexes be alike in this respect, which may be known only by dissection, this character, added to the convex form of body, and the absence of elytral striæ, would require the separation of this insect as a distinct genus.

DIGNAMPTUS, n. g. TENEBRIONIDÆ; HETEROTARSINI.

Body elongate, resembling Stenochia. Head short, eyes large, transverse, coarsely granulated. Antennæ as long as the head and prothorax, rather slender. 3d joint a little longer than the 4th; 8th, 9th and 10th wider and larger, scarcely as long as wide, 11th longer, oval. Palpi with the last joint strongly securiform, mentum obovate, transverse, with two shallow impressions. Prothorax sub-cylindrical, slightly rounded and subsinuate on the sides, which are narrowly margined, hind angles small, acute, or rectangular. Elytra a little wider than the prothorax sub-cylindrical, humeri not prominent, striæ composed of large close punctures, interspaces narrow. Epipleuræ narrow, not reaching the tip, impinged upon by the 4th and 5th ventral segments, which are rounded at the sides. Legs long, slender; tarsi with the 1-3 of the front and middle pair broad, and the 1st and 2d of the hind pair less dilated, brush-like beneath; penultimate joint small, last joint as long as the others united, claws large, simple.

118. **Dignamptus stenochinus**, n. sp.—Elongate, shining black, with a bluish gloss. Head densely punctured. Prothorax more strongly punctured, one-half longer than wide, sub-sinuate on the sides behind the middle; hind angles small, acute, prominent. Elytra with striæ of very coarse punctures; interspaces narrow, smooth. Flanks of prothorax coarsely, meso- and metasternum sparsely punctured. Abdomen sparsely finely punctured. Length 7. mm.; .28 inch.

Enterprise; June, beaten from dead vines; very rare. Has very much the appearance of a small *Stenochia*.

119. **Dignamptus langurinus**, n. sp.—Linear-elongate, black, with a slight metallic gloss. Antennæ stouter, more strongly and more gradually thickened externally, the 6th and 7th joints being wider than the preceding, though not so wide as the following. Head finely punctured. Prothorax strongly punctured, one-half longer than wide, slightly narrower behind, hind angles rectangular, not prominent. Elytra slightly wider than the prothorax, striæ composed of oval punctures, in distance equal to their long diameters; interspaces wider than the striæ, flat, smooth. Beneath as in the preceding. Length 4 mm.; 16 inch.

Enterprise; May, very rare. This species has much the appearance of a *Languria*, and the more thickened antennæ tend to increase the resemblance.

120. **Phaleria punctipes**, n. sp.—Oval, convex, black, or piceous, sometimes testaceous above but without spots. Prothorax narrowed in front, rounded on the sides, especially near the apex, base finely margined,

with a large, basal puncture each side. Elytra finely striate, interspaces wide, flat, smooth. Under surface towards the sides very finely scabropunctulate. Legs black, front thighs nearly smooth, middle and hind thighs coarsely and sparsely punctured; tibiæ densely punctured. Length 7 mm. .28 inch.

Haulover; abundant on the ocean shore. Larger and stouter than *P. testacea*, and easily known by the black and coarsely punctured legs. In this respect it resembles *P. pilifera* from Lower California, from which it differs only by the epipleuræ being smooth and glabrous, while in *P. pilifera* they are punctured and setose.

'121. **Platydema crenatum**, n. sp.—Oval, rather elongate, convex, black, shining. Head punctured in front, transverse impression faint. Prothorax sparsely, finely punctulate, base bisinuate, not margined, each side with a broad, shallow impression. Elytra with deep, very coarsely punctured striæ. Beneath punctured, last two ventral segments nearly smooth. Antennæ, palpi and tarsi brown; prosternum convex between the coxæ, point inflexed, not prominent. Length 4.5 mm.; .18 inch.

Haulover; one specimen. More convex than *P. lævipes*, and very distinct by the coarsely punctured elytral striæ.

122. **Hypophleus glaber**, n. sp.—Cylindrical, red-brown, shining, with erect hairs. Head densely and finely punctured, transverse line well-impressed. Prothorax longer than wide, convex, finely punctured, sides nearly straight, finely margined, front angles not prominent, almost rounded. Elytra finely, rather densely punctured. Pygidium equally, densely, finely punctured. Abdomen less densely punctured, 5th ventral segment vague, impressed. Length 3 mm.; .12 inch.

Tampa; two specimens, also found in Georgia, under pine bark. This species is smaller, narrower and more convex than *H. parallelus*, and differs by the front angles of the prothorax not being acute and prominent. It has the same form as *H. thoracicus* and *piliger*, but differs by the elytra being more finely punctured, without erect hairs, and by the pygidium being not sparsely but densely punctured.

I do not find mentioned in any work that the 3d, 4th and 5th ventral segments in this genus are longitudinally, deeply impressed near the sides, so that the margin appears to be thickened.

123. **Hypophlœus piliger**, n. sp.—Slender, cylindrical, convex, red-brown, shining. Head punctured, transverse line obsolete, front with

a shallow, rounded impression between the eyes. Prothorax longer than wide, sides slightly rounded, near the apex and base, hind angles rectangular, rounded at the extreme tip, finely not densely punctured, with a few erect hairs towards the sides, base not margined. Elytra finely not densely punctured, punctures here and there, forming rows (but not indicating striæ); there are some erect hairs, especially near the tip, and at the sides. Pygidium sparsely punctured. Beneath punctured, last ventral segment not impressed. Length 2.5 mm.; .10 inch.

Florida, Georgia and South Carolina; under pine bark. I have adopted the name which it bears in the collection of Dr. Zimmermann. This species is more slender than *H. parallelus*, and differs by the sparse, erect hairs, by the punctures of the elytra being less fine and more distant, and by the pygidium being sparsely punctured. In these respects it agrees with *H. thoracicus*, but differs in color, and by having fewer erect hairs.

Three new species remain in my collection, which may be described on the present occasion; the subjoined table gives the essential characters of all the species in our fauna.

124. **Hypophlœus substriatus**, n. sp.—Very dark brown, cylindrical, less convex than the other species. Head punctured, transverse line well impressed, vertex with a faint, transverse impression, anterior to which the surface is more convex. Prothorax scarcely longer than wide, punctured, side margin stronger than in the other species, base margined. Elytra rather strongly punctured, punctures in rows except near the sides and tips, without hairs. Pygidium densely, finely punctured. Beneath punctured; last ventral segment broadly impressed, apical part convex. Length 4.2 mm.; .18 inch.

Oregon; collected by Lord Walsingham. Much larger than *H. parallelus*, and easily distinguished by the less convex form, more strongly margined prothorax, and by the elytral punctures being stronger, and placed in rows.

125. **Hypophlœus opaculus**, n. sp.—Cylindrical, convex, blackish, not shining. Head feebly punctulate, transverse line bounded behind by an obtuse, transverse ridge; epistome convex. Prothorax a little wider than long, sides broadly rounded, apex not emarginate, sides very finely margined, base indistinctly margined, surface finely, rather densely punctured. Elytra finely punctured, punctures here and there in rows. Pygidium densely, finely punctured. Beneath sparsely punctured; 5th ventral with a small, apical tubercle. Length 3.2 mm.; .13 inch.

Southern California; one specimen collected by Mr. Hardy,

kindly given me by Dr. D. Sharp. The convex transverse ridge of the head causes the clypeal impression to appear very deep.

126. **Hypophlocus tenuis**, n. sp.—Very slender, cylindrical, convex, red-brown, shining, antennæ and legs ferruginous. Head sparsely punctulate, transverse impression deep. Prothorax one third longer than wide, front and hind angles rounded at the extreme tip; apex not emarginate, sides very finely margined, base indistinctly margined, surface sparsely punctulate. Elytra punctured, with indications of striæ behind the middle, and near the suture. Pygidium sparsely punctured. Beneath sparsely punctulate; 5th ventral segment more strongly punctured, not impressed. Length 2.2 mm.; .09 inch.

Lowell, Massachusetts; collected by Mr. Frederick Blanchard, and kindly given to me by Dr. Horn.

Table of the Species of Hypophlæus.

- Opaque, sides of prothorax very finely margined, head with a transverse elevated ridge; 5th ventral segment with a small, apical tubercle....
 - 8. opaculus, n. sp.
- Entirely glabrous, prothorax not impressed.
 Clothed with long, erect hairs, prothorax broadly concave in front; 5th ventral segment not impressed.
 With a few stiff, erect hairs; prothorax not impressed; 5th ventral not impressed; head with a shallow interocular impression.
 4.
- - 4. glaber, n. sp.
 - Prothorax not emarginate in front, apical angles rounded; 5th ventral segment not impressed, pygidium sparsely punctured..5. tenuis, n. sp.
- 127. **Strongylium simplicicolle**.—Black, somewhat shining. Head sparsely punctured, vertex longitudinally impressed, epistome thickened, transversely impressed in front of the clypeal suture, foveate at the middle near the anterior margin. Prothorax quadrate, wider than long, slightly rounded on the sides in front, angles not rounded, sides not margined, disc punctured, inflexed flanks sparsely and strongly punctured. Elytra with striæ more finely punctured than in *S. terminutum*. Antennæ

with the 2d and 3d joints united equal to the 4th, but not so wide. Length 10.5 mm.; .42 inch.

Enterprise; one mutilated specimen. Quite distinct by the prothorax being not margined at the sides, and by the 3d joint of the antennæ being much shorter than the 4th, which is as broad as the following ones, and subtriangular in form. The eyes, as in our other black species, are widely separated.

Table of the Species of Strongylium.

Black; eyes moderate,	widely separated	2.
Greenish-bronze, very	coarsely sculptured, prothorax not	margined,
sides slightly toothed	l; eyes large, nearly contiguous5.	crenatum.
Protheray finaly mare	and at the sides: 2d joint of antang	no longer

- 3. Epistoma not thickened in front; last joint of antennæ yellowish....4.
 Epistoma thickened in front; striæ of elytra very coarsely punctured...
 3. anthrax Schwarz.

128. **Xylophilus nubifer,** n. sp.—Moderately elongate, black, densely and finely punctured, clothed with sub-erect pale pubescence. Head brownish in front, eyes large, coarsely granulated, hairy; front narrow. Antennæ brown, longer than the head and prothorax, somewhat thickened externally; 2d joint thicker and a little shorter than the 3d; 11th as long as the two preceding wider, obliquely truncate at tip, with the apical angle acute. Prothorax wider than long, vaguely impressed. Elytra dark piceo-testaceous, with a scutellar cloud, a rounded spot one-fourth from the base, and a broad, angulated band about the middle. blackish; this band is extended along the lateral margin almost to the humeral callus; punctures strong, not very dense; wider than the prothorax base truncate, sides parallel, rounded behind. Beneath finely, sparsely pubescent; palpi, front tibiæ, and all the tarsi brown-testaceous. Length 2 mm.; .08 inch.

Enterprise; one specimen, probably a 3. More allied to X. ater and fasciatus, than to any other species in my collection.

Table of Species of Xylophilus.

	Hind angles of head prominent rounded at tin
	Hind angles of head prominent, rounded at tip4. Hind angles of head dentiform, setose; eyes oblique, coarsely granu-
	lated, deeply emarginate; antennæ flabellate, eyes very large;
	color dark, elytra with pale, angulated lines1. Melsheimeri.
3.	Brownish-black, base of elytra orange
	Grayish-black, elytra with an angulated, narrow band of gray pubes-
	cence about the middle
4.	Eyes coarsely granulated
	Eyes finely granulated, smaller, not oblique, widely distant; black,
	shining, antennæ, legs and elytra yellow; the last with the base, apex,
	lateral cloud, and large, cordate spot at the middle black. 9. notatus.
5.	Entirely black, strongly punctured4. ater.
	Piceous, strongly punctured, antennæ and legs testaceous: elytra rufous, $$
	with a broad, piceous band occupying two-thirds of the surface, ex-
	tending along the suture to the base
	Piceous, strongly punctured; elytra dull testaceous, with an ill-defined,
	oblique band and some anterior spots darker6. nubifer, n. sp.
	Testaceous, strongly punctured; head, and two small spots on each
	elytron, forming a transverse band, dark
	Testaceous, strongly punctured; elytra each with two small piceous spots arranged obliquely, the inner one being behind the middle, and
	the outer one about the middle
e	Elongate, like a slender Anthicus in form
0.	Elytra large, ventricose, piceous, finely and very densely punctured,
	with numerous anastomosing lines of white pubescence; 1st joint of
	antennæ very short
7	Head and prothorax finely punctulate8.
	Head and prothorax densely punctured; elytra more strongly punc-
	tured with two narrow bands of white pubescence, the anterior one an-
	gulated, black; antennæ and legs dull testaceous
	11. ptinoides Schwarz.
8.	Prothorax quadrate, transversely impressed near the base, elytra ob-
	liquely impressed behind the base9.
	Prothorax sub-ovate, not transversely impressed behind; form more
	elongate; color variable
9.	Fuscous, pruinose, elytra paler with an indistinct, darker band near the
	base; prothoracic impressions not deep13. brunneipennis.
	Piceous, pruinose; antennæ and legs brown or testaceous14. piceus.
	Piceous, sparsely and finely pubescent, prothoracic impression very
	deep; antennæ and legs paler
	Note.—By an error of writing I have stated on p. 265 of Classification
of	Coleoptera of North America that in this genus the penultimate joint of
+1,	o tarsi is hilohed the antenenultimate is meant

129. **Dircæa prona,** n. sp.—Very elongate, narrower behind, subcuneiform, convex, brown, densely clothed with sericeous short pubescence.

Head scabrous, bent perpendicularly downwards. Prothorax scabrous-punctate, very convex, a little longer than wide, subsinuate and broadly rounded in front, feebly rounded on the sides, truncate at base; at the sides, feebly emarginate at the middle; front angles rounded, hind angles rectangular. Elytra with the basal margin elevated, finely scabrous near the base, roughness gradually becoming very fine and dense punctuation behind. Antennæ slender; 1st, 3d and 4th joints equal in length, 2d shorter. Maxillary palpi with the 2d joint long, triangular, 3d shorter, triangular, not narrower, 4th not wider than 2d and 3d, elongate, cultriform, three times as long as its width at the base. Length 12 mm.; .48 inch.

Enterprise; very rare in dead oaks. The prothorax is more prominent and convex in front than in *D. liturata*, and overhangs the head, almost as in *Lymexylon sericeum*.

130. Mordella fascifera, n. sp.—Piceous, pubescent, with cinereous hair. Prothorax with three large spots, extending from near the base to the middle, fuscous. Elytra with the anterior third (divided by a narrow sutural gray line), and a broad oblique band behind the middle fuscous; the band forms at the suture an angle directed forwards. Beneath thinly pubescent; base of antennæ, palpi and legs piceo-testaceous. Length 2.3 mm.; .09 inch.



Cedar Keys; one specimen. The form is somewhat robust as in *M. triloba*, and the anal process is long and slender. The length is given exclusive of the process.

131. Mordella angulata, p. sp.—Black, finely pubescent, elongate. Elytra with two cinereous somewhat oblique transverse spots, one at the anterior third, the other at the second third of the length; these spots are each connected at the inner end with an oblique line running backwards to the suture. Anal process long and slender. Length 2.7 mm.; .11 inch.



Lake Ashby; one specimen. Longer and narrower than the preceding, having the form of many *Mordellistenæ*, or of *Mordella discoidea*.

132. Mordella triloba Say.—Specimens taken at Enterprise, in May, differ from Northern specimens by the elytral fasciæ being much narrower; and the anterior one is strongly angulated so that the basal spot becomes acutely triangular; the humeral region is dull ferruginous. I am unwilling to describe it as distinct, but regard it rather as a well-marked variety.

Though not belonging to the same zoölogical province, the two following species may be conveniently described here:

133. Mordella jovialis, n. sp.—Black, pubescent, with the margins of the prothorax cinereous pubescent. Elytra densely cinereous pub-

escent with black markings as follows: two small spots near the base, the outer one elongate, the inner one round; a transverse broad band at the middle, divided by a cinerous sutural line, the anterior outline of this band is nicked outside of the middle, and then runs obliquely forwards, almost to the side margin, which is cinerous; the apical fourth is also black, divided almost to the tip by the cinerous sutural line. Beneath thinly clothed with pruinose cinerous pubescence, ventral transverse bands and hind coxæ blackish. Length 4.7 mm.; .19 inch.

Bosque County, Texas, G. W. Belfrage; one specimen. Of the same form and size as *M. oculata*, to which it is allied.



134. Mordella obliqua, n. sp.—Black, pubescent. Head cinereous, prothorax with scattered cinereous hairs, and two indistinct vittæ more densely cinereous. Elytra with a very narrow sutural line, and an oblique stripe from the humeri to beyond the middle, where it becomes obsolete, cinereous. Scutellum cinereous. Beneath black; anal process long and slen-

der. Length 4 mm.; .16 inch.

Maryland, Dr. Zimmermann; Detroit, Michigan, Mr. E. A. Schwarz. In form and size this species resembles *M. marginata*. It is possible that *M. lunulata* Helmuth (Proc. Ac. Nat. Sc. Phila. 1865, 96), may have been a specimen of this species, with the elytral vitta partly effaced. The type has, I believe, been destroyed.

135. Conotrachelus ventralis, n. sp.—Not robust; elytra narrowed behind from the base, humeri not dentiform. Blackish-brown, thinly clothed, but scarcely mottled with coarse pale yellowish hairs. Beak half as long as the body, slender, brown, shining, sparsely punctured, striate each side for more than one-half the length. Antennæ inserted about one-third from the tip. Head strongly punctured, pubescent. Prothorax as long as wide, widest at the base, gradually narrowed and slightly rounded on the sides to the apex, near which it is feebly constricted; very deeply, coarsely and densely punctured, elevated dorsal line very narrow, indistinct. Elytra at base about one-half wider than the prothorax, humeri rounded, acutely margined, prominent, sides obliquely converging behind; fully one-half longer than the width at base, striate composed of large foveæ, interspaces not costate at base, but the 3d and 5th become gradually acute behind the middle; 7th acute for the

whole length, united in front at a sharp angle with the 9th, which is also acute for its whole length, the two united then form the humeral margin. Beneath, inflexed flanks of prothorax densely, metathorax more coarsely but sparsely cribrate; ventral segments very shining, with a few scattered large punctures, more numerous on the 5th. Legs long, thighs strongly unidentate, not annulated. Length 6 mm.; .25 inch.

Enterprise; one specimen. Quite different from any other in our fauna; it should be placed after *C. cratægi*, (vide Lec. and Horn, Rhynch., 230), between 1-Ba and 1-Bb.

with dull fulvous; pubescence short, irregularly condensed. Head punctured, pubescent. Beak not half as long as the body, rather slender, very slightly curved, not shining, strongly striate. Antennæ inserted less than one-fourth from the tip. Prothorax wider than long, sides strongly rounded in front, nearly straight near the base; constricted near the apex; very coarsely and densely cribrate, not carinate. Elytra one-half wider than the prothorax at the base, oblong, rounded behind, humeri rounded; striæ composed of large quadrate punctures, interspaces narrow, not flat, 3d, 5th and 7th acutely but not strongly costate; 9th acute from the middle to within a short distance from the tip; at the base of the 3d interspace is a small spot of white scales. Beneath, mesosternum prominent, metasternum cribrate; ventral segments sparsely, 5th more densely punctured, impressed near the tip. Legs long, thighs unidentate, with a ring of gray pubescence. Length 4.3 mm.; .17 inch.

Tampa; one specimen. This species has the mesosternum produced into a small process in front, as in *C. posticatus*, from which it differs chiefly by the prothorax being not carinated, and by the somewhat less robust form.

137. Conotrachelus pusillus, n. sp.—Similar to the preceding, but very much smaller, blackish-brown, with irregularly condensed pubescence; elytra mottled with dull fulvous. Head punctured, yellow pubescent; beak longer than head and prothorax, stout, curved, deeply striate. Antennæ inserted one-fourth from the end, brown. Prothorax wider than long, rounded on the sides, broadly constricted near the apex, densely and coarsely punctured, not carinate. Elytra nearly one-half wider than the prothorax at base, oblong-oval, humeri rounded; striæ composed of large punctures, interspaces not so narrow as in *C. cognatus*, 3d, 5th and 7th moderately carinate; 9th carinate behind the middle. Beneath coarsely punctured; 5th ventral broadly impressed, mesosternum protuberant. Legs long, thighs unidentate, obsoletely annulated. Length 2.5 mm.; .10 inch.

Enterprise; one specimen. This is one of our smallest species.

138. Conotrachelus coronatus, n. sp.—Blackish, thinly clothed with very fine brownish-gray pubescence and scattered pale clavate bristles, with markings of dense fine white scales. Prothorax and elytra tuberculate; the former as long as wide, channeled, rough, with the sides straight, angulated and suddenly narrowed near the apex; there are four large apical tuberosities, and two discoidal ones, besides the lateral protuberance just mentioned; the anterior constriction is very deep and there is also a transverse impression behind the lateral and discoidal tuberosities; a narrow white vitta extends from apex to base each side mid-way between the dorsal channel and the sides; these lines are connected with others on the base of the 3d elytral interspace. Elytra sub-triangular, humeri prominent, rounded. Striæ composed of large punctures, interspaces wide, alternately interrupted with black tubercles bearing reclinate clavate bristles; at the base of the 3d interspace is a short white line; a large marginal spot, pointed interiorly behind the humerus, is also clothed with dense small white scales; behind the middle is a band composed of four small spots on the 1st to the 4th interspaces, and a small spot near the tip formed of pale scales. Legs long, thighs indistinctly annulated and sprinkled with white hairs, acutely unidentate. Under surface very coarsely punctured. Length 3 mm.; .12 inch.

Enterprise; one specimen. The head is coarsely cribrate; the beak bent beyond the middle, not longer than the head and prothorax, thicker than in any other species known to me, with deep broad striæ, and carinate along the median line. Antennæ situated near the end. The mesosternum is protuberant. This species belongs to Division II, of my arrangement, and should be placed before *C. tuberosus*, (Lec. Rhynch., 233), to which (apart from coloration) it has little resemblance. The femoral denticle is obsolete, but the tooth is acute and prominent.

139. Acalles ventrosus, n. sp.—Very obese, blackish, clothed with appressed gray and brown scales with intermixed clavate bristles. Head with the occiput clothed with yellowish-gray scales. Prothorax deeply and broadly channeled, twice as wide as long, rounded on the sides, uniform blackish brown. Elytra truncate at base, basal angles obtuse not rounded, sides obliquely widened, then rounded obliquely to the apex; there is a broad basal band occupying one-third the length of dirty gray scales, and some indistinct fasciate markings of the same color, behind the middle; the striæ are deeply impressed, and the interspaces moderately convex. Mesosternum broadly emarginate, as in A. pectoralis (Lec. Rhynch., 244). Legs clothed with dirt-colored scales. Length 4.3 mm.; .17 inch.

Enterprise; May, one specimen. More ventricose than

any other species in my collection, and easily known by the deeply and broadly sulcate prothorax; the anterior transverse impression is broad and deep, and there is a broad discoidal impression each side near the base.

140. Acalles subhispidus, n. sp.—Blackish, densely clothed with dark scales, which are larger on the prothorax than on the elytra, where they are intermixed with short, reclinate bristles. Prothorax wide, strongly rounded on the sides in front, coarsely punctured, with a narrow, lateral line, and a few scattered scales pale dirt color; disc not carinate. Elytra but little wider than the prothorax, base truncate, basal angles obtuse, distinct, sides broadly rounded, then obliquely narrowed to the apex; very little wider behind the base, striæ coarsely punctured, interspaces slightly convex; there are traces of two narrow undulated bands, composed of small spots of gray scales, one before the middle, curving backwards towards the sides, the other behind the middle, curving forwards. Mesosternum deeply emarginate. Length 3.7 mm.; .15 inch.

Sumter County; May, one specimen. Easily known from our other species by the shorter reclinate bristles of the elytra. The prothorax is larger, and the elytra less rounded on the sides.

141. Cryptorhynchus helvus, n. sp.—Very similar to *C. obliquus* and differing only in the following characters: Scales pale yellow-brown, slightly variegated with darker; form of body a little narrower. Prothorax a little longer than wide, sides obliquely narrowed from the middle, where they are rounded to the apex, nearly parallel behind the middle. Elytra with the interspaces wide and flat. Thighs with one small acute tooth. Length 7.8 mm.; .31 inch.

Enterprise; May, one specimen. Except for the difference in the form of the prothorax, I should consider this as merely a variety of *C. obliquus*. The elytra are similarly impressed.

142. **Barilepton bivittatum**, n. sp.—Very elongate, black, shining, with a broad vitta of white scales each side, beginning at the front margin of the prothorax, and extending to the tip of the elytra. Head sparsely and finely punctured, beak curved, not as long as the prothorax, smooth. Prothorax wider than long, narrowed and rounded on the sides near the apex, where it is broadly and feebly constricted; disc strongly, not densely punctured, with an indistinct, narrow, smooth median line. Elytra with impunctured striæ, interspaces wide, flat, feebly and very finely punctulate. Beneath sparsely punctured; there is a patch of white scales on the flanks of the prothorax; the side pieces of the metasternum, and the sides of the ventral segments are also clothed with white scales;

the 3d and 4th ventral segments are nearly smooth. Prosternum with a wide, shallow, pectoral groove; tarsi brownish. Length 5 mm.; .20 inch.

Georgia and Northern Florida. For a specimen of this very handsome species, I am indebted to Dr. Horn.

143. **Sphenophorus apicalis**, n. sp. — Elongate, black, not shining. Prothorax with a narrow dorsal elevated line extending to the apex, where there is a large, oblong fovea on each side of it; discoidal elevations not apparent; punctures very large, shallow, irregularly scattered. Elytra with fine striæ, upon which are placed large, distant, rounded punctures; alternate interspaces slightly more convex near the base, which is deeply bifoveate, or trifoveate each side. Length 7 mm.; .23 inch.

Enterprise; May, one specimen. Belongs to Dr. Horn's Group V, (Proc. Am. Phil. Soc. 1873, 421), and may be placed in the table after S. Sayi, to which it is not allied. The proximal third of the beak is deeply and broadly excavated. The 3d joint of all the tarsi is narrow, and not spongy beneath.

- 144. Mesites rufipenuis, n. sp.—Elongate, cylindrical, shining black, glabrous, antennæ and legs brown, elytra ferruginous. Head and dilated base of beak sparsely punctured, the former with a large, vertical fovea, the latter with a short, deep channel. Prothorax longer than wide, oblong, a little narrower in front, sides broadly rounded, more so at base and apex; surface strongly but not densely punctured. Elytra with striæ composed of approximate square punctures, interspaces not wider than the striæ, sparsely punctulate, the small punctures generally forming an irregular series on each interspace. Beneath coarsely punctured, ventral segments 1–4 sparsely and less coarsely punctured. Length 5.3 mm.; .21 inch.

New Smyrna; one specimen found on the ocean beach. This species is quite congeneric with *M. subcylindricus*, but differs by the red elytra, and more finely punctulate interspaces. The funiculus of the antennæ is stout, 7-jointed, and the 2d joint is not elongated. I therefore infer that they belong to the genus *Mesites* as restricted by Mr. Wollaston, and heretofore known only from Europe.

145. **Pityophthorus obliquus**, n. sp.—Cylindrical, not slender, dark-brown, shining, thinly clothed with fine, long, erect pubescence; antennæ and legs ferruginous. Head flat, opaque, indistinctly punctulate.

Prothorax quadrate, scarcely longer than wide, broadly rounded at apex, anterior one fourth covered with obtuse granules, not arranged in concentric lines, 'gradually changing behind into fine, rugose, sparse punctuation. Elytra finely punctured, punctures arranged in approximate rows, which in places are indistinct; apical declivity flattened, feebly concave each side of the sutural stria, which is not very distinct; there are also traces at the apex of two other striæ. Front and middle tibiæ not toothed; hind tibiæ with a marginal row of 7 or 8 small acute spines, and a fringe of stiff long hairs. Length 2 mm.; .08 inch.

Enterprise; June, one specimen. This species may be placed after *P. digestus* Lec. (vide Rhynch. 352), but the flattened declivity of the elytra, only slightly concave near the suture, easily distinguishes it from all thus far described in our fauna. The punctures of the hinder part of the elytra are less fine than towards the base. The eyes are emarginate; the club of the antennæ is nearly circular, and transversely annulated.

146. **Pityophthorus seriatus,** n. sp. — Elongate, cylindrical, brown, shining, nearly glabrous, with only a few scattered, erect hairs on the head, front of prothorax, and hind part of elytra—Antennæ and legs testaceous. Head flat, opaque, indistinctly punctulate, front feebly impressed, and indistinctly carinate. Prothorax quadrate, not longer than wide, rounded in front, anterior half with irregular, transverse, subconcentric rows of granules; sides and base sparsely but distinctly punctured. Elytra with striæ composed of small punctures, interspaces wider than the striæ, the alternate ones each with 4 or 5 distinct punctures of equal size with those of the striæ; declivity not flattened nor retuse, sutural stria slightly impressed. Length 1.5 mm.; .06 inch.

Tampa; April, one specimen. This species is quite distinct by the sculpture of the elytra, and may be placed before *P. comatus*, in the arrangement already cited. The front and middle tibiæ are not serrate, and the hind tibiæ have only 3 or 4 very indistinct traces of teeth, and no range of spines, or fringe of stiff hairs as in *P. obliquus*. This species has a deceptive resemblance to *Xyleborus pubescens*, but the generic characters of the antennal club are quite different, and the specific characters abundantly distinct.

147. Cryphalus miles, n. sp.—Very small, slender cylindrical, blackish, shining, clothed with short stout erect bristles. Prothorax a little longer than wide, apex produced into an acute spine; disc with a few acute reclinate granules in front, sparsely punctured behind. Elytra

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strongly but not densely punctured, striæ hardly to be traced. Legs and antennæ piceous. Length .8 mm.; .035 inch.

Tampa; two specimens. Smaller and more slender than *C. rigidus* Lec. (Rhynch. 362), with much shorter bristles. The apical spine of the prothorax is a prolongation of the margin itself, and not a horn arising from the disc.

148. **Euxenus piceus**, n. sp.—Oval, rather elongate, convex, piceous, shining. Prothorax sparsely punctulate. Elytra punctured, the punctures forming indistinct striæ towards the sides; two outer striæ distinct, the outermost extending from the base for one-third the length; the inner one entire; marginal stria entire. Length .6 mm.; .025 inch.

Tampa, April 11th; one specimen. Differs from Eu. punctatus Lec. (Rhynch. 409), by the much smaller size, less distinctly punctured prothorax, and by the legs being not testaceous but dark, with only the tarsi yellowish. This insect has the appearance of a very minute Crytocephalus.

List of Species by E. A. Schwarz.

CICINDELIDÆ.

Tetracha carolina Linn. E. K. common in May and June, also attracted by the light.

virginica Linn. E. K. rare, with the preceding.

Cicindela scutellaris Say, race unicolor Dej.*

hirticollis Say, sea shore, as far as Key West.

dorsalis Say, NS. C. common on the sea beach; first specimen seen on April 4th; race Saulcyi; Key West, var. with elytra entirely white.

hamata Br. K. common in June on the ocean beach.

marginata Fabr. NS. C. K. common on the lagoon and ocean beach of the eastern coast; rare in April, common in June.

tortuosa Dej. common, first specimen seen on February 27th. punctulata Fabr. common, appears about the beginning of May. abdominalis Fabr. NS. E. K. common in the pine woods, appears in June; race with strongly punctured elytra.

striga Lec. L. E. very rare in May, nocturnal in its habits. hirtilabris Lec. E. K. rare, in company with C. abdominalis. gratiosa Guér.*

CARABIDÆ.

Omophron labiatum Fabr. common.

Pasimachus strenuus Lec. H. E. T. very rare.

sublævis Dej. rare.

marginatus Fabr. not rare.

subsulcatus Say, not rare.

Scarites substriatus Hald. T. rare.

subterraneus Fabr. common.

californicus Lec. K. very rare on the sea beach.

Dyschirius globulosus Say, C. H. T. not rare.

erythrocerus Lec. C. H. E. not rare.

filiformis Lec. C. H. rare.

falciger Lec. n. sp. p. 373, T. rare on the banks of the Hillsboro River.

Ardistomis obliquata Putz. not rare.

Schaumii Lec. common.

viridis Say, common.

puncticollis Putz. very rare.

Aspidoglossa subangulata Chd. not rare.

Clivina dentipes Dej. not rare.

rubicunda Lec. E. one specimen.

rufa Lec. E. rare.

americana Dej. not rare.

picea Putz. E. T. two specimens.

picipes Putz. E. L. K. very rare.

Schizogenius ferrugineus Putz. F. two specimens on the sea beach.

Sallei Putz. var. Lake Altapopka very rare.

Brachynus fumans Fabr.

quadripennis Dej.

cordicollis Dej.

lateralis Dej. common.

Panagæus crucigerus Say, H. L. very rare.

Morio monilicornis Latr. T. not rare, under old pine bark.

Helluomorpha præusta Dej. S. T. very rare, under old pine bark.

Galerita Janus Fabr. F. one specimen.

Lecontei Dej. C. S. E. not rare, found also on sugared trees.

Diaphorus Lecontei Dej. E. T. very rare, also attracted by the light.

Thalpius pygmæus Dej. very rare.

Casnonia ludoviciana Sallé, C. S. L. K. not rare.

Leptotrachelus dorsalis Fabr. C. very rare.

Ega Sallei Chevr. E. K. T. common.

Lachnophorus pubescens Dej. common.

Eucærus varicornis Lec. C. T. very rare.

Plochionus amandus Newman.*

timidus Hald. E. one specimen.

Bonfilsii Dej. var. NS. one specimen.

Loxopeza tricolor Say. T. rare.

Lebia pulchella Dej. C. T. rare.

marginicollis Dej. not rare.

viridis Say, E. L. NS. not rare.

rhodopus Schwarz, n. sp. p. 354, T. rare.

viridipennis Dej. C. E. K. not rare.

lobulata Lec. E. rare.

collaris Dej. T. E. rare.

fuscata Dej.*

Dianchomena abdominalis Chd. E. one specimen.

scapularis Dej. E. one specimen. Aphelogenia furcata Lec. T. rare.

Nemotarsus elegans Lec.*

Tetragonoderus intersectus Germ. C. E. K. not rare.

Perigona nigriceps Dej. E. rare.

Apenes angustata Schwarz, n. sp. p. 354, E. rare.

opaca Lec. T. in the pine woods under sticks, rare. sinuata Say. E. rare.

Pinacodera platicollis Say, var. fuscata Dej. H. E. rare.

Callida viridipennis Say, H. E. rare.

fulgida Dej. C. H. E. rare.

decora Fabr. E. very rare.

Onota trivittata Lec.* n. sp. p. 373, middle Florida.

Coptodera signata Dej. E. T. rare.

Platynus decorus Say, T. common.

floridanus Lec. p. 374. Common. r unctiformis Say, H. E. rare.

octopunctatus Fab. T. one specimen.

Loxandrus reflexus Lec. n. sp., p. 376, C. E. K. T. common.

calathinus Lec. n. sp., p. 376, T. not rare.

floridanus Lec. n. sp., p. 376, C. T. E. common.

erraticus Dej. E. very rare.

celer Dej. C. E. rare.

agilis Dej. common.

velox Dej. not rare.

rectangulus Lec. n. sp., p. 377, E. two specimens.

crenatus Lec. not rare.

Evarthrus seximpressus Lec. E. K. rare.

americanus Dej. one specimen, Polk county. obsoletus Say, T. in the pine woods under sticks rare. morio Dej. E. rare.

faber Germ. T. very rare.

Pterostichus acutangulus Chd. C. T. very rare.

Lophoglossus tartaricus Say,* Northern Florida.

Badister flavipes Lec. C. E. T. rare.

micans Lec. C. L. T. not rare.

Diplochila major Lec. common.

Dicælus quadratus Lec. K. very rare.

carinatus Dej. L. one specimen.

alternans Dej. L. E. T. very rare.

elongatus Dej. var.? E. very rare.

Chlænius herbaceus Chevr. C. S. L. T. rare.

erythropus Germ. not rare.

fuscicornis Dej. S. T. rare.

laticollis Say, common.

æstivus Say, E. rare.

augustus Newman*.

prasinus Dej. E. common.

nemoralis Say, rare.

tricolor Dej. common.

foridanus Horn, rare.

pensylvanicus Sav. T. E. rare.

ci-cumcinctus Say, C. E. T. rare.

maxillosus Horn, C. L. two specimens.

niger Rand. C. two specimens.

Anomoglossus emarginatus Say, T. one specimen.

Lachnocrepis parallelus Say, C. H. rare.

Anatrichis minuta Dej. C. K. T. rare.

Oodes americanus Dej. S. C. very rare.

amaroides Dej. C. E. T. not rare.

14-striatus Chd. rare.

Lecontei Chd. C. E. T. common.

cupræus Chd. C. two specimens.

Agonoderus infuscatus Dej. not rare.

testaceus Dej. common.

Anisodactylus merula Germ, not rare.

Anisotarsus agilis Dej. H. rare.

nitidipennis Lec. H. E. K. not rare.

Gynandropus hylacis var. elongatus Lec. C. T. very rare.

Selenophorus stigmosus E. not rare, frequently attracted by the light.

subtinctus Lec. C. S. very rare.

fossulatus Dej. C. Polk county, rare.

opa'inus Lec. E. rare.

excisus Lec. n. sp. 377.

ovalis Dej. T. very rare.

Harpalus pensylvanicus DeG. not rare.

nitidulus Chd. H. E. rare.

Stenolophus spretus Dej. C. E. T. not rare.

plebejus Dej. T. one specimen.

ochropezus Say, E. rare.

Bembidium versicolor Lec. T. not rare.

contractum Say, common, especially on the sea beach.

affine Say.*

Tachys albipes Lec. C. S. E. T. rare.

ventricosus Lec. common.
lævis Say, common.
pallidus Chd. H. T. very rare.
columbiensis \(\frac{1}{2} \) Zimm. ms. common.
nanus Gyll. common.
flavicauda Say, common.
ænescens Motsch. E. very rare.
xanthopus Dej. common.
incurvus Say, common.
granarius Dej. C. very rare.
carolinus \(\frac{1}{2} \) Zimm. ms. common.
n. sp. E. very rare.

HALIPLIDÆ.

Haliplus punctatus Aubé, L. K. not rare. Cnemidotus 12-punctatus Say, not rare.

DYTISCIDÆ.

Celina angustata Aubé, C. E. very rare. grossula Lec. E. very rare.

Hydroporus exiguus Aubé, L. E. T. rare.

granum Lec. T. rare. seminulum Lec. n. sp., p. 377, E. two specimens. granarius Aubé,* Northern Florida. affinis Say, var.? H. E. very rare. fuscatus Cr. common. inconspicuus Lec. not rare.

undulatus Say, common.

Hydrocanthus iricolor Say, L. T. not rare. Suphis bicolor Say, L. T. not rare.

puncticollis Cr. E. two specimens.

n. sp. E. one specimen.

Colpius inflatus Lec. T. rare.

Cybister Olivieri Cr. NS. T. K. very rare.

Laccophilus proximus Say, common.

Thermonectes basilaris Harr. C. A. T. not rare.

Hydaticus bimarginatus Say, C. T. very rare.

Coptotomus interrogatus Fab. common.

Matus bicarinatus Say.*

Copelatus glyphicus Say, common.

Chevrolatii Aubé, C. T. rare.

GYRINIDÆ.

Dineutes carolinus Lec. C. S. not rare. serrulatus Lec. S. E. A angustus Lec. * n. sp. p 378. Gyrinus elevatus Lec. common.

Rockinghamensis Lec.*

HYDROPHILIDÆ.

Hydrochus rugosus Muls. E. T. rare. callosus Lec.*

inæqualis Lec. common.

three unnamed species.

Ochthebius attritus Lec. n. sp., p. 380, H. one specimen on the lagoon beach.

simplex Lec. n. sp., p. 380, H. one specimen with the preceding.

foveicollis Lec. n. sp., p. 381, H. E. not rare.

Hydræna marginicollis Kiesenw. rare.

Tropisternus lateralis Fabr. common.

striolatus Lec. E. not rare. glaber Hbst. common.

Hydrocharis castus Say, C. very rare.

Berosus pugnax Lec. E. one specimen.

aculeatus Lec. L. not rare.

peregrinus Hbst.*

exiguus Say, E. A. K. not rare.

infuscatus Lec. L. E. not rare.

striatus Say, C. T. rare.

Chætarthria pallida Lec. C. S. E. not rare.

Philhydrus nebulosus Say, common.

bifidus Lec. E. Orange County, rare.

ochraceus Melsh. common.

consors Lec. C. P. T. rare.

diffusus Lec. C. common.

perplexus Lec. common.

Hydrobius subcupreus Say, common.

suturalis Lec. E. K. T. very rare.

despectus Lec. H. rare.

Cyclonotum palmarum Schwarz, n. sp. p. 355, E. rare.

estriatum Say, common.

semiglobosum Zimm. common.

Cercyon prætextatum Say, common.

ocellatum Say, C. E. not rare.

sp. C. E. not rare.

TRICHOPTERYGIDÆ.

Nossidium americanum Mots. T. under old leaves, rare.

Ptenidium atomaroides Mots. common in salt marsh on the eastern coast.

Ptilium three unnamed species.

Nephanes læviusculus Matth. E. under old leaves rare.

? Smicrus two species.

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Trichopteryx five unnamed species.

Limulodes paradoxus Matth.*

Ptinellodes Lecontei Matth. T. under pine bark, rare.

Ptinella pini Lec. T. under pine bark, rare.

nigrovittis Lec. T. under pine bark, very rare.

STAPHYLINIDÆ.

Falagria cingulata Lec. E. rare.

partita Lec.*

venustula Er. S. two specimens.

4 other species apparently undescribed.

Hoplandria pulchra Kraatz, shores of Indian Riv. common. two other species.

Homalota plana Gyllh. T. under pine bark, not rare.

about 30 other species.

? Stenusa two species under pine bark.

Placusa despecta Er. T. beaten from dead pine leaves, rare.

Philotermes n. sp. E. one specimen under old leaves.

Aleochara brachyptera Fourc. E. not rare.

nitida Grav. common.

Oxypoda three or four species.

Oligota four species.

Gyrophæna six unnamed species.

Myllæna four unnamed species.

Dinopsis myllænoides Kraatz, C. T. very rare.

n. sp. P. E. T. very rare.

A number of other Aleocharini.

Anacyptus testaceus Lec. S. NS. under old pine bark, very rare.

Tachinus fumipennis Say.*

Erchomus ventriculus Say, common, under bark.

lævis Lec. common in wet places under old leaves.

Conosoma crassum Grav. T. rare.

basale Er. E. not rare.

pubescens Payk. C.

opicum Say, common.

scriptum Horn, T. one specimen.

Bryoporus rufescens Lec. common.

var. testaceus Lec. common.

Mycetoporus lepidus Er. T. rare.

flavicollis Lec. common.

Acylophorus pronus Er. E. T. not rare.

densus Lec. n. sp. p. 387, E. two specimens.

flavipes Lec. n. sp. p. 387, C. very rare; (occurs also in Ohio).

Tanygnathus collaris Er. S. P. E. rare in very wet places.

Quedius ferox Lec. n. sp. p. 388, E. one specimen; (occurs also at Cambridge, Mass).

Creophilus villosus Grav. common.

Staphylinus comes Lec. T. one specimen.

tomentosus Grav. C. H. E. rare.

cicatricosus Lec.

one unnamed species T.

Belonuchus formosus Grav. common.

Philonthus hepaticus Er. E. common.

micans Grav. E. T. rare.

pæderoides Lec. common.

bistriatus Er. NS. C. on the sea beach, very rare,

and four unnamed species.

Xantholinus emmesus Grav. S. T. under bark, not rare.

cephalus Say, T. under pine bark, rare.

two unnamed species.

Leptacinus flavipes Lec. E. rare.

n. sp. T. E. rare.

nigripennis Lec. E. New Smyrna, rare.

Diochus Schaumii Kraatz, var. common.

Lathrobium puctulatum Lec. C. E. rare.

dimidiatum Say, not rare.

four unnamed species.

Cryptobium bicolor Grav. common.

floridanum Lec. n. sp. p. 389, E. one specimen.

latebricola Nordm. K. T. rare.

lugubre Lec. n. sp. p. 393, T. E. rare.

obliquum Lec. n. sp. p. 394, T. not rare.

parcum Lec. n. sp. p. 394, K. very rare.

Stilicus angularis Er. E. not rare.

Scopæus opacus Lec. common.

exiguus Er. N. S. E. rare.

two unnamed species.

Echiaster Sallei | Fvl. E.

Lithocharis corticina Grav. not rare.

four unnamed species.

Dacnochilus angularis Er. E. K. two specimens.

Sunius monstrosus Lec. T. E. very rare.

linearis Er. not rare.

prolixus Er. common.

binotatus Say, common.

Stilicopsis paradoxa Sachse, H. E. very rare.

Pæderus littoreus Zimm. T. very rare.

floridanus Austin, common.

obliteratus Lec.* n. sp. p. 395, Southern Florida.

Pinophilus picipes Er. H. very rare.

latipes Er. T. two specimens.

parcus Lec. S. E. rare.

opacus Lec. not rare.

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Palaminus flavipennis Lec. n. sp. p. 396, common.

contortus Lec. n. sp. p. 397, T. E. S. common (occurs also in Michigan).

cribratus Lec. n. sp. p. 397, very rare. pumilus Lec. n. sp. p. 398, T. E. rare. larvalis Lec. very rare.

Stenus colonus Er. not rare.

arculus Er. E. C. T. rare.

callosus Er. S. E. rare.

and five undescribed species.

Euæsthetus two undescribed species.

Megalops cælatus Grav. E. T. two specimens, lives on fungus which grows on the underside of old logs.

Osorius politus Lec. Hilsboro Co. very rare in May and June.

latipes Grav. C. E. T. not rare, frequently beaten from trees and shrubs.

n. sp.? T. rare.

Holotrochus minor Fauvel, E. K. very rare in June on flowers.

Bledius mandibularis Er. S. one specimen.

politus Er. T. one specimen.

fumatus Lec. C. S. two specimens.

cognatus Lec. E. not rare, attracted by the light.

semiferrugineus Lec. C. rare.

basalis Lec. E. K. common.

dimidiatus Lec. E. Lake Altapopka, rare.

cordatus Say, abundant on sea shore.

Oxytelus incolumis Er. S. T. very rare.

sculptus Grav.*

convergens Lec. Sand Point, two specimens.

insignitus Grav. common.

exiguus Er. T. E. rare.

Apocellus sphæricollis Say, common.

stilicoides Lec. F. E. very rare.

Trogophloeus memnonius Er. (fide Fauvel) Sand point, C. common on the lagoon beach.

fulvipes Er. common.

six unnamed species.

Glyptoma costale Er. E. rare.

Ancæus rufescens Lec. F. E. very rare, lives in the galleries of Mallodon dasystomus.

Lispinus tenuis Lec. T. under pine bark, rare.

PSELAPHIDÆ.

Tmesiphorus costalis Lec. P. one specimen.

carinatus Say, T. under old pine bark, not rare.

Ctenistes piceus Lec. not rare.

Zimmermanni Lec. T. E. rare.

Rhinoscepsis bistriata Lec. n. g. and sp. p. 382, T. E. under old leaves, rare. Tychus longipalpus Lec. T. E. rare.

Bryaxis dentata Say, C. H. E. rare.

floridana Brend. H. S. rare.

puncticollis Lec. common.

n. sp. C. H. E. rare.

rubicunda Aub.? T. E. not rare.

Decarthron abnorme Lec. E. one specimen.

exsectum Brend. C. S. T. rare.

formiceti Lec. rare.

n. sp. T. rare.

Eupsenius glaber Lec. E. T. rare.

rufus Lec. T. one specimen.

Arthmius globicollis Lec. common.

Rhexius insculptus Lec. E. T. very rare.

substriatus Lec. n. sp. p. 383. T. one specimen under old leaves.

Trimium convexulum Lec. n. sp. p. 383, T. rare.

simplex Lec. n. sp. p. 384, T. one specimen.

Euplectus linearis Lec. F. two specimens.

interruptus Lec. F. E. C. rare.

debilis Lec. n. sp. p. 386, T. rare, on swampy meadows at sunset.

tenuis Lec. n. sp. p. 386, C. one specimen.

ruficeps Lec. T. rare.

cavicollis Lec. n. sp. p. 387, T. rare.

SILPHIDÆ.

Necrophorus carolinus Linn. E. rare.

orbicollis Say, common.

Silpha inæqualis Fabr. common.

americana Linn. common.

Ptomaphagus oblitus Lec. E. very rare.

consobrinus Lec. var.

Lecontei Murray, S. E. very rare.

Anogdus capitatus Lec. * Middle Florida.

Cyrtusa blandissima Zimm. T. one specimen.

Colenis impunctata Lec. E. T. not rare.

Clambus gibbulus Lec. E. rare.

SCYDMÆNIDÆ.

Microstemma grossa Lec. H. E. T. rare.

Motschulskii Lec. common.

Scydmænus magister Lec. common.

fossiger Lec. C. rare.

capillosulus Lec. common.

basalis Lec. C. H. E. rare.

divisus Schwarz, n. sp. p. 357, E. rare.

Scydmænus analis Lec. E. very rare.

brevicornis Say, S. E. very rare. pyramidalis Lec. H. E. two specimens. clavipes Say, C. H. E. not rare. fatuus Lec. E. rare.

five undescribed species.

Chevrolatia amœna Lec. T. one specimen under old leaves.

CORYLOPHIDÆ.

Rhypobius marinus Lec. common under old leaves.

Orthoperus glaber Lec. common on grasses and shrubs.

Corylophus marginicollis Lec. common.

Sericoderus subtilis Lec. common.

Sacium lunatum Lec. E. very rare.

mollinum Schwarz, n. sp. p. 356, T. E. common, lives on the yellow pine.

splendens Schwarz, n. sp. p. 358, not rare, lives on dead leaves of the yellow pine.

SCAPHIDIIDÆ.

Cyparium flavipes Lec. E. T. two specimens.

Scaphisoma convexum Say, E. T. very rare.

punctulatum Lec. E. not rare. terminatum Melsh. E. common. pusillum Lec. E. T. not rare.

n. sp. E. rare.

Toxidium gammaroides Lec. ${\bf E}.~{\bf rare}.$

compressum Zimm.*

LATHRIDIDÆ.

Corticaria deleta Mann. common.

pumila Mels. common.
picta Lec. common.
simplex Lec. T. very rare.
three undescribed species.

DERMESTIDÆ.

Dermestes nubilus Say, common.

elongatus Lec. H. one specimen. cadaverinus Fabr.* Southern Florida. maculatus DeG. E. T. rare.

Cryptorhopalum ruficorne Lec. NS. E. rare.

hæmorrhoidale Lec.* Northern Florida.

Orphilus glabratus Er. race ater Er. T. one specimen.

ENDOMYCHIDÆ.

Epipocus punctatus Lec. T. E. rare, lives under old pine bark. Stenotarsus hispidus Hbst. E. one specimen.

Rhymbus Ulkei Cr. E. rare, lives on fungus, which grows on dead branches. Anamorphus pusillus ‡ Zimm. ms. E. rare with the preceding.*

MYCETOPHAGIDÆ.

Litargus tetraspilotus Lec. NS. rare, beaten from pine trees.

sexpunctatus Say, E. not rare.

infulatus Lec. E. rare.

nebulosus Lec. var.? common under old leaves.

Typhæa fumata Linn. common.

SPHINDIDÆ.

Sphindus americanus Lec. F. H. E. not rare.

CIOID Æ.

Cis creberrinus Mell. E. rare. eight unnamed species. Ennearthron two unnamed species.

EROTYLIDÆ.

Languria discoidea Lec. not rare, lives on a species of Carduus. marginipennis Schwarz, n. sp. p. 357, C. T. E. very rare.

Megalodacne fasciata Fab. E. rare.

heros Say, E. rare.

Ischyrus 4-punctatus Oliv. E. not rare. nigrans Cr.*

Cyrtotriplax angulata Say, B. E. not rare.

unicolor Say, B. rare.

affinis Lec. B. E. not rare.

Triplax thoracica Say, E. common.

CRYPTOPHAGIDÆ.

Loberus impressus Lec. C. H. E. rare.

Cryptophagus sp. T. one specimen.

Tomarus hirtellus Schwarz, n. sp. p. 358, common under old leaves.

Marginus rudis Lec. H. E. T. not rare under oak bark.

Silvanus advena Waltl, common.

surinamensis Linn. E. rare.

bidentatus Fabr. common.

rectus Lec. common under old leaves.

quadricollis Guér. rare under oak bark.

Nausibius dentatus Mels. L. rare under old oak bark.

repandus Lec. T. very rare under oak bark.

a I have not described this genus, as its affinities are not yet clearly made out. It is a small rounded testaceous hairy insect, having somewhat the aspect of *Rhymbus*, but without prothoracic lines; the tarsi are not dilated. The specimens at my disposal are not sufficient for a thorough investigation. Lec.

CUCUJIDÆ.

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Catogenus rufus Fabr. not rare.

Lathropus pictus Schwarz, n. sp. p, 358, H. very rare, under old bark of Quercus virens.

Læmophlœus biguttatus Say, H. E. T. rare.

fasciatus Mels. E. T. not rare.

chamæropis Schwarz, n. sp. p. 359, E. very rare.

modestus Say, common.

two unnamed species.

Nemicelus marginipennis Lec. common on *Chamarops palmetto*, also attracted by the light.

microphthalmus Schwarz, n. sp. p. 360, T. E. two specimens.

COLYDIIDÆ.

Ditoma carinata Lec. T. E. two specimens.

4-guttata Say, common.

Synchita granulata Say, common.

nigripennis Lec. E. T. rare.

Cicones lineaticollis Horn, n. sp. C. E. two specimens; (will be described in a subsequent paper).

Lasconotus pusillus Lec. P. T. common, under pine bark in the galleries of Scolytidæ.

referendarius Zimm. T. not rare with the preceding.

Aulonium ferrugineum Lec. T. rare under pine bark.

Colydium lineola Say, C. H. E. rare under oak and hickory bark.

Eulachus carinatus Lec. E. very rare in cut down palmetto trees.

Nematidium mustela Pascoe, C. E. very rare under hickory bark.

Sosylus costatus Lec. C. E. very rare with the preceding.

Endectus hæmatodes Fab. common under old pine bark.

reflexus Say, T. very rare with the preceding.

Philothermus puberulus Schwarz, n. sp. p. 361, common under old pine bark.

MONOTOMIDÆ.

Bactridium striolatum Reitter, E. T. very rare.

Europs pallipennis Lec. E. T. very rare in rotten oranges.

Monotoma producta Lec. K. very rare under pine bark.

Monotoma americanum Aubé, E. rare under old leaves.

Smicrips palmicola Lec. n.g. and sp. p. 399, common in fermenting juice of palmetto trees, in rotten oranges, &c.; found also at Savannah, Ga.

TROGOSITIDÆ.

Nemosoma cylindricum Lec. T. rare, beaten from dead pine leaves.

Trogosita virescens Fabr. E. T. not rare with the preceding.

Alindria cylindrica Serv. S. T. very rare under pine bark.

Tenebrioides cucujiformis Horn C. rare.

castanea Mels. E. T. not rare.

semicylindrica Horn E. rare.

NITIDULIDÆ.

Colastus maculatus Er. E. one specimen.

morio Er. E. rare in the fermenting juice of palmetto trees.

semitectus Say, E. one specimen.

unicolor Say, T. not rare on pine trees.

truncatus Rand. common.

Conotelus obscurus Er. C. not rare in the blossoms of Convolvulus.

Brachypeplus glaber Lec. n. sp. p. 398, E. two specimens.

Carpophilus ferrugineus Murr. H. E. rare.

pallipennis Say, common in the blossoms of Cactus.

ferrugineus Murr. common

melanopterus Er.* on Yucca gloriosa.

luridus Murr. E. T. not rare.

Epuræa labilis Er.? C. E. not rare.

luteola Er. common.

Prometopia 6-maculata Say, E. rare.

Lobiopa undulata Say, L. rare.

Omosita colon Linn. common.

Stelidota geminata Say, C. E. rare.

8-maculata Say, E. very rare.

strigosa Schenh. not rare.

Amphicrossus ciliatus Ol. E. not rare.

Pallodes silaceus Er. E. common in fungi.

Cybocephalus nigritulus Lec. T. one specimen.

Ips sanguinolentus Ol.*

PHALACRIDÆ.

Phalacrus politus Melsh. NS. E. T. rare.

pumilio Lec.? E. one specimen.

n. sp. common.

Olibrus bicolor Gyllh. E. K. T. rare.

rubens Lec. H. E. very rare.

princeps Schwarz, n. sp. p. 361, NS. E. two specimens.

consimilis Melsh, common.

nitidus Melsh. common.

pusillus Lec. common.

several unnamed and undescribed species.

Litochrus pulchellus Lec. rare on oak shrubs.

COCCINELLIDÆ.

Megilla maculata DeG. var common.

Coccinella affinis Rand var. T. very rare on willows.

Cycloneda sanguinea Linn. common.

Psyllobora nana Muls. common on oak shrubs.

Chilocorus bivulnerus Muls. E. C. rare.

Exochomus tripustulatus DeG. NS. E. rare.

marginipennis Lec. E. common, lives on the cypress.

contristatus Muls. common on oak shrubs.

Brachyacantha dentipes Fab. T. rare.

querceti Schwarz, n. sp. p. 362, common on oak shrubs.

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Hyperaspis fimbriolata Melsh. C. one specimen.

proba Say, very rare.

bigeminata Rand. H. E. not rare.

paludicola Schwarz, n. sp. p. 362, common on swampy meadows.

two undescribed species.

Hyperaspidius militaris Lec. rare on oak shrubs.

Scymnus balteatus Lec. n. sp. p. 399, S. two specimens.

quadritæniatus Lec. n. sp. p. 400, E. C. rare on oak shrubs.

bioculatus Muls. H. NS. very rare.

xanthaspis Muls. NS. T. rare.

terminatus Say, common.

ochroderus Muls. not rare.

cervicalis Muls. common.

several undescribed species.

Cephaloscymnus Zimmermanni Cr. E. very rare

Pentilia misella Lec. n. sp. p. 400, T. rare. ovalis Lec. n. sp. p. 400, E. H. rare.

Œneis pallida Lec. n. sp. p. 400, Sand Point, rare.

pusilla Lec. S. very rare.

BYRRHIDÆ.

Limnichus obscurus Lec. E. common. ater Lec. E. common. nitidulus Lec. E. very rare. ovatus Lec. common.

PARNIDÆ.

Pelonomus obscurus Lec. E. common. Stenelmis bicarinatus Lec. T. one specimen.

HETEROCERIDÆ.

 $\begin{array}{c} \textbf{Heterocerus collaris} \ Kw. \ E. \ not \ rare. \\ \\ two \ unnamed \ species. \end{array}$

HISTERIDÆ.

Hololepta quadridentata Fab. common, lives in *Chamarops palmetto*. Hister lævipes Germ. C. H. rare.

cœnosus Er. Northern Florida, common. abbreviatus Fab. common.

depurator Say, common.

incertus Mars. E. T. very rare.

indistinctus Say, H. one specimen.

americanus Payk. E. T. common.

subrotundus Say, K. one specimen.

(Platysoma) carolinus Payk. common.

parallelus Say, T. not rare.

cylindricus Payk. T. under pine bark, not rare.

attenuatus Lec. T. one specimen.

Epierus regularis Beauv. P. E. S. common under old leaves.

pulicarius Er. common under bark.

brunnipennis Mars. H. E. T. common under old leaves.

Paromalus seminulum P. E. rare under pine bark.

Tribalus americanus Lec. T. rare under old pine bark.

Saprinus Floridæ Horn, E. one specimen.

pensylvanicus Payk. common.

assimilis Payk. C. H. E. common.

cubæcola Mars.*

conformis Lec. E. one specimen.

placidus Er. E. T. rare.

neglectus Mars. H. K. one specimen.

sphæroides Lec. E. one specimen.

ferrugineus Mars. common.

dentipes Mars.* vide p. 401, Southern Florida.

brasiliensis Payk.* vide p. 401, Southern Florida.

permixtus Lec. n. sp. p. 401, K. not rare on the sea beach.

Plegaderus Barbelini Mars. P. T. rare.

transversus Say, P. T. rare.

Bacanius misellus Lec. P. E. rare.

punctiformis Lec. common.

Acritus exiguus Er. P. very rare.

Floridæ Mars.*

salinus Lec. n. sp. p. 402, K. not rare on the sea beach.

Æletes simplex Lec. E. rare in Chamarops palmetto.

LUCANIDÆ.

Passalus cornutus Fabr. common.

SCARABÆIDÆ.

Canthon nigricornis Say, not rare.

probus Germ. E. one specimen.

depressipennis Lec. T. rare.

viridis Beauv. E. rare.

hudsonias Forst. common.

Deltachilum gibbosum Fabr. C. S. E. rare.

Chœridium Lecontei Harold, C. E. not rare.

Copris anaglypticus Say, common.

minutus Drury, common.

Phanæus carnifex Linn. common.

nigrocyaneus McL. common.

Onthophagus Hecate Panz. common.

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Onthophagus Janus var. Orpheus Panz. E. one specimen.

tuberculifrons Harold, common. pensylvanicus Harold, T. rare.

Aphodius crassulus Horn.*

ruricola Melsh. C. not rare, lividus Oliv. C. very rare. vestiarius Horn, common. rubeolus Beauv. common. one new species.*

Atænius imbricatus Melsh. common.

sculptilis Harold, E. one specimen. alternatus Melsh. common. gracilis Melsh. common. ovatulus Horn, E. very rare. stercorator Fab. common. abditus Hald. C. H. E. not rare. cylindrus Horn, common.

Euparia castanea Serv. F. one specimen among ants.

Psammodius bidens Horn, C. NS. K. T. rare on the sea beach.

Ochodæus frontalis Lec. E. one specimen.

Bradycinetus ferrugineus Beauv. E. two specimens.

Bolboceras Lazarus Fabr. H. E. K. not rare, attracted by the light.

Odontæus filicornis Say, E. one specimen.

Geotrupes splendidus Fabr. var.? E. only a fragment of one elytron found. chalybæus Lec. n. sp. p. 402, T. one fragmentary specimen.

Acanthocerus æneus McLeay, E. rare, beaten from dead vines.

Clœotus aphodioides III. E. rare.

globosus Say, E. rare.

Trox scabrosus Beauv. not rare.

suberosus Fabr. common.

terrestris Sav, not rare.

Hoplia mucorea Germ. S. one specimen in February.

Serica vespertina Schh. H. T. rare in February and April.

Hypotrichia spissipes Lec.*

Diplotaxis subcostata Blanch. K. one specimen in June.

bidentata Lec. E. K. T. common in March and April.

languida Lec. n. sp. p. 403, T. common in April, on oak trees, at night.

Lachnosterna latifrons Lec. E. K. not rare in May and June.

cerasina Lec. C. one specimen in April.
glaberrima Lec. C. rare in April.
micans Kn. T. common in April.
fraterna Harr. E. very rare in May.
tristis Fabr. H. very rare in March.
four undescribed species.

Polyphylla occidentalis Linn. T. rare on young pine trees in April.

Anomala varians Fabr. common.

minuta Burm. C. S. E. rare.

marginata Fabr. C. E. T. not rare in May and June.

semilivida Lec. n. sp. p. 403, C. T. common in March and April in the pine woods; flies shortly before sunset.

Strigoderma pygmæa Fabr. T. common in April.

exigua Schwarz, n. sp. p. 362, Sumter Co. very rare in May.

Pelidnota punctata Linn. E. common in May.

Cyclocephala immaculata Burm. common.

puberula Lec. T. very rare.

Chalepus trachypygus Burm. common.

Ligyrus gibbosus DeG. C. common.

Aphonus castaneus Melsh. C. E. rare.

Polymœchus brevipes Lec. E. rare.

Strategus Antæus Fabr. not rare.

splendens Beauv. T. very rare.

Dynastes Tityus Linn. E. rare.

Phileurus truncatus Beauv. E. one specimen in June.

valgus Fabr. T. E. rare.

Euryomia melancholica Grav. common.

inda Linn. rare.

fulgida Fabr. var. E. common.

Cremastochilus Harrisii Kby. C. L. T. rare.

squamulosus Lec.*

Gnorimus maculosus Kn. K. one specimen.

Trichius piger Fabr. common.

texanus Horn.*

viridulus Fab. E. rare.

delta Forst, E. NS, common.

BUPRESTIDÆ.

Chalcophora virginiensis Drury, S. T. rare.

georgiana Lec.*

Dicerca obscura Fab. common.

Buprestis rufipes Ol. E. not rare in oak trees.

lineata Fab. C. T. rare.

Anthaxia viridicornis Say, var.? T. two specimens.

quercata Fabr. T. one specimen.

flavimana Gory, T. one specimen.

Chrysobothris femorata Lec. common.

floricola Gory, T. rare.

dentipes Germ. common.

chrysoela Ill. H. E. A. very rare.

one unnamed species (femorata var.?)

Actenodes auronotata Lap. C. one specimen in April. calcarata Chevr. E. very rare in June.

Acmæodera pulchella Hbst. not rare.

culta Web. T. rare.

Rhæboscelis tenuis Lec. E. K. very rare.

Agrilus ruficollis Fabr. C. T. not rare.

vittaticollis Rand. E. one specimen.

floridanus Cr. T. rare.

imbellis Cr. T. NS. not rare.

Taphrocerus puncticollis Schwarz, n. sp. p. 363, C. K. T. very rare.

gracilis Say, common.

agriloides Cr. H. very rare.

lævicollis Lec. n. sp. p. 403, E. one specimen.

Brachys ovata Web. common.

fascifera Schwarz, n. sp. p. 363, not rare on Quercus virens.

tesselata Fabr. T. very rare.

Pachyscelus cæruleus Schwarz, n. sp. p. 364, common.

THROSCIDÆ.

Throscus constrictor Say, T. one specimen.

punctatus Bonv. T. rare. two undescribed species.

Drapetes geminatus Say, E. very rare.

4-pustulatus Bonv. T. very rare under old pine bark.

rubricollis Lec. E. NS. T. rare on blossoms of Chamærops palmetto.

ELATERIDÆ.

Deltametopus amœnicornis Say, E.

Fornax badius Mels. E. one specimen.

bicolor Mels. E. one specimen.

molestus Bouv. E. one specimen.

Dromæolus striatus Lec. K. one specimen.

Microrhagus mucidus Bonv. E. very rare.

Nematodes punctatus Lec. n. sp. E. p. 404, E. one specimen.

Anelastes Drurii Kby. common in the pine woods.

Agrypnus Sallei Lec. L. T. rare.

Adelocera marmorata Say, E. very rare.

avita Say, E. very rare in decaying oak trees.

Lacon rectangularis Say, common.

Alaus oculatus Linn. common.

myops Fabr. not rare.

Hemirhipus fascicularis Fab. E. one specimen.

Cardiophorus cardisce Say? NS. H. very rare on the sea beach.

Dejeanii Lec. F. K. very rare.

gagates Er. H. S. not rare.

Floridæ Cand. NS. E. very rare.

one undescribed species.

Horistonotus Uhlerii Horn, NS. rare.

Esthesopus bicolor Horn, E. very rare, lives in decaying oak logs.

Elater fuscatus Melsh. E. T. very rare under pine bark.

one unnamed species.

Drasterius elegans Fabr. H. E. very rare.

Megapenthes Sturmii Germ. E. one specimen.

Anchastus longulus Lec. n. sp. p. 404, C. E. not rare.

binus Say, E. very rare.

fuscus Lec. n. sp. p. 404, E. very rare.

asper Lec. n. sp. p. 404, E. not rare.

Monocrepidius lividus DeG. common.

suturalis Lec. E. T. very rare.

lepidus Lec. C. T. rare.

vespertinus Fabr. C. NS. E. not rare.

auritus Hbst. C. rare.

bellus Say, common.

blandulus Lec. C. S. T. rare.

Dicrepidius ramicornis Beauv. T. one specimen under old pine bark.

Orthostethus infuscatus Germ. E. rare.

Crigmus hepaticus Germ. K. E. not rare on sugared trees and attracted by the light.

Glyphonyx recticollis Say, common.

testaceus Melsh. common.

Melanotus clandestinus Er. common.

communis Gyll. common.

parumpunctatus Mels. not rare.

dubius Lec. H. common.

tenellus Er. H. T. rare.

three unnamed species.

Pityobius anguinus Lec. S. E. two specimens.

Athous debilis Lec. n. sp. p. 405, L. one specimen.

cucullatus Say, common.

Sericosomus silaceus Say, H. rare.

Pyrophorus physoderus Germ. NS. E. K. not rare in June.

Anachilus mandibularis Lec.* Middle Florida.

Cebrio bicolor S. E. Orange County, rare.

RHIPICERIDÆ.

Zenoa picea Beauv. E. very rare.

Sandalus petrophya Kn. C. T. rare.

DASCYLLIDÆ.

Cyphon punctatus Lec. A. rare.

modestes Lec. common.

impressus Lec. n. sp. p. 405, T. E. rare, on swampy meadows.

Ptilodactyla serricollis Say, common.

elaterina Guér, common.

LAMPYRIDÆ.

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Lycus lateralis Mels. C. E. rare.

Calopterum typicum Newm. E. T. rare.

Cænia basalis Lec. E. rare.

Eros trilineatus Mels. not rare.

modestus Say, common.

canaliculatus Say, common.

two undetermined species.

Lucidota atra Fabr. E. one specimen.

luteicollis Lec. n. sp. p. 405, T. Sumter and Orange Cos., rare.

Photinus minutus Lec. common.

angulatus Say, C. T. rare.

ecostatus Lec.* n. sp. 406, Key West.

lucifer Melsh. H. C. rare.

nitidiventris Lec. n. sp. p. 406, E. C. very rare.

consanguineus Lec. common.

lineellus Lec. common.

collustrans Lec. n. sp. p. 407, T. E. one specimen.

umbratus Lec. n. sp. p. 407, B. C. T. H. rare.

Photuris pensylvanica DeG. common.

frontalis Lec. H. not rare.

Phengodes plumosa Oliv. H. very rare.

TELEPHORIDÆ.

Chauliognathus marginatus Fabr. common.

Podabrus rugosulus Lec. T. rare.

Telephorus imbecillis Lec. var.? T. very rare.

n. sp. E. rare.

(Polemius) incisus Lec. C. E. not rare.

two undescribed species.

Lobetus abdominalis Lec. common on swampy meadows in June.

Malthinus difficilis Lec. T. one specimen.

MALACHIIDÆ.

Collops nigriceps Say, common.

Temnopsophus bimaculatus Horn, common.

impressus Schwarz, n. sp. p. 364, A. rare in June.

Pseudebæus apicalis Say, E. T. very rare.

Attalus morulus Lec. Baldwin, rare.

circumscriptus Say, common.

scincetus Say, rare.

CLERIDÆ.

Priocera castanea Newm. C. T. rare under pine bark.

Trichodes apivorus Germ. E. T. rare.

Clerus rosmarus Say, T. very rare.

lunatus Spin. C. H. T. rare.

ichneumoneus Fabr. H. very rare.

thoracicus Oliv. H. T. rare.

Hydnocera rufipes Newn. T. two specimens on oak shrubs.

suturalis Klug. E. one specimen.

ægra Newm. rare on swampy meadows.

Chariessa pilosa Forst. C. E. T. rare.

Cregya vetusta Spin. E. very rare.

oculata Say, T. one specimen.

Orthopleura damicornis Fabr. C. H. E. rare.

Corynetes rufipes Fabr. H. E. rare.

PTINIDÆ.

Mezium americanum Lap. T. one specimen.

Ernobius granulatus Lec. T. not rare on pine trees.

Ozognathus floridanus Lec. n. sp. p. 408, T. two specimens.

Nicobium hirtum Ill. A. one specimen.

Trypopitys sericeus Say, E. one specimen.

Petalium bistriatum Say, common.

Eupactus viticola Schwarz, n. sp. p. 335, E. rare in June.

Catorama punctulata Lec. n. sp. p. 409, T. very rare.

holosericea Lec. n. sp. p. 409, E. rare, beaten from dead vines. minuta Lec. n. sp. p. 409, E. rare, beaten from dead vines.

Hemiptychus gravis C. E. T. rare, on oak shrubs.

debilis Lec. n. sp. p. 408, E. very rare on oak shrubs. similis Lec. n. sp. p. 408, T. rare on oak shrubs. puberulus Lec. n. sp. C. rare on oak shrubs. abbreviatus Lec. n. sp. p. 408, C. rare on oak shrubs. auctus Lec. n. sp. p. 409, C. rare on oak shrubs.

nigritulus Lec. H. T. rare on oak shrubs.

Dorcatoma granum Lec. n. sp. p. 411, E. very rare on old twigs.

Cænocara oculata Say, common.

lateralis Lec. n. sp. p. 411, E. two specimens.

Byrrhodes setosus Lec. n. g. and sp. p. 413. C. one specimen.

Tetrapriocera Schwarzi Horn, n. g. and sp. C. very rare, two specimens.

Sinoxylon basilare Say, E. rare.

Bostrychus bicornis Web. E. rare.

Amphicerus bicaudatus Say, H. rare.

Dinoderus porcatus Lec. T. rare on pine trees.

SPONDYLIDÆ.

Scaphinus sphæricollis Lec. Lake Altapopka, one specimen.

CERAMBYCIDÆ.

Mallodon dasystomus Say, E. not rare.

melanopus Linn. E. K. not rare in June, lives in the roots of oak shrubs.

Sternodontes damicornis Linn.* Southern Florida.

Derobrachus brevicollis Hald. Polk County, one specimen.

Orthosoma brunneum Forst. E. one specimen.

Prionus pocularis Dalm. common.

imbricornis Linn. not rare.

Elateropsis fuliginosus Fabr.* Southern Florida.

Criocephalus nubilus Lec. T. very rare.

Smodicum cucujiforme Say, E. under oak bark.

Œme rigida Say, H. rare, attracted by the light.

Chion cinctus Drury, H. C. not rare.

Eburia 4-geminata Say, E. not rare in June on sugared trees.

stigma Ol. C. one specimen.

Elaphidion simplicicolle Hald. E. very rare.

atomarium Dr. C. E. not rare.

irroratum Fab.* St. Augustine.

mucronatum Fab. E. C. not rare.

incertum Newm. E. C. rare.

tectum Lec. n. sp. p. 413, NS.; K. two of specimens beaten from dead palmetto leaves.

inerme Newm. not rare.

parallelum Newm. H. S. rare.

pumilum Newm. H. one specimen.

subpubescens Lec. T. one specimen.

unicolor Rand. E. very rare.

mæstum Lec. E. very rare.

Plectromerus dentipes Oliv. T. one specimen.

Curius dentatus Newm. E. very rare.

Phyton pallidum Say, E. very rare.

Ancylocera bicolor Oliv.*

Pteroplatus floridanus Lec. H. one specimen on oak shrubs.

Callichroma melancholicum Chevr.* Southern Florida.

Stenosphenus notatus Oliv. E. one specimen.

Xylotrechus colonus Fab. E. not rare.

Neoclytus scutellaris Oliv. E. very rare.

luscus Fab. E. rare.

Zagymnus clerinus Lec. H. E. T. very rare, lives in the stems of dry palmetto leaves.

Distenia undata Oliv. E. one specimen.

Strangalia luteicornis Fabr. E. not rare.

strigosa Newm. rare.

Typocerus badius Newm.*

velutinus Ol. var. E. rare.

zebratus Fabr. C. S. rare.

sinuatus Newm. H. T. rare.

Euryptera lateralis Oliv. T. E. very rare.

Monohammus titillator Oliv. E. T. rare.

Dorcaschema alternatum Say, E. one specimen.

Goes tigrina DeG. E. rare.

Acanthoderes 4-gibbus Say, E. common.

decipiens Hald. E. common.

Leptostylus aculifer Say, E. rare.

transversatus Chevr. C. E. not rare on dead branches.

arcuatus Lec. n. sp. p. 414, T. rare.

biustus Lec. E. rare.

planidorsus Lec. E. rare.

perplexus Hald. C. two specimens.

collaris Hald. E. not rare.

Sternidius cinereus Lec. K. one specimen.

Liopus signatus Lec. E. rare.

Lepturges symmetricus Hald. E. rare.

Graphisurus fasciatus DeG. E. rare.

Acanthocinus obsoletus Oliv. T. rare.

nodosus Fabr. T. one specimen.

Eupogonius tomentosus Hald. T. not rare on dead pine leaves.

Zaplous Hubbardi Lec. n. g. and sp. p. 415. E. not rare on old vines.

Lypsimena fuscata Lec. H. C. very rare.

Ataxia crypta Say, C. rare.

Hippopsis lemniscata Fabr. not rare.

Spalacopsis stolata Newm. E. B. two specimens.

suffusa Newm. A. not rare on swampy meadows in June.

Mecas femoralis Hald. C. Sumpter County, rare.

Oberea ocellata Hald. var. discoidea Lec. E. rare.

gracilis Hald. T. one specimen.

Tetraopes canteriator Drap. E. T. rare.

Amphionycha ardens Lec. B. one specimen.

Thia pusilla Newm. C. one specimen.

BRUCHIDÆ.

Caryoborus arthriticus Fabr. not rare, lives on dead palmetto leaves; the larva in the seeds of the same tree.

Bruchus scutellaris Fab. E. rare.

4-maculatus Fab. E. rare.

cruentatus Horn, T. rare.

Floridæ Horn, E. not rare, lives in the pods of a vicia.

alboscutellatus Horn, E. rare.

distinguendus Horn, T. rare.

musculus Say, Orange County, rare.

seminulum Horn, common.

one unnamed species.

CHRYSOMELIDÆ.

Donacia lucida Lac. E. one specimen.

piscatrix Lac. common.

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Donacia rugosa Lec. n. sp. p. 415. E. rare.

Lema cornuta Fabr. C. NS. rare.

brunnicollis Lac. F. on a species of Carduus.

maculicollis Lac. A. not rare.

Solani Fabr. E. not rare on a species of Solanum.

conjuncta Lac. E. rare.

trilineata Oliv. C. E. A. rare.

Anomœa laticlavia Forst. C. E. K. not rare on oak shrubs.

Coscinoptera dominicana Fabr. H. T. very rare.

Chlamys plicata Fabr. common.

foveolata Kn. T. rare.

Exema gibber Oliv. common.

Monachus saponatus Fab. common.

auritus Hald. C. H. E. rare.

thoracicus Cr. K. T. very rare.

Cryptocephalus formosus var. luteipennis Mels. H. T. rare.

lituratus Fabr. common.

var. lativittis Germ. common.

venustus Fabr. common.

ornatus Fabr. common.

guttulatus Oliv. C. very rare.

badius Suffr. E. not rare.

incertus Oliv. C. S. A. T. rare.

bivius Newm. E. T. very rare on oak shrubs.

notatus var. fulvipennis Hald. C. T. rare.

distinctus Hald. H. C. T. rare.

auratus Fabr. var.? H. C., not rare.

atomus Suffr. common.

pumilus Hald. not rare on willows.

three undescribed species.

Griburius larvatus Newm. not rare.

Pachybrachys carbonarius Hald. NS. T. rare.

trinotatus Melsh. not rare.

atomarius Melsh. var.? C. H. E. not rare.

tridens Mels. E. A. T. not rare.

sobrinus Hald. E. rare.

limbatus Newm. rare.

litigiosus Suffr. B. one specimen.

pallidipennis Suffr. T. common.

hepaticus Mels. NS. K. T. rare.

Heteraspis marcassita Germ. var.? H. NS. T. not rare.

curtipennis Melsh. common.

Myochrous denticollis Say, common.

Paria sexnotata Say, and var. common.

aterrima Oliv. common,

Metachroma maculipenne Schwarz, n. sp. p. 366, C. E. not rare.

Metachroma quercatum Fabr. common.

marginale Cr. common.

floridanum Cr. C. NS. E. K. not rare.

pallidum Say, E. L. rare.

lævicolle Cr. E. A. two specimens.

pellucidum Cr. common.

Colaspis favosa Say, common.

brunnea Fabr. common.

var. costipennis Dej. not rare.

prætexta Say, not rare.

Chrysomela similis Rog. var. C. E. A. not rare.

Cephalanthi Schwarz, n. sp. p. 366, C. L. T. very rare, lives on the button bush.

multiguttis Stal. E. T. rare.

Lina scripta Fabr. E. T. common on willows.

viridis Mels. var.? E. T. rare.

Cerotoma caminea Fabr. K. one specimen.

Diabrotica 12-punctata Oliv. not rare.

vittata Fabr. E. rare.

vincta Lec. n. sp. p. 416, C. T. Orange County, very rare.

Galeruca americana Fabr. T. very rare.

notulata Fabr. NS. T. not rare.

notata Fabr. E. T. rare.

integra Lec. common.

Trirhabda tomentosa Linn, C. NS, T. common.

brevicollis Lec. E. common.

Hypolampsis pilosa Ill. T. very rare.

Hamletia dimidiaticornis Cr. A. one specimen in June.

Œdionychis gibbitarsis Sav, E. K. common.

vians Ill. common.

var. concinna Fabr. rare.

thoracica Fabr. H. one specimen.

fimbriata var. circumcineta Cr. K. T. rare.

petaurista Fabr. T. very rare.

miniata Fabr. common.

6-maculata Ill. E. rare.

quercata Fabr. var. B. E. common.

var. suturalis Fabr. H. E. T. rare.

scalaris Melsh. E. not rare.

indigoptera Lec. n. sp. p. 416, T. two specimens.

Disonycha punctigera Lec. not rare.

pensylvanica Ill. common.

abbreviata Melsh. C. A. E. rare.

collaris Fabr. common.

Graptodera chalybea Ill. E. T. rare.

exapta Say, common.

Schwarz.]

Graptodera rufa Linn. common.

two unnamed species.

Longitarsus numerous unnamed species.

Batophila spuria Lec. E. rare.

cerina Lec. T. very rare.

Aphthona picta Say, H. E. T. rare.

Systema frontalis Fabr. E. L. K. not rare.

pallipes Schwarz, n. sp. p. 367, common on swampy meadows in May and June.

elongata Fabr. E. not rare.

Haltica Burgessi Cr.* Key West.

Crepidodera Helxines Linn. T. rare.

atriventris Melsh. E. T. rare.

Epitrix brevis Schwarz, n. sp. p. 367, C. E. rare.

lobata Cr. NS. rare.

hirtipennis Melsh. C. H. E. not rare.

Mantura floridana Cr.*

Cerataltica insolita Melsh. C. very rare.

Chætocnemis crenulata Crotch, (vide p. 368), Sumter County, very rare.

pinguis Lec. n. sp. p. 417, NS. E. rare.

denticulata Ill. E. K. rare.

alutacea Cr. common on swampy meadows.

parcepunctata Cr. common.

confinis Cr. E. L. T. not rare.

pulicaria Cr. E. A. not rare.

quadricollis Schwarz, n. sp. 368, E. NS. common.

obesula Lec. n. sp. p. 418, A. B. rare.

Psylliodes lacustris Lec. H. E. K. rare.

Argopistes scyrtoides Lec. n. sp. p. 416.*

Blepharida rhois Forst. common.

Stenispa metallica Fabr. E. T. not rare.

Odontota scapularis Oliv. T. one specimen.

notata Oliv. E. C. L. rare.

bicolor Oliv. E. A. T. rare.

rubra Web. H. E. T. rare.

rosea Web. L. E. rare.

Charistena nigrita Oliv.*

Ariadne Newm. A. K. rare.

Microrhopala floridana Schwarz, n. sp. p. 369, T. NS. E. Sumter Co. rare.

Erebus Newm. common on Solidago.

porcata Melsh. E. T. very rare.

Porphyraspis cyanea Say, common on the leaves of Chamarops serrulata.

Chelymorpha cassidea Fabr. H. K. T. rare.

Coptocycla aurichalcea Fabr. not rare.

guttata Oliv. K. rare.

one undescribed? species.

TENEBRIONIDÆ.

Epitragus acutus Lec.* Southern Florida.

tomentosus Lec. common on oak and pine trees.

Scheenicus puberulus Lec. T. rare on oak trees at night time.

Branchus floridanus Lec. Middle Florida on Atlantic seashore, very rare.

Polypleurus perforatus Germ. E. Orange County, very rare.

nitidus Lec. not rare west of the St. John River, in the pine woods

Nyctobates pensylvanica DeG. common.

barbata Knoch. common.

Haplandrus ater Lec. T. rare in decaying pine logs.

Glyptotus cribratus Lec. H. K. E. rare under old bark.

Xylopinus saperdioides Oliv. common.

rufipes Say, L. very rare.

Tenebrio tenebrioides Beauv. common.

Sitophagus pallidus Say, T. one specimen under oak bark.

Opatrinus notus Say, common.

Blapstinus metallicus Fabr. common.

fortis Lec. n. sp. p. 420,* Southern Florida.

opacus Lec, n. sp. p. 420,* Southern Florida.

? estriatus Lec. n. sp. p. 420, H. C. not rare on the sea beach.

Zophobas morio Fabr.* (Occurrence very doubtful, mentioned by Dr. Horn on specimens from the Bahamas.)

Crypticus obsoletus Say, common.

Tribolium ferrugineum Fabr. rare.

Dioedus punctatus Lec. P. T. not rare.

Echocerus maxillosus Fabr. not rare.

Evoplus ferrugineus Lec. E. rare in company with Bolitotherus bifurcus.

Alphitobius piceus Oliv. E. rare.

Tharsus seditiosus Lec. T. not rare under old pine bark.

Uloma mentalis Horn, E. H. rare.

punctulata Lec. common under pine bark.

Anædus brunneus Ziegl. C. E. T. not rare under old leaves.

Paratenetus punctatus Sol. rare.

Pratæus fusculus Lec. T. one specimen under old leaves.

Dignamptus stenochinus Lec. n. g. and sp. p. 421, E. very rare, beaten from dead vines, one specimen.

langurinus Lec. n. sp. p. 421, E. very rare.

Phaleria punctipes Lec. n. sp. p. 421, H. rare on the ocean beach.

longula Lec. H. C. K. common on the sea beach.

picipes Say, C. common on the sea beach.

Diaperis Hydni Fabr. rare.

Hoplocephala viridipennis Fabr. common.

Platydema excavatum Say, C. E. T. rare.

cyanescens Lap. H. E. very rare.

erythrocerum Lap. common.

Platydema ruficorne Sturm. common.

flavipes Fab. common.

janus Fab. not rare.

ellipticum Fabr. common.

lævipes Hald. F. E. very rare.

micans Zimm. C. H. E. rare, lives under sticks, etc., and not on fungi as the other species.

subcostatum Lap. E. not rare.

crenatum Lec. n. sp. p. 422, H. two specimens.

Hypophlœus glaber Lec. n. sp. p. 422, T. rare.

thoracicus Mels. T. very rare on dead pine leaves.

piliger Lec. n. sp. p. 422.*

Bolitotherus bifurcus Fabr. T. common.

Rhipidandrus paradoxus Beauv. E. rare on fungi.

Pyanisia opaca Solier, Southern Florida; also in Texas and Mexico.

Helops viridimicans Horn, * T.

Strongylium anthrax Schwarz, n. sp. p. 369, E. very rare on dead oak branches.

crenatum Maeklin, E. not rare on dead branches in May and June.

simplicicolle Lec. n. sp. p. 424, E. one dead specimen.

CISTELIDÆ.

Allecula punctulata Melsh. E. rare.

nigrans Melsh. E. T. rare.

n. sp. common.

Hymenorus obscurus Say, common.

communis Lec. E. T. not rare.

dorsalis Schwarz, nov. sp. p. 370, E. T. very rare beaten from dead palmetto leaves.

densus Lec. K. NS. common on the blossoms of Yucca in June.

one unnamed species.

Jsomira valida Schwarz, n. sp. p. 370, E. rare under old leaves.

Cteniopus Murrayi Lec. H. T. rare.

LAGRIIDÆ.

Statira croceicollis Maeklin, E. T. very rare. gagatina Melsh. H. E. very rare.

MONOMMIDÆ.

Hyporhagus punctulatus Thoms. H. E. T. rare, beaten from dead pine leaves.

ANTHICIDÆ.

Notoxus Pilatei Laf. not rare.

n. sp. C. Sumter County, rare.

Mecynotarsus candidus Lec. NS., one specimen on the ocean beach in June.

elegans Lec. NS. C. common on the ocean beach in April and June.

Tomoderus interruptus Laf. common.

Formicomus scitulus Lec. C. S. T. common near salt water.

Anthicus vicinus Laf. common.

difficilis Lec. C. L. rare.

fulvipes Laf. common.

pallens Lec. NS. very rare on the sea beach.

ictericus Laf. not rare.

two undescribed species.

Xylophilus Melsheimeri Lec. E. one specimen.

fasciatus Melsh. E. one specimen.

piceus Lec. E. one specimen.

basalis Lec. E. very rare.

ater Lec. H. S. E. very rare.

nubifer Lec. n. sp. p. 425. E. very rare.

impressus Lec. K. T. rare, lives on dead pine leaves.

subfasciatus Lec. E. T. very rare.

quercicola Schwarz, n. sp. p. 371. E. T. not rare.

ptinoides Schwarz, n. sp. p. 371. E. NS. very rare.

ventricosus Lec. not rare.

two undescribed species.

MELANDRYIDÆ.

Scraptia sericea Mels. T. one specimen.

Allopoda lutea Hald. C. H. T. rare on oak shrubs.

Synchroa punctata Newm. H. one specimen.

Dircæa prona Lec. n. sp. p. 426. E. very rare, lives in dead oaks.

Symphora rugosa Hald. E. not rare.

Eustrophus confinis Lec. E. not rare.

bicolor Say, common.

MORDELLIDÆ.

Anaspis rufa Say, K. one specimen.

Tomoxia inclusa Lec. E. one specimen.

Glipa hieroglyphica Schwarz, n. sp. p. 372. E. rare.

Mordella melæna Germ. K. T. rare.

scutellaris Fabr. common.

irrorata Lec. not rare.

inflammata Lec. T. E. NS. not rare, especially on palmetto blossoms; larva in decaying wood.

marginata Melsh. not rare.

lineata Melsh. T. rare.

fascifera Lec. n. sp. p. 427. K. one specimen.

Mordella triloba Say, var.? p. 427. E. very rare.

undulata Melsh. E. very rare.

angulata Lec. n. sp. p. 427 A. one specimen.

Glipodes helva Lec. E. T. rare, attracted by the light.

Mordellistena bicinctella Lec. E. rare.

lutea Melsh. C. E. T. not rare.

trifasciata Say, E. rare.

vapida Lec. E. one specimen.

amica Lec. E. rare.

grammica Lec. E. rare.

ustulata Lec. C. one specimen.

nigricans Melsh. common.

pustulata Melsh. common.

ambusta Lec. E. A. not rare.

fuscata Melsh. E. rare.

two unnamed species.

Rhipiphorus dimidiatus Fab.*

3-maculatus Gerst. T. Polk County, rare.

pectinatus Fabr. and var. ventralis Fabr. H. T. rare.

limbatus Fabr. K. Polk and Sumter Counties, rare.

Myodites Walshii Lec. E. T. very rare.

MELOIDÆ.

Macrobasis unicolor Kby. not rare.

Epicauta strigosa Schh. common.

Batesii Horn, common on swampy meadows in May and June.

lemniscata Fabr. E. common in May.

sanguinicollis Lec. Sumter County, not rare on Schrankia uncinata.

Zonitis longicornis Horn, T. very rare.

Nemognatha piezata Fabr. E. K. not rare.

nemorensis Hentz, T. very rare.

ŒDEMERIDÆ.

Xanthochroa lateralis var. signaticollis Hald. E. very rare.

Oxacis thoracica Fabr. common on palmetto blossoms.

notoxoides Fabr. not rare.

dorsalis Melsh. NS. C. not rare on the sea beach.

several unnamed species.

Probosca pleuralis Lec. B. K. rare.

RHYNCHITIDÆ.

Auletes Cassandræ Lec. C. one specimen.

Eugnamptus striatus Lec. C. H. T. rare on oak shrubs in March and April.

Rhynchites hirtus Oliv. H. E. T. not rare.

æratus Say, rare.

Pterocolus ovatus Gyllh. H. T. rare.

ATTELABIDÆ.

Attelabus analis Ill. common.

OTIORHYNCHIDÆ.

Epicærus formidolosus Boh. T. rare.

Agraphus bellicus Say, T. K. rare.

Neoptochus adspersus Boh. common on oak shrubs.

Pachnæus opalus Oliv.* Northern and Middle Florida, not rare.

distans Horn, E. K. T. not rare on pine and oak trees.

Tanymecus lacæna Hbst. rare.

Pandeletejus hilaris Hbst. E. common.

Artipus floridanus Horn, C. H. NS. not rare.

Lachnopus floridanus Horn,* Southern Florida.

Eudiagogus pulcher Fahræus.

CURCULIONIDÆ.

Listronotus nebulosus Lec. T. E. common.

setosus Lec. T. E. not rare.

Macrops numerous unnamed species.

Pachylobius picivorus Germ. T. on pines, common.

Hylobius pales Boh. P. rare.

Hilipus squamosus Lec.*

Lixus sylvius Boh.? T. two specimens.

fossus Lec. E. not rare.

two undescribed species.

Smicronyx sp. B. E. very rare.

Phyllotrox ferrugineus Lec.*

Endalus ovalis Lec. common.

Brachybamus electus Germ. common.

Onychylis nigrirostris Boh. common.

Stenopelmus rufinasus Gyll. E. one specimen.

Bagous mammillatus Say, B. E. K. rare.

americanus Lec.*

obliquus Lec. E. not rare.

cavifrons Lec. E. T. rare.

pusillus Lec. C. one specimen.

bituberosus Lec. C. E. T. very rare.

two undescribed species.

Otidocephalus dichrous Lec. C. L. E. rare on dead palmetto leaves. myrmex Hbst. H. C. T. rare on oak shrubs.

Anthonomus signatus Say, S. rare.

musculus Say, K. T. rare.

sulcifrons Lec. B. one specimen.

flavicornis Boh. T. E. common.

pusillus Lec. NS. rare.

elegans Lec. H. very rare on oak shrubs.

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Anthonomus Cratægi Walsh, common.

subfasciatus Lec. common.

Piazorhinus pictus Lec. E. one specimen.

Plocetes Ulmi Lec. E. one specimen.

Miarus hispidulus Lec. B. very rare.

Notolomus bicolor Lec. common on palmetto blossoms.

basalis Lec. common with the preceding, but also on other plants,

Myricæ Lec. E. NS. very rare on a species of myrtle in June.

Læmosaccus plagiatus Fabr. T. rare.

Conotrachelus retentus Say, H. one specimen.

seniculus Lec. E. rare.

affinis Boh. E. rare.

elegans Boh. C. very rare.

ventralis Lec. n. sp. p. 428, E. one specimen.

posticatus Boh. S. E. not rare.

cognatus Lec. n. sp. p. 429, NS. very rare.

pusillus Lec. n. sp. p. 429, E. one specimen.

geminatus Lec. T. one specimen.

infector Boh. C. T. very rare.

coronatus Lec. n. sp. p. 430, E. two specimens.

anaglypticus Fahrs. H. one specimen.

Micralcinus cribratus Lec. C. very rare.

Rhyssematus palmacollis Say, E. rare.

Chalcodermus spinifer Boh. Sumter County, one specimen.

æneus Boh. NS. E. T. not rare.

inæquicollis Horn, var.? C. one specimen.

collaris Horn, E. K. T. not rare.

Acamptus rigidus Lec. E. very rare.

Acalles granosus Lec. H. S. E. very rare.

subhispidus Lec. p. 431. n. sp. Sumter County, one specimen.

clavatus Say, common.

crassulus Lec. common.

longulus Lec. H. one specimen.

nuchalis Lec. C. S. E. rare.

ventrosus Lec. n. sp. p. 430. E. T. two specimens.

Pseudomus sedentarius Say, E. very rare on dead vines.

Tyloderma foveolatum Say, not rare.

longum Lec. H. E. two specimens.

æreum Say, common.

Cryptorhynchus bisignatus Say, H. E. rare.

pumilus Boh. H. E. rare.

obtentus Hbst. E. rare.

helvus Lec. n. sp. p. 431. E. very rare on dead vines.

fallax Lec. E. not rare.

minutissimus Lec. E. not rare.

Cryptorhynchus apiculatus Gyll. H. E. very rare.

oblongus Lec. E. rare.

ferratus Say, C. H. E. common.

Piazurus oculatus Say, E. rare.

Copturus nanulus Lec. E. one specimen.

Craponius inæqualis Say, E. T. very rare.

Cœliodes asper Lec. A. one specimen.

nebulosus Lec. C. E. T. not rare.

Pelenomus squamosus Lec. T. very rare.

Cœlogaster obscurus Lec. not rare.

Rhinoncus longulus Lec.*

Aulobaris Ibis Lec. E. B. rare.

Baris strenua Lec. K. T. very rare.

nitida Lec. C. H. E. K. not rare.

interstitialis Say, H. T. not rare on a white flowering thistle. ærea Boh. common.

Pseudobaris pectoralis Lec. NS. one specimen.

nigrina Say, NS. not rare.

anthracina Lec. A. K, not rare on swampy meadows.

albilatus Lec. E. A. T. common on swampy meadows.

T-signum Boh. common with the preceding.

Madarus undulatus Boh. E. very rare.

Pachybaris porosa Lec. NS. E. not rare, exclusively on palmetto blossoms.

Stethobaris corpulenta Lec. A. T. rare.

Microcholus striatus Lec. L. H. one specimen.

puncticollis Lec. A. E. B. not rare on swampy meadows. lævicollis Lec.*

Centrinus scutellum-album Say, not rare.

penicellus Hbst.*

picumnus Hbst. NS. E. T. not rare on palmetto blossoms.

decipiens Lec. K. two specimens.

calvus Lec. E. one specimen.

canus Lec. E. one specimen.

concinnus Lec. common on swampy meadows.

confusus Boh. not rare with the preceding.

Zygobaris nitens Lec.* Key West.

conspersa Lec. E. (Found also in Illinois.)

?convexa Lec. T. E. two specimens.

Barilepton bivittatum Lec. n. sp. p. 431,* Northern Florida.

lineare Lec. A. Sumter County, very rare.

cribricolle Lec. E. one specimen.

Hormops abducens Lec. C. one specimen.

BRENTHIDÆ.

Eupsalis minuta Drury, E. very rare.

CALANDRIDÆ.

Rhynchophorus cruentatus Fabr. common, lives on *Chamærops palmetto*. Sphenophorus inæqualis Say, T. very rare.

cariosus Oliv. C. A. E. rare. sculptilis Uhler, E. T. rare. placidus Say, not rare.

apicalis Lec. n. sp. p. 432, T. one spec. on the sea beach. parvulus Gyll. F. T. rare on the the sea beach.

retusus Gyll. S. one specimen.

Germari Horn, T. rare.

velutinus Lec.*

Rhodobænus 13-punctatus Ill. E. not rare.

var. 5-punctatus Say, F. not rare on a species of thistle.

Calandra Oryzæ Fabr. common in corn.

Dryophthorus corticalis.* Northern Florida.

Dryotribus mimeticus Horn, NS. rare under boards on the lagoon beach.

Gononotus lutosus Lec. H. one specimen.

Homaloxenus dentipes Woll.* Middle Florida.

Cossonus corticola Say, common under pine bark.

impressifrons Boh.*

Macrancylus linearis Lec. C. not rare under boards on the ocean beach.

Caulophilus latinasus Say, E. rare beaten from dead twigs.

Mesites rufipennis Lec. n. sp. p. 432, NS. one specimen on the beach.

Wollastonia quercicola Boh. NS. E. very rare.

Amaurorhinus nitens Horn, E. not rare on dead twigs.

Stenoscelis brevis Boh.*

SCOLYTIDÆ.

Platypus flavicornis F. P. E. under pine bark, also attracted by the light. quadridentatus Oliv. E. one specimen.

compositus Say, E. not rare. Monarthrum fasciatum Say, E. one specimen.

mali Fitch, S. E. rare.

Pityophthorus materiarius Fitch. T. rare.

pulicarius Zimm. K. T. not rare on pine trees. obliquus Lec. n. sp. p. 432, E. one specimen.

seriatus Lec. n. sp. p. 433, T. one specimen on pine trees.

Hypothenemus hispidulus Lec. H. E. rare. dissimilis Zimm. E. T. rare.

Xyleborus fuscatus Eichh. E. T. common.

biographus Lec. E. K. not rare.

xylographus Zimm. E. one specimen.

pubescens Zimm. common.

cælatus Zimm. K. T. common under pine bark.

Cryphalus miles Lec. n. sp. p. 433, T. rare on dead pine leaves.

Tomicus calligraphus Germ. P. T. common.

cacographus Lec. T. common.

avulsus Eichh. E. K. T. not rare.

Micracis nanula Lec. H. very rare.

Cnesinus strigicollis Lec. E. one specimen.

Dendroctonus terebrans Oliv. T. rare.

Hylastes porculus Er. E. rare.

tenuis Zimm. C. one specimen. exilis Chap. E. B. T. rare.

ANTHRIBIDÆ.

Ischnocerus infuscatus Fahrs. E. rare on dead branches.

Tropideres rectus Lec. S. E. rare with the preceding.

Toxotropis pusillus Lec. T. one specimen.

Phœnicobius Chamæropis Lec. C. H. E. common on fresh cut palmetto leaves.

Piezocorynus mixtus Lec. E. T. rare.

mæstus Lec. E. rare on dead branches.

Anthribus cornutus Say, H. E. not rare.

lividus Lec. L. one specimen.

Toxonotus fasciculatus Schh. E. one specimen.

Cratoparis lunatus Fabr. H. E. common.

lugubris Oliv. E. rare.

Brachytarsus limbatus Say, A. K. rare on swampy meadows.

tomentosus Say, C. K. rare.

variegatus Say, C. H. E. not rare.

Anthribulus rotundatus Lec. common on swampy meadows.

Aræocerus fasciculatus DeG. F. T. not rare, raised from the pods of a large yellow flowering shrub belonging to the Mimosaceæ.

Euxenus piceus Lec. n. sp. p. 433. T. one specimen.

APIONIDÆ.

Apion metallicum Gerst.*
nodirostre Gerst.*
segnipes Say, T. common.
several unnamed species.

ERRATA.

- P. 438 in Hydroporus for fuscatus read n. sp.
- P. 438 for Suphis n. sp. read Laccophilus n. sp.
- P. 447 in Carpophilus for ferrugineus read tempestivus Er.
- P. 456, line 1, for Sternodontes read Stenodontes.

Remarks on Geographical Distribution.

By John L. LeConte, M.D.

In now concluding this, the most complete faunal list of insects which has been prepared in the United States, it may be proper to make a few remarks on the subject of geographical distribution as exhibited by the Coleoptera above enumerated. Any observations now offered, must be very imperfect, and subject to large corrections when the faunal lists of the Coleoptera of other parts of the country have been prepared with equal care and industry.

The total number of species contained in the list (exclusive of Aleocharini, not yet studied) is 1457.

Of these the following are also found in the Antilles:(18?), 17.

Cicindela tortuosa (Mex., S. Am., Cala.).

Dicrepidius ramicornis (S. Am.). Tetrapriocera Schwarzi.

Dermestes cadaverinus (S. Am., Si-

Stenodontes damicornis. Elateropsis fuliginosa. Elaphidion irroratum.

beria). Nemicelus marginipennis. Carpophilus tempestivus.

Curius dentatus.

Epuræa luteola.

Leptostylus transversatus.

Bothrideres geminatus.

Thia pusilla. Homaloxenus dentipes.

Actenodes auronotata. Megapenthes Sturmii.

egapenthes Sturmii. Zophobas morio (doubtful).

Common to Florida and Mexico and partly found in Texas are: 8.

Cicindela hamata. Actenodes calcarata.

Epierus brunnipennis. Call

Callichroma melancholicum.

Saprinus dentipes. Pyanisia opaca.

Common to Texas, Arizona and Southern California: 4.

Scarites californicus (C).

Spalacopsis stolata (T.)

Platynus floridanus [compare tex- Epitragus acutus. anus (T.) and californicus (C.)]

I have excluded from this category those which are known to occur north of Florida, and are thus found continuously around the Gulf, in Alabama. Louisiana and Texas.

Cybister Olivieri.
Tanygnathus collaris.
Nematidium mustela.

Saprinus braziliensis. Atænius sculptilis. Hemirhipus fascicularis.

Chalcodermus spinifer.

Besides these, the anomalies in distribution worthy of being noticed in neighboring regions are:

Sosylus dentiger *Horn*, Lower California and San Domingo. Dacoderus, one species in Arizona; another in San Domingo.

And also these relations with more distant regions:

Argopistes; Florida and North Eastern Asia.

Onota; Florida and South America.

Brachypeplus (section); Florida and Africa. Mesites; Florida, Delaware and Europe.

Stenoscelis; Southern States and Cape of Good Hope.

A remarkable feature in the geographical distribution, as exhibited by this list of Coleoptera is the comparatively small number of species common to Florida and the Antilles. A little reflection on the geological development of Florida, and its relation to the Gulf Stream will show the reason for this apparent anomaly.

The Peninsula of Florida has extended southward during comparatively modern times by the gradual growth of coral reefs and their subsequent conversion into land surface; this surface would naturally be occupied by the insects and plants living in the conterminous northern regions, as far as they were able to endure the approach to a tropical climate. On the other hand the Gulf Stream, more and more compressed by the narrowing of the strait between Florida and Cuba, would have a tendency to interrupt all transfer of living beings from the Island to the Continent; while the passage of species from the coast of Mexico and Northern South America to either Florida or the Antilles would be slightly facilitated.

The occurrence of Sosylus and Dacoderus, in the deserts near the Pacific coast and in San Domingo must be referred to a much older condition of things, when the connections of land surface were quite different from that of the present time; and in fact the characters of the genera indicate that they are old forms. Sosylus is a Colydiide related somewhat to the Australian and North American Derataphrus; while Dacoderus differs from every other Tenebrionide by the front coxæ being contiguous.

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The Coleoptera of Michigan.

By H. G. Hubbard and E. A. Schwarz.

(Read before the American Philosophical Society, April 18th, 1878.)

1. Descriptions of New Species by John L. LeConte, M.D.

I have written these descriptions in order that fewer species without names may be referred to in the two lists which form the bulk of the present memoir.

The lists of the Coleoptera of the Upper and Lower Peninsulas of Michigan respectively, have been prepared by the authors with great care, after extensive explorations and collections in the two regions. The species, as far as described, have been identified with the series contained in my collection, and I cannot sufficiently express my thanks, to both Mr. Hubbard and Mr. Schwarz, for the great liberality with which they have given me even unique specimens, so that all the material necessary for comparison and investigation is placed in one single collection. My series, therefore, both of Florida and Michigan Coleoptera, contain all the species catalogued in their lists, and a basis for future studies in geographical distribution has been thus firmly established.

I have added to the list of the species from Lake Superior all those collected in my own extensive explorations of that basin, which were not contained in the collections of the authors. This list is therefore to be considered as a complete catalogue of the Coleopterous fauna of that region, so far as at present known, and exhibits some very interesting points in geographical distribution.

Especially worthy of notice is the large proportion of species common to Lake Superior and Alaska, and if types of the other species described by Mannerheim and Mäklin were accessible for comparison, the number of forms in this category could doubtless be still farther increased. Space and time alike forbid my making a separate list of such species on the present occasion, but I intend to recur to the subject again, when larger series from the Alpine heights of the Rocky Mountains have been collected. The occurrence at Lake Superior of Euthia scitula and Syntomium confragosum, previously known only from Alaska, and Gonotropis gibbosa from Colorado, deserves mention; as also the extension northward of Callida smaragdina.

1. **Dyschirius brevispinus.** Shining black, feebly bronzed, rather robust, antennæ, palpi, and legs rufous. Epistoma very slightly emarginate, angles not prominent, transverse impression deep, frontal impressions also deep. Prothorax longer than wide, oval, a little wider behind; lateral margin extremely fine, scarcely continued behind the posterior lateral puncture. Elytra oval, as wide as the prothorax, brownish at the tip, base not margined; striæ uniformly abbreviated in front, very coarsely punctured, obliterated a little behind the middle, 8th represented at the tip by a short groove; scutellar puncture large; dorsal punctures two, one on the 3d interspace near the base, the 2d near the 2d stria about the middle. Front PROC. AMER. PHILOS. SOC. XVII. 101. 3v. PRINTED JUNE 11, 1878.

tibiæ not toothed on the outer edge, terminal digitation long, slender, curved; spur not longer than the first joint of the tarsus. Length 3.4 mm.; .135 inch.

Detroit; one specimen. This species is very distinct by the small size of the lower spur of the front tibiæ, and may be placed as a separate division in B, A, a, of my table (Proc. Ac. Nat. Soc. Phila. 1857, 76.) before sphæricollis.

2. **Badister obtusus.** Piceous, shining; prothorax, base of antennæ, palpi and legs testaceous; elytra piceo-testaceous, lateral margin and base testaceous. Prothorax wider than long, narrower behind, hind angles rounded, indistinct, side margin not wider towards the base, which is not explanate towards the sides, basal impressions rounded, not extended towards the sides; dorsal line deep, transverse impressions feeble. Elytra with well-marked striæ, interspaces nearly flat, 3d with two dorsal punctures contiguous to the 2d stria. Length 5.8 mm.; .23 inch.

Marquette, Lake Superior; one specimen. More allied to the Californian *B. ferrugineus* than to any other in my collection, but easily known by the more rounded hind angles of the prothorax.

3. **Bembidium** Notaphus arcuatum. Black, with a greenish bronzed lustre. Antennal scape, palpi and legs piceo-testaceous. Elytra piceous, with ill-defined testaceous markings, viz.: a humeral cloud, lateral narrow margin, curved band behind the middle, which is concave backwards, and apex; epipleuræ black and testaceous. Prothorax wider than long, rounded on the sides, strongly sinuate behind, base as wide as the apex; hind angles rectangular, carinate; basal impressions deep, dorsal line well-impressed, transverse impressions feeble. Elytra elongate-oval, humeri rounded, striæ distinctly punctured to behind the middle, then finer and smoother; 8th stria deep near the tip; dorsal punctures two, on the 3d interspace. Length 5.4 mm.; .21 inch.

Marquette, Lake Superior. This species resembles *B. flam-mulatum* of Europe, but is wider and less convex. It also greatly resembles *B. incrematum* Lec. from Cala., Oregon and Alaska, but the latter has the elytral markings undefined, and the striæ finer and less strongly punctured.

4. **Bembidium** (Notaphus) **versutum.** Beneath black, shining; above bronzed; head and prothorax not polished; antennæ piceous, base, palpi and legs testaceous. Prothorax wider than long, narrowed behind, sides rounded in front, strongly sinuate behind, base not narrower than the apex; basal angles rectangular, carinate, basal impression rugose, deep; dorsal line abbreviated at each end, transverse impressions obsolete. Elytra elongate-oval, wider than the prothorax, humeri rounded, angles slightly marked; striæ entire, fine, finely punctulate to behind the middle, inter-

spaces flat, 3d with two dorsal punctures; color brown with metallic lustre, with large ill-defined testaceous markings arranged as in B.indistinctum, epipleure testaceous edged with black. Length 4.3 mm.; .17 inch.

Marquette, Lake Superior. Smaller and less convex than the preceding, with the prothorax wider and not polished. This species resembles the Californian B. approximatum and indistinctum in form and markings, but differs by the sides of the prothorax more strongly sinuate towards the base, and by the head and prothorax being less shining, and of a brown-bronze, not green-bronze color.

5. Hydroporus fuscatus Crotch. Oblong-oval, elongate, pointed behind, shining brown above, mottled with darker; antennæ with the outer joints blackish. Prothorax slightly rounded on the sides finely and distinctly punctured, basal plica extending a short distance upon the elytra, which are more strongly and not densely punctured. Metasternum with a few scattered punctures, and three striæ behind. Length 1.7 mm.; .065 inch.

Detroit and Lake Superior. Allied to affinis, but the elytra are more strongly and sparsely punctured; the continuation of the stria upon the elytra is very short, and forms an angle with the thoracic stria. Among 14 specimens examined I find no sexual difference worthy of note, and I have redescribed this species in order to correct an error made by Mr. Crotch, who (Trans. Am. Ent. Soc. 1873, 391,) considered as the \mathcal{P} a different species, in which the stria is not continued upon the elytra.

6. **Hydroporus laccophilinus.** Ovate, depressed, pointed behind, brown, paler in front, darker behind; epistoma not margined, head finely punctulate; prothorax (3) rugose and finely punctured, narrower in front, sides oblique, finely margined. Elytra (3) strongly punctured, shining, (2) opaque, finely sparsely punctulate. Metasternum channeled for the posterior half of its length; sparsely punctured in front; abdomen coarsely punctured in both sexes. Length 2.6 mm.; .10 inch.

Detroit; rare. The form is exactly that of a *Laccophilus* in miniature. The head and prothorax of the φ are opaque and very finely and sparsely punctulate.

7. **Suphis semipunctatus.** Elongate-oval, not pointed behind, moderately convex, yellow-brown, shining, smooth; elytra darker, covered from the middle to the tip with scattered coarse punctures; of which one series extends to the base half way between the margin and suture. Pros-

ternum not punctured, less dilated behind than in the other species, but with two short posterior striæ; metasternum with a deep impressed median line, smooth, with only a few scattered punctures behind. Length 26 mm.; 10 inch.

Monroe, Michigan; one specimen; very different from the other species by the regularly oval form, scarcely narrower behind than before, by the peculiar punctuation of the elytra and by the impunctured sterna. The last joint of the maxillary palpi is nearly acute at tip, and does not appear emarginate from any point of view.

The insect mentioned in the Florida list (ante p. 438) as Suphis n. sp., on remounting, proves to be a very small species of Laccophilus, having the same form of prosternum as the others. It may be here conveniently described as:

8. Laccophilus pumilio. Ovate, pointed behind, not convex, impunctured, rufo-testaceous, meso- and metasternum darker; elytra piceous, slightly iridescent, regularly narrowed behind, and not obliquely truncate at tip; abdomen without the distant fine oblique lines seen in the other species. Length 1.9 mm.; .075 inch.

Enterprise, Florida; one specimen. Very careful examination shows in certain lights traces of two or three lines on the second ventral segment towards the sides, but these are the only evidences of the characteristic ventral sculpture of the other species.

9. Gaurodytes leptapsis. Elongate-oval, less obtuse than usual, black, with a slight bronzed tint, opaque, finely strigose with lines forming very elongate meshes; base of antennæ, palpi, front and middle legs tinged with piceous. Head less opaque than the prothorax, the sides of the latter are oblique, finely margined and scarcely rounded. Elytra with the usual rows of punctures indistinct. Beneath shining, finely reticulate, mesosternum acutely emarginate, hind tibiæ sparsely, coarsely punctured, margined on the inner side, but without a very distinct row of punctures. Front and middle thighs distinctly, not densely punctured. Length 9.7 mm.; .38 inch.

Marquette, Lake Superior; one specimen. This species is as elongate as G. parallelus, but less obtusely rounded, and is easily recognized by the peculiarily elongated meshes of the reticulation. The prosternum is obtusely carinate.

10. Gaurodytes longulus. Elongate-oval, obtuse at each end, not convex, shining, smooth black, with a slight metallic gloss. Antennæ, palpi

and feet tinged with piceous. Prothorax with sides oblique, finely margined; apical and basal rows of punctures strongly marked. Elytra with the rows of punctures strongly marked. Prosternum acutely carinate; mesosternum deeply emarginate; front and middle thighs punctured and rugose; hind tibiæ smooth, with a few small punctures at the inner margin and some larger ones along the outer margin. Length 9 mm.; 35 inch.

Smooth but not polished; claws of front tarsi long, not toothed, curv-

ed only near the tip.

Lake Superior; the elytra vary from brown to black, with only the edge brownish. The form is exactly as in *G.* parallelus, from which it differs greatly by the other characters.

11. **Hydrobius feminalis.** Sub-ovate, convex, blackish piceous, sides of prothorax and elytra and beneath paler. Head and prothorax sparsely punctulate, elytra finely not densely punctured, sutural stria deep, extending from the middle to the tip. Length 2 mm.; .08 inch.

Detroit. This species is less oval than the others of the same size in our fauna, and is somewhat narrower behind than in front; it is free from metallic lustre. The prosternum and mesosternum are not prominent, and the thighs are punctulate and pubescent from the base nearly to the knees. It therefore belongs to the genuine Hydrobii, and is allied to the two following Californian species.

12. **Hydrobius castaneus.** Oval, convex, shining brown, beneath piceous. Head prothorax and elytra finely, moderately densely punctured, the latter a little more strongly; sutural stria deep, extending from the middle to the tip. Length 2.5 mm.; .10 inch.

Lake Tahoe, Cal.; Mr. Crotch. The pro- and mesosternum are not carinated, and the thighs are punctulate and pubescent except near the knees.

13. **Hydrobius cuspidatus.** Oval, more elongate and somewhat less convex; blackish piceous, paler at the sides of the head and prothorax, also along the basal and apical margins of the latter; finely punctured, rather more strongly upon the elytra, with here and there indistinct traces of rows. Length 3.4 mm.; .14 inch.

Lake Tahoe, Cal.; Mr. Crotch. The prosternum is not carinate; the mesosternum is strongly carinate, with the anterior angle rectangular and slightly cuspidate. The under

surface and thighs are punctulate and pubescent almost to the knees.

- 14. **Habrocerus? magnus.** Elongate, depressed, blackish piccous. Head and prothorax shining, polished, the former with one frontal puncture each side. Prothorax twice as wide as long, emarginate at tip, broadly rounded at base, narrowed in front, strongly rounded on the sides, basal angles much rounded; sides finely margined, with two marginal punctures, and one in the base near the angle, base very finely margined; disc with one setigerous dorsal puncture each side. Elytra finely punctured and pubescent, with some feeble traces of striæ near the base towards the suture. Dorsal segments densely punctulate. Beneath finely punctured and pubescent; tip of abdomen, antennæ, palpi and legs piceous. Length 3.8 mm.; .15 inch.
- ♂ 6th ventral segment acutely emarginate, 7th more deeply emarginate almost to the base, 8th prominent, rounded at tip.
 - Q Ventral segments not emarginate.

Isle Royale, Lake Superior. This species differs from *H. Schwarzi* by the much greater size, more elongate and depressed body, and pubescent elytra; it seems to be a connecting form between this genus and *Tachinus*.

15. **Agathidium globatile.** Black, shining, completely contractile into a ball. Head and prothorax smooth. Elytra smooth, without sutural stria, finely margined, margin extending along the base almost to the scutellum, which is large and triangular. Length (when contracted) 2 mm.: .08 inch.

Marquette and Detroit. Much smaller than A. oniscoides, but not otherwise specially different.

16. **Agathidium parvulum.** Hemispherical, not contractile, rufo-piceous, shining, smooth, elytra with sutural stria extending from the middle to the apex. Length 1.2 mm.; .05 inch.

Marquette, Lake Superior. This is the smallest species in my collection, and is less contractile than any other known to me.

17. Staphylinus cæsareus Cederholm; Er. Staph. 378.

A specimen of this European species, found at Detroit, differs by having the golden pubescence confined to the neck and to the posterior margin of the second dorsal segment. No golden hairs are visible either at the base and apex of the prothorax or on the sides of the ventral segments.

18. Batrisus simplex. Rufous, shining, sparsely pubescent. Head

slightly scabrous, vertex slightly elevated and convex, surrounded by a shallow curved impression. Prothorax campanulate, with the dorsal and lateral striæ deep; behind the middle between the striæ each side is an acute conical tubercle, and still nearer the base two very small teeth. Elytra indistinctly and sparsely punctulate. Antennæ with the joints 3–8 not longer than wide, 9th and 10th rounded gradually larger, 11th still larger, oval, pointed. Hind tibiæ with long terminal spur. Length 2 mm.; .08 inch.

- δ Head finely scarbrous, front protuberant anteriorly and retuse, with an apical concavity.
- $\ensuremath{\mathbb{Q}}$ Head nearly smooth, vertex entirely smooth, front gradually declivous not prominent.

Detroit; one pair. Sufficiently distinct by the feeble sculpture of the head, and the absence of antennal sexual characters.

19. **Orthoperus scutellaris.** Oblong-oval, slightly convex, piceous, black, glabrous, not very shining. Scutellum large, very distinct. Elytra narrowly margined behind with testaceous. Length .7 mm.; .027 inch.

Michipicoton River, north shore of Lake Superior; also found in Illinois, and abundantly in British Columbia, at Lake Labache. This species is double the size of *O. glaber*, and less rounded. It is recognized at once by the very distinct scutellum.

Under a high magnifying power the elytra are seen to be finely strigose, and very sparsely and indistinctly punctulate.

20. **Orthoperus suturalis.** Oval, rounded, slightly convex, piceous black, glabrous, shining. Scutellum distinct. Elytra with a very fine sutural stria slightly visible from the middle to the tip. Length .5 mm.; .02 inch.

Enterprise, Florida. Smaller, or of the same size and form as O. glaber, but easily known by the distinct scutellum, and fine sutural stria. The elytra are very sparsely and indistinctly punctulate as in the preceding.

21. Orthoperus elongatus. Oblong-elongate, slightly convex, piceous, moderately shining. Scutellum distinct. Elytra with a very fine sutural stria effaced behind, but curving in front around the base and ending half way between the scutellum and the humerus; tips separately rounded, with the apex of the abodomen more prominent than in the other species. Length .5 mm.; .02 inch.

Tampa, Florida. Smaller and narrower than the other species, having much the form of *Ptilium*.

22. Lathridius opaculus. Elongate, blackish piceous, opaque. Antennæ one-half longer than the head. Prothorax slightly convex, wider than long, a little narrowed behind, sides rounded in front, subsinuate behind the middle, margin not reflexed; disc transversely impressed near the base. Elytra elongate-oval, one-fourth wider than the prothorax, striæ fine punctulate, interspaces flat, disc oblique and broadly impressed in front of the middle; sutural stria more deeply impressed behind the middle. Length 1.5 mm.; .06 inch.

Detroit, Illinois, Mass., and Maryland. In some specimens the prothorax is obsoletely channeled.

23. Lathridius maculatus. Less elongate, blackish piceous, opaque. Head and prothorax broadly channeled, the latter feebly convex, wider than long, narrowed behind, sides finely serrate, not reflexed, rounded in front, sinuate towards the base; disc deeply transversely impressed behind the middle. Elytra nearly one-half wider than the prothorax, truncate at base, widest just behind the middle, sub-depressed, striæ fine, punctured, sutural and two outer ones deeper, especially near the tip; color testaceous, tessellated with black quadrate spots, margin blackish; disc deeply obliquely impressed near the base. Length 1.9 mm.; .075 inch.

Detroit. Allied to these two species is the following:

24. Lathridius duplicatus. Moderately elongate, blackish piceous, opaque. Prothorax one-half wider than long, narrowed behind, sides finely serrate, rounded in front, oblique behind, hind angles obtuse; disc feebly impressed in front of the middle, and with a shallow transverse impression behind the middle. Elytra one-third wider than the prothorax, elongate-oval, striæ composed of punctures, not regularly arranged, and approximated by pairs; the sutural and two outer ones are slightly impressed near the tip. Legs rufo-piceous. Length 1.9 mm.; .075 inch.

Illinois, and Detroit. This and the two preceding species belong to the group *Enicmus* Thomson, in which the prosternum extends to the hind margin of the prothorax, the antennæ are shorter than the head and prothorax, with the three outer joints enlarged; and the prothorax is not strongly margined at the sides.

In *L. sculptilis* only two joints of the antennæ form the club; it thus belongs to *Coninomus* Thomson. In *L. liratus*, a still more remarkable peculiarity, first mentioned to me by Dr. Horn, is seen; the prosternum extends only a short distance behind the coxæ, and is enclosed by the epimera, which coalesce on the median line as in Rhynchophora; the front

coxæ are also conical, prominent and contiguous. The antennæ are slender and longer than the head and thorax, as in the true *Lathridii* with costate prothorax. These differences in structure entitle it to be ranked as a distinct genus for which the name *Stephostethus* may be adopted.

The two following species belong to *Enicmus*, though the antennæ are more slender and a little longer than in those above described, and the sides of the prothorax are flattened.

25. Lathridius tenuicornis. Robust, depressed, dark brown, head and prothorax opaque, scabrous, slightly channeled. Prothorax more than one-half longer than wide, narrowed before and behind, sides strongly rounded, oblique towards the base, margin finely serrate, flattened but not reflexed; disc with a transverse slightly curved impression in front of the base, extending nearly to the sides. Elytra oval, wider than the prothorax, strongly margined, impressed near the base, shining; striæ scarcely impressed, finely punctured, interspaces flat, each with an obsolete row of very fine points. Antennæ shorter than the head and prothorax, slender, three outer joints longer, but very slightly thickened. Length 2 mm.; .08 inch.

California, near Sonoma.

26. Lathridius laticollis. Less robust, sub-depressed, brown, antennæ, legs and antennæ rufous. Head and prothorax opaque, scabrous, feebly channeled, the latter nearly twice as wide as long, formed and sculptured as in 'L. tenuicornis, but less rounded on the sides. Elytra elongate-oval, very little wider than the prothorax, truncate at base, strongly margined at the sides, slightly impressed near the base; striæ punctured, scarcely impressed, fainter behind; interspaces nearly smooth, flat. Antennæ two-thirds as long as the head and prothorax, slender, outer three joints a little thickened. Length 1.5 mm.; .06 inch.

Detroit. This species is very closely related to L. tenuicornis, and differs only by the prothorax being less rounded on the sides, and the elytra but little wider than it.

ODONTOSPHINDUS nov. gen. Sphindidæ.

General characters as in Sphindus, except:

Body elongate, glabrous; sides of the prothorax but feebly rounded, with 6 or 7 distinct teeth; elytra with striæ not impressed but strongly punctured. Flanks of prothorax not concave for the reception of the antennæ. Antennæ, legs, tarsi and sterna precisely as in Sphindus.

This genus would seem to indicate a relation between the families Sphindidæ and Derodontidæ.

27. **0. denticollis.** Elongate, sub-cylindrical, brown, glabrous. Head finely punctured, transverse frontal impression deep, vertex, with a broad but not deep channel. Prothorax twice as wide as long, slightly narrowed in front, strongly but not coarsely punctured, sides nearly straight $({}^{\wedge}_{0})$, or slightly rounded $({}^{\vee}_{0})$, with 6 or 7 distinct teeth, hind

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angles obtuse, base slightly rounded, very finely margined. Scutellum large, acuminate behind. Elytra nearly four times as long as the prothorax, but not wider; striæ not impressed, strongly punctured; scutellar stria long; behind the base there is a shallow impression. Antennæ paler at base, club large, two-jointed; eyes convex prominent. Length 2.7 mm.; .10 inch.

Detroit; one specimen. I am indebted to Dr. Horn for other specimens from Canada and California.

EURYSPHINDUS nov.gen. Sphindidæ.

General characters as in Sphindus, except:

Body broadly oval, moderately convex, clothed with erect hairs; prothorax narrowed in front, rounded on the sides; elytra with striæ feebly impressed, strongly punctured. Flanks of prothorax deeply and widely concave beneath. Eyes small, frontal suture finely impressed, not deep.

28. E. hirtus. Blackish brown, shining, pubescent with stiff erect hairs. Head sparsely punctulate, frontal suture fine, eyes small, not prominent, but convex. Prothorax more than twice as wide as its length, narrowed in front, sides slightly flattened, edge acute, crenulate, scarcely margined, base sub-sinuate not margined, disc strongly not coarsely punctured. Scutellum large, finely punctured. Elytra with strice of well marked punctures, interspaces feebly convex, rugosely punctulate; humeral callus rather prominent, paler brown. Beneath punctured, tibiæ and tarsi paler. Length 1.6 mm.; .06 inch.

Detroit; one specimen. In the Munich Catalogue Sphindus is placed at the end of the Ptinidee, a position for which it is unsuited, on account of the much smaller coxal cavities the prosternum distinctly separates the coxe, which are themselves, though transverse, small and not prominent. The form of the antennæ and tarsi also forbids a reference to the Ptinidæ. To these characters I have to mention, that the antennæ, in repose, are flexed in a different manner, the slender part being laid each side along the prosternal suture, and the club bent suddenly outwards, behind the front leg. In Eurysphindus the flanks of the prothorax are deeply concave for the reception of these organs, in Sphindus the concavity is much less; and in Odontosphindus the depression is obsolete, though the form of the antennæ is the same in all three genera. I may here observe that the club of the antennæ is described as three-jointed; the 8th joint is so much

smaller than the 9th and 10th, and moreover, so little different in width and length from the 7th, that it seems more natural to view it as belonging rather to the stem than to the club, which would thus be properly designated as two-jointed.

MYCETOPHAGUS Hellw,*

The species known to occur in our fauna are eleven in number, three of which will now for the first time be described, two of these presenting characters worthy of special mention.

- M. confusus departs remarkably in sculpture from the other species, to a degree that one of the generic characteristics becomes lost. There is no arrangement of punctures in striæ except very feebly at middle near the base, while the punctures of the intervals become so numerous and large that the punctuation becomes confused as in *Triphyllus*,
- M. tenuifasciatus has a peculiar male sexual character, consisting of a transverse row of fine silken hairs on the first abdominal segment. No other species in our fauna has any other male character than that afforded by the anterior tarsi which are three-jointed, in the female four-jointed.

In the vast majority of our species the antennæ are either somewhat fusiform or gradually thickened to tip; two, however, have the last three joints of equal width and rather suddenly wider than the preceding. Other characters of less importance are made use of in the following synoptic table.

Table of species of MYCETOPHAGUS.

Elytra striato-punctate1.
Elytra confusedly punctured6.
1. Antennæ gradually broader externally or sub-fusiform2.
Antennæ with last three joints rather suddenly larger5.
2. Thorax broader at base
Thorax narrower at base than at middle4.
3. Abdomen moderately shining, punctuation less dense:
Prosternum coarsely punctured. Antennæ longer than head and
thoraxpunctatus.
Prosternum nearly smooth. Antennæ not longer than head and
thoraxcalifornicus.
Abdomen densely and finely punctured, sub-opaque.
Prosternum nearly smooth at middleflexuosus.
Prosternum densely and coarsely puncturedbipustulatus.

^{*} For this synopsis of Mycetophagidæ, and the descriptions of the new species belonging to the family, I am indebted to the kindness of Dr. G. H. HORN.

4. Margin of thorax entire:

Form rather broad, thorax densely and freely punctured......

pluriguttatus.

Form slender, thorax coarsely and deeply punctured **Melsheimeri**. Margin of thorax serrulate:

Elytra maculate with yellow spots......pluripunctatus.
Elytra piceous brown.....pini.

Elytra piceous brown.....pini.

5. Elytra nearly black. Male with brush of hair on first ventral......

tenuifasciatus, n. sp. Elytra piceous, maculate with yellow. Male without brush......

With *Melsheimeri* I have united *obscurus*, the latter seeming to be merely an unicolorous form. *M. pini* and *pluripunctutus* would seem to occupy the above relationship, but the latter is always more slender and less depressed.

Of the above species californicus and pluriguttatus are peculiar to California, confusus to Colorado, tenuifasciatus extends across the north of our territory, while the other species are widely distributed in the Atlantic and Gulf States.

29. Mycetophagus californicus Horn, n. sp. Oval, piceous, feebly shining, sparsely clothed with brownish pubescence. Head moderately densely punctate. Antennæ brownish, base and terminal joint paler, the latter nearly as long as the two preceding. Thorax transverse, broadest at base, sides arcuate and gradually narrower to apex, margin not serrulate, surface moderately densely punctured with coarse and fine punctures, basal impressions moderately deep. Elytra nearly black, with a yellow oblique spot at the humeri, and a transverse fascia at apical third, not attaining the suture nor margin, surface with striæ of small sub-quadrate punctures not closely placed, intervals flat, irregularly biseriately punctulate. Body beneath and legs brownish, prosternum nearly smooth, abdomen finely but not densely punctulate. Length .16 inch; 4 mm.

This species is of the same general form as *punctatus* but smaller. The elytral markings in the two species are of the same type but in the present the yellow color is less extended. The antennæ are not longer than the head and thorax. The abdomen of the male is simple, the first joint of the anterior tarsi slender and moderately long.

Two specimens, Lake Tahoe, California, Crotch.

30. Mycetophagus tenuifasciatus Horn. n. sp. Oval, piceous black, feebly shining, sparsely pubescent. Head moderately densely punctate. Antennæ piceous, last three joints broader. Thorax transverse, sides arcuate, margin not denticulate, base very slightly narrowed, disc densely punctured with coarse and fine punctures intermixed, those toward the sides coarse, basal impressions feeble. Elytra with striæ of moderate punctures rather closely placed, intervals finely biseriately punctulate. Abdomen

finely punctulate, sparsely at middle, more densely at the sides. Legs nearly black. Length .20 inch; 5 mm.

In addition to the short black pubescence clothing the elytra there are very narrow sinuous bands of grayish pubescence, the first at basal third, the second behind the middle, and also an apical spot. The median band divides near the middle of each elytra and sends one branch forward, another backward to the margin. When the pubescence of the bands is removed the surface beneath is somewhat paler.

The punctuation of the surface of the thorax varies somewhat. In a specimen from Marquette, Mich., the entire surface of the thorax is as coarsely punctured as at the sides, and the elytral sculpture also stronger.

In addition to the anterior tarsi being three-jointed, the male has a tuft of silken hairs arising from an arcuate line at the middle of the first ventral segment.

Occurs from the White Mountains of New Hampshire to Michigan, Colorado and British Columbia.

31. M. confusus Horn, n. sp.

Oval, piceous, sparsely pubescent, elytra maculate with yellow. Head densely punctured. Antennæ as long as head and thorax, outer four joints stouter. Thorax transverse, arcuately narrowed from base to apex, surface densely and coarsely punctured, basal impressions moderately deep, margin not serrulate. Elytra densely punctulate with a feebly striate arrangement at middle near the base, color piceous, maculate with large yellow spots as in flexuosus, the posterior band, however, not attaining the apex. Body beneath and legs rufo-piceous, prosternum sparsely punctate, abdomen densely punctate. Length .18 inch; 4.5 mm.

One & specimen, Colorado, Morrison.

32. **Diplocelus angusticollis** *Horn*, n. sp. Oblong-oval, piceous, moderately shining, sparsely pubescent. Head coarsely and moderately densely punctured. Thorax trapezoidal, narrowed in front, sides very feebly arcuate, hind angles suddenly broader covering the base of the elytra, surface coarsely and deeply punctured, with three feebly elevated lines at the sides which are less distinct in front. Elytra oblong-oval, with rows of coarse closely placed punctures, intervals with a single row of fine punctures, surface sparsely clothed with fine recumbent pubescence, with short, semi-erect, stouter hairs arising from the interstitial punctures. Abdomen alutaceous, sparsely punctate and finely pubescent. Length .13 inch; 3.25 mm.

This is the only species described with the thorax much narrowed in front. Its aspect is somewhat that of a *Throscus*.

One specimen, Marquette, Mich.

It seems to me that the opinion of Mr. Reitter is correct that *Marginus* does not appear to be sufficiently distinct

from Diplocelus (Verhandl., k. k. Zool. Bot. Gesells. Wien, 1877, p. 189). We have in our fauna, by this arrangement, three species, of which the one above described is new. They are as follows:

Table of species of DIPLOCELUS.

Lateral lines of thorax well marked.

D. brunneus Lee., New species, 1863, p. 73, has the thorax equally wide at apex and base, and the lines at the sides of the thorax well marked. The elytra are slightly wider than the thorax and very sparsely clothed with a recumbent pubescence, the interstitial punctures bearing short semi-erect hairs. Length .14 inch; 3.5 mm.

Occurs from Pennsylvania to Illinois.

D. rudis Lec., (Marginus) loc. cit; philothermoides Reitter, Verhand. k. k. Zool. Bot., Gesellsch. Wien, 1877, p. 189.

A much smaller species than either of the preceding, resembling at first glance a Philothermus. The thorax is rather broader than the elytra, coarsely and densely punctured, with a feeble trace of one of the lines only. The surface is pubescent as in brunneus. Length .08 inch; 2 mm.

In describing this species Mr. Reitter says the intervals are without fine punctures. They are nearly obsolete in some specimens but quite distinct in others.

D. mus Reitter, loc. cit., p. 188.

Under this name a species is described by Mr. Reitter, who is in doubt whether it came from "Amer. occ." or the West India Islands. It seems to be Mexican.

Table of species of LITARGUS.

The species may be distinguished in the following manner:

Form rather convex, elytra coarsely not densely punctate. Thorax without basal impressions.

Form depressed, elytra rather finely and densely punctate. Thorax with basal impressions.

(1.) L. sexpunctatus Say, (Mycetoph.) Journ. Acad. V, 261; Lec. Proc. Acad. 1856, p. 14.

Piceous, depressed, moderately shining, each elytron with three yellow spots. Thorax sub-opaque, moderately densely punctate. Elytra densely punctate, shining, sparsely pubescent and with semi-erect hairs in rows. Length 2.75 mm.; .11 inch.

Pennsylvania, South Carolina, Illinois. This species and the next are the only ones with distinct basal thoracic impression and with a depressed form of body.

(2.) **L. balteatus** Lec.; transversus Lec.; infulatus Lec. Proc. Acad. 1856, p. 14.

The form, color and sculpture resemble the preceding species. The pubescence of the elytra is rather more evident while the seriated hairs are rather less distinct. The color of the elytra is piceous with yellow spots, as follows: one humeral, another post-scutellar, often united, a transverse band behind the middle angulated in front at the middle of each elytra. Length 2–2.75 mm.; .08–.11 inch.

The terminal joint of the antennæ is broader than the preceding, truncate at tip, and nearly as long as the ninth and tenth together.

Occurs from Missouri to Colorado, Arizona and California.

(3.) L. tetraspilotus Lec. loc. cit.

Oval, moderately convex, piceous, shining, sparsely pubescent. Antennæ with club rather loose, three-jointed, the last joint a little longer and broader than the preceding, and truncate at tip. Thorax less coarsely punctured than the elytra, intervals between the punctures alutaceous, basal impressions absent, basal margin rather suddenly sinuate on each side of the middle. Elytra rather coarsely and sparsely punctate, punctures vaguely arranged in rows, surface shining, color piceous, with two yellow spots on each side, one slightly in front of middle, the other larger, one-third from apex, hairs all semi-erect and in distinct rows. Length 2 mm.; .08 inch.

This species and *nebulosus* are the only ones in which a distinct sinuation occurs on each side of the middle of the base of the thorax.

Occurs from Pennsylvania to Georgia and Missouri.

(4.) L. didesmus Lec. loc. cit. p. 15.

Similar in form, color and sculpture to the preceding, and differing as follows:

Club of antennæ rather compact, three-jointed, the eighth joint, however, slightly wider than the seventh, terminal joint oval, not as wide as the preceding. Thorax rather coarsely punctate, not alutaceous, basal impressions wanting, basal margin squarely truncate. Elytra coarsely and moderately truncate, punctures not in striæ, pubescence partly erect not striate, color piceous, shining, each elytra with an oblique humeral yellow spot, another slightly behind the middle and also oblique, extending from the margin to the suture. Length 2.25 mm.; .09 inch.

The yellow markings vary somewhat in extent.

Occurs from Pennsylvania to Florida.

(5.) L. nebulosus Lec. loc. cit.

Resembles didesmus in form and sculpture. The antennæ are as in tetraspilotus. The thorax is as coarsely punctured as the elytra, and not alutaceous, basal impressions wanting, basal margin sinuate on each side of middle. Elytra coarsely punctate, pubescence partly semi-erect but not striate, the color is usually testaceous, with a piceous dentate band behind the middle, another one-third from apex. Length 1.5–2 mm.; .06–.08 inch.

This is our smallest species. It is usually of much paler color than the others, and the elytral markings are sometimes reduced to scattered pieeous spots.

Occurs in the Middle States.

Table of species of TRIPHYLLUS.

Elongate, not convex; prothorax strongly margined at the sides...... elongatus.

Elongate-oval, convex; prothorax finely margined at the sides..ruficornis.

33. **Rhizophagus brunneus** *Horn*, n. sp. Uniformly brownish, moderately shining. Head sparsely punctate. Thorax a little larger than wide, apex and base truncate, sides sub-parallel at middle, slightly arcuate at apex and base, disc convex, coarsely and sparsely punctured. Elytra slightly wider at base than the thorax, and feebly emarginate, disc with rows of moderately coarse punctures which become somewhat finer toward the tip. Prosternum coarsely punctured, side pieces nearly smooth. Metasternum smooth at middle. Abdomen coarsely and sparsely punctured, the first segment smooth at middle. Pygidium sparsely punctate. Length 3 mm.; .12 inch.

Marquette, Lake Superior. The punctures of the entire surface are coarser than in any other of our species. It must be considered the intermediate form between those with the long and those with the broad thorax.

34. **Pedilophorus subcanus.** Longer-oval, convex, rounded behind, obliquely narrowed in front of the elytra, black, irregularly mottled with very short gray pubescence like hoar frost, and thinly clothed with short erect black bristles. Beneath finely, densely punctured, finely pubescent, legs piceous; tarsi paler, fourth joint with a long lobe. Length 4.4 mm; .17 inch.

Escanaba, Lake Superior. In form and pubescence this species resemembles *Byrrhus*, but the tarsal lobe requires its reference to the present genus, with which it also agrees in having the mandibles not covered by the prosternum in repose.

35. **Paromalus teres.** Cylindrical, but not slender, shining black; head and prothorax punctulate, elytra finely not densely punctured, each with faint traces of two oblique striæ near the base; sutural stria wanting. Pygidium very finely punctulate, under surface finely and sparsely punctured; mesosternum emarginate in front, marked with a fine lateral line; prosternum flattened without striæ. Length 2 mm; .08 inch.

Sault St. Marie; one specimen. This species only differs from *P. seminulum* by the cylindrical form, in which it deceptively resembles *Teretrius americanus*; by having the elytra more finely punctured, and by the entire absence of the sutural stria.

The following species may be conveniently described on the present occasion.

36. **Hetærius Blanchardi.** Oval-quadrate, brown, shining, of the same form as *H. brunneipennis*, sparsely pilose with long slender sub-erect yellowish hairs. Head opaque, finely punctulate, broadly concave. Prothorax with the sides slightly nicked at the middle, lateral lobes of the disc obsoletely punctulate, divided behind the middle by a transverse groove, hinder part deeply margined on both sides; the impressed groove separating the lateral lobe from the disc is much deeper and broader at the base. Elytra with three very fine striæ, the inner one effaced behind the middle. Pygidium opaque, very finely and densely punctulate. Prosternum narrow, flat, densely punctulate, lateral edges well defined. Length 2 mm; .08 inch,

Tyngsborough, Mass. Collected by Mr. Frederick Blanchard, to whom I dedicate it with much pleasure, as a mark

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of appreciation of his success in recovering many local species, which would otherwise have remained undetermined.

37. Ægialia rufa. Elongate, cylindrical, not very convex, rufous. Head finely scabrous, with an obsolete transverse impressed line; epistoma very finely margined, sub-truncate. Prothorax scarcely wider than long, sub-quadrate, sides very slightly rounded, fringed with stiff hairs, serrate towards the base, which is broadly rounded and distinctly margined; front angles prominent, hind angles rounded, disc coarsely sparsely punctured with some fine punctures intermixed. Elytral striæ deep, distinctly punctured, interspaces smooth. Scutellum small, smooth. Front tibiæ with three large teeth, middle and hind tibiæ gradually but moderately dilated, transverse ridges short; spurs of hind tibiæ long, hind tarsi two-thirds as long as the tibiæ. Length 4.5 mm; .175 inch.

Marquette, Lake Superior, two specimens; California, (precise locality unknown, probably from the Sierra Nevada), one example. The humeri in one Lake Superior specimen are prominent and tuberculate, in the other two rounded; in the former the spurs of the hind tibiæ, though not longer, are more slender than in the two with simple humeri. These differences are probably sexual, but cannot be fully investigated without more specimens.

For the easy recognition of our species of this genus I have enlarged the table given by Dr. Horn (Trans. Am. Ent. Soc., 1871, 293), as follows:

Table of species of ÆGIALIA.

	Spurs of hind tibiæ long and slender
	Spurs of hind tibiæ flattened and broad; hind tibiæ gradually and mod-
	erately thickened, with two transverse ridges
	Spurs of hind tibiæ long, thick, obliquely truncate; hind tibiæ grad-
	ually and very strongly thickened4.
	Spurs of hind tibiæ very short, cylindrical, hind tibiæ very strongly
	thickened5.
2.	Cylindrical, rufous, hind tibiæ with two transverse ridges1. rufa. n. sp.
	Sub-cylindrical, black, hind tibiæ serrate; elytral interspaces punc-
	tured2. cylindrica.
	Sub-cylindrical, black, hind tibiæ serrate; elytral interspaces smooth.
	3. lacustris.
3.	Prothorax finely punctured; black, sub-ovate4. conferta.
4.	Robust, slightly ovate, black; prothorax coarsely punctured
	5. latispina, n. sp.

Robust-ovate, black; prothorax coarsely punctured......6. crassa.

- 38. Ægialia latispina. Robust, sub-ovate, convex, black, Head less finely scabrous, epistoma finely margined, sub-truncate. Prothorax more than twice as wide as its length, narrowed in front, rounded on the sides and fringed with stiff yellow hairs; sides impressed near the front angles, which are small; base not margined; disc coarsely sparsely punctured, without intermixed small punctures, sides nearly smooth, with the lateral fovæ large, as in Æ. crassa. Elytra with strongly punctured striæ, interspaces moderately convex. Scutellum small, convex at the middle. Front tibiæ with three large teeth, middle and hind tibiæ strongly and gradually thickened, with two long prominent transverse ridges; spurs of hind tibiæ long and thick, flattened and obliquely truncate as in Æ. crassa. Length 3.7 mm; .15 inch.

Mojave Desert, Mr. Crotch, two specimens. Allied to Æ. crassa, but differs by the less ovate body, and distinctly punctured elytral striæ.

39. Ægialia spissipes. Sub-cylindrical, sub-ovate, a little wider behind, rufous. Head finely scabrous, epistoma very finely margined, subtruncate in front. Prothorax one-half wider than long, not narrowed in front, rounded on the sides and fringed with stiff hairs; front angles prominent, hind angles rounded, base not margined; disc indistinctly rugoso-punctate. Scutellum small, bipunctate. Elytral striæ deep, slightly punctured, interspaces flat. Front tibiæ with two very large teeth and one small one; middle tibiæ gradually thickened sub-serrate, hind tibiæ conical, very much thickened, not serrate, spurs short and very thick, tarsi very short. Length 4.5 mm; .175 inch.

Marquette, Lake Superior; one specimen.

40. **Phausis inaccensa.** Elongate, gray, slightly pubescent. Prothorax wider than long, semicircularly rounded at the tip and sides, the latter strongly incurved at the base, hind angles dentiform, disc dark, convex, smooth, sides very widely flattened, scabrous, pale gray; near the apex are two large colorless transparent spots. Elytra reticulato-punctate, but less coarsely than in *P. reticulata*, with the longitudinal elevated lines very faint, sides rather strongly margined. Beneath densely punctured, gray, meso- and metasternum dirty testaceous; antennæ and legs gray. Length 6.3 mm; .25 inch.

Marquette; two σ , one of which has been kindly sent me by Mr. Schwarz. This species is rather larger and a little less slender than P. reticulata, and is easily known by the entire absence of phosphorescent spots on the abdomen. I may here mention that a φ of the last named species in the collection

of Dr. Horn has short elytra, much as in the φ of *Photinus* (*Gynaptera*) scintillans. This insect has a very strong resemblance to Lamprohiza splendidula of Europe, but is generically distinct by the longer antennae, and by the small acicular twelfth joint of those organs. Specifically, it differs by the disc of the prothorax being smooth, the transparent spots more oval, not curved, and by the hind angles of the prothorax being greatly retracted.

Hadrobregmus linearis Lec. Pr. Ac. Nat. Sc. Phila. 1865, 232. A very singular series of this insect was collected at Detroit. In two individuals, both antennæ have ten joints, that is to say there are five small joints between the rounded second joint and the first of the elongated joints. In one specimen the right antennæ has eleven, while the left has ten joints; this difference is produced by the division of the fourth joint into two parts. In another specimen the right antenna has ten, while the left has but nine joints; and it is again the fourth joint of the left that is divided, so as to form the fourth and fifth of the right, the distal part resulting from this division, or the fifth joint of the eleven-jointed antenna, is even a little wider than the fourth joint. It is thus apparent, that in this type of the Serricorn series, the increase of number of joints from nine to eleven is produced by a power of segmentation, or vegetative repetition residing in the fourth joint of the antenna.

Another inference from this series of specimens is that the nominal species of this genus may have been unduly multiplied, and that they must be defined by other than antennal characters. A renewed examination of the specimens in my collection, indicates that all the species recognized by me in the memoir above cited are valid, and easily distinguished by the characters there given.

41. **Xyletinus lugubris.** Oval, convex, blackish, piceous, dull with very fine dense punctuation, and very short pruinose pubescence. Prothorax more than twice as wide as its length, very convex, declivous near the base, narrowed in front, sides rounded, incurved near the base which is slightly bisinuate. Elytra strongly striate, scutellar stria long. Beneath black, finely punctulate. Length 2.5 mm.; .10 inch.

Marquette, Lake Superior. Found also in Massachusetts and Nebraska. This species is allied to X. fucatus, but is smaller and less robust, and easily known by the prothorax more convex transversely and more declivous towards the base.

Several specimens of X. fucatus were collected by Mr. Crotch at Calaveras, California, which only differ from those found at Lake Superior by the smaller size, darker color and

less deep elytral striæ. The following species seems to differ by the much coarser pubescence, and by the sides of the prothorax not at all flattened.

42. **Xyletinus pubescens.** Oval, convex, piceous, opaque, with fine rugose punctuation, densely closed with rather coarse yellowish pubescence. Prothorax more than twice as wide as long, narrowed in front, rounded at the sides, which are not at all flattened, transversely convex, slightly declivous towards the base. Elytra with deep impunctured striæ, scutellar stria long, interspaces flat. Beneath densely punctulate and pubescent, Length 2.8 mm.; .11 inch.

Bosque Co., Texas; one specimen; Mr. G. W. Belfrage.

MICROMALTHUS n. g. LYMEXYLIDÆ?

Body elongate, head wide, with rounded, convex eyes; prothorax wider than long, narrowed behind, elytra a little shorter than the abdomen, substriate, smooth at the apex; resembling in miniature a narrow *Hydnocera*, but greatly differing by the antennæ, palpi and tarsi.

Antennæ shorter than the head and prothorax; 1st and 2d joints rounded, as wide as long; 3d small, 4-10th wider, and becoming gradually transverse, 1th oval, not wider than the 10th; inserted on the edge of the front, before the eyes, which are convex, prominent, rounded, not emarginate, and rather finely granulated. Maxillary palpi with the last joint moderately large, oval, pointed; labial similar but much smaller; gular sutures straight, widely separated. Prothorax transverse, without angles, narrowed behind, not margined on the sides. Legs rather long, slender, tibiæ without spurs, tarsi 5-jointed, as long as the tibiæ, joints 1-4 equal, not lobed, 5th as long as the others united, claws simple. Front coxæ, oblique, conical, prominent, contiguous at the apex; middle coxæ large, oblique, conical, not continuous, hind coxæ transverse, conical, prominent. Abdomen with six free and nearly equal ventral segments. Prosternal sutures not visible; side pieces of metathorax long and narrow.

No sexual difference can be observed in any of the specimens collected, two small spiculæ project from the tip of the abdomen in each of them.

43. **M. debilis.** Piceous, shining, antennæ, palpi and legs yellow, head smooth, front transversely depressed. Prothorax smooth, with a faint transverse impression. Elytra feebly scabrous, nearly smooth at the tip, striate except at base and tip. Beneath punctulate, slightly pubescent; two or three dorsal segments exposed. Length 2.2 mm.; .85 inch.

Detroit, in decomposing wood, August. I have referred this genus to Lymexylidæ on account of the resemblance of the antennæ and coxæ to those of *Hylecætus*. In such a feeble and ill-developed form we should naturally expect the peculiar sexual characters seen in the palpi of the other genera to disappear.

44. **Phymatodes maculicollis.** Blackish, piceous, finely sparsely pubescent. Head and prothorax finely not densely punctured, the latter a little wider than long, rounded at the sides, rufous, with a broad black dorsal stripe. Elytra not wider than the prothorax, densely punctured. Beneath sparsely punctulate, prothorax rufous, legs piceous, coxæ and thighs (except at base) blackish. Front coxæ contiguous; mesosternum triangular, middle coxæ slightly separated. Antennæ slender, filiform, a little more than half as long as the body, 4th joint equal to 5th. Length 6.3 mm.; .25 inch.

Isle Royale, Lake Superior; but one specimen found.

45. **Typocerus sparsus.** Black, shining, pubescent with coarse black hair. Head rather finely punctured. Prothorax sparsely and coarsely punctured, margined at base and apex with golden hair. Elytra sparsely and coarsely punctured, punctures becoming finer towards the tips, which are dehiscent by the curvature of the suture; bidentate, the outer tooth longer than the sutural one; ornamented with a transverse yellow spot very near the base, and three transverse yellow bands extending from the side margin to the suture. Beneath punctulate, pubescent with yellowish gray hair. Antennæ (\mathcal{P}) two-thirds as long as the body, not serrate, sixth and following joints with an elongate depressed sensitive space, extending from base to tip or nearly so. Length 10 mm.; .40 inch.

Escanaba, Lake Superior. This species resembles in appearance *T. zebratus*, but is at once recognized by the sparse punctuation of the prothorax and elytra.

46. **Chlamys cribripennis.** Sub-quadrate, coppery bronze, of the same form and color as *C. assimilis*, from which it differs by the prothorax more shining, finely strigose, impunctured, with the dorsal elevation only obsoletely divided at the highest part. The elytra have the elevations similarly placed, but smaller, and the interspaces are very coarsely, but not densely punctured. The pygidium is less opaque, in fact, somewhat shining, and more deeply punctured, and without the shallow rounded impressions seen in that species. Antennæ fulvous, labrum black. Length 2.5 mm.; .10 inch.

Detroit; one specimen.

47. **Phyllotreta robusta.** Less elongate than usual, black with a greenish bronze lustre. Head punctured, vertex with a short, fine, longitudinal impressed line. Prothorax twice as wide as long, strongly punctured, slightly narrowed in front, sides rounded, base truncate, not margined. Elytra oval, wider than the prothorax, rounded on the sides, similarly punctured; pale yellow, with a wide sutural stripe narrowed near the base, and rounded behind at about one-fifth from the tip, where it ends; the side margin is blackish from the base nearly to the tip, and the color is a little wider about the middle; there are besides two spots on each elytron, one occupying the humeral callus, and attaining both the base and side

margin, the other at the middle and near the blackish lateral margin, though separate from it. Antennæ slender, more than one-half as long as the body, black, first three joints brown. Beneath black, tibiæ and tarsi piceo-testaceous. Length 2 mm.; .08 inch.

Detroit; one specimen. Quite different from any other striped species in our fauna, and representing the European *P. biguttata* Foudras. Alt. 251.

The adoption of the Kirbyan name *Orchestris* for this genus by Mr. Crotch (Proc. Ac. Nat. Sc. Phila. 1873, 65) in preference to *Phyllotreta* Foudras, seems to me inexpedient for the following reasons:

Kirby (Faun. Proc. Am. IV, 217), characterizes a sub-genus *Orchestris* by a very brief formula, which is applicable to several groups of the old genus *Haltica*, to which generic names are now affixed.

His sub-genus was evidently defined for the purpose of describing two striped species of large size now enrolled in *Disonycha* Chevr., but in order to make his volume (exclusively devoted to North American species), more intelligible to the English student, he casually observes that his sub-genus corresponds with section b. 1,*††, of Stephens, "of which *H. Nemorum* is the type."

Now while unwilling to dispute that *H. nemorum* is the type of Stephens' unnamed British group, it is quite apparent that the remark of Mr. Kirby indicates simply an error of judgment or observation in not perceiving the differences (if there be any), between his large American species, for which the sub-genus was established, and the small European species; and thus the sub-generic name belongs properly to the former group.

The name *Orchestris*, therefore, unless it is dropped entirely in consequence of its heterogeneous limitation, can be used only to supplant *Disonycha* Chevr. (1844), and the present group must be known as *Phyllotreta*, under which name it was first characterized by Foudras in 1860

48. Chætocnema rudis. Oval, convex, bronzed, not shining. Head finely punctured. Prothorax rather densely and strongly punctured, very little narrowed in front, sides slightly rounded, finely margined, base not margined. Elytra with rows of deep punctures, the inner ones slightly confused near the base; space between the scutellar stria and the suture irregularly punctured. Beneath punctured, tibiæ and tarsi brown. Length 1.8 mm.; .07 inch

Marquette, Lake Superior; one specimen. This species belongs in the table (ante. p. 419), after *cribrata*, from which it differs by the much less confused elytral striæ.

49. **Mycetochares gracilis.** Elongate, piceous-black, shining, finely and sparsely pubescent. Head punctured, front depressed, vaguely foveate. Antennæ nearly half as long as the body, piceous, base brown; 2d joint small, 3d a little longer than the 4th. Eyes convex, prominent. Prothorax wider than the head, wider than long, narrowed and much

rounded on the sides in front; strongly punctured, disc broadly longitudinally impressed behind, flattened and explanate at the hind angles, which are rectangular; impressed each side at the base, which is truncate and not margined. Elytra a little wider than the prothorax, parallel, strise punctured, scarcely impressed; interspaces transversely sparsely rugose and finely punctured. Beneath shining, trunk finely punctured. Abdomen sparsely punctulate. Front coxe separated by the prosternum, which is narrow and punctured. Length 5.5 mm.; .22 inch.

Marquette, Lake Superior; one specimen. This species is related to *M. bicolor*, but is quite different in the less deeply striate elytra, the more strongly punctured prothorax and the dark antennæ and legs.

For the pupose of more clearly defining several new species, my table (New Sp. Col. Smiths. 8vo., 138) may be expanded as follows:

Table of species of MYCETOCHARES.

	Two of species of MICEIOCHARDS.
1.	Front coxe separated by the prosternum2.
	Front coxæ contiguous, cavities confluent9.
2.	Prothorax as wide as the elytra, or nearly so
	Prothorax at base narrower than the elytra6.
3.	Pubescence long, rather dense, prosternum very narrow4.
	Pubescence very fine, or wanting; elytra with red humeral spot not
	striate; antennæ palpi and legs more or less yellow5.
4.	Dull ferruginous beneath, piceous above, prothorax strongly densely
	punctured1. rufipes.
	Black or piceous, prothorax finely punctured2. pubipennis n. sp.
5.	Prothorax very wide, sparsely punctulate
	Narrower, prothorax sparsely punctulate, elytra more strongly punc-
	tured, two inner striæ perceptible4. Haldemani.
	Wider, prothorax less finely punctured, elytra strongly punctured, indis-
	tinetly striate
6.	Elytra with red humeral spot
	Elytra black, without spot8.
7.	Prothorax with three basal foveæ
	Prothorax with two basal foveæ
8.	Elytral striæ deep, legs yellow
	Elytral striæ less impressed, legs dark9. gracilis n. sp.
9.	Elytra black, without spots10.
	Elytra with red humeral spot; antennæ stouter and legs black11.
10). Antennæ, legs and under surface ferruginous, last two ventral segments
	piceous; prothoracic margin not flattened10. analis n. sp.
	Antennæ, legs and under surface piceous; prothoracic margin narrowly
	but strongly explanate

In the Munich Catalogue *Mycetophila* Gyll. (1810), which antedates *Mycetochares* Latr. (1825), is adopted for this genus; the former name was, however, pre-occupied by Meigen (1803), for a genus of Diptera, as is very properly mentioned by Lacordaire (Gen. Col. V., 507, note).

- M. basillaris (Say) remains unknown. When found, it will be easily recognized by the scarcely punctured prothorax, with three posterior impressions, and the striate elytra having an oblique red spot like the species 3–5 of the table.
- 50. Mycetochares pubipennis. Dark brown, shining, rather densely clothed, especially on the elytra, with long brown pubescence. Head punctured, eyes more transverse and less prominent than in the other species; antennæ paler brown, rather stout, about half as long as the body. Prothorax one-half wider than long, scarcely narrowed in front, not densely nor strongly punctured, broadly longitudinally impressed at the middle of the base, and obliquely near the hind angles; sides moderately rounded, not explanate, base not margined. Elytra not wider than the prothorax, punctured; striæ punctured not impressed, nearly obliterated at the sides and behind. Beneath punctulate and finely pubescent, legs piceo-rufous; prosternum extremely narrow between the front coxæ. Length 4.8 mm.; .19 inch.

California, at Tejon and San Diego. Easily known by the more transverse and scarcely prominent eyes, and very narrow prosternum.

51. Mycetochares laticollis. Elongate-oval, not convex, above black, shining, elytra each with an oblique red spot near the base; sparsely pubescent. Head and prothorax sparsely punctulate, the latter fully twice as wide as long, widest at the middle, very much rounded on the sides, which are slightly explanate near the hind angles; base extremely finely margined, with three broad shallow impressions, of which the middle one is nearly obsolete. Elytra a little narrower than the prothorax, not densely punctured, with very faint traces of striæ near the suture. Antennæ rather stout, under surface and legs testaceous-red; palpi and large gular spot yellow. Length 6.3 mm.; .25 inch.

Pennsylvania; under bark of *Populus dilatata* in June; one specimen, Prof. S. S. Haldeman. I confounded this species formerly with *M. fraterna*, from which it differs by

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the much more finely and sparsely punctured head and prothorax.

52. Mycetochares analis. Elongate, black, shining, pubescent. Antennæ brown, slender, one-half as long as the body. Head and prothorax strongly rather densely punctured, the latter twice as wide as long, narrowed in front, rounded on the sides, which are not explanate; base scarcely impressed, indistinctly margined near the hind angles. Elytra very little wider than the prothorax, punctured, striæ punctured, slightly impressed, nearly obliterated at the sides and behind. Beneath finely punctured, dull ferruginous, 4th and 5th ventral segments dark piceous. Front coxæ contiguous. Length 7.5 mm.; .30 inch.

Detroit; one specimen. Of the same size, form and sculpture as *M. binotata*, but differing by the absence of the humeral spot, and the different color of the antennæ, legs and under surface.

53. Mycetochares lugubris. More elongate, black, shining, pubescent. Antennæ dark brown, rather stout, one half as long as the body. Head and prothorax strongly punctured, the latter twice as wide as long, sides rounded, especially in front, side margin narrowly but strongly explanate behind the middle, depression extending some distance along the base, which is indistinctly margined; there are three vague shallow basal impressions. Elytra a little wider than the prothorax, punctured, striæ rather strongly impressed. Beneath shining, sparsely finely punctured. Legs piceous. Front coxæ contiguous. Length 6.4 mm.; .25 inch.

Detroit; one specimen. A similar one collected in Kansas by Prof. Snow, is slightly immature; the color is brown, with the base of the antennæ and legs testaceous.

54. Mycetochares marginata. Elongate, of the same form as *M. binotata* but smaller, black, shining, pubescent. Antennæ rather stout, black. Head and prothorax strongly rather densely punctured; the latter twice as wide as long, much rounded on the sides, especially in front, sides behind the middle narrowly but strongly flattened; base with three very faint shallow impressions. Elytra very little wider than the prothorax, punctured, striæ punctured, scarcely impressed, marked with a red humeral rounded spot. Beneath shining, sparsely punctulate, tarsi piceous; front coxæ contiguous. Length 5.2 mm.; 21 inch.

Marquette, Lake Superior; one specimen.

55. **Mycetochares longula.** More elongate, of the same form and size as *M. gracilis*, black, shining, pubescent. Antennæ stout, black, half as long as the body. Head and prothorax strongly, somewhat rugosely punctured, the latter about one-half wider than long, narrowed in front, rounded on the sides, which are not explanate, with three taint shallow basal

impressions. Elytra a little wider than the prothorax, punctured, striæ punctured, slightly impressed, obsolete towards the sides; marked with a small rounded humeral spot. Beneath shining, finely punctured, legs entirely black; front coxæ contiguous. Length 6 mm.; .23 inch.

Detroit; June; one specimen.

56. Canifa pallipennis. Elongate, rugosely punctured, finely pubescent. Head and prothorax black, the latter more than twice as wide as long, hind angles nearly rectangular, basal impressions broad, distinct. Elytra pale testaceous. Beneath and legs testaceous, abdomen and antennæ darker; second and third joints of the latter small, united shorter than the fourth. Length 2.7 mm.; .10 inch.

Marquette, Lake Superior. Similar to *C. pusilla*, but with the head and prothorax darker, and the elytra pale.

57. Dircæa fusca. Elongate, fuscous brown, densely rugosely punctured, and clothed with short sericeous brown pubescence. Head perpendicular, more strongly punctured. Antennæ and palpi ferruginous, the former with third joint not longer than the fourth, following joints scarcely diminishing in length, longer than wide, eleventh longer. Prothorax a little longer than wide, apex rounded into the sides; hind angles obtuse, rounded at tip. Elytra with faint traces of three elevated lines. Beneath densely punctulate. Length 8.7 mm.; .34 inch.

Marquette, Lake Superior, Virginia and North Carolina. Larger than *D. concolor*, and easily known by the antennæ being ferruginous, and more slender, with the joints longer than wide.

58. **Hallomenus serricornis.** Elongate, rounded at each end, not convex, blackish, shining, finely densely punctured and pubescent. Antennæ scarcely longer than the head and prothorax, strongly serrate. Prothorax twice as wide as long, narrowed in front, strongly rounded on the sides, which are very finely margined; base slightly bisinuate, margined near the hind angles, basal impressions broad well-marked. Elytra faintly striate, but the striæ are not indicated by rows of punctures. Beneath finely and densely punctulate. Length 6.3 mm.; .25 inch.

Marquette; two specimens. Larger than our other species, and of uniform dark piceous, nearly black color, with strongly serrate antenne.

	Table of the species of Hallomenus.
	Antennæ not serrate, joints sub-quadrate2.
	Antennæ strongly serrate, joints triangular1. serricornis n sp.
2.	Finely and distinctly punctured3.
	Very finely punctured, yellowish brown, elytra in front and legs
	paler
3.	Piceous, antennæ, legs and base of elytra testaceous3. scapularis.
	Pale brown, head fuscous, much smaller (3 mm.)4. debilis.

59. Proctorus armatus Lec. Rhynch. 212.

Several specimens of this curious insect were found at Marquette, and among them are $\partial \partial$ in which the two processes of the apical edge of the last ventral segment are very short, and scarcely apparent, though the anterior tubercle or spine and the large excavation are as well developed as in the other specimens.

60. Proctorus decipiens Lec. ibid. 213, (Encalus.)

 $\ensuremath{{\mathcal{O}}}$ Apical part of last ventral segment suddenly transversely depressed, with a short erect spine each side.

Marquette. The differences in the rostrum upon which I separated *Encalus* from *Proctorus*, are only sexual; and the peculiar ventral armature of the shows that they constitute but one genus.

61. Orchestes canus Horn,* n. sp. Black, sparsely clothed with grayish pubescence. Antennæ testaceous, funicle six-jointed. Thorax broader than long, apex one-third narrower than base, sides arcuate, disc coarsely punctured. Elytra oval, gradually narrowed posteriorly, disc convex, deeply and rather broadly striate, striæ with coarse, deep and closely placed punctures, intervals irregularly biseriately punctured, the punctures bearing short grayish hairs. Body beneath and legs black. Length 3 mm.; .12 inch.

The posterior femora are strongly thickened. This species cannot be confounded with any other than pallicornis, from which the deeply striate elytra, and very evident grayish pubescence will distinguish it.

Specimens are before me from Isle Royale and Escanaba, Michigan, and from San Juan, Colorado.

62. Orchestes minutus Horn, n. sp. Black, sparsely clothed with grayish pubescence. Antennæ piceous, scape and first joint of funicle paler, the funicle 6-jointed. Thorax broader than long, apex scarcely narrower than base, sides arcuate, surface coarsely punctured. Elytra oval, broadest at middle, disc slightly flattened, deeply striate, striæ with indistinct distant punctures, intervals wrinkled, irregularly, finely, biseriately punctulate. Body beneath and legs black. Posterior femora feebly thickened. Length 2 mm.; .08 inch.

This species resembles rufipes, but is somewhat smaller, disc of elytra flatter and with entirely black legs, and with the thorax much more arcuate at middle.

Four specimens, California, from Mr. James Behrens, collected probably near Sauzalito.

 $[\]ast\,\mathrm{Dr}$. Horn has kindly prepared the table of this genus and the descriptions of the two new species.

Table of Species of Orchestes.

Funiculus of antennæ 6-jointed.

Posterior femora much stouter than the middle.

Legs entirely yellow.

Pubescence of surface fulvous and conspicuous......puberulus.

Legs black, tarsi sometimes pale.

Elytra feebly striate, pubescence scarcely evident......pallicornis. Elytra deeply striate, pubescence grayish, persistent...canus, n. sp. Posterior femora scarcely stouter than the middle. Elytra deeply striate;

species very small.

Pubescence above almost entirely black, a feeble grayish band at basal third. Scutellum densely white.....niger.

Pubescence above forming a somewhat saddle-shaped design in rather dense white pubescence;

Legs in part yellow, thorax broader at apex than long.....ephippiatus. Legs entirely black, thorax not broader at apex than long....subhirtus.

With O. niger, I have united parvicellis Lec., of which I have now five specimens not essentially differing. The distribution is not remarkable (Nova Scotia to California) as O. subhirtus occurs also in California, while O. pallicornis extends from Nova Scotia to Texas, and to Puget Sound.

63. Elleschus bipunctatus Linn. Faun. Suec. No. 599 (Curou-lio): Schönh. Curc. iii. 322; vii, 187: &c.

Detroit and Marquette. The European synonymy of this species may be found in the references given above. The differences between this genus and Alyca (Lec. Rhynch. 209), do not seem sufficient to warrant the retention of the latter. The species upon it was established, Erirhinus ephippiatus Say, differs from bipunctatus by finer punctuation, and pale yellow color, with a large sutural dark spot on the elytra. There are other species indicated by the specimens in my collection, but I do not feel prepared to define them accurately without a larger series.

64. Acalyptus Carpini Herbst, Col. vi, 204; pl. 74, f. 3; Gyll. Schönh. Curc. iii, 447: &c.

Michigan and Massachusetts; first known from Northern Europe. A small blackish insect, densely clothed with silvery gray sericeous pubescence, and easily known by the ventral sutures being straight the pygidium exposed, and

the claws simple and divergent. The antennæ and legs are yellow; sometimes the elytra are rufous, with the suture blackish.

65. **Zygobaris subcalva**. Of the same size and form as *Z. conspersa*, sub-rhomboidal, black, rather shining, thinly clothed with short pubescence, and without scales. Beak as long as the head and prothorax, curved, slightly thickened at the base, punctulate; head finely punctate. Prothorax not wider than long, gradually narrowed in front, sides nearly straight, constricted near the tip; surface densely, not coarsely punctured, base bisinuate. Elytra wider behind the base, humeri oblique, striæ deep, interspaces rather wide, flat, each with a row of small punctures. Beneath densely punctured, finely, sparsely pubescent; claws small, approximate, but scarcely connate at base. Length 2 mm.; .08 inch.

Detroit; one specimen found; I have two others from Pennsylvania. Differs from Z. conspersa chiefly by the finer punctuation, and the absence of scales.

- 66. **Pityophthorus annectens.** Elongate-cylindrical, brown, shining, with a very few slender erect scarcely serrate yellow hairs. Prothorax longer than wide, in front roughened almost concentrically for about one-third the length, sides and base finely sparsely punctured, punctures becoming larger, as they approach the roughened surface. Elytra with approximate rows of small punctures, interspaces transversely rugose; apical declivity retuse, deeply impressed near the suture, which is elevated; sutural tip rather acute. Front tibite with two small teeth. Length 16 mm.; .06 inch.

Q. Head slightly convex, strongly and deeply punctured.

Tampa, Florida, on yellow pine; Mr. E. A. Schwarz. This species is of slender form, and is most nearly allied to *P. nitidulus*, but is smaller, and has the prothorax more finely punctured. The color is also different, the Californian and Alaskan *nitidulus* being black, while this is always brown.

- 67. **Pityophthorus consimilis.** Yellow brown, shining, with a few erect yellow hairs, of the same form and sculpture as *P. annectens*, except that the obtuse elevation of the apical declivity of the elytra, and the corresponding part of the suture are sparsely crenate. The antennæ and legs are yellow, and the form is perhaps a trifle more robust. Length 1.6 mm.; .06 inch.
- ♂. Head flat, slightly pubescent, with a large, sub-quadrate, densely punctured opaque spot occuping nearly the whole upper surface, and divided by a longitudinal impressed line; sides shining, sparsely punctured.
 - Q. Head slightly convex, strongly punctured.

Marquette, Lake Superior, Detroit. The females of this

and the preceding are undistinguishable, except by the characters given above; the 33 are however easily recognized.

- 68. Pityophthorus hirticeps. Yellow brown, shining, cylindrical, less slender than the two preceding species, sparsely retose with fine, erect yellow hairs. Prothorax a little longer than wide, roughened concentrically for one-third its length; sides and posterior part strongly, rather densely punctured, with a narrow smooth median space. Elytra with approximate rows of punctures, interspaces irregularly transversely rugose; apical declivity retuse and crenate, deeply concave near the suture, which is elevated and also crenate. Length 1.6 mm.; .06 inch.
 - 3. Head broadly concave and opaque, fringed with long yellow hair.

Q. Head slightly convex, strongly punctured.

Marquette, Lake Superior. Related to the two preceding, agreeing with *P. annectens* in sexual characters, but with the crenations of the apical declivity of the elytra stronger than in *P. consimilis*, while the form is a little more robust than in either.

69. **Pityophthorus pusio.** Cylindrical, shining, piceous, with a few erect yellow hairs behind the middle of the elytra. Prothorax not longer than wide, roughened in front almost to the middle, strongly and densely punctured at the sides and behind, with a large, smooth, well-defined dorsal space. Elytra with small punctures, arranged in tolerably regular rows, apical declivity broadly concave, slightly retuse each side, with about three very small teeth; suture elevated, also with three or four slight inequalities. Front tibiæ with two very faint small teeth. Length 1.6 mm.; .06 inch.

Marquette, Lake Superior; one specimen. The head is retracted so that the front cannot be seen. This species is of the size and form of *P. pulicarius*, but the elytral sculpture and the apical declivity are quite different; it is more nearly related to the Californian *P. puncticollis*, but differs by the more robust form, and by the sparse crenations of the apical declivity, which are wanting in that species.

70. **Pityophthorus opaculus.** Cylindrical, slender, testaceous, head and disc of prothorax darker; anterior half rather strongly asperate, sides and posterior half sub-rugosely punctulate, dorsal line smooth, narrow. Elytra finely alutaceous, nearly opaque, marked with scarcely perceptible distant striæ of very fine punctures; apical declivity neither retuse nor concave, suture elevated, limited by a distinct striæ. Length 1.3 mm.; .05 inch.

Marquette; one specimen. This species must be placed after *P. comatus* in my table (Rhynch. 352). The head is punctured, and slightly convex, the legs and antennæ are yellow.

71. **Pityophthorus plagiatus**; *Xyleborus plagiatus* Lec., Tr. Am. Ent. Soc. 1868, 161; Rhynch 361.

Marquette; not rare. The club is transversely annulated, and it therefore belongs to Pityophthorus; the sexual differences indicate that $Xyleborus\ hamatus\ Lec.$, Am. Ent. Soc. 1874, 72, is the \circ of $carinulatus\ Lec.$ ibid. ($Pityophthorus\ car.\ Lec.$, Rhynch. 352).

72. Pityophthorus sparsus. Xyleborus sparsus Lec., Tr. Am. Ent. Soc. 1868, 160.

Marquette, Lake Superior; rare. This species, as is shown by the examination of well preserved specimens, has the club transversely annulated, and therefore belongs to *Pityophthorus*. There seems to be no sexual differences in the declivity of the elytra, but the \mathcal{S} has the head fringed with very long hair.

73. **Xyleborus punctipennis.** Slender, cylindrical, piceous, shining, thinly clothed with long erect yellow hair, granulato-asperate for more than one-half the length, sides and behind densely and coarsely punctured; smooth median line rather wide, very distinct. Elytra coarsely punctured, though not in altogether regular rows, suture elevated, and sutural stria deep for the whole length; declivity oblique, retuse, concave part coarsely punctured; there are two acute discoidal cusps, and several small indistinct marginal ones, the most anterior of which is near the suture and more prominent. Front tibiæ moderately dilated, bidentate. Length 2.5 mm.; .10 inch.

Marquette, Lake Superior; one ♀ specimen. This species might be easily confounded with *Pityophthorus sparsus*, but on comparison the difference in the antennal club is quite obvious; in the present case it is thicker, and obliquely truncate at tip, so that the proximal half at least is smooth and shining, and limited by a curved line. The punctures of the prothorax and elytra are coarser and more numerous, and the apical declivity is also punctured.

74. **Xylocleptes decipiens.** Slender, cylindrical, brown, shining, sparsely clothed with erect yellow hairs; antennæ and legs yellow. Prothorax longer than wide, slightly asperate in front with transverse rugosities; sides and behind coarsely but not densely punctured; median line and a smooth space each side well defined. Elytra of coarsely punctured, punctures not arranged in rows; declivity nearly perpendicular, scarcely retuse, slightly impressed along the suture, which is feebly elevated. Head convex, finely punctured; front tibiæ moderately dilated, serrate with four or five very small teeth. Length 1.3 mm.; .05 inch.

Detroit; one specimen. This species greatly resembles in sculpture *Pityophthorus pulicarius*, but is more slender, and the

antennal club is very different; the sutures are long curves, concentric with the apical margin, and the first joint is glabrous, shining and elliptical in form.

To this genus should be referred the Alaskan Bostrichus concinnus Mannh. Bull. Mosc. 1852, 358; Tomicus conc. Lec., Tr. Am. Ent. Soc. 1868, 164; Rhynch. 367. Only 🙀 have thus far been collected.

- 75. **Tomicus balsameus.** Blackish piceous, or brown, cylindrical, shining, clothed with long erect yellow hairs. Prothorax longer than wide, asperate for about one-half the length, then strongly but not very densely punctured at the sides and behind; median space smooth, narrow, badly defined. Elytra with strice composed of large rather distant punctures, interspaces with equally large but very distant punctures; declivity concave, sparsely not deeply punctured, margin with several small teeth and two large ones; the apical part of the margin is not a continuous ridge. Front tibice dilated, with four distinct teeth. Length 2.3 mm.; .09 inch.
- \bigcirc Head flat, shining, hairy with very long yellow hairs; the four larger teeth of the apical declivity less prominent.
- \bigcirc Head finely punctured; carinate with an acute elevated line; four larger teeth of apical declivity very prominent.

Central New York, where it has seriously injured the forests of Abies balsamea. For an account of the ravages of this insect see the Report of the Botanist in the 28th Annual Report of the New York State Museum of Natural History, 1874, p. 32-38. I am indebted to Mr. J. A. Lintner, of the State Museum, at Albany, for a series of specimens. Some care will be necessary to distinguish this insect from Xyleborus punctipennis, but apart from the differences of the annueual club, the prothorax of T. balsameus is less densely punctured, the striæ are more distinctly formed, and the apical declivity is less punctured, with the teeth (9)more prominent, and not distinctly separated from the elevation of the margin of the declivity. The front tibiæ are more distinctly toothed. The sutures of the club are straight and transverse, so that it belongs to the division Orthotomicus Ferrari, and may be placed in the table (Rhyuch. 363), after latidens, to which it has no resemblance.

76. Micracis opaciollis. Slender, cylindrical, dirty testaceous. Prothorax darker, opaque, finely asperate in front, indistinctly punctulate, thinly sprinkled with very small ochrous scales. Elytra shining, punc-

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tured in rows, interspaces with rows of very short stout bristles. Eyes extending to the under surface of the head, not widely but distinctly separated beneath. Club of antennæ with broadly curved sutures. Length 1.7 mm.; .07 inch.

 $\vec{\Diamond}$. Scape of antennæ fringed with very long hair; (front not visible, the head being retracted).

Detroit; one specimen. To be placed in the table, (Rhynch. 368), before *M. rudis*.

- 77. Micracis asperulus. Slender, cylindrical, black, entirely opaque. Head not concave, scarcely punctured. Prothorax more strongly asperate in front than in the preceding, scarcely punctured behind, sprinkled with small yellowish scale-like hairs. Elytra obsoletely striate, densely rugosely punctured, interspaces with rows of very short stout bristles as in M. opacicollis. Eyes very narrowly separated beneath. Antennæ ferruginous, club with broadly curved sutures. Legs ferruginous. Length 1.7 mm.; .07 inch.
 - ♂. Scape of antennæ fringed with very long hair.

Detroit; in dead oak twigs. Of the same size and form as the preceding, but quite different in sculpture.

78. Scolytus unispinosus Lec. Rhynch. 372.

Marquette, Lake Superior; one specimen. This differs from the two specimens from Oregon upon which the species was established, by the punctures of the elytra being not so small, and by the spine of the first ventral segment being much less developed, becoming in fact a small tubercle; the elytra are fringed with brown. I consider none of these as specific characters.

79. Scolytus rugulosus Ratzeburg, Ins. i, 230; pl. x. f. 10.

This is a suitable opportunity to notice the introduction of this European species into the United States. I have received specimens from Elmira, N.Y., where it attacks peach trees. According to Ratzeburg it is rare in Germany, but is found upon plum and apple trees.

80. **Choragus Harrisii**. Elongate-oval, sub-cylindrical, blackish-brown, shining, finely pubescent. Prothorax finely less densely punctured, not opaque; elytra with deep coarsely punctured striæ, interspaces not wider than the striæ, scarcely punctulate. Length 1.2 mm.; .05 inch.

Detroit; August; one specimen. Differs from our other two species by being more distinctly (though very finely) pubescent and by neither the prothorax nor elytra being opaque. 2. List of Coleoptera found in the Lake Superior Region.

By H. G. Hubbard and E. A. Schwarz.

Abbreviations of Localities:

B. Bachewauung Bay.

E. Escanaba.

EH. Eagle Harbor.

I. Isle Royale.

LP. La Pointe.

M. Marquette.

Mi. Michipicoton Island.

Mr. Michipicoton River.

P. Pointe aux pins.

S. Sault de Ste Marie.

*. Species found by Dr. LeConte, mostly catalogued in Agassiz' Lake Superior, p. 203-239, which have not since occurred.

CICINDELIDÆ.

Cicindela longilabris Say. E.S.M.T. patruela Dej. M. purpurea Ol. E. M.

tranquebarica Hbst. 12-guttata Dej. Mi.

repanda Dej. E. M. hirticollis Say. E. H. M.

punctulata Fabr.

CARABIDÆ.

Omophron americanum Dej. M. tesselatum Dej. M.

Elaphrus olivaceus Lec. E.

Clairvillei Kby. E. M.

fuliginosus Say. E. riparius Linn. M.

ruscarius Say.*

Blethisa multipunctata Linn. E. quadricollis Hald. E. M.

Loricera cærulescens Linn. M.

Notiophilus æneus Hbst. M. sibirious Mots. M.

Nebria Sahlbergi Fisch. T. Mi. Mr. Dianchomena scapularis Dej. M. suturalis Lec.* Black Bay.

pallipes Sav. * M.

Calosoma scrutator Fabr. E.

frigidum Kby. M.

calidum Fabr. T.

Carabus serratus Say.*

sylvosus Say.*

tædatus Fabr. var.*

Cychrus Lecontei Dej. Mr. B. (fragments.)

Nomaretus bilobus Say. M. Mi.

Clivina americana Dej.*

Dyschirius nigripes Lec.*

æneolus Lec. M. T.

longulus Lec.*

globulosus Say. E. M. Mr.

sphæricollis Say. M.

brevispinus Lec.n.sp. M.

Casnonia pensylvanica Linn. M.

Loxopeza tricolor Say. E.

Aphelogenia furcata Lec.* EH.

Lebia pulchella Dej.* M.

pleuritica Lec.* EH.

viridis Say. E. M.

var. moesta Lec.* Mr.

pumila Dej. S.

ornata Say. M.

fuscata Dej.* Eagle Harbor.

Dictya divisa Lec.* (Lebia): EH. Aphelogenia furcata Lec. M.

Pterostichus Sayi Brullé.* Dromius piceus Dej. M. I. Apristus subsulcatus Dej.* corvinus Dej.* Metabletus americanus Dei. caudicalis Sav. lucublandus Say. S.M. Blechrus linearis Lec.* Cymindis cribricollis Dej. E. S. B. convexicollis Say. * S. Callida smaragdina Dej. E. M. luctuosus Dej. E. M. Rhombodera pallipes Lec. B. mutus Say E. M. Calathus ingratus Dej. Luczotii Dei. gregarius Say. erythropus Dej. S. mollis Mots. G. Mr. Mi. I. patruelis Dej.* EH. impunctatus Say. P. Mi. M. mandibularis Kby. var. Platynus tenebricosus Gemm. M. Mi M. Mr. I. decens Say. E. Mi. M. Myas foveatus Lec.* EH. sinuatus Dej. S. M. Amara arenaria Lec. M. marginatus Lec.* avida Say. S. ternuicollis Lec.* elongata Lec. M. anchomenoides Rand. M. latior Kby. E. Mr. I. extensicollis Sav.* septentrionalis Lec. E. M. decorus Say.* angustata Say. M. molestus Lec. S. M. pallipes Kby. S. melanarius Dej. M. Mr. impuncticollis Say. M. I. metallescens Lec. M. fallax Lec. M tenuis Lec. M. polita Lec. E. M. carbo Lec. E. M. erratica St. E. M. Mi. Mr. mutatus Gemm. E. M. interstitialis Dej. M. cupripennis Say. S. M. obesa Say. E. S. M. æruginosus Dej. E. I. gibba Lec. E. M. B subcordatus Lec. E. subænea Lec. E. M. B. musculus Say. M. cupreus Dej. S. ruficornis Lec. M. Badister micans Lec. E. lutulentus Leconte M.; black obtusus Lec. n. sp. M. Diplochila laticollis Lec. E. var. major Lec. E. picicornis Lec. S.M.B. Chlænius sericeus Forst. E. M. sordens Kby. picipennis Kby.* nemoralis Dej.* lutulentus Lec. E. M. pensylvanicus Say. E. Mr. nigriceps Lec. M. cordicollis Kirby.* obsoletus Say. impunctifrons Say. E. bembidioides Kirby.* niger Rand. E. M. octocolus Mannh. tomentosus Say. E. Olisthopus parmatus Say.* P.M. Brachylobus lithophilus Say, M. Pterostichus adoxus Say.* Anomoglossus emarginatus Say. E honestus Say.* pusillus Say. E. Lachnocrepis parallela Say. E. coracinus Newm. B. Mi. stygicus Say.* Miscodera americana Mann. G.

punctatissimus Rand. I. Mi.

Nomius pygmæus Dej. M.

Psydrus piceus Lec.* EH. Geopinus incrassatus Dej. E.M.Mr. Agonoderus comma Fabr. pallipes Fabr. Mr. partiarius Say. M. Anisodactylus agricola Say. E. M. Harrisii Lec. M. discoideus Dej. M. baltimorensis Say. E. Mr. sericans Harr. E. Spongopus verticalis Lec. E. Anisotarsus terminatus Say. Mr. Bradycellus badiipennis Hald* EH. nigrinus Dej. M. Mi. cognatus Gyll. M. Mi. S. cordicollis Lec. M. I. rupestris Sav. M. Selenophorus opalinus Lec. E. M. Harpalus compar Lec. Mr. megacephalus Lec. M. I. fulvilabris Mannh. M. Mr. I. pleuriticus Kby. E. S. M. herbivagus Say. E. M. opacipennis Hald. M. innocuus Lec. M. rufimanus Lec. E. M. I. Lewisii Lec. E. M. laticeps Lec. E. M. I. basilaris Kby. M. Stenolophus carbonarius Dej.* fuliginosus Dej M. ochropezus Say.* conjunctus Say. E. M. carus Lec. E. S. Mr.

Patrobus longicornis Say. E. I. tenuis Lec. Mr. M. E.

Amerizus oblongulus Mannh. M.

coxendix Say.*

nitidum Kirby.*

antiquum Dej. Mr.

Bembidium impressum Fabr. M. Mr.

chalceum Dej. M. Mr.

salebratum Lec.* L. P.

concolor Kby. Mr. I.

paludosum Sturm. M. Mr.

Trechus micans Lec.

Bembidium longulum Lec. Mr. nigrum Dej.* planatum Lec. I. tetraglyptum Mannh. M. simplex Lec. M. Mr. fugax Lec.* North shore. transversale Dej. M. Mr. I. lucidum Lec. S. M. Mr. rupestre Dej.* scopulinum Kby. picipes Kby.* nitens Lec. Mr. arcuatum Lec. n.sp. M. versutum Lec. n.sp. M. patruele Dej. M. Mr. I. versicolor Lec. sulcatum Lec. S. affine Say. Mr. anguliferum Lec. M. cautum Lec. var. M. mutatum Gemm. M. axillare Lec.* S. Tachys nanus Gyllh. B. incurvus Say. E. M.

HALIPLIDÆ.

Haliplus borealis Lec. E.
cribrarius Lec. M.
ruficollis Degeer.*
longulus Lec.*
Cnemidotus edentulus Lec. E

DYTISCIDÆ.

Hydrovatus cuspidatus Germ.*
Hydroporus inæqualis Fab. M. B.
picatus Kby.*
impressopunctatus
Sch. E. B.
dissimilis Harris.*
suturalis Lec.*
lacustris Say. B.
affinis Say. B.
fuscatus Crotch.*

scitulus Lec. Mr.

Hydroporus consimilis Lec.* sericeus Lec.* griseostriatus Degeer.* rotundatus Lec. B. alpinus Payk.* North Shore. subpubescens Lec. M. B. Mr. puberulus Mannh. B. tenebrosus Lec. M. B. tartaricus Lec.* caliginosus Lec. M. vilis Lec. M. tristis Payk. notabilis Lec.* North Shore. collaris Lec. B. persimilis Cr. P. Mr. oblitus Aubé. P. Mr. conoideus Lec. M. E.

Laccophilus maculosus Germ. B. proximus Say.*

atristernalis? Cr. M.

Graphoderes cinereus Linn. M. liberus Say.*

Hydaticus piceus Lec. E. stagnalis Fab. E. M.

Scutopterus angustus Lec. M Colymbetes sculptilis Harr. E. B.

Dytiscus Harrisii Kby.*

confluens Say. M.
Cordieri Aubé.* Nth Sh.
fasciventris Say. M.
verticalis Say.* Nth Sh.

Rhantus binotatus Harr. E. B. flavogriseus Cr. M.

bistriatus Bergstr.* sinuatus Lec. M.

Ilybius confusus Aubé. M. picipes Kby. E. M.

biguttulus Germ. M. fraterculus Lec. M.

ignarus Lec. E. M.

Coptotomus interrogatus Fabr. E. Copelatus Cherrolatii Aubé. * EH. Ilybiosoma bifaria Kirby. * EH. Gaurodytes erythropterus Aubé. * Gaurodytes ovoideus Cr. E. Mr.

semipunctatus Kirby.*

Gaurodytes lutosus Cr. M.
leptapsis Lec. n.sp. M.
parallelus Lec. M.
infuscatus Aubé.*N. Sh.
scapularis Mannh. M.B
longulus Lec. n.sp. M.
obtusatus Say.*
punctulatus Aubé.*
fimbriatus Lec. M.
gagates Aubé.*

GYRINIDÆ.

Dineutes assimilis Aub. M.
Gyrinus confinis Lec. M. B.
fraternus Coup. S. B.
limbatus Say. M. B.
æneolus Lec. S. B.
dichrous Lec. M. B.
ventralis Kby. B.
aquiris Lec. E. B.
maculiventris Lec. S. B.
affinis Aub. S. B.
picipes Aub. M. B.
lugens Zimm. M.
analis Say. S.
pectoralis Lec. S.

HYDROPHILIDÆ.

Helophorus oblongus Lec.* EH.
locustris Lec. M.
nitidulus Lec.* EH.
lineatus Say. M.
inquinatus Mannh. S. M.
tuberculatus Gyll. S. M.
one unnamed species.

Hydrochus scabratus Muls.* squamifer Lec. M.

rufipes Mels.*

Ochthebius cribricollis Lec.* EH. nitidus Lec.* EH.

Hydræna pensylvanica Ksw. S.M. Hydrophilus triangularis Say. E. Tropisternus nimbatus Say. B.

glaber Hbst. E.

Tropisternus mixtus Lec. E.
Hydrocharis obtusatus Say. E.
Laccobius agilis Rand. M.
Chætarthria pallida Lec. * EH.
Philhydrus bifidus Lec. M.
ochraceus Melsh. B. M.
consors Lec. E.
cinctus Lec. E.
perplexus Lec. M. B.
fimbriatus Melsh. E. S. B.
Hydrobius fuscipes Linn. E. M.

Hydrobius fuscipes Linn. E. M. B. tesselatus Ziegl. M. digestus Lec. M. I. subcupreus Say.

Cercyon flavipes Er. M.
centromaculatum St. M.
cellatum Say. B.
anale Er. M.

one unnamed species. M. Cryptopleurum vagans Lec. M. S.

TRICHOPTERYGIDÆ.

Ptenidium sp. M. G. B. Mi.
Ptilium canadense Lec. M. B. Mr.
Trichopteryx several unnamed sp.
Pteryx brunnea Lec. S. M.
testacea Lec. M.
Ptinella quercus Lec. B.

STAPHYLINIDÆ.

(Aleocharini not determined.)
Gymnusa brevicollis Grav. M.
variegata Kiesenw. M.
one new species. M.
Dinopsis americana Kr. M.
Tachinus memnonius Grav. B. Mr.
tachyporoides Horn. M. B.
repandus Horn. M.
addendus Horn. M. B.
luridus Er. S. B.
picipes Er. M. B.
furnipennis Say. M. I.
frigidus Er. B. G. Mi.

circumcinctus Mkl. M. Mi.

Tachinus nitiduloides Horn.* Leucoparyphus silphoides Linn.* Tachyporus jocosus Say. chrysomelinus Linn. nanus Er. M. brunneus Fab. Erchomus ventriculus Say. M. B. Conosoma littoreum Linn. M. Knoxii Lec. B. crassum Grav. M. basale Er. M. Bolitobius dimidiatus Er. M. intrusus Horn. M. cingulatus Mannh. I. cincticollis Say. S. B. I. anticus Horn, B. Mi. pygmaeus Fab. S. Mi. trinotatus Er.* obsoletus Say. M. B. Mi. cinctus Grav. Mi. longiceps Lec. Mi. Bryoporus rufescens Lec. M. Mycetoporus lepidus Grav. S.G. Mr. tenuis Horn. B. Mr.

tenuis Horn. B. Mr.
consors Lec. M.B.Mi.
americanus Er.
pictus Horn. M.

Habrocerus magnus Lec. n.sp. M.I.
Acylophorus pronus Er. E. M.
Euryporus puncticollis Er. M.
Heterothops n.sp. M. B.
Quedius lævigatus Gyllh. M. G. I.
capucinus Grav. M.
sublimbatus Mots. Mr.
ænescens Mkl. Mr.
molochinus Grav. B.G.Mr.M.
4 undetermined species.
Staphylinus vulpinus Nordm. E.

Staphylinus vulpinus Nordm. E.
Lecontei | Fauv. M.
Philonthus cyanipennis Fab. B.
blandus Grav. M.
debilis Grav.
lomatus Er. E. S. M.
aterrimus Grav.
sobrinus Er. M.
pæderoides Lec. M.
several unnamed species.

Xantholinus cephalus Say. S. obsidianus Melsh. M. emmesus Grav. var.? P.

Baptolinus macrocephalus Nordm. Mi.

Lathrobium grande Lec.*

punctulatum Lec. E. M. I. simile Lec. B. nigrum Lec. concolor Lec.* N. Sh. longiusculum Grav.* collare Er. E.

Scopæus sp. E.

Lithocharis confluens Say. M. Pæderus littorarius Grav. M. S.

Dianous chalybeus Lec. M.

Stenus semicolon Lec. E.M.B.Mr.I.

Juno Fabr. E. M. stygicus Say. M. Mr.

egenus Er. E. M.

flavicornis Er. E. M.

annularis Er. E.

punctatus Er. M. Mr.

several undescribed species. Euæsthetus americanus Er. E. M.

Oxyporus rufipennis Lec. M. stygicus Say. M.

vittatus Grav. M. B.

Bledius fumatus Lec. E.

annularis Lec. M.

confusus Lec. M.

ruficornis Lec. M.

divisus Lec. Mr.

tau Lec. M.

Platystethus americanus Er. M. Oxytelus sculptus Grav. M.

fuscipennis Mannh. M. Mr. nanus Er. M.

Apocellus sphæricollis Say. E. M. Trogophlœus quadripunctatus Say. M. Mr.

several unnamed species.

Thinobius fimbriatus Lec. E.

Ancyrophorus planus Lec. I. Syntomium confragosum Mkl. M.

Anthophagus verticalis Say. M. I.

Lesteva biguttula Lec. M.P.Mr Mi. Acidota seriata Lec. M. Mr. I.

[April 18,

subcarinata Er. M.

patruelis Lec. Mr. tenuis Lec.*

n. sp. Mi.

Arpedium sp. M. I.

sp. S. Mr.

Olophrum marginatum Mkl.S.P.M. convexicolle Lec. M. Mr.

n. sp. S. P. Mr.

Porrhodytes brevicollis Mkl. Mr.

Omalium (Phlœostiba) Argus Lec. G. M.

5 unnamed species.

Pycnoglypta lurida Gyll. B. Mr.

Anthobium several sp.

Protinus parvulus Lec. B. Mr. basalis Mkl. B. Mr.

Megarthrus excisus Lec. B.

Olisthærus megacephalus Zett. Mi.I. nitidus Lec. I.

Siagonium americanum Melsh. M.

Pseudopsis sulcata Newm. M. P. B. G.

Micropeplus tesserula Curt. M. laticollis Mkl. Mr.

PSELAPHIDÆ.

Tyrus humeralis Aubé.* Pselaphus Erichsonii Lec. S. P.

Tychus longipalpus Lec. M. I. Bryaxis conjuncta Lec. M.

propingua Lec. M.P.Mi.I.

Decarthron longulum Lec.*

Batrisus globosus Lec. M. B.

SILPHIDÆ.

Necrophorus obscurus Kby. M. orbicollis Sav.*

vespilloides Hbst. E. Mi. I. Silpha surinamensis Fabr. G.

lapponica Hbst. E. M. inæqualis Fabr.*

Silpha americana Linn. G.
Catops opacus Say.*

brunneipennis Mannh. S. I. terminans Lec. B. Mi. I.

Colon dentatum Lec. Mr.

magnicolle Mkl. ? M. Mr. three unnamed species.

Hydnobius substriatus Lec. Mr.

Anisotoma assimilis Lec. M. Mr. I.
punctostriata Kby. M. Mi.
collaris Lec. Mr.
strigata Lec. M.

Cyrtusa picipennis Lec. M.

Liodes globosa Lec. M. I, polita Lec. M. discolor Melsh. M. basalis Lec. M.

Agathidium globatile Lec. n.sp.M. exiguum Melsh. M.B. revolvens Lec. I. politum Lec. B. Mr. difforme Lec. M.

parvulum Lec. n.sp. M. Clambus gibbulus Lec. M. I.

BRATHINIDÆ.

Brathinus nitidus Lec. M. varicornis Lec. M.B.Mr.

SCYDMÆNIDÆ.

Scydmænus subpunctatus Lec. Mr.
n. sp. near subpuntatus., Mr.
sp. near analis. S.
analis Lec. ? M.
clavipes Say. S.
fulvus Lec. M.

CORYLOPHIDÆ.

Orthoperus scutellaris Lec. n. sp. S. Mr.

Sacium lugubre Lec. M. obscurum Lec. M.

Euthia scitula Mkl. M.

Sacium fasciatum Say. Mr.

SCAPHIDIIDÆ.

Scaphidium 4-guttatum Say. M. Scaphium castanipes Kby. B. G. Mr. I.

Scaphisoma convexum Say. M. B. suturale Lec. M. terminatum Lec. M.

LATHRIDIIDÆ.

Lathridius liratus Lee. I. minutus Linn. I. cordicollis Mannh. ? M.

Corticaria grossa Lec. M.
serricollis Lec. Mr. I.
dentigera Lec. M. Mi.
deleta Mannh.
rugulosa Lec. M.
americana Mannh. S. M. G.
cavicollis Mannh. S. M. Mr.
pumila Melsh. M.
three unnamed species.

ENDOMYCHIDÆ.

Lycoperdina ferruginea Lec. B. I.

Mycetina perpulchra Newm. M.

vittata Fabr. M.

Endomychus biguttatus Say. S.

MYCETOPHAGIDÆ.

Mycetophagus flexuosus Say. E.
obsoletus Lec. var.? M.
tenuifasciatus Horn, n.sp. M.
pluripunctatus Lec. M.

Diplocelus angusticollis Horn, n. sp. M.

 $\begin{array}{c} \textbf{Litargus tetraspilotus Lec. M.} \\ \textbf{6-punctatus Say. M.} \end{array}$

SPHINDIDÆ.

Sphindus americanus $\operatorname{Lec.}\ M.$

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CIOIDÆ.

Cis creberrimus Mell. M. I.
Cis brevisetosus Cr.↓ M.
fuscipes Mell. M.
three unnamed species.
Ennearthron sp. M.

EROTYLIDÆ.

Triplax macra Lec. M. thoracica Say M.

CRYPTOPHAGIDÆ.

Cryptophagus, 7 unnamed species.

Paramecosoma serratum Gyllh.

n. sp. E.

Atomaria ephippiata Zimm. P.

Atomaria ephippiata Zimm. I 13 unnamed species.

CUCUJIDÆ.

Pediacus fuscus E.
depressus Hbst. S. M.
Lathropus vernalis Lec. M.
Læmophlæus biguttatus Say M.
adustus Lec. M.
Dendrophagus glaber Lec. M.
Brontes dubius Fabr. M.

COLYDIIDÆ.

Ditoma quadriguttata Say. M. Synchita nigripennis Lec. M. Lasconotus borealis Horn M. Philothermus glabriculus Lec. M. Cerylon castaneum Say E. M. B.

RHIZOPHAGIDÆ.

Rhizophagus dimidiatus Mannh. B. brunneus Horn, n. sp. M.

TROGOSITIDÆ.

Tenebroides collaris St. M.

Tenebroides castanea Melsh. M. Peltis ferruginea Linn. M. Grynocharis 4-lineata Melsh. M. Calitys scabra Thunb. E. M. Thymalus fulgidus Er. M. B. Mr.

NITIDULIDÆ.

Byturus n. sp. ? M. Colastus truncatus Rand M. Carpophilus brachypterus Say E.G. discoideus Lec. Epuræa helvola Er. M. rufa Say. M. Erichsonii Reitter.* immunda Sturm. M. truncatella Mann. M. planulata Er. M. æstiva Linn. M. labilis Ev. Nitidula ziczac Sav. M. Soronia grisea Linn. M. Omosita discoidea Fab. I. Stelidota sp. M. Meligethes seminulum Lec. Cyllodes biplagiatus Lec. M. Thalycra concolor Lec.* Nt'h Sh. Ips 4-guttatus Fabr. M. sanguinolentus Oliv. M. confluens Say.*

PHALACRIDÆ.

Phalacrus politus Melsh. M. I. n. sp. ? M. B. Olibrus striatulus Lec. B. consimilis Melsh. M. Mr. nitidus Melsh. S.

COCCINELLIDÆ.

Hippodamia 5-signata Kby. E. glacialis Fabr.*
15-maculata Muls. B.
13-punctata Linn. M. Mr. parenthesis Say. M. Mr.

Anisosticta strigata Thunb. M. Coccinella affinis Rand. E. M. trifasciata Linn. M. I. 9-notata Hbst. M. transversalis Muls. B. I. 5-notata Kirby.*

Cycloneda sanguinea Linn. Mr. I. Harmonia picta Rand E. M. I. Anisocalvia 14-guttata Linn. M. 12-maculata Gebl. M.

Anatis 15-punctata Ol. Mysia pullata Say. E. M. Chilocorus bivulnerus Muls. M. Exochomus marginipennis Lec. M. Pentilia marginata Lec. n. sp. M. Brachiacantha ursina Fabr. small Heterocerus substriatus Kw. M. var.*

Hyperaspis dissoluta Crotch.* signata Oliv. M. fimbriolata Mels.* Nt'h Sh. disconotata Lec. * N'th Sh. bigeminata Rand. M. undulata Sav. E. M. mœrens Lec.* North Shore.

Scymnus ornatus Lec. M. americanus Muls. S. M. fraternus Lec. M. consobrinus Lec. M. lacustris Lec. E. M. I. abbreviatus Lec. M. nanus Lec. M. punctum Lec. E. M. n. sp. M.

BYRRHIDÆ.

Simplocaria metallica Sturm. NS. Pedilophorus subcanus Lec. n.sp. E. M. Cytilus trivittatus Melsh. Byrrhus americanus Lec. E. M. cyclophorus Kby. E. M. geminatus Lec. I. Pettitii Horn E. M. eximius Lec. Nt'h Sh. murinus Fabr. M. Syncalypta echinata Lec. M.

PSEPHENIDÆ.

Psephenus Lecontei Lec. E.

PARNIDÆ.

Helichus striatus Lec. M.

ELMIDÆ.

Elmis 4-notatus Say. M. fastiditus Lec* North Shore.

HETEROCERIDÆ.

sp. M.

HISTERIDÆ.

Hister merdarius Hoffm. E. M. interruptus Beauv. E. immunis Er. E. abbreviatus Fab. M. curtatus Lec. S. depurator Say.* americanus Payk. E. subrotundus Say.* Lecontei Mars. M. parallelus Say. M. basalis Lec. M. I. evlindricus Pavk. M. Paromalus teres Lec. n.sp. S.

bistriatus Er.* Saprinus oregonensis Lec.* pensylvanicus Payk.* assimilis Payk.* sphæroides Lec.

fraternus Say. M. G. Mr. mancus Say. E. M. B.

Plegaderus Sayi Mars. S. M. I.

LUCANIDÆ.

Platycerus depressus Lec. M. quercus Weber. Ceruchus piceus Web. M.

SCARABÆIDÆ.

Aphodius pinguis Hald. M.
hyperboreus Lec. E.
ruricola Melsh. M.
granarius Linn. M.
vittatus Say. M.
consentaneus Lec.* N'th Sh.
Dialytes striatulus Say. M.
Atænius stercorator Fab. M.

Atamius stercorator Fab. M.

Ægialia lacustris Lec. M. Mr.
conferta Horn. Duluth.
rufa Lec. n. sp. M.
spissipes Lec. n.sp. M.

spissipes Lec. n.sp. M.
Odontæus cornigerus Melsh Mr.
Geotrupes Egeriei Germ. Mr.
Trox unistriatus Beauv. M.
Hoplia trifasciata Say.*
Dichelonycha elongata Fab. E. M.

subvittata Lec. M.
testacea Kirby.*
Backii Kirby.* North Shore.
albicollis Burm. M.

Serica vespertina Schh. M. Mr. tristis Lec. B. M. sericea Ill. G. M.

Diplotaxis sordida Say. M. liberta Germ. E. M.

Lachnosterna fusca Fræhl.* futilis Lec.

Cotalpa lanigera Linn.* M. Ligyrus relictus Say. E. Trichius affinis Gory. E. M. S. I.

BUPRESTIDÆ.

Chalcophora virginiensis Dr. M.
Dicerca prolongata Lec. E. M.
divaricata Say. M.
tenebrosa Kby. M. Mr. I.
manca Lec. M.
lugubris Lec. M.

Buprestis lineata Fabr. E. M. consularis Gory. E. M. Nuttalli Kirby.*

Buprestis fasciata Fabr. E. M. I. var. Langii Mannh. I. sulcicollis Lec. M. striata Fabr. M.

Melanophila longipes Say. S. M. fulvoguttata Harr. E. M. I. æneola Melsh. M.

Chrysobothris femorata Lec. M. floricola Gory. E.M. dentipes Germ. trinervia Kby. M. B. I scabripennis Lap. M. B. Harrisii Hentz. M.

Agrilus torquatus Lec. M.
bilineatus Web. M.
vittaticollis Rand. E.
torpidus Lec. M.
plumbeus Lec.*
politus Say. M.
egenus Gory. M.
lacustris Lec.*

THROSCIDÆ.

Throscus alienus Bonv. S. B. punctatus Bonv. M. Chevrolati Bonv. M.

ELATERIDÆ.

Tharops obliqua Say. M.
Deltometopus amcenicornis Say. M
Fornax calceatus Say.* E. H.
Microrhagus triangularis Say. M.
Hypocœlus terminalis Lec. M.
Adelocera aurorata Say. M.
brevicornis Lec. E. M.

Alaus oculatus Linn. M.
myops Fab. M.

Cardiophorus amictus Melsh. E. convexulus Lec. E. M.

Cryptohypnus abbreviatus Say. M. bicolor Esch. M. S. I. tumescens Lec. S. I. striatulus Lec.* pectoralis Say. M. Mr.

Cryptohypnus futilis Lec. Mr. Elater semicinctus Rand. M. linteus Sav.* vitiosus Lec. M. apicatus Say. M. luctuosus Lec.* socer Lec. E. M. molestus Lec.* fuscatus Melsh. M. pedalis Cand. E. M. nigrinus Payk. var. ? E. M. I. lacustris Lec. M. fusculus Lec.* deletus Lec.* pullus Cand. E. M. mixtus Hbst. M. Mi. I. rubricus Say. E. M. protervus Lec.* Drasterius dorsalis Say. M. Megapenthes stigmosus Lec. E. M. Monocrepidius auritus Herbst.* Agriotes mancus Say.* pubescens Melsh. M. fucosus Lec. M. stabilis Lec. M. limosus Lec. E.M.Mr.I. oblongicollis Mels.* E. H. Dolopius lateralis Esch. Betarmon bigeminatus Rand. M. I. Melanotus Leonardi Lec. M. I. scrobicollis Lec. E. M. I. castanipes Payk. M. communis Gyllh. E. Limonius aurifer Lec. M. confusus Lec. * E. H.

æger Lec. M. I. pectoralis Lec. M. Campylus productus Rand M. denticornis Kby. M. I. Athous acanthus Say. E. scapularis Say. M. reflexus Lec. M. Mr. Paranomus costalis Payk. I.G. estriatus Lec. M. Nothodes dubitans Lec. M. Sericosomus fusiformis Lec. E. M Sericosomus incongruus Lec. M. I. Corymbites virens Schh. M. resplendens Esch. M. Mi. I. cylindriformis Herbst.* caricinus Esch. M. spinosus Lec. E. M. I. mendax Lec. EH. I. insidiosus Lec. M. I. falsificus Lec. M. I. appressus Lec.* EH. fallax Say.* North Shore. medianus Germ. E.M.I. triundulatus Rand. M. I. hamatus Sav. propola Lec. M.Mr.I. nigricollis Bland. M.I. hieroglyphicus Say. E. M. æripennis Kby. M. I. splendens Ziegl. M. aratus Lec. E.M. I. metallicus Payk. M. I.

DASCYLLIDÆ.

Macropogon piceus Lec. I. Eurypogon niger Melsh. Mr. I. Cyphon fusciceps Kby. M. Mr. piceus Lec. E. M. nebulosus Lec. S. M. modestus Lec. S. pusillus Lec. B. Mr. Prionocyphon discoideus Say M. Scirtes tibialis Guér. E. Eucinetus oviformis Lec. M. terminalis Lec. E. M. I.

LAMPYRIDÆ.

Dictyoptera perfaceta Say. M. Calopterum typicum Newm. M. reticulatum Fabr. E. M. Cænia dimidiata Fabr. basalis Newm. E. M. Eros coccinatus Say. M. crenatus Germ. M. thoracicus Randall M.

Eros humeralis Fabr. M. trilineatus Melsh. M. modestus Say. M. I. Lucidota atra Fabr. E. Photinus corruscus Linn, I. Mr. var. lacustris Lec. B. decipiens Harr. M. borealis Rand. M. lucifer Melsh. M. ardens Lec. M.

Phausis inaccensa Lec. n. sp. M. Photuris pensylvanica DeG. E.

TELEPHORIDÆ.

Podabrus modestus Say. E.M.I. diadema Fabr. E. M. rugosulus Lec * piniphilus Eschsch. M. punctatus Lec. M. puncticollis Kby.* lævicollis Kby. M. Mr. I. puberulus Lec.* three undescribed species. Telephorus carolinus Fabr, M.

rectus Melsh. M. lineola Fabr. flavipes Lec. var. dichrous Lec. fraxini Say. M. n. sp.? rotundicollis Fabr. M. Curtisii Kby. M. Mr. I. tuberculatus Lec. M.

Silis percomis Say. M. difficilis Lec. M.

Malthodes concavus Lec. M. I. transversus Lec. I. fragilis Lec. I. niger Lec. M. I.

MALACHIIDÆ.

Collops vittatus Say. E. tricolor Say.* Anthocomus Erichsoni Lec. M. Attalus nigrellus Lec. M.

CLERIDÆ.

Clerus nigripes Say. M. nigrifrons Say. M. dubius Fab. M. E. undatulus Say. E. M. I.

Hydnocera difficilis Lec. M. pallipennis Say. E. verticalis Say. M Corynetes violaceus Linn. M.

LYMEXYLIDÆ.

Hylecœtus lugubris Say. M.

PTINIDÆ.

Ernobius mollis Linn. M. granulatus Lec. M. Xestobium squalidum Lec. M. Oligomerus sericans Melsh. E. Hadrobregmus errans Melsh. M. carinatus Say. E. foveatus Kby. M. Anobium notatum Say. E. M. Petalium bistriatum Say. M. Theca profunda Lec. M. Xyletinus fucatus Lec. M. Dorcatoma pallicorne Lec. M. Cænocara oculata Say. M. Ptilinus ruficornis Say. M. Hendecatomus rugosus Rand. M. Bostrichus armiger Lec. M. Amphicerus bicaudatus Say. M. Dinoderus substriatus Pavk. E. M. B. I.

cribratus Lec. M. densus Lec. M.

SPONDYLIDÆ.

Parandra brunnea Fab. E. Spondylis upiformis Mann.* E. H.

CERAMBYCIDÆ.

Tragosoma Harrisii Lec. E. M.

Asemum mœstum Hald. M. Criocephalus agrestis Kby. Tetropium cinnamopterum KbyMI. Phymatodes dimidiatus Kby. M. maculicollis Lec. n. sp. I. Merium Proteus Kby. M. Gonocallus collaris Kby. M. Elaphidium villosum Fab. M. parallelum Newm. M. Glycobius speciosus Say.* Calloides nobilis Harris. E. M. Arhopalus fulminans Fab. E. Xylotrechus colonus Fab. M. undulatus Say. M. B. I. annosus Say. M. Neoclytus muricatulus Kby. M. Clytanthus ruricola Ol. Cyrtophorus gibbulus Lec. I. Atimia confusa Say. M. Encyclops cæruleus Say. M. Rhagium lineatum Oliv. Centrodera decolorata Harris. Pachyta monticola Rand M. I. liturata Kirby.* Anthophilax viridis Lec M. malachiticus Hald. M. attenuatus Hald. M.

Proteus Kby. M. I.
pratensis Laich. M.

Gaurotes cyanipennis Say. M.

Bellamira scalaris Say. E. M.

Typocerus sparsus Lec. n. sp. E.
Leptura plebeja Rand. E. M.

Acmæops discoidea Hald. M.

subhamata Rand. E. capitata Newm. M. subargentata Kby. M. I. similis Kby. M. cordifera Ol.* sexmaculata Linn. M. nigrella Say. M. n. sp.? M. (nigrella ??) canadensis Fab. E. M. rubrica Say. M. vagans Ol. E. M. sanguinea Lec. M.

Leptura chrysocoma Kby. S. M. I.
proxima Say. M.
rufula Hald. I.
tibialis Lec. M.
pedalis Lec. M.
vittata Germ. E. M.
pubera Say. M.
sphæricollis Say. M.
vibex Newm. M.
mutabilis Newm. M. I.
aspera Lec. S. M.

Monohammus maculosus Hald. M. scutellatus Say. confusor Kby. marmoratus Rand. M. Acanthoderes decipiens Hald. M.

Leptostylus commixtus Hald. M.

macula Say.*
Sternidius alpha Say. E.
Liopus quercus Fitch. M.
Lepturges symmetricus Hald. M.
Hyperplatys maculatus Hald. M.
Graphisurus fasciatus DeG. M.
pusillus Kby.*

Acanthocinus obsoletus Oliv. M.
Pogonocherus pennicollatus Lec. M
mixtus Hald. M. Mr. I.
parvulus Lec. M.

Saperda calcarata Say. M. mœsta Lec. E. concolor Lec. M.

CHRYSOMELIDÆ.

Donacia piscatrix Lac. M.
porosicollis Lac. M.
hirticollis Kby. E.
proxima Kby.*
magnifica Lec. M.
distincta Lec. E.
subtilis Kunze. E. M.
confusa Lec.*
emarginata Kby. M.
flavipes Kby.*
cuprea Kby. M.
jucunda Lec. M.

Macroplea Melsheimeri Lac. E. Orsodachna Childreni Kby. I. Zengophora varians Cr. I. abnormis Lec.* Syneta ferruginea Germ. M. I. Lema trilineata Oliv. M. Cryptocephalus sellatus Suffr. E. M. I. venustus Fabr. E. 4-maculatus Sav. E. catarius Suffr. S. P. Mr. auratus Fabr. S. Pachybrachys carbonarius Hald.? M-nigrum Melsh? S. sp. S. M. I. abdominalis Say.* hepaticus Melsh. M. Adoxus vitis Linn. Xanthonia 10-notata Say.* Heteraspis pubescens Melsh. M. Paria 6-notata Say. M. Fidia longipes Mels.* Chrysomela 10-lineata Say. E. M. multiguttis Stal.* philadelphica Linn.* elegans Ol. M. Bigsbyana Kby. S. P. G. B. Prasocuris varipes Cr. S. Gonioctena pallida Linn. M. B. I. Phyllodecta vulgatissima Linn. I. Plagiodera lapponica Linn. M. G. tremulæ Fab. E. M. scripta Fabr. M. Phyllobrotica decorata Say. E. M. Diabrotica 12-punctata Ol. M. B. Mr. Galerucal rufosanguinea Say, M. Gallerucella sagittariæ Gyllh. M.

decora Sav.

Hypolampsis pilosa Ill. M.

Disonycha pallipes Cr. M.

alternata Ill. M.

Œdionychis vians Ill. M.

Trirhabda canadensis Kby. E.

flavolimbata Mannh. Mr.

Disonycha punctigera Lec. M. B. Graptodera bimarginata Say. M. ignita Ill.* exapta Say. M. Mr. Longitarsus sp. M. Mr. Phyllotreta vittata Fab. M. Systema frontalis Fabr. B. Crepidodera Helxines Linn. S. Modeeri Linn, M. Chætocnema confinis Cr. M. rudis Lec. n. sp. M. Psylliodes punctulata Melsh M. Odontota rubra Web. M. rosea Web. M. Cassida nigripes Oliv. M. Coptocycla guttulata Oliv. M. purpurata Boh. M.

TENEBRIONIDÆ.

Phellopsis obcordata Lec. S. M.
Iphthimus opacus Lec. M.
Upis ceramboides Linn.
Haplandrus concolor Lec. E. M.
Bius estriatus Lec. M.
Blapstinus interruptus Say. E.S.M.
Tribolium madens Charp. M.
Paratenetus punctatus Sol. M.
fuscus Lec. M. S.
Platydema americanum Lap. M.
Scaphidema acneolum Lec. M. Mr.
Hypophlœus parallelus Melsh.
Bolitotherus bifurcus Fabr. M.
Bolitophagus corticola Say. E. M.
depressus Rand. M.

CISTELIDÆ.

Hymenorus pilosus Melsh E.
punctulatus Lec.
niger Melsh. E. M. I.
Isomira 4-striata Coup.
Mycetochares Haldemani Lec. M.
bicolor Coup. M.
binotata Say. M.
gracilis Lec. n. sp. M.

 $_{\rm I}$ I cannot adopt the changes proposed by Mr. Crotch in the names of this and the next genus.—Lec.

PYROCHROIDÆ.

Ischalia costata Lec. M. B. Schizotus cervicalis Newm. M. Dendroides canadensis Latr. E. M. concolor Newm. M.

ANTHICIDÆ.

Nematoplus collaris Lec. M.
Corphyra lugubris Say.*
Notoxus anchora Hentz. E. M.
Anthicus formicarius Laf. E. M.
floralis Payk. M.
scabriceps Lec.
cervinus Laf. Mr.
spretus Lec. M.
coracinus Lec. M.
pallens Lec. E. M.
granularis Lec. M. Mr.
Xylophilus piceus Lec. E. M.
n. sp. M.

MELANDRYIDÆ.

Canifa pallipes Melsh. pallipennis Lec. n. sp. M. Tetratoma tesselata Melsh M. Mi. Stenotrachelus arctatus Say. * EII. Penthe obliquata Fab. M. S. Synchroa punctata Newm. M. Phryganophilus collaris Lec. M. Emmesa connectens Newm. M. I. Melandrya striata Say. M. Prothalpia undata Lec. M. Xylita lævigata Hellen. Mi. decolorata Rand. M. Scotochroa atra Lec. M. basalis Lec. E. M. I. Carebara longula Lec. E. Spilotus 4-pustulosus Melsh. E. M. Zilora hispida Lec. M. Serropalpus striatus Hellen. Enchodes sericea Hald. M. Dircæa liturata Lec. E. M. fusca Lec. n. sp.

Symphora flavicollis Hald. E. M.

Hallomenus obscurus Lec.n. sp. M.
punctulatus Lec. Mi.
debilis Lec. E. M.

Eustrophus confinis Lec. E. M.
bicolor Say. M.
tomentosus Say. M.
Orchesia gracilis Melsh. M.

MORDELLIDÆ.

Anaspis nigra Hald. M. T. flavipennis Hald. M. Mi. rufa Say. Mordella borealis Lec. S. M. scutellaris Fabr. S. M. Mr. lineata Melsh. E. M. serval Say. M. Glipodes helva Lec. M. Mordellistena scapularis Say. E.M. tosta Lec. M. pectoralis Lec. * North Shore. nigricans Melsh. E. M. morula Lec.* guttulata Hellm. M. pityptera Lec. M. Pelecotoma flavipes Melsh. M. Myodites stylopides Newm. P.

MELOIDÆ.

Macrobasis unicolor Kirby.* N. S. Epicauta convolvuli Melsh. M. fissilabris Lec.* North Shore.

CEPHALOIDÆ.

Cephaloon lepturides Newm. M. ungulare Lec. M.

CEDEMERIDÆ.

Calopus angustus Lec. Mi. Ditylus cœruleus Rand. M. Asclera ruficollis Say. M. puncticollis Say. M.

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MYCTERIDÆ.

Mycterus scaber Hald. M.

PYTHIDÆ.

Pytho americanus Kby. M.
Crymodes discicollis Lec. M. I.
Priognathus monilicornis Randall.*
Boros unicolor Say. M. I.
Salpingus virescens Lec.
sp. M.
Rhinosimus nitens Lec. M. I.

RHINOMACERIDÆ.

Rhinomacer pilosus Lec. M. elongatus Lec. M.

RHYNCHITIDÆ.

Rhynchites cyanellus Lec. M.

ATTELABIDÆ.

Attelabus bipustulatus Fabr. M. rhois Boh. M.

OTIORHYNCHIDÆ.

Hormorus undulatus Uhler P. Geoderces melanothrix Kby. B. Mi.

CURCULIONIDÆ.

Sitones flavescens All. M.
Trichalophus alternatus Say. Mr. I.
Ithycerus noveboracensis Forst. E.
Lepyrus geminatus Say. E.
Listronotus latiusculus Boh. M.
Macrops sp. M.
Hypomolyx pinicola Coup. M. Mi.
Hylobius confusus Kby.
Pissodes strobi Peck.
affinis Rand.

Erycus puncticollis Lec. P. B. Dorytomus laticollis Lec. M. Mr. brevicollis Lec. M. I. sp. M. luridus Mannh. M. Tanysphyrus Lemnæ Gyllh. M. Bagous mammillatus Sav. M. Magdalis hispoides Lec. M. I. perforata Horn E. M. pallida Say. M. gentilis Lec. M. I. olyra Herbst.* Acalyptus Carpini Herbst. M. Elleschus bipunctatus Gyllh. M Anthonomus scutellatus Gyl. EM. signatus Say. M. rufipennis Lec. M. corvulus Lec. M. I. Cratægi Walsh. M. I. two undescribed species. ? Anthonomus n. sp. M. Orchestes canus Horn. n. sp. M. I. pallicornis Say. E. M. I. subhirtus Horn, n. sp. M. Piazorhinus scutellaris Gyll. M. Proctorus armatus Lec. M. decipens Lec. M. Tyloderma æreum Say. E. Cnemogonus Epilobii Payk. M. I. Cœliodes cruralis Lec. M.

Pissodes dubius Rand. M. I. Procas picipes Steph. M. Mr.

BRENTHIDÆ.

Ceuthorhynchus decipiens Lec. M.

nebulosus Lec. M.

Pelenomus sulcicollis Fahr. M. Balaninus uniformis Lec. M.

Eupsalis minuta Dr. M.

CALANDRIDÆ.

Sphenophorus ochreus Lec. E. pertinax Ol. E. costipennis Horn. E.

Sphenophorus sculptilis Uhler. E. Dryopthorus corticalis Say. M. P. Nov. genus? near Himatium. S. Cossonus subareatus Boh. E. M. Phlæophagus apionides Horn. M. Rhyncolus brunneus Mannh. S. M. Mi.

SCOLYTIDÆ.

Monarthrum mali Fitch. M. Pityophthorus materiarius Fitch.M. sparsus Lec. M. plagiatus Lec. M. pullus Zimm. M. consimilis Lec. n. sp. M. hirticeps Lec. n. sp. M. puberulus Lec. M. pusio Lec. n. sp. M. opaculus Lec. n. sp. M. Xyloterus bivittatus Kby. M. Xyleborus cælatus Zimm. M. Dryoccetes septentrionis Mannh. Brachytarsus variegatus Say. M. S. M. Mr. Mi. affaber Mannh. M.

granicollis Lec. M. Tomicus calligraphus Germ. M. cacographus Lec. M.

Tomicus pini Say.

hudsonicus Lec. M. interruptus Lec. M. balsameus Lec. M.

Scolytus unispinosus Lec. M. Polygraphus rufipennis Lec. Phlœosinus dentatus Sav. M. punctatus Lec.*

Dendroctonus terebrans Oliv. M. similis Lec. M. rufipennis Kby. M. I. frontalis Fabr.*

Hylastes porculus Er. M. cavernosus Zimm. M. Hylurgops pinifex Fitch.

ANTHRIBIDÆ.

Gonotropis gibbosa Lec. M. Eurymycter fasciatus Lec. M. Allandrus bifasciatus Lec. M. Cratoparis lunatus Fabr. M.

APIONIDÆ.

Apion sp. M. I. sp. M.

3. Contribution to a List of the Coleopters of the Lower Peninsula of Michigan.

By H. G. Hubbard and E. A. Schwarz.

Localities:

A. Ann Arbor. H. Port Huron.

M. Monroe.

Where no locality is given, Detroit is to be understood.

CICINDELIDÆ.

Cicindela scutellaris var. Lecontei Hald. sex-guttata Fabr. purpurea Oliv.

Cicindela generosa Dej. H. tranquebarica Hbst. 12-guttata Dej. repanda Dej. hirticollis Say.

CARABIDÆ.

Omophron robustum Horn. M. americanum Dej.

Elaphrus Clairvillei Kby. H.

riparius Linn.

ruscarius Sav.

Notiophilus æneus Hbst. semistriatus Say.

sibiricus Mots.

Hardyi Putz.

Nebria pallipes Say.

Calosoma scrutator Fab.

frigidum Kbv.

calidum Fabr.

Carabus palustris Fisch.

vinctus Web.

Cychrus Lecontei Dej.

Scarites subterraneus Fab.

Dyschirius Dejeanii Putz.

nigripes Lec.

æneolus Lec.

longulus Lec.

edentulus Putz.

setosus Lec.

brevispinus Lec. n. sp. p.

Clivina impressifrons Lec.

americana Dej.

rufa Lec.?

bipustulata Fab.

Schizogenius ferrugineus Putz. M.

Brachinus janthinipennis Dej.

medius Harr.

conformis Dej.

fumans Fabr

stygicornis Say.

Galerita Janus Fab.

Casnonia pensylvanica Linn.

Plochionus timidus Hald. H.

Loxopeza grandis Hentz.

atriventris Say.

tricolor Say.

Lebia pulchella Dej.

viridis Say.

var. mæsta Lec.

pumila Dej.

Lebia viridipennis Dej.

ornata Say.

fuscata Dej.

Dianchomena scapularis Dej.

Tetragonoderus fasciatus Hald.

Perigona nigriceps Dej. A.

Dromius piceus Dej.

Metabletus americanus Dej.

Blechrus linearis Lec. A.

Axinopalpus biplagiatus Dej.

Apenes lucidula Dej.

Cymindis cribricollis Dej.

pilosa Say.

americana Dej. A.

neglecta Hald.

Pinacodera limbata Dej. platicollis Say.

Callida punctata Lec.

Calathus gregarius Say.

impunctatus Sav.

Platynus hypolithus Say.

pusillus Lec.

tenebricosus Gemm.

decens Sav.

sinuatus Dej.

extensicollis Say.

decorus Say.

molestus Lec.

melanarius Dej.

affinis Kby.

cupripennis Sav.

crenistriatus Lec.

æruginosus Dej.

excavatus Dej.

ferreus Hald.

subcordatus Lec.

nutans Say.

sordens Kby.

ruficornis Lec.

picipennis Kby.

lutulentus Lec.

id. var. black.

8-punctatus Fabr.

placidus Say.

obsoletus Sav.

octocolus Mannh.

Chlænius tomentosus Say. Lansing Olisthopus parmatus Say. micans Lec. A. (Cooke). Pterostichus adoxus Say. Anomoglossus emarginatus Say. honestus Sav. H. coracinus Newm. pusillus Say. H. Atranus pubescens Dej. H. stygicus Say. Sayi Brullé. Lachnocrepis parallelus Say. lucublandus Say. Oodes fluvialis Lec. caudicalis Say. Geopinus incrassatus Dej. luctuosus Dej. Agonoderus lineola Fab. corvinus Dej. comma Fabr. pallipes Fabr. mutus Sav. Luczotii Dej. partiarius Say. erythropus Dej. pauperculus Dej. patruelis Dej. testaceus Dej. femoralis Kby. n. sp.? Lophoglossus scrutator Lec. Anisodactylus rusticus Dej. Myas cyanescens Dej. Grand carbonarius Say. nigerrimus Dej.* Haven. Harrisii Lec. Amara avida Say. arenaria Lec. H. nigrita Dej. latior Kby. A. Lecontei Chd. angustata Say. agricola Harr. impuncticollis Say. discoideus Dej. interstitialis Dej. baltimorensis Say. obesa Say. H. sericeus Harr. gibba Lec. H. Xestonotus lugubris Dej. musculus Say. H. Spongopus verticalis Lec. H. Badister notatus Hald. Amphasia instertitialis Say. pulchellus Lec. Anisotarsus piceus Lec. terminatus Say. micans Lec. Diplochila laticollis Lec. Gynandropus hylacis Say. var. major Lec. Bradycellus dichrous Dej. Dicælus purpuratus Bon. autumnalis Say. sculptilis Say. A. badiipennis Hald. teter Bon. Lansing. atrimedius Say. axillaris Mannh. politus Dej. Chlænius erythropus Germ. Grand rupestris Say. Haven. Harpalus caliginosus Fabr. sericeus Forst. faunus Say. cordicollis Kirby. vagans Lec. pensylvanicus DeG. tricolor Dej. pensylvanicus Say. compar Lec. erythropus Dej. impunctifrons Say. Grand spadiceus Dej. Haven. niger Rand. pleuriticus Kby.

Harpalus herbivagus Say.
laticeps Lec. Lake Huron
basilaris Kby. A. H.

Stenolophus fuliginosus Dej. plebejus Dej.

conjunctus Say. ochropezus Say. hydropicus Lec.

carus Lec.

Trechus micans Lec.

Bembidium americanum Dej.

chalceum Dej.
striola Lec.
lucidum Lec.
patruele Dej.
variegatum Say.

versicolor Lec. sulcatum Lec.

anguliferum Lec. cautum Lec.

assimile Gyllh.
4-maculatum Linn.

pedicellatum Lec. Tachys proximus Say.

lævis Say.
lævis Say.
nanus Gyllh.
flavicauda Say.
vivax Lec.
xanthopus Lec.
incurvus Say.

HALIPLIDÆ.

Haliplus fasciatus Aub.

punctatus Aub.*

triopsis Say.

borealis Lec. M.

cribrarius Lec.

Cnemidotus edentulus Lec.

DYTISCIDÆ.

Hydrovatus cuspidatus Germ.
Hydroporus inæqualis Fabr.
convexus Aub.
turbidus Lec.
nubilus Lec.

Hydroporus granarius Aub.

lacustris Say.
fuscatus Cr.
flavicollis Lec.
rotundatus Lec.
griseostriatus DeG. A.
undulatus Say.
mixtus Lec.

modestus Aub. dichrous Melsh.

Hydroporus americanus Aub.

tartaricus Lec.
tristis Payk.
oblitus Aub.
conoideus Lec. H.
laccophilinus Lec. n. sp.

Suphis semipunctatus Lec. n. sp. Laccophilus maculosus Germ.

fasciatus Aub.

Acilius semisulcatus Aub.

Thermonectes basilaris Harr. A.

Graphoderes cinereus Linn. H.

Hydaticus stagnalis Fab. H.

piceus Lec.

Colymbetes sculptilis Harr.

Dytiscus Harrisii Kby. fasciventris Say.

Rhantus binotatus Harr.

tostus Lec.
Ilybius picipes Kby.

biguttulus Germ.

ignarus Lec. H.

Matus bicarinatus Say.

Coptotomus interrogatus Fab.
Copelatus glyphicus Say.

Ilybiosoma bifarium Kby. H.

Gaurodytes disintegratus Cr. A. semipunctatus Kby.

ovoideus Lec. H. punctulatus Aub. gagates Aub.

GYRINIDÆ.

Dineutes emarginatus Say. discolor Aub.* Dineutes assimilis Aub.

Gyrinus fraternus Coup.

æneolus Lec.
limbatus Say.
ventralis Kby.
maculiventris Lec.
picipes Aub.
analis Say.
minutus Fab. H.

HYDROPHILIDÆ.

Helophorus lineatus Say.

tuberculatus Gyllh.

sp. near lacustris.

two new species.

Hydrochus squamifer Lec.

two new sp.

Hydræna pensylvanica Kw.

Hydrophilus ovatus Har.

triangularis Say.

Tropisternus nimbatus Say.

glaber Hbst.

mixtus Lec.

Hydrocharis obtusatus Say.

Hydrocharis obtusatus Say Berosus striatus Say. Chætarthria pallida Lec. Philhydrus nebulosus Say. bifidus Lec. ochraceus Mels.

consors Lec.
cinctus Say.
perplexus Lec.
fimbriatus Melsh.
Hydrobius fuscipes Linn.

digestus Lec.
subcupreus Say.
despectus Lec.
feminalis Lec. n. sp.

Cyclonotum estriatum Say. Cercyon flavipes Er.

naviculare Zimm. centromaculatum St. prætextatum Say. ocellatum Say. unipunctatum Linn. Cercyon anale Er.
two unnamed species.
Cryptopleurum vagans Lec.

TRICHOPTERYGIDÆ.

Nossidium americanum Mots.
n. sp.

Ptenidium evanescens Marsham.
lineatum Lec.?
sp.

Ptilium Collani Mkl.
Smicrus filicornis Fairm.
Trichopteryx aspera Hald?
parallela Mots.
Dohrnii Matth.
Haldemani Lec.

several unnamed species.

Pteryx balteata Lec.

n. sp.

Ptinella quercus Lec.

n. sp.

STAPHYLINIDÆ.

Falagria cingulata Lec.
bilobata Say.
dissecta Er.
venustula Er.
Hoplandria lateralis Melsh.
Homalota trimaculata Er.
analis Gray.
lividipennis Mannh.

numerous unnamed species.

Placusa sp.
Calodera several species.

Bolitochara sp.
Myrmedonia sp. A.
Atemeles cavus Lec. A.
Aleochara lata Grav.
brachyptera Fourc.
nitida Grav.
several unnamed species.

Oxypoda several species.

Phlæopora sp.
Oligota pedalis Lec.
two unnamed species.

cinctus Grav.

Gyrophæna vinula Er. Bryoporus rufescens Lec. dissimilis Er. var. testaceus Lec. flavicornis Melsh.* Mycetoporus lepidus Er. corruscula Er. lucidulus Lec. socia Er. consors Lec. several unnamed species. americanus Er. Myllæna fuscipennis Kr. pictus Horn. dubia Er. Habrocerus Schwarzii Horn. one unnamed species. Acylophorus flavicollis Sachse. Dinopsis americanus Kr. pronus Er. myllænoides Kr. Heterothops fumigatus Lec. (Numerous undetermined genera of pusio Lec. Aleocharini). Quedius fulgidus Fab. Tachinus memnonius Grav. lævigatus Gyllh. repandus Horn. vernix Lec. luridus Er. capucinus Grav. canadensis Horn. molochinus Grav. fimbriatus Grav. five unnamed species. Schwarzii Horn. Paw Paw. Creophilus villosus Grav. frigidus Er. Leistotrophus cingulatus Grav. circumcinetus Mkl. Staphylinus maculosus Grav. nitiduloides Horn. vulpinus Nordm. Tachyporus maculipennis Lec. fossator Grav. elegans Horn. tomentosus Grav. jocosus Say. cinnamopterus Grav. chrysomelinus Linn. violaceus Grav. nanus Er. varipes Sachse. brunneus Fab. cæsareus Cederh. Cilea silphoides Linn. Ocypus ater Grav. Erchomus ventriculus Say. Belonuchus formosus Grav. Conosoma littoreum Linn. Philonthus cyanipennis Fabr. Knoxii Lec. æneus Rossi. crassum Grav. umbratilis Grav. pubescens Payk. hepaticus Er. basale Er. blandus Grav. opicum Say. lætulus Say. scriptum Horn. niger Melsh. Bolitobius niger Grav. scybalarius Nordm. dimidiatus Er. var.? debilis Grav. cingulatus Mannh. lomatus Er. cincticollis Say. fulvipes Fabr. anticus Horn. brunneus Grav. pygmæus Fab. aterrimus Grav. trinotatus Er. baltimorensis Grav. Kalamaobsoletus Say.* Z00.

apicalis Say.

Philonthus sobrinus Er. Pæderus palustris Aust. pæderoides Lec. Palaminus testaceus Er. cinerascens Grav. normalis Lec. several unnamed species. Stenus Juno Fab. Xantholinus cephalus Say. erythropus Melsh. emmesus Grav. femoratus Say. obsidianus Melsh. egenus Er. obscurus Er. flavicornis Er. Leptacinus two n. sp. annularis Er. Leptolinus longicollis Lec. punctatus Er. numerous undescribed sp. Baptolinus pilicornis Payk. species. Plymouth. Euæsthetus americanus Er. Diochus Schaumii Kr. Edaphus nitidus Lec. Oxyporus femoralis Grav. Lathrobium grande Lec. vittatus Grav. punctulatum Lec. angulare Lec. lateralis Grav. puncticolle Kby. Bledius semiferrugineus Lec. simile Lec. fumatus Lec. armatum Say. analis Lec. nigrum Lec. assimilis | Fauvel. tenue Lec. annularis Lec. longiusculum Grav. emarginatus Say. collare Er. Oxytelus sculptus Grav. several unnamed species. rugosus Er. Cryptobium badium Grav. insignitus Grav. bicolor Grav. pensylvanicus Er. pallipes Grav. nitidulus Grav. latebricola Nordm. exiguus Er. flavicorne Lec. Thinobius brachypterus Lec. cribratum Lec. fimbriatus Lec. Stilicus rudis Lec. Trogophlœus laticollis Lec. angularis Er. arcifer Lec. dentatus Say. 4-punctatus Say. Scopæus exiguus Er. numerous undescribed four or five unnamed species. species. Lithocharis corticina Grav. Apocellus sphæricollis Say. confluens Say. Anthophagus verticalis Say. ochracea Grav. Acidota subcarinata Er. one unnamed species. seriata Lec. Sunius prolixus Er. Olophrum rotundicolle Say. linearis Er. two unnamed species. binotatus Say. Coryphium notatum Lec. Omalium several unnamed species. longiusculus Mannh. Phlœonomus convexus | Zimm. brevipennis Aust.

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Protinus parvulus Lec.

Pæderus littorarius Grav.

Megarthrus excisus Lec.
Siagonium americanum Melsh.
Eleusis pallidus Lec.
picipennis Lec.
Glyptoma costale Er.
Pseudopsis sulcata Newm.
Micropeplus tesserula Curtis.

PSELAPHIDÆ.

Ceophyllus monilis Lec. Plymouth. Cedius spinosus Lec. Tmesiphorus carinatus Say. Ctenistes piceus Lec. Zimmermanni Lec. consobrinus Lec. Tyrus humeralis Aub. Pselaphus Erichsoni Lec. Tychus minor Lec. Bythinus zonatus Br. Bryaxis conjuncta Lec. Brendelii Horn. dentata Say. puncticollis Lec. scabra Brend. rubicunda Aub. two doubtful species. Decarthron abnorme Lec. longulum Br. formiceti Lec. Batrisus simplex Lec. n. sp. Schaumii Aubé. globosus Lec.

Euplectus interruptus Lec.

spretus Lec.

Rhexius insculptus Lec.

Trimium dubium Lec.

lineaticollis Aub.

americanum Lec.

canaliculatus Lec. integer Lec. n. sp. crinitus Brendel.

Necrophorus marginatus Fabr.

SILPHIDÆ.

Necrophorus Sayi Lap.
pustulatus Hersch.
americanus Oliv.
orbicollis Say.
tomentosus Web.
vespilloides Hbst.

Silpha surinamensis Fab.
lapponica Hbst.
noveboracensis Forst.
inæqualis Fabr.
americana Linn.

Choleva opaca Say.
Ptomaphagus brunneipennis

Colon dentatum Lec.

Mannh.

consobrinus Lec.

oblitus Lec.
Catopomorphus brachyderus Lec.

three unnamed species. '
Hydnobius substriatus Lec.
Anisotoma alternata Melsh.

punctostriata Kby. collaris Lec. obsoleta Lec.

Cyrtusa egena Lec. picipennis Lec. sp.

Colenis impunctata Lec.
Aglyptus lævis Lec.
Liodes discolor Melsh.
dichroa Lec.

Agathidium oniscoides Beauv. globatile Lec. n. sp. exiguum Melsh. politum Lec.

Clambus puberulus Lec. gibbulus Lec.

SCYDMÆNIDÆ.

Eumicrus Zimmermanni Sch. A.
Scydmænus perforatus Schaum.
magister Lec.
flavitarsis Lec.
fossiger Lec.
capillosulus Lec.
rasus Lec.

Scydmænus clavipes Say.
consobrinus Lec.
bicolor Lec.
salinator Lec.
fatuus Lec.
several unnamed species.

CORYLOPHIDÆ.

Orthoperus glaber Lec.
scutellaris Lec. n. sp.
Corylophus marginicollis Lec.
truncatus Lec.
Sericoderus flavidus Lec.

obscurus Lec.
Sacium fasciatum Say.
lunatum Lec.
misellum Lec.

SCAPHIDIIDÆ.

Scaphidium 4-guttatum Say. var. 4-pustulatum Say. var. piceum Melsh. var. obliteratum Lec.

Bæocera concolor Fab.*
apicalis Lec.

Scaphisoma convexum Say.
suturale Lec.
terminatum Melsh.
pusillum Lec.
n. sp.

Toxidium gammaroides Lec. compressum Zimm.

LATHRIDIIDÆ.

Stephostethus (n. g.) liratus Lec.
Lathridius carinatus Gyllh.
minutus Linn.
maculatus Lec. n. sp.
opaculus Lec. n. sp.
laticollis Lec. n. sp.
duplicatus Lec. n. sp.
filiformis Aub.

Corticaria serricollis Lec.

Corticaria deleta Mannh.
rugulosa Lec.
serrata Payk.
elongata Gyllh.
americana Mannh.
angularis Lec.
cavicollis Lec.
pumila Melsh.
picta Lec.
three unnamed species.

DERMESTIDÆ.

Dermestes nubilus Say.

mucoreus Lec.*
lardarius Linn.
talpinus Mann. (introduced).

Attagenus pellio Linn.
megatoma Fabr.
longulus Lec.
Trogoderma tarsale Melsh.
Cryptorhopalum ruficorne Lec.

hæmorhoidale Lec.
Anthrenus thoracicus Melsh.
varius Fabr.
museorum Linn.
Orphilus ater Er.

Lycoperdina ferruginea Lec.

ENDOMYCHIDÆ.

Mycetina perpulchra Newm.

testacea Lec.

vittata Fabr.

Endomychus biguttatus Fab.

Rhanis unicolor Ziegl.

Phymaphora pulchella Newm. A.

Mycetæa hirta Melsh.

Rhymbus minor Cr.

MYCETOPHAGIDÆ.

Mycetophagus punctatus Say.
flexuosus Say.
obsoletus Melsh.
bipustulatus Melsh.

Mycetophagus pluripunctatus Lec.
Triphyllus humeralis Kby.
Litargus tetraspilotus Lec.
6-punctatus Say.
infulatus Lec.
didesmus Say.
Typhæa fumata Linn.
Diplocœlus brunneus Lec.
Cryptophagus cellaris Scop.
croceus Zimm.
crinitus Zimm.
nodangulus Zimm.
several unnamed special several unnamed several un

SPHINDIDÆ.

Odontosphindus denticollis Lec. n. g. and sp. Sphindus americanus Lec. Eurysphindus hirtus Lec. n. g. and sp.

CIOIDÆ.

Cis creberrimus Mell.
brevisetosus Cr.
fuscipes Mell.
three other species.
Ennearthron Mellyi Mell.?
several other species.

EROTYLIDÆ.

Languria Mozardi Latr. gracilis Newm. Dacne 4-maculata Say. Hypodacne punctata Lec. A. Megalodacne fasciata Fab. heros Say. Ischyrus 4-punctatus Oliv. Mycotretus sanguinipennis Say. pulchra Say. Cyrtotriplax humeralis Fab. angulata Say. unicolor Sav. Triplax festiva Lec. macra Lec. thoracica Say. flavicollis Lac.

CRYPTOPHAGIDÆ.

Antherophagus ochraceus Melsh.

croceus Zimm. crinitus Zimm. nodangulus Zimm. several unnamed species. Paramecosoma serratum Gyllh. n. sp. Tomarus pulchellus Lec. Atomaria ephippiata Zimm. numerous unnamed species. Ephistemus apicalis Lec. Telmatophilus americanus Lec. Loberus impressus Lec. Silvanus advena Waltl. surinamensis Linn. bidentatus Fab. planatus Germ. var. cognatus Lec. rectus Lec. Nausibius dentatus Melsh, Telephanus velox Hald.

CUCUJIDÆ.

Catogenus rufus Fab.
Cucujus clavipes Fab.
Pediacus depressus Hbst. H.
Lathropus vernalis Lec.
Læmophlæus biguttatus Say.

fasciatus Melsh.
testaceus Fab.
adustus Lec.
convexulus Lec. n. sp. H.
Narthecius grandiceps Lec.
Brontes dubius Fab.

LYCTIDÆ.

Lyctus planicollis Lec. H. opaculus Lec.

COLYDIIDÆ.

Coxelus guttulatus Lec.
Ditoma 4-guttata Say.
Synchita nigripennis Lec.
parvula Guér. A.
Aulonium parallelopipedum Say.

Colydium lineola Say.
Bothrideres geminatus Say.
Philothermus glabriculus Lec.
Cerylon castanum Say.
var. unicolor Ziegl.

RHYSSODIDÆ.

Rhyssodes exaratus Ill.

RHIZOPHAGIDÆ.

Rhizophagus bipunctatus Say.

MONOTOMIDÆ.

Bactridium ephippigerum Germ.
nanum Er.
striolatum Reitter.
Monotoma fulvipes Melsh.
picipes Hbst.

americana Aub. parallela Lec.

TROGOSITIDÆ.

Nemosoma parallelum Mels.
Tenebrioides corticalis Melsh.
castanea Melsh.
nana Melsh.
bimaculata Melsh.
Calitys scabra Thunb.
Thymalus fulgidus Er.

NITIDULIDÆ.

Byturus unicolor Say.
Cercus abdominalis Er.
Brachypterus urticæ Fabr.
Colastus semitectus Say.
unicolor Say,
truncatus Rand.
Carpophilus niger Say.
brachypterus Say.
discoideus Lec.
Epuræa helvola Er.

Epuræa rufa Say.
Erichsonii Reitter.
immunda Sturm.
avara Rand.
truncatella Mann.
ovata Horn. n. sp.
peltoides Horn, n. sp.
labilis Er.

peltoides Horn, n. sp. Nitidula bipustulata Linn. ziczac Say. var. humeralis Lec. Prometopia 6-maculata Say. Lobiopa undulata Say. Omosita colon Linn. Phenolia grossa Fab. Stelidota 8-maculata Say. Thalycra concolor Lec. Cyllodes biplagiatus Lec. Cychramus adustus Er. Amphicrossus ciliatus Ol. Pallodes silaceus Er. Cybocephalus nigritulus Lec. Cryptarcha ampla Er. strigata Fabr. liturata Lec.

liturata Lec.

Ips 4-guttatus Fab.
obtusus Say.
sanguinolentus Oliv.
confluens Say.

PHALACRIDÆ.

Phalacrus politus Melsh.
n. sp.
Olibrus ergoti | Walsh.
consimilis Melsh.
nitidus Mels.
Litochrus immaculatus Zimm.

COCCINELLIDÆ.

Megilla maculata DeG.
Hippodamia 13-punctata Linn.
parenthesis Say.
Anisosticta strigata Thunb.
Cocinella affinis Rand. H.

Cocinella trifasciata Linn.
9-notata Hbst.
monticola Muls.
Cycloneda sanguinea Linn.
Adalia bipunctata Linn.
Anatis 15-punctata Oliv.
Psyllobora 20-maculata Say.
Chilocorus bivulnerus Muls.
Cineis pusilla Lec.
Brachyacantha ursina Fab.
indubitabilis Cr.

Hyperaspis signata Oliv. proba Say. bigeminata Rand.

undulata Say.

Scymnus punctatus Melsh.
terminatus Say.
americanus Muls.
fraternus Lee
ochroderus Muls.
cervicalis Muls.
nanus Lee.
punctum Lee.
n. sp.

Pentilia misella Lec. Coccidula lepida Lec.

BYRRHIDÆ.

Nosodendron unicolor Say.
Cytilus sericeus Forst.
trivittatus Melsh. H.
Byrrhus americanus Lec.
cyclophorus Kby.
Pettiti Horn.
Limnichus punctatus Lec.
obscurus Lec.

PSEPHENIDÆ.

Psephenus Lecontei Lec.

ELMIDÆ.

Elmis bicarinatus Lec. Ancyronyx variegatus Germ.

HISTERIDÆ.

Hololepta fossularis Say.

Hister merdarius Hoffm.

interruptus Beauv.

immunis Er.

cognatus Lec.

fœdatus Lec.

abbreviatus Fab.

civilis Lec.*

depurator Say.

furtivus Lec.

curtatus Lec.

bimaculatus Linn. 16-striatus Say. americanus Payk.

perplexus Lec. subrotundus Say.

carolinus Payk. Lecontei Mars. coarctatus Lec.

Epierus ellipticus Lec. Tribalus americanus Lec. Onthophilus alternatus Say.

Paromalus æqualis Say.

bistriatus Er. seminulum Er. A. Saprinus rotundatus Kug.

distinguendus Mars.
assimilis Payk.
conformis Lec. A.
sphæroides Lec. H.
fraternus Say. H.

mancus Say H. patruelis Lec.

Teretrius americanus Lec.

Plegaderus transversus Say. H.
Bacanius punctiformis Lec.

Acritus exiguus Er. strigosus Lec. Æletes politus Lec.

simplex Lec.

LUCANIDÆ.

Lucanus dama Thunb.

Lucanus placidus Say.
Dorcus parallelus Say.
Platycerus quercus Web.
depressus Lec.
Ceruchus piceus Web.
Passalus cornutus Fab.

SCARABÆIDÆ.

Canthon vigilans Lec.
Chœridium histeroides Web.
Copris anaglypticus Say.
minutus Dr.
Onthophilus Hecate Panz.

Janus var. striatus Beauv.
pensylvanicus Har.
Aphodius fossor Linn.

Aphodius fossor Linn.
pinguis Hald. H.
fimetarius Linn.
ruricola Mels.
n. sp.?
granarius Linn.
vittatus Say.
inquinatus Hbst.
lentus Horn.
stercorosus Melsh.*
bicolor Say.
oblongus Say.

humeralis Lec.
Dialytes striatulus Say.
Atænius imbricatus Melsh.

gracilis Melsh.
stercorator Fab.
abditus Hald.
Ægialia lacustris Lec.

conferta Horn. M. Bolboceras farctus Fab.

Odontæus filicornis Say.
cornigerus Melsh.

Geotrupes splendidus Fabr. semiopacus Jek.

Egeriei Germ.
Blackburnii Fabr.
Balvi Jek.

Nicagus obscurus Lec. H. Clœotus aphodioides Ill.

Trox unistriatus Beauv.

sordidus Lec. *
æqualis Say.
scaber Linn.

Hoplia trifasciata Say.

Dichelonycha elongata Fabr.

fuscula Lec. albicollis Burm. H.

Serica vespertina Schh.

tristis Lec. ? sericea Ill.

Macrodactylus subspinosns Fabr.

Diplotaxis sordida Say.

frondicola Say. A. Endrosa quercus Kn.

Lachnosterna futilis Lec.

fusca Fröhl.
fraterna Harr.
ciliata Lec.
hirticula Kn.

hirsuta Kn. crenulata Fröhl. tristis Fabr.

Strigoderma arboricola Fabr.
Pelidnota punctata Linn.
Cotalpa lanigera Linn.
Ligyrus relictus Say.
Xyloryctes satyrus Fabr..
Euryomia inda Linn.

fulgida Fabr. Osmoderma scabra Beauv.

Gnorimus maculosus Kn. H.

Trichius piger Fabr.

affinis Gory.

viridulus Fabr.

BUPRESTIDÆ.

Chalcophora virginiensis Dr. H.
campestris Say.
Dicerca divaricata Say.
obscura Fabr.
asperata Lap.
Pœcilonota cyanipes Say.
Buprestis consularis Gory H.

maculiventris Say. H.

Buprestis fasciata Fabr. H. striata Fabr.

Melanophila longipes Say H. fulvoguttata Harr. H.

Anthaxia cyanella Gory. viridicornis Say.

viridifrons Gory.

quercata Fabr.

Chrysobothris femorata Lec.

dentipes Germ. H. 6-signata Say H. scitula Gory.

Actenodes acornis Say.

Acmæodera pulchella Hbst.

culta Web.

Agrilus ruficollis Fab.

torquatus Lec.

defectus Lec. difficilis Gor. H.

bilineatus Web.

acutipennis Mannh. H.

plumbeus Lec.

politus Say.

egenus Gory H.

putillus Say.

Taphrocerus gracilis Say.

Brachys ovata Web.

ærosa Melsh.

Pachyscelus purpureus Say. lævigatus Say.

THROSCIDÆ.

Throscus alienus Bono. punctatus Bono. Chevrolati Bono. constrictor Say.

Drapetes geminatus Say.

ELATERIDÆ.

Tharops obliqua Say. Deltametopus amœnicornis Say. Dromæolus cylindricollis Say. * Fornax bicolor Melsh. A. calceatus Say.

Microrhagus humeralis Say. triangularis Say.

Nematodes penetrans Lec.

Adelocera impressicollis Say. discoidea Web.

> aurorata Sav. obtecta Say.

Alaus oculatus Linn.

myops Fabr.

Cardiophorus amictus Melsh.

fenestratus Lec.? H. convexulus Lec. H.

Cryptohypnus abbreviatus Say.

choris Say.

pectoralis Say. A. obliquatulus Melsh.

Elater nigricollis Hbst.

linteus Say.

discoideus Fab.

semicinctus Rand.

vitiosus Lec. A.

apicatus Say.

socer Lec.

fuscatus Melsh.

pedalis Cand.

nigrinus Payk. sanguinipennis Say.

rubricus Say.

obliquus Say.

Drasterius dorsalis Say.

Monocrepidius auritus Say.

Ludius abruptus Say.

attenuatus Sav.

Agriotes mancus Say.

pubescens Melsh.

fucosus Lec. Lake Huron.

stabilis Lec.

oblongicollis Melsh.

Dolopius lateralis Eschsch.

Glyphonyx recticollis Say. ? A. testaceus Melsh.?

Melanotus depressus Melsh.

Leonardi Lec.

scrobicollis Lec. H.

castanipes Payk.

fissilis Say.

Melanotus communis Gyllh.
parumpunctatus Melsh.
americanus Hbst.?
Limonius auripilis Say.
aurifer Lec.
griseus Beauv.
plebejus Lec.
basillaris Lec.
agonus Say.

agonus Say. Campylus denticornis Kby. H. Pityobius anguinus Lec. Lansing Athous Brightwelli Kby. maculicollis Lec. cucullatus Say. fossularis Lec. scapularis Say. reflexus Lec. A. H. Sericosomus viridanus Say. A. Oxygonus obesus Say. A. Corymbites virens Sch. H. vernalis Hentz. Lansing. tesselatus Linn. cylindriformis Hbst. pyrrhos Hbst. sulcicollis Sav. hieroglyphicus Say. metallicus Germ.

DASCILLIDÆ.

memnonius Hbst.

bilobatus Say.

Asaphes baridius Say.

Dicranopselaphus thoracicus Zeigl.
Cyphon pallipes Lec.
fusciceps Kby. H.
piceus Lec.
nebulosus Lec.
modestus Lec.
pusillus Lec.
ruficollis Say.
Prionocyphon discoideus Say.
Helodes pulchella Guér.
thoracica Guér.
explanata Lec.
Scirtes tibialis Guér.

Eucinetus terminalis Lec.
morio Lec.
strigosus Lec.
testaceus Lec.
punctulatus Lec.
Ptilodactyla serricollis Say.

LAMPYRIDÆ.

Calopteron typicum Newm. var. apicale Lec. Eros coccinatus Say. thoracicus Rand. sculptilis Say. humeralis Fab. H. modestus Say. Lucidota atra Fabr. Photinus corruscus Linn. nigricans Say. angulatus Say. borealis Rand. lucifer Mels. angustatus Lec. H. ardens Lec. consanguineus Lec. n. sp. Photuris pensylvanica De G. Phausis inaccensa Lec. n. sp. M.

TELEPHORIDÆ.

Chauliognathus marginatus Fab. Podabrus tricostatus Say. flavicollis Lec. modestus Sav. diadema Fabr. rugosulus Lec. Telephorus excavatus Lec. carolinus Fab. angulatus Say. lineola Fab. rectus Melsh. cruralis Lec. dichrous Lec.? luteicollis Germ. scitulus Sav. vilis Lec.

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Telephorus fraxini Say.
rotundicollis Say.
tuberculatus Lec.
bilineatus Say.
limbatus Lec.
Silis percomis Say.
Malthodes concavus Lec.
transversus Lec.
exilis Melsh.
fragilis Lec,
parvulus Lec.

MALACHIIDÆ.

Collops 4-maculatus Fabr.
vittatus Say. H.
Anthocomus Erichsonii Lec.
Pseudebæus bicolor Lec.
oblitus Lec.
Attalus terminalis Er.
pallifrons Mots.
Pettiti Horn.
morulus Lec.

CLERIDÆ.

Cymatodera inornata Say. Priocera castanea Newm. Trichodes Nuttalli Kby. Clerus nigripes Say. nigrifrons Say. thoracicus Oliv. dubius Fab. sanguineus Say. Hydnocera humeralis Sav. var. difficilis Lec. var. cyanescens Lec. pallipennis Say. verticalis Say. tabida Lec. longicollis Ziegl. Phyllobænus dislocatus Say. Orthopleura damicornis Fabr. Laricobius rubidus Lec. Corynetes violaceus Linn.

LYMEXYLIDÆ.

Hyleccetus lugubris Say.

Micromalthus debilis Lec. n. g. and
sp.

CUPESIDÆ.

Cupes capitata Fab. Kalamazoo. concolor Westw.

PTINIDÆ.

Ptinus fur Linn. bimaculatus Melsh. Eucrada humeralis Melsh. Ernobius mollis Linn. Oligomerus sericans Melsh. Sitodrepa panicea Linn. Trichodesma gibbosa Say. Hadrobregmus errans Mels. carinatus Sav. linearis Lec. Anobium notatum Sav. Trypopitys sericeus Say. Petalium bistriatum Say. Xyletinus mucoreus Lec.? fucatus Lec. lugubris Lec. n. sp. Lasioderma serricorne Fab. Hemiptychus gravis Lec. ventralis Lec. Protheca puberula Lec. Dorcatoma pallicorne Lec. setulosum Lec. incomptum Lec. Cænocara oculata Say. scymnoides Lec. intermedia Lec. Ptilinus ruficornis Say. Hendecatomus rugosus Rand. Sinoxylon bidentatum Horn. p.544. Bostrichus armiger Lec. truncaticollis Lec.

SPONDYLIDÆ.

Parandra brunnea Fabr.

CERAMBYCIDÆ.

Orthosoma brunneum Forst. Tragosoma Harrisii Lec. Asemum mæstum Hald. Criocephalus obsoletus Rand. Smodicum cucujiforme Say. Dularius brevilineus Say. Phymatodes variabilis Fabr. varius Fab. maculicollis Lec. n. sp. I. Chion cinctus Dr. Elaphidion incertum Newm villosum Fab. parallelum Newm. unicolor Rand. Callimoxys fuscipennis Lec. Molorchus bimaculatus Say. Batyle ruber Lec. Cyllene pictus Drury. Robiniæ Forst. Calloides nobilis Say. H. Arhopalus fulminans Fab. Xylotrechus colonus Fab. sagittatus Germ. undulatus Say. Neoclytus capræa Say. erythrocephalus Fab. Clytanthus ruricola Oliv. Microclytus gazellula Hald. Cyrtophorus verrucosus Oliv. Euderces picipes Fab. Distenia undata Oliv. Desmocerus palliatus Forst. Encyclops cæruleus Say. Centrodera decolorata Harr. H. Acmæops bivittata Say. Gaurotes cyanipennis Say. Bellamira scalaris Say. H. Typocerus velutinus Oliv. sparsus Lec. n. sp. E.

Leptura capitata Newm.

zebra Oliv.

Leptura rubrica Say. proxima Say. vittata Germ. sphæricollis Sav. vibex Newm. aspera Lec. Psenocerus supernotatus Sav. Monohammus scutellatus Say. confusor Kby. Dorcaschema nigrum Say. Goes oculatus Lec. Plectrodera scalator Fab. Lake Huron. Acanthoderes decipiens Hald. Leptostylus planid orsus Lec. commixtus Hald. H. macula Say. Sternidius variegatus Hald. alpha Say cinereus Lec. Xanthoxyli Shimer. Liopus signatus Lec. quercus Fitch. facetus Sav. Lepturgus symmetricus Hald. Hyperplatys maculatus Hald. Graphisurus fasciatus DeG. pusillus Kby. Acanthocinus obsoletus Oliv. Hoplosia nubila Lec. Pogonocherus mixtus Hald. H. Ecyrus dasycerus Say. Eupogonius tomentosus Hald. H. vestitus Say. subarmatus Lec. Saperda obliqua Say. cretata Newm. vestita Say. discoidea Fabr. tridentata Oliv. lateralis Fab. mæsta Lec. H. concolor Lec. Oberea ocellata Hald. bimaculata Oliv. Tetraopes tetraophthalmus Forst.

BRUCHIDÆ.

Bruchus pisi Linn.

alboscutellatus Horn.
distinguendus Horn.
calvus Horn. var.
Hibisci Oliv.
musculus Say.
several unnamed or new
species.

CHRYSOMELIDÆ.

Donacia piscatrix Lac.

tuberculata Lac.

hirticollis Kby.

proxima Kby.

subtilis Kunze.

pubescens Lec.

confusa Lec.

femoralis Kby.

jucunda Lec.

Kirbyi Lec.

Macroplea Melsheimeri Lac.

Orsodachna atra Ahr. A.

Zeugophora scutellaris Suffr.

puberula Cr. var.?

varians Cr.

consanguinea Cr. *

Lema brunnicollis Lac.

trilineata Oliv.

Chlamys plicata Fab.

cribripennis Lec. n. sp. p.

Exema conspersa Mannh.

Monachus saponatus Fab.

Cryptocephalus congestus Fab.

var. sulphuripennis Melsh.

formosus Mels.

sellatus Suffr.

lituratus Fab.

venustus Fab.

Schreibersii Suffr.

dispersus Hald.

4-maculatus Say.

quadruplex Newm.

catarius Suffr.

Cryptocephalus auratus Fabr. atomus Suffr.

n. sp.

Pachybrachys trinotatus Melsh.

M-nigrum Melsh.

subfasciatus Hald.

atomarius Melsh.

femoratus Oliv.

infaustus Hald.

tridens Melsh.

abdominalis Say.

hepaticus Melsh.

Adoxus vitis Linn. H.

Xanthonia 10-notata Say.

villosula Melsh.

Heteraspis pubescens Melsh.

Chrysochus auratus Fab.

Paria 6-notata Say.

Colaspis brunnea Fab.

prætexta Say.

tristis Oliv.

Chrysomela clivicollis Kby.

10-lineata Say.

suturalis Fabr.

similis Rog.

elegans Ol.

multiguttis Stål.

philadelphica Linn.

Bigsbyana Kby.

Gastrophysa Polygoni Linn.

Prasocuris Phellandrii Ill. H.

varipes Cr.

obliquata Cr.

Phyllodecta vulgatissima Linn.

Plagiodera scripta Fab.

Cerotoma caminea Fabr.

Phyllobrotica decorata Say.

discoidea Fabr.

Luperus meraca Fabr.

Diabrotica 12-punctata Oliv.

vittata Fabr.

Galeruca americana Fab.

Sagittariæ Gyllh.

decora Say.

notata Fab.

Trirhabda canadensis Kby.

Hypolampsis Clarkii Cr. H. Œdionychis gibbitarsis Say. vians Ill. var. scripticollis Say. thyamoides Cr. 6-maculata Ill. quercata Fabr. scalaris Melsh. Disonycha limbicollis Lec. var. pallipes Cr. alternata Ill. triangularis Say. collata Fabr. Graptodera bimarginata Say. carinata Germ. exapta Sav. rufa Linn. one unnamed species. Longitarsus melanurus Melsh. testaceus Lec. several unnamed species. Batophila spuria Lec. Phyllotreta Zimmermanni Cr. vittata Fab. bipustulata Fabr. robusta Lec. n. sp. Dibolia ærea Melsh. Systena frontalis Fabr. marginalis Ill. Crepidodera Helxines Linn. atriventris Melsh. Modeeri Linn. Epitrix cucumeris Harr. hirtipennis Melsh. Mantura floridana Cr. Chætocnema denticulata Ill. parcepunctata Cr. confinis Cr. rudis Lec. n. sp. M. protensa Lec. flavicornis Lec. Psylliodes punctulata Melsh. Blepharida rhois Forst. Stenispa metallica Fabr.

collaris Baly.

Odontota scapularis Oliv.

Odontota rubra Web.
rosea Web.
Microrhopala porcata Melsh.
Physonota unipunctata Say.
Cassida nigripes Oliv.
Coptocycla aurichalcea Fab.
guttata Oliv.
purpurata Boh.
clavata Fabr.

TENEBRIONIDÆ, Nyctobates pensylvanica De G. barbata Kn. H. Merinus lævis Oliv. Upis ceramboides Linn. Haplandrus femoratus Fabr. Kalamazoo. concolor Lec. H. Scotobates calcaratus Fab. Xylopinus saperdioides Oliv. Tenebrio obscurus Fab. molitor Linn. castaneus Kn. tenebrioides Beauv. Blapstinus mœstus Mels. interruptus Say. Diœdus punctatus Lec. Echocerus maxillosus Fab. Uloma impressa Melsh. mentalis Horn. Paratenetus punctatus Sol. gibbipennis Mots. Diaperis Hydni Fab. Hoplocephala bicornis Oliv. Platydema excavatum Say. ruficorne St. americanum Lap. picilabrum Mels. subcostatum Lap. Scaphidema æneolum Lec. Hypophlœus parallelus Fab. H. Pentaphyllus pallidus Lec. Bolitotherus bifurcus Fab. Bolitophagus corticola Say. H. Rhipidandrus paradoxus Beauv.

Meracantha contracta Beauv. Strongylium tenuicolle Say.

CISTELIDÆ.

Hymenorus pilosus Mels. var. obscurus Say. var.? punctulatus Lec. niger Mels. rufipes Lec. H. Cistela brevis Sav. sericea Say. Isomira 4-striata Coup. Mycetochares Haldemani Lec. foveata Lec. tenuis Lec. binotata Sav. H. longula Lec. n. sp. lugubris Lec. n. sp. analis Lec. n. sp. marginata Lec. n. sp. M. gracilis Lec. n. sp. M. Capnochroa fuliginosa Melsh.

LAGRIIDÆ.

Arthromacra ænea Say.

Androchirus luteipes Lec.

PYROCHROIDÆ.

Pyrochroa flabellata Fab.
femoralis Lec.
Schizotus cervicalis Newm.
Dendroides canadensis Latr.
concolor Newm.

ANTHICIDÆ.

Corphyra Newmani Lec.
lugubris Say.
labiata Say.
terminalis Say.
elegans Hentz.
Notoxus anchora Hentz.
monodon Fab.
Tomoderus interruptus Laf.

Anthicus formicarius Laf.
Anthicus floralis Payk.
difficilis Lec.
scabriceps Lec.
cervinus Laf.
spretus Lec.
fulvipes Laf.
coracinus Lec.
pallens Lec. H.
granularis Lec.
n. sp.

Xylophilus piceus Lec.
fasciatus Mels.
signatus Hald.
basalis Lec.

n. sp.?

MELANDRYIDÆ.

Canifa plagiata Mels. pallipes Mels. pallipennis Lec. n. sp. M. Penthe obliquata Fabr. pimelia Fabr. Synchroa punctata Newm. Emmesa labiata Say. Melandrya striata Say. Spilotus 4-pustulosus Melsh. Mystaxis simulator Newm. Serropalpus striatus Hellen. H. Dircæa liturata Lec. fusca Lec. n. sp. M. Symphora flavicollis Hald. Hallomenus scapularis Mels. debilis Lec. serricornis Lec. n. sp. M. Eustrophus confinis Lec. bicolor Say. bifasciatus Say. tomentosus Sav. Orchesia castanea Melsh. gracilis Melsh.

MORDELLIDÆ.

Pentaria trifasciata Melsh. Anaspis flavipennis Hald. Anaspis rufa Say.

n. sp.?

Mordella melæna Grav.

scutellaris Fab.

irrorata Lec.

baltimorensis | Zimm.

marginata Mels.

lineata Mels.

undulata Mels.

Glipodes helva Lec.

Mordellistena trifasciata Say.

lutea Mels.

ornata Mels.

scapularis Say.

tosta Lec.

picicornis Lec.

cervicalis Lec.

fulvicollis Mels.

impatiens Lec.

nigricans Mels.

guttulata Hellm.

pustulata Mels.

convicta Lec.

ambusta Lec.

marginalis Say.

fuscata Mels.

discolor Mels.

n. sp.

Myodites Walshii Lec.

MELOIDÆ.

Meloe rugipennis Lec.

Macrobasis unicolor Kby. Epicauta Convoluli Mels H.

vittata Fabr.

cinerea Forst.

pensylvanica De G.

CEDEMERIDÆ.

Ditylus cœruleus Rand. Lake Huron Asclera ruficollis Say. puncticollis Say.

MYCTERIDÆ.

Lacconotus punctatus Lec.

PYTHIDÆ.

Salpingus virescens Lec. two other species.?

Rhinosimus nitens Lec.

RHYNCHITIDÆ.

Auletes ater Lec. H.

Cassandræ Lec.

Eugnamptus angustatus Gyllh.

var. collaris Gyllh.

Rhynchites æneus Boh.

cyanellus Lec.

Pterocolus ovatus Gyllh.

ATTELABIDÆ.

Attelabus analis Ill. Rhois Boh.

OTIORHYNCHIDÆ.

Hormorus undulatus Uhler. Lake Huron.

Panscopus erinaceus Say.

Anametis grisea Horn.

Phyxelis rigidus Say.

Otiorhynchus ligneus Oliv.

Cercopeus chrysorrhœus Say.

Pandeleteius hilaris Hbst.

Cyphomimus dorsalis Horn.

CURCULIONIDÆ.

Sitones flavescens Marsh.

tibialis Germ.

Ithycerus noveboracensis Forst.

Phytonomus comptus Say.

nigrirostris Gyllh.

Lepyrus geminatus Say.

bituberosus Lec.

transversus Lec.

Listronotus tuberosus Lec. Otidocephalus Chevrolati Horn. callosus Lec. perforatus Horn. inæqualipennis Boh. Magdalis hispoides Lec. H. caudatus Say. barbita Say. appendiculatus Boh. olvra Hbst. frontalis Lec. salicis Horn. latiusculus Boh. H. inconspicua Horn. Macrops solutus Boh. pandura Say. several unnamed species. armicollis Sav. Hypomolyx pinicola Coup. H. pallida Say. Hylobius pales Boh. H. Anthonomus 4-gibbus Say confusus Kby. nebulosus Lec. Pissodes Strobi Peck. H. scutellatus Gyllh. Lixus rubellus Rand. signatus Say. rectus Lec. rubidus Lec. mucidus Lec. sycophanta Walsh. concavus Say. rufipennis Lec. Grypidius Equiseti Gyllh. suturalis Lec. Erycus puncticollis Lec. n. sp. near flavicornis. Dorytomus laticollis Lec. corvulus Lec. brevicollis Lec. disjunctus Lec. luridus Mannh. cratægi Walsh. Acalyptus Carpini Linn. n. sp. near cratægi. Desmoris constrictus Say. decipiens Lec. Pachytychius discoideus Lec. Orchestes pallicornis Say. Smicronyx ovipennis Lec. niger Horn. subhirtus Horn. tychioides Lec. vestitus Lec. ephipiatus Say. squamulatus Lec. Elleschus ephipiatus Say. Endalus limatulus Lap. Prionomerus calceatus Say. ovalis Lec. Piazorhinus scutellaris Gyllh. Tanysphyrus Lemnæ Gyllh. Proctorus decipiens Lec. Onychylis nigrirostris Boh. Plocetes Ulmi Lec. longulus Lec. Gymnetron teter Schh. Anchodemus angustus Lec. Conotrachelus albicinctus Lec. Hubbardi Lec. nenuphar Harr. Schwarzi Lec. seniculus Lec. Lissorhoptrus simplex Say. elegans Boh. apiculatus Gyllh. Cratægi Walsh. Bagous mamillatus Say. posticatus Boh. obliquus Lec. anaglypticus Fahr. americanus Lec. Rhyssematus lineaticollis Say. Zaglyptus striatus Lec. magister Lec. nebulosus Lec. Acamptus rigidus Lec.

Acalles sordidus Lec. A.

Tyloderma foveolatum Say. H.

Tyloderma variegatum Horn.
æreum Say.
Cryptorhynchus parochus Say.
bisignatus Say.

bisignatus Say.
fuscatus Lec.
fallax Lec.

ferratus Say.

Piazurus oculatus Say.
Copturus quercus Gyllh.
Acoptus suturalis Lec.

Mononychus vulpeculus Boh. Craponius inæqualis Say.

Cœliodes acephalus Germ.

asper Lec. cruralis Lec. nebulosus Lec.

Acallodes ventricosus Lec. Ceuthorhynchus Rapæ Gyll.

sulcipennis Lec. decipiens Lec. pusio Mannh. semirufus Lec. puberulus Lec. Erysimi Fab.? n. sp.

Phytobius velatus Gyllh. Pelonomus sulcicollis Fahr.

squamosus Lec.

Cœlogaster Zimmermanni Lec.

cretura Hbst.

Rhinoneus pericarpius Gyllh.
pyrrhopus Boh.
longulus Lec.

Trichobaris trinotata Say. Baris striata Say.

tumescens Lec.

Pseudobaris nigrina Say. T-signum Boh.

Ampeloglypter Sesostris Lec.

Madarus undulatus Boh.

Stethobaris corpulenta Lec.

Centrinus scutellum-album Say.

rectirostris Lec.
prolixus Lec.
confinis Lec.

Zygobaris conspersa Lec. subcalva Lec. n. sp.

Barilepton cribricolle Lec. quadricolle Lec. filiforme Lec.

Balaninus uniformis Lec. nasicus Lec.

BRENTHIDÆ.

Eupsalis minuta Drury.

CALANDRIDÆ.

Sphenophorus ochreus Lec. Lake Michigan.

pertinax Oliv. South Haven. robustus Horn. South Haven. costipennis Horn. cariosus Oliv. sculptilis Uhler. melanocephalus Fab. placidus Say.

Rhodobænus 13-punctatus Ill.
Calandra Oryzæ Fabr.
Dryophthorus corticalis Say.
Cossonus concinnus Boh.

n. sp.

Allomimus dubius Horn. A.
Phlœophagus apionides Horn.
minor Horn.

Rhyncolus oregonensis Horn. Stenoscelis brevis Boh.

SCOLYTIDÆ.

Monarthrum fasciatum Say.

mali Fitch.

Pityophthorus materiarius Fitch.

minutissimus Harr.

cariniceps Lec.

puberulus Lec. H.

consimilis Lec. n. sp.

hirticeps Lec. n. sp. M.

pusio Lec. n. sp. M.

opaculus Lec. n. sp. M.

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Xyloterus politus Say. Xvleborus celsus Eichh.

fuscatus Eichh. biographus Lec xylographus Zimm. Lansing. cælatus Zimm.

punctipennis Lec. n. sp. M. Dryocœtes septentrionis Mannh. affaber Mannh.

Xylocleptes decipiens Lec. n. sp. Cryphalus rigidus Lec.

Tomicus pini Say. H. Micracis suturalis Lec.

> rudis Lec. opacicollis Lec. n. sp. asperulus Lec. n. sp.

Chramesus Icoriæ Lec.

Hylesinus aculeatus Say.

Hylesinus opaculus Say. Dendroctonus similis Lec. H. Hylurgops pinifex Fitch. H.

ANTHRIBIDÆ.

Eurymycter fasciatus Oliv. Hormiscus saltator Lec. Eusphyrus Walshii Lec. Cratoparis lunatus Fab. Brachytarsus tomentosus Say. variegatus Say. Choragus Harrisii Lec. n. sp. Euxenus punctatus Lec.

APIONIDÆ.

Phleeotribus liminaris Harr. Lan- Apion rostrum Say. several unnamed species.

4. Description of the Larva of Micromalthus debilis Lec.

By H. G. Hubbard.

Color transparent white, mandibles and anal appendage castaneous. Form cylindrical, very slightly flattened beneath, hardly narrowed laterally in front and behind. Body glabrous, except a few hardly visible hairs upon the sides, without legs. Length 0.10-.12 inch.; width about 0.03 inches.

Head not quite as broad as the segments of the abdomen, convex, transverse, enlarged posteriorly; sides rounded, convex; anterior border nearly straight, posterior border emarginate; above and below a few long bristles. No ocelli.

Antennæ short, inserted in depressions on the anterior angles of the head, of four joints increasing in length, the first very short, transverse, the second smaller, about as long as broad, the third longer than the preceding, with a short oval lobe below, before the tip, the fourth twice as long as the third, slender, blade-shaped, tipped with a minute spine.

Labrum transverse, somewhat enlarged anteriorly, borders nearly straight, anterior angles rounded, with long stout spines above and below. Mandibles as long as the antennæ, stout, curved, three-toothed with a large hatchet-shaped basal lobe, obliquely ridged upon the under surface.

Maxillæ, very large and prominent, longer than the mandibles; with palpi of three joints, the first and second short, cylindrical, the third as long as the first and second united, more slender, flat, and divided nearly to the base into two superimposed lobes bearing papillæ; maxillary lobe divided anteriorly by a deep notch into two portions, the apical, smaller and narrower than the basal, blade-shaped, tipped with a long slender spine, and bearing four long and stout teeth projecting at right angles to the lobe, like the blades of a half-opened penknife; the basal portion with two rows of teeth on the border, and a slender tooth and bristle at the apex.

Labium consisting firstly, of an elongated, triangular mentum, with the apex thickened in a conical protuberance, bearing a pair of bristles near the middle, and another pair upon the thickened tip; secondly, of a transverse palpiger, bearing small fleshy palpi of two subequal joints, and its anterior border prolonged between them in a conical projection; thirdly, of an elongated, convex, corneous ligula, enlarged anteriorly, with straight borders and a pair of bristles near the tip. Behind and above the mentum and plainly seen through the transparent tissues, is a broadly triangular, horny piece, the base of which extends between the hinges of the mandibles, and the apex reaches as far as the middle of the ligula; upon the upper surface oblique grooves on each side correspond with the ridges upon the basal lobes of the mandibles, into which they lock when the mandibles are closed.*

Thoracic segments slightly thicker than the abdomen, the first longer, the two following subequal in length.

Abdomen cylindrical or slightly depressed, of nine segments, the first eight subequal, transverse, each with a few long bristles, the ninth conical, scatteringly covered with long bristles, terminating abruptly in two minute toothed appendages, one proceeding from the dorsal surface, and arching downwards, the other from the ventral surface, curving upwards, and resembling two hands with partly extended fingers, having the palms turned towards each other. The upper and longer appendage appears to be tubular for one-third of its length from the base, the remainder is concave beneath, and terminates in two terminal and six lateral teeth, directed downwards, their bases forming longitudinal ridges on the concave under surface. The lower appendage is shorter, more strongly curved, and in the opposite direction, concave above, expanded into a palm at the end, with eight teeth as in the preceding; the concave upper surface is distinctly denticulate.

The larva lives in damp situations, in the soft, crumbling wood of old oak logs, which have become entirely disintegrated and colored dark red, probably by a microscopic fungus. A number of larvæ, pupæ, and imagos were found together in a small portion of such a log on August 17th, 1874, at Detroit, Michigan.

As Dr. LeConte has placed this insect in the family Lymexylidæ, it will be interesting to compare its larva with that of *Hylecætus lugubris* Say, specimens of which are before me. The larvæ of *Hylecætus* were taken from cylindrical burrows in the solid wood of the American linden. It

^{*}This piece and the mandibles, the forms and relative positions of which are shown in fig. 9 of the plate, though very conspicuous in dissections under the microscope, are omitted in fig. 5 in order to avoid obscuring overlying parts.

has a cylindrical body of twelve segments; a globular head, with two large ocelli, which are, however, covered by the epidermis; the first thoracic segment is enlarged, and partly covers the head, like a hood; the three thoracic segments bear well-developed legs; and the abdomen terminates in a long tapering style, toothed and concave on the upper surface, and turning upwards at the end; the stigmata are large and in their normal positions, one pair beneath, on the thorax, and eight pairs on the sides of the abdominal segments.

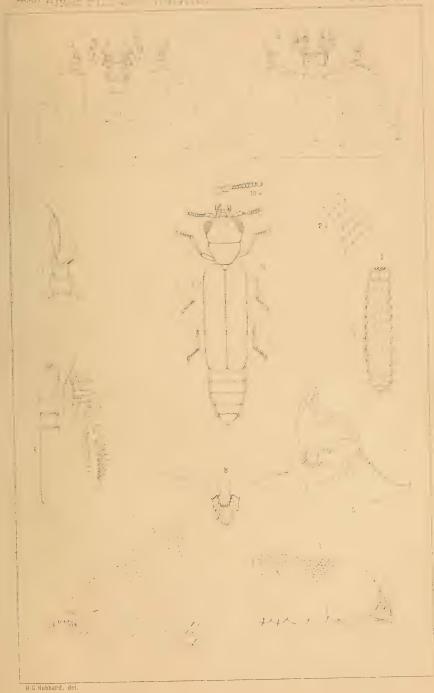
The antennæ are four-jointed, exceedingly minute and stout, and, as in Micromalthus, have the third joint lobed beneath, an apical spine, and occupy similar positions on the anterior angles of the head; the maxillæ also have the lobe divided into an upper and lower portion, although the separation is not very distinct, and appears under the lens as a corneous line, the spines upon the lobe are slender and not markedly different upon the two portions. The labrum and labium are stout and thick, but do not present important structural differences from the same parts in Micromalthus. The mandibles are simple or slightly notched, the basal lobes not prominent, but finely ridged, and closing upon a triangular corneous piece which lies above the mentum. All the parts of the mouth in Hylecatus are smaller, stouter, and simpler in their structural details than the corresponding organs in Micromalthus, differences which perhaps have some relation to the harder material in which the former lives. Notwithstanding the striking difference in their external forms, the important structural analogies between the antennæ and mouth parts, seem to indicate a relationship between these two larval forms.

Explanation of Plate 15.

Micromalthus debilis Lec., Imago, central figure.

- 1. " " Larva, enlarged twelve times.
- 2.—Head and thoracic segments, lateral view; much enlarged.
- 3.—Terminal segments, showing the anal appendages, lateral view.
- 4.—Head from above, very much enlarged.
- 5.—Head from below, with mandibles omitted.
- 6.—Right maxilla, seen from below.
- 7.—Right antenna, from below.
- 8.—Anal appendages, seen from below, very much enlarged.
- 9.—Corneous triangular piece lying above the mentum, with the left mandible thrown back, seen from above; the ridges upon the under surface of the mandible are indicated by dotted lines.

Note—For the sake of distinctness, the appendages in fig. 3 are drawn too large in proportion to the segments. The proportions are more correctly given in figs 1 and 8.



Micromalthus debilis Lec. and larva.



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