



The Coleoptera of Michigan

Author(s): H. G. Hubbard, E. A. Schwarz, John L. LeConte

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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 *Gonotroptis 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

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 *sphaericollis*.

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. flammatum* 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*, epipleuræ 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 ♀ 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 (♂) rugose and finely punctured, narrower in front, sides oblique, finely margined. Elytra (♂) strongly punctured, shining, (♀) 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 ♀ 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 peculiarly 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 tibiae smooth, with a few small punctures at the inner margin and some larger ones along the outer margin. Length 9 mm.;  $\frac{35}{100}$  inch.

♂ Smooth but not polished; claws of front tarsi long, not toothed, curved only near the tip.

♀ Scarcely perceptibly punctulate; claws of front tarsi not so long, and regularly curved.

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.;  $\frac{.08}{1}$  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.;  $\frac{.10}{1}$  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.;  $\frac{.14}{1}$  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 piceous. 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 striae near the base towards the suture. Dorsal segments densely punctulate. Beneath finely punctured and pubescent; tip of abdomen, antennae, 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.

♀ Ventral segments not emarginate.

Isle Royale, Lake Superior. This species differs from *H. Schwarzii* 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 caesareus** *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.

♂ Head finely scabrous, front protuberant anteriorly and retuse, with an apical concavity.

♀ 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 abdomen 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 *Covinomus* Thomson. In *L. viratus*, 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. **O. 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 (♂), or slightly rounded (♀), with 6 or 7 distinct teeth, hind

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, eyessmall, 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 striæ 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 *Ptinidæ*, a position for which it is unsuited, on account of the much smaller coxal cavities the prosternum distinctly separates the coxæ, 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-punctate.....	1.
Elytra confusedly punctured.....	6.
1. Antennæ gradually broader externally or sub-fusiform.....	2.
Antennæ with last three joints rather suddenly larger.....	5.
2. Thorax broader at base.....	3.
Thorax narrower at base than at middle.....	4.
3. Abdomen moderately shining, punctuation less dense :	
Prosternum coarsely punctured. Antennæ longer than head and thorax.....	<b>punctatus.</b>
Prosternum nearly smooth. Antennæ not longer than head and thorax.....	<b>californicus.</b>
Abdomen densely and finely punctured, sub-opaque.	
Prosternum nearly smooth at middle.....	<b>flexuosus.</b>
Prosternum densely and coarsely punctured.....	<b>bipustulatus.</b>

\* 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. HOEN.

## 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.**

## 5. Elytra nearly black. Male with brush of hair on first ventral.....

**tenuifasciatus, n. sp.**

Elytra piceous, maculate with yellow. Male without brush.....

**obsoletus, n. sp.**

6. Elytra maculate with large yellow spots.....**confusus, n. sp.**

With *Melsheimeri* I have united *obscurus*, the latter seeming to be merely an unicolorous form. *M. pini* and *pluripunctatus* 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 biserially 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 biserially 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 *Throsacus*.

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 *Diplocælus* (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 DIPLOCÆLUS.*

Lateral lines of thorax well marked.

Thorax narrowed in front, sides nearly straight, hind angles prominent externally.....**angusticollis.**

Thorax not narrowed in front, sides regularly arcuate.....**brunneus.**

Lateral lines of thorax obsolete.....**rudis.**

**D. brunneus** *Lec.*, 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 :

Terminal joint of antennæ oval, scarcely longer and never wider than the preceding.....**1.**

Terminal joint of antennæ truncate at tip, usually longer and always wider than the preceding.....**2.**

1. Club of antennæ rather loose ; thorax rather finely punctured and depressed, basal impressions distinct.....**1. sexpunctatus.**

Club of antennæ compact ; thorax coarsely punctured, convex basal impressions obsolete.....**4. didesmus.**

2. Form rather convex, elytra coarsely not densely punctate. Thorax without basal impressions.

Thorax more finely punctate than the elytra, the latter with the pubescence in distinct rows, last joint of antennæ not longer than the length.....**3. tetraspilotus.**

Thorax as coarsely punctate as the elytra, the latter without any serrate arrangement of pubescence, last joint of antennæ notably longer than the length.....**5. nebulosus.**

Form depressed, elytra rather finely and densely punctate. Thorax with basal impressions.

Thorax densely punctulate, pubescence of elytra partly serrate, partly recumbent; last joint of antennæ nearly as long as the two preceding together.....**2. balteatus.**

(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 piceous 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 resembles *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 striae 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 striae. 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. **Hetaerius 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 striae, 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

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.....   | <b>2.</b>                    |
| Spurs of hind tibiæ flattened and broad; hind tibiæ gradually and moderately thickened, with two transverse ridges..... | <b>3.</b>                    |
| Spurs of hind tibiæ long, thick, obliquely truncate; hind tibiæ gradually and very strongly thickened.....              | <b>4.</b>                    |
| Spurs of hind tibiæ very short, cylindrical, hind tibiæ very strongly thickened.....                                    | <b>5.</b>                    |
| <b>2.</b> Cylindrical, rufous, hind tibiæ with two transverse ridges..  | <b>1. rufa</b> , n. sp.      |
| Sub-cylindrical, black, hind tibiæ serrate; elytral interspaces punctured.....  | <b>2. cylindrica</b> .       |
| Sub-cylindrical, black, hind tibiæ serrate; elytral interspaces smooth..  | <b>3. lacustris</b> .        |
| <b>3.</b> Prothorax finely punctured; black, sub-ovate.....   | <b>4. conferta</b> .         |
| <b>4.</b> Robust, slightly ovate, black; prothorax coarsely punctured.....  | <b>5. latispina</b> , n. sp. |
| Robust-ovate, black; prothorax coarsely punctured.....  | <b>6. crassa</b> .           |

5. Elongate-ovate, rufous, hind tibiæ with very short, thick cylindrical spurs ..... **7. spissipes**, n. sp.

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, sub-truncate 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 ♂, 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 ♀ of the last named species in the collection

of Dr. Horn has short elytra, much as in the ♀ of *Photinus* (*Gynaptera*) *scintillans*. This insect has a very strong resemblance to *Lamprohiza splendidula* of Europe, but is generically distinct by the longer antennæ, 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, 11th 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; angular 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 *Hylecoetus*. 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 (♀) 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* Chev., 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* Chev. (1844), and the present group must be known as *Phyllotreta*, under which name it was first characterized by Foudras in 1860

48. **Chatocnema 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, striæ punctured, scarcely impressed ; interspaces transversely sparsely rugose and finely punctured. Beneath shining, trunk finely punctured. Abdomen sparsely punctulate. Front coxæ 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 purpose 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.*

1. Front coxæ separated by the prosternum. . . . . **2.**  
Front coxæ contiguous, cavities confluent. . . . . **9.**
2. Prothorax as wide as the elytra, or nearly so. . . . . **3.**  
Prothorax at base narrower than the elytra. . . . . **6.**
3. Pubescence long, rather dense, prosternum very narrow. . . . . **4.**  
Pubescence very fine, or wanting ; elytra with red humeral spot not striate ; antennæ palpi and legs more or less yellow. . . . . **5.**
4. Dull ferruginous beneath, piceous above, prothorax strongly densely punctured. . . . . **1. rufipes.**  
Black or piceous, prothorax finely punctured. . . . . **2. pubipennis** n. sp.
5. Prothorax very wide, sparsely punctulate. . . . . **3. laticollis** n. sp.  
Narrower, prothorax sparsely punctulate, elytra more strongly punctured, two inner striæ perceptible. . . . . **4. Haldemani.**  
Wider, prothorax less finely punctured, elytra strongly punctured, indistinctly striate. . . . . **5. fraterna.**
6. Elytra with red humeral spot. . . . . **7.**  
Elytra black, without spot. . . . . **8.**
7. Prothorax with three basal foveæ. . . . . **6. foveata.**  
Prothorax with two basal foveæ. . . . . **7. tenuis.**
8. Elytral striæ deep, legs yellow. . . . . **8. bicolor.**  
Elytral striæ less impressed, legs dark. . . . . **9. gracilis** n. sp.
9. Elytra black, without spots. . . . . **10.**  
Elytra with red humeral spot ; antennæ stouter and legs black. . . . . **11.**
10. Antennæ, legs and under surface ferruginous, last two ventral segments piceous ; prothoracic margin not flattened. . . . . **10. analis** n. sp.  
Antennæ, legs and under surface piceous ; prothoracic margin narrowly but strongly explanate. . . . . **11. lugubris** n. sp.

11. Prothorax with margin not explanate. . . . . **12.**  
 Prothorax as wide as the elytra, strongly punctured, sides narrowly  
 but strongly explanate. . . . . **12. marginata**, n. sp.
12. Prothorax wide, strongly punctured, much rounded on the sides, which  
 are not explanate. . . . . **13. binotata.**  
 Prothorax slightly narrower than the elytra, strongly punctured, sides  
 not explanate. . . . . **14. longula**, n. sp.

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

the much more finely and sparsely punctured head and prothorax.

52. **Mycetochoares 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. **Mycetochoares 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. **Mycetochoares 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. **Mycetochoares 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 faint 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 long as wide, 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 antennæ.

*Table of the species of HALLOMENUS.*

- |   |                             |
|---|-----------------------------|
| Antennæ not serrate, joints sub-quadrate.....                               | 2.                          |
| Antennæ strongly serrate, joints triangular.....                            | 1. <b>serricornis</b> n sp. |
| 2. Finely and distinctly punctured.....                                     | 3.                          |
| Very finely punctured, yellowish brown, elytra in front and legs paler..... | 2. <b>punctulatus.</b>      |
| 3. Piceous, antennæ, legs and base of elytra testaceous.....                | 3. <b>scapularis.</b>       |
| Pale brown, head fuscous, much smaller (.3 mm.).....                        | 4. <b>debilis.</b>          |

59. **Proctorus armatus** Lec. Rhynch. 212.

Several specimens of this curious insect were found at Marquette, and among them are ♂♂ 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*.)

♂ 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 biserially 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, biserially 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.

\* 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.

Legs entirely black. . . . . **minutus, n. sp.**

Legs yellow, posterior femora infuscate. . . . . **rufipes.**

Funiculus of antennæ 7-jointed.

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 *parvicollis* 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 (*Circulio*): 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 tibiæ with two small teeth. Length 16 mm.; .06 inch.

♂. Head broadly concave, opaque with shallow punctures, concavity fringed with long yellow hairs.

♀. 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 occupying nearly the whole upper surface, and divided by a longitudinal impressed line; sides shining, sparsely punctured.

♀. 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 ♂♂ 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.

♂. Head broadly concave and opaque, fringed with long yellow hair.

♀. 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 ♀ 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 ♂ 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 ♂ 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 striæ 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 tibiæ dilated, with four distinct teeth. Length 2.3 mm.; .09 inch.

♂ Head flat, shining, hairy with very long yellow hairs; the four larger teeth of the apical declivity less prominent.

♀ 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 antennal 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 (♀) 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 (Rhynch. 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 ochreous scales. Elytra shining, punc-

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.

♂. Scape of antennæ fringed with very long hair ; (front not visible, the head being retracted).

Detroit ; onespecimen. 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.	M. Marquette.
E. Escanaba.	Mi. Michipicoton Island.
EH. Eagle Harbor.	Mr. Michipicoton River.
I. Isle Royale.	P. Pointe aux pins.
LP. La Pointe.	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.  
*sibiricus* Mots. M.  
*Nebria Sahlbergi* Fisch. T. Mi. Mr.  
*suturalis* Lec.\* Black Bay.  
*pallipes* Say.\* M.

*Calosoma scrutator* Fabr. E.  
*frigidum* Kby. M.  
*calidum* Fabr. T.  
*Carabus serratus* Say.\*  
*sylvosus* Say.\*  
*tædatus* Fabr. var.\*  
*Cychnus 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.  
*fusca* Dej.\* Eagle Harbor.  
*Dianchomena scapularis* Dej. M.  
*Dictya divisa* Lec.\* (*Lebia*): EH.  
*Aphelogenia furcata* Lec. M.

- Dromius piceus** Dej. M. I.  
**Apristus subsulcatus** Dej.\*  
**Metabletus americanus** Dej.  
**Blechnus linearis** Lec.\*  
**Cymindis cribricollis** Dej. E. S. B.  
**Callida smaragdina** Dej. E. M.  
**Rhombodera pallipes** Lec. B.  
**Calathus ingratus** Dej.  
     **gregarius** Say.\*  
     **mollis** Mots. G. Mr. Mi. I.  
     **impunctatus** Say, P. Mi. M.  
**Platynus tenebricosus** Gemm. M. Mi  
     **decens** Say. E. Mi. M.  
     **sinuatus** Dej. S. M.  
     **marginatus** Lec.\*  
     **ternuicollis** Lec.\*  
     **anchomenoides** Rand. M.  
     **extensicollis** Say.\*  
     **decorus** Say.\*  
     **molestus** Lec. S. M.  
     **melanarius** Dej. M. Mr.  
     **metallescens** Lec. M.  
     **tenuis** Lec. M.  
     **carbo** Lec. E. M.  
     **mutatus** Gemm. E. M.  
     **cupripennis** Say. S. M.  
     **ærginosus** Dej. E. I.  
     **subcordatus** Lec. E.  
     **cupreus** Dej. S.  
     **ruficornis** Lec. M.  
     **lutulentus** Leconte M. ; black  
         var.  
     **pivicornis** Lec. S. M. B.  
     **sordens** Kby.  
     **picipennis** Kby.\*  
     **lutulentus** Lec. E. M.  
     **nigriceps** Lec. M.  
     **obsoletus** Say.  
     **bembidioides** Kirby.\*  
     **octocolus** Mannh.  
**Olisthopus parmatum** Say.\* P. M.  
**Pterostichus adoxus** Say.\*  
     **honestus** Say.\*  
     **coracinus** Newm. B. Mi.  
     **stygius** Say.\*  
     **punctatissimus** Rand. I. Mi.  
**Pterostichus Sayi** Brullé.\*  
     **corvinus** Dej.\*  
     **caudicalis** Say.  
     **lucublandus** Say. S. M.  
     **convexicollis** Say.\* S.  
     **luctuosus** Dej. E. M.  
     **mutus** Say E. M.  
     **Luczotii** Dej.  
     **erythropus** Dej. S.  
     **patruelis** Dej.\* EH.  
     **mandibularis** Kby. var.  
         M. Mr. I.  
**Myas foveatus** Lec.\* EH.  
**Amara arenaria** Lec. M.  
     **avida** Say. S.  
     **elongata** Lec. M.  
     **latior** Kby. E. Mr. I.  
     **septentrionalis** Lec. E. M.  
     **angustata** Say. M.  
     **pallipes** Kby. S.  
     **impuncticollis** Say. M. I.  
     **fallax** Lec. M.  
     **polita** Lec. E. M.  
     **erratica** St. E. M. Mi. Mr.  
     **interstitialis** Dej. M.  
     **obesa** Say. E. S. M.  
     **gibba** Lec. E. M. B.  
     **subænea** Lec. E. M. B.  
     **musculus** Say. M.  
**Badister micans** Lec. E.  
     **obtusus** Lec. n. sp. M.  
**Diplochila laticollis** Lec. E.  
     var. **major** Lec. E.  
**Chlænienus sericeus** Forst. E. M.  
     **nemoralis** Dej.\*  
     **pensylvanicus** Say. E. Mr.  
     **cordicollis** Kirby.\*  
     **impunctifrons** Say. E.  
     **niger** Rand. E. M.  
     **tomentosus** Say. E.  
**Brachylobus lithophilus** Say. M.  
**Anomoglossus emarginatus** Say. E  
     **pusillus** Say. E.  
**Lachnocrepis parallela** Say. E.  
**Miscodera americana** Mann. G.  
**Nomius pygmæus** Dej. M.

- Psydrus piceus** Lec.\* EH.  
**Geopinus incrassatus** Dej. E. M. Mr.  
**Agonoderus comma** Fabr.  
     **pallipes** Fabr. Mr.  
     **partarius** 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** Say. 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.  
**Trechus micans** Lec.  
**Amerizus oblongulus** Mannh. M.  
**Bembidium impressum** Fabr. M. Mr.  
     **paludosum** Sturm. M. Mr.  
     **coxendix** Say.\*  
     **antiquum** Dej. Mr.  
     **chalceum** Dej. M. Mr.  
     **salebratum** Lec.\* L. P.  
     **nitidum** Kirby.\*  
     **concolor** Kby. Mr. I.  
**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.  
     **patruale** 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.  
     **pictus** 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.  
*analisis* 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. B.  
     *tesselatus* Ziegl. M.  
     *digestus* Lec. M. I.  
     *subcupreus* Say.  
*Cercyon flavipes* Er. M.  
     *centromaculatum* St. M.  
     *ocellatum* 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 mermonius* 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.  
     *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.  
     *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.  
*stygius* 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.  
*stygius* 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 sphaericollis** Say. E. M.
- Trogophloeus 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.  
*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.
- Omalius (Phlæostiba) 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.  
*propinqua* Lec. M. P. Mi. I.
- Decarthron longulum** Lec.\*
- Batrissus globosus** Lec. M. B.

## SILPHIDÆ.

- Necrophorus obscurus** Kby. M.  
*orbicollis* Say.\*  
*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.***Scydmaenus subpunctatus* Lec. Mr.n. sp. near *subpunctatus*., Mr.  
sp. near  *analis*. S.  
 *analis* Lec. ? M.  
 *clavipes* Say. S.  
 *fulvus* Lec. M.*Euthia scitula* Mkl. M.**CORYLOPHIDÆ.***Orthoperus scutellaris* Lec. n. sp.  
S. Mr.*Sacium lugubre* Lec. M.*obscurum* Lec. 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* Lec. 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.*Diplocœlus angusticollis* Horn,  
n. sp. M.*Litargus tetraspilotus* Lec. M.*6-punctatus* Say. M.**SPHINDIDÆ.***Sphindus americanus* Lec. M.

**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.  
 13 unnamed species.

**CUCUJIDÆ.**

- Pediacus fuscus* E.  
     *depressus* Hbst. S. M.  
*Lathropus vernalis* Lec. M.  
*Læmophlœus 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* Say. M.  
*Soronia grisea* Linn. M.  
*Omosita discoidea* Fab. I.  
*Stelidota* sp. M.  
*Meligethes seminulum* Lec.  
*Cyllodes biplagiatus* Lec. M.  
*Thalycra concolor* Lec.\* N't'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  
     var.\*  
*Hyperaspis dissoluta* Crotch.\*  
     *signata* Oliv. M.  
     *fimbriolata* Mels.\* N'th Sh.  
     *disconotata* Lec.\* N'th Sh.  
     *bigeminata* Rand. M.  
     *undulata* Say. 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. N S.  
*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. N'th Sh.  
     *murinus* Fabr. M.  
*Syncalypa echinata* Lec. M.

#### PSEPHENIDÆ.

*Psephenus Lecontei* Lec. E.

#### PARNIDÆ.

*Helichus striatus* Lec. M.

#### ELMIDÆ.

*Elmis 4-notatus* Say. M.  
     *fastiditus* Lec\* North Shore.

#### HETEROCERIDÆ.

*Heterocerus substriatus* Kw. M.  
     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.  
     *cylindricus* Payk. 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<sup>th</sup> Sh.
- Dialytes striatulus* Say. M.
- Atænius stercorator* Fab. M.
- Ægialia lacustris* Lec. M. Mr.  
*conferta* Horn. Duluth.  
*rufa* 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* Frœhl.\*  
*futilis* Lec.
- Cotalpa lanigera* Linn.\* M.
- Ligyris 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.\*  
*maculiventris* Say.

- 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.**

- Throsacus alienus* Bonv. S. B.  
*punctatus* Bonv. M.  
*Chevrolati* Bonv. M.

**ELATERIDÆ.**

- Tharops obliqua* Say. M.
- Deltometopus amenicornis* Say. M.
- Fornax calceatus* Say.\* E. H.
- Microrhagus triangularis* Say. M.
- Hypocelus 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* Say.\*  
   *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 stigmus** 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.  
**Limonium 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.  
   *cylindriciformis* Herbst.\*  
   *caricinus* Esch. M.  
   *spinosus* Lec. E. M. I.  
   *mendax* Lec. E. H. I.  
   *insidiosus* Lec. M. I.  
   *falsificus* Lec. M. I.  
   *appressus* Lec.\* E. H.  
   *fallax* Say.\* North Shore.  
   *medianus* Germ. E. M. I.  
   *triundulatus* Rand. M. I.  
   *hamatus* Say.  
   *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.  
**Calopterus typicum** Newm. M.  
   *reticulatum* Fabr. E. M.  
**Cænna 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.  
*undatus* 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.  
**Hendecatomo rugosus** Rand. M.  
**Bostrichus armiger** Lec. M.  
**Amphicerus bicaudatus** Say. M.  
**Dinoderus substriatus** Payk. 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.

- Aseum mcestum** Hald. M.  
**Criocephalus agrestis** Kby.  
**Tetropium cinnamopterum** Kby. MI.  
**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 muricatus** 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.  
**Acmæops discoidea** 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.  
     *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* Say. E.  
     *catarius* Suffr. S. P. Mr.  
     *auratus* Fabr. S.  
**Pachybrachys carbonarius** Hald.? M.  
     *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.  
**Plagiodes laponica** Linn. M. G.  
     *tremulæ* Fab. E. M.  
     *scripta* Fabr. M.  
**Phyllobrotica decorata** Say. E. M.  
**Diabrotica 12-punctata** Ol. M. B. Mr.  
**Galeruca<sup>1</sup> rufosanguinea** Say. M.  
**Gallerucella sagittariæ** Gyllh. M.  
     *decora* Say.  
**Trirhabda canadensis** Kby. E.  
     *flavolimbata* Mannh. Mr.  
**Hypolampsis pilosa** Ill. M.  
**Ædionychis vians** Ill. M.  
**Disonycha pallipes** Cr. M.  
     *alternata* Ill. M.
- 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.

<sup>1</sup> 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 tessellata* Melsh M. Mi.  
*Stenotrachelus arctatus* Say. \* EH.  
*Penthe obliquata* Fab. M. S.  
*Synchroa punctata* Newm. M.  
*Phryganophilus collaris* Lec. M.  
*Emmesa connectens* Newm. M. I.  
*Melandrya striata* Say. M.  
*Prothalia 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.

**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.

*Rhinosisimus 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.*Hyllobius confusus* Kby.*Pissodes strobil* Peck.*affinis* Rand.*Pissodes dubius* Rand. M. I.*Procas picipes* Steph. M. Mr.*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* Say. M.*Magdalis hispidoides* 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* Gyllh. M.*Proctorus armatus* Lec. M.*decipens* Lec. M.*Tyloderma æreum* Say. E.*Cnemogonus Epilobii* Payk. M. I.*Cœlodes cruralis* Lec. M.*nebulosus* Lec. M.*Ceuthorhynchus decipiens* Lec. M.*Pelenomus sulcicollis* Fabr. M.*Balaninus uniformis* Lec. M.**BRENTHIDÆ.***Eupsalis minuta* Dr. M.**CALANDRIDÆ.***Sphenophorus ochreus* Lec. E.*pertinax* Ol. E.*costipennis* Horn. E.

- Sphenophorus sculptilis** Uhler. E.  
**Dryophthorus corticalis** Say. M. P.  
 Nov. genus? near *Himatium*. S.  
**Cossonus subareatus** Boh. E. M.  
**Phlœophagus apionides** Horn. M.  
**Rhyncolus brunneus** Mannh. S. M.  
 Mi.
- SCOLYTIIDÆ.**
- Monarthrum mali** Fitch. M.  
**Pityophthorus materiarius** Fitch. M.  
 sparsus Lec. M.  
 plagiatus Lec. M.  
 pulus 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 cœlatus** Zimm. M.  
**Dryocetes septentrionis** Mannh.  
 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** Say. 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.  
**Brachytarsus variegatus** Say. M.
- APIONIDÆ.**
- Apion** sp. M. I.  
 sp. M.

3. *Contribution to a List of the COLEOPTERA of the Lower Peninsula of Michigan.*

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

Localities :

A. Ann Arbor.

M. Monroe.

H. Port Huron.

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.

- Omopron robustum** Horn. M.  
*americanum* Dej.  
**Elaphrus Clairvillei** Kby. H.  
*riparius* Linn.  
*ruscarius* Say.  
**Notiophilus æneus** Hbst.  
*semistriatus* Say.  
*sibiricus* Mots.  
*Hardyi* Putz.  
**Nebria pallipes** Say.  
**Calosoma scrutator** Fab.  
*frigidum* Kby.  
*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. mœsta* 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* Say.  
**Platynus hypolithus** Say.  
*pusillus* Lec.  
*tenebricosus* Gemm.  
*decens* Say.  
*sinuatus* Dej.  
*extensicollis* Say.  
*decorus* Say.  
*molestus* Lec.  
*melanarius* Dej.  
*affinis* Kby.  
*cupripennis* Say.  
*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* Say.  
*octocolus* Mannh.

- Olisthopus parmatum** Say.  
*micans* Lec. A.
- Pterostichus adoxus** Say.  
*honestus* Say.  
*coracinus* Newm.  
*stygicus* Say.  
*Sayi* Brullé.  
*lucublandus* Say.  
*caudicalis* Say.  
*luctuosus* Dej.  
*corvinus* Dej.  
*mutus* Say.  
*Luczotii* Dej.  
*erythropus* Dej.  
*patruelis* Dej.  
*femoralis* Kby.
- Lophoglossus scrutator** Lec.
- Myas cyanescens** Dej. Grand Haven.
- Amara avida** Say.  
*arenaria* Lec. H.  
*latior* Kby. A.  
*angustata* Say.  
*impuncticolis* Say.  
*interstitialis* Dej.  
*obesa* Say. H.  
*gibba* Lec. H.  
*musculus* Say. H.
- Badister notatus** Hald.  
*pulchellus* Lec.  
*micans* Lec.
- Diplochila laticollis** Lec.  
*var. major* Lec.
- Dicælus purpuratus** Bon.  
*sculptilis* Say. A.  
*teter* Bon. Lansing.  
*politus* Dej.
- Chlænius erythropus** Germ. Grand Haven.  
*sericeus* Forst.  
*cordicollis* Kirby.  
*tricolor* Dej.  
*pensylvanicus* Say.  
*impunctifrons* Say. Grand Haven.  
*niger* Rand.
- Chlænius tomentosus** Say. Lansing (Cooke).
- Anomoglossus emarginatus** Say.  
 H.  
*pusillus* Say. H.
- Atranus pubescens** Dej. H.
- Lachnocrepis parallelus** Say.
- Oodes fluvialis** Lec.
- Geopinus incrassatus** Dej.
- Agonoderus lineola** Fab.  
*comma* Fabr.  
*pallipes* Fabr.  
*partiaris* Say.  
*pauperculus* Dej.  
*testaceus* Dej.  
*n. sp.?*
- Anisodactylus rusticus** Dej.  
*carbonarius* Say.  
*nigerrimus* Dej.\*  
*Harrisii* Lec.  
*nigrita* Dej.  
*Lecontei* Chd.  
*agricola* Harr.  
*discoideus* Dej.  
*baltimorensis* Say.  
*sericeus* Harr.
- Xestonotus lugubris** Dej.
- Spongopus verticalis** Lec. H.
- Amphasia instertitialis** Say.
- Anisotarsus piceus** Lec.  
*terminatus* Say.
- Gynandropus hylacis** Say.
- Bradycellus dichrous** Dej.  
*autumnalis* Say.  
*badiipennis* Hald.  
*atrimedius* Say.  
*axillaris* Mannh.  
*rupestris* Say.
- Harpalus caliginosus** Fabr.  
*faunus* Say.  
*vagans* Lec.  
*pensylvanicus* DeG.  
*compar* Lec.  
*erythropus* Dej.  
*spadiceus* Dej.  
*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.  
*chaliceum* Dej.  
*striola* Lec.  
*lucidum* Lec.  
*patrule* Dej.  
*variegatum* Say.  
*versicolor* Lec.  
*sulcatum* Lec.  
*anguliferum* Lec.  
*cautum* Lec.  
*assimile* Gyllh.  
*4-maculatum* Linn.  
*pedicellatum* Lec.  
**Tachys proximus** Say.  
*lævis* Say.  
*nanus* Gyllh.  
*flavicauda* Say.  
*vivax* Lec.  
*xanthopus* Lec.  
*incurvus* Say.

**HALIPLIDÆ.**

**Halipus 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.  
*fraterculus* Lec.  
*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.

*analisis* 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.

*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.

*analisis* Grav.

*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.



- Gyrophæna vinula** Er.  
*dissimilis* Er.  
*flavicornis* Melsh.\*  
*corruscula* Er.  
*socia* Er.  
 several unnamed species.
- Myllæna fuscipennis** Kr.  
*dubia* Er.  
 one unnamed species.
- Dinopsis americanus** Kr.  
*myllænoides* Kr.  
 (Numerous undetermined genera of **Aleocharini**).
- Tachinus memnonius** Grav.  
*repandus* Horn.  
*luridus* Er.  
*canadensis* Horn.  
*fimbriatus* Grav.  
*Schwarzii* Horn. Paw Paw.  
*frigidus* Er.  
*circumcinctus* Mkl.  
*nitiduloides* Horn.
- Tachyporus maculipennis** Lec.  
*elegans* Horn.  
*jocosus* Say.  
*chrysomelinus* Linn.  
*nanus* Er.  
*brunneus* Fab.
- Cilea silphoides** Linn.
- Erchomus ventriculus** Say.
- Conosoma littoreum** Linn.  
*Knoxii* Lec.  
*crassum* Grav.  
*pubescens* Payk.  
*basale* Er.  
*opicum* Say.  
*scriptum* Horn.
- Bolitobius niger** Grav.  
*dimidiatus* Er. var.?  
*cingulatus* Mannh.  
*cincticollis* Say.  
*anticus* Horn.  
*pygmæus* Fab.  
*trinotatus* Er.  
*obsoletus* Say.\*  
*cinctus* Grav.
- Bryoporus rufescens** Lec.  
 var. *testaceus* Lec.
- Mycetoporus lepidus** Er.  
*lucidulus* Lec.  
*consors* Lec.  
*americanus* Er.  
*pictus* Horn.
- Habrocerus Schwarzii** Horn.
- Acylophorus flavicollis** Sachse.  
*pronus* Er.
- Heterothops fumigatus** Lec.  
*pusio* Lec.
- Quedius fulgidus** Fab.  
*lævigatus* Gyllh.  
*vernix* Lec.  
*capucinus* Grav.  
*molochinus* Grav.  
 five unnamed species.
- Creophilus villosus** Grav.
- Leistotrophus cingulatus** Grav.
- Staphylinus maculosus** Grav.  
*vulpinus* Nordm.  
*fossator* Grav.  
*tomentosus* Grav.  
*cinnamopterus* Grav.  
*violaceus* Grav.  
*varipes* Sachse.  
*cæsareus* Cederh.
- Ocypus ater** Grav.
- Belonuchus formosus** Grav.
- Philonthus cyanipennis** Fabr.  
*æneus* Rossi.  
*umbratilis* Grav.  
*hepaticus* Er.  
*blandus* Grav.  
*lætulus* Say.  
*niger* Melsh.  
*scybalarius* Nordm.  
*debilis* Grav.  
*lomatus* Er.  
*fulvipes* Fabr.  
*brunneus* Grav.  
*aterrimus* Grav.  
*baltimorensis* Grav. Kalama-zoo.  
*apicalis* Say.

- Philonthus sobrinus** Er.  
*pæderoides* Lec.  
*cinerascens* Grav.  
 several unnamed species.
- Xantholinus cephalus** Say.  
*emmesus* Grav.  
*obsidianus* Melsh.  
*obscurus* Er.
- Leptacinus** two n. sp.
- Leptolinus longicollis** Lec.  
 sp.
- Baptolinus pilicornis** Payk.  
 Plymouth.
- Diochus Schaumii** Kr.
- Lathrobium grande** Lec.  
*punctulatum* Lec.  
*angulare* Lec.  
*puncticolle* Kby.  
*simile* Lec.  
*armatum* Say.  
*nigrum* Lec.  
*tenue* Lec.  
*longiusculum* Grav.  
*collare* Er.  
 several unnamed species.
- Cryptobium badium** Grav.  
*bicolor* Grav.  
*pallipes* Grav.  
*latebricola* Nordm.  
*flavicornis* Lec.  
*cribratum* Lec.
- Stilicus rudis** Lec.  
*angularis* Er.  
*dentatus* Say.
- Scopæus exiguus** Er.  
 four or five unnamed species.
- Lithocharis corticina** Grav.  
*confluens* Say.  
*ochracea* Grav.  
 one unnamed species.
- Sunius prolixus** Er.  
*linearis* Er.  
*binotatus* Say.  
*longiusculus* Mannh.  
*brevipennis* Aust.
- Pæderus littorarius** Grav.
- Pæderus palustris** Aust.
- Palaminus testaceus** Er.  
*normalis* Lec.
- Stenus Juno** Fab.  
*erythropus* Melsh.  
*femoratus* Say.  
*egenus* Er.  
*flavicornis* Er.  
*annularis* Er.  
*punctatus* Er.  
 numerous undescribed species.
- Euæsthetus americanus** Er.
- Edaphus nitidus** Lec.
- Oxyporus femoralis** Grav.  
*vittatus* Grav.  
*lateralis* Grav.
- Bledius semiferrugineus** Lec.  
*fumatus* Lec.  
*analisis* Lec.  
*assimilis* † Fauvel.  
*annularis* Lec.  
*emarginatus* Say.
- Oxytelus sculptus** Grav.  
*rugosus* Er.  
*insignitus* Grav.  
*pensylvanicus* Er.  
*nitidulus* Grav.  
*exiguus* Er.
- Thinobius brachypterus** Lec.  
*fimbriatus* Lec.
- Trogophlœus laticollis** Lec.  
*arcifer* Lec.  
*4-punctatus* Say.  
 numerous undescribed species.
- Apocellus sphæricollis** Say.
- Anthophagus verticalis** Say.
- Acidota subcarinata** Er.  
*seriata* Lec.
- Olophrum rotundicolle** Say.  
 two unnamed species.
- Coryphium notatum** Lec.  
 Omalium several unnamed species.
- Phlœonomus convexus** † Zimm.
- Protinus parvulus** Lec.

**Megarthus 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.  
     *spretus* Lec.  
     *lineaticollis* Aub.  
**Rhexius insculptus** Lec.  
**Trimium dubium** Lec.  
     *americanum* Lec.  
**Euplectus interruptus** Lec.  
     *arcuatus* Lec.  
     *canaliculatus* Lec.  
     *integer* Lec. n. sp.  
     *crinitus* Brendel.

#### SILPHIDÆ.

**Necrophorus marginatus** Fabr.

**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**  
     Mannh.  
     *consobrinus* Lec.  
     *oblitus* Lec.

**Catopomorphus brachyderus** Lec.  
**Colon dentatum** 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.  
**Scydmaenus perforatus** Schaum.  
     *magister* Lec.  
     *flavitaris* Lec.  
     *fossiger* Lec.  
     *capillosulus* Lec.  
     *rasus* Lec.

**Scydmaenus 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 pello** Linn.  
*megatoma* Fabr.  
*longulus* Lec.  
**Trogoderma tarsale** Melsh.  
**Cryptorhopalum ruficorne** Lec.  
*hæmorrhoidale* Lec.  
**Anthrenus thoracicus** Melsh.  
*varius* Fabr.  
*museorum* Linn.  
**Orphilus ater** Er.

#### ENDOMYCHIDÆ.

**Lycoperdina ferruginea** Lec.  
**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. **Cryptophagus cellaris** Scop.  
**Triphyllus humeralis** Kby. croceus Zimm.  
**Litargus tetraspilotus** Lec. crinitus Zimm.  
6-punctatus Say. nodangulus Zimm.  
infultatus Lec. several unnamed species.  
didesmus Say. **Paramecosoma serratum** Gyllh.  
**Typhæa fumata** Linn. n. sp.  
**Diplocœlus brunneus** Lec. **Tomarus pulchellus** Lec.  
**Atomaria ephippiata** Zimm.  
numerous unnamed species.  
**Ephistemus apicalis** Lec. **Telmatophilus americanus** Lec.  
**Loberus impressus** Lec. **Silvanus advena** Waltl.  
**Silvanus surinamensis** Linn.  
**bidentatus** Fab.  
**planatus** Germ.  
var. **cognatus** Lec.  
**rectus** Lec.  
**Nausibius dentatus** Melsh,  
**Telephanus velox** Hald.
- 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.  
**Ischyus 4-punctatus** Oliv.  
**Mycotretus sanguinipennis** Say.  
pulchra Say.  
**Cyrtotriplax humeralis** Fab.  
angulata Say.  
unicolor Say.  
**Triplax festiva** Lec.  
macra Lec.  
thoracica Say.  
flavicollis Lac.
- CRYPTOPHAGIDÆ.**
- Antherophagus ochraceus** Melsh. **Catogenus rufus** Fab.  
**Cucujus clavipes** Fab.  
**Pediacus depressus** Hbst. H.  
**Lathropus vernalis** Lec.  
**Læmophilœus biguttatus** Say.  
fasciatus Melsh.  
testaceus Fab.  
adustus Lec.  
convexus 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.

*Colydidium lineola* Say.  
*Bothriдерes 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.  
 bimaçulata 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.

*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.  
*Palloses silaceus* Er.  
*Cybocephalus nigrutilus* Lec.  
*Cryptarcha ampla* Er.  
 strigata Fabr.  
 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.**Ceneis pusilla** Lec.**Brachyacantha ursina** Fab.

indubitabilis Cr.

**Hyperaspis signata** Oliv.

proba Say.

bigeminata Rand.

undulata Say.

**Scymnus punctatus** Melsh.

terminatus Say.

americanus Muls.

fraternus Lec

ochroderus Muls.

cervicalis Muls.

nanus Lec.

punctum Lec.

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.  
     *pennsylvanicus* Har.  
*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.  
     *semipacus* Jek.  
     *Egeriei* Germ.  
     *Blackburnii* Fabr.  
     *Balyi* 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 subspinosus* 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.  
*Ligyrys 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.**
- Throsus alienus** Bono.  
*punctatus* Bono.  
*Chevolati* 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* Say.  
*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* Say.
- Agriotes mancus** Say.  
*pubescens* Melsh.  
*fucosus* Lec. Lake Huron.  
*stabilis* Lec.  
*oblongicollis* Melsh.
- Dolopius lateralis** Eschsch.
- Glyphonyx reticollis** 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.

**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.  
*cylindriciformis* Hbst.  
*pyrrhos* Hbst.  
*sulcicollis* Say.  
*hieroglyphicus* Say.  
*metallicus* Germ.

**Asaphes baridius** Say.  
*memnonius* Hbst.  
*bilobatus* Say.

#### DASCILLIDÆ.

**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* Say.  
*diadema* Fabr.  
*rugosulus* Lec.  
**Telephorus excavatus** Lec.  
*carolinus* Fab.  
*angulatus* Say.  
*lineola* Fab.  
*rectus* Melsh.  
*cruralis* Lec.  
*dichrous* Lec.?  
*luteicollis* Germ.  
*scitulus* Say.  
*vilis* Lec.

*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* Say.  
 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.**

*Hylecœtus 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* Say.  
*linearis* Lec.  
*Anobium notatum* Say.  
*Trypopityus 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.  
*Hendecatomo rugosus* Rand.  
*Sinoxylon bidentatum* Horn. p. 544.  
*Bostrichus armiger* Lec.  
*truncaticollis* Lec.

**SPONDYLIDÆ.***Parandra brunnea* Fabr.**CERAMBYCIDÆ.**

*Orthosoma brunneum* Forst.  
*Tragosoma Harrisii* Lec.  
*Aseum mœstum* 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.  
     *Robinæ* 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.  
*Acmaeops 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* Say.  
     *vibex* Newm.  
     *aspera* Lec.  
*Psenocerus supernotatus* Say.  
*Monohammus scutellatus* Say.  
     *confusor* Kby.  
*Dorcaschema nigrum* Say.  
*Goes oculatus* Lec.  
*Plectrodera scalator* Fab. Lake  
     Huron.  
*Acanthoderes decipiens* Hald.  
*Leptostylus planidorsus* Lec.  
     *commixtus* Hald. H.  
     *macula* Say.  
*Sternidius variegatus* Hald.  
     *alpha* Say  
     *cinereus* Lec.  
     *Xanthoxyli* Shimer.  
*Liopus signatus* Lec.  
     *quercus* Fitch.  
     *facetus* Say.  
*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.  
     *mœsta* 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.  
*femorialis* Kby.  
*jucunda* Lec.  
*Kirbyi* Lec.  
**Macrolea 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.  
*litratus* 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.  
**Cedionychis 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* Say.  
     *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.  
**Systema frontalis** Fabr.  
     *marginalis* Ill.  
**Crepidodera Helxines** Linn.  
     *atriventris* Melsh.  
     *Modeeri* Linn.  
**Epitrix cucumeris** Harr.  
     *hirtipennis* Melsh.  
**Mantura floridana** Cr.  
**Chætoconema 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 pennsylvanica** De G.  
     *barbata* Kn. H.  
**Merinus lævis** Oliv.  
**Upis ceramboides** Linn.  
**Haplândrus femoratus** Fabr. Kala-  
     mazoo.  
     *concolor* Lec. H.  
**Scotobates calcaratus** Fab.  
**Xylopinus saperdioides** Oliv.  
**Tenebrio obscurus** Fab.  
     *molitor* Linn.  
     *castaneus* Kn.  
     *tenebrioides* Beauv.  
**Blapstinus mœstus** Mels.  
     *interruptus* Say.  
**Dicædus punctatus** Lec.  
**Echocerus maxillosus** Fab.  
**Uloma impressa** Melsh.  
     *mentalis* Horn.  
**Paratenetus punctatus** Sol.  
     *gibbipennis* Mots.  
**Diaperis Hydni** Fab.  
**Hoplocephala bicornis** Oliv.  
**Platydemæ 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** Say.  
 sericea Say.

**Isomira 4-striata** Coup.

**Mycetochares Haldemani** Lec.  
 foveata Lec.  
 tenuis Lec.  
 binotata Say. 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.  
**Androchirus luteipes** Lec.

#### LAGRIDÆ.

**Arthromacra ænea** Say.

#### 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.  
 Dircaea 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 Say.

**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.

pennsylvanica 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.



- Listronotus tuberosus** Lec.  
*callosus* Lec.  
*inaequalipennis* Boh.  
*caudatus* Say.  
*appendiculatus* Boh.  
*frontalis* Lec.  
*latiusculus* Boh. H.  
**Macrops solutus** Boh.  
 several unnamed species.  
**Hypomolyx pinicola** Coup. H.  
**Hylobius pales** Boh. H.  
*confusus* Kby.  
**Pissodes Strobi** Peck. H.  
**Lixus rubellus** Rand.  
*rectus* Lec.  
*mucidus* Lec.  
*concauus* Say.  
**Grypidius Equiseti** Gyllh.  
**Erycus puncticollis** Lec.  
**Dorytomus laticollis** Lec.  
*brevicollis* Lec.  
*luridus* Mannh.  
**Acalyptus Carpini** Linn.  
**Desmoris constrictus** Say.  
**Pachytychius discoideus** Lec.  
**Smicronyx ovipennis** Lec.  
*tychioides* Lec.  
*vestitus* Lec.  
*squamulatus* Lec.  
**Endalus limatulus** Lap.  
*ovalis* Lec.  
**Tanysphyrus Lemnæ** Gyllh.  
**Onychylis nigrirostris** Boh.  
*longulus* Lec.  
**Anchodemus angustus** Lec.  
*Hubbardi* Lec.  
*Schwarzi* Lec.  
**Lissorhoptrus simplex** Say.  
*apiculatus* Gyllh.  
**Bagous mamillatus** Say.  
*obliquus* Lec.  
*americanus* Lec.  
*magister* Lec.  
*nebulosus* Lec.  
*bituberosus* Lec.  
*transversus* Lec.
- Otidocephalus Chevrolati** Horn.  
*perforatus* Horn.  
**Magdalis hispoides** Lec. H.  
*barbita* Say.  
*olyra* Hbst.  
*salicis* Horn.  
*inconspicua* Horn.  
*pandura* Say.  
*armicollis* Say.  
*pallida* Say.  
**Anthonomus 4-gibbus** Say  
*nebulosus* Lec.  
*scutellatus* Gyllh.  
*signatus* Say.  
*rubidus* Lec.  
*sycophanta* Walsh.  
*rufipennis* Lec.  
*suturalis* Lec.  
*n. sp. near flavicornis.*  
*corvulus* Lec.  
*disjunctus* Lec.  
*cratægi* Walsh.  
*n. sp. near cratægi.*  
*decipiens* Lec.  
**Orchestes pallicornis** Say.  
*niger* Horn.  
*subhirtus* Horn.  
*ephipiatus* Say.  
**Elleschus ephipiatus** Say.  
**Prionomerus calceatus** Say.  
**Piazorhinus scutellaris** Gyllh.  
**Proctorus decipiens** Lec.  
**Plocetes Ulmi** Lec.  
**Gymnetron teter** Schh.  
**Conotrachelus albicinctus** Lec.  
*nenuphar* Harr.  
*seniculus* Lec.  
*elegans* Boh.  
*Cratægi* Walsh.  
*posticatus* Boh.  
*anaglypticus* Fahr.  
**Rhyssematus lineaticollis** Say.  
**Zaglyptus striatus** Lec.  
**Acamp tus rigidus** Lec.  
**Acalles sordidus** Lec. A.  
**Tyloderma foveolatum** Say. H.

**Tyloderma variegatum** Horn.  
 æreum Say.  
**Cryptorhynchus parochus** Say.  
 bisignatus Say.  
 fuscatus Lec.  
 fallax Lec.  
 ferratus Say.  
**Piazurus oculus** Say.  
**Copturus quercus** Gyllh.  
**Acoptus suturalis** Lec.  
**Mononychus vulpeculus** Boh.  
**Craponius inæqualis** Say.  
**Cœliodes acephalus** Germ.  
 asper Lec.  
 cruralis Lec.  
 nebulosus Lec.  
**Acalloides 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.  
**Rhinoncus pericarpus** Gyllh.  
 pyrhopus Boh.  
 longulus Lec.  
**Trichobaris trinotata** Say.  
**Baris striata** Say.  
 tumescens Lec.  
**Pseudobaris nigrina** Say.  
 T-signum Boh.  
**Ampelogypter Sesostris** Lec.  
 ater 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.

**SCOLYTTIDÆ.**

**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.

<b>Xyloterus politus</b> Say.	<b>Hylesinus opaculus</b> Say.
<b>Xyleborus celsus</b> Eichh.	<b>Dendroctonus similis</b> Lec. H.
<b>fuscatus</b> Eichh.	<b>Hylurgops pinifex</b> Fitch. H.
<b>biographus</b> Lec	
<b>xylographus</b> Zimm. Lansing.	<b>ANTHRIBIDÆ.</b>
<b>cælatus</b> Zimm.	
<b>punctipennis</b> Lec. n. sp. M.	<b>Eurymycter fasciatus</b> Oliv.
<b>Dryocetes septentrionis</b> Mannh.	<b>Hormiscus saltator</b> Lec.
<b>affaber</b> Mannh.	<b>Eusphyrus Walshii</b> Lec.
<b>Xylocleptes decipiens</b> Lec. n. sp.	<b>Cratoparis lunatus</b> Fab.
<b>Cryphalus rigidus</b> Lec.	<b>Brachytarsus tomentosus</b> Say.
<b>Tomicus pini</b> Say. H.	<b>variegatus</b> Say.
<b>Micracis suturalis</b> Lec.	<b>Choragus Harrisii</b> Lec. n. sp.
<b>rudis</b> Lec.	<b>Euxenus punctatus</b> Lec.
<b>opacicollis</b> Lec. n. sp.	
<b>asperulus</b> Lec. n. sp.	<b>APIONIDÆ.</b>
<b>Chramesus Icoriæ</b> Lec.	
<b>Phlœotribus liminaris</b> Harr. Lan-	<b>Apion rostrum</b> Say.
sing.	several unnamed species.
<b>Hylesinus aculeatus</b> Say.	

#### 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.

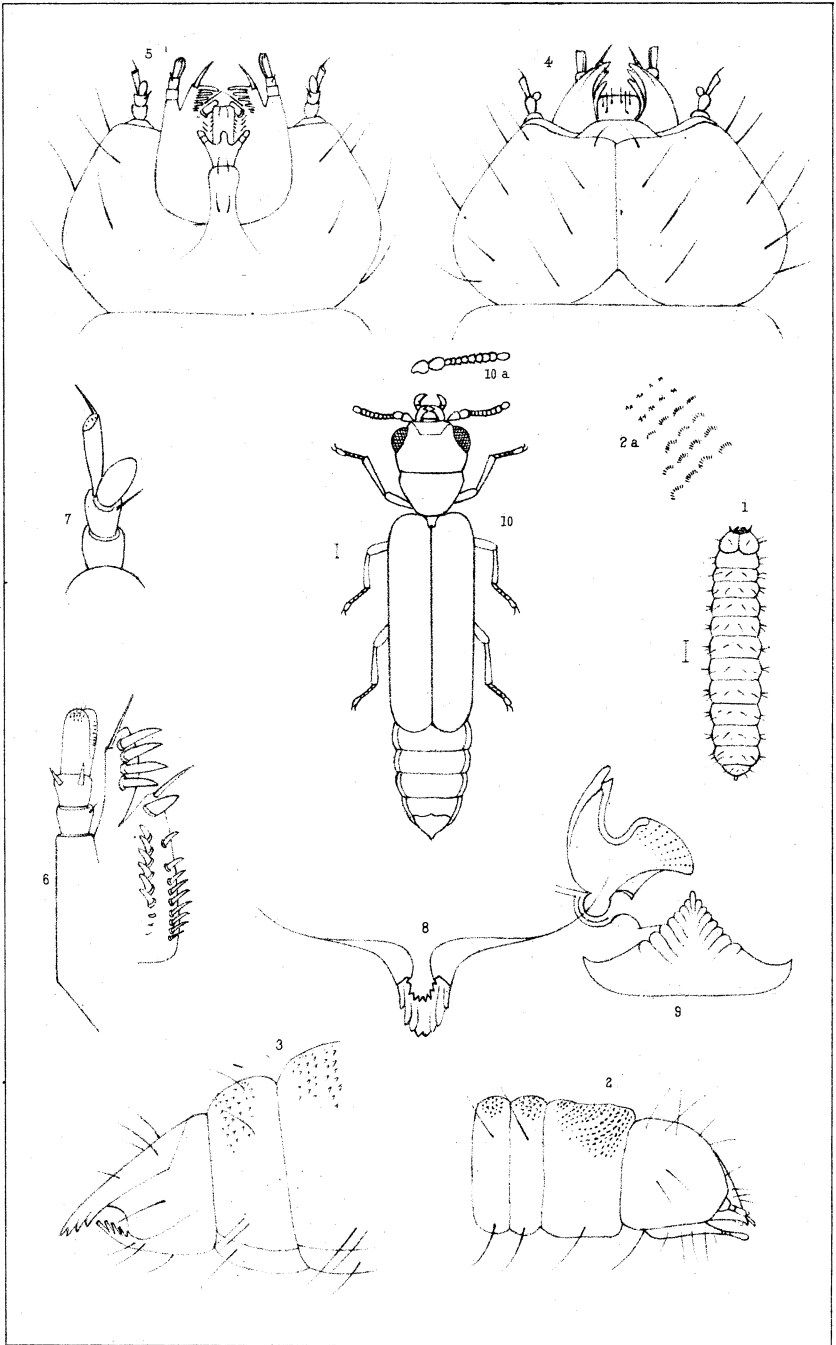
The antennæ are four-jointed, exceedingly minute and stout, and, as in *Micromalthus*, have the third joint lobed beneath, an apical spine, and occupy similar positions on the anterior angles of the head; the maxillæ also have the lobe divided into an upper and lower portion, although the separation 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 *Hylecætus* 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.



H. G. Hubbard, del.

*Micromalthus debilis* Lec. and larva.

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## ERRATA.

Page 537, line 13th from top, for "*thousandth*," read "hundredth."

Page 539, "Pints, Liters," strike out "a" in second line.

Page 625, line 3 from bottom, for "*opaciollis*," read "*opacicollis*."