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MISCELLANEOUS CONTRIBUTIONS TO THE KNOWLEDGE  
OF THE WEEVILS OF THE FAMILIES ATTELABIDÆ AND  
BRACHYRHINIDÆ.

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The present paper contains a large number of miscellaneous studies which have been made in the taxonomy of the weevils of the tribe Rhynchitini, family Attelabidæ, and of the family Brachyrhinidæ. The paper includes fixations of the types of all of the North American genera in these two groups and also descriptions of 4 new genera, 2 new subgenera, 24 new species, and 9 new varieties.

A complete paper on the types of the genera of the Rhynchophora for the world is in the process of preparation.

The classification used below is to a large measure based upon that proposed by Lacordaire, although many alterations have been made, and group names have been given in accordance with our established rules of nomenclature.

Family ATTELABIDÆ Kirby (1837).

Subfamily RHYNCHITINÆ Pascoe (1870).

The following tables, while not entirely satisfactory, are the best that can be offered without considerable additional study:

*Key of tribes of Rhynchitinæ.*

1. Elytra striately punctate; third joint of tarsi more or less dilated.  
RHYNCHITINI, new tribe.
2. Elytra not striately punctate; third joint of tarsi not dilated.  
AULETINI, new tribe.

**RHYNCHITINI, new tribe.**

*Key to genera of Rhynchitini.*

Posterior coxæ transverse, reaching metepisterna, which are very narrow.

1. Head arcuately emarginate at base; antennæ with first joint, only, of funicle, sensibly longer than wide; centro-sternal piece separating the apices of the proepimera ..... *Deporaus* Leach.
2. Head not emarginate or truncate at base; antennæ with funicular joints 2 to 4, at least, longer than wide.
  - a*<sup>1</sup>. Pygidium covered by elytra..... *Eugnaptus* Schönherr.
  - a*<sup>2</sup>. Pygidium exposed.
    - b*<sup>1</sup>. Apices of proepimera separated by centro-sternal piece.. *Merhynchites* Sharp.
    - b*<sup>2</sup>. Apices of proepimera joined..... *Rhynchates* Schneider.

The centro-sternal piece of the prosternum is a tiny piece behind or separating the epimera. The term was first used by Sharp.<sup>1</sup> Everts in the following year published "Quelques remarques à sujet d'une Etude de Mr. David Sharp sur la structure du prosternum dans les Rhynchorides."<sup>2</sup> This is a character which merits considerable study.

This table in a measure follows Desbrochers. If the definition of *Deporaus* is correct, our *glastinus* LeConte must be assigned to *Rhynchites* or a new genus.

#### Genus DEPORAUS Leach (1819).

*Platyrrhynchus* THUNBERG, Nov. Act. Upsal., vol. 7, 1815.

*Deporaus* LEACH, Samouelle's Compendium, 1819, p. 201.

The genus *Deporaus* is monotypic, based on *betulæ* Linnæus. Crotch (1870) designated the same species as type of *Platyrrhynchus*. The latter name is preoccupied by Desmines (1805) in Aves.

#### Genus EUGNAMPTUS Schönherr (1839).

*Eugnamptus* SCHÖNHERR, Gen. Curc., vol. 5, 1839, p. 339.

The type was originally designated as *collaris* Fabricius.

The sexes of this genus are readily distinguished by the male beak being shorter, eyes larger and closer together, and by the male mandibles being externally one-toothed, while the female mandibles are externally two-toothed.

#### Table of species and varieties of *Eugnamptus*.

- I. Elytral interspaces narrower than the striæ; eyes in male not greatly larger than in female.
  1. Interspaces very convex; strial punctures large, quadrate, crowded; head strongly punctured in male, more moderately in female; front foveate in female and medially sulcate in male; black or piceous black, head and thorax reddish. Florida. Length 4.5-5 mm ..... *striatus* LeConte.
  2. Interspaces almost flat; strial punctures round, less crowded; head strongly punctured; front more or less sulcate; testaceous, elytra sometimes piceous black or clouded. Maryland to Florida and Kansas. Length 2.7-4 mm.
 

*puncticeps* LeConte.
- II. Elytral interspaces as wide as or wider than the striæ; eyes in male considerably larger than in the female and much more approximate.
  3. Elytra bluish.
    - a*<sup>1</sup>. Head finely punctured.
      - b*<sup>1</sup>. Elytra bluish green; elytral interspaces flat; front sulcate; prothorax strongly punctured, medially depressed or sulcate; head, thorax, antennæ and legs reddish, venter black. Arizona. Length 5-6 mm.
 

*nigriventris* Schaeffer.
      - b*<sup>2</sup>. Elytra bluish black.

<sup>1</sup> Trans. Ent. Soc. Lond., 1889, pt. 1.

<sup>2</sup> Tijdschrift voor Entomologie, vol. 32, for 1889-1890 (1890), pp. 349-353, pl. 15.

- c*<sup>1</sup>. Abdomen black; front smooth in female, carinate at base in male; elytral interspaces with a faint external rim bordering the striæ; prothorax moderately to strongly punctured, medially depressed or sulcate.  
*collaris* Fabricius.
- d*<sup>1</sup>. Entirely black, except elytra, head sometimes with red frontal spot. Massachusetts to Kansas and Virginia. Length 4.2–4.7 mm.  
var. *nigripes* Melsheimer, female.
- d*<sup>2</sup>. Body black, elytra bluish black, legs reddish, head sometimes with red frontal spot. Massachusetts to Kansas and Virginia. Length 3.5–3.7 mm.....var. *fuscipes*, new variety, male, female.
- d*<sup>3</sup>. Body black, thorax red, elytra bluish black. Massachusetts to Iowa, Florida and Louisiana. Length 3.5–4.5 mm.  
var. *collaris* Fabricius, male, female.
- d*<sup>4</sup>. Body black; head, thorax, and appendages reddish, elytra bluish black. Texas. Length 4 mm.....var. *ruficeps*, new variety, male, female.
- c*<sup>2</sup>. Abdomen entirely or in most part reddish testaceous; front sulcate; elytral interspaces slightly convex; prothorax strongly punctured, medially depressed or sulcate; body reddish throughout, eyes black, elytra nigrocoeruleous. Alabama to Texas. Length 3.2–4.7 mm.  
*sulcifrons* Gyllenhal.
- a*<sup>2</sup>. Head strongly punctured; elytral interspaces convex, not wider than the striæ; prothorax strongly punctured, medially depressed or sulcate. Arizona.  
*punctatus*, new species.
- e*<sup>1</sup>. Entirely black, elytra nigrocoeruleous. Length 4.5 mm.  
var. *niger*, new variety, female.
- e*<sup>2</sup>. Black, thorax red, elytra nigrocoeruleous. Length 4 mm.  
var. *punctatus*, typical variety, female.
4. Elytra testaceous or piceous black.
- f*<sup>1</sup>. Head moderately to strongly punctate; thorax medially depressed; front sulcate.....*angustatus* Gyllenhal.
- g*<sup>1</sup>. Head and thorax strongly punctate; color uniformly rufotestaceous. Texas. Length 4.2 mm.....var. *testaceus*, new variety, male.
- g*<sup>2</sup>. Head and thorax moderately punctate; thorax medially depressed; front sulcate; color rufotestaceous, elytra more or less piceous black. Virginia to Texas. Length 3.7–4.2 mm...var. *angustatus* Gyllenhal, male, female.
- f*<sup>2</sup>. Head and thorax finely punctured, front sulcate; color pale testaceous. Texas and Arizona. Length 3.2–4 mm.....*pallidus* Schaeffer.

This is one of the most difficult genera in the Rhynchophora to separate into species. The writer has had at hand about 150 individuals representing what appear to be eight distinct species and five additional color variations. The characters available are not as easy to use as the characters in other genera.

EUGNAMPTUS STRIATUS LeConte.

This species is characteristic of Florida in this country, being represented from Crescent City and Haulover. It has only been taken in March on a single species of *Quercus*.

EUGNAMPTUS PUNCTICEPS LeConte.

This species is the smallest before the writer. Specimens have been taken at Rosslyn, Virginia; Plummers Island, Maryland; Jacksonville, Florida; Oak Grove, Alabama; Meridian, Mississippi; Cov-

ington, Louisiana; Onaga, Kansas; Kenosha, Nebraska. The collecting dates range from June 19 to August 25. At Plummer's Island Mr. Schwarz reports having taken it only on *Rhus copalina*.

**EUGNAMPTUS NIGRIVENTRIS** Schæffer.

This species seems to be peculiar to Arizona. Material is at hand from the Santa Rita Mountains, Chiricahua Mountains, and Huachuca Mountains, dated May 29 to June 19. It occurs in the canyons on *Quercus*.

**EUGNAMPTUS COLLARIS** Fabricius.

Schönherr designates three varieties of this species:

var.  $\alpha$ —black, thorax red.

var.  $\beta$ —head above red, elytra nigrocoeruleous.

var.  $\gamma$ —nigrocoeruleous, head only red.

It has been found necessary to designate four varieties and names have been given them because they have long been a source of puzzlement to American students. There does not seem to be any name directly applicable to the second or fourth varieties, and therefore new names are proposed. The names *ruficollis* Germar and *rubricollis* Say are both applicable to var. *collaris* Fabricius.

**EUGNAMPTUS COLLARIS NIGRIPES** Melsheimer.

Entirely black, except elytra, head sometimes with red frontal spot. Length 4.2–4.7 mm.

Only females have been found to represent this variety. It is at hand from Marion, Massachusetts; Lime Rock, Pennsylvania; Washington, District of Columbia; Plummerville Island, Maryland; Afton and Rosslyn, Virginia; Retreat, North Carolina; Nashville, Tennessee; Mobile, Alabama; Detroit, Michigan; Iowa; Missouri; Kansas; and Dallas, Texas. The collecting season is according to these records from May 15 to August.

**EUGNAMPTUS COLLARIS FUSCIPES**, new variety.

Body black, elytra bluish black, legs reddish, head sometimes with red frontal spot. Length 3.5–3.7 mm.

Two females are at hand from Kansas and Kimmswick, Missouri. Males have been found at Marion, Massachusetts; Washington, District of Columbia; Plummerville Island, Maryland; Rosslyn, Virginia; Harper's Ferry, West Virginia; Nashville, Tennessee; Langdale, Alabama; Detroit and Port Huron, Michigan; and Kimmswick, Missouri. The dates of collection range from May 19 to August.

*Type*.—Cat. No. 14623, U.S. Nat. Mus. (Detroit, Michigan).

**EUGNAMPTUS COLLARIS COLLARIS** Fabricius.

Body black, thorax red, elytra bluish black. Length 3.5–4.5 mm.

The typical form of this species is found in both sexes. The records of occurrence are from Chicopee and Montgomery, Massachu-

setts; Lime Rock, Pennsylvania; Plummers Island and Bladensburg, Maryland; Afton, Virginia; Retreat, North Carolina; St. Catherine Island, Georgia; Jacksonville, Florida; Oak Grove, Mobile, Jackson, Langdale, and Thomasville, Alabama; Natchitoches, Louisiana; Cincinnati, Ohio; Evansville, Indiana; Detroit, Michigan; Iowa City, Iowa; St. Louis and Kimmswick, Missouri; West Point, Nebraska; Dallas and Calvert, Texas.

The collecting dates are from March 27 to July 24. Specimens from Natchitoches, Louisiana, were taken on *Quercus phellos*, March 27, 1907.

**EUGNAMPTUS COLLARIS RUFICEPS**, new variety.

Body black; head, thorax, and appendages reddish; elytra bluish black. Length 4 mm.

This appears to be distinctly a southwestern form, but no structural characters of value can be found to separate it. It occurs in both sexes in the Belfrage collection from Texas.

*Type*.—Cat. No. 14624, U.S.Nat.Mus.

**EUGNAMPTUS SULCIFRONS** Gyllenhal.

This species was described from Carolina and seems to be distinctly southern, and differs structurally only by the frontal sulcus. Specimens are at hand from Mobile, Alabama; Dallas and Kerrville, Texas. The dates of collection range from April 3 to June 20.

**EUGNAMPTUS PUNCTATUS**, new species.

Length 4–4.5 mm. Head strongly punctate. Eyes considerably larger in male than in female. Thorax strongly punctate, medially depressed or sulcate. Elytral interspaces convex, not wider than the striae. Elytra almost bluish black.

**EUGNAMPTUS PUNCTATUS PUNCTATUS**, typical variety.

Black, thorax red, elytra nigrocoeruleous.

Two female specimens are at hand, the type from Santa Rita Mountains, Arizona, May 25 (Hubbard and Schwarz), and the other from the Pinal Mountains, Arizona (Wickham). The type was taken on *Quercus hypoleuca*.

*Type*.—Cat. No. 14625, U.S.Nat.Mus.

**EUGNAMPTUS PUNCTATUS NIGER**, new variety.

Black throughout, except elytra, which are nigrocoeruleous. One specimen is at hand from Arizona (Morrison).

*Type*.—Cat. No. 14626, U.S.Nat.Mus.

**EUGNAMPTUS ANGUSTATUS ANGUSTATUS** Gyllenhal.

Specimens are at hand from Washington, District of Columbia; Nashville, Tennessee; St. Louis, Missouri; Texas.

## EUGNAMPTUS ANGUSTATUS TESTACEUS, new variety.

Head and thorax strongly punctate; color uniformly rufotestaceous. Length 4.2 mm.

Described from a single male from Kerrville, Texas, April 22, 1908 (F. C. Pratt).

*Type*.—Cat. No. 24627, U.S.Nat.Mus.

## EUGNAMPTUS PALLIDUS Schæffer.

A specimen from Texas (Belfrage) seems to fit the description of this species.

## Genus RHYNCHITES Schneider (1791).

*Rhynchites* SCHNEIDER, *Neuestes Mag. für Liebhaber der Ent.*, vol. 1, 1791.

*Rynchites* HERBST, *Die Käfer*, vol. 7, 1797, p. 134.

*Rhyncites* LATREILLE, *Cons. gen.*, 1810.

The type of this genus is *bacchus* Linnæus, as designated by Latreille (1810).

## Genus MERHYNCHITES Sharp (1889).

*Merhynchites* SHARP, *Trans. Ent. Soc. Lond.*, 1889, p. 57.

Sharp separated the two nonmetallic species, *hungaricus* Herbst and *bicolor* Fabricius from *Rhynchites* because of differences in the centro-sternal piece. Whether this character is of valid generic rank has not been carefully studied out, although it is undoubtedly of considerable value and merits further research. In the absence of type designation we may consider *bicolor* as type.

## MERHYNCHITES BICOLOR Fabricius.

The large series of this species is readily separable into varieties or races.

*Table of varieties of Merhynchites bicolor Fabricius.*

1. Elytra red, body with greenish luster.
  - a*<sup>1</sup>. Red throughout, except on the venter of the mesothorax, metathorax, and abdomen, which are black; California to North Dakota. . . . . var. *cockerelli*, new variety
  - a*<sup>2</sup>. Elytra, prothorax and head red; ventral parts reddish piceous; beak, antennæ and legs piceous black; South Dakota. . . . . var. *ventralis*, new variety.
  - a*<sup>3</sup>. Elytra, prothorax and base of head to eyes red; remainder of body black; New Hampshire to Iowa; Utah and New Mexico. . . . . var. *bicolor* Fabricius.
  - a*<sup>4</sup>. Elytra and prothorax only, red; remainder of body black; British Columbia to New Mexico and North Dakota. . . . . var. *wickhami* Cockerell.
2. Elytra piceous or black; body with greenish luster.
  - b*<sup>1</sup>. Elytra piceous black; remainder of body black; strial punctures indistinct; Oregon. . . . . var. *piceus*, new variety.
  - b*<sup>2</sup>. Body unicolorous, black with a bluish-green luster; elytra with a slight piceous undertone; strial punctures very distinct; Arizona.
 

var. *viridilustrans*, new variety.



**MERHYNCHITES BICOLOR BICOLOR** Fabricius.

The typical specimens have elytra, prothorax, and base of head to the eyes red, the remainder of the body black. These specimens usually have the elytral striae punctures quite plainly larger than the interstitial punctures. The front between the eyes is moderately punctate, and rugose near base of beak. Material of this form is at hand from Washington, District of Columbia; Durham, New Hampshire; Ogonquit, Maine; Milton and Melrose Highlands, Massachusetts; Winnipeg and Aweme, Manitoba; New Jersey; Wisconsin; Iowa City, Sioux City, and Spirit Lake, Iowa; Utah; New Mexico. With two exceptions, then, this form is eastern.

**MERHYNCHITES BICOLOR WICKHAMI** Cockerell.

The commoner form in the collection has the elytra and prothorax only red, and the remainder of the body black. The elytral striae punctures are less easily separable from the interstitial punctures. The front in both sexes is strongly rugosely punctate to the vertex. The material comes from Kaslo, and North Bend, British Columbia; Victoria, Vancouver; Seattle, Yakima, Tacoma, Easton, and Everett, Washington; Fuller, Oregon; Humboldt County, Eureka, Los Angeles, San Diego, San Mateo County, Los Gatos, Dunsmuir, and Kaweah, California; Pocatello, and Fort Sherman, Idaho; American Fork Cañon, City Cañon, Fort Douglas, and Salt Lake City, Utah; Cheyenne, Wyoming; Havre and Kalispell, Montana; Ouray, Berkeley, Colorado Springs, Breckenridge, and Leadville, Colorado; Williams, Arizona; Santa Fe, New Mexico; University, North Dakota; North Carolina. All the specimens are western except four labeled only "N. C." These may be in error.

**MERHYNCHITES BICOLOR COCKERELLI**, new variety.

This form is red throughout except on the venter of the mesothorax, metathorax, and abdomen, which are black. The sculpture is as in variety *wickhami*. San Francisco County, California, is chosen as the typical locality. Specimens are at hand also from Los Angeles County, California; Pocatello, Idaho; American Fork Cañon, Utah; and Williston, North Dakota. The latter specimens have the basal half of the beak black.

*Type*.—Cat. No. 14628, U.S. Nat. Mus.

**MERHYNCHITES BICOLOR VENTRALIS**, new variety.

Two specimens from Volga, South Dakota (Wickham collection), have the beak, antennæ, and legs piceous black, ventral parts reddish piceous, head, thorax, and elytra red.

*Type*.—Cat. No. 14629, U.S. Nat. Mus.

## MERHYNCHITES BICOLOR PICEUS, new variety.

Two specimens from Oregon (Hubbard and Schwarz collection) are too closely allied to be separated as a distinct species. The head, thorax, and under parts are black, and the elytra are piceous black. The front is strongly rugosely punctured. The elytral striation is even more indistinct than in *wickhami*.

*Type*.—Cat. No. 14630, U.S.Nat.Mus

## MERHYNCHITES BICOLOR VIRIDILUSTRANS, new variety.

A single specimen from near the Bright Angel Trail in the Colorado Cañon, Arizona (Pipe Creek, 3,700 feet altitude), collected May 10, 1903, by H. S. Barber, represents the opposite extreme of coloration from *cockerelli*. The entire body is unicolorous black, but shining with luster which from some angles is brilliant green, from others a rich blue, and yet again may show a piceous undertone. The elytral strial punctures are quite plainly larger than the interstitial punctures. The front is strongly rugosely punctate. This form is readily separable from *piceus* by the strial punctation.

*Type*.—Cat. No. 15263, U.S.Nat.Mus.

The six varieties described above are readily separable in the material at hand, but there are undoubtedly intermediate forms.

Family BRACHYRHINIDÆ Bedel (1885), *emended*.

*Otiorhynchidæ* LeConte, 1874.

*Brachyrhinidæ* Bedel, 1885.

*Table of subfamilies of Brachyrhinidæ.*

- I. Ocular lobes more or less developed; eyes variable, but generally elongate, transverse, acuminate beneath, and in part at least covered.
1. Mentum large, covering the maxillæ.
    - a*<sup>1</sup>. Scobes not directed beneath..... EREMNIINÆ Pascoe (1870).
    - a*<sup>2</sup>. Scobes directed beneath ..... ENTIMINÆ, new subfamily.
  2. Mentum smaller.
    - b*<sup>1</sup>. Mentum not retracted; maxillæ entirely free; scobes feebly angled, rapidly evanescent. .... DIROTOGNATHINÆ, new subfamily.
    - b*<sup>2</sup>. Mentum retracted; scobes deep, arcuate, sometimes confluent beneath.
 

PROMECOPINÆ Pierce (1911)
- II. Ocular lobes absent, and the eyes rounded or shortly oval and always free.
3. Scobes linear, directed beneath.
    - c*<sup>1</sup>. Prothorax with ocular vibrissæ, or if without them, with anterior coxæ narrowly separated. .... TANYMECINÆ Pierce (1911).
    - c*<sup>2</sup>. Prothorax without ocular vibrissæ.
      - d*<sup>1</sup>. Anterior coxæ contiguous; middle coxæ feebly separated.
 

PSALLIDIINÆ, new subfamily.
      - d*<sup>2</sup>. Anterior coxæ not contiguous; middle coxæ more or less widely separated.
 

PACHYRHYNCHINÆ, new subfamily.
  4. Scobes variable, never at the same time linear and directed beneath.
 

BRACHYRHININÆ, new subfamily.

The subfamily Pachyrhynchinæ does not occur in our fauna.

Subfamily **EREMNINÆ** Pascoe (1870).

*Table of tribes of Eremninae.*

- 1. Beak as large as head at base and continuous with it.....**CYPHICERINI**, new tribe.
- 2. Beak narrower than head.
  - a*<sup>1</sup>. Pterygia of beak not or hardly divaricate.....**EREMNINI**, new tribe.
  - a*<sup>2</sup>. Pterygia of beak more or less divaricate.....**PHYTOSCAPHINI**, new tribe.

Only the tribe Eremnini is represented in the United States.

**EREMNINI**, new tribe.

Genus **PHYXELIS** Schönherr (1843).

*Phyxelis* SCHÖNHERR, Gen. et Sp. Curc., vol. 7, 1843, pt. 1, p. 122.

The type was originally designated as *rigidus* Say.

**ENTIMINÆ**, new subfamily.

*Table of tribes of Entiminae.*

- 1. Metasternum very short.
  - a*<sup>1</sup>. Beak robust, quadrangular, more or less distinctly trisulcate above; scrobes rapidly inferior, well defined. Eyes always narrow and acute below, partially concealed by the ocular lobes.....**OPHRYASTINI** Horn (1876).
  - a*<sup>2</sup>. Beak rounded at angles, subcylindrical, seldom sulcate above, at most moderately robust; scrobes feebly inferior, usually directed toward the eyes or visible from above and badly defined. Eyes oval, not acute below and usually free.
    - TROPIPHORINI**, new tribe.
- 2. Metasternum more or less elongate.
  - b*<sup>1</sup>. Anterior coxæ not contiguous.....**LEPTOSTETHINI**, new tribe.
  - b*<sup>2</sup>. Anterior coxæ contiguous.
    - c*<sup>1</sup>. Beak scarcely or feebly enlarged at apex; antennal club oval, rarely oblong-oval.....**MENÆTINI**, new tribe.
    - c*<sup>2</sup>. Beak robust strongly enlarged at apex in almost all; antennal club at least oblong-oval, often very elongate.....**ENTIMINI**, new tribe.

The last three tribes are not represented in the United States.

**Tribe OPHRYASTINI** Horn (1876).

*Table of genera of Ophryastini.*

- 1. Abdomen with second segment rarely as long as the two following together, first suture straight. Intercoxal process moderately wide.
  - a*<sup>1</sup>. Third tarsal joint broadly bilobed, and much wider than second, pubescent beneath.
    - b*<sup>1</sup>. Rostral striæ deep, the lateral ones strongly angulate at base of beak, meeting the scrobes beneath the eyes; second ventral segment nearly as long as third and fourth combined.....*Sapotes* Casey.
    - b*<sup>2</sup>. Rostral striæ not so sharply outlined.
      - c*<sup>1</sup>. Rostral striæ evident, straight; second ventral segment much shorter than third and fourth combined.
        - d*<sup>1</sup>. Mentum concealing palpi entirely.....*Eupagoderes* Horn.
        - d*<sup>2</sup>. Palpi projecting beyond apex of mentum (a Mexican genus).
          - Caccophryastes* Sharp.
      - c*<sup>2</sup>. Rostral striæ obsolete, indicated only by faint depressions; second ventral segment subequal to the third and fourth combined.
        - Amydrogmus*, new genus.

- a*<sup>2</sup>. Third tarsal joint not broadly bilobed, hardly wider than second, emarginate at apex, not pubescent beneath; rostral striæ straight.
- e*<sup>1</sup>. Prothorax more or less tuberculate at sides and very little narrower than elytra, if at all; corbels of posterior tibiæ more or less imperfectly cavernous.  
*Ophryastes* Schönherr.
- e*<sup>2</sup>. Prothorax not tuberculate at sides, very much narrower than elytra; corbels of posterior tibiæ with laminate tip.....*Tosastes* Sharp.
2. Abdomen with second segment longer than the two following together, first suture strongly arcuate. Intercostal process very broad. Third tarsal joint emarginate, but not broader than the second, spinulose beneath.....*Rhigopsis* LeConte.

Genus **SAPOTES** Casey (1888).

*Sapotes* CASEY, Ann. New York Acad. Sci., vol. 4, 1888, p. 241.

The genus is monotypic, based on *puncticollis* Casey.

Genus **EUPAGODERES** Horn (1876).

*Eupagoderes* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 32.

In the absence of previous type designations, *speciosus* LeConte is hereby designated as type.

This genus is systematically even more difficult than *Ophryastes*. For the present we must consider Mr. Fall's table as the clearest possible delineation of the specific characters. To this must be added *E. cretaceus* Sharp recorded by Champion from Arizona. The writer is by no means satisfied that the genus has yet been properly treated and considers that a vast amount of material must be added to our collections first.

Genus **AMYDROGMUS**, new genus.

Rostrum with scrobes deep and definite, passing rapidly inferior; rostral striæ almost obsolete, indicated by faint depressions; third tarsal joint broadly bilobed, and pubescent beneath; second abdominal segment subequal to the two following; prothorax not tuberculate at sides.

Name derived from ἀμυδρός (faint) + ὄγκος (furrow) = faint furrow, referring to the rostral striæ.

*Type of genus*.—*A. variabilis*, new species.

**AMYDROGMUS VARIABILIS**, new species.

Small, resembling *Sapotes puncticollis* in form, with elytra more or less robust, closely covered with pavement scales, which are generally white, but sometimes heavily mottled with brown, and with two brown fasciæ on prothorax. Length, 4–6 mm.; width, 1.75–2.75 mm. Beak strongly constricted at base above and beneath, a little longer than head above, densely covered with white polygonally crowded pavement scales, with short erect setæ interspersed, apically emarginate and medially shallowly sulcate, also with feeble longitudinal impressions in front of eyes. Antennæ densely clothed

with scales, with exception of club, which is finely pubescent. Prothorax a little shorter than head; truncate at base and apex; ocular lobes small, finely fimbriate; sides broadly arcuate, base not as wide as apex, slightly constricted in front of base; surface very unevenly punctate with deep punctures of variable sizes; in specimens showing color, two fasciæ of brown scales; vestiture as described for beak. Elytra of females inflated as in *Tosastes ovalis* and *globularis*, while in males very little wider than the thorax; elytral striæ very fine, punctures fine, interstitial punctures irregular but as large as strial punctures; surface sometimes mottled with brown. Undersides densely squamose and clothed as above. Last ventral segment in female elongate triangular, apically rounded, and longer than the two preceding segments. Legs densely squamose; corbels of posterior tibiæ with a double row of spines, inclosing an elliptical squamose area.

Described from 60 individuals collected by J. D. Mitchell and R. A. Cushman on *Prosopis glandulosa*, June 13–17, 1908, on the Rio Grande, in Brewster County, Texas. Part of the original set is retained in the Dallas, Texas, collection.

*Type*.—Cat. No. 14631, U.S.Nat.Mus.

#### Genus OPHRYASTES Schönherr (1833).

*Ophryastes* SCHÖNHERR, Gen. et. Sp. Curc., vol. 1, 1833, p. 508.

The originally designated type was *sulcirostris* Say.

This genus presents many difficulties to the systematist because of the great variation in a series of one species from a single locality. Up to the present the writer has been unable to obtain any satisfaction from a study of it and believes that only large series from many localities will assist in finally separating the species correctly.

#### OPHRYASTES OVIPENNIS Sharp.

*Ophryastes bituberosus* PIERCE (not Sharp).

According to Champion<sup>1</sup> the specimen from San Diego, Texas, recorded by the writer<sup>2</sup> as *bituberosus* is *ovipennis*. This undoubtedly applies to the other material also.

#### OPHRYASTES COLLARIS Champion.

This species is described by Champion from Texas and Nuevo Laredo, Tamaulipas, Mexico.

#### Genus TOSTASTES Sharp (1891).

*Tosastes* SHARP, Biol. Centr.-Amer., Coleop., vol. 4, 1891, pt. 3, p. 91.

In the absence of previous type designations we may consider *globipennis* Sharp as type of the genus.

<sup>1</sup> Biol. Centr.-Amer. Coleop., vol. 4, Dec., 1911, pt. 3, p. 318.

<sup>2</sup> Proc. U. S. Nat. Mus., vol. 37, 1909, p. 344.

Table of species of *Tosastes*.

1. Elytra with acute humeral angle.....*humeralis* Sharp.  
[Chihuahua City, Mexico.]
2. Elytra with rounded humeri.
  - a*<sup>1</sup>. Corbels of posterior tibiae tipped with a single row of spines.
    - b*<sup>1</sup>. Beak sulcate and laterally impressed.....*coarctatus* Champion (1911).  
[Monclova, Mexico.]
    - b*<sup>2</sup>. Beak smooth; elytra globular; thorax feebly sculptured.
      - c*<sup>1</sup>. Elytra with very obsolete sculpture, consisting of vague large pits, arranged serially.....*globipennis* Sharp.  
[Guajuco, Nuevo Leon, Mexico.]
      - c*<sup>2</sup>. Elytra with striae very fine, consisting of long, fine punctures; median line of thorax distinct.....*globularis* Pierce.  
[Albuquerque, New Mexico.]
  - a*<sup>2</sup>. Corbels of posterior tibiae tipped with a double row of spines.
    - d*<sup>1</sup>. Thorax very short, more than twice wider than long, distinctly and coarsely but rather sparsely punctate; elytra globular with striae consisting of large ill-defined punctures.....*ovalis* Pierce.  
[Del Rio and Marathon, Texas.]
    - d*<sup>2</sup>. Thorax longer, less than twice as wide as long, indistinctly, finely and rather closely punctate; elytra longer, with striae indistinctly depressed and punctate.....*cinerascens*, new species.  
[Wenatchee, Washington.]

## TOSTASTES CINERASCENS, new species.

Described from two female and three male specimens collected at Wenatchee, Washington, April 17, 1911, and sent the writer from the Washington Experiment Station (Wash. Exp. Sta. No. 4) by Mr. M. A. Yothers. A sixth specimen (female) is retained in the writer's collection, and it is understood that still more material is in the Washington Station collection.

The female of this species is the largest of our *Tosastes* and is very similar in form to Champion's new *coarctatus* of which the cotypic series is before the writer. The smooth beak and double row of spines at the tip of the posterior tibiae readily separates it.

Female, length 6-8 mm., width 3-4 mm.; male, length 5 mm., width 2.5 mm. Elytra very convex, inflated, humeri rounded; densely clothed with mottled grayish and darker scales, and with rows of setae on elytral interspaces. Rostrum short, broad, lightly transversely impressed at base, with very faint impressions at sides, but with no median groove; scrobes deep, strongly arcuate, rapidly inferior; scape and first six funicular joints clad with white scales, seventh dark like club and without scales. Thorax transverse, about one-third wider than long; ocular lobes distinctly fimbriate; convex on sides without lateral emarginations; very shallowly and indistinctly but closely punctate; median impression apparent. Striae impressed, as broad as interspaces; punctures indistinct because of close scaly vestiture. Elytra in small males almost twice

as wide as thorax, but not in large females, and longer proportionately than in *ovalis*. Abdominal suture straight, second not as long as the third and fourth combined, fifth segment in female long and narrowly rounded at apex, in male shorter and broader at apex. Hind tibiae with a double row of spinules at apex. First three tarsal joints with apices of lobes mucronate.

*Type*.—Cat. No. 14632, U.S.N.Mus.

Genus RHIGOPSIS LeConte (1874).

*Rhigopsis* LECONTE, Amer. Nat., 1874, p. 459.

The genus is monotypic based on *effracta* LeConte.

TROPIPHORINI, new tribe.

We have undoubtedly had a wrong conception of what is a genus in this tribe, but it has become very difficult to reconstruct the classification. The accompanying table is presented in the hopes that it will make some difficult places in the tribe more clear. For the purpose of simplicity the number of genera is considerably reduced, it being considered more advisable to use subgenera where the species groups are so closely allied. In the following studies considerable mention is made of the form of the nasal plate. This plate is a more or less defined area at the tip of the beak, its base is the apex of the beak.

*Table of genera of Tropiphorini.*

Rostrum with scrobes feebly inferior, usually directed toward eyes, or visible from above and badly defined.

- I. Seventh joint of funicle contiguous to club or differently clothed from the other joints. Vestiture squamose and pilose pubescent.
1. Third joint of tarsi feebly emarginate, scarcely broader than the preceding; tarsi sparsely setose beneath; beak distinctly separated from the head by a transverse depression. Nasal plate more or less obsolete..... *Cimbocera* Horn.
  2. Third joint of tarsi bilobed, distinctly wider than second; tarsi spinose beneath beak not separated from head by deep depression; nasal plate obsolete.  
*Miloderes* Casey.
- II. Seventh joint of funicle distant from club; third joint of tarsi broader than second, tarsi densely pubescent beneath.
1. Scrobes deep, well defined, at least moderately arcuate, passing inferiorly.
    - a*<sup>1</sup>. Scrobes strongly arcuate, passing beneath at a distance from the eyes.
      - b*<sup>1</sup>. First suture of abdomen straight; second segment never longer than the two following united; hind tibiae mutic; vestiture squamose with intermixed squamiform bristles; nasal plate sharply defined by distinct rim.  
*Dichoxenus* Horn.
      - b*<sup>2</sup>. First suture of abdomen arcuate; second segment usually as long as or longer than the two following united; hind tibiae mutic.
        - c*<sup>1</sup>. Vestiture squamose not intermixed with setae or pubescence; anterior tibiae denticulate within; nasal plate depressed but not sharply defined.  
*Orimodema* Horn.
        - c*<sup>2</sup>. Vestiture squamose and intermixed with hairs or bristles; anterior tibiae not denticulate within.

- d*<sup>1</sup>. Vestiture squamose intermixed with decumbent bristles; support of deciduous piece of mandible not prominent; alternate elytral intervals slightly more convex; ventral scales squamose; nasal plate ill-defined.....*Amotus* Casey.
- d*<sup>2</sup>. Vestiture squamose intermixed with fine erect hairs; support of deciduous piece of mandible prominent; nasal plate sharply defined by a distinct rim.
- e*<sup>1</sup>. Apex of hind tibiæ with a double row of setæ forming an apical disk; humeri entirely obliterated.....*Diamimus* Horn.
- e*<sup>2</sup>. Apex of hind tibiæ with a single row of setæ at apex; humeri rectangular.....*Peritaxia* Horn.
- a*<sup>2</sup>. Scrobes not passing beneath at a distance from the eyes; vestiture squamose and intermixed with bristles.
- f*<sup>1</sup>. Scrobes moderately arcuate, passing immediately beneath the eyes; nasal plate sharply defined by a distinct rim.....*Anametis* Horn.
- f*<sup>2</sup>. Scrobes narrow, deep and well defined throughout, obliquely descending to lower angle of eye, beak not depressed at base; nasal plate short, broadly angulate, distinctly rimmed.....*Melbonus* Casey.
2. Scrobes evanescent posteriorly, badly defined, nearly straight or flexed gradually downward, directed toward lower angle of eye.
- a*<sup>1</sup>. Metasternal side pieces rather wide, suture distinct.
- b*<sup>1</sup>. First ventral suture generally straight or only slightly arcuate in the middle; second ventral segment not longer than the next two combined.
- c*<sup>1</sup>. Scaly vestiture mixed with fine, long pubescence. Nasal plate poorly defined.....*Melamomphus* Horn.
- c*<sup>2</sup>. Scaly vestiture mixed with stout setæ or bristles; nasal plate triangular or crescentiform, generally poorly defined, slightly emarginate  
*Dyslobus* LeConte.
- b*<sup>2</sup>. First ventral suture broadly arcuate; second ventral segment usually much longer than the next two combined; nasal plate very deeply emarginate, strongly defined.....*Adaleres* Casey.
- a*<sup>2</sup>. Metasternal side pieces indistinct, suture obliterated; strial punctures squamigerous; beak stout, broad, separated from head by a distinct impression, eyes strictly lateral.....*Panscopus* Schönherr.

Several distinct facies occur in this tribe, but it is impossible to find characters to draw those together of like facies. There is a striking similarity of appearance between *Orimodema protracta*, *Melbonus denticulatus*, and *Dyslobus segnis*, *lecontei*, and *verrucifer*. *Diamimus*, *Peritaxia*, *Melamomphus* and *Thricomigus* form another group of similar facies. A third distinct group is formed of those species with the alternate intervals elevated in *Dyslobus* (*Amnesia*), *Adaleres*, and *Panscopus*.

#### Genus CIMBOCERA Horn (1876).

*Cimbocera* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 55.

The genus is monotypic, based on *pauper* Horn.

It appears to have as its principal character the narrow third tarsal joint. The seventh funicular joint in some cases may not be contiguous to the club but is usually much broader than the preceding joints and differently clad.



## CIMBOCERA PAUPER Horn.

*Table of varieties.*

1. Abdomen with first suture slightly angulate, but the second segment not greatly longer at the middle than on the sides, second segment laterally subequal to the third and fourth segments together.
  - a*<sup>1</sup>. Nasal plate glabrous broadly rounded behind, slightly emarginate at apex. Beak sulcate. Pubescence long.....var. *pauper* Horn.
  - a*<sup>2</sup>. Nasal plate obsolete; beak smooth, not sulcate. Pubescence long.  
var. *sericea*, new variety.
2. Abdomen with first suture more strongly angulate, second segment longer than the two following together. Nasal plate obsolete; beak smooth or sulcate. Pubescence long.....var. *conspersa* Fall.

The characters which separate these geographical varieties or races are entirely too fine for specific characters, and as variations are to be found in the obsolescence of the nasal plate, the appearance of the seventh funicular joint, the smoothness of the beak, the relative length of the abdominal segments, and the degree of arcuation of the first suture, it is with hesitancy that the writer even ascribes the value of local varieties to them.

## CIMBOCERA PAUPER PAUPER Horn.

The species was described from "Dacota." A series of seven specimens from Cheyenne, Wyoming, answer the description perfectly. This locality belongs to the old Territory of "Dacota."

## CIMBOCERA PAUPER SERICEA, new variety.

In the material at hand this northern mountain form is much more mottled than the typical variety and has a white median vitta on the prothorax. The typical locality must be considered as American Fork Cañon, Utah, from which 13 specimens are at hand. The material also includes 1 specimen from Helena, Montana, 10 from Canon City, 2 from Garland, and 1 from Grand Valley, Colorado. The latter was taken by H. F. Collier, April 5, 1911, injuring apple twigs.

*Type*.—Cat. No. 14633, U.S.Nat.Mus.

## CIMBOCERA PAUPER CONSPERSA Fall.

*Cimbocera conspersa* FALL.

This form was described from Santa Fe, and San Ildefonso, New Mexico. Material is at hand from Santa Fe, Gallup, Las Vegas, and Albuquerque, New Mexico, and from Winslow, Bright Angel Hotel (rim of Colorado Cañon), and Holbrook, Arizona.

At Bright Angel this form was taken on piñon trees (*Pinus edulus*).

## Genus MILODERES Casey (1888).

*Milodores* CASEY, Ann. New York Acad. Sci., vol. 4, 1888, p. 252.

The genus was monotypic, based on *setosus* Casey.

*Table of species of Miloderes.*

1. Elytra with evident, though fine, serial punctures (California).....*setosus* Casey.
2. Elytra without trace of serial punctuation (Arizona).....*viridis* Pierce.

Examination of *setosus* and *viridis* shows that the nasal plate in both species is obsolete.

## Genus DICHOXENUS Horn (1876).

*Dichoxenus*, HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 39.

The genus is monotypic, based on *setiger* Horn.

## DICHOXENUS SETIGER Horn.

This species has a sharply defined concave, glabrous nasal plate with lateral rims and strong basal emargination.

## Genus ORIMODEMA Horn (1876).

*Orimodema* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 43.

The genus is monotypic, based on *protracta* Horn.

## ORIMODEMA PROTRACTA Horn.

The nasal plate in this species is glabrous, depressed and crescent shape or at least emarginate at base.

## Genus AMOTUS Casey (1888).

*Mimetes* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 44 [not Lacordaire].

*Amotus* CASEY, Ann. New York Acad. Sci., vol. 4, 1888, p. 243.

The type of the genus *Mimetes* (Schönherr) Lacordaire is evidently *setulosus* (Schönherr) Lacordaire by original designation, and we hereby designate the type of *Amotus* as *longisternus* Casey. There has been considerable misunderstanding of these genera. Lacordaire and Schönherr associated *Mimetes* with the *Brachyderides*, which are without postocular lobes. The material previously<sup>1</sup> placed by the writer under *Mimetes seniculus* Horn is apparently *Mimetes setulosus* Lacordaire and belongs as Lacordaire placed it, in the Psallidiinae, Epicaerini. The species *Mimetes setulosus* Horn [not Lacordaire] is therefore *Amotus gracilior* Casey. *Mimetes seniculus* Horn must be placed, until recognized, under *Amotus*.

*Table of species of Amotus.*

1. Elytral interspaces flat; median groove of beak feeble in front but with an angulate impression at base between the eyes.....*seniculus* Horn.
2. Alternate elytral interspaces more convex.
  - a<sup>1</sup>. Ocular vibrissæ extremely short and inconspicuous; median impressed groove of beak very feeble and only present near base.....*longisternus* Casey.
  - a<sup>2</sup>. Ocular vibrissæ longer and more conspicuous; beak strongly impressed along the middle.
    - b<sup>1</sup>. Prothorax longer than wide; species 8 mm. long....*longipennis* Pierce.
    - b<sup>2</sup>. Prothorax wider than long; species 5.5 mm. long.....*gracilior* Casey.

<sup>1</sup> Proc. U. S. Nat. Mus., vol. 37, p. 348.

AMOTUS LONGISTERNUS Casey.

The nasal plate is triangular with truncate lateral angles and basal emargination. The area is bounded by a poorly defined rim, is glabrous and strongly punctate.

AMOTUS GRACILIOR Casey.

*Mimetes setulosus* HORN, 1876 [not Lacordaire].

The nasal plate is represented by a broadly triangular, punctate, glabrous ill-defined, basally emarginate area.

AMOTUS LONGIPENNIS Pierce.

The nasal plate is represented by an apically convex, basally emarginate, punctate, glabrous depressed area.

Genus DIAMIMUS Horn (1876).

*Diamimus* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 46.

The genus is monotypic, based on *subsericeus* Horn.

DIAMIMUS SUBSERICEUS Horn.

The nasal plate is a well-defined concave, rimmed, glabrous, minutely punctate, basally emarginate, ogival area. The posterior tibiae have at the apex a double row of bristles forming an inclosed area.

Genus PERITAXIA Horn (1876).

*Peritaxia* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 46.

In the absence of previous type designation we may consider *rugicollis* Horn as type.

The species of this genus have a habitus very easy to recognize. The vestiture is varnished and interspersed with much pubescence. The nasal plate is concave, triangular, rimmed, glabrous and basally emarginate. The tip of the posterior tibiae has only a single row of bristles.

*Table of species of Peritaxia.*

1. Elytral interspaces much wider than striae. Species moderately robust.
  - a<sup>1</sup>. Pubescence short, cinereous, vestiture consisting of very dark piceous scales; ocular lobes distinct but feeble.....*rugicollis* Horn.
  - a<sup>2</sup>. Pubescence long, grayish.
    - b<sup>1</sup>. Prothorax as broad as long, very irregularly, but deeply punctate; size 9 mm.....*hispida* Horn.
    - b<sup>2</sup>. Prothorax transverse, indistinctly punctate; size 5-7.5..*perforata* Casey.
2. Elytral interspaces not wider than strial punctures. Prothorax as long as broad, deeply and regularly punctate. Species very slender. Pubescence long grayish; size 8 mm.....*elongata*, new species.

PERITAXIA ELONGATA, new species.

Described from a single specimen collected in the Chisos Mountains, Brewster County, Tex., June 10, 12, 1908 (Mitchell and Cushman.)

A very slender, elongate species, bristling with long pubescence and clad with a thick varnished covering of scales. Body black,

appendages piceous. Beak slightly larger than head, longer than broad, slightly dilated at tip; nasal plate broadly triangular, basally emarginate, rimmed. Prothorax about as long as broad, as wide as elytra at their widest point, basally and apically truncate, laterally strongly arcuate; ocular lobes absent, but replaced by a fringe of vibrissae; disk closely and deeply punctate. Elytra not wider than prothorax, about two and a half times as long as wide; striæ consisting of large deep punctures, as wide as intervals. The first ventral suture is angulate, but the second segment is not as long as the two following segments at the sides.

*Type*.—Cat. No. 14634, U.S.Nat.Mus.

**Genus ANAMETIS Horn (1876).**

*Anametis* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 43.

The genus is monotypic, based upon (*grisea* Horn) = *granulata* Say.

**ANAMETIS GRANULATA Say.**

*Barynotus granulatus* SAY.

*Anametis grisea* HORN.

*Anametis subfusca* FALL.

This species is at hand from Ontario, Michigan, Wisconsin, South Dakota, Nebraska, Iowa, Indiana, Wyoming, Texas and New Mexico. The writer can not find sufficient characters to even separate the southern forms as a race. The color of the scales, length of pubescence and arrangement are of no value whatever as characters. The breadth of the elytra is very variable. The granulation of the prothorax is variable in degree and as strong in some Canadian and Iowa specimens as in the New Mexico material at hand. The nasal plate is triangular, strongly rimmed, concave, glabrous, and strongly emarginate at base.

**Genus MELBONUS Casey (1895).**

*Melbonus* CASEY, Coleop. Not., pt. VI, 1895, p. 820.

The monotype of the genus is *scapalis* Casey.

*Table of species of Melbonus.*

Ocular lobes and vibrissae lacking.

1. Elytra three-fourths longer than wide.....*scapalis* Casey.
2. Elytra two and one-fourth times longer than wide.....*denticulatus* Pierce.

**MELBONUS DENTICULATUS Pierce.**

The nasal plate is deeply depressed, rimmed, concave, very short but broad and angulate crescentiform.

**Genus MELAMOMPHUS Horn (1876).**

*Melamomphus* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 40.

*Thricomigus* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 48.

The type of *Melamomphus* is *niger* Horn, and of *Thricomigus*, *luteus* Horn, both being monotypic.

Between the types of these two genera there is considerable difference in facies, but the writer has been unable to find a single generic character to separate them. The descriptions are almost identical except as to the direction of the first abdominal suture, and the mucronation of the hind tibiæ. Neither of these characters can be used as they vary in specimens of the same series of the same species. The genus as here presented is therefore a reconstruction based upon the characters which are presented in the table of genera of this tribe. The nasal plate in this genus is depressed, but poorly defined.

*Table of species of Melamomphus.*

I. Apex of posterior tibiæ with a double row of spines forming an inclosed disk.

1. Anterior tibiæ, only, denticulate.

*a*<sup>1</sup>. Species elongate. Prothorax strongly granulato-tuberculate, the tubercles punctured; beak very roughly sculptured.

*b*<sup>1</sup>. Species black; vestiture black; pubescence dense and black; nasal plate triangular, not strongly defined, basally emarginate; humeral angles rectangular, broader than base of prothorax (Nevada).....*niger* Horn.

*b*<sup>2</sup>. Species black; vestiture brown; pubescence dense and brown; nasal plate crescent form, not strongly defined; humeral angles entirely obliterated, not broader than base of prothorax (California).....*elongatus* Horn.

*a*<sup>2</sup>. Species less elongate, more robust.

*c*<sup>1</sup>. Prothorax strongly granulato-tuberculate, the tubercles punctured; beak very roughly sculptured.

*d*<sup>1</sup>. Humeral angles entirely obliterated; species brownish red; nasal plate triangular, emarginate (California).....*sordidus* Horn.

*d*<sup>2</sup>. Humeral angles small, wider than prothorax at base; species black, with brownish vestiture; nasal plate crescent shaped (California),  
*deciduus* Horn.

*c*<sup>2</sup>. Prothorax not strongly granulato-tuberculate.

*e*<sup>1</sup>. Species black, humeral angles small, but wider than prothorax at base; vestiture silvery, pubescence moderately long; nasal plate semielliptical, basally emarginate; posterior tibiæ mucronate at tip (Washington),  
*nigrescens*, new species.

*e*<sup>2</sup>. Species reddish-piceous, humeral angles minute; vestiture brownish, cinereous, pubescence moderately long; nasal plate hemispherical, ill-defined, basally emarginate; alternate intervals sometimes clothed with lighter vestiture; hind tibiæ mucronate in males, mutic in females, first ventral suture straight in males, arcuate in females (Montana, Washington),

*luteus* Horn.

[*tessellatus* Casey probably belongs here.]

2. All tibiæ denticulate; prothorax with punctured tubercles.

*a*<sup>1</sup>. Humeral angles rectangular; nasal plate subtriangular, poorly defined, strongly emarginate (California, Vancouver).....*raucus* Horn.

*a*<sup>2</sup>. Humeral angles obliterated; nasal plate subtriangular, poorly defined, strongly emarginate; alternate intervals sometimes clothed with lighter vestiture (Montana, California).....*alternatus* Horn.

[*granulatus* Casey probably belongs here.]

II. Apex of posterior tibiæ with a single row of spines; anterior and median tibiæ denticulate; prothorax covered with punctured tubercles; humeri angulate; nasal plate crescent shape.....*ciliatus*, new species.

## MELAMOMPHUS NIGER Horn.

A single specimen is at hand answering perfectly to the description. It was collected at Carson City, Nevada, July 30, by Professor Wickham.

## MELAMOMPHUS ELONGATUS Horn.

*Amnesia elongata* HORN.

This species is absolutely congeneric with *niger* and is of exactly the same facies. The single specimen at hand is labeled from California.

## MELAMOMPHUS SORDIDUS Horn.

*Amnesia sordida* HORN.

This species has a slightly different facies, but has no characters of generic value separating it from the preceding group.

## MELAMOMPHUS DECIDUUS Horn.

*Amnesia decidua* HORN.

One specimen labeled California and one from Alameda County, California, have been assigned here. The nasal plate is concave, crescent shaped, and poorly defined.

## MELAMOMPHUS NIGRESCENS, new species.

Described from three specimens from Riparia, Washington, March 22, 1911 (Wash. Exp. Sta. No. 3), transmitted by Mr. M. A. Yothers. Length 6.5 mm.; width 2 mm.

Body black, covered with silvery striate scales, and with long, fine black and white pilosity; appendages reddish.

Head and beak roughly punctate and tuberculate; beak longer than head and separated from it by a broad transverse depression; beak dilated at alæ; scaly vestiture quite close, pubescence sparse. Nasal plate semielliptical, but basally emarginate, depressed, glabrous, more than usually well defined. Genæ truncate. Supports of deciduous pieces of mandibles very prominent. Scrobes subterminal, deep and well defined at apex, but broadening and becoming obsolete at a short distance from the eyes. Scape reaching a little beyond the middle of the eyes; funicle with first joint longer than second, remaining joints becoming shorter than broad; club oval. Prothorax about as long as wide, basally and apically truncate, laterally convex, ocular lobes small, fimbriate; disk granulato-tuberculate; vestiture dense. Elytra narrow; humeral angles small but wider than prothorax at base; intervals broad, flat, densely squamose, sparsely pilose; striae punctures long, shining, approximate, shallow, setigerous. Undersides shallowly, confusedly punctate, sparsely squamose and pilose; first ventral suture straight, second segment not longer than the two following segments; tibiæ mucronate, the anterior denticulate, the posterior with an apical disk inclosed by spines.

*Type*.—Cat. No. 14635, U.S.Nat.Mus.

**MELAMOMPHUS LUTEUS** Horn.*Thricomigus luteus* HORN.

The material before the writer which most nearly answers the description of this species is the female series from Prosser, Washington. The males and females of this series collected April 1, 1910, and transmitted by Mr. M. A. Yothers, belong in different genera according to Horn's table. The writer has selected this series to stand for Horn's species because the females lack a posterior tibial mucro and have the first abdominal suture somewhat arcuate. Specimens are also at hand from Mission, Washington, May 5, 1911.

**MELAMOMPHUS TESSELATUS** Casey.*Amnesia tessellata* CASEY.

No specimens are at hand.

**MELAMOMPHUS RAUCUS** Horn.*Amnesia rauca* HORN.

Material of this species is at hand from San Francisco County and Alameda County, California, and Victoria, Vancouver Island.

**MELAMOMPHUS ALTERNATUS** Horn.*Amnesia alternata* HORN.

This species is to all appearances the same as *luteus*, but differs only by the denticulation of the tibiæ. The material at hand is from Helena, Montana, and Siskiyou County, California.

**MELAMOMPHUS GRANULATUS** Casey.*Amnesia granulata* CASEY.

The specimen from Siskiyou County, California, just mentioned, may possibly be this.

**MELAMOMPHUS CILIATUS**, new species.

Described from a single specimen taken among cones of *Cupressus macrocarpa* in Monterey County, California, February 8, 1904, by Coleman.

Length 8 mm.; width 3 mm.

Body piceous black, covered with coppery scales, and with long, fine pubescence; appendages lighter in color.

Head and beak roughly rugulosely punctate; beak longer than head and separated from it by a broad transverse depression, dilated at alæ; scaly vestiture sparse, especially on beak; pilosity sparse but long. Nasal plate depressed, glabrous, crescent-shape. Genæ truncate. Scrobes subterminal, deep, and well defined, but rapidly evanescent posteriorly. Scape reaching beyond middle of eyes; first two funicular joints elongate subequal, remaining joints diminishing in

length and increasing in breadth. Prothorax broader than long, basally and apically truncate, laterally very convex; ocular lobes moderate with very short fimbriæ; disk densely punctate-tuberculate, vestiture sparse. Elytra elongate, sides almost parallel; humeri small but strongly angulate, wider than prothorax at base; intervals broad, slightly convex, densely squamose and pilose; stria punctures large, round, separated, setigerous; striæ not impressed. Undersides densely, confusedly, and shallowly punctate; sparsely squamose, the scales narrower than above, sparsely pilose, the hairs finer than above. First ventral suture angulate at middle; second segment not longer than third and fourth together. Tibiæ mucronate and denticulate, the posterior apically with a single row of spines.

*Type*.—Cat. No. 14636, U.S.Nat.Mus.

Genus *DYSLOBUS* LeConte (1869).

*Dyslobus* LeConte, Ann. Mag. Nat. Hist., 1869, p. 380.

*Amnesia* Horn, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 48 (typical part).

The type of *Dyslobus* was designated by Horn (1876) as *segnis* LeConte. The type of *Amnesia* as originally designated was *granicolis* LeConte.

It is no longer possible to separate these genera as distinct.

*Table of species of Dyslobus.*

I. Funicular joints elongate; large species usually over 8 mm. long.

1. Elytral intervals alternating in convexity.

*a*<sup>1</sup>. Serial punctures setigerous (*Amnesia* proper).

*b*<sup>1</sup>. Elytra sparsely but strongly tuberculose throughout, the sutural prominence at the summit of the apical declivity very pronounced; anterior tibiæ denticulate.....*tumidus* Casey.

*b*<sup>2</sup>. Elytra not tuberculose.

*c*<sup>1</sup>. Sutural prominence of elytra moderate or feeble.

*d*<sup>1</sup>. Terminal spur of posterior tibiæ long, stout, and prominent; body oval, rather robust at least in the female; all tibiæ denticulate.

*granicolis* LeConte.

*d*<sup>2</sup>. Terminal spur of posterior tibiæ very small, nearly obsolete; body narrow and elongate at least in male; antennal scape very long and slender, slightly passing the posterior margin of the eye; anterior tibiæ strongly denticulate.

*e*<sup>1</sup>. Legs black, anterior femora distinctly elongated in the male.

*discors* Casey.

*e*<sup>2</sup>. Legs red, the anterior femora not elongated in the male.

*sculptilis* Casey.

*c*<sup>2</sup>. Sutural prominence strong, doubly tuberculose; anterior tibiæ denticulate.....*bituberculatus*, new species.

*a*<sup>2</sup>. Serial punctures squamigerous; all tibiæ denticulate; sutural prominence of elytra keeled.....*denticulatus*, new species.

2. Elytral intervals not alternating in convexity throughout their length; anterior and median tibiæ denticulate (*Dyslobus* proper).

*a*<sup>1</sup>. Serial punctures squamigerous; elytral suture prominent and keeled near the summit of the posterior declivity.



- b*<sup>1</sup>. Serial punctures small; hind tibiae very strongly bent near the apex in the male.....*segnis* LeConte.
- b*<sup>2</sup>. Serial punctures much coarser; scales brilliantly metallic in color; hind tibiae of the male only very feebly arcuate toward apex...*lecontei* Casey.
- a*<sup>2</sup>. Serial punctures setigerous; elytral suture not keeled near the apex, but with a small and abruptly-elevated double tubercle; scales in great part opalescent.....*verrucifer* Casey.
- II. Only the first two or three funicular joints elongate, the remainder moniliform.
3. Elytral intervals alternating in convexity.
- a*<sup>1</sup>. Serial punctures setigerous; elytra not tuberculose; sutural prominence moderate or feeble; all tibiae minutely denticulate.....*debilis* Casey.
- a*<sup>2</sup>. Serial punctures squamigerous.
- c*<sup>1</sup>. Anterior tibiae denticulate.....*squamipunctatus* Pierce.
- c*<sup>2</sup>. All tibiae denticulate.....*decoratus* LeConte.
4. Elytral intervals not alternating in convexity throughout their length; elytral suture not prominent or keeled near the summit of the posterior declivity; serial punctures setigerous; prothorax densely tuberculate.....*ursinus* Horn.

The species of this complex genus might be divided into two groups on the basis of the antennal funicle, or the alternation of elytral intervals, or the vestiture of the serial punctures, but obviously none of these characters is of generic value. The antennal character most nearly associates those of like appearance. The combinations of the three characters above mentioned divide the genus into seven closely associated groups of species. The writer feels that at present this is the most satisfactory arrangement which can be given the genus.

**DYSLOBUS TUMIDUS** Casey.

*Amnesia tumida* CASEY.

The nasal plate is a poorly defined triangular depressed area.

**DYSLOBUS GRANICOLLIS** LeConte.

*Amnesia granicollis* HORN.

To conform with Col. T. L. Casey's restrictions, only the Oregon, Washington, and Vancouver material is to be placed here. The two following species are so close that the writer does not believe they should be kept separate.

The nasal plate is a hemispherical, concave, depressed punctate, poorly defined area with emarginate base.

**DYSLOBUS DISCORS** Casey.

*Amnesia discors* CASEY.

A single specimen from Los Gatos, California, may be assigned to this species. The nasal plate is as in the preceding species.

**DYSLOBUS SCULPTILIS** Casey.

*Amnesia sculptilis* CASEY.

Material from Eureka and Fieldbrook, California, may be assigned to this species. The nasal plate is as in the preceding two species.

## DYSLOBUS BITUBERCULATUS, new species.

Described from two specimens collected June 6 and 7 at North Bend, British Columbia (Hubbard and Schwarz collection).

Length, 10 mm.; width, 4 mm.

Black, densely clad with silvery and light pinkish rounded scales and with interspersed short subrecumbent setæ. Legs and antennæ reddish piceous to black.

Beak but little longer than head from which it is separated by a shallow transverse depression; vestiture densest on vertex, becoming sparsest at apex of beak; setæ fine and recumbent; surface very coarsely rugosely punctate; nasal plate poorly defined, crescentiform. Scrobes subterminal, deep, and sharply defined at apex, but evanescent behind; scape almost reaching posterior edge of eyes; funicular joints all elongate; the first and second longest, seventh longer than sixth; club narrow, pointed, as long as the first two funicular joints, distinctly annulate. Eyes oval, narrowest below. Prothorax a little wider than long, truncate at base and apex, laterally convex, transversely constricted before apex; ocular lobes broad but not strong, vibrissæ short, golden. Elytra widest behind middle, humeri small but distinct; interspaces convex, alternately more so; striæ not impressed; stria punctures setigerous, large, round, deep, and widely separated; scaly vestiture dense, setæ small and sparse; sutural interspaces separately tuberculate at summit of apical declivity. Undersides shallowly punctate, densely squamose with longer scales; the third and fourth abdominal segments sparsely clad, the fifth very strongly setigerous. Anterior and median tibiæ denticulate, anterior and posterior tibiæ strongly bent near apex, all tibiæ mucronate, apical area of posterior tibiæ very narrow.

*Type*.—Cat. Nat. 14637, U.S.Nat.Mus.

## DYSLOBUS DENTICULATUS, new species.

Described from two specimens collected June 19, 1903, on Bair's ranch, Redwood Creek, Humboldt County, Cal., by H. S. Barber.

Length, 10–11 mm.; width, 4 mm.

Black, variegated with black and aeneus round scales, with interspersed short, recumbent setæ. Legs piceous.

Beak but little longer than head from which it is separated by a shallow transverse depression; vestiture densest on vertex, sparsest at apex of beak; setæ sparse, fine, recumbent. Surface rugosely punctate; nasal plate hemispherical, concave, poorly defined, basally notched at middle. Scrobes subterminal, deep, and sharply defined at apex, but evanescent behind; scape reaching posterior edge of eyes; funicular joints elongate, the first and second longest, seventh longer than sixth; club narrow, pointed, longer than the last two funicular joints. Eyes oval, narrowest below. Prothorax wider than

large, truncate at base, sides almost parallel, narrowed obliquely to base and apex; transversely impressed before apex; ocular lobes broad but not strong, vibrissæ short, black. Elytra with sides parallel in median half, narrowed at base and to apex; humeri small but distinct; interspaces convex, alternately more so; striæ shallowly impressed; stria puncture squamigerous, large, round, widely separated; scaly vestiture dense, tessellate; setæ black, curved, recumbent; sutural interspaces keeled on summit of apical declivity. Undersides densely squamose with lighter scales, moderately pilose with recumbent hairs; anterior tibiæ bent near apex; all tibiæ denticulate and mucronate; apical area of posterior tibiæ elliptical.

*Type.*—Cat. No. 14638, U.S.Nat.Mus.

**DYSLOBUS SEGNIS** LeConte.

The nasal plate is a large, triangular, longitudinally depressed, rimmed, impressed, glabrous, basally emarginate area.

**DYSLOBUS LECONTEI** Casey.

The nasal plate is somewhat raised, poorly defined, with both edges arcuate, and lateral ends rounded, surface minutely punctate.

**DYSLOBUS VERRUCIFER** Casey.

The nasal plate is poorly defined, the boundary being broadly elevated but not ridged or rimmed, the area depressed, minutely punctate and subcrescentiform.

**DYSLOBUS DEBILIS** Casey.

*Amnesia debilis* CASEY.

Material from Vancouver, Oregon, and Washington is at hand. The latter was formerly ascribed by the writer to *sculptilis*. The nasal plate is small, depressed, shining, crescentiform, and fairly sharply defined.

**DYSLOBUS SQUAMIPUNCTATUS** Pierce.

*Amnesia squamipunctata* PIERCE.

The nasal plate is broadly angulate crescentiform, depressed, and poorly defined.

**DYSLOBUS DECORATUS** LeConte.

*Amnesia decorata* HORN.

The nasal plate is small, depressed, crescentiform, and poorly defined.

**DYSLOBUS URSINUS** Horn.

*Amnesia ursina* HORN.

The nasal plate is moderately large, triangular, with curved sides; glabrous, punctate, emarginate, and well defined.

## Genus ADALERES Casey (1895).

*Adaleres* CASEY, Coleop. Not., pt. VI, 1895, p. 816.

In the absence of previous type designation the type of this genus is hereby designated as *ovipennis* Casey.

Table of species of *Adaleres*.

The following table is taken entire from Colonel Casey's treatment of the genus, and is included merely to make the present series of tables to this tribe complete.

1. Humeri broadly rounded; elytral intervals not alternating in convexity or only slightly so near the apex; pronotum nearly smooth and densely and evenly squamose.....*ovipennis* Casey.
2. Humeri oblique, obtusely prominent at a slight distance behind the base; elytra more oblong and less oval, the intervals alternately more convex, the suture prominently keeled at the posterior declivity; pronotum coarsely granulose and irregularly squamose.....*humeralis* Casey.

## ADALERES OVIPENNIS Casey.

Material presumably of this species is at hand from Los Angeles, San Diego, and Rainbow, California. Positive identification of the females can not be made. The male nasal plate is very deeply roundly emarginate, the rim being very close to the anterior edge at sides, but more broadly and roundly arcuate than the emargination; the area is concave and lightly punctate.

## ADALERES HUMERALIS Casey.

Material is at hand only from Los Angeles, California. Some of the specimens formerly classed here belong to the preceding species. The male nasal plate is deeply triangularly emarginate, and the rim is also angulate, but much more sharply so; the area is depressed and lightly punctate.

## Genus PANSCOPUS Schönherr (1842).

*Panscopus* SCHÖNHERR, Gen. et Sp. Curc., vol. 6, 1842, pt. 2, p. 266.

*Phymatinus* LECONTE, Ann. Mag. Nat. Hist., 1869, p. 382.

*Nocheles* LECONTE, Amer. Nat., July, 1874, pp. 453, 456.

*Nomidus* CASEY, Coleop. Not., pt. VI, 1895, pp. 818-819.

The type of *Panscopus* is *erinaceus* Say by virtue of original designation, of *Phymatinus* is *gemmatus* LeConte because it is monotypic, of *Nocheles* is *torpidus* LeConte by present designation, and of *Nomidus* is *abruptus* Casey because it is monotypic. It appears advisable to unite these genera into a single genus, and give each subgeneric rank.

Table of species of *Panscopus*.

- I. Articular surfaces of the hind tibiæ oblique (corbels open).
  1. Alternate elytral intervals elevated except in *sulcirostris*, which has all elevated.
    - a<sup>1</sup>. Abdomen with four segments in the female; humeri obliquely truncate.  
subgenus *Nocheles*.
    - b<sup>1</sup>. Funicle sparsely setose not squamose, first two joints very elongate. Third to seventh joints moniliform; scape sparsely clad with narrow scales; nasal plate ogival, rimmed, concave, basally emarginate.  
*torpidus* LeConte.

*a*<sup>2</sup>. Abdomen with five segments in both sexes.

*c*<sup>1</sup>. Thorax and elytra covered with punctured tubercles; beak elongate; humeri rounded.....subgenus *Phymatinus*.

*d*<sup>1</sup>. Beak finely sulcate; funicular joints elongate, setose; nasal plate ogival, strongly medially depressed, apically angulately emarginate; elytral intervals, only alternately tuberculate.....*gemmatus* LeConte.

*d*<sup>2</sup>. Beak broadly and very deeply sulcate; funicular joints 3-7 moniliform; nasal plate elongate triangular, concave, slightly emarginate; all elytral intervals tuberculate.....*sulcistrostris*, new species.

*c*<sup>2</sup>. Elytra not tuberculate; beak shorter and stouter; humeri small, angulate. subgenus *Panscopus*.

*d*<sup>1</sup>. Even elytral intervals with a few setae near apical declivity; funicle setose, first two joints elongate, others moniliform; nasal plate broadly ogival, rimmed, concave, apically slightly emarginate....*erinaceus* Say

*d*<sup>2</sup>. Even elytral intervals without setae; funicle setose, all joints longer than broad, nasal plate ogival, rimmed, strongly medially depressed, apically angulately emarginate.....*alternatus* Schaeffer.

2. Alternate elytral intervals hardly elevated, humeri rounded.

subgenus *Panscopidius*.

*a*<sup>1</sup>. Thorax only, tuberculate; beak moderately elongate; all elytral intervals setose; funicle closely setose, first two joints elongate, others moniliform; nasal plate ogival, strongly medially depressed, apically angulately emarginate.

*b*<sup>1</sup>. Elytral vestiture very dense; only posterior tibiae plainly denticulate.

*squamosus*, new species.

*b*<sup>2</sup>. Vestiture sparser; all tibiae strongly denticulate.....*dentipes*, new species.

II. Articular surfaces of the hind tibiae terminal, almost inclosed (corbels cavernous).

3. Alternate elytral intervals elevated and setigerous; even intervals without setae .....subgenus *Nomidus*.

*a*<sup>1</sup>. Beak not carinate; humeri rounded. First two funicular joints elongate, others moniliform; prothorax finely impressed on median line; nasal plate ogival, rimmed, concave, deeply roundingly emarginate...*abruptus* Casey.

*a*<sup>2</sup>. Beak carinate; prothorax widely impressed on median line.

*b*<sup>1</sup>. Humeri minutely angulate. All funicular joints longer than wide; species . 9 mm. long; nasal plate ogival, rimmed, concave deeply emarginate.

*impressus*, new species.

*b*<sup>2</sup> Humeri rounded; only first two funicular joints longer than wide; species 6.5 mm. long; nasal plate short, ogival, concave, rimmed, angulately emarginate.....*ovalis*, new species.

4. Alternate elytral intervals not conspicuously elevated; all intervals setigerous.

subgenus *Neopanscopus*.

*a*<sup>1</sup>. Beak elongate, considerably longer than head, smooth, not carinate; humeri rounded.....*æqualis* Horn.

*b*<sup>1</sup>. Prothorax deeply sulcate; nasal plate broadly rounded, punctate, rather poorly defined.....var. *vestitus* Casey.

*b*<sup>2</sup>. Prothorax less deeply sulcate; nasal plate ogival, more acute at apex.

var. *æqualis* Horn.

*a*<sup>2</sup>. Beak not much longer than head, broad.

*c*<sup>1</sup>. Beak smooth, not carinate; humeri rounded; nasal plate very poorly defined by an arcuate raised area, punctate, emarginate.

*squamifrons*, new species.

*c*<sup>2</sup>. Beak carinate; humeri minutely angulate; nasal plate defined by an oval rim, basally truncate and notched, concave.....*carinatus*, new species.

By interpreting *Panscopus* in the broader sense as above we obtain a generic aggregation of nearly related species, which may however

be conveniently arranged in six subgenera. By the formerly accepted method of arrangement we would be compelled to have seven genera for eleven species. Such a system would soon lead to nothing but chaos.

Subgenus **NOCHELES** Horn.

*Nocheles* HORN.

This subgenus is adequately defined in the table preceding. The type is *torpidus* LeConte.

PANSOPUS (NOCHELES) TORPIDUS LeConte.

*Nocheles torpidus* (LECONTE) HORN.

This species is especially remarkable for the loss of the third or fourth ventral segment in the female, which is also much more robust than the male. Six specimens of each sex are at hand from Olympia, Washington, and Portland, Oregon. The material from Alta, Utah, formerly referred here is probably *abruptus* Casey.

Subgenus **PHYMATINUS** LeConte.

*Phymatinus* LECONTE.

This subgenus is adequately defined in the table preceding. The type is *gemmatus* LeConte.

PANSOPUS (PHYMATINUS) GEMMATUS LeConte.

*Phymatinus gemmatus* LECONTE.

This is the most beautiful species in the genus and by its assemblage of characters might be thought to merit generic rank. On close inspection it is found to possess only one character, its tuberculation, which radically separates it from all the other species, except the following.

PANSOPUS (PHYMATINUS) SULCIROSTRIS, new species.

This very extraordinary species is described from a single specimen collected at Oak Point, Washington, April 30, 1910, by M. A. Yothers (Wash. Exp. Sta. No. 5). In coloration it resembles certain species of European *Otiorhynchus* but in structure it is a near relative of *P. gemmatus* LeConte.

Length 9.5 mm.; width 4 mm. Color deep black, tarsi piceous; vestiture of very sparse golden scales, arranged in patterns; surface extremely tuberculate.

Head smooth to a transverse depression between the posterior portions of the eyes, with a few scales set in shallow punctures. From this transverse depression the front and beak are very roughly rugose and punctate. The deep narrow frontal sulcus on the beak becomes broader and deeper but again narrows toward the tip and becomes a finely sulcate carina which divides to form the nasal plate; the sulcus is finely and sparsely squamose. The borders of the sulcus are sparsely punctured carinae. The sides of the beak are deeply and densely rugosely punctate. The space in front of the insertion of the

antennæ is depressed. The nasal plate is elongate triangular, distinctly rimmed, concave, emarginate. The scrobes are deep at base but rapidly evanescent at a considerable distance from the eyes; the alæ are prominent, causing a considerable widening of the beak at apex. Scape strongly clavate not reaching the middle of the eyes; funicle with the first two joints elongate, the remainder moniliform, widening toward club; club short, oval, but little longer than the two preceding joints. Eyes rounded, strongly prominent, convex. Two little areas of scaly vestiture bordering the inner edges of the eyes are the only striking areas of vestiture on the head or beak. Prothorax as long as wide, convex at base, truncate at apex, slightly convex at sides; ocular lobes broad and very slightly convex, not prominent, vibrissæ lacking; surface above very strongly tuberculate with punctured tubercles which bear tiny hairs in the punctures; median lines slightly indicated; scaly vestiture sparse, arranged principally in broad lateral fasciæ and two transverse fasciæ from these at the middle turning forward near the median line of the thorax and extending to the apex. Elytra oval, with rounded humeri; interspaces all tuberculate with flattened shining tubercles each punctured behind, with a tiny seta in each puncture; stria punctures very shallow; scales arranged principally in humeral fasciæ extending obliquely back to the middle of the elytral suture, and in an apical fascia extending transversely from near the suture to the sides at the vertex of the apical declivity and then passing along the sides to the apex. Undersides closely, shallowly punctate, without vestiture except small patches on the sides of the metasternum and the second abdominal segment. Metasternal side pieces covered by the elytra (in the type the pin has pushed the abdomen down and exposed the side pieces). First abdominal suture straight; the second segment transversely impressed at its middle, about as long as the two following. Femora clavate, the middle and hind pairs externally clothed with a patch of golden scales near apex; femora punctate, each puncture setigerous; tibiæ mucronate, minutely denticulate, spinose; posterior corbels oblique.

*Type*.—Cat. No. 14639, U.S.Nat.Mus.

**Subgenus PANSCOPUS Schönherr.**

This subgenus is adequately defined in the table preceding. The type is *erinaceus* Say.

**PANSCOPUS (PANSCOPUS) ERINACEUS Say.**

This species as formerly interpreted by the writer contained also *alternatus* and *carinatus*. The only specimens which fit the original description are from Buffalo, New York; New Hampshire; Washington, District of Columbia; Plummers Island, Maryland; and Berkeley, West Virginia.

**PANSCOPUS (PANSCOPUS) ALTERNATUS** Schaeffer.

Five specimens from Round Knob, North Carolina, June 24, 26 (Hubbard and Schwarz), are undoubtedly this species.

**PANSCOPIDIUS**, new subgenus.

This new subgenus is erected to contain two species of which *squamosus* is the type. It most nearly approaches *Neopanscopus* in facies. The definition in the table is sufficient.

**PANSCOPUS (PANSCOPIDIUS) SQUAMOSUS**, new species.

Described from a single specimen from Hilgard, Oregon (Wickham collection).

Length 7 mm.; width 2.7 mm. Piceous black, densely clad with golden or brownish scales and setæ; appendages reddish piceous.

Beak longer than head, with sides parallel from eyes to alæ, alæ prominent; nasal plate ogival, strongly medially depressed, apically angulately emarginate. Head and beak very coarsely rugulose punctate, coarsely clad with elongate squamiform setæ. Scrobes deep, strongly visible from above at alæ, laterally becoming rapidly evanescent; scape elongate, reaching posterior margin of eyes, densely setose with decumbent golden setæ; funicle closely setose, the first two joints elongate, the others moniliform; club oval, about equal in length to the three preceding joints. Eyes lateral, pointed below, and very little convex.

Prothorax about as long as wide, apically and basally truncate, laterally strongly convex, widest in front of middle, transversely finely impressed just behind apex; median line impressed; ocular lobes small; surface very rough with punctured tubercles, most of which bear a squamiform seta in the puncture. Scutellum minute. Elytra with rounded humeri, sides parallel to the posterior declivity and hardly wider than thorax at its widest point; alternate intervals faintly more prominent, intervals wider than striæ; striæ not impressed, punctures large, rounded, separated by own diameter, each filled with a large oval, striate scale; intervals densely clothed with smaller oval, striate scales, and with more sparsely placed striate, squamiform setæ. Under sides more finely and more sparsely clothed, coarsely punctate. Metasternal side pieces not visible. First abdominal suture straight; second segment hardly longer than either the third or fourth. Femora clavate, lightly punctate, lightly squamose; tibiæ mucronate, the posterior denticulate; posterior corbels oblique. The anterior tibiæ are very obscurely denticulate.

*Type*.—Cat. No. 14640, U.S.Nat.Mus.



**PANSCOPUS (PANSCOPIDIUS) DENTIPES**, new species.

Described from a single specimen collected by J. W. Hungate at Pullman, Washington, April 12, 1894.

It resembles *squamosus* in many respects and is of the same size and form. It differs in the following respects: Body black, sparsely clad with scales and setæ; appendages reddish. Alternate elytral intervals not more prominent; intervals about the same width as the striæ; striae punctures large, separated by much less than their own width; intervals very sparsely squamose and setose. Undersides closely punctate, very finely setose. First abdominal suture arcuate; second segment longer than either third or fourth. All tibiæ denticulate.

*Type*.—Cat. No. 14641, U.S.Nat.Mus.

**Subgenus NOMIDUS** Casey.

*Nomidus* CASEY.

The type of this subgenus is *abruptus* Casey.

**PANSCOPUS (NOMIDUS) ABRUPTUS** Casey.

*Nomidus abruptus* CASEY.

Seven specimens from Alta, Utah, June 28, 29 (Hubbard and Schwarz), appear to be this species.

**PANSCOPUS (NOMIDUS) IMPRESSUS**, new species.

Described from three specimens from Stone Creek, Lee County, Virginia (Hubbard and Schwarz).

Length 8.5–9.5 mm.; width 4–4.5 mm. Black, very densely clad with aeneous to yellowish brown scales, with intermixed setæ; appendages reddish-piceous. Beak longer than head, sides gradually widening to alæ, which are quite prominent; nasal plate ogival, rimmed, concave, deeply angulately emarginate. Head and beak moderately roughly punctate, dimly tricarinate, densely clothed with overlapping æneous, striate scales, and sparsely with squamiform setæ. Scrobes deep, visible from above in entire length, evanescent behind; scape densely squamose, not reaching posterior margin of eye; funicular joints elongate, shining, sparsely setose, the first two longest; club but little longer than the two preceding joints. Eyes oval, pointed below, lateral, very slightly convex. Prothorax wider than long, apically sinuate, basally truncate, laterally strongly convex, widest slightly before middle, transversely finely impressed before apex; ocular lobes wide but short; median line widely impressed; surface very rough with punctured setigerous tubercles, which are completely hidden by the dense, overlapping vestiture of æneous, striate scales. Scutellum minute, triangular. Elytra with

humeri minutely angulate, sides convex, wider than prothorax; alternate intervals strongly convex, even intervals flat; all intervals wider than striæ; striæ not impressed, punctures shallow, rounded, widely separated, each filled with an oval striate scale; intervals and strial area between punctures densely closely clothed with overlapping striate scales, tessellate in shades of brown; alternate intervals with numerous elongate, truncate squamiform setæ. Undersides very densely squamose and sparsely setose. Metasternal side pieces not visible. First abdominal suture angulate at middle; second segment almost as long as the next two. Legs densely squamose, sparsely setose; femora clavate; tibiæ strongly mucronate and finely denticulate; posterior corbels oblique, but inclosed and tarsi attached at apex.

A single specimen labeled Indiana (H. Soltau) is also at hand.

*Type*—Cat. No. 14642, U.S.Nat.Mus.

**PANSCOPUS (NOMIDUS) OVALIS, new species.**

Described from a single specimen from Banff Hot Springs, Alberta, June 10 (Hubbard and Schwarz).

Length 6 mm.; width 3 mm. Piceous, densely clad with reddish piceous, black or straw colored, striate scales and sparsely with straw-colored setæ; appendages piceous. Beak considerably longer than head, sides parallel from eyes to alæ, which are quite prominent; nasal plate short, ogival, concave, rimmed, angulately emarginate, shining, punctate. Head and beak rugulosely punctate, beak with a very shining glabrous median carina which is grooved and forked at apex and foveate between the eyes; lateral carinæ are also apparent but densely squamose; occiput clothed with flat brownish scales, but from the upper edge of the eyes to the triangular area inclosed by the forks of the median carina the vestiture is dense consisting of straw-colored, striate rounded scales and sparser setæ; the apical triangular area is glabrous and includes the nasal plate. Scrobes deep, visible from above at alæ, becoming very shallow near eyes; scape short, densely squamose, barely passing anterior margin of eyes; funicle short, setose and pubescent, only the first two joints longer than broad, others moniliform, becoming broader toward apex; club as long as three preceding joints. Eyes oval, pointed below. Prothorax wider than long, apically broadly emarginate, basally truncate, laterally convex, with a fine impression behind apex; ocular lobes small but prominent; median line widely impressed; surface very rough with punctured setigerous tubercles, which are almost completely hidden by the vestiture of aeneous brown striate scales. Scutellum not visible. Elytra with humeri rounded; sides but slightly convex to posterior declivity; but little over one-half longer than wider; alternate intervals convex, even intervals flat, all

wider than the striæ; striæ not impressed, punctures rounded, distant at least their own diameter; each filled with a round, striate scale; surface densely covered with overlapping reddish brown or black scales; alternate intervals with numerous golden striate squamiform setæ. Under sides densely clothed with dark reddish brown scales and with numerous squamiform setæ. Metasternal side pieces not visible. First ventral suture slightly arcuate; second segment almost as long as the two following. Legs squamose sparsely setose with lighter colored scales; femora clavate; tibiæ mucronate, the anterior minutely denticulate; corbels closed.

*Type*.—Cat. No. 14643, U.S.Nat.Mus.

**NEOPANSCOPUS**, new subgenus.

This subgenus is defined in the preceding table. The type is *æqualis* Horn.

**PANSCOPUS (NEOPANSCOPUS) ÆQUALIS** Horn.

*Nocheles æqualis* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 55

*Nocheles cinereus* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 55.

Horn's tabular name does not agree with the name used in the description, the latter being evidently the name intended. Material is at hand from National Park, and Green River, Wyoming; Montana; Utah; Tonasket, Washington, and California.

**PANSCOPUS (NEOPANSCOPUS) ÆQUALIS VESTITUS** Casey.

*Nocheles vestitus* CASEY.

Two Nevada specimens are at hand labeled as Colonel Casey's species, and answering the description, but it does not seem that they merit more than varietal rank, if that. These specimens were formerly arranged by the writer under *æqualis* proper.

**PANSCOPUS (NEOPANSCOPUS) SQUAMIFRONS**, new species.

Described from a single specimen from Placer County, California, June (Koebele).

Length 7 mm.; width 2.5 mm. Piceous, densely covered with reddish piceous, and straw-colored striate scales, and sparsely with reddish piceous and straw-colored setæ. Beak longer than head, sides parallel from eyes to alæ, which are prominent; nasal plate very poorly defined by an arcuate raised area, punctate, emarginate. Head and beak strongly punctate, not carinate, densely squamose and sparsely setose with mixed scales, but with a light patch behind the eyes. Scrobes deep, visible from above, short and evanescent at a distance from eyes; scape short, densely squamose, not reaching middle of eye; funicle short, setose and pubescent, the first two joints only, elongate, others moniliform; club oval, about equal to the three

preceding joints. Eyes oval, pointed below, very slightly convex, lateral. Prothorax wider than long, truncate basally and apically, laterally convex, with a fine constriction behind apex; ocular lobes strong, broad, vibrissæ minute; median line shallowly impressed; surface smoother, densely squamose, sparsely setose, scales brown, setæ straw-colored. Scutellum minute, triangular. Elytra with humeri rounded; sides parallel in half their length; about three-quarters longer than wide; intervals convex, but not alternating in convexity, wider than striæ; striæ fine, impressed, punctures small, distant about their diameter, each filled with a scale; surface densely clothed with brown scales, mottled with straw-colored scales, especially on the sides and declivity; setæ elongate, brown. Undersides and legs densely squamose, sparsely setose with light-colored scales. Metasternal side-pieces not visible. First ventral suture arcuate at middle; second segment as long as two following. Femora clavate; tibiæ internally sparsely spinose; corbels closed.

*Type*.—Cat. No. 14644, U.S.Nat.Mus.

**PANSCOPUS (NEOPANSCOPUS) CARINATUS**, new species.

Described from two specimens from Detroit, Michigan, June (Hubbard and Schwarz).

Length 7 mm.; width 3 mm. Piceous, densely clothed with yellowish and brownish æneous, striate scales and sparsely setose with brown bristles; antennæ red. Beak longer than head, gradually increasing in width to alæ; nasal plate defined by an oval rim, basally truncate and notched, concave. Head and beak strongly rugulosely punctate, separated by a deep, broad, arcuate impression; beak strongly carinate, with a large apical triangular, glabrous, punctate area containing the nasal plate; surface densely squamose with æneous scales, darker on vertex, and sparsely setose with curved bristles. Scrobes deep, visible from above in entire length, evanescent near eyes; scape reaching middle of eye, squamose and setose; funicle elongate, shining, sparsely setose, all joints longer than wide; club oval, little longer than the two preceding joints. Eyes lateral, slightly convex, oval, pointed below. Prothorax wider than long, apically emarginate, basally truncate, laterally broadly convex, constricted behind apex; ocular lobes short and broad, without fimbriæ; surface covered with punctured setigerous tubercles and densely squamose; median line broadly impressed; scales mottled but lighter on sides. Scutellum minute, triangular. Elytra with humeri minutely angulate; sides slightly convex; over one-half longer than wide; intervals convex, the alternate ones visibly a little more so; all wider than striæ; striæ not impressed, punctures round, closer than their own diameters, each filled with a round striate scale; surface

densely squamose with mottled scales, all intervals setigerous, undersides densely clothed with lighter scales, sparsely setose, metasternal side-pieces not visible. First ventral suture slightly arcuate; second ventral segment not as long as the two following. Legs squamose; femora short and strongly inflated; tibiæ mucronate, denticulose and spinose; corbels cavernous.

*Type*.—Cat. No. 14645, U.S.Nat.Mus.

**DIROTOGNATHINÆ**, new subfamily.

Genus **DIROTOGNATHUS** Horn (1876).

*Dirotognathus* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 79.

The genus is monotypic, based on *sordidus* Horn.

Subfamily **PROMECOPINÆ** Pierce (1911).

*Table of genera of Promecopinæ.*

1. Beak strongly dilated at tip; scrobes meeting beneath the eyes; mesosternum protuberant.....*Colecerus* Schönherr.
2. Beak very feebly dilated, cylindrical, flattened; scrobes not meeting beneath the eyes, but turning forward; mesosternum not protuberant.
  - a*<sup>1</sup>. Elytra broadly oval, scutellum small; metasternum short.  
*Aracanthus* Schönherr.
  - a*<sup>2</sup>. Elytra oblong, broader at base than the thorax, scutellum transverse; metasternum moderately long .....*Eudiagogus* Schönherr.

Genus **COLECERUS** Schönherr (1840).

*Colecerus* SCHÖNHERR, Gen. et Sp. Curc., vol. 5, 1840, pt. 2, p. 928.

*Coleocerus* GEMMINGER and HAROLD, Cat. Coleopt., vol. 8, 1871, p. 2374.

The originally designated type is *setosus* Schönherr, of Mexico.

Genus **ARACANTHUS** Schönherr (1840).

*Aracanthus* (SAY) SCHÖNHERR, Gen. et Sp. Curc., vol. 5, 1840, pt. 2, p. 822.

The originally designated type is *pallidus* Say.

Genus **EUDIAGOGUS** Schönherr (1840).

*Eudiagogus* SCHÖNHERR, Gen. et Sp. Curc., vol. 6, 1840, pt. 1, p. 307.

The originally designated type is *episcopalis* Gyllenhal, of Brazil.

Subfamily **TANYMECINÆ** Pierce (1911).

*Table of tribes of Tanymecinæ.*

1. Ocular vibrissæ always present; front coxæ contiguous. .TANYMECINI Horn (1876).
2. Ocular vibrissæ frequently lacking; front coxæ separated.  
**PANDELETEINI**, new tribe.

## Tribe TANYMECINI Horn (1876)

## Table of genera of Tanymecini.

1. Thorax feebly lobed behind the eyes, and bisinuate at base; eyes transversely oval, pointed beneath ..... *Pachnæus* Schönherr.
2. Thorax not lobed, base truncate, eyes round or longitudinally oval.
  - a*<sup>1</sup>. Anterior femora normal, tibiæ simple.
    - b*<sup>1</sup>. Posterior coxæ moderate in size, normally separated ..... *Tanymecus* Germar.
    - b*<sup>2</sup>. Posterior coxæ small, very widely separated.
      - c*<sup>1</sup>. Ocular vibrissæ almost obsolete ..... *Minyomerus* Horn.
      - c*<sup>2</sup>. Ocular vibrissæ very evident ..... *Elissa* Casey.
  - a*<sup>2</sup>. Anterior femora much longer and stouter than the others, the tibiæ denticulate within ..... *Hadromeropsis*, new genus.

## Genus PACHNÆUS Schönherr (1826).

*Pachnæus* SCHÖNHERR, Curc. Disp. Meth., 1826, p. 121.

*Pachnæus* GEMMINGER and HAROLD, Cat. Coleopt., vol. 8, 1871, p. 2224.

The originally designated type was *opalus* Olivier.

## Genus TANYMECUS Germar (1817).

*Tanymecus* GERMAR, Mag. der Ent., vol. 2, 1817, p. 341.

Schönherr (1826) designated the type as *palliatum* Fabricius.

## Genus MINYOMERUS Horn (1876).

*Minyomerus* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 17.

*Pseudelissa* CASEY, Ann. New York Acad. Sci., vol. 4, 1888, p. 273.

The type of *Minyomerus* is hereby designated as *innocuum* Horn. *Pseudelissa* is monotypic, based on (*cinerea* Casey) = *languidus* Horn.

## Genus ELISSA Casey (1888).

*Elissa* CASEY, Ann. New York Acad. Sci., vol. 4, 1888, p. 271.

We may hereby designate *laticeps* Casey as type of this genus.

## HADROMEROPSIS, new genus.

*Hadromerus* SCHÖNHERR, Gen. et Sp. Curc., vol. 2, 1834, p. 125 [not Schönherr 1826].

Schönherr's (1826) genus *Hadromerus* has as its type *sagittarius* Olivier. Schönherr made an unfortunate mistake in his second volume (1834) in overturning his twice designated type of *Hadromerus* (1826, 1833) and giving the genus a new type, *nobilitatus* Gyllenhal. In addition he described *Siderodactylus* with *sagittarius* as type, thus making it an isogenotypic synonym of the true *Hadromerus*. For the genus with *nobilitatus* as type we may take a new name, *Hadromeropsis*. Our *opalinus* Horn belongs here.

## PANDELETEINI, new tribe.

*Pachyrhynchinæ* PIERCE, Proc. Ent. Soc. Wash., vol. 13, 1911, p. 49.

The separation of the anterior coxæ seems to be a good character for separating the Tanymecinæ into tribes. The genera placed here

have no relationship to the Pachyrhynchinae, which also have the anterior coxæ separated, and at the same time need to be separated from the Tanymecini proper. The genus *Anypotactus* is very similar to *Polydacrys*, differing only by having the anterior coxæ contiguous. It must be placed in the Psallidiinae.

*Table of genera of Pandeleteini.*

I. Tarsal claws free.

1. Humeral angles absent; apterous forms; anterior tibiæ denticulate: nasal plate very small..... *Isodacrys* Sharp.

2. Humeral angles present.

a.<sup>2</sup> Nasal plate large and distinctly outlined: ocular vibrissæ lacking.

*Polydacrys* Schönherr.

a.<sup>1</sup> Nasal plate small or lacking; ocular vibrissæ present.

*Pandeleteius* Schönherr.

II. Tarsal claws connate; humeral angles present; nasal plate obsolete; ocular vibrissæ represented by two or three setæ..... *Isodrusus* Sharp.

The first three genera are exceedingly closely allied, and yet Champion has described still another and suggested a new genus for one of our species. We can with mental reservations accept the four genera tabulated above, for the present, and may in the future find it advisable to permanently retain them, because of a multiplicity of forms.

Genus ISODACRYS Sharp (1911).

*Isodacrys* SHARP, Biol. Centr.-Amer., Coleop., vol. 4, 1911, pt. 3, p. 175.

The type of this genus is hereby designated as *guatemalensis* Sharp.

ISODACRYS OVIPENNIS Schaeffer.

*Pandeleteius ovipennis* SCHAEFFER.

The nasal plate is very small and triangular. This species was taken at Victoria, Texas, November 25, 1907, by J. D. Mitchell and C. R. Jones.

Genus POLYDACRYS Schönherr (1834).

*Polydacrys* SCHÖNHERR, Gen. et Sp. Curc., vol. 2, 1834, p. 130.

The originally designated type is *modestus* (Dejean) Gyllenhal.

POLYDACRYS DEPRESSIFRONS Boheman.

*Pandeleteius cavirostris* SCHAEFFER.

This synonymy is according to Champion.<sup>1</sup>

The nasal plate is very large, the raised margin beginning at the lateral corners of the beak and forming a broad ogival area which is depressed, shining glabrous; the anterior margin is concave with an abruptly deep median concave emargination. This species was taken at Victoria, Texas, April 22, 1907, on *Cratægus*, April 23 and June 19, 1907 (Mitchell).

<sup>1</sup> Biol. Centr.-Amer., Coleop., vol. 4, pt. 3, p. 217, May, 1911.

## Genus PANDELETEIUS Schönherr (1834).

*Pandeleiteius* SCHÖNHERR, Gen. et. Sp. Curc., vol. 2, 1834, p. 129.

*Pandeleiteius* GEMMINGER and HAROLD, Cat. Coleop., vol. 8, 1871, p. 2208.

*Pandeleitejus* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 86.

*Pandeleiteinus* CHAMPION, Biol. Centr.-Amer., Coleopt., vol. 4, 1911, pt. 3, p. 206.

The originally designated type of *Pandeleiteius* is (*pauperculus* Gyllenhal) = *hilaris* Herbst. The monotype of *Pandeleiteinus* is *submetallicus* Schaeffer. The available characters do not seem to the writer to warrant making three genera out of *Pandeleiteius*, for our North American species, as suggested by Champion.<sup>1</sup>

European writers make a great mistake in quoting this genus as a synonym of *Sitona* Germar, which has as a type *lineata* Linnæus. The two genera are very greatly removed from each other by many good characters.

Table of species of *Pandeleiteius*.

## I. Antennal funicle 7-jointed.

1. Anterior coxæ not more widely separated than middle coxæ; scrobes passing beneath. Beak truncate at apex; nasal plate exceedingly minute or obsolete.
  - a*<sup>1</sup>. First joint of antennal funicle longer than the two following joints; basal thoracic constriction short and feeble; anterior tibiæ straight on inner edge almost to apex; nasal plate invisible.....*simplarius* Fall.
  - a*<sup>2</sup>. First joint of antennal funicle as long as the two following joints.
    - b*<sup>1</sup>. Anterior tibiæ straight on inner edge almost to apex; nasal plate exceedingly minute, triangular.....*hilaris* Herbst.
    - b*<sup>2</sup>. Anterior tibiæ strongly sinuate on the inner edge from base; nasal plate invisible or obsolete.....*dentipes*, new species.
2. Anterior coxæ separated by about twice the distance between the middle coxæ; apex of beak with nasal plate distinct.
  - c*<sup>1</sup>. Scrobes long, passing beneath.
    - d*<sup>1</sup>. Head between the eyes feebly convex or flat; thorax as wide or very slightly narrower at apex than at base; scales of upper surface variegated, producing a more or less distinct design.
    - e*<sup>1</sup>. Prothorax broadly arcuate at sides; head and beak in front of eyes concave; nasal plate small, ogival, deeply emarginate....*depressus*, new species.
    - e*<sup>2</sup>. Prothorax feebly arcuate at sides.
      - f*<sup>1</sup>. Beak not separated from head by distinct transverse impressions; alternate elytral intervals only slightly elevated; general color gray; nasal plate short and very broadly triangular, very shallowly arcuately emarginate.....*cinereus* Horn.
      - f*<sup>2</sup>. Beak separated from head by strong transverse impression; alternate elytral intervals elevated; scales of upper surface brownish with a more or less metallic luster; nasal plate broadly elliptical, small.  
*subtropicus* Fall.
    - d*<sup>2</sup>. Head when viewed laterally, very convex; thorax cup-shaped, distinctly wider at apex than at base; scales of uniform greenish metallic color; nasal plate small, shallowly crescentiform....*submetallicus* Schaeffer.
  - c*<sup>2</sup>. Scrobes short, nearly straight, not passing beneath; form large and robust.  
*robustus* Schaeffer.

II. Antennal funicle 6-jointed; head and beak in front of the eyes concave; nasal plate with margin rimmed, convex, basally emarginate.....*rotundicollis* Fall.

<sup>1</sup> Biol. Centr.-Amer., Coleopt., vol. 4, 1911, pt. 3, p. 186.



**PANDELETEIUS HILARIS** Herbst.

New material has been studied from Mobile, Alabama, April 18 1910, on *Quercus*, W. D. Pierce; Natchez, Mississippi, June 15, 1909, E. S. Tucker; Trinity, Texas, March 20, 1907, on *Quercus phellos*, Pierce and Cushman; Beaumont, Texas, March 18, 1908, on *Quercus aquatica*, E. S. Tucker.

**PANDELETEIUS DENTIPES**, new species.

Described from two specimens collected in the Chisos Mountains, Brewster County, Texas, June 10–12, 1908, Mitchell and Cushman.

Dark brown mottled with black, of the size and stature of *hilaris*. Length 4–4.5 mm. Beak flat, apically truncate, with medially impressed line; scrobes oblique passing beneath very close to eyes, funicular joints elongate. Prothorax as long as wide, convex, strongly arcuate at sides, constricted immediately in front of base and at one-third from apex; coarsely but not closely punctate, scales mottled without definite pattern. Elytra distinctly wider than thorax at base, feebly rounded to apex. Anterior tibiæ strongly sinuate on inner margin and coarsely denticulate with about 14 denticles. Anterior coxæ not more widely separated than the median coxæ. Undersurface closely covered with brown iridescent metallic scales.

This species may be easily differentiated from all of the others by the characters given in the table.

*Type*.—Cat. No. 14653, U.S.Nat.Mus.

**PANDELETEIUS DEPRESSUS**, new species.

Described from one specimen collected in the Chiricahua Mountains, Arizona, June 6, on oak in the Hubbard and Schwarz collection. This species was wrongly determined as *robustus*.<sup>1</sup> Eight specimens are in the United States National Museum collections.

Mottled grey, with markings almost as in *hilaris*. Length 5.5 mm. Beak concave, apically triangularly emarginate with triangular smooth space and with medially impressed line; scrobes arcuately oblique passing beneath at a distance from the eyes; funicle seven-jointed, last five funicular joints moniliform. Prothorax wider than long, convex, strongly arcuate at sides, constricted near apex and base, moderately punctate, scales mottled grey to black with a broad median band; elytra distinctly wider than prothorax, sides straight, slightly diverging to apical fourth, thence oblique to apex; anterior tibiæ slender, slightly sinuate, bent at apex, denticulate within; anterior tarsi unusually long and slender, almost as long as tibiæ, the last joint equaling the three preceding. Anterior coxæ separated by about twice the distance between the middle coxæ. Undersurface clad with iridescent coppery scales.

*Type*.—Cat. No. 14654, U.S.Nat.Mus.

<sup>1</sup> Pierce, Proc. U. S. Nat. Mus., vol. 37, 1909, p. 360.

## PANDELETEIUS CINEREUS Horn.

Dallas, Texas, March 6, 1908, on *Prunus*, Jones and Hood; March 6, 1909, breeding in twigs of *Phoradendron flavescens* on *Hicoria alba*, Pierce and Tucker; April 13, 1910, on *Quercus*, Pierce and Pinkus; April, 25, 1907, F. C. Pratt; May 12, 1907, E. A. Schwarz; Handley, Texas, on *Physostegia*, April 27, 1905, W. D. Pierce; Devils River, Texas, May 2-5, Schwarz, Pratt, and Bishopp. The writer can not find any structural differences between the specimens from these two widely separated localities.

## PANDELETEIUS ROBUSTUS Schaeffer.

This is by far the most robust species seen by the writer, and also the darkest in color. The nine specimens at hand vary from 3.5 mm. to 5 mm. in length and also vary greatly in robustness. They are from the Chisos Mountains, Brewster County, Texas, June 10-12, 1908, Mitchell and Cushman.

Mr. Champion refers in the *Biologia* to specimens identified by the writer as *robustus* and having a six-jointed funicle. The specimens actually identified by the writer have never left the United States National Museum and are, as stated above, *depressus*. There are several unidentified species in the collection related to *depressus*, which the writer has not had time to study. It is quite possible that some of this unstudied material, being from the same localities as determined material, were selected and sent to Mr. Champion, purporting to be determined by the writer. In the Washington series there are still some specimens with six-jointed funicle awaiting study, and from the identical localities from which the species with seven-jointed funicle were taken.

## PSALLIDIINÆ, new subfamily.

*Brachyderinæ* PASCOE, 1870.

Table of tribes of *Psallidiinæ*.

- I. Elytra wider than prothorax at base; humeri angulate, often prominent.
  1. Claws free.
    - a*<sup>1</sup>. Corbels of posterior tibiæ open or very feebly cavernous.
      - b*<sup>1</sup>. Rostrum smooth, often medially carinate.....ALCEIDINI, new tribe.
      - b*<sup>2</sup>. Rostrum very rough or tricarinate above.....PRYPNINI, new tribe.
    - a*<sup>2</sup>. Corbels of posterior tibiæ cavernous.....CYPHINI Horn (1876).
  2. Claws connate .....POLYDRUSINI, new tribe.
- II. Elytra not wider than prothorax, emarginate or truncate at base; humeri absent or rounded, wings absent or rudimentary.
  3. The three intermediate segments of the abdomen equal, separated from each other and from the first by straight sutures.....BLOSYPINI, new tribe.
  4. Abdominal segments unequal, separated from the first by an arcuate or angulate suture.
    - a*<sup>1</sup>. Head and prothorax normal.
      - b*<sup>1</sup>. Third joint of all the tarsi wider than the second and deeply bilobed.
        - c*<sup>1</sup>. Tibiæ normal, not dilated at tip.

*d*<sup>1</sup>. Mandibles robust, with persistent or deciduous apical piece; in the latter case the supports are more salient than usual and depressed.

PSALLIDIINI, new tribe.

*d*<sup>2</sup>. Mandibles with deciduous piece, the supports short, conical and truncate.

*e*<sup>1</sup>. Antennæ scaly or coarsely pubescent, body beneath densely scaly.

*f*<sup>1</sup>. Claws connate.

*g*<sup>1</sup>. Scrobes curved downward and directed toward the constriction between the head and beak.....SCIAPHILINI, new tribe.

*g*<sup>2</sup>. Scrobes directed toward or just beneath the eyes.

THYLACITINI, new tribe.

*f*<sup>2</sup>. Claws free.....EPICÆRINI Pierce (1909).

*e*<sup>2</sup>. Antennæ shining, sparsely hairy, body beneath nearly naked.

BARYNOTINI Bedel (1885).

*c*<sup>2</sup>. Anterior tibiæ dilated at tip; scape long, passing the eyes.

TRIGONOScutINI, new tribe.

*b*<sup>2</sup>. Third joint of tarsi not wider than second, and feebly emarginate.

CALYPTILLINI, new tribe.

*a*<sup>2</sup>. Head and prothorax very elongate, cylindrical.

RHADINOSOMINI, new tribe.

The tribes Prypniini, Psallidiini, and Rhadinosomini are not represented in our fauna.

**ALCEIDINI, new tribe.**

The only North American genus which can properly be assigned here is the following one, which has since its original publication been unnoticed in our North American literature. It has not yet been recognized by the writer.

**Genus PACTORRHINUS Ancy (1881).**

*Pactorrhinus* C. F. ANCEY, *Le Naturaliste*, vol. 1, 1881, Année 3, p. 485.

The following description is translated from the French original:

Beak very thick, inclined, very short, almost square, slightly attenuate at apex, lightly convex and tricanalicate above, emarginate at tip, not separated from the head. Scrobes deep, arcuate, infraocular. Antennæ short, submedian; scape not attaining the middle of the eyes; funicle seven-jointed, first joint short and subconical, second much more elongate and conical, the following joints about the same dimensions as the first and subequal; club elongate, normal. Prothorax without ocular lobes or vibrissæ, subtransverse, narrowed in front, rounded on the sides, apically truncate, lightly bisinuate at base, posterior angles acute. Scutellum very small, sunken, triangular. Elytra convex, oval, subnavicular, with humeri salient, obtuse; larger than the prothorax; striate, with the striæ slightly diverging at apex. Abdomen and legs normal; femora clavate; corbels of posterior tibiæ open; anterior tibiæ arcuate at their extremity. Tarsi quite large, spongy beneath; fourth joint larger, claws small, free. Body black, elongate, squamose.

**PACTORRHINUS GRISESCENS C. F. Ancy.**

The following description is translated from the Latin original:

Length 14.5 mm.; breadth 5.5 mm.

Elongate, black, strongly convex, grayish squamulose, scales occasionally faintly tinged with red. Head and beak thick, punctulate; beak trisulcate, with the median sulcus deeper and longer. Prothorax convex, somewhat flattened on the middle of

the disk, punctulate, basally lightly bisinuate. Elytra with shining surface; ten-striate, striae impressed, punctate. Legs rather robust.

Arizona.

This insect might be taken for a genus near *Pachnæus*, but a close study has caused me to place it in the group of *Naupactides* (according to Lacordaire), following *Sitones* and *Pandeleteius*, with which it presents a few characters in common. Its size is very large and it resembles somewhat a *Cleonus*. It is of a very brilliant black, covered with dark gray squamules, very lightly rosy on the elytra when viewed in a certain aspect.<sup>1</sup>

**Tribe CYPHINI Horn (1876).**

*Table of genera of Cyphini.*

1. Genæ emarginate behind the mandibles.
  - a*<sup>1</sup>. Tenth striae confluent with ninth.....Group *Compsi*.
  - b*<sup>1</sup>. Articular surface of hind tibiæ scaly; scape passing eyes; nasal plate glabrous; beak gradually widened anteriorly.....*Compsus* Schönherr.
  - b*<sup>2</sup>. Articular surface of hind tibiæ glabrous; scape not passing the eyes.  
*Cyphus* Germar.
  - a*<sup>2</sup>. Tenth striae not confluent with the ninth.....Group *Pseudocyphi*.
  - c*<sup>1</sup>. Rostrum not widened anteriorly, the upper portion narrowed and deeply excavate toward the apex, the nasal plate squamose; anterior tibiæ unarmed at apex .....*Pseudocyphus* Schaeffer.
2. Genæ not or hardly emarginate behind the mandibles.
  - d*<sup>1</sup>. Tenth striae confluent with the ninth.....Group *Glaphyrometopi*.
  - e*<sup>1</sup>. Articular surface of hind tibiæ glabrous; scape not passing the eyes; beak deeply trisulcate, front very deeply transversely depressed, vertex strongly bifoveate .....*Glaphyrometopus*, new genus.
  - d*<sup>2</sup>. Tenth striae not confluent with the ninth.....Group *Evoti*.
  - f*<sup>1</sup>. Submentum not pedunculate; mentum broad; thorax bisinuate at base.  
*Lachnopus* Schönherr.
  - f*<sup>2</sup>. Submentum pedunculate; mentum narrow; thorax truncate at base.  
*Evotus* LeConte.

**Genus COMPSUS Schönherr (1826).**

*Compsus* SCHÖNHERR, Curc. Disp. Meth., 1826, p. 109.

The originally designated type was *acrolithus* Germar.

**Genus CYPHUS Germar (1824).**

*Cyphus* GERMAR, Ins. Spec. Nov., 1824, p. 427.

Schönherr (1826) designated *gibber* Pallas, as type.

**Genus PSEUDOCYPHUS Schaeffer (1905).**

*Pseudocyphus* SCHAEFFER, Brooklyn Inst. Mus. Sci., Bull. 1, pt. 7, 1905, p. 179.

This genus is monotypic, based on *flexicaulis* Schaeffer.

**GLAPHYROMETOPUS, new genus.**

The name of this remarkable new genus is derived from *γλαφύρος* (hollow) + *μέτωπον* (forehead, frons), signifying that the frons is hollowed out.

<sup>1</sup> Translated from the French original.

Body squamigerous, robust. Rostrum short, but little longer than head, almost as broad as long, trisulcate; nasal plate triangular, glabrous; scrobes visible from above at apex, strongly arcuate passing beneath eyes. Mentum large, almost circular, concave. Antennæ short; funicle 7-jointed, slightly longer than scape; club ovate. Head deeply transversely depressed between eyes, but with a strong superocular ridge laterally bounding the depression. Head with two smaller foveiform depressions behind the large transverse impression. Prothorax transverse with sides arcuate. Elytra globular, with moderate humeral angles; tenth elytral striæ confluent at basal third with the ninth. Front coxæ contiguous; middle coxæ narrowly separated; hind coxæ widely separated. Legs short; femora mutic; articular surface of hind tibiæ oblique, glabrous, but with the corbels practically terminal or cavernous; tibiæ unguiculate; third tarsal joint broadly bilobed; claws separate. Meso- and meta-thorax short. Mesosternal sidepieces uneven. Intercostal process of abdomen large, quadrate. Abdominal sutures straight; abdomen strongly inclosed by elytra.

*GLAPHYROMETOPUS ORNITHODORUS*, new species.

Described from five more or less perfect specimens taken from the stomach of a meadow lark, *Sturnella magna neglecta*, which was shot at Navasota, Texas, December 12, 1907 in an open prairie by Mr. V. Bailey. (Biological Survey, No. 57705.) The unusual appearance of this insect has led me to call it *ornithodorus*, meaning a gift from the birds.

Length 4.5–5 mm., breadth 2.2–3 mm. Black; robust, strongly sculptured, densely scaly. Vestiture brownish cinereous with white fasciæ. Beak densely scaly, except near tip; scales striate, brownish with a metallic luster. Nasal plate triangular glabrous, apically notched, laterally rimmed. A short carina leads from the apex of this plate but soon passes into a median sulcus which is very deep and extends to the transverse depression of the front. The two lateral sulci begin even with this and also terminate in the frontal depression. The areas between these sulci are strongly convex. Scrobes becoming somewhat wider on sides, terminated at lower edges of eyes. Antennal scape squamose, not passing the eyes; funicular joints all short, but the first two are longer than wide, the remainder becoming gradually more transverse; club indistinctly annulate; funicle and club pubescent. Head with strong transverse frontal impression, almost as long as the eyes but separated from them by a strong superocular ridge. Occiput with two foveiform impressions; cephalic scales strongly metallic.

Prothorax apically truncate, basally convex, laterally strongly arcuate; transverse; strongly, deeply and irregularly punctate, with

a large deep irregularly punctate median impression. Vestiture densely squamose with chocolate brown scales and with a median and two lateral white longitudinal vittæ.

Scutellum minute. Elytra shining black, considerably broader at humeri than prothorax, somewhat inflated behind, strongly inclosing abdomen, separable, and faintly separately rounded at apical sutural angle. Strial punctures large, deep. Striæ not impressed. Interspaces moderately convex. Vestiture consisting of flat scales and erect scales clustered or single. The general color of the vestiture is chocolate brown. A basal white fascia arises at the humeri and passing back to the basal fourth then transversely to the middle, forms a brown quadrate basal area. On the fourth interspaces a longitudinal process leaves this transverse white band, but does not reach the second white band. This latter is transverse and post-median. The sutural interspace from the middle to apex is clad with golden scales. The erect scales are placed in a row on each interspace but are clustered in many spots in front of the middle. The strial punctures are closely covered with flat scales.

Ventral parts closely squamose, with cinereous scales on the thorax and sides of abdomen and brown scales on remainder of abdomen. Mesosternum transversely impressed. The intercoxal portion of the metathorax and the first abdominal segment is strongly depressed. Second segment almost as long as third and fourth. Fifth as long as the three preceding.

*Type*.—Cat. No. 14645, U.S.Nat.Mus.

#### Genus LACHNOPUS Schönherr (1840).

*Ptilopus* SCHÖNHERR, Curc. Disp. Meth., 1826 [not Meigen].

*Lachnopus* SCHÖNHERR, Gen. et Sp. Curc., vol. 6, 1840, pt. 1, p. 380.

The type of *Ptilopus* was *aurifer* Drury. *Lachnopus* was proposed to take the place of this preoccupied name, and hence has the same type.

#### Genus EVOTUS LeConte (1874).

*Evotus* LECONTE, Amer. Nat., 1874, pp. 458, 459.

The monotype of this genus is *naso* LeConte.

#### POLYDRUSINI, new tribe.

##### *Table of genera of Polydrusini.*

1. Beak with nasal place small and inconspicuous.....*Polydrusus* Germar.
2. Beak very short and massive, with nasal plate large, as wide as beak and distinctly margined.....*Scythropus* Schönherr.

#### Genus POLYDRUSUS Germar (1817).

*Polydrusus* GERMAR, Mag. der Ent., vol. 2, 1817, pp. 339-341.

*Polydrosus* SCHÖNHERR, Curc. Disp. Meth., 1826.

Schönherr (1826) designated *undatus* Fabricius as type.

## Genus SCYTHROPUS Schönherr (1826).

*Scythropus* SCHÖNHERR, Curc. Disp. Meth., 1826, p. 140.The originally designated type is *mustela* Herbst.

## BLOSyrINI, new tribe.

## Table of genera of Blosyrini.

1. Scape attaining the middle of the eyes, the latter moderately prominent, without posterior orbit ..... *Hormorus* Horn.
2. Scape barely attaining the anterior margin of the eye, the latter spherical, prominent, and with posterior orbit ..... *Agasphærops* Horn.

## Genus HORMORUS Horn (1876).

*Hormorus* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 23.The genus is monotypic, based on *undulatus* Uhler.

## Genus AGASPHÆROPS Horn (1876).

*Agasphærops* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 24.The genus is monotypic, based on *nigra* Horn.

It is possible that future study may separate these genera from the Blosyrini typical, as suggested by Horn, but for the present it is best to adhere somewhat closely to the Lacordaire classification.

## SCIAPHILINI, new tribe.

## Table of genera of Sciaphilini.

1. Body slender, cylindrical; antennæ attenuate; scrobes very broad at angle, thence narrowing to termination ..... *Mitostylus* Horn.
2. Elytra robust, oval; antennæ stouter; scrobes not so broad at angle.  
*Sciaphilus* Schönherr.

Beyond the general facies there are few tangible generic differences between these two genera.

## Genus MITOSTYLUS Horn (1876).

*Mitostylus* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 107.*Derosomus* SHARP, Biol. Centr.-Amer., Coleop., vol. 4, 1891, pt. 3, p. 168.

Sharp's genus is perfectly congeneric with Horn's. We designate as type of *Derosomus* the first species, *fragilis* Sharp, as it is the only one illustrated. The monotype of Horn's genus is *tenuis* Horn. The genus as now known includes six species for which a table is presented. The two species not before the writer are *scutellaris* Sharp (1911) and *glaucus* Champion (1911). There is scarcely any doubt but that *Chætopantus* Sharp is also a synonym of *Mitostylus*, but no specimens are before the writer.

*Table of species of Mitostylus.*

1. Body not clad with long fine hairs.

*a*<sup>1</sup>. First funicular joint as long as, or longer than, the second and third together.

*b*<sup>1</sup>. Vestiture green, setæ very short, but erect (Texas).....*tenuis* Horn.

*b*<sup>2</sup>. Vestiture grayish with two more or less interrupted prominent brown fasciæ, setæ inconspicuous, decumbent (Lower California) .....*gracilis* Horn.

*a*<sup>2</sup>. First funicular joint not as long as the second and third combined; vestiture grayish, with two more or less interrupted brown fasciæ, setæ visible, subrecumbent (Yucatan).....*fragilis* Sharp.

2. Body clad with long fine hairs.

*a*<sup>1</sup>. Scutellum squamose, on level with elytra; tibiæ squamose and hispid (Texas, Mexico).....*setosus* Sharp.

*a*<sup>2</sup>. Scutellum a broad shining tubercle; tibiæ with depressed setæ, but without erect hairs (Guatemala).....*scutellaris* Sharp.

Mr. Champion's species *glaucus* belongs near *setosus*, but is separated by the shorter and more abundant erect setosity on the elytra, the scales uniformly glaucous, and the prothorax as finely punctured as in *scutellaris*.

A full description of *setosus* is presented below, as this had been drawn up as a description of a new species.

MITOSTYLUS SETOSUS Sharp.

Form slender, body black, surface densely covered with broad truncate white scales and small patches of ochreous scales, and bristling with slender hairs. Length, 4.5–5.5 mm.

Beak short, narrowed toward apex, triangularly emarginate at apex with an apical concave depressed smooth triangular area bounded by a raised rim; surface very roughly punctured, irregularly squamose, bristling with long hairs; scrobes visible from above, broad at apex, arcuate, upper line directed toward eyes, then suddenly flexed toward angle between head and beak beneath, lower line more moderately curved, making scrobes widest at angle and narrowest in downward projection. Antennæ elongate and very slender; scape slender, clavate, reaching thorax; funicle elongate, first and second joints long, clavate, the first a little longer than the two following; joints 3–7 shorter, diminishing toward club; club very elongate, slender, about as long as the last three funicular joints. Thorax a little wider than long; base and apex equal, truncate; sides moderately convex; surface very coarsely pitted, with median carina; scaly vestiture white with a median ochreous vitta. Elytra not wider at base than thorax, without humeri, elongate-oval; striæ formed by closely approximate quadrate punctures; intervals each with a single row of erect black bristles; scales moderately close but not overlapping, white, except with small ochreous spots before the middle and a larger transverse vitta behind the middle. Femora scaly and bristly; tibiæ straight and clothed as femora, tarsi slender,



pubescent. Underside clothed as above, but with bristles shorter and finer; last abdominal with a circular pubescent depression without scales.

Described from 26 specimens collected by J. D. Mitchell and R. A. Cushman in the Chisos Mountains, Brewster County, Texas, June 10-12, 1908.

Genus **SCIAPHILUS** Schönherr (1826).

*Sciaphilus* SCHÖNHERR, Curc. Disp. Meth., 1826, p. 98.

The originally designated type is *muricatus* Fabricius.

**THYLACITINI**, new tribe.

*Brachyderini* HORN, 1876.

*Table of genera of Thylacitini.*

1. Second abdominal with anterior edge straight or nearly so; scape not passing the eyes; scrobes usually prolonged under eyes; eyes very prominent.  
*Strophosoma* Billberg.
2. Second abdominal with anterior edge arcuate; scape passing the eyes; scrobes evanescent before the eyes.....*Thylacites* Germar.

Genus **STROPHOSOMA** Billberg (1820).

*Strophosoma* BILLBERG, Enum. Insect. Mus. Billb., 1820.

*Strophosomus* SCHÖNHERR, Curc. Disp. Meth., 1826, p. 97.

The type is *coryli* Fabricius, as designated by Schönherr (1826).

Genus **THYLACITES** Germar (1817).

*Thylacites* GERMAR, Mag. der Ent., vol. 2, 1817, pp. 339-341.

*Brachyderes* SCHÖNHERR, Curc. Disp. Meth., 1826, p. 102.

Six species were originally included in the genus, from which Leach (1819, 1824) selected *incanus* Linnæus as type. *Brachyderes* is isogenotypic. Schönherr in 1826 designated *fritillum* Panzer (*robiniaë* Herbst) as type of *Thylacites*, and in 1833 designated *catarrhactus* (*cataractes*) Sahlberg as type of the same genus. The latter species is type of Sahlberg's (1823) genus *Cycloderes*, which therefore takes the place of Schönherr's erroneously named genus, *Thylacites*.

Tribe **EPICÆRINI** Pierce (1909).

*Table of genera of Epicæriini.*

- I. Side pieces of mesosternum very unequal, the episternum larger and attaining the elytral margin, epimeron usually small, sometimes very small...Group *Epicæri*.
  1. Articular face of hind tibiæ scaly; support of deciduous piece of mandibles very prominent; antennæ rather slender, club distinct.....*Anomadus* Horn.
  2. Articular face of hind tibiæ glabrous; support of deciduous piece of mandibles moderately prominent.
    - a<sup>1</sup>. Scutellum transverse, T-shaped, the lobes separated from the base by projections of the elytra .....*Cleistolophus* Sharp.

*a*<sup>2</sup>. Scutellum basal, not as above.

*b*<sup>1</sup>. Head strongly constricted behind the eyes; eyes truncate behind.

*Bradyrhynchoides*, new genus.

*b*<sup>2</sup>. Head not constricted behind eyes; eyes evenly convex.

*c*<sup>1</sup>. Eyes with smooth margin, especially behind.

*d*<sup>1</sup>. Antennæ stout, last joint of funicle short, broad, and very close to club; alternate elytral intervals elevated.....*Graphorhinus* Say.

*d*<sup>2</sup>. Antennæ more slender, joints of funicle conical, the last distant from the club; elytral intervals equal in convexity...*Epicærus* Schönherr.

*c*<sup>2</sup>. Eyes without smooth margin.....*Stamoderes* Casey.

II. Side pieces of mesosternum diagonally divided and equal or very nearly so, the episternum distant from the elytral margin, from which it is separated by the epimeron.....Group *Artipi*.

3. Tenth elytral striæ entire.

*a*<sup>1</sup>. Genæ feebly emarginate; anterior tibiæ not denticulate within but with a row of sharp spines; second segment of the abdomen not longer than the two following.....*Omileus* Horn.

*a*<sup>2</sup>. Genæ strongly emarginate; anterior tibiæ denticulate within; second segment of abdomen usually as long as or longer than the two following.

*b*<sup>1</sup>. Funicular joints elongate, second joint as long as or longer than the first.

*Pantomorus* Schönherr.

*b*<sup>2</sup>. Funicular joints short, second joint shorter than the first.

*Lepidocricus* Pierce.

4. Tenth elytral striæ confluent with the ninth; second segment of abdomen longer than the two following; genæ strongly emarginate.....*Artipus* Sahlberg.

#### Genus ANOMADUS Horn (1876).

*Anomadus* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 21.

The monotype of this genus is *obliquus* Horn.

#### BRADYRHYNCHOIDES, new genus.

This genus is erected for *Bradyrhynchus rugicollis* Sharp and a new species. The three species placed by Sharp in *Bradyrhynchus* are placed by Champion in the genus *Epagrius* Schönherr. A careful examination of seven species placed by Champion in *Epagrius* (not *Epagrius* Sharp, which Champion renames *Epagriopsis*) disclose two types of eyes. The type species of *Bradyrhynchus* is *brevirostris* Sharp which has an evenly convex eye and no constriction of the head behind the eyes. Four of the other species at hand agree as to this character. However, *constrictus* and *rugicollis* have a deep constriction behind the eyes, which are strongly convex and sharply truncate behind. In other respects the genus is very similar to the various other genera in the group.

*Type of genus*.—*Bradyrhynchoides constrictus*, new species.

#### Table of species of *Bradyrhynchoides*.

1. Prothorax strongly foveate; beak medially broadly depressed, frontal constriction arcuate (Mexico).....*rugicollis* Sharp.
2. Prothorax feebly foveate; beak medially sulcate, frontal constriction straight (Texas).....*constrictus*, new species.

## BRADYRHYNCHOIDES CONSTRICTUS, new species.

Described from three specimens collected at San Diego, Texas, April 25, 27, by E. A. Schwarz.

Length 6.5–7 mm., width 3–3.2 mm. Oval, black, densely clothed with pinkish white, gray, and brown scales arranged in fasciæ, with a few translucent yellowish recumbent squamiform setæ.

Beak short and broad, not longer than head; head with a very deep, straight transverse depression immediately behind the eyes; nasal plate strongly rimmed by a broad and deep convex line, concave, shining, minutely punctate, arcuately emarginate; fovea elongate, merging into a deep median sulcus; vestiture dense, overlapping, with sparse openings for the setæ. Eyes very prominent, convex, truncate behind. Scrobes strongly arcuate; scape short, stout, reaching but little beyond the middle of the eyes; funicular joints subequal, the first two slightly longer, all but little longer than wide, white pubescent; club as long as the three preceding joints, oval, brown pubescent, but with white pubescence at base. Prothorax as long as wide, truncate at base, convex at apex and sides, base almost twice as wide as apex; median line faintly indicated; surface irregularly pitted; vestiture densely squamose, sparsely setose, white with a broad darker fascia on median line. Elytra not wider than prothorax at base, not greatly inflated; striæ not impressed; punctures large, rounded, shallow, and distinctly separated; interspaces almost flat; vestiture white with a sinuate brown postmedian fascia, and with grayish scales in form of basal and apical fasciæ. Setæ sparse. Undersides densely squamose. Tibiæ denticulate.

*Type*.—Cat. No. 14649, U.S.Nat.Mus.

## Genus GRAPHORHINUS Say (1831).

*Graphorhinus* SAY, Descr. N. A. Curc., 1831, New Harmony, Indiana.

*Graphorrhinus* GEMMINGER and HAROLD, Cat. Coleopt., vol. 8, 1821, p. 2241.

This genus originally contained two species, of which Schönherr selected in 1833, *vadosus* Say to serve as type. Though it presents a different habitus from *Epicærus* this genus can only be separated by very poor structural characters.

## Genus EPICÆRUS Schönherr (1834).

*Epicærus* SCHÖNHERR, Gen. et Sp. Curc., vol. 2, 1834, p. 323.

The originally designated type of the genus is *mexicanus* Boheman.

Since publishing a table of the species of this genus<sup>1</sup> other material has come to hand making it worth while to restudy the genus.

<sup>1</sup> Jour. Econ. Ent., vol. 3, pp. 359–361.

*Table of species of Epicærus.*

A. Scutellum small, triangular.

1. Frontal fovea round or very shortly oval and not merging into a sulcus.

*a*<sup>1</sup>. Elytral stria punctures very large, much wider than the intervals; beak medianly broadly impressed, subsulcate; pronotal punctuation minute, with few large depressions, median line broadly impressed; scales rusty in color  
*mexicanus* Boheman.

*a*<sup>2</sup>. Elytral intervals at least as wide as striæ.

*b*<sup>1</sup>. Beak smooth on median line, but with two broad sulci at sides; frontal puncture round, small, or moderate. Strial punctures round, deep and almost as wide as the intervals; all funicular joints longer than wide, seventh joint shortest; elytral vestiture distinctly fasciate. *imbricatus* Say.

*b*<sup>2</sup>. Beak broadly impressed on median line; fourth, fifth, and sixth funicular joints about as wide as long, moniliform; seventh longer; elytral vestiture unicolorous, grayish..... *wickhami*, new species.

2. Frontal fovea elongate, merging into frontal sulcus of beak.

*a*<sup>1</sup>. Funicular joints elongate.

*b*<sup>1</sup>. Very large species (16 mm.), elytra not more than one-half longer than wide; prothorax shallowly impressed along middle..... *lucanus* Horn.

*b*<sup>2</sup>. Smaller species (under 10 mm.); elytra almost twice as long as wide; prothorax medianly sulcate..... *texanus* Casey.

*a*<sup>2</sup>. Funicular joints 3-6, about as wide as long.

*c*<sup>1</sup>. Elytra from one-half to two-thirds longer than wide.

*d*<sup>1</sup>. Seventh funicular joint evidently longer than sixth; median line of prothorax sulcate; length 8-10 mm..... *sulcatus* Casey.

*d*<sup>2</sup>. Seventh funicular joint hardly if any longer than sixth; median line hardly indicated; elytra about one-half longer than wide; length 4.5-6.5 mm..... *lepidotus* Pierce.

*c*<sup>2</sup>. Elytra but slightly longer than wide..... *formidolosus* Boheman.

B. Scutellum transverse, broadly oval; frontal fovea small, round; beak smooth on median line; funicular joints elongate, seventh shortest; vestiture fasciate  
*benjamini*, new species.

**EPICÆRUS IMBRICATUS** Say.

This species while quite variable in form, due to the inflation of the abdomen in the female, nevertheless has a facies different from any of our other species. Typical specimens are at hand from Washington, District of Columbia; Travilah and Locust Grove, Maryland; Sharpsburg, Virginia; Catoosa, Georgia; St. Louis and Sedalia, Missouri, and Tonganoxie, Kansas (T. B. A.). A series of smaller individuals with somewhat smaller stria punctures is at hand from Arkansas (taken on strawberry, June 11), and Texas. Another similar series is at hand from Nebraska. Western Kansas and Texas forms frequently are almost unicolorous, gray.

**EPICÆRUS WICKHAMI**, new species.

Described from eight specimens from New Mexico, collected by Professor Wickham, in whose honor the species is named. One specimen from the Continental Divide of New Mexico (Townsend), two from Colorado, and one from Wasatch, Utah, June 27 (Hubbard and Schwarz) are also at hand.

Length 7.5–9 mm., width 3–4 mm. Form elongate, oval, robust in female, slender in male. Body black, moderately densely clothed with oval, flat scales of a grayish color with no color pattern. Beak a little longer than head, longer than wide, not separated from front by a depression; nasal plate very broad, ogival, basally angulately emarginate, smooth, rimmed; fovea deep and round, median line impressed from a short distance in front of fovea to tip, the impression broadened in front; lateral impressions deep, short; surface of head and beak closely punctate, especially toward apex of beak, vestiture moderately dense except on a triangular, strongly punctate, impressed area surrounding the nasal plate; setæ sparser. Scrobes deep; scape reaching beyond middle of eyes; funicle with third to sixth joints about as wide as long, others longer. Prothorax a little wider than long, deeply and broadly impressed on median line, finely punctate with few large impressions; vestiture not very dense. Elytral striae punctures round, small, setigerous; intervals wide, the alternate intervals somewhat more convex at base; vestiture moderately densely squamose with sparse decumbent setæ. Undersides squamose and more densely setose.

*Type*.—Cat. No. 14647, U.S.Nat.Mus.

EPICÆRUS BENJAMINI, new species.

This very interesting species differs from all other species in the United States by the shape of its scutellum.

Length 11 mm., width 5.2 mm. Form robust. Black, densely clothed with white and coppery brown scales of various shades arranged in definite patterns. Beak as long as head, as wide as long, not separated from the front by a depression; nasal plate broad, ogival, deeply arcuately emarginate, smooth, concave, rimmed; fovea small, round; median area very broadly and shallowly impressed; lateral impression short and deep; surface of head and beak irregularly punctate, closely squamose, sparsely setose; funicular joints a little longer than wide. Eyes evenly and broadly, but not strongly, convex. Prothorax finely punctate, coarsely foveate; densely squamose, with white median and lateral fasciæ; median line faintly impressed. Elytral striae punctures round, separated, almost filled with scales; intervals wide. Vestiture of elytra dense, cupreous brown with unconnected whitish spots representing the usual bands, and with the sides white.

*Type*.—Cat. No. 14648, U.S.Nat.Mus.

Described from a single specimen from Texas, and named in honor of Dr. Marcus Benjamin, in acknowledgment of many courtesies.

In form of scutellum this species presents an approach to *Cleistolophus*, which has been included in the foregoing table of genera for purposes of comparison. A study of typical specimens shows that this species does not share the essential characters of *Cleistolophus*.

## Genus STAMODERES Casey (1888).

*Mimetes* SCHÖNHERR, Mantiss. Sec. Curc., 1847, p. 23 [not Eschscholtz, 1818].  
*Stamoderes* CASEY, Ann. New York Acad. Sci., vol. 4, 1888, p. 236.

The type of Schönherr's preoccupied genus is *setulosus* (Schönherr) Lacordaire. The monotype of Casey's genus is *uniformis* Casey. Colonel Casey<sup>1</sup> has pointed out the possibility of these genera being synonymous and the descriptions would so indicate. Both species are Californian and are possibly synonymous also. The only material at hand may be considered *setulosus*. It is from Scotia, California, May 20 (H. Soltau), and was formerly placed by the writer under the name *seniculus* Horn.

In appearance this genus is nearer the group Artipi, but the available characters place it close to *Epicærus*.

## Genus OMILEUS Horn (1876).

*Omileus* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 102.

The monotype of the genus is *epicæroides* Horn.

## Genus PANTOMORUS Schönherr (1840).

*Pantomorus* SCHÖNHERR, Gen. et Sp. Curc., vol. 5, 1840, p. 942.

*Aramigus* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 93.

*Phacepholis* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 95.

An examination of the typical species of *Pantomorus* (*albosignatus* Boheman), *Aramigus* (*tesselatus* Say), and *Phacepholis* (*elegans* Horn) causes the writer to consider these genera identical, as Champion has already stated in the *Biologia Centrali-Americana*.<sup>2</sup>

The following table is proposed for the species of the United States:

Table of species of *Pantomorus*.

I. Posterior tibiæ with, at most, a double row of spines at tip.

Subgenus *Pantomorus* Schönherr.

1. Denticulation of anterior tibiæ fine; surface densely scaly. . . . . *tesselatus* Say.

2. Denticulation of anterior tibiæ strong; surface not densely scaly. . . . . *fulleri* Horn.

II. Posterior tibiæ with an oval scaly disk at tip. . . . . Subgenus *Phacepholis* Horn.

3. Anterior tibiæ only denticulate. Funicular joints elongate, the second much longer than the first and considerably longer than the two following.

*a*<sup>1</sup>. Prothorax squarely truncate.

*b*<sup>1</sup>. Denticulation of anterior tibiæ fine; color of vestiture yellowish green.

*elegans* Horn.

*b*<sup>2</sup>. Denticulation of anterior tibiæ very strong; second funicular joint about equal to the three following joints; vestiture brilliant bluish green.

*viridis* Champion.

*a*<sup>2</sup>. Prothorax obliquely truncate; denticulation of anterior tibiæ moderately strong; vestiture brownish. . . . . *nebraskensis*, new species.

4. Anterior and median tibiæ denticulate, the latter sometimes very minutely; prothorax obliquely truncate.

<sup>1</sup> Ann. New York Acad. Sci., vol. 4, 1888, p. 238.

<sup>2</sup> Coleoptera, vol. 4, pt. 3, p. 232.

- a*<sup>1</sup>. Second funicular joint much longer than the first and considerably longer than the two following.
- b*<sup>1</sup>. Vestiture green; second abdominal segment longer than or as long as the two following segments. . . . . *metallicus*, new species.
- b*<sup>2</sup>. Vestiture grayish; second abdominal segment longer than the two following segments. . . . . *texanus*, new species.
- a*<sup>2</sup>. Second funicular joint subequal to the first, or but slightly longer, and subequal to the two following.
- c*<sup>1</sup>. Elongate, elytra at least twice as long as wide. . . . . *candidus* Horn.
- c*<sup>2</sup>. Small and stout, elytra not twice as long as wide.
- d*<sup>1</sup>. Strial punctures plain; scaly vestiture not overlapping, erect setæ squamiform, truncate . . . . . *pallidus* Pierce.
- d*<sup>2</sup>. Strial punctures almost covered by vestiture; scaly vestiture closely overlapping; erect setæ, long, hair like, black and white. . . . . *obscurus* Horn.

**PANTOMORUS (PANTOMORUS) TESSELATUS Say.**

*Aramigus tessellatus* Horn.

The nasal plate in this species is very short and broad. The posterior rim is distinct and broadly angulate, reaching the lateral margin of the beak. This gives the appearance of a deep emargination. The nasal plate is so short and depressed that it is likely to be overlooked; the margin is biconvex, emarginate at center. Mandibles squamose.

**PANTOMORUS (PANTOMORUS) FULLERI Horn.**

*Aramigus fulleri* HORN.

*Pantomorus olindæ* PERKINS.

*Pantomorus fulleri* CHAMPION.

The nasal plate in this species is entirely different, being ogival, much deeper than in *tesselatus* and occupying at base about one-third the width of the beak; it is concave, and angulately emarginate. Mandibles squamose.

**PANTOMORUS (PHACEPHOLIS) ELEGANS Horn.**

*Phacepholis elegans* HORN.

The nasal plate is crescentiform. The mandibles are squamose. Champion calls attention to a row of tubercles on the second ventral segment of the abdomen in the male and states that this species has 5. In the series before the writer are 20 without tubercles and 3 with them (from San Diego, Texas). Only two tubercles are strong and there is a varying number of minute granulations.

**PANTOMORUS (PHACEPHOLIS) VIRIDIS Champion.**

*Epicærus viridis* DUGÈS in a letter.

*Phacepholis viridis* CHITTENDEN, manuscript.

*Phacepholis elegans (viridis)* Chittenden) PIERCE, 1909.

*Pantomorus viridis* CHAMPION, Biol. Centr.-Amer. Coleop., vol. 4, pt. 3, p. 336, Dec., 1911.

*Pantomorus viridis* CHITTENDEN, Proc. Ent. Soc. Wash., vol. 14, pp. 106, 107, June 19, 1912.

This beautiful weevil was formerly considered by Mr. E. A. Schwarz and the writer as a variant of *elegans*. When the writer quoted Doctor Chittenden's manuscript name in print he was under the distinct impression that it had been published, otherwise he would not have used it. Since Mr. Champion has published a colored illustration and a brief statement concerning its characters the species may be credited to him. Of the six specimens of Doctor Chittenden's typical material before the writer in 1909 one was presented by the United States National Museum to Mr. Champion and this was figured. The series in the United States National Museum bears the type number 9756. It is very regrettable that this confusion has arisen. Doctor Chittenden's description unfortunately comes too late to give him the credit that should belong to him for discovering the species.

In making the present study the conclusion had already been reached that *viridis* was sufficiently distinct to be given specific rank and it was so placed in the present manuscript when Mr. Champion's notes came to hand.

The characters given in the table will assist in differentiating it from *elegans*, but the following are also of value: nasal plate small, triangular, emarginate, and somewhat obscured by the long hairs surrounding it; mandibles squamose; ventral tubercles on the second segment of the male merely granulations.

**PANTOMORUS (PHACEPHOLIS) NEBRASKENSIS, new species.**

Described from a single specimen from Lincoln, Nebraska (Wickham).

Length 6 mm., width 2.3 mm. Elongate, of the form of *fulleri*, reddish, densely covered with light brownish scales and sparsely with erect squamiform setæ. Head and beak nearly as long as prothorax; head hardly constricted behind the eyes; densely covered with pale round, striate scales and white squamose setæ; nasal plate very small strongly crescentiform, behind which is a large squamose, depressed ogival area; median line deeply, and sharply sulcate to apex of depressed area. Eyes evenly convex. Antennæ with scape surpassing the eyes; funicular joints all longer than wide, the second joint longer than the first and longer than the two following. Prothorax slightly wider than long, apically convex, basally sinuate, laterally convex; apex obliquely truncate; disk moderately convex, medially sulcate, densely squamose; scales arranged in longitudinal fasciæ of dark and light brown, the middle fascia brown. Elytra oval, sides feebly arcuate, surface striate, stria punctures close, squamigerous; intervals densely squamose, sparsely setose; undersides not so densely squamose. Anterior tibiæ moderately strongly denticulate; median tibiæ not denticulate.

*Type*.—Cat. No. 14650, U.S.Nat.Mus.



**PANTOMORUS (PHACEPHOLIS) METALLICUS**, new species.

Described from four specimens from Onaga, Kansas (Wickham). Another specimen from Kansas is also at hand.

Length 6 mm., width 2.5 mm. Very similar to *elegans* in form and color, from which it differs mainly by having the median tibiæ minutely denticulate. The nasal plate is triangular but very deeply emarginate and more nearly resembles that of *viridis* than of *elegans*.

It is possible that future collecting will connect this Kansas form as a race of one of the Texas species.

*Type*.—Cat. No. 14651, U.S.Nat.Mus.

**PANTOMORUS (PHACEPHOLIS) TEXANUS**, new species.

Described from two specimens from Texas (C. V. Riley collection). A third specimen is at hand labeled Kansas.

Length 7 mm., width 3 mm. This species is of the color and form of *candidus* Horn but differs so strongly in the antennal characters that it seems necessary to separate it. It is of course possible that these represent the two sexes or two races of a species intermediate as to antennal structure. The funicular joints are all very elongate, and the second is considerably longer than the first and also than the third and fourth combined. The nasal plate is very small, and strongly arcuate on both margins.

*Type*.—Cat. No. 14652, U.S.Nat.Mus.

The Kansas specimen is a male and has several tubercles in the second ventral segment.

**PANTOMORUS (PHACEPHOLIS) CANDIDUS** Horn.

*Phacepholis candida* HORN.

The nasal plate is very small, convex, and strongly emarginate. The males have a row of tubercles on the second ventral segment.

**PANTOMORUS (PHACEPHOLIS) PALLIDUS** Pierce.

*Phacepholis pallida* PIERCE.

The nasal plate is tiny, triangular and strongly emarginate. In this species the striae punctures vary from minutely setigerous to squamigerous. The material studied is from Corpus Christi, Wades, Beeville, Sharpsburg, Brownsville, and San Antonio, Texas. Specimens from Kingsville, Texas, May 12, 1912 (E. E. Scholl), were recorded as injurious to cotton. The male has a row of minute granulations on the second ventral segment.

**PANTOMORUS (PHACEPHOLIS) OBSCURUS** Horn.

*Phacepholis obscura* HORN.

The nasal plate is tiny, triangular and emarginate. The vestiture of the striae punctures also varies in this species in the single series from Mineral Wells, Texas, in the same manner as in preceding species. The ventral segment in the male has a row of small tubercles.

## Genus LEPIDOCRICUS Pierce (1910).

*Lepidocricus* PIERCE, Journ. Econ. Ent., vol. 3, 1910, p. 362.

The genus is monotypic, based on *herricki* Pierce.

## LEPIDOCRICUS HERRICKI Pierce.

Material of this species in addition to the types, which were from Easter, Mississippi, are at hand from Waveland, Mississippi; Fort Scott and Onaga, Kansas; and Lincoln, Nebraska. The Onaga specimens were taken from stomachs of *Sturnella magna*, the meadow lark, by F. F. Crevecoeur, April 24, 1895. The nasal plate is very indistinct and is not defined by a distinct rim. It is in general convex in outline and emarginate at tip.

## Genus ARTIPUS Sahlberg (1823).

*Artipus* SAHLBERG, Peric. Ent. Spec. Ins., 1823, p. 22.

The genus is monotypic, based on *corycæus* Sahlberg.

## Tribe BARYNOTINI, Bedel (1885).

## Table of genera of Barynotini.

- |                       |                           |
|-----------------------|---------------------------|
| 1. Claws free.....    | <i>Barynotus</i> Germar.  |
| 2. Claws connate..... | <i>Barypeithes</i> Duval. |

## Genus BARYNOTUS Germar (1817).

*Barynotus* GERMAR, Mag der Ent., vol. 2, 1817, pp. 339-341.

The genus included two species, of which Schönherr (1826) designated *obscurus* Fabricius as type.

## Genus BARYPEITHES J. Duval (1855).

*Barypeithes* J. DUVAL, Gen. Col. Curc., 1855, p. 13.

*Barypithes* GEMMINGER and HAROLD, Cat. Coleopt., vol. 8, 1871, p. 2284.

The originally designated type is (*rufipes* J. Duval) *sulcifrons* Boheman.

## TRIGONOSCUTINI, new tribe.

The only American genus is *Trigonoscuta* Motschulsky, which has the articular surfaces of the hind tibiæ strongly cavernous and scaly, and the claws free.

## Genus TRIGONOSCUTA Motschulsky (1852).

*Trigonoscuta* MOTSCHULSKY, Etud. Ent., vol. 1, 1852, p. 79.

The genus is monotypic, based on *pilosa* Motschulsky.

## CALYPTILLINI, new tribe.

The only American genus is *Calyptillus* Horn, which has the maxillæ slightly visible at the sides of the mentum, and the claws free.

## Genus CALYPTILLUS Horn (1876).

*Calyptillus* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 27.

The monotype of the genus is *cryptops* Horn.

**BRACHYRHININÆ, new subfamily.***Table of tribes of Brachyrhininæ.*

- I. Elytra scarcely surpassing width of prothorax at base, humeral angles rounded; body apterous; metasternum short, intercoxal piece large, broad.
1. Tarsal claws free.
    - a*<sup>1</sup>. Corbels of posterior tibiæ cavernous.....CELEUTHETINI, new tribe.
    - a*<sup>2</sup>. Corbels of posterior tibiæ open.
      - b*<sup>1</sup>. Antennæ more or less long and slender; outer joints of funicle long.  
BRACHYRHININI Bedel (1885).
      - b*<sup>2</sup>. Antennæ at least moderate, robust for the most part; outer funicular joints short or moniliform .....TRACHYPHLEINI, new tribe.
  2. Tarsal claws connate.
    - c*<sup>1</sup>. Corbels of posterior tibiæ cavernous.....OOSOMINI, new tribe.
    - c*<sup>2</sup>. Corbels of posterior tibiæ open.
      - d*<sup>1</sup>. Antennal club oval, rarely oblong-oval.....SIMOINI, new tribe.
      - d*<sup>2</sup>. Antennal club slender, elongate.....LAPAROCERINI, new tribe.
- II. Elytra wider than prothorax at base.
1. Body apterous; metasternum short, intercoxal piece large; tarsal claws connate; corbels of posterior tibiæ cavernous .....EPISOMINI, new tribe.
  2. Body usually winged; metasternum elongate; intercoxal piece variable.
    - a*<sup>1</sup>. Tarsal claws free.
      - b*<sup>1</sup>. Corbels of posterior tibiæ cavernous .....EUSTYLINI, new tribe.
      - b*<sup>2</sup>. Corbels of posterior tibiæ open; intercoxal piece small, ogival.  
MYLLOCERINI, new tribe.
    - a*<sup>2</sup>. Tarsal claws connate; corbels of posterior tibiæ open; intercoxal piece small ogival .....PHYLLOBIINI Bedel (1885).

No representatives of the Oosomini, Episomini, Laparocerini, or Myllocerini occur in North America.

**CELEUTHETINI, new tribe.**

Only one American genus, *Agraphus* Schönherr, may be provisionally referred here. It bears a strong resemblance to *Celeuthetes*, but differs in important respects.

**Genus AGRAPHUS Say (1831).**

*Agraphus* SAY, Descr. N. A. Curc., 1831, p. 13.

The monotype of this genus is *bellicus* Say. It was originally used as a subgenus in *Peritelus*.

**Tribe BRACHYRHININI Bedel (1885).***Table of genera of Brachyrhinini.*

1. Metasternal side-pieces entirely concealed by the elytra; suture obliterated. Hind tibiæ with two short fixed spurs .....*Brachyrhinus* Latreille.
2. Metasternal suture distinct in entire length.
  - a*<sup>1</sup>. Metasternal side-pieces linear.
    - b*<sup>1</sup>. Hind tibiæ with two short, fixed, terminal spurs; first suture of abdomen feebly arcuate. Front slightly transversely impressed....*Sciopithes* Horn.
    - b*<sup>2</sup>. Hind tibiæ without terminal spurs; first suture strongly arcuate at middle. Front not impressed .....*Agronus* Horn.
  - a*<sup>2</sup>. Metasternal side-pieces moderately wide. Hind tibiæ without terminal spur; first suture of abdomen strongly arcuate at middle.....*Neoptochus* Horn.

## Genus BRACHYRHINUS Latreille (1802).

*Brachyrhinus* LATREILLE, Hist. Nat. Gen. et Part. Crust. et Ins., vol. 3, 1802, p. 200.

*Otiorhynchus* GERMAR, Ins. Spec. Nov., 1824, p. 343.

The type of the genus is *ligustici* Linnæus, designated by virtue of elimination by Latreille (1807) and Bedel (1881). Latreille's (1810) designation of *viridis* as type is not acceptable as that species was not originally included. The type of *Otiorhynchus* is *clavipes* (Olivier) Bonsdorff designated by Schönherr (1826) and is congeneric with *ligustici*, but represents a different subgenus.

## Genus SCIOPITHES Horn (1876).

*Sciopithes* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 62.

The genus is monotypic, based on *obscurus* Horn.

## Genus AGRONUS Horn (1876).

*Agronus* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 63.

Of the two original species we hereby designate the first, *cinerarius* Horn, as type.

## Genus NEOPTOCHUS Horn (1876).

*Neoptochus* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 64.

This genus is monotypic, based on *adpersus* Boheman.

## TRACHYPHLÆINI, new tribe.

## Table of genera of Trachyphlæini.

1. Metathoracic side pieces entirely concealed; eyes with distinct orbital groove.
  - a*<sup>1</sup>. Scrobes superior, very short and deep, not reaching the eyes; anterior and middle tibiæ feebly mucronate ..... *Cercopeus* Schönherr.
  - a*<sup>2</sup>. Scrobes lateral, long, passing directly backward and inclosing the eyes; tibiæ strongly mucronate..... *Chætechus* Horn.
2. Metathoracic side pieces visible; suture at least moderately distinct.
  - b*<sup>1</sup>. Beak with a fine arcuate groove between the anterior extremities of the eyes; scrobes lateral, rather narrow, deep anteriorly, gradually evanescent, feebly arcuate, directed upon or nearly attaining the eyes..... *Panormus* Casey.
  - b*<sup>2</sup>. Beak with deep transverse impression at base; scrobes lateral, deep, moderately arcuate and passing directly backward to the eye ..... *Trachyphlæus* Germar.

## Genus CERCOPEUS Schönherr (1843).

*Cercopeus* SCHÖNHERR, Gen. et Sp. Curc., vol. 7, 1843, pt. 1, p. 154.

*Cercopius* GEMMINGER and HAROLD, Cat. Coleopt., vol. 8, 1871, p. 2287.

The type of the genus is *chrysorhæus* Say by original designation.

## Genus CHÆTECHUS Horn (1876).

*Chætechus* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 77.

The genus is monotypic, based on *setiger* Horn.

## Genus PANORMUS Casey (1888).

*Panormus* CASEY, Ann. New York Acad. Sci., vol. 4, 1888, p. 269.The monotype of the genus is *setosus* Casey.

## Genus TRACHYPHLÆUS Germar (1817).

*Trachyphlæus* GERMAR, Mag. der Ent., vol. 2, 1817, pp. 339-341.The monotype of the genus is *scabriculus* Linnæus.

## SIMOINI, new tribe.

## Table of genera of Simoini.

- I. Side pieces of mesosternum very unequal, the episternum larger and attaining the elytral margin, epimeron usually small, sometimes very small.
1. First abdominal suture straight or extremely nearly so.....Group *Paraptochi*.  
*a*<sup>1</sup>. Scrobes lateral.....*Paraptochus* Seidlitz.  
*a*<sup>2</sup>. Scrobes superior.  
*b*<sup>1</sup>. Antennal scape not attaining the prothorax; eyes small; second ventral segment shorter than the two following together.....*Stenoptochus* Casey.  
*b*<sup>2</sup>. Antennal scape long and slender, passing distinctly beyond the anterior margin of the prothorax; eyes large; second segment as long as the two following together.....*Orthoptochus* Casey.
2. First abdominal suture arcuate.....Group *Periteli*.  
*a*<sup>1</sup>. Cotyloid surface of the hind tibiæ glabrous; eyes with or without orbital groove.  
*b*<sup>1</sup>. Integuments sparsely pubescent.....*Omius* Germar.  
*b*<sup>2</sup>. Integuments squamose.  
*c*<sup>1</sup>. Scrobes superior and convergent above.  
*d*<sup>1</sup>. Beak narrowed to tip.  
*e*<sup>1</sup>. Beak longer than head; scrobes very short, terminal.  
*Thricolepis* Horn.  
*e*<sup>2</sup>. Beak shorter than head; scrobes attaining the eyes.  
*Peritelopsis* Horn.  
*d*<sup>2</sup>. Beak dilated at apex, short; scrobes very feebly convergent, short, not attaining the eyes; second ventral segment as long as the third and fourth.  
*f*<sup>1</sup>. Posterior tibiæ with two short fixed spurs.....*Peritelodes* Casey.  
*f*<sup>2</sup>. Posterior tibiæ without fixed spurs.....*Peritelinus* Casey.
- c*<sup>2</sup>. Scrobes more lateral, not convergent above.  
*g*<sup>1</sup>. Scape about as long as the funicle.  
*h*<sup>1</sup>. Scrobes not attaining the eyes.....*Geoderces* Horn.  
*h*<sup>2</sup>. Scrobes attaining and partially enveloping the eyes.  
*Geodercodes* Casey.  
*g*<sup>2</sup>. Scape much shorter than the funicle.....*Aragnomus* Horn.
- a*<sup>2</sup>. Cotyloid surface of the hind tibiæ squamose.  
*i*<sup>1</sup>. Scrobes superior, slightly convergent above. Eyes indistinctly surrounded by a groove. Scape feebly arcuate.....*Dysticheus* Horn.  
*i*<sup>2</sup>. Scrobes lateral, not at all convergent. Orbital groove deep.  
*j*<sup>1</sup>. Scape arcuate and slightly twisted; scrobes lateral, deep and attaining the eyes.....*Eucyllus* Horn.  
*j*<sup>2</sup>. Scape straight or very feebly arcuate.  
*k*<sup>1</sup>. Scrobes very shallow, posteriorly, not attaining the eyes.  
*Thinoxenus* Horn.  
*k*<sup>2</sup>. Scrobes deep, attaining the eyes.....*Rhypodillus* Cockerell.

II. Side pieces of mesosternum diagonally divided and equal or very nearly so, episternum distant from the elytral margin, separated by the epimeron.

Group *Aphrasti*.

3. Elytra oval, humeri rounded, body apterous ..... *Aphrastus* Schönherr.

**Genus PARAPTOCHUS Seidlitz (1868).**

*Paraptochus* SEIDLITZ, Berl. Ent. Zeit., Beiheft., 1868, p. 35 note.

The genus is founded on *californicus* Seidlitz.

**Genus STENOPTOCHUS Casey (1888).**

*Stenoptochus* CASEY, Ann. New York Acad. Sci., vol. 4, 1888, p. 259.

The genus is monotypic, based on *inconstans* Casey.

**Genus ORTHOPTOCHUS Casey (1888).**

*Orthoptochus* CASEY, Ann. New York Acad. Sci., vol. 4, 1888, p. 261.

The genus is monotypic, based on *squamiger* Casey.

**Genus OMIAS Germar (1817).**

*Omiias* GERMAR, Mag. der Ent., vol. 2, 1817, pp. 339-341.

*Mylacus* SCHÖNHERR, Gen. et Sp. Curc., vol. 7, 1843, pt. 1, p. 144.

The type of *Omiias* is *rotundatus* Fabricius, designated by Schönherr (1826), and of *Mylacus* is *murinus* Boheman, as originally designated. *Omiias* Gemminger and Harold (1871) is therefore preoccupied and may be known as *Rhinomias* Reitter (1894).

**Genus THRICOLEPIS Horn (1876.)**

*Thricolepis* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 68.

Of the two original species we designate the first, *inornata* Horn, as type.

**Genus PERITELOPSIS Horn (1876).**

*Peritelopsis* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 70.

The genus is monotypic, based on *globiventris* LeConte.

**Genus PERITELODES Casey (1888.)**

*Peritelodes* CASEY, Ann. New York Acad. Sci., vol. 4, 1888, p. 262.

The genus is monotypic, based on *obtectus* Casey.

**Genus PERITELINUS Casey (1888).**

*Peritelinus* CASEY, Ann. New York Acad. Sci., vol. 4, 1888, p. 263.

The genus is monotypic, based on *variegatus* Casey.

**Genus GEODERCES Horn (1876).**

*Geoderces* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 70.

The designated type is *melanothrix* Kirby.

**Genus GEODERCODES Casey (1888).**

*Geodercodes* CASEY, Ann. New York Acad. Sci., vol. 4, 1888, p. 265.

The genus is monotypic, based on *latipennis* Casey.

**Genus ARAGNOMUS Horn (1876).**

*Aragnomus* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 72.

The genus is monotypic, based on *griseus* Horn.

**Genus DYSTICHEUS Horn (1876).**

*Dysticheus* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 73.

The genus is monotypic, based on *insignis* Horn.

**Genus EUCYLLUS Horn (1876).**

*Eucyllus* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 74.

The genus is monotypic, based on *vagans* Horn.

**Genus THINOXENUS Horn (1876).**

*Thinoxenus* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 74.

The genus is monotypic, based on *squalens* Horn.

**Genus RHYPODILLUS Cockerell (1906).**

*Rhypodes* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 75 (not Stål, 1874).

*Rhypodillus* COCKERELL, Ent. News, vol. 17, 1906, p. 243.

Cockerell's name was proposed as a substitute for Horn's pre-occupied name. We may consider the first of the two original species, *dilatatus* Horn, as type.

**Genus APHRASTUS Say (1831).**

*Aphrastus* SAY, Descr. N. A. Curc., 1831, p. 9.

The genus is monotypic, based on *tæniatus* Say.

**EUSTYLINI, new tribe.**

*Table of genera of Eustylini.*

1. Scape short, stout, scrobes short, suddenly arcuate. Scutellum rather large, oval.....*Brachystylus* Schönherr.
2. Scrobes widely open from above, cavernous in front, very shallow posteriorly, slightly arcuate and directed toward eyes. Scutellum moderate, oval.  
*Achrastenus* Horn.

**Genus BRACHYSTYLUS Schönherr (1845.)**

*Brachystylus* SCHÖNHERR, Gen. et Sp. Curc., vol. 8, 1845, pt. 2, p. 433.

The genus is monotypic, based on *acutus* Say.

Genus **ACHRASTENUS** Horn (1876).*Achrastenus* HORN, Proc. Amer. Philos. Soc., vol. 15, 1876, p. 97.The genus is monotypic, based on *griseus* Horn.Tribe **PHYLLOBIINI** Bedel (1885).Scrobes in the form of fossets, subterminal.....*Phyllobius* Germar.Genus **PHYLLOBIUS** Germar (1824).*Phyllobius* GERMAR, Ins. Spec. Nov., 1824, p. 447.The type of this genus is *pyri* Linnæus, designed by Schönherr (1826).

## UNIDENTIFIED BRACHYRHINID GENUS.

Genus **LEPESOMA** Motschulsky (1845).*Lepesoma* MOTSCHULSKY, Bull. Mosc., vol. 2, 1845, p. 105.The monotype of this genus is *californica* Motschulsky.