

**A study of some genera of ELATERIDÆ.**

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While preparing the portion of Dr. LeConte's paper for publication relating to Elateridæ, my attention was drawn to the confusion existing in several genera from the scattered descriptions of the species, and the absence, in many cases, of comparisons between them. To supply the want which appeared to exist I have made the following studies:

Of the species described in the following pages my cabinet contains specimens carefully compared with the types described by Dr. LeConte, the new species being also in my cabinet. Notwithstanding the fact that many of them have been several times more or less fully described I have thought it well to repeat the descriptions in order that they might be better compared and so enable future discoveries to be more readily correlated with them.

**HORISTONOTUS** Cand.

This genus contains those species for a time enrolled in *Cardiophorus* in which the margin of the thorax is moderately well defined in the basal half, the edge being at the same time coincident with the suture which divides the dorsal from the pectoral region of the prothorax.

In the lists which have been published eight species are recorded as occurring in our fauna, in the following pages six new ones will be found described and one (*exoletus*) added which has been known only from South America.

The occurrence of species with simple claws in our fauna is here indicated for the first time, and three are recorded with the claws cleft at tip. All our species have the free angle of the coxal plate rounded. Some have the humeri so broadly rounded as to lead to the suspicion that they are apterous. One species (*pullatus*) is certainly apterous, and I have very little doubt that the same will be found of those with broadly rounded humeri as *inanus*, *basalis*, *transfugus*, *definitus* and *sufflatus*. From this fact some modification of the table of genera as given by Candéze (*Elat.* iii, p. 104) is required, and *Coptostethus* must be placed next to *Cardiophorus*, from which it should be directly distinguished.

The punctuation of the thorax varies greatly, as will be seen by reference to the following table, and as the general form is also quite diverse I cannot realize that peculiar generic facies of which some authors have written.

In the accompanying table three series are indicated in place of two defined by Candéze, the subordinate characters are sufficiently definite as to require no special explanation.

Claws simple.....	SERIES A.
Claws dentate from the middle to base.....	SERIES B.
Claws cleft at tip.....	SERIES C.

#### SERIES A.

Black, thorax bicolored, punctuation very coarse.....	<b>vulneratus.</b>
Uniformly brown or piceous, pubescence rather coarse, punctuation of thorax mixed .....	<b>pullatus.</b>

#### SERIES B.

Thorax not conspicuously narrower at apex than at base, sides usually strongly arcuate, disc at middle wider than the base.....	2.
Thorax narrower at apex than at base, sides feebly arcuate, base as broad as disc at middle .....	7.
2.—Sub-opaque, thorax coarsely and roughly punctured, the sides feebly arcuate. Body not coarctate at base of elytra.....	<b>densus.</b>
More or less shining, thorax with double punctuation. Body more or less coarctate at base of elytra.....	3.
3.—Punctuation of thorax extremely fine, surface shining, scarcely at all pubescent; color uniform .....	<b>inanus.</b>
Punctuation of thorax very distinct, surface more or less pubescent.....	4.
4.—Elytra paler at base or with a large humeral spot.....	5.
Body above uniform in color.....	6.
5.—General color brownish, elytra regularly oval in form, with basal fourth paler .....	<b>basalis.</b>
Piceous, thorax paler at base and apex; elytra gradually narrower to apex, each shoulder with an oval reddish spot.....	<b>transfugus.</b>
6.—Punctuation of thorax close and conspicuous, the surface opaque, the coarse punctuation nearly as abundant in the basal region as in front; general color ferruginous.....	<b>definitus.</b>
Punctuation of thorax not conspicuous, the coarse punctuation scarcely extending behind the middle; general color piceous.....	<b>sufflatus.</b>
7.—Castaneous to pale brown, form robust.....	<b>simplex.</b>
Piceous, elytra maculate, legs and antennæ pale .....	<b>curiatus.</b>
Piceous, nearly black, form slender, legs and antennæ pale yellow..	<b>gracilis.</b>

#### SERIES C.

Elytral intervals sub-costiform near the tip.	
Brown or piceous, thorax one-fourth longer than wide, punctuation double.	<b>exoletus.</b>

Ferruginous, thorax barely longer than wide, punctuation fine, uniform.

**Uhlerii.**

Elytral intervals flat at apex.

Thorax nearly square, punctuation intermixed but not very distinct.

**mitis.**

**H. vulneratus** n. sp.—Form moderately robust, black, somewhat shining, flanks of prothorax beneath and a variable extent of the upper side red. Antennæ black, feebly serrate, not extending beyond the hind angles of the thorax. Head coarsely and densely punctured, front triangularly impressed. Thorax as wide as long, narrower in front, sides moderately arcuate, base slightly narrower than the middle, hind angles not divergent, disc convex, slightly shining, sparsely pubescent, rather coarsely and closely punctate, the punctures becoming somewhat finer posteriorly, basal incisures very distant, median line slightly impressed posteriorly, color in great part red with a triangular black space extending from the apical margin of variable size, rarely covering the greater part of the disc. Elytra a little wider than the thorax at base, arcuately narrowing to the apex, rather deeply striate, striæ punctate, intervals convex closely punctulate, sparsely pubescent; prothorax finely and closely punctate; metasternum and abdomen densely punctulate with a few slightly larger punctures intermixed. Legs black, sparsely punctate. Tarsal claws simple. Length .20–.24 inch; 5–6 mm.

This is the only species in our fauna with the greater part of the body black, and is the first recorded instance of one with simple claws.

Occurs in Arizona (Morrison).

**H. pullatus** n. sp.—Form robust, piceous or brownish, sub-opaque, clothed with rather coarse grayish pubescence. Antennæ pale, not longer than the thorax, feebly serrate. Head densely punctate, front rather flat. Thorax as wide or slightly wider than long, apex very little narrower than the base, sides rather strongly arcuate, hind angles slightly divergent, disc strongly convex, basal sulci distinct but small, median line slightly impressed posteriorly, a vague depression behind the apical margin, surface densely punctulate with coarse punctures sparsely intermixed, and which become somewhat finer posteriorly. Elytra not wider than the thorax, oblong oval, humeri broadly rounded, deeply striate, striæ coarsely and closely punctate, intervals slightly convex, rather densely punctulate with a single row of coarser punctures intermixed. Body beneath densely punctulate, with coarse punctures intermixed, the flanks of the prothorax with coarse punctures. Legs testaceous or brownish, densely punctulate. Tarsal claws simple. Length .20–.22 inch; 5–5.5 mm.

Our most robust species, easily known by its color, coarse pubescence and simple claws.

Occurs in Arizona (Morrison).

**H. densus** Lec.—Brownish, feebly shining, sparsely clothed with short cinereous pubescence. Legs and antennæ rufo-testaceous. Antennæ slender, nearly as long as half the body. Head convex, coarsely and closely punctate. Thorax as long as wide, apex scarcely narrower than base, sides rather feebly arcuate, basal plicæ small, disc convex, coarsely, densely and rather roughly punctured, the punctures less dense and somewhat finer posteriorly. Elytra slightly wider

than the thorax, sides sub-parallel, arcuately narrowing at apical third, surface rather deeply striate, striae coarsely punctate, intervals convex, somewhat rugose and with a row of relatively coarse punctures. Body beneath more shining than above, rather closely punctate with coarse and fine punctures intermixed, the coarse punctures of the abdomen not conspicuous, those of the sides of the prothorax beneath large and numerous. Claws rectangularly dentate from the middle to the base. Length .18-.25 inch; 4.5-6.5 mm.

The sides of the thorax are less conspicuously arcuate than in the others of the series in which I place it. The punctuation of the thorax is more nearly that of the species preceding, with simple claws.

On comparing the above description with that of Dr. LeConte (New Species, p. 83) there will be found a very great difference in the sculpture of the thorax; he describes it as "dense subtiliter punctato." Nothing less than a careful examination of two typical specimens would have convinced me that the description which I have given could possibly apply to his species.

One specimen from Lower California, kindly sent me by Mr. H. Ulke, the type in cab. LeConte.

**H. inanus** Lec.—Form moderately robust, piceous, rather shining, sparsely clothed with grayish pubescence, legs pale. Antennae piceous, two basal joints paler, feebly serrate, extending beyond the hind angles of the thorax. Head convex, sparsely finely punctate. Thorax not longer than wide, apex very little narrower than base, sides strongly arcuate, hind angles not divergent, basal plicae very small, disc convex, shining, punctuation extremely fine. Elytra not wider than the thorax, oblong oval, humeri broadly rounded, rather deeply striate, striae moderately closely punctate, intervals feebly convex, very sparsely punctulate. Body beneath piceous, shining, punctuation moderately dense with coarse and fine punctures intermixed, sides of pronotum more coarsely, prosternum scarcely at all punctulate. Claws rectangularly dentate from the middle to the base. Length .16-.18 inch; 4-4.5 mm.

The two specimens before me vary in color, one of them being entirely piceous the other somewhat brown from immaturity. In form it resembles *basalis*, but the two may be distinguished by the different thoracic punctuation even when they resemble each other by immaturity.

Two specimens; Sacramento Valley, Cal.

**H. basalis** n. sp.—Form moderately robust, piceous or brownish, sparsely fulvo-pubescent, elytra at base, antennae and legs rufo-testaceous. Antennae slender feebly serrate, extending slightly beyond the hind angles of the thorax. Head convex, densely unequally punctate. Thorax as wide as long, apex not narrower than the base, sides strongly arcuate, hind angles slightly divergent, basal plicae very feeble, disc convex, moderately shining, densely unequally punctate. Elytra oblong oval, twice as long as the thorax, humeri broadly rounded, finely striate, striae not closely punctate, the punctures much finer near the apex, intervals flat, extremely finely punctate. Body beneath densely punctulate with coarser punctures sparsely intermixed. Claws dentate from the middle to the base, the free angle rounded. Length .16-.20 inch; 4-5 mm.

The pale color occupies one-fourth to one-third of the base of the elytra, extending downward on the sides nearly to the middle. Varieties occur with the elytra entirely pale or even entirely piceous, in which case they resemble *inanus*, and may be distinguished by the thoracic punctuation.

Occurs in California; those in my cabinet are from Owen's Valley.

**H. transfugus** Lec.—Form moderately robust, piceous, sometimes nearly black, sparsely cinereo-pubescent, an oval humeral spot on the elytra, legs and antennæ rufo-testaceous. Antennæ extending beyond the hind angles of the thorax, feebly serrate. Head convex, moderately closely, finely punctate, with very few coarser punctures intermixed. Thorax a very little longer than wide, sides moderately arcuate, apex very little narrower than the base, hind angles slightly divergent, the basal plicæ small, but double, disc convex, moderately shining, finely and closely punctate, the coarser punctures barely distinct, color piceous, the apical and basal margins often reddish brown. Elytra not wider than the thorax, humeri distinct, gradually arcuately narrowing to apex, finely striate, striæ not deeply punctate, intervals flat, minutely and sparsely punctulate, humeral red spot oval acute behind, sometimes extending in a vitta. Body beneath very finely punctulate, coarser punctures evident only on the sides of the pronotum. Claws broadly toothed from middle to base. Length .18-.26 inch; 4.5-6.5 mm.

This species could only be confounded with *basalis*, from which it differs by its well defined elytral humeri, and the oval spot on each separated at the suture and not extending down on the sides.

Occurs in California (Sacramento Valley and northward).

**H. definitus** Horn.—Form robust, ferruginous or pale brown, sub-opaque, sparsely clothed with fine cinereous pubescence, somewhat holosericeous on the thorax, legs and antennæ paler. Antennæ slender, extending beyond the hind angles of the thorax. Head convex, densely punctulate with numerous coarse punctures intermixed. Thorax a very little longer than wide, sides moderately arcuate, apex scarcely narrower than base, hind angles not divergent, basal plicæ well marked, disc convex, fine punctuation scarcely evident, the coarse punctuation large and closely placed at middle in front, becoming gradually finer toward the base and sides. Elytra not wider than the thorax, oblong oval, humeri distinct, disc striate, striæ moderately coarsely but not closely punctate, intervals slightly convex, sparsely punctulate. Body beneath more closely pubescent than above, fine punctuation close with very evident coarser punctures intermixed. Claws rectangularly toothed from middle to base. Length .20-.28 inch; 5-7 mm.

Easily known among the species with the strongly arcuate sides of the thorax, by its color, the character of the thoracic pubescence, and the very evident coarse punctuation.

Occurs in Owen's Valley, California.

**H. sufflatus** Lec.—Form moderately robust, slightly depressed, piceous or brownish, shining, sparsely cinereo-pubescent, legs and antennæ testaceous. Antennæ slender, extending slightly beyond the hind angles of the thorax. Head

convex, finely punctulate with conspicuous coarser punctures intermixed. Thorax slightly longer than wide, apex and base nearly equal, sides strongly arcuate, hind angles slightly divergent, basal plicæ small, disc convex, closely finely punctulate with coarse punctures very regularly intermixed and nearly as distinct in the basal region as in front. Elytra a little wider at middle than the thorax, oblong oval, humeri broadly rounded, striate, striæ not closely punctured, intervals flat, sparsely punctulate. Body beneath finely closely punctulate, with coarse punctures intermixed, those of the sides of the prothorax longer. Claws rectangularly toothed from the middle to base. Length .20-.24 inch; 5-6 mm.

In the males of this species the thorax is nearly as wide as long. It is not easy to separate this species from the entirely piceous varieties of *inanus*, except by the very much more distinct punctuation of the thorax.

Occurs in California and western Nevada.

**H. simplex** Lec.—Form moderately robust, piceous, brownish or castaneous, moderately shining, very sparsely clothed with short yellowish pubescence with a few larger sub-erect hairs. Antennæ rufo-testaceous, very little longer than the head and thorax, feebly serrate. Head convex, densely punctulate with coarser punctures intermixed. Thorax not longer than wide, narrower in front, sides moderately arcuate, hind angles not divergent, basal striæ not conspicuous, disc moderately convex, densely finely punctulate with coarser (but not large) punctures intermixed, which become much finer posteriorly. Elytra very little wider than the thorax, arcuately narrower to apex, humeri distinct, disc moderately striate, the striæ with coarse closely placed punctures which become finer posteriorly, intervals slightly convex, densely finely punctulate with a single series of coarser punctures. Body beneath more shining than above, densely finely punctulate with coarser punctures intermixed. Legs pale, finely punctulate. Tarsal claws rectangularly dentate from the middle to the base. Length .24-.34 inch; 6-8.5 mm.

This species was originally described as black, but the color term is too strong. The form is that of *curiatus*, but longer. The thorax varies here in form as also in the other species; in some the sides are distinctly arcuate, in others nearly straight except in front, the form never approaches that seen in *transfugus*, etc.

Occurs in the Peninsula of California, at Fort Yuma, in Arizona, extending to southwestern Utah.

**H. curiatus** Say.—Piceous feebly shining, sparsely fulvo-pubescent, elytra at basal third and elongate apical spot, legs and antennæ rufo-testaceous. Antennæ slender, feebly serrate, very little longer than the thorax. Head convex, moderately shining, sparsely punctate. Thorax a little longer than wide, narrower in front, sides feebly arcuate, basal plicæ small and double, disc convex moderately shining, sparsely punctate. Elytra not wider at base than the thorax, slightly wider behind the humeri, then arcuately narrowing to apex, deeply striate, striæ punctate, intervals convex, sparsely punctulate. Body beneath piceous, shining, sparsely pubescent, the punctures rather fine not closely placed, coarser at the sides of prothorax. Legs pale, finely punctate and pubescent. Claws rectangularly dentate from the middle to the base. Length .15-.18 inch; 4-4.5 mm.

The yellow color at the base of the elytra occupies usually a little more than a third of their extent; specimens sometimes occur with the elytra almost entirely yellow. The thoracic sculpture consists almost entirely of the punctures which are usually the coarse ones of the other species, they are, however, rather fine, while the usual fine punctures are almost entirely absent.

Widely diffused in the eastern region as far as Texas.

**H. gracilis** n. sp.—Form rather slender, piceous, moderately shining, very sparsely fulvo-pubescent, legs and antennæ rufo-testaceous. Antennæ slender feebly serrate, extending slightly beyond the hind angles of the thorax. Head convex, moderately shining, front slightly flattened, punctuation intermixed but not close. Thorax longer than wide, narrower at apex, sides arcuate in front, slightly sinuate before the hind angles, basal plicæ distinct but short, disc convex, shining, rather densely and very finely punctulate with not very conspicuous coarser punctures intermixed. Elytra not wider than the thorax and about twice as long, arcuately narrower to apex, striate, striæ rather closely punctate, intervals feebly convex, very sparsely punctulate. Body beneath shining, finely closely punctate, the intermixed coarser punctures very evident on the flanks of the prothorax but not on the abdomen. Claws rectangularly dentate from the middle to the base. Length .24 inch; 6 mm.

This is one of the most slender species in our fauna. The form of the thorax is somewhat intermediate between the two preceding species and those which follow; the base, however, is as broad as the widest part a little in front of middle.

Occurs in western Nevada.

**H. exoletus** Erichs.—Form slender, brown or nearly piceous, sparsely and finely cinereo-pubescent, moderately shining, antennæ and legs testaceous. Antennæ slender, extending slightly beyond the hind angles of the thorax. Head convex, closely punctate, the coarser punctures conspicuous. Thorax one-fourth longer than wide, apex narrower than base, sides moderately arcuate, hind angles not divergent, basal plicæ distinct but not large, disc convex, moderately closely punctulate with not conspicuously coarser punctures intermixed. Elytra not wider than the thorax, humeri distinct, sides gradually arcuately narrowing from the humeri to the apex, surface rather deeply striate, striæ coarsely punctate, intervals convex in their entire extent, 2-3-5-7-9 at apex more elevated and costiform, their surface obsoletely punctulate with coarser punctures intermixed, the latter not conspicuous on the abdomen. Claws cleft at tip. Length .22-.28 inch; 5.5-7 mm.

This species is rather more slender and the thorax longer than in *Uhleri*, and with an intermixed punctuation. The color of the two is also different. In admitting this species as an inhabitant of our fauna the determination has been made by very careful comparison of my specimens with a type sent me some years ago by Dr. Candéze. I have seen but two specimens, both smaller (1 mm.) than the South American specimens.

Occurs in southwestern Texas.

**H. Uhlerii** Horn.—Form rather slender, rufo-testaceous, moderately shining, sparsely clothed with short yellowish hairs. Antennæ slender, half the length of the body. Head convex, rather coarsely and closely punctured in front. Thorax longer than wide, apex distinctly narrower than base, sides moderately arcuate, hind angles not divergent, basal plicæ small but distinct, disc convex, punctuation fine, not dense and uniform in degree. Elytra as wide at base as the thorax, humeri distinct, sides gradually narrowing from the humeri to the apex, moderately deeply striate, striæ coarsely punctured, intervals slightly convex at base, near apex costiform, the intervals 2-3-5-7-9 entire and more elevated, the surface sparsely punctulate with a single series on each of somewhat larger punctures. Body beneath shining, not closely punctulate, the punctures intermixed but not conspicuously different. Claws cleft at tip, the tooth being very near the apex. Length .24 inch; 6 mm.

This species is related to a small group associated by Candéze in his synoptic table (Elat. iii, p. 246) consisting of *exoletus parmenoides*, *attenuatus* and *acutipennis*, all of which occur on the Pacific slope of South America. Of these *exoletus* is known to me by a type sent by Dr. Candéze in which I find the claws as stated above. There is, however, no mention of this character in any of the descriptions but which is so evident as to indicate the propriety of a division of the genus into three series instead of two. It is possible that some other species without costiform intervals should be included in this third series.

Occurs in Florida and Georgia.

**H. mitis** n. sp.—Pale rufo-testaceous, moderately shining, sparsely clothed with short cinereous pubescence. Antennæ slender, extending beyond the hind angles of the thorax. Head not closely punctate, vertex with a short longitudinal impression each side. Thorax scarcely longer than wide, apex scarcely narrower than base, sides feebly arcuate, disc convex, with very indistinct coarse and fine punctuation not closely placed, basal plicæ very small. Elytra slightly wider than the thorax, humeri distinct, sides gradually narrowing to base, disc striate, the striæ coarsely punctured, becoming rapidly finer to apex, intervals slightly convex at base, flat at apex, sparsely punctulate. Body beneath closely finely punctulate with coarse punctures intermixed, the punctuation finer on the abdomen than on the sides of the prothorax beneath. Claws cleft at tip. Length .24 inch; 6 mm.

Easily distinguished from either of the preceding species by its nearly square thorax and the flat interstices at apex.

One specimen, Utah.

#### **HORISTONOTUS** Cand.

**H. vulneratus** n. sp.

**H. pullatus** n. sp.

**H. asperatus** n. sp.

**H. densus** Lec. New Species 1863, p. 83.

**H. inanus** Lec. (*Card.*) Trans. Am. Phil. Soc. x, p. 499.

**H. basalis** n. sp.

**H. transfugus** Lec. (*Card.*) loc. cit. p. 500.

**H. definitus** Horn Trans. Am. Ent. Soc. 1871, p. 302.



- H. sufflatus** Lec. (*Card.*) loc. cit. p. 499.  
**H. simplex** Lec. New Species 1863, p. 83.  
**H. curiatus** Say (*Elat.*) Trans. Am. Phil. Soc. vi, p. 173; Lec. loc. cit. p. 500;  
 Cand. Elat. iii, p. 265.  
*areolatus* Erichs. (*Card.*) Zeitschr. ii, p. 320.  
**H. gracilis** n. sp.  
**H. exoletus** Erichs (*Card.*) loc. cit. p. 325; Cand. loc. cit. p. 257.  
**H. Uhlerii** Horn loc. cit. p. 302.  
**H. mitis** n. sp.

### **ESTHESOPUS** Esch.

To this genus belong those *Cardiophori* in which the side margin of the thorax is acute from the base nearly to the apex and the fourth tarsal joint dilated and somewhat lobed beneath.

In all the species the claws are similar to those of the second group of *Horistonotus*, that is they are squarely dentate from the middle to the base. The humeri are in all cases distinct, the sides of the elytra continuous with the sides of the thorax and not forming an entering angle as in many *Horistonotus*. The surface is finely and sparsely pubescent. The surface of the thorax has the same intermixed punctuation which is always fine and inconspicuous except in *praeditus*.

The following table will assist in the identification of our species, two only of which are really new, while two others have been long known but erroneously determined in the Check List:

- Thorax with small but distinct basal plicæ.....**claricollis**.  
 Thorax without basal plicæ.  
 Color uniform, ferruginous or piceous.  
 Coarser punctures of thorax larger and more numerous along the sides and base.....**praeditus**.  
 Coarser punctures finer and less numerous at sides and base.  
 Uniformly brown.....**parcus**.  
 Ferruginous, more shining.  
 More robust, elytral intervals biserrately punctulate.....**dispersus**.  
 Sub-depressed, intervals with one series of punctures.....**pusio**.  
 Bicolored; body beneath, head and thorax reddish, elytra black....**bicolor**.

**E. claricollis** Say.—Form moderately robust and shining, sparsely clothed with cinereous pubescence, piceous, antennæ and legs rufo-testaceous. Antennæ slender, extending slightly beyond the hind angles of the thorax. Head convex, punctuation rather dense and intermixed. Thorax a little longer than wide, narrower in front, sides nearly parallel posteriorly, arcuate anteriorly, hind angles not divergent, basal plicæ small but distinct, disc convex rather shining, punctuation close but very fine and intermixed, somewhat more distinct at the sides. Elytra not wider than the thorax, a little more than twice as long, humeri distinct, sides feebly arcuate, narrowing at apical third, surface striate, striæ rather coarsely and moderately closely punctate, intervals slightly convex, and indistinctly closely punctulate. Body beneath slightly paler than above, moderately closely punctate, the punctures intermixed. Length .28 inch; 7 mm.

By the presence of the basal plicæ this species is evidently related to *praecox*, but the latter has a different color and a broader thorax. In our own fauna it resembles very closely *praeditus*, as will be seen in the description of that species. A male loaned me by Mr. Ulke is more slender in form and the elytral intervals more convex.

This species was unknown to LeConte at the time of his Revision, and first appears as *Esthesopus* in the List of 1863.

Occurs from Virginia to Indiana and Texas.

**E. praeditus** n. sp.—Piceous, shining, form robust, sparsely clothed with short yellowish pubescence, antennæ and legs pale yellow. Antennæ slender, extending slightly beyond the hind angles of the thorax. Head convex, a slight vertical depression, punctuation double, the fine punctures nearly obsolete, the coarse punctures large and deep, but not densely placed. Thorax as wide or possibly a little wider than long, sides parallel posteriorly, arcuate at apical third, basal plicæ absent, disc convex, shining, with intermixed punctuation, the coarser punctures very much larger at the sides and near the base. Elytra behind the middle a little wider than the thorax, humeri distinct, sides feebly arcuate, surface rather deeply striate, striæ coarsely punctured, intervals convex in their entire extent, slightly rugulose and sparsely punctulate. Body beneath paler than above, the lobe of the prosternum ferruginous, the surface with intermixed punctuation, the finer punctures very indistinct, the coarser very well marked. Length .26 inch; 6.5 mm.

This insect resembles *claricollis* in appearance, but differs from that and all our other species by the unusually coarse punctures along the sides and base of the thorax.

From the characters given in the synoptic table by Candeze (vol. iii, p. 275) this species should be related to *hepaticus* and *murinus* from the following remarks: "Prothorax plus fortement ponctué à la base qu'au milieu du disque." In the description of *humilis* in comparing the latter with *hepaticus* he says: "Elle (*humilis*) en diffère par sa couleur, qui est d'un chatain rougeatre clair, et la punctuation du prothorax qui est constituée à la base et sur les parties lateralés, par de gros points." There is evidently some confusion in the table.

Occurs in Tennessee and Texas.

**E. parcus** n. sp.—Form moderately robust, piceous or brown, elytra always paler than the thorax, moderately shining, surface sparsely pubescent, antennæ and legs yellow. Antennæ slender, scarcely reaching the hind angles of the thorax. Head convex, punctuation close, intermixed, the fine punctuation barely evident. Thorax as broad as long, sides nearly parallel posteriorly, arcuate in front, disc convex, without basal plicæ, surface moderately closely punctate, punctures intermixed and very evenly disposed, the coarser punctures a little more distinct at middle near the apex. Elytra not wider than the thorax, parallel, narrowed at apical third, moderately deeply striate, striæ coarsely punctured, intervals convex.

rather sparsely punctulate. Body beneath more shining than above, moderately closely punctate, punctuation intermixed, the coarser punctures larger on the sides of the prothorax. Length .20-.26 inch; 5-6.5 mm.

For many years this species has been labeled in our cabinets *hepaticus* Cand., and is so recorded in the Check-List. From a letter written by Candeze (Aug. 25, 1871) I received the following note: "The *Esthesopus* you send seems to me distinct from *hepaticus* and allied described species. It is proportionally narrower, and its prothorax longer compared with its width." The last sentence gives the only characters, which seem not very great considering a very evident variability to a slight degree in the specimens before me. I have, however, adopted the view that it is distinct, from the fact that the synoptic table above quoted gives to *hepaticus* a style of thoracic punctuation similar to that described for *claricollis*. The facies of this species is very like the preceding two. The most striking difference between this and the following species is in color, the other differences will be alluded to under that species.

Collected by me at Camp Grant, Arizona.

**E. dispersus** n. sp.—Form moderately robust, reddish brown, moderately shining, sparsely clothed with short yellowish pubescence. Antennæ slender, slightly longer than the thorax. Head convex, coarsely not closely punctate, the finer punctures scarcely evident. Thorax as long as wide, sometimes a little longer, sides nearly parallel, slightly arcuate in front, disc convex, basal plicæ absent, surface moderately closely punctate, punctuation intermixed and exactly equal over the entire surface. Elytra a little wider behind the middle than the thorax, sides feebly arcuate, surface moderately deeply striate, striæ rather coarsely punctured, intervals flat, slightly convex near the base, irregularly biserrately punctulate. Body beneath moderately densely punctate, punctures intermixed, denser on the abdomen, coarser on the sides of the pronotum. Length .22-.26 inch; 5.5-6.5 mm.

Differs from the preceding species primarily in color. The antennæ are a little longer, the elytra intervals flatter and the thoracic punctuation much more nearly equal. This species is the *humilis* of the Check-List, but of this species Candeze states that the thorax is "dupliciter punctato; basi lateribusque punctis majoribus adperso," as described above for *claricollis*.

Occurs in Texas, Utah, Arizona and southern California.

**E. pusio** n. sp.—Rufo-testaceous, sub-depressed, moderately shining, very sparsely pubescent. Antennæ slender. Head convex, punctuation not dense, the fine punctures not evident. Thorax a little wider than long, narrowed in front, sides parallel at posterior third, arcuate in front, disc moderately convex, punctuation intermixed, equally disposed, the coarser punctures numerous but not large, the finer punctures scarcely evident. Elytra a little wider behind the mid-

dle than the thorax, humeri distinct, sides feebly arcuate, surface striate, striæ moderately coarsely punctured, intervals flat, slightly wrinkled with a single series of fine punctures. Body beneath with rather close intermixed punctuation, the coarser punctures at the sides of the prothorax unusually coarse. Length .14 inch; 3.5 mm.

The antennæ in the unique before me are in part wanting, but from the slender aspect of those present the entire number would extend beyond the hind angles of the thorax.

A smaller and more depressed species than any in our fauna. It could only be confounded with *dispersus* by description, but is relatively broader and more depressed, elytral intervals flatter and uniseriately punctulate.

One specimen, Florida.

**E. bicolor** Horn.—Form moderately robust, sparsely finely pubescent, shining, body beneath red, becoming piceous posteriorly, head and thorax red, elytra black, antennæ and legs rufo-testaceous. Antennæ slender, not extending beyond the hind angles of the thorax. Head sparsely, intermixed punctate, vertex with vague depression. Thorax slightly longer than wide, sides straight and nearly parallel behind, anterior third arcuately narrowing, disc convex, shining, sparsely punctate, the punctures intermixed. Elytra very little wider than the thorax, humeri distinct, sides feebly arcuate, disc rather deeply striate, striæ punctured, intervals convex in their entire length, slightly rugulose and sparsely punctate. Body beneath with intermixed punctuation, not closely placed, the finer punctuation scarcely distinct. Length .20 inch; 5 mm.

A very distinct species by its color and deep elytral striation.

Two specimens are known to me. That in my collection was given me by Edward Tatnall, and said to have been collected in Delaware, where he lived. As he made a journey to Florida there may be some doubt, inasmuch as a specimen is in LeConte's cabinet collected by Hubbard and Schwarz in Florida.

#### **ESTHESOPUS** Esch.

**E. claricollis** Say, Trans. Am. Philos. Soc. vi, p. 169; Lec. List, 1863, p. 45.

**E. praeditus** n. sp.

**E. parvus** n. sp., *hepaticus*. Check-List.

**E. dispersus** n. sp., *humilis*. Check-List.

**E. pusio** n. sp.

**E. bicolor** Horn, Trans. Am. Ent. Soc. 1874, p. 22.

#### **APTOPUS** Esch.

**A. peregrinus** n. sp.—Form of *Cardiophorus convexus*, rufo-testaceous, brown or piceous, moderately shining, sparsely pubescent. Antennæ as long as half the body, feebly serrate. Head closely, rather coarsely punctate, front arcuate. Thorax longer than wide, base slightly wider than apex hind angles feebly divergent, sides very feebly arcuate, lateral margin without acute edge, hind angles with

a short carina, disc moderately convex, closely punctate, basal incisures short, feeble, median line impressed posteriorly. Elytra wider than the thorax, arcuately narrowing to apex, deeply striate, striæ moderately coarsely and closely punctate, intervals convex, sparsely punctate. Body beneath densely finely punctate, less shining than above. Length .22-.30 inch; 5.5-7.5 mm.

This species belongs to the first section of the genus as characterized by Candeze, having the sides of thorax without acute margin. It seems most closely related to *spadiceus*, but the thorax is distinctly longer than wide.

Occurs in Dimmit County, Texas; several specimens.

The genus *Aptopus* resembles *Cardiophorus* in all respects except that the tarsal claws are pectinate as in *Melanotus*. The species already known are few in number and occur in Mexico and Brazil.

### **LUDIUS** Latr.

The genus as here recognized contains the same elements as in the monograph of Candeze less *limbalis*, which Dr. LeConte has properly removed to *Megapenthes*, and *tartareus*, at one time placed in *Ludius*, which has also been placed in the same genus.

The antennæ are very uniform in construction, the second and third joints are always small, the third a little longer than the second, the two together shorter than the fourth. The fourth joint usually longer than any of the following joints. The terminal joint is always suddenly narrower near the apex presenting the appearance of a false joint.

The females have shorter antennæ than the male, the joints from 4-11 being shorter, although as wide as in the male, have the appearance of being more strongly serrate.

The form of the free angle of the hind coxal plate varies in the species. In some the angle is quite acute in others obtuse or rounded, the transition is, however, so gradual that no use can be made of it systematically.

Two Californian species are remarkable in having the entire lateral margin of the thorax visible from above, in all the other species it is deflexed.

The structure of the mesosternal fossa in *attenuatus* is unique in our fauna, and it is remarkable that the only other species with similar structure occur in intertropical Asia.

The following table will enable our species to be separated with ease. In their distribution, three belong to the Pacific region, two to the

Atlantic region proper, while the two brown species extend—the one from Florida to Texas, the other from Texas to Cape San Lucas.

Mesosternal fossa with parallel sides.

Elytra sub-striate.....**attenuatus.**

Mesosternal fossa with sides strongly convergent behind.

Species totally black.

Elytra with punctures arranged in distinct striæ; side margin of thorax entirely visible from above.....**LeContei.**

Elytra with rather dense confused punctuation.

Thorax opaque, densely punctured.

Thoracic margin entirely visible from above; elytra without trace of striæ; punctuation of thorax coarse; form elongate.....**ater.**

Thoracic margin deflexed in front; elytra sub-striate; punctuation of thorax finer and denser; form robust.....**pinguis.**

Thorax shining, punctuation not dense.

Thoracic margin deflexed in front; elytra sub-striate; form moderately robust.....**abruptus.**

Species brown or ferruginous with punctato-striate elytra.

Thorax as wide or wider than long; pubescence recumbent...**texanus.**

Thorax longer than wide; pubescence semi-erect.....**hepaticus.**

**L. attenuatus** Say.—Form moderately robust, gradually narrower posteriorly, feebly shining, reddish brown, elytra darker toward the apex, sometimes totally black, clothed with very fine sericeous pubescence. Antennæ piceous, serrate, attaining the hind angles of thorax in male, shorter in female. Head piceous, convex, moderately coarsely, not closely punctate. Thorax as long as wide or longer in the male, sides gradually narrowing from base to apex, feebly arcuate, lateral margin invisible from above in front, hind angles produced, strongly carinate, disc convex, a median depression posteriorly, coarsely not densely punctate. Elytra not wider than the thorax, rapidly narrowing to apex, and dehiscent for a short distance, the tips acute, surface sub-striate, densely sub-muricate punctate. Flanks of prothorax densely punctate, prosternum more shining and more sparsely punctate. Abdomen not densely punctate. Length .72–.88 inch; 18–22 mm.

In well preserved specimens the body beneath and thorax above are distinctly iridescent. The sides of the mesosternal cavity are moderately elevated and parallel, in this respect this species differs from all the others in our fauna.

Widely distributed over the territory from the Rocky Mountains to the Atlantic and as far South as Texas.

**L. LeContei** Horn.—Form elongate, black, moderately shining, very sparsely clothed with short black pubescence. Antennæ serrate, slightly passing the hind angles of the thorax in female, one-third longer in male. Head feebly convex, coarsely not closely punctate. Thorax longer than wide in both sexes, sides slightly arcuate in front, straight and divergent posteriorly, hind angles prolonged, carinate, lateral margin entirely visible from above, disc moderately convex, a distinct depression at middle posteriorly, coarsely not densely punctate. Elytra a little wider than the thorax, a little more than three times as long, sides scarcely

arcuate, rapidly narrowing posteriorly, apices slightly sinuate, the sutural angle slightly prolonged; surface with distinct rows of moderately coarse punctures, somewhat confused near the base, the interspaces with a single irregular series of finer punctures. Prothorax beneath coarsely not closely punctured, the prosternum more coarsely punctured than the flanks. Abdomen sparsely punctured. Length .72-.98 inch; 18-24.5 mm.

This species is the most slender in form in our fauna and the only one in which the punctures of the elytra are arranged in rows. The lateral margin of the thorax is entirely visible from above, a character otherwise known only in *ater*.

Occurs in California, at San Diego, Tejon and Santa Barbara.

**L. ater** Cand.—Moderately elongate, black and shining, sparsely clothed with short black pubescence. Antennæ as in *LeContei*. Head feebly convex very coarsely and closely punctate. Thorax longer than wide sides gradually narrowing from base to apex, very slightly arcuate, margin visible from above hind angles prolonged, strongly carinate, disc opaque, moderately convex, coarsely and deeply punctured, the punctures less dense near the middle of the base. Elytra not wider than the thorax, gradually and feebly arcuately narrowing to apex, the tips rounded, sutural angle distinct but not prolonged, disc rather closely and roughly punctured without trace of stria arrangement. Flanks of prothorax rather densely coarsely punctured, the prosternum more coarsely, deeply and less densely. Abdomen sparsely punctured. Length .72-.96 inch; 18-24 mm.

This is also a large species, and resembles *LeContei* somewhat but is less slender, with more coarsely punctured thorax and differently sculptured elytra.

Occurs at Santa Barbara, California.

**L. pinguis** n. sp. Form robust, black, shining, clothed with fine, black, silken pubescence. Antennæ serrate, not reaching the hind angles of the thorax in the female (male?). Head densely punctate. Thorax wider than long, sides gradually, arcuately narrowing to the front, hind angles slightly divergent, strongly carinate disc convex, densely, not coarsely punctate. Elytra slightly wider behind the middle than the thorax, and about two and a half times as long, sides slightly arcuate, apices conjointly rounded, sutural angle not prominent, surface obsoletely sub-striate, densely punctate, the punctures finer than on the thorax, more shining than the thorax. Body beneath densely punctate, the flanks of the prothorax beneath more opaque and more coarsely punctured, the prosternum more coarsely punctured and more shining. Length .83 inch; 21 mm.

In our series of species the above bears the closest resemblance to *abruptus* from which it differs in its much more robust form and the densely punctured thorax. The only other species with which it might be confounded in description is *ater* which is more elongate in form and with quite coarse punctuation of the thorax.

Occurs near Portland, Oregon.

**L. abruptus** Say.—Form moderately robust, male more slender black, shining, clothed with fine black sericeous pubescence. Antennæ serrate, attaining the tips of the hind angles of the thorax in the male, shorter in the female. Head convex, coarsely not closely punctate. Thorax as wide as long in the female, somewhat narrower in the male, sides arcuately narrowing to the front, lateral margin not visible from above in front, hind angles not divergent, carinate, disc convex, shining, rather coarsely not closely punctate. Elytra not wider than the thorax, sides gradually arcuately narrowing to apex, the tips conjointly rounded, sutural angle not prominent, surface sub-striate, rather densely sub-muricately punctured. Body beneath shining, the punctuation similar to that of the thorax above. Length .62–.80 inch; 15.5–20 mm.

Although not a common species, it is represented in nearly all collections, and is sufficiently well known. The characters in the table give, in a summary manner, the differences between this and our other black species.

Occurs in Middle, Southern and Western States.

**L. texanus** Lec.—Form moderately robust, brownish castaneous, moderately shining, moderately densely clothed with short, yellowish brown, recumbent pubescence. Antennæ longer than the thorax in the male, shorter in the female. Head coarsely and moderately closely punctate. Thorax as wide at base as long, a little narrower in the male than in the female, sides straight at posterior two-thirds, arcuate, in front, gradually narrower from base to apex, lateral margin not visible from above in its anterior extent, hind angles slightly divergent, carinate, disc convex, coarsely and moderately closely punctate. Elytra not wider than the thorax gradually arcuately narrowing to apex, the tips conjointly rounded, sutural angle not prominent, disc finely striate, striæ coarsely not closely punctate, intervals flat, densely sub-muricately punctured in the male, more sparsely punctate in the female. Flanks of prothorax beneath coarsely punctured and sub-opaque, prosternum more coarsely and sparsely punctate. Abdomen sparsely punctate, quite finely at middle, more coarsely at the sides. Length .62–.80 inch; 15.5–20 mm.

The differences in elytral sculpture between the sexes are well marked; it will, however, be observed that the Cape San Lucas specimens are, sex by sex, less punctate than those from Texas.

Occurs from Texas to Cape San Lucas.

**L. hepaticus** Germ.—Form moderately robust, male usually more slender, brownish castaneous or ferruginous, moderately densely clothed with semi-erect yellowish brown pubescence. Antennæ serrate, in both sexes extending beyond the hind angles of the thorax, longer in the male. Head coarsely moderately closely punctate. Thorax distinctly longer than wide and narrower in the male than in the female, sides nearly straight and convergent at posterior two-thirds, arcuate in front, lateral margin not visible from above except near the hind angles, these not divergent, strongly carinate, disc convex, coarsely not densely punctured. Elytra not wider than the thorax, gradually arcuately narrower to apex, tips conjointly rounded. sutural angle not prominent, disc finely striate, striæ rather coarsely not closely punctate, intervals flat, moderately closely sub-muricately punctured in the male, more sparsely in the female. Body punctured beneath as in *texanus*. Length .62–.70 inch; 15.5–17.5 mm.



This and *texanus* closely resemble each other and differ in the form of the thorax and the character of the pubescence. The antennæ are longer in the present species, and in the female of this are as long as in the male of *texanus*.

Occurs from Florida to Texas.

#### LUDIUS Latr.

*L. attenuatus* Say, Trans. Am. Phil. Soc. vi, 1839, p. 166; Lec. Trans. Am. Phil. Soc. n. s., x, p. 455; Cand. Mon. iv, p. 298, pl. iv, fig. 6.

*fuscus* Cast. Hist. Nat. 1, p. 240.

*L. LeContei* Horn, Trans. Am. Ent. Soc. 1871, p. 313.

*L. ater* Cand., Mem. Belg. xvii, 1865, p. 55.

*L. pinguis* n. sp.

*L. abruptus* Say, Ann. Lyc. 1, p. 253; Lec. loc. cit. p. 455; Cand. loc. cit. p. 306  
*coracinus* Germ. Zeitschr. iv, p. 47.

*L. texanus* Lec. loc. cit. p. 308.

*L. hepaticus* Germ. Ins. sp. n. p. 43; Lec. loc. cit. p. 453; Cand. loc. cit. p. 307

#### ANCHASTUS Lec.

*A. frontalis* n. sp.—Form elongate, pale chestnut-brown, moderately shining, clothed with fine fulvous pubescence. Antennæ extending beyond the hind angles of the thorax, feebly serrate, the second and third joints small, together barely as long as the fourth. Front honey-yellow, (accidental?) moderately coarsely not densely punctured. Thorax as long as wide at base, sides gradually, arcuately narrower to the apex, hind angles not divergent, bicarinate, the carinæ well elevated, the outer long and not very close to the margin, disc convex, surface moderately coarsely and closely punctured, the punctures coarser and closer at the sides. Elytra not wider than the thorax, parallel at basal two-thirds, then gradually narrowing to apex, surface with faint punctured striæ which become evanescent near the apex, the intervals very slightly convex near the base, rather closely punctulate. Body beneath more shining than above moderately closely punctate, the last ventral segment more finely punctate. Free angle of coxal plate rounded and more prolonged than the inner angle. Length .40 inch; 10 mm.

This species resembles *sericeus* in color but is more slender. As in the latter the second and third joints of the antennæ are small and together shorter than the fourth, a character otherwise unknown in our species. In *sericeus* the dilated portion of the coxal plate is truncate in the present species more prolonged and rounded. The color of the head may possibly be accidental in the only specimen I have seen and I therefore lay very little stress upon it.

One specimen Las Vegas, New Mexico, Prof. Snow.

#### *A. militaris* Cand.

This species is rather small, black, the elytral humeri with a large orange yellow spot. In my cabinet there is a specimen totally black without spot which in all other respects agrees with the typical form.

Western Nevada, Morrison.

**A. bicolor** Lec.

While on a visit to Mr. Ulke some months ago I had an opportunity for the first time to examine the type of the above species. By a comparison of specimens I am inclined to suppress *A. desertus* Horn as a mere color variety. Some of my specimens collected at Fort Yuma have the elytra decidedly brown but none are so dark as described by LeConte and shown in the type.

**ISCHIODONTUS** Cand.

An examination of the cabinet of Dr. LeConte showed that this genus had been under study. There were, however, no notes left and the arrangement of the specimens shows that he considered *simplex* Lec. and *oblitus* Cand. as synonymys of *soleatus* Say. In the synonymy he had also included *approximatus* Cand., but I am sure the determination of this species is incorrect, and it should for the present be stricken from our lists.

**LEPTOSCHEMA** n. g.

This name is suggested for, an insect described by me as *Agriotes protractus* (Trans. Am. Ent. Soc. 1871, p. 317). A more careful study of this species, made necessary by a revision of Dr. LeConte's notes on *Agriotes*, convinces me that it belongs to the *Athoites* as defined by Candéze. The following are its characters:

Head deeply inserted, somewhat deflexed; front arcuate, the margin not prominent but very distinct. Antennæ slender feebly serrate, joints 2-3 small, equal together very little longer than the fourth, 4-11 nearly equal in length. Prothorax convex, the lateral margin entire, gradually deflexed in front, very nearly to the inferior margin of the eye. Scutellum oval. Elytra elongate, obtuse at tip. Prosternum distinctly lobed in front, the mucro slender and straight; lateral sutures nearly straight, double, feebly excavated in front. Mesosternum declivous, the margins of the fossa not prominent. Posterior coxæ rather narrow, very slightly wider internally, the inner angle very obtusely toothed. Legs slender, Tarsi slender and simple, joints 1-4 decreasing in length, the first joint nearly as long as the next two.

This genus is closely related to *Limonius* and *Athous*, and like many of the genera of the family is separated by feeble characters. With the first it agrees in having the prosternal sutures double, it differs in having the legs and tarsi more slender, the first joint, especially of the posterior tarsi, being much longer than the second. *Athous* has the the prosternal sutures single, at least in our species.

In studying *Athous* some time since I observed that the prosternal sutures are double in *discalceatus* and *bicolor*, and that the tarsi have the same structure as observed in *Agriotes protractus*. While considering the latter as the type of *Leptoschema*, it is suggested that the two *Athous* be placed in it for the present.

The species therefore are:

*L. protractum* Horn. Trans. Am. Ent. Soc. 1871, p. 317.

*L. bicolor* Lec. Trans. Am. Philos. Soc. x, p. 426.

*L. discalceatum* Say, Trans. Am. Phil. Soc. vi, p. 169; Lec. loc. cit. p. 427.

*L. protractum* Horn has great resemblance in form to the figure of *Pyloniscus borborurus*, given by Candéze, Elat. iii, pl. 1, fig. 2.

### ENICONYX n. g.

Head inserted as far as the eyes which are moderately large and prominent; front margined with semi-circular outline; labrum moderate, apex arcuate; mandibles prominent, acute at tip, dentate within the apex; maxillary palpi not long, the terminal joint flattened, broader at tip and obliquely truncate. Antennæ slender half the length of the body, eleven-jointed, very feebly serrate, joints 2-3 each shorter than the fourth. Lateral margin of thorax obtuse, the suture between the pronotum and flanks inferior, hind angles slightly divergent; prosternum broad, the sutures distant, diverging to the front, fine, not excavated, prosternum arcuate at tip not acutely prolonged. Middle coxæ moderately separated, the mesosternum oblique, excavated. Posterior coxal plates very narrow externally, rapidly wider within, the inner angle somewhat prolonged but obtuse. Legs slender, tibial spurs distinct but small; tarsi slender, about three-fourths as long as the tibiæ, joints 1-4 gradually decreasing in length; claws moderate in length, pectinate. Scutellum cordiform, impressed.

The characters above apply to a genus belonging to the tribe *Plastocerini* of the *Elateridæ* which is related most closely to *Aphricus*. The present genus possesses nearly all the characters of *Aphricus* except that the mandibles a little less prominent, while it presents the very rare character of pectinate claws.

The discovery of this genus indicates a closer relationship between *Aphricus* and the *Cardiophori* than has been suspected. They all have the same cordiform scutellum and similar posterior coxal plates, that is, narrow externally and abruptly dilated within. In the *Cardiophori* the margin of the front is much elevated above the base of the labrum in *Aphricus* very nearly on the same level, and in *Eniconyx* intermediate in structure. The mandibles are prominent in *Aphricus* with a wide space enclosed by them; in *Eniconyx* the mandibles are prominent, but there is no space beyond the labrum, while in the *Cardiophori* the mandibles do not project beyond the end of the prosternal lobe.

The remarks concerning the *Cardiophori* are made in special reference to *Aptopus*, a species of which has occurred in our fauna.

The claws in *Aptopus* are pectinate.

Two species are known to me, the following being in brief their diagnostic characters:

Second and third joints of antennæ together distinctly longer than the fourth; basal sulci of thorax very feeble, hind angles not carinate. Thorax square.

***pullatus*.**

Second and third joints of antennæ together not longer than the fourth; basal sulci of thorax were marked, hind angles carinate. Thorax longer than wide.

***gracilis*.**

***E. pullatus*** n. sp.—General form of a slender *Horistonotus*, color pale brown, sparsely clothed with short paler pubescence. Head moderately closely punctate. Thorax nearly square or very slightly longer than wide, base slightly broader, apex feebly emarginate, sides very slightly arcuate, hind angles slightly divergent, not carinate, disc moderately convex, finely not closely punctate, very sparsely pubescent, basal sulci short. Elytra a little wider and a little more than three times the length of the thorax, moderately deeply striate, striæ punctured, intervals convex, sparsely punctulate. Body beneath very finely sparsely punctulate, finely pubescent. Legs rufo-testaceous. Length .34 inch; 8.5 mm.

The general appearance of this insect is that of an elongate *Horistonotus* and somewhat that of *Athous*.

Two specimens, Arizona.

***E. gracilis*** n. sp.—Form rather slender as in *Oestodes*, color rufo-piceous or brownish, sparsely pubescent. Head very sparsely punctate, front with vague broad depression. Antennæ testaceous, second and third joints nearly equal, together not longer than the fourth. Thorax distinctly longer than wide, apex and base equal, the hind angles, however, slightly prolonged and divergent, finely carinate, sides very slightly arcuate, apex very slightly emarginate, basal sulci well marked; disc moderately convex and shining, finely not densely punctate, sparsely pubescent. Elytra a little wider than the thorax and about three times as long, striate, striæ punctured, intervals convex sparsely punctate and very sparsely pubescent. Body beneath finely not densely punctate, a little more coarsely on the abdomen which is also darker in color. Legs rufo-piceous. Length .28 inch; 7 mm.

This species is smaller and more slender than the preceding and differs more especially in the characters given in the tabular comparison. Its form is not only like *Oestodes* but still more like *Aphricus*, and the species superficially is so difficult to distinguish from the latter, that before a closer examination I had supposed them to be identical.

Occurs in New Mexico.