

Contributions to the COLEOPTEROLOGY of the United States, No. 2.

BY GEORGE H. HORN, M. D.

The following descriptions of new species are made from specimens in my cabinet, which have accumulated since the latest revisions of the genera to which they belong. The publication of isolated species is the most discouraging portion of scientific work as it often adds nothing to science but a new name. It is however far better to put a name before the scientific world backed by a description than to have cabinet names without any authority whatever, this therefore must be the apology for the present paper.

Two species belong to genera not before known in our fauna, *Anchonoderus* and *Cryptostoma*, represented heretofore by species occurring only in South America. The species of the former genus is a veritable member of our fauna, of this there can be no doubt, of the other however there may be a little doubt as will be explained further on.

ELAPHRUS Fab.

E. pallipes n. sp.—Form rather slender, surface dark bronze as in *ruscarius*. Head densely punctured, eyes large and prominent. Thorax narrower than the head, slightly longer than wide, base narrower than apex, sides moderately arcuate, posteriorly sinuate, hind angles rectangular; disc convex, with apical impression moderately deep, median impression moderate and with a short, smooth line more deeply impressed at its middle, within the hind angles a broad impression; surface densely punctured and with a vague impression on each side of middle; beneath sparsely but not deeply punctured. Elytra oboval truncate at base, widest behind the middle, sides slightly sinuate behind the humeri, disc densely and finely punctured with the usual three discal and a marginal series of ocellate foveæ and with polished, more elevated spaces between the foveæ of each series, those of the sutural row larger and the outer two quite small. Body beneath bronzed, shining, sparsely punctured at the sides. Legs testaceous with æneous surface lustre, tips of tibiæ and femora darker. Length .24 inch; 6 mm.

Male.—Anterior tarsi with three joints dilated.

This species takes its place with *riparius* and *ruscarius* from which it differs in its generally longer form, narrower and less arcuate thorax and its entirely pale legs. The sculpture of the under side of the thorax is somewhat more dense and less deeply impressed, and the intervals less shining than in *ruscarius*; and more sparse than in *riparius* and with intervals distinct.

Occurs in Oregon and British Columbia. For my specimens I am indebted to Mr. H. Ulke.

E. viridis n. sp.—Form moderately robust, color above brilliant green. Head densely punctured, brilliant green, with bronze spots, one clypeal, two frontal, one vertical and two occipital; eyes moderately prominent. Thorax slightly broader than the head, broader than long, base and apex equal, sides strongly arcuate in front, basal half suddenly sinuate, hind angles slightly divergent; apical transverse impression moderate, median line finely impressed; surface densely and finely punctured, brilliant green maculate with bronze in the following manner: an apical spot on each side, a small median basal spot, an inverted V-shaped mark, the angle being at the apical margin the ends at the hind angles. Elytra oval, broadest behind the middle, surface very densely and finely punctured without distinctly defined ocellate punctures, surface brilliant metallic green with a sutural bronze space and with three series of elevated highly polished spaces of moderate size and nearly equal, the sutural series of three, the median of four the outer of two. Body beneath green, less brilliant than above, side pieces of thorax rather sparsely punctured intervals smooth. Legs pale with æneous surface lustre, tips of tibiæ and femora darker. Length .22 inch; 5.5 mm.

This species is peculiar in the form of the thorax, the color of the surface and the absence of ocellate foveæ. Its position is probably with our smaller species in which the male has three dilated anterior basal joints.

One specimen ♀ from Mr. A. S. Fuller, collected in California.

DYSCHIRIUS Bon.

D. lævifasciatus n. sp.—Æneous, shining. Clypeus deeply emarginate, on each side dentate, sides of front lobed, lobes carinate, front transversely broadly impressed. Thorax globose, median line deeply impressed posteriorly. Elytra very deeply striate, striæ at base obsolete, at apex deeply impressed, obsolete punctured and broadly interrupted by two arcuate transverse spaces through which the striæ are continued by very fine punctures, sutural and marginal striæ entire, basal stria obsolete; third interval with three distinct punctures. Legs and basal joint of antennæ pale rufous, hind tibiæ rather more arcuate than usual. Anterior tibiæ bidentate externally, the upper tooth feeble, terminal spur long and moderately arcuate. Length .12 inch; 3 mm.

The appearance of this species with the unusually deep striæ twice broadly interrupted is very peculiar and seemed to me at first a deformity. Its characters, otherwise, define the position it should occupy in the series which is near *consobrinus* Lec. The transverse impression of the front although broad is feeble and the striæ at base are obliterated, at apex deeply impressed, and the basal stria entirely wanting; these characters place it with the species mentioned rather than with *æneolus*, etc.

I have seen three specimens exactly alike received from Oregon by Mr. H. Ulke, one of them being now in my cabinet through his kindness.

ANCHONODERUS Reiche.

A. quadrinotatus n. sp.—Piceous, sparsely pubescent, legs, palpi and antennæ at base testaceous, elytra each with two reddish spots, one subhumeral, the other subapical and larger. Head moderately shining, front slightly longitudinally impressed on each side, vertex and occiput sparsely punctured. Antennæ piceous at base, brownish externally. Thorax cordiform, not wider than the head, as wide as long, base narrower than apex, sides in front moderately arcuate, gradually narrowing to base and feebly sinuate in front of hind angles which are rectangular but not prominent, median line finely impressed, surface sparsely punctured, sparsely clothed with short, erect, yellowish pubescence. Elytra oval, sides feebly arcuate, surface striate, striæ serrately punctured, intervals slightly convex sparsely punctulate and pubescent, piceous and with two rufous spots, one near the humeri small, another near the tip, larger and round. Body beneath piceous sparsely pubescent. Prothoracic side pieces nearly smooth, abdomen moderately densely punctured. Length .28 inch; 7 mm.

Two specimens from Texas.

Anchonoderus differs from *Lachnophorus* in the form of the palpi which have the terminal joint feebly fusiform in the first and ovoid terminating in an acute point in the latter genus. The anterior tarsi of male have three joints feebly dilated.

COTALPA Burm.

C. flavida n. sp.—Body beneath and tarsi piceous black, upper surface legs and pygidium pale yellow. Clypeus transverse, slightly narrower in front, apex feebly arcuate, angles broadly rounded. Front and clypeus moderately densely but finely rugulose. Thorax very sparsely punctured on the disc, moderately densely and finely ruguloso-punctate at the sides. Elytra sculptured as in *lanigera*, distinctly subangulate at the sides, more strongly in the ♀ which has also a distinct tubercle at the angulation. Pygidium yellowish, finely scabrous, smoother in the male. Legs yellowish tarsi pitchy black, body beneath sparsely pubescent, less densely than in *lanigera*. Length .90—1.00 inch; 23—25 mm.

This species is closely allied to *lanigera*, which it resembles in form and color although without any of the metallic lustre of surface. It very distinctly differs in the thorax being rugulose at the sides, the clypeus more narrowed in front and the under side of body and tarsi pitchy black and the surface much less pubescent. The under surface is very much less distinctly punctured. The greatest describable difference is between the females. In the present species the elytra are very distinctly subangulate in front of middle and a well marked tubercle in the angulation. There is scarcely any trace of either angulation or tubercle in *lanigera*.

I have examined about twenty specimens of this species collected at St. George, Utah, by Dr. Edw. Palmer.

CRYPTOSTOMA Latr.

C. Dohrni n. sp.—Oblong, moderately elongate, subparallel, equally obtuse at each end, color pale sanguineous, sides of body and elytra black, the latter with a humeral spot and apex sanguineous, surface clothed with fine recumbent pubescence the color of the surface. Antennæ piceous, basal joint sanguineous. Head densely punctured, clypeus more sparsely. Thorax one-fourth wider than long, sides moderately arcuate and gradually narrowed at apical third, hind angles slightly prolonged posteriorly; disc convex, a slight depression within each hind angle, a median flattening near the base and a very feeble, short, oblique impression on each side of middle near the apex; surface sanguineous, densely punctured and pubescent. Elytra oblong, slightly broader behind the middle, striate, striæ punctured, intervals flat, convex at base, densely punctulate, color black, subopaque, humeri and apex sanguineous, surface moderately densely clothed with recumbent pubescence, black on the disc red on the humeral and apical spaces. Body beneath densely punctured and sparsely pubescent; abdomen more finely and densely punctured; color pale sanguineous metasternum and abdomen at the sides black. Length .60 inch; 15 mm.

I have seen but one female of this very beautiful Eucnemide which I owe to the great liberality of Dr. Dohrn of Stettin, by whom it was sent with the assurance that it came from San Diego, California, in a bottle of alcoholic specimens all the other specimens being truly native to that locality. The bottle came from Mr. Jas. Behrens.

This species differs notably in size and color from those described by Bonvouloir, all of which come from tropical South America.

Cryptostoma has no antennal grooves. Epistoma narrowed at base, rounded in front. Thorax with a single marginal line and the pleuræ triangular. The coxal plates are moderately dilated internally but not suddenly. The tarsi are slender and simple. The metasternal epimera are concealed.

The antennæ of the two sexes differ in form and length, those of the male being longer than half the body, the third joint with a hook-like process at its base, the outer joints moderately long. The female antennæ attain the hind angles of the thorax and are stouter but not dentate; third joint simple slightly obconical, fourth slightly longer than the second and very little shorter than the fifth; joints 5—8 subequal slightly wider to the tip; ninth distinctly longer than the eighth; tenth somewhat shorter; eleventh still shorter and truncate at tip.

In an arrangement of our genera *Cryptostoma* must be placed near *Schizophilus*.

TYPOCERUS Lec.

T. balteatus n. sp.—Head and thorax black. Thorax coarsely and densely punctured, disc very convex, sparsely pubescent, apex constricted, base deeply impressed, both with fine golden pubescence, sides feebly arcuate except in front. Elytra gradually attenuate to apex which is obliquely truncate, the angles not acute, sparsely punctured and pubescent, surface shining, bright yellow with three narrow black bands interrupted at the suture. Body beneath piceous, sparsely punctured and pubescent. Length .44 inch; 11 mm.

Male.—Antennæ as long as three-fourths of the body, black, externally subserrate, eleventh joint appendiculate, joints 6—11 with elongate flattened poriferous spaces occupying nearly the entire length of the joint, the last joint with a space on appendix also. Legs bright yellow, tarsi piceous, posterior tibiæ and tarsi tipped with piceous.

Female.—Antennæ not longer than half the body, external joints stouter, eleventh not appendiculate, joints 1—5 bright yellow, 6—11 black and with small poriferous spaces at the base of each joint, the eleventh with two without trace of appendicular joint. Legs and tarsi yellow.

This species may be known by the bright yellow elytra with the three narrow black bands and the surface very sparsely punctured. It should be placed near *brunnicornis* Lec.

Occurs in Colorado (Morrison), Arizona (Fuller).

NOSERUS Lec.

N. emarginatus n. sp.—Semicylindrical, moderately elongate, opaque, surface with the usual dark brown indument. Head deeply concave, the supra-antennal margin strongly elevated. Thorax oval, longer than wide, gradually arcuately narrowed to base, the latter broadly lobed at middle, anterior angles obtusely prolonged, disc elevated at middle and with two slightly elevated ridges which are approximated at middle, divergent slightly at either end, each terminating in front in a tubercle more prominent in front than the rest of the margin; on each side of these ridges a shorter sigmoid elevation. Elytra oblong, semicylindrical, base emarginate, humeri obtusely rounded, disc with two rows of small tubercles, velvety at their summits, the inner row longer terminating in a moderately prominent tubercle, near the tip rather suddenly declivous, tip slightly prolonged and emarginate at the suture. Body beneath brownish opaque. Second and third segments of abdomen concave at middle, fourth impressed posteriorly, fifth with a reniform impression. Legs sparsely granular and with short setæ. Antennæ perfoliate, the last joint (which is composed of the connate tenth and eleventh), truncate at tip and placed obliquely on the ninth. Length .62 inch; 16 mm.

The antennal groove which is very feebly defined in *N. plicatus* is even less distinct here. All the tubercles and ridges of the surface have short black setæ which might readily escape notice. The emargination of the tip of the elytra is unique among our Nosodermoids, there is however a species in Cuba similarly marked (*N. echinatum*?).

One specimen collected near San Antonio, Texas, by Mr. H. A. Brous.

MICROSCHATIA Sol.

M. morata n. sp.—Oval, opaque. Head vaguely punctured, each puncture with a small pale scale. Thorax one-half wider than long, slightly broader at base than apex, sides feebly arcuate, margin not reflexed, disc regularly convex, not gibbous, moderately densely but rather vaguely punctured, each puncture with a small pale scale, and with small elevated smooth spaces irregularly placed near the middle of the disc. Elytra not wider at base than the thorax, one-fourth longer than wide, disc convex and with three feeble costæ on each at base which become resolved into feeble anastomosing reticulations. Body beneath coarsely but not densely punctured. Length .48 inch; 12 mm.

In this form as in *sulcipennis* the thorax is not gibbous and is entirely devoid of the basal impressions so well marked in the other two species. The three costæ are very short and extend about one-third from the base and become confused and form feebly elevated anastomosing reticulations. It resembles in form and size *Asida polita* less the thoracic margin of the latter.

One specimen from Grant Co., New Mexico, given me by Mr. Carl F. Gissler.

ASIDA Latr.

A. mancipata n. sp.—Form of *A. opaca*. Head and thorax opaque, elytra more shining. Head sparsely and rather finely punctured and with a few scales. Thorax broader than long, apex slightly narrower than base and emarginate, sides moderately arcuate, in front of angles sinuate, angles acute and moderately prominent, margin moderately reflexed, disc feebly convex coarsely and rather densely punctured and opaque. Elytra oval, more rapidly narrowed at apical third, slightly broader at base than the thorax, margin acute and slightly reflexed at the humeri which are moderately prominent, disc feebly convex and with three irregular, feebly elevated costæ united by intervening reticulations. Body beneath feebly shining, finely rugulose and subpunctate. Length .52—.64 inch; 13—16 mm.

This species has the form of *opaca* and an elytral sculpture resembling *sordida*. The male is more slender than the female and the disc of the elytra feebly convex, the female is stouter, the elytra more convex but depressed along the suture. Its position in the series is after *opaca*.

Two specimens, Grant Co., New Mexico, kindly given me by Mr. Carl F. Gissler.

A. acerba n. sp.—Form of *hirsuta*, brownish, subopaque, surface sparsely clothed with very short erect pubescence, yellowish on the head, brownish elsewhere. Head sparsely punctate. Thorax one-third broader than long, apex as wide as base and feebly emarginate, sides very regularly arcuate, margin feebly reflexed, hind angles obtusely rounded, base truncate, disc feebly convex, sparsely and very regularly punctured at middle, more densely at the sides. Elytra oblong oval, humeri broadly rounded, apex feebly attenuate, sides rounded without margin, disc regularly convex, subopaque, sparsely and

very finely punctate. Body beneath subopaque, sparsely and finely punctate. Anterior tibiæ denticulate on the outer margin. Length .48 inch; 12 mm.

This species by the form of the thorax and the rounded humeri is related to *hirsuta* and *hispidula* from both of which it differs in its anterior tibiæ being denticulate. *A. hirsuta* has a more convex and shining thorax, the margins broadly reflexed and the entire surface sparsely clothed with long yellow hair; *hispidula* has scarcely any reflexion of the margin but its hind angles are subacute.

One specimen from St. George, Utah, collected by Dr. Edw. Palmer.

HELOPS Fab.

H. viridimicans n. sp.—Piceous, surface brilliant metallic green. Species alate. Head sparsely punctate. Antennæ somewhat longer than the head and thorax, rather slender, outer joints broader, last joint oboval slightly longer than the preceding. Thorax nearly twice as wide as long, apex slightly narrower than the base and rather deeply emarginate, anterior angles obtuse, sides feebly arcuate, slightly sinuate in front of the hind angles which are rectangular, base feebly bisinuate; surface sparsely punctulate and with an arcuate impression in front of base; beneath, prosternum at middle densely punctured, at sides longitudinally strigose, inflexed portion of pronotum sparsely punctulate. Elytra oval, humeri distinct, surface striate, striæ finely punctured, intervals flat, finely punctulate. Body beneath bronzed, moderately punctulate. Length .32 inch; 8 mm.

This species belongs with the series allied to *micans*, from all of which it differs by more transverse thorax and the sculpture of the prosternum.

One specimen from Tampa, Florida, given me by Mr. F. G. Schaupp.

H. difficilis n. sp.—Moderately elongate black, semiopaque, body apterous. Head densely punctured. Antennæ longer than half the body, slender, last joint slightly longer than the preceding. Thorax slightly broader than long, base very little broader than apex, sides moderately arcuate, margin very feeble, base and apex truncate, hind angles subrectangular not prominent, disc convex, coarsely and densely punctured. Elytra elongate oval, convex, surface with faint traces of striæ and very densely punctured, punctures finer than those of the thorax. Body beneath densely punctured. Length .46 inch; 11.5 mm.

This species being apterous must be placed in the second group of the genus in accordance with the table published in the Trans. Am. Phil. Soc. 1870, p. 392, differing from all the species in that group by the surface sculpture which resembles that of *opacus*, some of the forms of which are winged while others are apterous. As compared with this latter species the present is more elongate, thorax more convex and less margined and with the hind angles not flattened and not distinctly rectangular.

Occurs in the mountainous regions of western Colorado.

MACROBASIS Lec.

M. linearis Lec., Journ. Acad. 1858, p. 23.

Male.—First joint of antennæ rather longer than the head, gradually broader to the tip and very feebly arcuate at base, second joint slightly longer than a fourth of the first and as long as the third and fourth joints together; joints 3—11 equal in length, gradually more slender to tip. Anterior tibiæ with a single terminal spur. First joint of anterior tarsus shorter and broader than the second, concave and smooth on its inner face.

The first two joints of the antennæ have a shallow but well defined broad groove, pubescent at bottom, along the anterior edge. This character does not appear in any other species.

Female.—First joint of antennæ shorter than half the head, second rather more than half the first and but little longer than the third; joints 3—11 equal in length, gradually more slender to tip. Anterior tibiæ with two terminal spurs; first joint of tarsus longer than the second and normal in form.

This species was originally described from a female in bad condition collected by Capt. Pope on the Llano Estacado, recently Mr. H. A. Brous has found several in the neighborhood of San Antonio, Texas, and from these the description above has been made.

The original description may be amended as follows:

Slender, piceous, moderately densely clothed with cinereous pubescence. Elytra pale luteous, a darker spot on each side of scutellum, another in front of humeri. Legs luteous, upper side of anterior femora, knees and tarsi darker. Length .44—.70 inch; 11—18 mm.

M. Gissleri n. sp.—Slender, black, sparsely clothed with fine, short cinereous pubescence, forming a denser line along the entire margin and suture. Head oval, moderately densely punctulate, a smooth medial line and space in front of each eye, thorax very little longer than wide, sides parallel, suddenly narrowed in front, surface moderately densely punctured, a moderately impressed median line and vague fovea on each side of disc. Elytra subopaque, very indistinctly punctulate. Length .34 inch; 8.5 mm.

Male.—First joint of antennæ stout, feebly compressed, half the length of the head, second joint half the length of first and a little shorter than the third, the latter slightly longer than the fourth, joints 4—11 equal, gradually more slender and very feebly compressed. Anterior tibiæ curved, convex forward, with one terminal spur. First joint of anterior tarsus much shorter than the second, its inner apical angle obtusely prolonged and inner face smooth and concave.

Female.—Anterior tibiæ with two terminal spurs, the first joint of the tarsus longer than the second. Antennæ scarcely differing from the male.

This species was given me by Mr. Carl F. Gissler, who accurately observed its peculiar characters before he sent it.

Occurs in Grant Co., New Mexico.

With this form the differences between *Macrobasis* and *Epicauta* seem to disappear. I place the species in the former genus because the second joint of the antennæ remains large while in all our species

of *Epicauta* the second joint is very small compared with the third. In any future review of the genera of Meloidæ it would be better to restrict the name *Macrobasis* to those species in which the second joint of the antennæ is decidedly longer than the third or the antennæ dissimilar in the sexes. This would exclude from *Macrobasis*, *immaculata*, *segmentata* and *Gissleri*.

Retaining for the present the genera as constituted, the two preceding species require a slight modification of the table of *Macrobasis* as given by me (Proc. Am. Phil. Soc. 1873, pp. 88—89).

M. linearis having the first joint of the ♂ antennæ as long as the next four together, while the second is as long as the third and fourth together, must be placed in A, near *torsa* from which it may be separated in the table by the absence of contortion at the tip of the first joint and by the first and second joints sulcate. It must be placed between *virgulata* and *torsa*. *M. Gissleri* falls in B, and is easily known by its small size and sexual characters and the second joint of the antennæ rather shorter than the third.

CALOSPASTA Lec.

C. moesta n. sp.—Elongate, black, shining, glabrous. Head sparsely punctured. Antennæ attaining the middle of the thorax, gradually stouter toward the tip. Thorax a little longer than wide, sides at basal half parallel, apical half gradually convergent to the front, surface very sparsely punctate. Elytra nearly twice as wide at base as thorax slightly wider toward the tip, surface finely scabrous and with two feeble lines extending nearly to tip. Body beneath and legs black, shining and with very short black pubescence. Spurs of hind tibiæ dissimilar, the inner slender and acute, the outer stout, cylindrical and obliquely truncate at tip. Length .64—.90 inch; 16—23 mm.

This species resembles *Cantharis lugens* in its superficial characters and might readily be confounded with it. The claws are however as in *Calospasta*, the lower portion being here very much shorter than the upper and connate with it.

Two specimens, California, probably from the southern portion.

C. Fulleri n. sp.—Black, opaque, surface sparsely nigro-pubescent, form rather robust. Head opaque, scabrous. Thorax as wide as the head but smaller in size, one-half wider than long, sides posteriorly slightly convergent, apex suddenly narrowed, surface opaque, sparsely punctate. Elytra nearly twice as wide as thorax, slightly wider posteriorly, surface opaque, scabrous, and with very short, indistinct, black pubescence. Body beneath and legs black and shining, sparsely pubescent. Spurs of hind tibiæ slender and acute. Antennæ longer than head and thorax. Length .38 inch; 9.5 mm.

This insect resembles some of the entirely black varieties of *Cantharis stygica*.

