FOUR NEW MYRMECOPHILOUS COLEOPTERA.

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The following brief paper is offered primarily for the purpose of making known a most remarkable Rhyncophorous myrmecophile recently discovered in Arizona by Mr. Wm. M. Mann. Opportunity is taken however to describe three other myrmecophilous novelties, two sent me by Mr. Mann, the other found by myself in California. Two of the four species are notable, in that new genera must be erected for their reception.

Liometophilus gen. nov. (Curculionidæ).

Body narrow, costate, and clothed with non-contiguous appressed, and short stout erect, scales. Head evenly convex; eyes small, coarsely granulated, completely uncovered and separated by five or six times their own width as seen from the front. Beak shorter than the prothorax, subequal in length to the front thighs, moderately stout, feebly evenly arcuate, gradually feebly narrowed to the antennal insertion (as viewed from the front), the tip a little expanded. Antennæ inserted at apical $2/5$, scrobes lateral, continued beyond the point of insertion to the apex, scape not quite reaching the eye; funicle 6-jointed, first joint obconic; nearly twice as long as wide, second narrower and a little shorter, 3-6 subequal in length, gradually wider, each a little shorter than the second, the sixth as wide as long; entire funicle and club pubescent, the latter ovate pointed, as long as the three preceeding joints and feebly annulate in outer half. Prothorax longer than wide, dorsum strongly produced over the head, disk bicostate from the front margin to a strongly elevated submedian transverse ridge which extends from side to side and is abruptly almost vertically declivous behind. At the bottom of the declivity is a transverse impressed line each side, behind which the surface becomes convex. Elytra elongate, wider than the thorax, sides broadly arcuate, humeri distinct, apices separately rounded, disk with rows of rather coarse punctures, the second, third, fifth and seventh interspaces costiform and bearing a series of stout erect scales. Pectoral channel deep and wide, extending into the mesosternum, the margin of the recess broadly flaring and prominent. Mesosternal epimera narrowly attaining the prothorax, gradually wider posteriorly, the episterna not reaching the elytral margin. Metasternum longer than the first ventral segment, side pieces narrowly exposed, the suture indistinct because of the vestiture. First, second and fifth ventral segments longer, third and fourth equal, each a little shorter than the second; first suture fine, broadly arcuate at middle; following sutures deep and straight. Legs moderate; claws simple.

Liometophilus manni sp. nov.

Dark brown, elytra with a subbasal and post-median transverse fascia in which the scales are paler; beak and prothorax finely granulose, each granule bearing a rounded appressed scale; beak also with numerous short, stout, erect scales. Prothorax with anterior margin reflexed, slightly notched at apex and bearing together with the discal and elytral costæ a single line of longer erect scales; disk of prothorax behind the transverse groove densely scaly and with a median impressed line. Elytra with rows of coarse punctures, somewhat as in *Areoschizus*; scales appressed except on the summits of the costæ. Legs clothed like the beak with appressed and short, stout, erect scales. Other characters as in the generic description, or in the figures. Length 3.5 mm.; width 1.2 mm.

Described from two examples taken by Mr. Wm. M. Mann, then of Stanford University, now at the Bussey Institution, Harvard University, Forest Hills, Mass. Mr. Mann writes me that the two specimens were found in runways of different nests of *Liometopum apiculatum* Mayr., Aug. 15, 1910, in Ramsey Canyon, Huachuca Mts., Arizona.

This very odd and interesting weevil is evidently a Cryptorhynch (Group Cryptorhynchi—Lec. & Horn Class.) but does not show close affinity to any genus known to me. Type in my collection; paratype in Mann collection.

I am much indebted to Mr. A. B. Wolcott of the Field Museum of Natural History for the accompanying very characteristic figures (Plate 3). The eyes are drawn a little too large in the lateral view, as is also the antennal club in the dorsal aspect.

Lophioderus ovipennis sp. nov. (Scydmaenidæ).

Elongate, entirely rufotestaceous, impunctate; pubescence sparse, recurved. Antennae (♀) barely as long as the head and prothorax, the joints proportioned nearly as in *gracilis*. Head elongate, eyes much smaller than in *gracilis*, their diameter but slightly greater than the thickness of the basal joint of the antennæ. Prothorax distinctly longer than wide, widest at about the middle, form and sculpture as in *gracilis* except that the base and apex are more nearly equal, and the transverse basal impression is less distinct. Elytra nearly twice as long as wide, twice as wide as the prothorax, oval, widest at middle, sides obliquely narrowed to base, humeri completely wanting. All else as in *gracilis*. Length 1.65 mm.; width .55 mm.

Described from one of a series of specimens taken (IV-4-08) at Kendrick, Idaho, in nest of *Aphænogaster subterranea* var. *occidentalis* by Prof. A. L. Melander and sent me by Mr. Mann.

In its small eyes and obsolete humeri this species agrees best

with the description of *myops* Csy., but that species is smaller and less elongate according to measurements given (length 1.35 mm.; width .6 mm.) the prothorax scarcely longer than wide, the transverse basal impression of the latter deeper than in *gracilis* and the color quite different.

I am not aware that beetles of this genus have been found with ants and it is possible that the association was in this case accidental; the small eyes and obsolete humeri may be significant and indicative of a more subterranean life.

Of the other species of this interesting genus, *biformis* Mäkl. occurs in Alaska (Queen Charlotte and Prince of Wales Islands), *arcifer* Csy., described from Astoria, Oregon, was found by Mr. H. S. Barber at Eureka in Northern California; *gracilis* is not rare about San Francisco Bay; *myops* is described from San Francisco.

***Batrisodes aphænogastris* sp. nov.**

Red brown, polished, subimpunctate, sparsely finely pubescent. Closely in agreement in all general features and most details with the other members of the group to which it belongs. By Casey's table—Annals N. Y. Acad. Sci. VII, 1893, p. 469—it falls with *albionicus* and *zephyrinus*, being most nearly allied to the former, from which it is separable with certainty only by the pygidial characters of the female. In the male the pygidium is broadly evenly convex, in the female rather strongly tumid posteriorly as a whole, and with a small basal conical tubercle. The two small median prominencies at the base of the first dorsal segment of the abdomen are not appreciably produced backward as carinae, and are mutually nearer together than either is to the inner line of the side margin. The median pronotal sulcus is feebly impressed, but detectable in basal half. Length 2.5 mm.; width .8 mm.

Kendrick, Idaho.

Described from one pair taken by Prof. A. L. Melander, in nests of *Aphænogaster subterranea* var. *occidentalis*, and sent me by Mr. Mann.

***Xenomodon* gen. nov. (Staphylinidæ).**

Body rather broad and somewhat depressed, integuments densely punctuate and dull. Head subquadrate, eyes small; labrum quadridentate, the teeth acute, very nearly equal in prominence, the two middle ones a little more distant; gular sutures rather widely separated, most approximate before the middle; third joint of maxillary palpi oval, not quite twice as long as wide, apex broadly squarely truncate. Antennæ moderate, not appreciably wider distally, joints 1-10 feebly obconical, the first about twice as long as wide, wider than and subequal in length to the two

following; 2-10 very gradually diminishing in length, the tenth a little wider than long. Neck about $\frac{2}{3}$ as wide as the head; prosternum strongly carinate, margins of ventral segments both above and beneath with a row of widely spaced porrect setæ, and on the lower surface with sparse erect or suberect discal setæ. Front tarsi short, slightly thickened; hind tarsi slender, nearly as long as the tibiæ.

***Xenomедon formicaria* sp. nov.**

Ferruginous throughout or with the head and abdomen slightly darker. Head and prothorax very densely coarsely punctuate, the punctures in mutual contact throughout; elytra more finely and less densely punctuate; abdomen very finely and moderately closely so. Head subquadrate, just visibly widened behind, hind angles broadly rounded; eyes small, situated at about four times their length from the hind angles, their diameter about $\frac{2}{3}$ the length of the basal joint of the antennæ. Prothorax just perceptibly wider than the head, a little wider than long, sides feebly convergent posteriorly and with a short faint sinuation at middle; all the angles rounded. Elytra about $\frac{1}{4}$ longer than the prothorax, as long as wide or very nearly so, wider behind, distinctly impressed along the side margin giving a subexplanate appearance. Abdomen broad, sides arcuate, fifth segment as long as the two preceding, the sixth broadly, moderately deeply subtriangularly emarginate in the male. Length 2.9-3.5 mm.; width .7 mm.

Described from two males taken by the writer at Pasadena, California, Oct. 28 and Dec. 3, in nests of *Formica pilicornis*, beneath large stones.

Xenomедon will by Casey's table fall between *Platymедon* and *Caloderma*, but is by the characters given not very closely allied to any of the genera there recognized. The gular sutures are more widely separated than in *Platymедon*, and distinctly more distant in one of the two specimens than in the other.

A NEW PROSCOPIID GRASSHOPPER FROM PERU.

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***Epigrypa brevicornis* sp. nov.**

Most nearly allied to *E. curvicollis* from Ecuador but differs from that species, as well as from the third member of the genus, *E. variegata* from Colombia, in having a terminal spine above on the hind tibiæ on the outer side only, instead of the inner side, and in the antennæ of the female being shorter than the rostrum, instead of surpassing it.

FAIL.—*LIOMETOPHILUS MANNI*.