

NEW SPECIES OF NORTH AMERICAN BUPRESTIDAE
(COLEOPTERA)

JOSEF N. KNULL

Department of Zoology and Entomology, The Ohio State University, Columbus 10

In a study of North American Buprestidae the following new species have come to my attention. Type material in collection of author unless stated otherwise.

***Acmaeodera hualpaiana* n. sp.**

Figure 5

♂.—Short, rather robust, shining; head, pronotum and ventral surface black with bronze reflection, elytra very dark brown with scattered yellow markings as follows: five along side margin and four in median line of each elytron.

Head convex; surface irregularly finely punctate, front densely pubescent; clypeus deeply emarginate; antennae serrate starting with fifth segment.

Pronotum much wider than long, widest in middle; sides broadly rounded; anterior margin sinuate, median lobe broad; basal margin truncate; disk convex with slight median depression and strong basal depression on each side; surface with large, light punctures, more evident toward sides, narrow line of perpendicular striations extending across base; clothed with long recumbent white pubescence.

Elytra at base wider than base of pronotum; sides constricted back of base, expanded to subparallel sides and rounded to separately rounded apices, serrulate back of middle; disk convex, umbone prominent, basal depressions shallow; surface with rows of closely placed punctures forming striae at base and apex, interspaces with single rows of short semierect sharp-pointed hairs.

Ventral surface densely clothed with divided squamae and in addition more widely separated semierect longer hairs on abdomen. Anterior margin of prosternum sinuate with median truncate lobe, margin not touching lateral prolonged angles at sides, but extending nearly as far front.

Length 5.4 mm; width 1.8 mm.

♀.—Slightly more robust; last three ventral segments densely pubescent with long incurved hairs; fourth segment with spine each side near anterior margin.

Holotype ♂ labeled Hualpai Mountains, Ariz., July 4, 1937; allotype Wickenburg, Ariz., June 16, 1937. Paratypes as follows: Gila Mountains, Yuma Co., Ariz., June 16, 1941; Wickenburg, Ariz., June 29, 1939; Holtville, Calif., June 6, 1951 and Palm Springs, Riverside Co., Calif., May 19, 1941. All material collected by D. J. & J. N. Knull.

Superficially this species resembles *A. varipilis* Van D. It may be distinguished by its short, more robust form, wider more finely sculptured pronotum and by the median truncate lobe of front margin of prosternum. This margin varies in some of the specimens, however the tooth on each side is much smaller than in *varipilis*.

***Acmaeodera chisosensis* n. sp.**

Figure 1

♂.—Size and form of *A. hulli* Knull, more shining; both surfaces dark bronze, head and pronotum slightly more brilliant; each elytron with three yellow markings, one at middle and two back of middle.

Head convex, densely finely punctured, sparsely pubescent; clypeus deeply emarginate; antennae serrate starting with the fifth segment.

Pronotum wider than long, widest about middle; sides broadly rounded; anterior margin sinuate, median lobe feeble; basal margin truncate; disk convex, a small deep pit on each side at base; surface densely coarsely punctured, punctures large and closer on sides, base margined with line of perpendicular striations; long white pubescence sparse in middle, more dense toward sides.

Elytra wider than pronotum at base; sides constricted in front of middle, subparallel back of middle, broadly rounded to suture, serrulate from middle; disk convex, umbones prominent,

basal depressions light; surface striately punctured, each interspace with a line of smaller punctures and each containing a short sharp pointed hair; divided white scales at sides in front.

Ventral surface densely clothed with divided squamae, longer hairs in middle of abdominal segments. Anterior margin of prosternum strongly sinuate, with prominent tooth on each side, margin not touching lateral prolonged angles at sides, but extending nearly as far front.

Length 5.5 mm; width 1.8 mm.

♀.—More robust, last three ventral segments densely pubescent with long incurved hairs.

Holotype ♂, allotype and paratypes from Chisos Mountains, Brewster Co., Texas, July 17, 1946 and paratypes from same locality, June 9, 1939, D. J. and J. N. Knull collectors. Two paratypes from same locality, July 24 and 25, H. A. Wenzel collector in H. W. Wenzel collection, The Ohio State University and one labeled Big Bend, Texas, June 24, 1947, R. H. Beamer in The University of Kansas collection.

Variations.—Sizes vary from 5.5 to 7.3 mm in length and from 1.8 to 2.6 mm in width. The elytra of some specimens have a bluish reflection.

This species should stand next to *A. hulli* Knull. It differs in its more shining appearance and by the pointed hairs of elytral intervals instead of the spatulate type. It is not as elongate as *A. varipilis* Van D., pronotum less coarsely sculptured and only one row of yellow elytral markings instead of two rows.

Melanophila (Phaenops) obenbergeri n. sp.

Figure 2

♀.—Subcylindrical, elongate; head and pronotum bronze, elytra darker; ventral surface about color of head and pronotum.

Head convex; coarsely irregularly punctured around eyes and in clypeal region, rest of surface coarsely strigate; clypeus broadly emarginate; antenna reaching past middle of pronotum when laid along side; third segment as long as scape, fourth shorter than third, fifth longer than second; outer segments gradually diminishing in length.

Pronotum wider than long, widest back of middle, wider at base than at apex; lateral margin not obliterated in front; sides broadly rounded; anterior margin slightly sinuate with broad median lobe; basal margin strongly sinuate; disk convex; surface densely coarsely punctured, punctures shallow. Scutellum oval, wider than long.

Elytra at base wider than pronotum, widest back of middle; sides divergent in front, constricted in front of middle, widened back of middle; apices separately rounded; margin serrulate in apical third; disk convex with humeral depression each side; surface imbricate, pubescence short.

Entire ventral surface coarsely punctured. Posterior tarsus slightly shorter than tibia; first segment longest, rest of segments diminishing in length.

Length 8.6 mm; width 3.2 mm.

Holotype ♀ labeled Fayette Co., Tex., July 30.

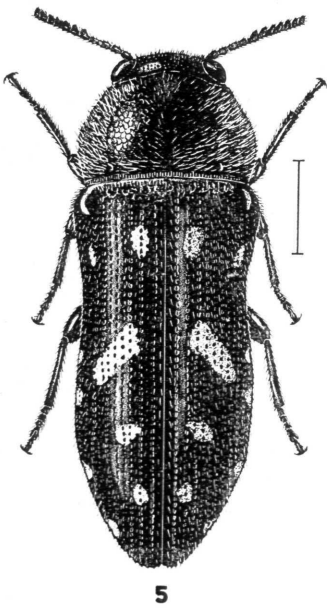
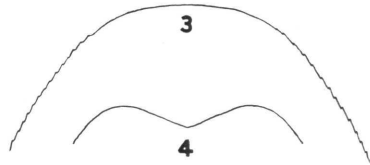
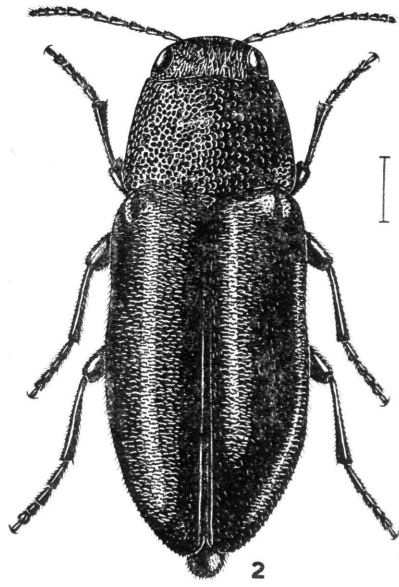
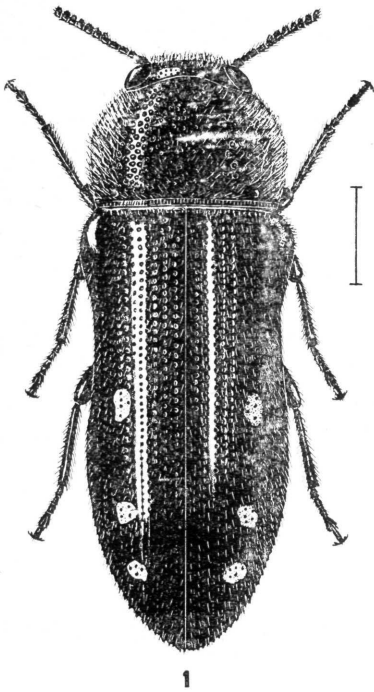
This species would stand next to *M. (Phaenops) obtusa* Horn. It is larger, elytra less coarsely sculptured with longer pubescence, pronotum with side margin not inferior in front as in *obtusa*. From *M. (P.) intrusa* Horn it differs in coarser elytral sculpture, less pubescence and in having entire side margin of pronotum.

I take pleasure in naming this species for Dr. Jan Obenberger.

EXPLANATION OF FIGURES

1. *Acmaeodera chisosensis* n. sp., ♂.
2. *Melanophila obenbergeri* n. sp., ♀.
3. Last visible sternite of *Chrysobothris vivida* n. sp., ♀.
4. Clypeal emargination of *Chrysobothris vivida* n. sp., ♀.
5. *Acmaeodera hualpaiana* n. sp., ♂.
6. Genitalia of *Agrilus mojavei* n. sp., ♂, dorsal view.
7. Ventral view of number 6.

Line equals 1 mm.



J.N.K.

***Chrysobothris vivida* n. sp.**

Figures 3, 4

♀.—Size, form and color of *C. humilis* Horn. Short, robust; metallic green above and below, antennae and feet darker with greenish reflection.

Head convex; surface coarsely punctured, two chitinized smooth areas on each side on front; pubescence sparse, short; clypeus deeply emarginate; antennae short, reaching to middle of pronotum.

Pronotum much wider than long, widest in middle; sides evenly rounded from base to apex; anterior margin sinuate, median lobe broad; basal margin sinuate, median lobe rounded; disk convex, without callosities or median depression; surface deeply, coarsely punctured, punctures closer at sides, pubescence more evident toward sides. Scutellum large, triangular, depressed in middle.

Elytra at base wider than widest part of pronotum; sides constricted back of base, expanded back of middle, rounded apically to separately rounded apices, margins serrulate; disk convex, without costae, basal depressions deep; surface coarsely, densely punctured, punctures becoming smaller toward apices, pubescence sparse, short.

Abdomen beneath strongly convex, densely coarsely punctate, pubescence long, but not dense; anterior margin of last two sternites smooth, lateral callosities present on all segments, last visible sternite broadly rounded, margins finely serrate. Prosternum finely punctate, margin without lobe. Anterior femur with tooth.

Length 5.9 mm; width 2.5 mm.

♀ holotype labeled Scott Co., Kansas, June 21, 1925.

This species should stand next to *C. ephedrae* Knull. It can be distinguished by the color and coarser dorsal sculpture. It undoubtedly stands in collections under *C. humilis* Horn from which it can be separated by lack of prosternal lobe.

***Agrilus mojavei* n. sp.**

Figures 6, 7

♂.—Form of *A. fisheriana* Knull; shining bronze in color; dense white pubescence as follows: on front, along prehumeral carinae and in lateral depressions of pronotum; in basal depression, in middle and back of middle on each elytron, on most of ventral surface all but middle of ventral abdominal segments; pubescence of dorsal surface prominent.

Head convex, slight median depression extending from vertex to middle of front; surface finely irregularly punctured, sculpture concealed by long pubescence on front; antennae serrate from fourth segment.

Pronotum wider than long, wider in front than at base, widest about middle; sides subparallel in front, strongly rounded to base; anterior margin sinuate, median lobe prominent; basal margin trisinate, median lobe truncate; disk convex, median depression in front of scutellum and back of front margin, small depression each side of anterior median depression, lateral depressions deep, prehumeral carinae well indicated; surface finely obliquely rugose. Scutellum transversely carinate.

Elytra wider than base of pronotum; sides subparallel in front, constricted about middle, broadly rounded posteriorly to rounded serrulate apices; disk with a longitudinal costa on each elytron, also with deep basal depression, shallower depression at middle and back of middle, depressions clothed with long white pubescence; surface imbricate.

Prosternal lobe broadly rounded with deep emargination in middle. Abdomen beneath densely finely punctured at sides, punctures sparser in middle; first segment flattened at middle; second segment with smooth deep median excavation; pygidium with a projecting carina. Anterior and middle tibiae armed with an obtuse tooth on inside at apices. Tarsal claws similar, cleft, inner tooth stouter than outer, slightly turned inward, tips distant.

Length 8 mm; width 2.2 mm.

Described from one ♂ specimen collected on poplar at Oro Grande, San Bernardino Co., Calif., June 20, 1951 by D. J. and J. N. Knull.

This species should stand next to *A. fisheriana* Knull. It differs by being more robust and lacks the line of pubescence along suture.