NEW SOUTHWESTERN BUPRESTIDAE AND CERAMBYCIDAE WITH NOTES

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Acmaeodera gibbula Lec. and A. alicia Fall.

Reared from the dead branches of palo verde (*Cercidium torreyanum* Sarg.) collected at Tucson, Ariz.

Acmaeodera yumae n. sp.

Robust, depressed; head, pronotum, ventral surface and legs bronze, elytra yellow, each elytron margined with a narrow dark border on all sides, an irregular dark stripe extending from base, over umbone, to near apex; head, pronotum, ventral surface and legs clothed with long pubescence which partly obscures the surface.

Head convex, no trace of median depression; surface coarsely punctured; eyes large, finely granulate; antennae serrate beginning with the fifth joint.

Pronotum wider than long, widest back of middle, wider at base than at apex, sides broadly rounded from base to apex; lateral margin not visible from above; anterior margin sinuate, median lobe broadly rounded; basal margin truncate; disk convex, a shallow depression in front of region of scutellum; surface coarsely confluently punctured.

Elytra about same width as pronotum; sides nearly parallel at base, constricted in front of middle, broadly rounded to obtusely rounded apices; side margins serrulate back of middle; disk convex, umbone prominent; surface with coarsely punctured striae arranged in pairs, every other interval wider, punctures of intervals fine, a long fine hair arising from each interval puncture.

Abdomen beneath finely punctured, last ventral segment with a rounded subapical ridge. Front margin of prosternum retracted, sides not reaching the front angles, a dentiform prominence on each side of middle.

Length, 11 mm.; width, 3.5 mm.

Holotype labeled Yuma, Ariz., April 11, 1933, E. D. Ball, collector, in the collection of the writer.

According to Fall's key¹ this species would come in the Sinuata group next to A. *lanata* Horn. The dense vestiture of the ventral surface together with the markings of the elytra will serve to separate this species from the closely related forms.

Acmaeodera constricticollis n. sp.

Form robust; elongate, head, pronotum and ventral surface bronze, elytra yellow with numerous irregular small dark spots.

Head convex, no trace of median depression, surface with large

¹H. C. Fall. Jour. N. Y. Ent. Soc., VIII, pp. 1-37. 1899.

shallow punctures, densely clothed with long white pubescence; eyes large, finely granulate; antennae serrate beginning with the fifth joint.

Pronotum wider than long, widest back of middle, wider at base than at apex; sides in front oblique to constricted apex, broadly rounded to basal constriction; lateral margin not visible from above; anterior margin sinuate, median lobe prominent; basal margin broadly emarginate; disk convex, slight trace of median depression; surface with punctures coarse in front of scutellum, large shallow punctures in front and toward sides, clothed with long pubescence, white scales at sides.

Elytra broader than widest part of pronotum; side margins rounded in front to constriction in front of middle, then broadly rounded to obtusely rounded apices; lateral margins serrulate back of middle; disk convex, umbone prominent; surface with strial punctures confluent, punctures of interspaces small, a short, recumbent hair arising from each interspace puncture.

Ventral surface and legs clothed with white scales which obscure most of the sculpture. Abdomen beneath densely punctured, last ventral segment without a subapical plate. Front margin of prosternum straight, sides not reaching the front angles.

Length, 8.8 mm.; width, 2.8 mm.

Holotype labeled Phoenix, Ariz., July 15, 1936, E. D. Ball, collector, in the collection of the writer.

This species belongs to the Truncate group and would come next to A. cribricallis Horn. However, the form of the prothorax will separate the two.

Tyndaris balli n. sp.

(Fig. 1)

Female—Form robust; head, thorax and ventral surface bronze, each elytron with edges piceous varying to dark brown with a bronze luster, inner portion which occupies most of the elytra yellow.

Head convex, no trace of median depression; surface reticulate, clothed with scale-like recumbent pubescence; eyes finely granulate; antennae reaching to about middle of pronotum when laid along side margin, serrate from the fourth joint.

Pronotum wider than long, widest back of middle, narrower at apex than at base; disk moderately convex, a deep depression on each side at base, base longitudinally rugose along margin; lateral margin inferior in front; sides broadly rounded from base to apex; anterior margin sinuate, slightly lobed; basal margin nearly straight; surface reticulate clothed with broad spatulate scales. Scutellum triangular.

Elytra at base not as wide as widest part of pronotum, metasternal episterna covered by elytra; sides constricted at base, and in front of middle, broadly rounded posteriorly to rounded apices, side margins serrulate from about middle; disk flattened, umbone prominent; striate, striae coarsely punctured, interspaces containing spatulate recumbent pubescence.

Abdomen densely clothed with spatulate white scales, last abdominal segment rounded, not spiniform.

Tarsi slender, not cordiform, claws each with a blunt basal tooth. Length, 5.3 mm.; width, 2.3 mm.

Male—Differs from female by the longer antennae and broader outer joints.

Described from specimens collected at Congress Junction, Ariz., June 19, 1935, by Dr. E. D. Ball, in whose honor the species is named. Holotype female, allotype and paratypes in the writer's collection. Paratypes in collection of the University of Tucson and The Ohio State University.

This species agrees with the genus *Tyndaris* better than with *Para-tyndaris* although the form of the tarsi could apply to the latter genus. I have placed it provisionally in the former genus.

Hesperorhipis mirabilis n. sp.

(Fig. 2)

Ventral surface dark blue becoming more brilliant at ventral portion of prothorax, head and pronotum brilliant metallic green, each elytron with a large basal triangular metallic green area extending along suture, a transverse curved white band extending from costal margin to suture and narrowly extending along suture, rest of elytra dark blue.

Male—Head convex, slight indication of median depression; surface asperate on front, reticulate on vertex; eyes small, finely granulate; antennae dull testaceous, extending about one-third the length of the elytra when laid along the side of the pronotum, flabellate, quite similar to that of *Xenorhipis brendeli* Lec. figured by Horn,² rami beginning at the third joint; last joint of maxillary palpus ovate, apex rounded.

Pronotum wider than long; anterior margin sinuate, median lobe broadly rounded; basal margin slightly sinuate at middle of each elytron; disk convex, without depressions, or raised areas; lateral margin inferior in front, present in basal third only; sides nearly parallel in middle, acutely rounded in front and broadly rounded in back; surface reticulate. Scutellum dark blue, granulate.

Elytra with base not as wide as base of pronotum, not covering the abdomen but extending to first abdominal segment only, twice as long as wide; sides nearly parallel in front, constricted back of middle, broadly rounded posteriorly to acutely rounded apices, sutural margin sinuate back of middle; surface rugose, rugae less evident in white area; under wings visible, tips extending to beyond end of abdomen.

Abdomen beneath asperately punctate; sides of metasternum with a large hairy depression, or excavation. Basal joint of hind tarsus equal in length to the three following joints.

Length, 3.5 mm.; width, 1.2 mm.

Described from male specimens taken on the foliage of one of the cat's claws (*Acacia* sp.) in the Gila Mountains, Ariz., on July 7 to 9, 1936, by the author. Holotype and paratypes in the writer's collection.

This species is closely related to H. albofasciatus Fall. However, the excavation on the side of the metasternum will serve to separate it from his species. Professor Fall informs me that the type is lacking this depression.

²A. H. Horn. Trans. Amer. Ent. Soc., 10, p. 165. 1882.

Agrilus cercidii n. sp.

Male—Form small, narrow, elongate, subcylindrical, shining, piceous; each elytron with three patches of white pubescence along suture, one in basal depression, an elongate patch at middle and one on apical third.

Head strongly convex with greenish tinge, without median depression; surface finely granulose, pubescence sparse; antennae short, reaching to about middle of pronotum when laid along side margin, serrate from the fifth joint, outer joints wider than long.

serrate from the fifth joint, outer joints wider than long. Pronotum slightly wider than long, narrower at base than at apex, side margins feebly arcuate; when viewed from the side the marginal and submarginal carinae are separated for their entire length; anterior margin sinuate, median lobe broadly rounded; basal margin strongly emarginate at middle of each elytron, disk convex, without depressions, prehumeral carinae lacking; surface obsoletely granulose, obliquely rugose, the rugae widely separated, pubescence sparse. Scutellum triangular, without transverse carina.

Elytra at base wider than base of pronotum; side margins nearly parallel to middle, constricted back of middle, obliquely rounded to rounded, serrulate apices; disk moderately convex; sutural margin elevated posteriorly, shallow basal depressions, in addition, each elytron with an elongate depression at middle and one in apical third, depressions containing dense recumbent white pubescence; surface irregularly rugose, pubescence well spaced, short.

Abdomen beneath obsoletely reticulate, clothed with short, widely separated pubescence, suture between first two ventrals not indicated at sides; median line of pubescence short, inconspicuous; first two ventral segments unmodified. Prosternal lobe truncate with slight emargination at middle; prosternal process parallel to back of coxal cavities, then attenuate to apex. Posterior coxae with posterior margin strongly sinuate, the exterior angle not prolonged, outer portion of plate densely pubescent. Tibiae slender, anterior pair mucronate on inner side at apex. Tarsal claws similar on all feet, cleft, inner tooth broad, much shorter than outer one and not turned inward.

Length, 2.3 mm.; width, .6 mm.

Female—Differs from the male in having front of head cupreous, tibiae not mucronate, median pubescence of ventral surface not longer than others.

Described from one pair of adults collected from the foliage of palo verde (*Cercidium torreyanum* Sarg.) in Sabino Canyon, near Tucson, Arizona, August 10, 1936, by the author. Holotype male and allotype in writer's collection.

According to Fisher's key,³ this species would run to A. *abjectus* Horn. However, it more closely resembles A. *abstersus* Horn from which it differs in male genitalia and by the presence of the elytral spots. The genitalia resemble those of A. *costipennis* Fisher, as figured by him.³

³W. S. Fisher. U. S. Nat. Mus. Bul. 145, pp. 1-349. 1928.

Agrilus cavifrons Waterh.

Specimens which tally with the description and figure of this species were taken on the foliage of desert hackberry (*Celtis pallida* Torr.) in Sabino Canyon near Tucson, Ariz., from August 8 to 14, by the author.

Agrilus exhuachucae n. sp.

Male—Form narrow, elongate, subcylindrical, piceous; head with front bronzy green, vertex cupreous; pronotum aeneous; each elytron with a bright cupreous area covering basal fifth and extending along costal margin to apex.

Head convex, a slight trace of median depression; surface with large light punctures, pubescence sparse, obscure; antennae short, not reaching to middle of pronotum when laid along side margin, serrate from the fifth joint, outer joints wider than long.

Pronotum wider than long, widest in apical fourth, much narrower at base than apex; side margins broadly arcuate in front, oblique posteriorly, sinuate at base; when viewed from the side the marginal and submarginal carinae widely separated in front but joined on basal fifth; anterior margin sinuate, median lobe strongly rounded; basal margin emarginate at middle of each elytron; disk convex, a short median basal depression in front of scutellum, lateral depressions feeble, prehumeral carinae prominent; surface finely transversely rugose, finely punctate between rugae, each puncture bearing an inconspicuous hair. Scutellum granulate, transversely carinate.

Elytra wider than base of pronotum; side margins sinuate in front, strongly constricted at middle, broadly rounded to rounded crenulate apices; disk moderately convex, sutural margin elevated posteriorly; basal depressions deep, a faint longitudinal carina between humeri and lateral margin; surface imbricately granulose, pubescence short, well spaced, inconspicuous.

Abdomen beneath shining, reticulate, clothed with short widely separated pubescence which is longer on median line of first two segments, suture between first two ventrals well indicated at sides, first two ventrals unmodified. Prosternal lobe broadly rounded, no indication of emargination at middle; prosternal process expanded back of front coxal cavities. Posterior coxae with the posterior margin strongly sinuate, the exterior angle slightly prolonged. Tibiae slender, anterior pair mucronate on inner side at apex. Tarsal claws nearly similar on all feet, cleft, inner tooth broad, much shorter than outer one and not turned inward.

Length, 4.5 mm.; width, 1 mm.

Female—Differs from the male in having front of head aeneous, tibiae not mucronate, median line of pubescence of ventral surface not longer than others.

Described from a pair of adults collected from the foliage of oak (*Quercus* sp.) in the Huachuca Mountains, Ariz., July 21, 1936, by the writer. Holotype male and allotype in author's collection.

According to Fisher's key³ this species would run to A. abditus Horn. The color markings will separate it from its allies. Superficially it resembles A. duncani Knull; however, the elytral apices of the two species are quite distinct.

Methia evaniformis n. sp.

(Fig. 3)

Male—Size and form of Molorchus bimaculatus Say; robust, piceous, area bordering eyes and antennae brunneus, elytra ochraceous.

Head convex, front perpendicular, deeply channeled between antennae; eyes deeply emarginate, but not divided, lower lobe much larger than upper one, coarsely granulate, widely separated on vertex; surface coarsely punctured, punctures contiguous, pubescence fine; antennae about twice as long as entire insect, fifth joint extending beyond tips of elytra, scape stout, second joint wider than long, third joint much longer than scape, joints four to eleven inclusive, gradually diminishing in length, scape coarsely punctured, other joints finely punctured and densely pubescent, especially on outside.

Pronotum wider than long, widest in middle, narrower at base than at apex; sides broadly rounded from apical to basal constriction; disk convex; surface confluently coarsely punctured, a transverse callous area at base, densely clothed with long silky pubescence. Scutellum triangular, channeled.

Elytra as long as wide; wider than pronotum, widest just back of base; sides broadly rounded in front, sinuate in middle, apices obliquely truncate; suture strongly sinuate; disk convex, umbone prominent, surface densely finely punctured, punctures becoming confluent apically, pubescence short, fine; under wings extending beyond tip of abdomen.

Abdomen very short, not as long as metathorax. Metasternum densely coarsely punctured. Posterior legs very long, coxae large, femora shorter than tibiae, tibiae densely clothed with long piceous hairs.

Female—Differs from the male by somewhat shorter antennae and longer abdomen.

Length, 7.5 mm.; width, 1.8 mm.

Described from specimens collected in the Davis Mountains, July 3-August 22, and Chisos Mountains, Texas, July 9, 1936, by the author.

Holotype male labeled Davis Mountains, July third; allotype and paratypes in writer's collection.

This remarkable species which was collected from the dead branches of oak (*Quercus* sp.) was very active when it landed in the umbrella and had more the appearance of one of the *Evaniidae*.

The coarsely punctured pronotum, widely separated eyes, large metathorax and long posterior legs will serve to distinguish it from the other species in the genus.

Tragidion opacum n. sp.

Male-Size and form of T. armatum Lec., piceous, elytra brunneous, apices piceous.

Head opaque, irregularly punctured, front concave, eyes small, finely granulate; antennae much larger than elytra, eighth joint extending beyond apices when laid over dorsal surface, scape stout, second joint slightly longer than wide, third joint longer than first two taken together, fourth shorter than third, joints five to ten gradually decreasing in length, terminal joint longest, joints four to ten slightly serrate.

Pronotum wider than long, widest in middle, narrower at apex than at base; sides oblique in front, an obtuse tubercle at middle; base constricted; disk convex, a median tubercle in front of scutellum, two on each side of anterior half and one on each side of posterior half; surface opaque, coarsely confluently punctured, each puncture bearing a recumbent piceous hair. Scutellum triangular, densely clothed with short pubescence.

Elytra at base wider than widest part of pronotum, sides nearly parallel at base, constricted at middle; parallel back of constriction, broadly rounded to emarginately truncate apices; disk convex, each elytron bearing three indistinct costae; surface densely coarsely punctured, each puncture bearing a recumbent piceous hair.

Abdomen beneath finely punctured, pubescence long. Hind tibiae bent backward at tip.

Length, 20.9 mm.; width, 5.8 mm.

Described from one male specimen in the collection of the author taken from the foliage of oak (*Quercus* sp.) in the Davis Mountains, Tex., July 4, 1936, by the writer.

This species resembles *T. armatum* Lec., but can be distinguished by the opaque, coarsely punctured pronotum, black elytral apices and color and placement of elytral pubescence.

Dorcaschema octovittata n. sp.

Male—Form and general appearance of a small specimen of *D. wildi* Uhler, background dark brown; legs and antennae lighter, body and legs clothed with recumbent white pubescence, body ornamented with fulvous stripes of the same texture pubescence.

Head with front flat, depressed between antennae, a blunt tubercle on inside of each antennal socket, a fine median line extending from pronotum to front; surface granulate in front, rugose on vertex, clothed with recumbent white pubescence marked with fulvous areas; antennae eleven jointed, fifth joint extending beyond tips of elytra, scape stout, second joint slightly longer than wide, scape and second joint asperate on upper side, third joint longer than fourth, sixth joint shorter than fifth, seventh joint longer than sixth, joints gradually increasing in length to tip, last joint longest, joints three to ten, inclusive, annulate at outer ends, white pubescence short, becoming very fine and inconspicuous on outer joints.

Pronotum longer than wide, widest back of middle; sides subparallel in front, constricted back of middle and expanded at base; anterior margin broadly emarginate; basal margin emarginate; disk convex, a vague transverse depression at base; surface transversely strigate, punctures large, irregularly placed, clothed with recumbent white pubescence, two fulvous stripes on side and a much broader one in middle, first lateral and middle stripe extending from anterior margin to basal depression, numerous long flying hairs near base. Scutellum triangular, clothed with white and fulvous pubescence. JOSEF N. KNULL

Elytra much wider than prothorax; sides nearly parallel, broadly rounded posteriorly to rounded apices, disk convex; surface coarsely punctured, a patch of densely placed punctures back of middle on side of each elytron, clothed with recumbent white pubescence, each elytron with four fulvous stripes running the entire length.

Abdomen granulate, larger punctures well spaced, a long hair arising from each depression, clothed with white and fulvous pubescence. Legs clothed with dense white pubescence.

Length, 11.8 mm.; width, 3 mm.

Female—Differs from the male by the much shorter antennae and the smaller, less densely pubescent anterior tarsal joints.

Described from specimens taken from Mexican mulberry (Morus celtidifolia H. B. K.) in the Davis Mountains of Texas July 3 to 6, 1936, by the writer. The species breeds in the living trees. Holotype male, allotype and paratypes in writer's collection; paratypes in collection of the Ohio State University.

This species comes close to *D. wildi* Uhler but can be separated by the smaller size, the presence of four distinct yellow lines on each elytron and the much coarser elytral punctures. It lacks the two types of elytral punctures present in *D. wildi*.

Estola tigrina Skinn.

Reared from the dead branches of palo verde (*Cercidium torreyanum* Sarg.).

Buprestidae and Cerambycidae Josef N. Knull

PLATE I



| Fig. | 1. | Tyna | laris | balli | n. | Sp. |
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- Fig. 2. Fig. 3. Hesperorhipis mirabilis n. sp. Methia evaniformis n. sp.

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