

the height of several feet and that they are "pugnacious little devils." Such an ant might conceivably seize a resting dragonfly by its legs, but I have little doubt that the dragonfly was the aggressor and that it plucked the ant from its perch, and the ant retaliated by seizing a leg in a death grip. I have elsewhere recorded tropical dragonflies with heads of stingless bees attached to their legs.

New North American Coleoptera.

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The following paper presents a number of apparently undescribed species in our collection. The specimens were not taken in any particular region, but represent material collected and received from various sources, as indicated in each description.

We are indebted to Prof. H. C. Fall, who has been of great assistance to us in examining specimens, and for his opinions in regard to the material; also to Dr. Henry Skinner and E. T. Cresson, Jr., for the use of the Horn collection.

***Chrysobothris woodgatei* n. sp.**

Robust, depressed, piceous, elevated spaces shining, ventral surface with coppery bronze lustre. Head densely punctate and rugose, with long white pubescence. Clypeus broadly emarginate at middle, arcuate each side. Antennae coppery bronze, third joint longer than following joints, joints four to eleven, gradually narrowed.

Prothorax twice as wide as long, widest in front of middle, obliquely narrowed in front, arcuately narrowed toward base, surface convex, a deep median densely punctate sulcus; a broad, smooth, slightly elevated space on each side, a narrower sinuous elevated space nearer to the side, the surface otherwise coarsely and densely punctured, punctures with long white hairs. Scutellum small, triangular.

Elytra wider than prothorax, widest back of middle, sides parallel near base, sinuate in middle, rounded on posterior third to broadly rounded apices, lateral margin serrulate along its entire length, disk convex, first costa expanded into a smooth area on basal half, apical half a raised line, second and third costae somewhat interrupted into broad, smooth sinuate areas, fourth costa a raised line parallel to lateral margin, intervals very densely and finely punctate.

Prosternum lobed in front, pubescent, with median smooth area. Last ventral segment of abdomen serrulate along margin, submarginal ridge not well marked, abdomen densely and irregularly punctate.

Length 14 mm.

♂. Last ventral segment with a semi-circular emargination, anterior tibia arcuate, with a lamina on the inside near tip, forming an abrupt dilation, middle tibia similar to the first, but tooth not as pronounced, posterior tibia straight.

♀. Last ventral segment with a narrow emargination, anterior tibia arcuate, dilate at tip, but without a tooth.

Described from one male and two females collected at Jemez Springs, New Mexico, in July, by John Woodgate, in whose honor the species is named. *Type* material in authors' collection.

According to Horn's* table, this species would come near *C. quadrilincata* Lec.

Mastogenius castlei n. sp.

Head and prothorax bright metallic blue, elytra metallic green, cupreous along costal margin, a piceous spot in middle which extends posteriorly along suture, ventral surface including legs aeneous. Head convex, impressed in front, coarsely and densely punctate, eyes small, coarsely granulate. Antennae aeneous, serrate from the fourth joint, first and second joints globose, third joint narrow, elongate, shorter than the fifth and about half as long as fourth.

Prothorax wider than long, widest a little back of middle, sides arcuate, more strongly rounded anteriorly, surface convex, coarsely punctate.

Elytra as wide at base as basal line of prothorax, widest back of middle, side margins parallel at base, sinuate in middle, apices rounded, surface coarsely punctate.

Abdomen sparsely punctate. Posterior margin of hind coxal plate broadly emarginate.

Length 3 mm.

Described from one specimen collected at Miami, Florida, May 4, by Dr. D. M. Castle, in whose honor the species is named. *Type* in authors' collection.

According to Schaeffer's† key, this species should follow *Mastogenius puncticollis* Schaeff.

Idoemea bicolor n. sp.

Slender, elongate, pubescent, testaceous; head orange in color. Head wider than prothorax, vertex impressed. Eyes large, coarsely granulate, narrowly separated on vertex, deeply emarginate, upper portion smaller than lower. Antennae eleven-jointed, nearly twice as long as body, covered with short dense pubescence which becomes sparse and

* G. H. Horn—Trans. Amer. Ent. Soc. XIII, 1886, p. 85.

† Chas. Schaeffer—Jour. N. Y. Ent. Soc. V. 26, 1918, p. 214.

longer near base, scape stout, with small concave cicatrix near outer apical margin, second joint very small, remaining joints about equal in length and gradually tapering.

Prothorax cylindrical, dilate at middle, longer than wide, surface unevenly punctate, and with long pubescence, on each side, a dorsal smooth area, and two protuberances, one basal and one lateral.

Elytra wider than prothorax, three-fourths the length of the abdomen, narrowed posteriorly, apices rounded, surface coarsely and unevenly punctate, covered with fine pubescence.

Abdomen sparsely punctate, with short pubescence. Legs with long pubescence.

Length 9 mm.

Described from one specimen collected at Jemez Springs, New Mexico, in August, by John Woodgate. *Type* in authors' collection.

***Elaphidion albomaculatum* n. sp.**

Form of *Elaphidion irroratum* L., brunneous, marked with dense patches of white pubescence. Head with front irregularly punctate, vertex transversely strigate, eyes prominent, coarsely granulate, emarginate, a patch of dense white pubescence in emargination, another patch beside each eye on vertex. Antennae about one-half longer than elytra in male, only slightly longer than elytra in female, eleven-jointed, third, fourth, fifth, sixth and seventh joints bearing a moderate spine on inside, outer joints finely pubescent, punctate.

Prothorax longer than wide, cylindrical, widened in the center, constricted at apex and base, surface irregularly punctate and pubescent, with an irregular smooth callus in center, and another on each side in front and to the rear, also three similar areas along each side; a round patch of dense white pubescence on each side back of anterior margin, another elongate downwardly deflected patch on each side at base, and a small patch in front of scutellum. Scutellum triangular, covered with dense white pubescence.

Elytra wider than prothorax, sides nearly parallel, apices truncate, spinose on the outer side, surface irregularly punctate, punctures becoming obsolete near apex, covered with short pubescence intermixed with longer hairs, marked with irregular patches of dense white pubescence.

Sides of meso, and metathorax, and segments of abdomen with patches of dense white pubescence; abdomen sparsely punctate, pubescent.

Length 13 mm.

Described from three males and one female collected at Miami, Florida, on April 2, by J. N. Knull. *Type* material in authors' collection.

Elaphidion (Anepsyra) delongi n. sp.

Form and color of *Elaphidion (Anepsyra) subpubescens* Lec. Head densely and irregularly punctate. Eyes prominent, coarsely granulate, emarginate. Antenna about a third longer than elytra in the male, slightly longer than elytra in the female, eleven-jointed, pubescent, pubescence longer toward base, third joint with a spine about half the length of the fourth joint, fourth joint with a shorter spine, fifth with small spine.

Prothorax cylindrical, longer than wide, surface densely and irregularly punctate, with a median smooth callus on basal half, long flying hairs numerous. Scutellum densely pubescent.

Elytra wider than prothorax, sides nearly parallel, apices bispinose, surface densely and regularly punctate, each puncture bearing a long white hair, punctures becoming less prominent posteriorly.

Abdomen finely punctate, pubescent.

Length 13 mm.

Described from a male and a female collected at Miami, Florida, on April 3 and April 12 respectively, by D. M. DeLong, in whose honor the species is named. *Type* material in authors' collection.

Anthophilax quadrimaculatus n. sp.

Brunneous, elytra ochraceous, with two piceous spots on each side. Head coarsely and irregularly punctate on vertex, more finely punctate on front. Eyes finely granulate, emarginate. Mandibles long, dark at apex. Antennae eleven-jointed, extending beyond two-thirds the length of the elytra, scape stout, second joint very small, third joint shorter than first, but longer than fourth, fifth joint longer than any preceding joint, remaining six joints approximately equal in length to the fifth.

Prothorax longer than wide, acute lateral tubercle at middle, a deep transverse depression near anterior and posterior margins, base trisinate, surface deeply and irregularly punctate with median callus, and also a transverse callus near basal margin. Scutellum small, triangular, finely and densely punctate.

Elytra wider than prothorax, sides nearly parallel, rounded in apical fifth to obliquely truncate apices. Surface densely irregularly punctate on basal half, becoming extremely fine toward apex. Color ochraceous, a lateral piceous spot behind humeral angle, and another in middle of elytron.

Abdomen densely punctate and pubescent.

Length 16 mm.

Described from a female specimen collected at Rock Bridge, Ohio, in June, by Robert J. Sim and C. J. Drake. *Type* in authors' collection.

According to Nicolay's* key, this species would fall next to *A. subvittatus* Casey.

***Atimia huachucae* n. sp.**

Piceous, legs and antennae brunneous, covered with coarse luteous pubescence, with some denuded spots on head, prothorax and elytra. Head convex, covered with luteous pubescence, with the exception of a median denuded stripe. Eyes finely granulate, emarginate. Antennae finely pubescent.

Prothorax wider than long, quadrate, disk convex, irregularly densely punctate, covered with luteous pubescence, which becomes sparse, forming a fine central dark area and two rather broad dorsal and lateral vittae. Scutellum quadrate, covered with dense luteous pubescence.

Elytra with sides gradually converging to obliquely truncate apices, surface irregularly punctate, covered with dense luteous pubescence, with numerous irregular smooth, round, denuded areas.

Ventral surface and legs with short luteous pubescence.

Length 9 mm.

Type and *paratype* collected at Cooney, New Mexico, and Huachuca, Arizona, respectively, in the collection of H. W. Wenzel. One paratype collected at Paradise, Arizona, by H. H. Kimball, in authors' collection.

This species resembles *Atima confusa* Say, but can be distinguished easily from this species by the round denuded areas on the elytra.

***Leptostylus floridanus* n. sp.**

Resembling *Leptostylus argentatus* Duv. in form and color. Head clothed with gray pubescence. Eyes coarsely granulate, emarginate. Antennae eleven-jointed, slightly longer than elytra, mottled between annulations.

Prothorax wider than long, with a well developed lateral tubercule, disk convex, with a median raised area on basal half, and two similar areas on each side, surface covered with dense silvery-white pubescence, pubescence darker in front of scutellum, and a faint line on each side. Scutellum densely clothed with silvery-white pubescence.

Elytra wider than prothorax, sides parallel near base, widened on basal half, rounded anteriorly to obliquely emarginate apices, each elytron with three somewhat interrupted raised lines bearing tubercles, and also a row along suture, surface deeply and evenly punctate, clothed with dense silvery-white pubescence on basal two-thirds, apical third and a small patch back of scutellum darker, a piceous stripe running parallel to costal margin from humeral angle to apex, deflected obliquely on basal

* A. S. Nicolay—Jour. N. Y. Ent. Soc. V. 25, 1917, p. 38.

half toward suture, on apical third a second oblique stripe running parallel to the first, and extending from costal margin to suture, a short oblique stripe in center diverging from suture to first raised line.

Femora strongly clavate.

Length 9 mm.

Described from one specimen collected on *Pinus caribaeu* at Miami, Florida, on April 3, by J. N. Knull. *Type* in authors' collection.

Some Coccidae Found on Orchids (Hom.).

The following Diaspine Coccidae, found on greenhouse orchids, are of interest on account of the locality and, excepting the first, new host-plant records.

Aonidia pseudaspidiotus (Lindinger).

Parlatoria pseudaspidiotus Lindinger, Insekten Börse, XXII (1905), p. 131.

Female scale about 1.4 mm. diameter, circular or slightly oval, slightly convex; first skin a little to one side of middle, strongly green, varying to cream-color; second skin concealed, enclosing female, dense and chestnut red, but covered with pale secretion, so that in the scale the area around the first skin is whitish; outer part of scale purplish-black, but the thin margin whittish. No thick ventral film.

Female circular, without lateral incisions or projections; three pairs of well-formed lobes, and a fourth small tooth-like one; median lobes widely separated, trilobed; second and third lobes bilobed, the outer lobe small; spines ordinary, small; squames strongly fimbriate, those beyond the third lobe mostly very large, subtriangular; large transverse thickenings below the interlobular intervals; no circumgenital glands; anal orifice elongate, with thickened margins; mouth parts very large.

On stems of *Vanda teres* Lindley, found by Mr. S. Knudsen in a greenhouse at Boulder, Colorado. The orchid belongs to the Indian region, and the scale is undoubtedly an Oriental species.

This species appears to be closely related to *Aonidia crenulata* Green (*A. cbeni* "Green," Leonardi), and in spite of its great resemblance to such species as *Parlatoria pergandei*, I think it is properly an *Aonidia*. *A. pseudaspidiotus* was found on an orchid at quarantine at the port of San Francisco, several years ago.*

Chrysomphalus dictyospermi (Morgan).

On *Coelogyne cristata* Lindley, infesting the leaves. Greenhouse at Boulder, Colorado.

Diaspis boisduvalii Signoret.

On *Laeliocattleya* hybr. *victoriae* ("Queen Victoria," hort.) and *Odontoglossum rossii* Lindley. Greenhouse at Boulder, Colorado.—T. D. A. COCKERELL, Boulder, Colorado.

* B. B. Whitney, Monthly Bull. Calif. Comm. Hort., July, 1913, p. 583. *Parlatoria mangiferac* Marlatt, apparently the same species as that from *Vanda*, was found on mango, not on orchids. Macgillivray places *mangiferae* and *pseudaspidiotus* (as distinct species) in his genus *Genaparlatoria*.