

NEW NORTH AMERICAN COLEOPTERA)
(BUPRESTIDAE, SCHIZOPODIDAE AND CERAMBYCIDAE)

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Juniperella n. g.

Head convex, wider on front than on vertex; front not narrowed by insertion of antennae; epistoma broadly emarginate in front; antennal cavities small, round, situated near lower portion of eyes; antennae not reaching hind angles of pronotum when laid along side; scape narrow, elongate, cylindrical; second segment about twice as long as wide, cylindrical; segments four to ten inclusive elongate, flattened, serrate; last segment elongate, narrower than preceding segments.

Pronotum twice as wide as long, widest at base; side margin extending to middle; disk convex, without callosities. Scutellum small.

Elytra at base wider than pronotum, widest back of middle.

Prosternum convex, anterior margin truncate, prosternal process slightly expanded back of coxal cavities, acuminate at apex. Suture of mesosternum quite indistinct.

Posterior coxal plates only slightly dilated internally, posterior margin nearly straight, cut off externally by abdomen; epimera of metathorax uncovered, triangular; mesosternum and metasternum closely united, suture fine.

Legs slender, tibiae straight, subcylindrical; tarsi slender, posterior tarsi only slightly longer than those on other two pairs of legs, fourth segment not lobed, claws normal.

Genotype: *Juniperella mirabilis* n. sp.

This genus should be placed in the *Buprestini* next to *Buprestis*. It is more robust and convex, prosternal process acuminate at apex, and sides of coxal plates more parallel.

Juniperella mirabilis n. sp.

(Fig. 2)

Short, very robust, shining; head, prothorax and scutellum bright metallic green; elytra dark green with four transverse, wide yellow bands not reaching suture; short pubescence on head and ventral surface only.

Head convex, densely, rather coarsely punctured.

Pronotum twice as wide as long, wider at base than at apex; sides broadly rounded from base to apex; anterior margin sinuate, median lobe small; posterior margin more strongly sinuate, median lobe broad; disk convex, slight depression in front of scutellum; surface densely, coarsely punctured, punctures closer on sides, larger than on head. Scutellum small, rounded in rear.

Elytra at base wider than pronotum, widest back of middle; sides subparallel near base, expanded back of middle, then broadly rounded to suture, forming an obtuse angle; margin serrulate near apex; disk convex, depressions lacking; surface glabrous, with very faint traces of costae, minute punctures dense.

Abdomen beneath densely, coarsely punctured; last visible abdominal segment more coarsely punctured; sides serrulate; strongly converging, apex truncate.

Length, 19 mm.; width, 8.5 mm.

Holotype of undetermined sex, collected from juniper (*Juniperus californica* Carr.) at 4,000 ft. elevation in Santa Rosa Mountains, California, June 25, 1946, by D. J. & J. N. Knull. Holotype in collection of author.

On branch where adult was taken was a fresh emergence hole which leads writer to believe that this is the species which breeds in living junipers in that locality. Eggs are evidently laid near base of tree and young larvae work in the roots. When a larva nearly reaches maturity it travels up the trunk from four inches to as high as three feet boring under bark and channeling

outer sapwood. A pupal cell is constructed in sapwood and the oval opening which is tightly plugged with fine granular frass is transverse with grain of the wood. All work goes on under the shreddy bark and until the emergence hole appears it is difficult to find infested trees. Trees containing work are usually in very unhealthy condition.

***Hesperorhipis hyperbolus californicus* n. subsp.**

Figs. 4 and 5

Male.—Differs from male of *hyperbolus* Knull by having dark area at base of elytra more metallic green, or blue, than head and pronotum and light median area of elytron not extending up around inside of umbone. Ventral surface of abdomen more rugose; last ventral segment more narrowly and deeply emarginate at apex.

Length, 4.7 mm.; width, 1.4 mm.

Described from a series collected at 4,000 ft. in Santa Rosa Mountains, California, June 5 and July 4, 1946, by D. J. & J. N. Knull. Holotype male and paratypes in collection of writer, paratype in collection of The Ohio State University.

Variations.—Length of specimens ranges from 4.7 mm. to 2.7 mm.

***Chrysobothris santarosae* n. sp.**

Figs. 10 and 11

Male.—Robust, convex; head, prothorax and ventral surface dark, shining, cupreous; elytra darker, opaque.

Head convex; surface with longitudinal smooth carina on occiput which is striate in middle, joining similar smooth areas on each side of front, forming a Y, another smooth area below Y, area between callosities densely, irregularly, coarsely punctured; clypeus truncate, faintly emarginate in middle; antennae not extending to middle of pronotum when laid along side.

Pronotum convex, much wider than long, widest in middle; sides rounded; anterior margin only slightly lobed; basal margin strongly sinuate; surface densely coarsely punctured, punctures confluent at sides. Scutellum small, triangular.

Elytra at base wider than widest part of pronotum, not entirely covering abdomen, sides subparallel basally, broadly rounded back of middle to rounded apices, serrulate; disk convex, two basal depressions each side, void of costae; surface finely, densely punctate, punctures larger and denser along outer margin.

Abdomen beneath coarsely, densely punctured, last visible segment without serrations, broadly emarginate at apex, with ridge on apical half extending across apex. Prosternum with anterior margin broadly rounded, deflexed. Anterior femur with obtuse tooth serrulate on outer margin. Anterior and middle tibiae arcuate, unarmed.

Length, 10.7 mm.; width, 4.2 mm.

Described from a male specimen in the collection of writer taken at 3,500 feet in the Santa Rosa Mountains, California, on June 15, 1946, by D. J. & J. N. Knull.

According to Fisher's key¹ it would run to *C. platti* Caz. It differs by the dark color as well as the coarsely punctured pronotum with smooth intervals.

***Agrilus gillespiensis* n. sp.**

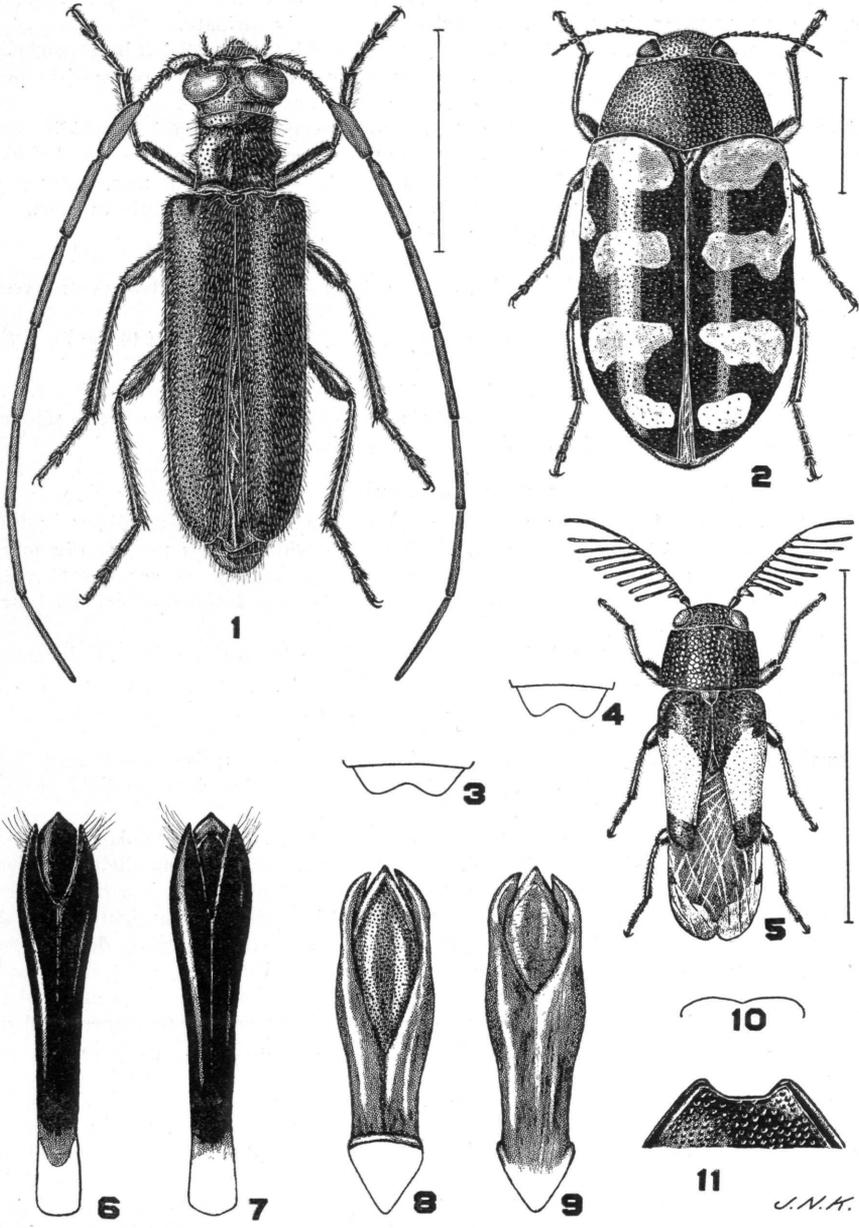
Figs. 6 and 7

Male.—Narrow, elongate; form of *A. celli* Knull; dark bronze throughout, front of head metallic green.

Head convex, depression on vertex slight; surface granulose on front, finely strigate on vertex; antennae extending beyond middle of pronotum when laid along side, serrate from the fifth segment.

Pronotum wider than long, wider in front than in rear; side margins converging in front, sinuate near base; anterior margin sinuate, median lobe prominent; basal margin sinuate; disk convex, lateral depression each side, prehumeral carina nearly parallel to side margin; when viewed

¹W. S. Fisher, U. S. D. A. Misc. Pub. 470, pp. 1-275, 1942.



1. *Centrodera osburni* n. sp. ♂. 2. *Juniperella mirabilis* n. sp. 3. *Hesperorhipis hyperbolus* Knoll, last visible ventral abdominal segment. ♂. 4. *Hesperorhipis hyperbolus californicus* n. subsp., last visible ventral abdominal segment. ♂. 5. *Hesperorhipis hyperbolus californicus* n. subsp. ♂. 6. *Agrilus gillesspiensis* n. sp., dorsal view of ♂ genitalia. 7. Ventral view of number 6. 8. *Chrysobothris santarosae* n. sp., dorsal view of ♂ genitalia. 9. Ventral view of number 8. 10. *Chrysobothris santarosae* n. sp., anterior margin of clypeus. 11. *Chrysobothris santarosae* n. sp., last visible ventral abdominal segment ♂.

Line equals 5 mm.

from side, marginal and submarginal carinae separated for entire distance, joined at base; surface finely, obliquely transversely strigose. Scutellum transversely carinate.

Elytra elongate, at base wider than base of pronotum; sides subparallel at base, constricted at middle, expanded back of middle, then converging to rounded, serrulate apices; disk convex, a basal depression each side, surface imbricate, pubescence inconspicuous.

Abdomen beneath minutely punctate, first ventral segment flattened in middle, flat area higher than second segment. Prosternum pubescent; prosternal lobe broadly rounded in front, lacking an emargination. Posterior coxal plates broadly emarginate in rear, outer posterior angle rectangular. Anterior and posterior tibiae mucronate on inner margin at apex. Tarsal claws similar, outer tooth long, acute; inner tooth short and broad.

Length, 5 mm.; width, 1.3 mm.

Female.—Differs from male by having front of head cupreous; first two ventral segments convex and tibiae unarmed at apices.

Holotype male and allotype collected in Gillespie Co., Texas, May 7, 1946, by D. J. & J. N. Knull and in collection of writer.

According to Fisher's key² this species would run to *A. celti* Knull. It differs by having lateral carinae of thorax separated for entire distance, prehumeral carina parallel to side margin, prosternal lobe broadly rounded, and shape of male genitalia.

Dystaxia murrayi cuprea n. subsp.

Female.—Size and form of *murrayi* Lec.; cupreous with green luster above and below; antennae, mouth parts and legs light brown. Compared with *murrayi* the anterior margin of epistoma is less deeply emarginate; antennae are shorter, extending one segment beyond hind angles of pronotum when laid along side, segments six to eleven inclusive proportionately shorter.

Length, 11.5 mm.; width, 6 mm.

Described from holotype female in collection of writer labeled Cajon Pass, California, June 26, 1941, D. J. & J. N. Knull collectors.

Gymnospyra notabilis n. sp.

Female.—Narrow, elongate; moderately shining, dark brown; legs and ventral surface lighter; head and pronotum with long, erect setae; elytra with densely recumbent pubescence, also scattered long erect setae.

Head convex, punctures large, confluent; eyes prominent, coarsely granulate; antennae not reaching end of abdomen when laid along side, scape stout, second segment slightly longer than wide, third shorter than scape, fourth longer than third, fifth longer than fourth, sixth equal to fifth, seventh shorter than sixth, eighth shorter than seventh, ninth equaling eighth, tenth shorter than ninth, eleventh longer than tenth, first four segments subcylindrical, densely coarsely punctured, segments five to ten inclusive somewhat flattened and slightly serrate, finely punctate.

Pronotum about as long as wide, widest in middle, base and apex of about equal width; sides broadly rounded, constricted at base and apex; anterior margin rounded; basal margin broadly emarginate; disk convex; surface densely, coarsely punctured. Scutellum transverse, broadly rounded in rear.

Elytra at base much wider than pronotum, elongate; sides subparallel, broadly rounded near apex to rounded apices; disk convex, a slight basal depression on each elytron; surface densely coarsely punctured at base, punctures becoming obsolete at apex, largest punctures much smaller than on pronotum.

Abdomen beneath shining, sparsely, finely punctate, pubescence long, slender. Anterior coxal cavities open behind, angled on outside; anterior tibiae carinate on outside.

Length, 13.7 mm.; width, 3.3 mm.

Holotype female in collection of writer labeled Jacumba, California, May 18, 1941, D. J. & J. N. Knull collectors.

This species appears to fit *Gymnospyra* Lins. better than any other genus in our fauna, although it lacks antennal spines.

²W. S. Fisher, U. S. National Mus. Bul. 145, pp. 1-347, 1928.

Centrodera osburni n. sp.

Fig. 1

Male.—Narrow, elongate; color dark brown throughout, shining, moderately pubescent.

Head wider than pronotum; surface coarsely punctured; eyes large, coarsely granulate; antennae extending two segments beyond apices of elytra when laid along side, scape stout, second segment as long as wide, third segment slightly longer than wide, longer than fourth, fifth as long as first three united, sixth longer than fifth, seventh and eighth equal, each longer than sixth, ninth and tenth equal, each shorter than eighth, eleventh longest, first four segments similar, shining, coarsely punctured, following segments flattened, opaque, minutely punctate.

Pronotum wider than long, widest in middle, base and apex of equal width; sides sinuate with rounded tubercle each side at middle; apical margin rounded; basal margin sinuate; disk convex, with transverse depression back of apex and at base, slight trace of median depression, rest of area somewhat irregular; surface coarsely, irregularly punctured all but middle line where punctures are small and sparse. Scutellum rounded in rear.

Elytra at base wider than head; sides subparallel, broadly rounded on apical fourth to rounded apices; disk convex, basal depression on each elytron shallow, lacking costae, surface rugulose, densely, finely punctured.

Abdomen beneath smooth, sparsely, finely punctate, densely punctured depressed area on each side of first four segments, last visible segment more densely punctured than others, truncate at apex. Tarsi on first two pairs of legs about equal, posterior tarsi slightly longer.

Length, 12.2 mm.; width, 3.5 mm.

Described from four male specimens collected at 6,000 ft. in the New York Mountains, California, September 11, 1945, by Dr. R. C. Osburn. Holotype and paratypes in collection of The Ohio State University, paratype in collection of writer.

This species can be distinguished by the short second, third and fourth antennal segments.