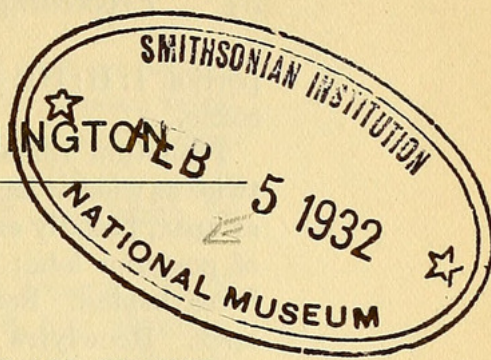


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NOTES ON AMERICAN ANTHOCORIDAE WITH
DESCRIPTIONS OF NEW FORMS.¹

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During the past few months the writers have been studying the hemipterous family Anthocoridae with the object of monographing the group for North America. Due to the fact, however, that so little has been done with the family and that keys constructed now would soon be valueless it is thought best to publish here a few general notes with descriptions of new forms with the hope that this paper will lead to the acquisition of more material and thus the planned monograph in the end be more complete and valuable. Other than their own collection the authors have been permitted to study the undetermined material belonging to the U. S. National Museum, the collection of the Illinois State Natural History Survey and the collection of Dr. H. H. Knight. Thanks are due Mr. W. L. McAtee, Dr. T. H. Frison, and Dr. Knight, respectively, for their kindness in allowing the use of the above mentioned collections in this study.

***Lasiochilus hirtellus*, n. sp.**

Oblong-ovate, broadest beyond the middle, clothed with numerous long scattered hairs, brownish testaceous, the head and pronotum shiny, the elytra duller. Head distinctly longer than broad, smooth, clothed with a few long erect hairs. Eyes reddish to blackish, coarsely granulated. Ocelli reddish. Antennae long, testaceous to rufotestaceous, clothed with numerous long hairs, segment I stout, reaching slightly beyond apex of head; II longest, considerably stouter than III or IV, gradually swollen towards apex; III and IV very slender, the hairs varying in length; pro-

¹ Contribution from the Department of Zoology and Entomology, Iowa State College, Ames, Iowa.

portion I: II: III: IV:: 11: 25: 21: 18. Rostrum reaching to intermediate coxae.

Pronotum smooth, strongly narrowed anteriorly, slightly more than twice as wide at base as at apex, length thru median line sub-equal to width at apex, broadly emarginate behind, with a transverse depression in front of posterior lobe; the anterior lobe with a distinct median, longitudinal fovea behind. Scutellum depressed and indistinctly rugulose before the apex. Hemelytra distinctly punctured, more closely and coarsely so on clavi, clothed with long hairs; embolium with numerous long hairs along outer margin, at apex hardly as wide as corium; membrane somewhat brownish. Wings reaching slightly beyond apex of abdomen, the cell without a hamus. Legs yellowish brown, clothed with a few hairs. Ostiolar canal curved posteriorly. Abdomen beneath clothed with a few long hairs which are longer and most numerous at apex. Length 3.2 mm., width 1.19 mm.

Holotype: male, Thomasville, Alabama, June 11, 1918, H. H. Knight, collector. *Allotype*: Columbus, Texas, May 23. *Paratypes*: 27 specimens, Brownsville, Texas, May 4, 1904, and June 5, 1904, H. S. Barber, collector and Feb. 4, Geo. Garner, collector; Devers, Texas, June 23, 1917, H. H. Knight, collector; Anahuac, Texas, Oct. 8, 1918, H. S. Barber; Presidio Riv., Sinaloa, Mexico, Sept. 20, 1918, J. Aug. Kusche, collector; Opelousas, Louisiana, Pilate; Bayo Sara, La., Jan. 16, 1919, E. A. Schwarz; Crowley, La., at light, E. S. Tucker; Alexandria, La., Feb. 26, 1909, on cornstalk, E. S. Tucker; Gainesville, Florida, July 11, 1918, on velvet beans, J. R. Watson, collector.

Holotype and *allotype* in authors' collection. *Paratypes* in collection of U. S. Nat. Museum, Illinois State Natural History Survey, Iowa State College, H. H. Knight and the authors.

***Lasiochilus comitalis*, n. sp.**

Elongate-ovate, rather sparsely clothed with moderately long sub-erect hairs; head, pronotum, and base of scutellum shiny, rufo-piceous; the hemelytra and apex of scutellum dull, dark brownish testaceous to fuscous. Head short, its length subequal to width through the eyes. Eyes moderately large, reddish. Ocelli prominent, rather distant from eyes. Antennae testaceous, moderately clothed with long stiff hairs of variable lengths; segment I scarcely reaching apex of head; II moderately stout, considerably thickened towards the apex; III and IV very slender; the proportional length of the segments—I: II: III: IV:: 7: 18: 16: 18. Rostrum pale testaceous, moderately stout, extending to middle of mesosternum, segment I reaching to anterior margin of eyes, II to the apex of the anterior coxae.

Pronotum moderately narrowed anteriorly, the lateral margins ciliate and slightly sinuate, the apex broader than head through eyes, the disc smooth with posterior lobe finely rugulose, the base sub-angularly and deeply emarginate. Scutellum depressed apically, the depressed portion dull and rugulose. Hemelytra dull, clothed with moderately long, semi-erect hairs which are arranged in rows, indistinctly punctate; the embolium long,

its outer margin ciliate, its apex not quite one-half as wide as corium. Membrane slightly smoky, subhyaline. Legs brownish, the femora thickened and mostly fuscous. Ostiolar canal short, strongly curved posteriorly. Body beneath reddish brown to fuscous, the apex of the venter beset with numerous very long slender hairs. Length 2.77 mm., width .90 mm.

Holotype: male, Hendersonville, North Carolina, on *Hicoria*, W. F. Fiske, collector (Hopkins, U. S. 1781 d), type #29146, U. S. Nat. Museum.

Allotype: female, taken with type. *Paratypes*: one male and one female, Tryon, N. C., on *Hicoria*, W. F. Fiske, collector (Hopkins, U. S. 1722 f).

This species has the general appearance of *L. reuteri* Champ. from which it may readily be distinguished by its slightly larger size, the differently colored head, pronotum, hemelytra, etc.

***Lasiochilus mirificus*, n. sp.**

Moderately large, oblong-ovate, yellowish to testaceous, shiny, rather densely clothed with fine sub-erect hairs. Head broader than long, slightly rugulose in front of eyes. Eyes moderately large, inconspicuous. Ocelli far apart. Antennae pale testaceous, clothed with long, very fine hairs; segment I scarcely reaching apex of head, thick; II enlarged toward apex; the proportional length of the segments—I: II: III: IV:: 4: 9: 10: 11. Rostrum reaching almost to end of mesosternum, segment I attaining the apex of the eyes, II extending to the anterior coxae.

Pronotum rather strongly narrowed anteriorly, somewhat shiny, finely and rather indistinctly rugulose, with a short fairly distinct fovea on the base of the anterior lobe, the lateral margins ciliate, the base broadly emarginate. Scutellum with the basal half smooth, the depressed apical half rugulose. Hemelytra rather densely clothed with fine pale hairs; the embolium rounded at inner apical angle. Membrane hyaline. Legs yellowish. Ostiolar canal short, distinctly curved posteriorly. Body beneath testaceous, clothed with fairly long hairs. Length 2 mm., width .79 mm.

Holotype: female, Brownsville, Texas, May 7, 1904, H. S. Barber, collector, type #29147, U. S. National Museum. *Paratype*: female, taken with type.

This species falls in group *a* in Champion's key to the Central American forms. It may readily be separated from related forms by the rounded apex of the embolium.

***Lasiochilus divisus* Champion.**

One specimen of this distinct species is at hand from Canal Point, Florida, collected Feb. 14, 1924, by W. F. Ourey. Other specimens from Guatemala, Porto Rico and Canal Zone, Panama, have been examined.

***Lasiochilus fuscus* Reuter.**

One specimen, Charleston, Mississippi, Sept. 10, 1925, H. M. Harris, collector, and one specimen Decherd, Tenn., Aug. 18, H. S. Barber, collector.

***Lasiochiloides socialis*, n. sp.**

Elongate, nearly parallel, rufo-piceous; the head, pronotum, and basal portion of scutellum faintly tinged with ferrugineous. Head broad, ante-ocular portion short, anteriorly narrowed. Eyes large, reddish, widely separated. Ocelli prominent. Antennae flavotestaceous, clothed with long hairs (the basal segments more sparingly); segment I reaching apex of head; II moderately enlarged towards apex; III and IV very slender; the proportional length of the segments—I: II: III: IV:: 6: 16: 12: 13. Rostrum long, segment I reaching to middle of eyes, II not quite reaching past the anterior coxae, III extending to middle of mesosternum.

Pronotum shiny, narrowed anteriorly; the disc indistinctly rugulose, narrowly longitudinally depressed through the middle; the posterior portion transversely rugulose, depressed on the disc; sides margined (much more widely anteriorly), sinuate; collar short; the base broadly and roundly emarginate. Scutellum shiny at the base, dull at the apex, the depressed apical part finely rugulose. Hemelytra dull, moderately hairy, sparsely and finely punctured, the punctures arranged in distinct rows on outer and inner margin of clavi. Membrane slightly smoky. Legs brownish, the tibiae and tarsi lighter; femora incrassate, the anterior ones more strongly so and these armed beneath with short, piceous teeth. Ostiolar canal moderately long, distinctly curved anteriorly. Body beneath reddish brown, the apex of the abdomen clothed with several long hairs. Length 2.55 mm., width .84 mm.

Holotype: male, Valles, Mexico, January 18, 1909, collected on growing corn, in authors' collection.

This species is close to *L. denticulatus* Champ. from which it may readily be separated by its narrower form, larger eyes and differently colored antennae and hemelytra.

***Plochicoris comptulus*, n. sp.**

Elongate, subparallel, shiny, rather sparsely clothed with long semi-erect hairs which are most numerous along the sides of the hemelytra. Head smooth, shiny, the basal portion dark rufo-piceous, the anteocular portion brownish. Eyes dark, coarsely granulate, prominent. Ocelli pale, rather conspicuous. Antennae long, thickly clothed with long hairs, segments I and II stout; I scarcely reaching beyond the apex of the head; II very long, sub-cylindrical, the apical one-third slightly enlarged; III very slender; IV wanting; proportion of segments—I: II: III:: 7: 30: 16. Rostrum long, extending to slightly beyond intermediate coxae, segment II very long, about four times as long as I.

Pronotum as in *P. longicornis* Champ. except that it is brownish-testaceous and angularly emarginate behind. Scutellum testaceous, the apical portion depressed and rugulose. Hemelytra testaceous, the inner margin of the clavus and the outer margin of the cuneus faintly tinged with red; embolium narrow at base, strongly widened toward the apex and there almost as wide as the corium, the inner apical angle rounded. Membrane hyaline, with two distinct nervures. Legs testaceous, the femora slightly darker. Ostiolar canal sloping slightly backward, the apical portion

faintly anteriorly curved. Body beneath brownish, the sides and margins of the abdominal segments somewhat testaceous. Length 2.7 mm., width .89 mm.

Holotype: male, Brownsville, Texas, May 16, 1904, H. S. Barber, collector. Type #29148, U. S. Nat. Museum.

***Lasiocolpus minor* Champion.**

Three specimens, Cacao, Trece Aguas, Alta V. Pas, Guatemala, April 5, April 19, and March 29, Schwarz and Barber, collectors.

These specimens differ from Champion's description in having the first and second antennal segments more or less brownish instead of entirely testaceous.

***Xylocoris betulinus*, n. sp.**

Closely related to *X. galactinus* Fieb. from which it may readily be distinguished by the much broader pronotum which has the posterior lobe distinctly depressed.

Antennae yellowish-brown, moderately hairy; segment I not quite reaching apex of head; II slightly thickened towards apex, a little longer than III or IV; the proportion—I: II: III: IV:: 7: 18: 15: 16. Rostrum yellowish brown, stout, reaching to the mesosternum, segment I reaching almost to posterior margin of eye, II longer, sub-attaining anterior coxae. Pronotum moderately clothed with short, prostrate, golden hairs which are quite numerous on the sides; anteriorly narrowed, in front distinctly wider than head through eyes, behind broadly and roundly but not deeply excavated; the posterior lobe depressed and finely rugulose. Scutellum strongly depressed on posterior half. Hemelytra testaceous; membrane hyaline. Legs stout, femora fuscous, anterior ones strongly incrassate, the posterior ones less strongly incrassate; tibiae and tarsi brownish, the anterior tibiae very strongly enlarged toward their apices. Ostiolar canal, long, posteriorly curved to middle of its length, then strongly anteriorly curved, the apex reaching front margin of meso-pleuron. Body beneath dark fuscous. Male clasper long, stout, curved. Length, 2.6 mm., width 1.0 mm.

Holotype: male, Cranberry Lake, N. Y., June 23, 1919. C. J. Drake, collector, taken in burrow of American timber worm, *Hylecoetus lugubrius* Say, on fallen yellow birch; in authors' collection.

***Asthenidea temnostethoides* Reuter.**

Batavia, N. Y., Aug. 8, 1914, H. H. Knight; Cranberry Lake, N. Y., Sept. 16, 1917, and Aug. 5, 1920, C. J. Drake, collector; Anna, Illinois, June 27, 1909, taken sweeping; Dubois, Ill., July 3, 1909, Miami, Florida, Dec. 20, 1912, Fred Knab, collector; Marathon, Fla., May, 1919, Barber and Schwarz; Paradise Key, Fla., Feb. 23, 1919, Schwarz and Barber; Kerryville, Texas, June 19, 1907, F. C. Pratt, collector.

***Macrotracheliella laevis* var. *floridana*, n. variety.**

Rufo-piceous, shining, almost destitute of hairs. Antennae moderately clothed with short hairs, rufo-piceous, segment III flavous; I scarcely reach-

ing apex of head; II enlarged towards apex; III and IV slender, fusiform; the length of the segments in the proportion—I: II: III: IV:: 6: 15: 13: 13. Rostrum reaching to anterior coxae, segment II extending to the base of the prosternum.

Pronotum shiny, strongly narrowed anteriorly, the front lobe forming a continuous outline with the long posterior lobe of the head, the sides distinctly margined, the base broadly and roundly emarginate. Scutellum depressed apically, clothed with a few short fine hairs. Hemelytra considerably longer than the abdomen, the clavus (borders excepted) pale whitish; membrane smoky, hyaline, the basal margins somewhat paler. Length 2.5 mm., width .81 mm.

Holotype: female, Key West, Florida, March 30, 1912, reared from nymph taken in gall of thrips on *Ficus indica*, E. A. Schwarz. Type #29149, U. S. Nat. Museum. *Paratype*: female, Key West, Florida, June 4, 1905, Fred. Knab, collector.

This form differs from typical *M. laevis* Champ. in having the entire third antennal segment flavous and the clavus (margins excepted) whitish. Three nymphs taken with holotype are at hand.

***Xenotracheliella*, n. genus.**

Body oblong, smooth, almost destitute of hairs. Head shiny, ante-ocular portion longer than post-ocular portion; eyes large in the male, smaller in the female; ocelli far apart; antennae long, stout, segment I reaching apex of head, II very long, subequal to head in length, enlarged towards the apex, III and IV stout, together slightly longer than II. Rostrum long, reaching beyond prosternum, segment I reaching to middle of eyes. Pronotum shiny, narrowed anteriorly, deeply transversely depressed (furrow-like) at about the middle, narrowly margined along the sides, truncate in front and emarginate behind. Hemelytra reaching to apex of abdomen, embolium narrow; membrane sub-hyaline, with four nervures, the inner ones indistinct. Scutellum depressed on apical half and transversely rugulose there. Mesosternum strongly developed. Legs stout, anterior coxae placed close together, intermediate and posterior ones far apart. Ostiolar canal sloping obliquely forward and slightly curved.

This genus has its greatest affinities with *Macrotrachelia* Reut. and *Macrotracheliella* Champ. from which it may be distinguished by the differently formed head, pronotum, elytra, ostiolar canal, etc.

Type of genus, *Xenotracheliella inimica*, n. sp.

***Xenotracheliella inimica*, n. sp.**

Oblong, dark brown to fuscous black, hemelytra conspicuously marked with whitish, the second antennal segment, the base of the third, and the tarsi flavotestaceous. Head dark brown, shiny, finely rugulose, the apex annulate; its length one-third greater than width through eyes. Eyes small, reddish, finely granular. Ocelli inconspicuous, widely separated. Antennae stout, rather thickly clothed with short stiff, whitish hairs; dark brown, the entire second segment testaceous; segment I hardly reaching apex of head; II swollen towards the apex; III and IV stout, fusiform;

the proportional length of the segments—I: II: III: IV:: 8: 29: 15: 16. Rostrum dark brown, reaching to the apex of mesosternum, segment I extending almost to the middle of the eyes, II to near the middle of the mesosternum.

Pronotum shiny, narrowed anteriorly, the sides strongly sinuate, the base broadly emarginate, the lateral margins narrowly reflexed; deeply and transversely depressed just behind the middle, the apical collar and the disc of the posterior lobe finely rugulose. Scutellum shiny, the apical half depressed, black, and finely rugulose. Hemelytra brownish, the clavus, except at base, apex, and along commissure, and a transverse fascia at apex of corium (not extending entirely across) whitish; the embolium angular at apex. Membrane hyaline, its middle indistinctly clouded toward apex; with four unbranched nervures. Legs dark reddish brown, the tarsi lighter; the femora incrassate. Ostiolar canal slanting obliquely forward, the apex subangularly curved. Body beneath dark reddish brown, the apex of the venter blackish, with a few long whitish hairs. Length 2.85 mm., width .85 mm.

Described from a single specimen, female, Taghanic, Ithaca, New York, July 2, 1920, in authors' collection.

***Xenotracheliella vicaria*, n. sp.**

Form and general appearance similar to *X. inimica*, n. sp. Head brownish black, the apex lighter, the anterior portion considerably longer than the posterior portion. Eyes large, much more prominent than in *inimica*. Ocelli very prominent, placed far apart. Antennae stout, dark brown tinged with ferrugineous, thinly clothed with numerous short, very fine hairs; segment I smooth, almost reaching apex of head; II long, very stout, slightly thickened distally, its length about equal to that of head; III and IV more slender, the two conjoined not as long as II; the proportion—I: II: III: IV:: 7: 26: 11: 13. Rostrum long, reaching slightly beyond metasternum, segment I reaching middle of eyes, II to base of mesosternum.

Pronotum piceous, shiny, strongly narrowed anteriorly, finely transversely rugulose and closely pitted in the depressions, the sides distinctly margined, the base broadly emarginate, the disc strongly transversely depressed through the middle. Scutellum piceous, strongly impressed on apical half, the impressed portion finely and very closely pitted, the apical one-half tumid, smooth, shiny. Hemelytra fuscous to piceous, the clavus pale testaceous with its inner margin piceous; embolium narrow, the apex sub-angulate. Legs piceous, with a brownish tinge, the tarsi slightly lighter. Ostiolar canal slanting obliquely forward, sub-angularly curved at the apex. Body beneath dark reddish brown, the apex of the abdomen clothed with a few long hairs. Length 2.87 mm., width 1 mm.

Holotype: male, Marquette, Michigan, August 28, 1888, in the collection of the authors.

Although this form resembles *X. inimica*, n. sp., it seems desirable to consider it distinct rather than as a male of that species because of its less flattened body, slightly larger size, less widely separated ocelli, longer second rostral segment, differently shaped pronotum, and differently colored hemelytra and second antennal segment, etc.

***Xenotracheiella oculata*, n. sp.**

General form and shape similar to *X. vicaria*, n. sp., but broader, without conspicuous color markings on hemelytra, the eyes larger, the ocelli more profoundly raised, and the second antennal segment distinctly shorter and more slender.

Head, pronotum, and scutellum rufo-piceous, shiny; with a few fine, very short pale hairs; head longer than broad, the anterior lobe distinctly constricted just past the middle. Eyes very large. Ocelli strongly raised, very prominent. Antennae dark brown, clothed with short whitish hairs; segment I extending to apex of head; II moderately stout, faintly enlarged distally; III and IV wanting; the proportional lengths of the segments—I: II:: 6: 23. Rostrum dark fuscous, reaching a little beyond middle of mesosternum, segment I extending to middle of eyes, II to apex of anterior coxae.

Pronotum strongly narrowed anteriorly, the sides sinuate and narrowly margined, the collar short, the posterior lobe set off by a wide transverse depression and with anterior lobe distinctly pitted. Scutellum depressed on apical half, pitted. Hemelytra pale brown, narrowly margined with rufo-piceous; the cuneus somewhat darkened distally; the membrane subhyaline. Legs rufo-piceous, the tibiae and tarsi much lighter. Ostiolar canal slightly sloping forward, the apex faintly curved and ending in a thin carina which extends to the anterior margin of the metapleuron. Body beneath rufo-piceous, the segments of the venter margined with lighter. Length 3.62 mm., width 1.19 mm.

Holotype: male, Williams, Arizona, June 30, Barber and Schwarz, collectors, type #29150, U. S. Nat. Museum.

***Temnostethus fastigiatus*, n. sp.**

Moderately large, shiny, brownish black with brown or pale markings, very sparsely clothed above with short yellowish hairs. Head dark brown, somewhat shining. Eyes moderately prominent, quite distant from pronotum. Ocelli small, inconspicuous. Antennae reddish brown, moderately pilose; segment I very short, not reaching apex of head; II quite long, slightly enlarged towards the apex; III more slender than II and about one-half as long; IV wanting; proportion I: II: III:: 8: 25: 12. Rostrum extending to end of mesosternum, segment I reaching to middle of eyes, II almost to intermediate coxae.

Pronotum moderately narrowed anteriorly, very finely and closely pitted; strongly depressed and rugose on posterior lobe, the disc slightly swollen; the collar distinct, tinged with brownish yellow; the lateral margins sinuate, strongly reflexed, the base roundly emarginate. Scutellum rugulose, the apical portion slightly depressed and pitted. Hemelytra short, covering basal half of abdomen, brownish to fuscous, the basal portions of embolium and corium and the inner margin of clavus pale yellow. Membrane short, hyaline. Legs reddish brown, the femora swollen; intermediate coxae widely separated, the posterior ones more widely separated. Metasternum truncate at apex. Ostiolar canal short, stout, nearly straight, the apex faintly turned backwards. Length 2.66 mm., width .95 mm.

Holotype: Brachypterous female, Santa Cruz Mountains, California, type #29151, U. S. Nat. Museum. *Allotype*: Male, Morgan Hill, California, May 23, 1922, E. O. Essig, collector. *Paratypes*: female, taken with type, and female, Cayton, Shasta Co., Cal., July 13, 1913, E. P. Van Duzee, collector.

This is the first American record for the genus *Temnostethus*. The shape of the pronotum, the position of the eyes, the characters of the rostrum and metasternum, and the widely separated coxae readily separates the genus from related genera.

***Acompocoris feratis*, n. sp.**

Elongate-ovate, piceous brown, the hemelytra somewhat testaceous brown; rather thickly clothed with moderately short, slightly curled, whitish pubescence. Head dark rufo-piceous, distinctly longer than width through eyes, shiny. Eyes reddish. Ocelli prominent. Antennae rather stout, clothed with short stiff hairs; segment I distinctly not reaching to apex of head; II longer than width of head through eyes; III two-thirds as long as II; IV missing; the proportion—I: II: III:: 8: 29: 17. Rostrum extremely long, reaching considerably beyond middle of venter, segment I extending to the base of the eyes, II to fourth abdominal segment.

Pronotum strongly narrowed anteriorly; the sides narrowly margined, rounded in front, the anterior lobe raised, shiny; the posterior lobe set off by a deep transverse depression, rugulose, broadly and roundly excavated behind. Scutellum large, depressed behind and finely rugulose. Hemelytra more or less variegated with yellowish. Membrane smoky. Legs brownish, femora somewhat darkened. Ostiolar canal nearly straight, faintly curved anteriorly. Body beneath reddish brown. Length 3.4 mm., width 1.5 mm.

Holotype: male, Kaslo, British Columbia, in collection of the writers. The extremely long rostrum easily distinguishes this species from any species of the genus known to the authors.

***Tetraphleps novitus*, n. sp.**

Obovate, moderately clothed with short, prostrate, whitish, scale-like hairs; head, pronotum, and scutellum black, the elytra brown. Head broad, as long as width through eyes. Eyes large, reddish black. Ocelli prominent, reddish. Antennae moderately long, clothed with a few whitish hairs; segment I dark brown to black, thick, not quite reaching apex of head; II brownish to black, gradually thickened distally; III and IV black, subequal in length, together a little longer than III; the proportion—I: II: III: IV:: 6: 18: 10: 12. Rostrum brownish to black, reaching between anterior coxae, segment I short, not reaching insertion of antennae, II long, reaching slightly beyond apex of prosternum.

Pronotum finely and transversely rugulose, broadly and shallowly excavated behind, transversely depressed between anterior and posterior lobes, the sides slightly narrowed and strongly margined anteriorly, in front broader than the head measured through the eyes. Ostiolar canal

straight, faintly backwardly projecting, its apex distinctly raised. Scutellum strongly depressed and rugulose apically. Elytra considerably longer than abdomen, the scale-like hairs arranged in rather definite rows the punctures fairly distinct. Membrane somewhat smoky, with four prominent veins. Wings almost as long as elytra, the cell with a hamus. Legs brownish black, the tibia and tarsi lighter. Body beneath black. Length 3.4 mm., width 1.28 mm.

Holotype: female, taken on pine, Stonewall, Trinidad, Colo., 9000 ft. alt., Aug. 8, 1925, by C. J. Drake. *Allotype*: same locality as holotype, H. H. Knight, collector. *Paratypes*: several females and males taken with the types, and one female Estes Park, Colo., Aug. 24, 1925, H. H. Knight, collector. In the male the second antennal segment is considerably thicker and more swollen distally than in the female. Holotype and allotype in writers' collection. Paratypes in collection of U. S. Nat. Museum, Iowa State College, Colorado Agr. College, H. H. Knight, and the authors.

***Tetraphleps pingreensis*, n. sp.**

Closely allied to *T. novitus*, n. sp. but smaller, darker, and with a much longer rostrum. Pronotum much shorter, not so strongly margined anteriorly, and behind more roundly excavated. The elytra dark brown, much darker than in *novitus*. Rostrum attaining the intermediate coxae; segment I reaching apex of eyes; segment II to the anterior coxae. Antennal proportions and ostiolar canal as in *novitus*. Length 3 mm., width 1.19 mm.

Male smaller, lighter in color, perhaps due to the fact that it is somewhat immature.

Holotype: female, Estes Park, Colo., Aug. 24, 1925, H. H. Knight, collector. *Allotype*: Pingree Park, Colo., Aug. 20, 1925, C. J. Drake, collector, taken on pine. Types in authors' collection.

***Tetraphleps profugus*, n. sp.**

Elongate-ovate, brownish, the head, anterior lobe of pronotum and the scutellum black, shiny, moderately thickly clothed with short, slightly recurved yellowish pubescence. Head measured through eyes broader than long. Eyes large, reddish. Ocelli placed far apart. Antennae dark reddish brown; segment I reaching faintly beyond the apex of the head; II swollen distally, its length equal to length of head to collum; III about one-half as long as II; IV wanting; the proportion—I: II: III:: 7: 22: 12. Rostrum reaching to anterior coxae, segment I not attaining the insertion of the antennae, II reaching a little beyond base of head.

Pronotum transversely rugulose, considerably narrowed anteriorly, the apex about as wide as head through eyes, the explanate lateral margins widened anteriorly, the base broadly and roundly emarginate. Scutellum depressed and transversely rugulose from the middle backwards. Hemelytra coarsely punctate, testaceous brown. Legs reddish brown. Ostiolar canal straight. Body beneath reddish brown, clothed with rather long silvery hairs. Length 3.62 mm., width 1.49 mm.

Holotype: male, Kaslo, British Columbia, in writers' collection.

This form has the general appearance of *Acompocoris feratis*, n. sp., from which it may be separated by the generic characters, the differently formed pronotum, and the yellowish hairs on the scutellum and hemelytra.

***Tetraphleps edacis*, n. sp.**

Obovate, moderately thickly clothed with slightly curved whitish pubescence; black, head with a brownish tinge; elytra brownish, slightly variegated with yellowish; membrane pale, with broad brownish streaks along the nervures. Head shiny, longer than wide (through eyes), the apex subclavate. Eyes dark reddish, moderate in size. Ocelli prominent, placed far apart. Antennae fuscous; segment I not reaching apex of head; II faintly thickened towards apex, in length subequal to width of head through eyes; III and IV about equal in length; all clothed with fine, short, pale hairs; the proportion—I: II: III: IV:: 7: 22: 13: 13. Rostrum dark brownish, reaching almost to intermediate coxae, segment I extending to apex of eyes, II slightly surpassing the anterior coxae.

Pronotum shiny, finely punctured and transversely rugulose; moderately narrowed anteriorly, the apex slightly wider than head through eyes; broadly and roundly excavated behind; the reflexed lateral margins distinct but not broad. Scutellum shiny, the apical part depressed and rugulose. Hemelytra moderately shiny, brownish fuscous, finely punctured. Legs dark brownish, the apices of the femora and the tibia and tarsi lighter. Ostiolar canal nearly straight (faintly curved anteriorly). Body beneath black. Length 3.66 mm., width 1.7 mm.

Holotype: female, The Plains, Wanakena, New York, Aug. 3, 1920, C. J. Drake, taken on *Larix laricina*, in collection of writers.

This species resembles *Acompocoris* (*Tetraphleps*) *osborni* Drake, from which it may be separated by the darker hemelytra, the shorter rostrum and the form of the ostiolar canal.

***Paratriphleps laeviusculus* Champion.**

Four specimens, three males, Tegucigalpa, Honduras, Feb. 10, 1918, F. J. Dyar, collector.

The males differ from Champion's description and the female before us in having the hemelytra more uniformly colored and only the sutures between the corium and clavus and between corium and embolium darkened. The apical half of each of the last three antennal segments is brownish.

***Scoloposcelis mississippiensis*, n. sp.**

Elongate, flattened, rufo-fuscous. Head distinctly longer than broad, shiny, faintly rugulose. Eyes large, reddish. Ocelli prominent. Antennae rather stout, flavotestaceous, darkened toward the base, clothed with numerous long hairs; segment I short, hardly reaching apex of head; II three times as long as I, moderately swollen apically; III and IV slender, sub-equal in length, each two-thirds as long as II; the proportion—I: II: III: IV:: 6: 20: 13: 13. Rostrum extending to posterior coxae, segment I reaching to about middle of eyes, II more than twice as long as I and sub-equal to I and III together.

Pronotum shiny, trapeziform, moderately narrowed anteriorly, the sides slightly sinuate and distinctly margined, the base deeply emarginate; posterior lobe rugulose, somewhat flattened, the longitudinal sulcus indistinct. Scutellum concolorous with pronotum, finely rugulose. Hemelytra pale, the inner margin of the clavus and the entire embolium and cuneus fuscous, opaque; membrane clear, hyaline. Wing cell without a hamus. Legs stout, the anterior and posterior femora greatly and equally incrassate, strongly compressed laterally, the anterior ones armed beneath with a double row of short black teeth; apex of femora and tibiae and tarsi flavotestaceous. Ostiolar canal very long, sloping anteriorly, the apical half curved.

Male with genital segment clothed with numerous long, gray hairs; clasper large and prominent. Female with a few scattered hairs at tip of abdomen. Length 2.76 to 3 mm., width .80 mm.

Five specimens, Port Gibson, Mississippi, July 22, 1921. Taken by C. J. Drake from burrows of barkbeetles (*Ips* spp.) in long-leaf pine. The tree from which the specimens were taken had been felled in 1920 and the top was heavily infested with several species of barkbeetles. Only a few adults of *S. mississippiensis* were found. The nymphs were numerous. The insect is quite active. It apparently feeds on the larvae of barkbeetles. *Holotype*, male, and *allotype*, female, in authors' collection.

This species differs from *S. flavicornis* Reut. in having the pronotum broader anteriorly, the elytra much shorter, and the anterior and posterior femora equally incrassate.

Last (5th ?) nymphal instar: Reddish; antennae, tibiae, tarsi and wing-pads pale. Anterior and posterior femora strongly incrassate and laterally compressed. Pronotum slightly narrowed anteriorly, margined, two-thirds broader than long, the median longitudinal sulcus distinct. Antennae stout, clothed with numerous rather long stiff hairs; segment II longest; III slightly shorter than IV.

4th (?) instar: The antennae are considerably shorter than in the last instar nymph, segment II and IV are sub-equal, each slightly longer than III. Wing-pads very small. Rostrum reaching to intermediate coxae.

***Scoloposcelis basilicus*, n. sp.**

Elongate, narrow, the hemelytra subparallel, shiny. Head rufo-fuscous, faintly rugulose behind, short, broad, the length scarcely greater than width through eyes. Eyes reddish, moderately large. Ocelli pale, conspicuous. Antennae flavotestaceous, short, clothed with moderately short stiff hairs; segment I pale brown, almost reaching to apex of head; II distinctly enlarged towards apex, not so stout as I; III faintly thickened distally; IV not quite equal to and more slender than III; the proportion—I: II: III: IV:: 6: 14: 9: 9. Rostrum stout, reaching to a little beyond anterior coxae, segment I extending almost to middle of eyes, II to between anterior coxae.

Pronotum rufo-testaceous, considerably narrowed anteriorly, the sides almost straight and faintly margined; the posterior lobe depressed, trans-

versely rugulose, broadly emarginate behind; smooth on the disc and sides and rugulose on the collar and base. Scutellum smooth and shiny on base, rugulose on apical half. Elytra rufo-testaceous, with a broad band on basal part testaceous to whitish; the clavus and corium subhyaline, embolium narrow to the apex. Membrane somewhat smoky, sub-hyaline. Legs shorter than in other American species; the tibiae and tarsi flavo-testaceous, the femora brownish. Ostiolar canal long, strongly and evenly curved anteriorly. Body beneath brownish, more or less tinged with paler. Length 2.87 mm., width .81 mm.

Holotype: female, Peloncillo, National Forest, New Mexico, on oak, J. L. Webb, collector. *Allotype*: male, Chiricahua Mountains, Arizona, J. L. Webb, collector. Types #29152, U. S. National Museum. *Paratypes*: taken with types, and Capitan Mountains, Boreal, N. Mexico, in collections of U. S. Nat. Museum and authors.

***Scoloposcelis discalis* Van Duzee.**

Flagstaff, Arizona, July 7, collected by Barber and Schwarz.

***Scoloposcelis occidentalis*, n. sp.**

Differing from *S. discalis* Van Duzee in its larger size, longer antennae, much longer rostrum, and narrower embolium. Head rufo-piceous, broad, convex above. Eyes moderately large. Ocelli widely separated, inconspicuous. Antennae brown, clothed with a few short hairs, segment I not quite attaining apex of the head; II slightly clavate, distinctly longer than width of head through eyes; III and IV more slender, clothed with longer hairs; the proportion—I: II: III: IV :: 7: 19: 12: 13. Rostrum long, brownish testaceous, lighter at apex, segment I extending to middle of eyes, II to apex of anterior coxae, III to intermediate coxae.

Pronotum shiny, rufo-piceous, finely rugulose, strongly narrowed anteriorly, somewhat depressed back of disc, the sides nearly straight and distinctly margined, the apex slightly emarginate, the base deeply and roundly excavated. Scutellum smooth on the base, the apical one-third depressed and rugulose. Hemelytra testaceous to flavotestaceous, the cuneus fuscous, the embolium narrow, at apex less than one-half width of corium, pale brown; membrane pale, sub-hyaline. Legs brownish testaceous, the tibiae and tarsi lighter. Ostiolar canal long, more prominent than in *mississippiensis*, strongly curved anteriorly, almost reaching to anterior margin of meta-pleuron. Body beneath reddish brown to fuscous. Length 3.3 mm., width 1.05 mm.

Holotype: female, Ventura County, California, type #29153, U. S. Nat. Museum.



Drake, Carl J. and Harris, Keith M. 1926. "Notes on American Anthocoridae with descriptions of new forms." *Proceedings of the Biological Society of Washington* 39, 33–45.

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