

A SECOND REPORT ON HEMIPTERA-HETEROPTERA
FROM THE MARQUESAS*

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In 1932 I published a paper¹ describing one new genus and 13 new species of Hemiptera taken by the Pacific Entomological Survey in the Marquesas and adjacent islands. Since the preparation of that paper additional material from these islands has been submitted to me for study. The present paper is a complete report upon all of the Hemiptera-Heteroptera thus far received by me from this survey. Of the 27 species listed here 7 are described as new. All the types have been deposited in Bernice P. Bishop Museum.

The genera best represented in this collection are *Germalus*, which is characteristic of the islands of the south Pacific, and *Nabis*, with a somewhat similar distribution but more prominent in the Hawaiian fauna. The finding of a species of *Campyloneuropsis*, heretofore known only from a single species from East Africa, is noteworthy. A few species, such as *Geotomus pygmaeus*, *Æcalia consocialis*, and *Nabis capsiformis*, have a wide distribution throughout Polynesia, whereas others, such as *Coleotichus adamsoni* and *Glaucias venusta*, have close relatives in adjacent island groups.

FAMILY SCUTELLERIDAE

Coleotichus adamsoni Van Duzee.

Coleotichus adamsoni Van Duzee: B. P. Bishop Mus., Bull. 98, p. 177, 1932.

Through an oversight the apical hook of the osteolar canal was described as "not attaining anterior margin of the mesosternum"; it should have read "not attaining the anterior margin of the metapleura." Four additional females are among this supplementary material.

Uapou: Tekohepu Summit, altitude 3200 feet, November 28, 1931, at light, LeBronnec.

Hivaoa: Kaava Ridge, altitude 2800 feet, January 7, 1932, from *Weinmannia* species, LeBronnec.

Eiao: altitude 1500 feet, April 22, 1931, on *Dodonaea viscosa*, LeBronnec and H. Tauraa.

Uahuka: Hane Valley, altitude 150 feet, March 1, 1931, LeBronnec and H. Tauraa.

¹ Van Duzee, E. P., New Hemiptera-Heteroptera from the Marquesas: B. P. Bishop Mus., Bull. 98, p. 177, 1932.

* Pacific Entomological Survey Publication 7, article 26. Issued July 10, 1934.

FAMILY CYDNIDAE

Geotomus pygmæus Dallas.

Uapou: Hakahetau, taken in horse dung, December 17, 1929, Whitten.

Tahuata: Hanahevane Valley, seashore, July 15, 1930, at light, 17 specimens; Vaitahu Valley, seashore, July 17, 1930, 6 specimens (4 at light); LeBronnec and H. Tauraa.

Hivaoa: Avaao Valley, altitude 1350 feet, January 4, 1932, at light, 1 specimen; Feani Ridge, altitude 3900 feet, January 20, 1932, 1 specimen; LeBronnec; Tahauku, altitude 130 feet, July 22, 1929, at light on seashore; Atuona, March 7, 1929, at light; Mumford and Adamson.

Hatutu [Hatutaa]: altitude 1500 feet, April 28, 1931, beating *Canthium barbatum*, 1 specimen, LeBronnec and H. Tauraa.

This is a very widely distributed and common insect throughout the Orient and South Pacific islands.

FAMILY PENTATOMIDAE

Glaucias venustus, new species (fig. 1).

Diagnosis

Related to *G. vitiensis* China² from Fiji but apparently distinct; grass-green, black-punctate; margin of head, pronotum, and base of elytra slenderly black with yellowish submarginal areas on pronotum and about the eyes; scutellum with subapical black points. Length to tip of membrane 17-20 mm.

Description

Head flat, a little longer than width of vertex and one eye (36:60), surface transversely wrinkled across the middle and more coarsely so between the ocelli, the cheeks obscurely obliquely wrinkled on apical two fifths, median area of cheeks with a few small brown punctures; clypeus slightly exceeding the cheeks, polished and expanded at apex; antennal segments as 18:36:50:65:56, those of rostrum as 35:70:65:45; tip of rostrum attaining fore margin of ventral V; bucculae broadly sinuate, highest before base of rostrum; margins of cheeks feebly sinuated before the eyes; vertex with six longitudinal rows of punctures, the outer sometimes obsolete; head below impunctate.

Pronotum about a third longer than head, two and a half times as wide across the humeri as its median length (17:7); surface with a few large black punctures which become closer behind the middle and omit the callosities and anterior margin medianly; latero-anterior margins slenderly carinate. Scutellum nearly a fourth longer than broad (140:110), with large black punctures that become closer along the sides and obsolete at apex; apex behind the frenum a little longer than its width at the end of the frenum, the tip rounded. Elytra more closely and regularly black-punctate, these punctures forming rows along the sutures and becoming nearly obsolete at apex. Margins of pleurae and base of venter with small concolorous punctures. Osteolar canal long and slender, feebly curved but not quite attaining the anterior margin of the metapleura; mesosternal lamina two thirds as high as the median width of the second rostral segment (5:7), feebly arcuate, not produced free between the anterior coxae, a little thickened posteriorly; metasternal plate ovate, flat, its sides obtusely but feebly elevated, not at all tectiform; excavated behind to receive the subacute ventral spine.

² China, W. E., Notes on the genera *Glaucias*, *Kirkaldy* (*Zangis*, *Stal*), and *Plautia*, *Stal* (*Hemiptera*): *The Entomologist*, vol. 62, p. 15, 1929.

Male genital characters much as figured by China for *G. vitiensis* but with the median lobe narrower at apex, the styles narrower and linear to near their apex, the median notch of the pygofer more broadly and shallowly excavated, and the inflexed lateral angles of the pygofer with its inner member broader and passing the narrow outer member, with a deep rounded notch between them. Basal plates of the female genital segment prominent, strongly sinuate on either side more as in *G. samoanus* as figured by China³, the median valve also as in *G. samoanus*; lateral plates narrower than those figured for either of these species.

³ China, W. E., Heteroptera: Insects of Samoa, pt. 2, fasc. 3, p. 94, 1930.

Color a clear grass-green shading to yellowish on apex of tylus, about the eyes, along the latero-anterior submargin of the pronotum, base of the costa, connexivum, and disk of the sterna and venter; sutures of the tylus, edge of head, latero-anterior margins of pronotum, and sometimes the base of costa slenderly blackish green; a small spot on either side of the scutellum before the apex, median line and apex of rostrum, a small tooth at apex of connexival segments, tip of tarsal claws, a line close above base of antennae and the margin of the stigmata, black; antennae yellowish, apical half of III and all of IV and V inclined to fulvous-brown.

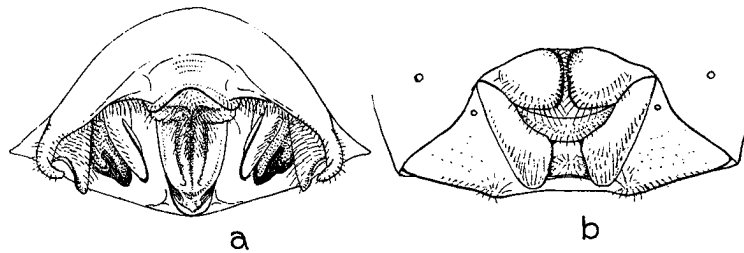


FIGURE 1.—*Glaucias vemustus*, new species, genital segment: a, male; b, female.

Nukuhiva: Teivipakeka [Teivipakea], altitude 2400 feet, October 16, 1929, 1 male, Mumford and Adamson.

Uahuka: Putiovae [Putiovai], March 23, 1931, taken on *Xylosma suaveolens*, 2 nymphs (?), LeBronnec and H. Tauraa.

Uapou: Teavanui Pass, altitude 2900 feet, November 28, 1931, at light, 2 specimens, LeBronnec; Hapava, altitude 500-600 feet, December 18, 1929, on leaves of *Wikstroemia foetida*, 2 females, Whitten.

Hivaoo: Mount Temetiu, altitude 3650 feet, March 23, 1929, 2 specimens, altitude 1670 feet, February 23, 1929; slope north of Mount Temetiu, altitude 3600 feet, February and March 1929, 1 male, 2 females; Atuona, May 11, 1929, 1 female; Mumford and Adamson.

Tahuata: Vaitahu Valley, March 1929, 4 specimens and several nymphs, holotype male, allotype female; Mumford and Adamson.

Although very near *G. vitiensis*, this species shows some good points for differentiation. The relative lengths of the antennal and rostral segments are obviously different; the rostrum is longer than in *G. marcidus* and *G. samoanus* (China does not give its length in *G. vitiensis*); the whole of segment IV of antenna is brownish, not apical half only; the black line above the base of the antennae is not mentioned in the description of *G. vitiensis*; the form

of the genital pieces shows obvious differences; and the size is materially larger. The fact that it inhabits a different group of islands should not be ignored. Miss Cheesman records *G. sulcatus* Montrouzier from the same island from which *G. venustus* was taken, and both species are reported as not uncommon there. This species, however, cannot be *G. sulcatus*, as Stål says the metasternal carina is produced in a free lamina between the anterior coxae, which is not true of *G. venustus*. However, this may yet prove to be the species identified as *G. sulcatus* by Miss Cheesman. The coarse black punctures of the dorsum are not mentioned by China in his description of *G. vitiensis*, but they are conspicuous and characteristic in this species.

Oecalia consocialis Boisduval.

Uahuka: Hanahoua Valley, altitude 250 feet, March 10, 1931, on *Ocimum* species, 1 specimen; Hane Valley, altitude 300 feet, March 9, 1931, 1 specimen; Teanatuhiwa, altitude 300 feet, March 18, 1931, on *Waltheria americana*, 1 specimen; LeBronnec and H. Tauraa.

Uapou: Vakaoakee, altitude 300 feet, December 17, 1929, Whitten.

Tahuata: Hanahevane Valley, altitude 150 feet, July 17, 1930, on *Sida* species, 3 specimens; altitude 45 feet, July 16, 1930; LeBronnec and H. Tauraa.

Hatutu [Hatutaa]: altitude 800 feet, April 28, 1931, on *Melochia velutina*, 17 specimens; altitude 1500 feet, April 28, 1931, beating on *Canthium barbatum*, 1 specimen; altitude 1500 feet, April 24, 1931, 1 specimen; altitude about 700 feet, April 28, 1931, 1 specimen; altitude 1500 feet, April 28, 1931, beating *Desmodium heterocarpum*, 1 specimen; LeBronnec and H. Tauraa.

Eiao: altitude 1500 feet, April 24, 1931, 1 specimen; LeBronnec; altitude 1100 feet, September 28, 1929, altitude 800 feet, October 1, 1929, altitude 1200 feet, October 2, 1929, beaten from *Melochia velutina* and *Dodonaea viscosa*, Adamson.

Fatuuku: altitude 860 feet, September 19, 1930, beating on *Morinda citrifolia*, 2 specimens, H. Tauraa.

Mohotani: altitude 300 feet, February 4, 1931, on *Cassia occidentalis* and on *Coreopsis* species, 7 specimens, LeBronnec and H. Tauraa; above Anaoa, altitude 160-650 feet, August 13, 1929, sweeping, Adamson.

These specimens seem inseparable from those found in New Zealand and in Australia. Prof. W. B. Herms has taken this species on Fanning Island.

FAMILY COREIDAE

Lioryssus hyalinus Fabricius.

Uahuka: Vaipae Valley, altitude 250 feet, March 17, 1931, on *Ocimum basilicum*, 1 specimen, LeBronnec and H. Tauraa.

Also taken by the Pacific Entomological Survey in the Society Islands.

This common species has been reported from almost every faunal region. The present material is a little darker in color than most of the specimens from the United States, but on the whole the species shows very little tendency toward variation.

FAMILY ARADIDAE

Ctenoneurus parallelus Van Duzee.

Ctenoneurus parallelus Van Duzee: B. P. Bishop Mus., Bull. 98, p. 180, 1932.

Uapou: Vaikokoo, Paaumea Valley, altitude 1850 feet, November 30, 1931, on log of *Hibiscus tiliaceus*; Teoatea, Hakahetau Valley, altitude 1950 feet, November 21, 1931, in dead *Piper latifolium*; LeBronnec.

FAMILY LYGAEIDAE

Germalus costalis Van Duzee.

Germalus costalis Van Duzee: B. P. Bishop Mus., Bull., 98, p. 180, 1932.

Hivaoa: Temetiu Summit, altitude 4160 feet, January 20, 1932, beating on *Weinmannia* species, 1 specimen; Avaoo Valley, altitude 2820 feet, January 6, 1932, 1 specimen; Kakahopuanui, Kaava Ridge, altitude 2500 feet, January 5, 1932, sweeping on ferns, 1 specimen; Kakahopuanui, altitude 2500 feet, January 5, 1932, sweeping on ferns, 4 specimens, beating on *Cyathea*, 1 specimen; Kaava Ridge, altitude 2750 feet, January 6, 1932, sweeping and beating on ferns, 7 specimens; Kaava Ridge, altitude 2820 feet, January 6, 1932, 4 specimens (1 on *Weinmannia* species); LeBronnec.

Germalus unicolor Montandon.

Hivaoa: Kakahopuanui, altitude 2465 feet, January 5, 1932, beating on *Weinmannia* and *Bidens lantanoides*, 2 specimens; Feani Ridge, altitude 3900 feet, January 21, 1932, beating on *Cyrtandra* species, 1 specimen; LeBronnec.

These specimens agree in all respects with Montandon's description except that the base of antennals II and III and the exterior face of I are embrowned. Here the osteolar canal is short and broad, characters not mentioned by Montandon. I cannot consider it distinct without Javan specimens for comparison.

Germalus infans Van Duzee.

Germalus infans Van Duzee: B. P. Bishop Mus., Bull. 98, p. 183, 1932.

Nukuhiva: Ooumu, altitude 4050 feet, November 12, 1929, on sedge (*Carex* species), 2 specimens, Mumford and Adamson; altitude about 3000 feet, May 29, 1931, on *Weinmannia* species, 1 specimen, LeBronnec and H. Tauraa; Tapuaooa, altitude about 3000 feet, June 18, 1931, on *Weinmannia* species, 2 specimens, LeBronnec and H. Tauraa.

Uahuka: Penau Ridge, altitude 2000-2200 feet, February 27, March 2, 5, 1931, on *Weinmannia* species, 10 specimens; Teivipuhipuhi, Vaikivi Valley, altitude 1250 feet, March 6, 1931, on *Metrosideros collina*, 5 specimens; Tauheeputa, altitude 1770 feet, March 23, 1931, on *Glochidion ramiflorum*, 4 specimens; Hanahoua Valley, altitude 250 and 750 feet, March 10, 1931, on *Ocimum* species, 3 specimens; Teavamataiki, altitude 730 feet, March 19, 24, 1931, on *Melochia velutina*, 2 specimens; LeBronnec and H. Tauraa.

Uapou: Teoatea, Hakahetau Valley, altitude 1950-2000 feet, November 16-19, 1931, beating on ferns, on *Metrosideros collina*, 5 specimens; LeBronnec.

Hivaoa: Temetiu Ridge, altitude 3900 feet, January 14, 1932, beating on *Cyrtandra* species, 10 specimens; Feani Ridge, altitude 3900 feet, January 21, 1931, beating on *Cyrtandra* species, 3 specimens; LeBronnec.

Hatutu [Hatutaa]: altitude 1500 feet, April 28, 1931, beating on *Canthium barbatum*, 34 specimens; altitude 800 feet, April 28, 1931, on *Melochia velutina*, 1 specimen; LeBronnec and H. Tauraa.

Eiao: altitude 1800 feet, April 22, 1931, on *Sida* species, 1 specimen; altitude 1600 feet, April 24, 1931, on *Vernonia cinerea*, on *Sida* species, 2 specimens; LeBronnec and H. Tauraa.

This species appears to be common and widely distributed on these islands. The individuals from Hivaoa are paler.

***Germalus fuliginosus* Van Duzee.**

Germalus fuliginosus Van Duzee: B. P. Bishop Mus., Bull. 98, p. 184, 1932.

Hivaoa: Temetiu Summit, altitude 4160 feet, January 20, 1932, beating on *Weinmannia* species, 4 specimens; Mount Temetiu, altitude 3900 feet, January 14, 1932, beating on *Metrosideros collina*, 1 specimen; Kakahopuanui, altitude 2465 feet, January 5, 1932, beating on *Weinmannia* species, *Cyathea*, and ferns, 6 specimens; Kaava Ridge, altitude 2000 feet, October 27, 1931, beating on *Sapindus saponaria*, 1 specimen, beating on *Glochidion ramiflorum*, 3 specimens; altitude 2750 feet, January 6, 1932, beating on ferns, 1 specimen, on ferns, 2 specimens, beating on *Cyathea* species, 1 specimen; Kaava Ridge, altitude 2820 feet, January 6, 1932, beating on *Metrosideros collina*, 1 specimen; Kaava Ridge, altitude 2800 feet, January 7, 1932, on *Pandanus*, 1 specimen; LeBronnec.

Tahuata: Vaitupaahi, altitude 2000 feet, July 8, 1930, 1 specimen, LeBronnec and H. Tauraa.

Uapou: Teoatea, Hakahetau Valley, altitude 1950 feet, November 16, 1931, beating on *Metrosideros collina*, 1 specimen; LeBronnec.

This species varies in the depth of the fuliginous shade on the elytra and in the extent of the dark markings on the head and pronotum.

Germalus robustus, new species (fig. 2).

Diagnosis

Form of *G. fuliginosus* nearly, with somewhat similar fuscous markings; elytra whitish subhyaline with heavy black nervures. Length 5 mm.

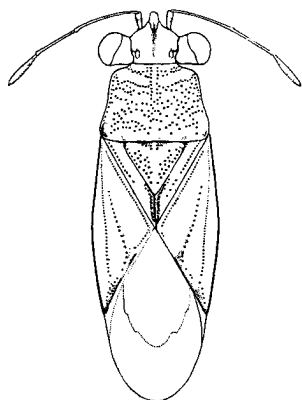


FIGURE 2.—*Germalus robustus*, new species

Description

Head as in *G. fuliginosus*, well produced anteriorly, impunctate; vertex flat, opaque, obscurely shagreened; eyes strongly prominent, distinctly elevated and somewhat produced posteriorly; ocular peduncles as long as the width of the eye; ocelli more distant from one another than from the nearest margin of the eyes; antennae III and IV equal, shorter than II (11:15). Pronotum broad, less narrowed anteriorly than in the related species (21:25), its length to its humeral width as 18:25; sides moderately sinuate, about as in *G. maculatus*, its surface coarsely, distinctly black-punctate; callosities large, smooth as in *G. infans*. Elytra, greatest width of each to length of corium as 31:44. Rostrum attaining hind coxae, segment I reaching to prosternum. Osteolar canal comparatively broad, slightly curved forward apically but not quite attaining hind margin of mesopleura, blunt at apex. Female oviduct attaining but not modifying third ventral segment.

Color pale yellow becoming whitish or testaceous on pronotum posteriorly, apex of scutellum, and base of femora; pronotum, the callosities excepted, and scutellum coarsely black-punctate, the latter with the usual smooth Y well developed; vertex with a heavy black median line and slender black mark at posterior base of eyes, the clypeal sutures and a line above the base of the antennae black; elytra whitish hyaline, the disk often tinged with fuliginous; veins punctate and heavily marked with black, the commissural margin of clavus and apex of corium more broadly so; costa hyaline, narrower than in some of the Marquesan species, the edge with a slender black line; pronotal humeri blackish, the disk with three fuscous vittae, more or less distinct, the intermediate including a pale median line; beneath with a blackish lateral vitta, represented by black punctures on the pleurae; acetabulae, coxae, and base of femora pale; tibiae and tarsi infuscated, the femora strongly black-punctate beyond the pale base; apex of abdomen and oviduct of female fuscous; antennae infuscated, segment I beneath, apex of II and III and all of IV paler; hind margin of metapleura more or less distinctly whitish.

Nukuhiva: Tovii [Toovii], altitude 2500 feet, August 4, 1931, beating on *Metrosideros collina*, holotype male, allotype female, 2 paratypes; Tekao Hill, altitude 3020 feet, July 23, 1931, on *Metrosideros collina*, 3 specimens;

Ooumu, altitude 3000-3200 feet, May 28, 1931, on *Metrosideros collina*, on *Weinmannia* species, 2 specimens; Tapuaooa, altitude 3000 feet, June 18, 1931, on *Weinmannia* species, 1 specimen; LeBronnec and H. Tauraa.

This species has much the appearance of *G. fuliginosus*. It has the same form of head and antennae and the comparatively straight osteolar canal, but the pronotum is broader anteriorly, the elytra are whitish hyaline with a trace of fuliginous and with strong black veins and apical and commissural margins, and the femora are strongly spotted with black. *G. infans* is narrower anteriorly with pale elytral veins and its osteolar canal is long, thickened, and curved to meet the margin of the mesopleura, while *G. lateralis* is distinctly narrower throughout. The broad form, hyaline elytra, black veins, and narrow costal areole will distinguish this species.

***Germalus lateralis* Van Duzee.**

Germalus lateralis Van Duzee: B. P. Bishop Mus., Bull. 98, p. 184, 1932.

Nukuhiva: Tekao Hill, altitude 3250 feet, July 23, 1931, on *Weinmannia* species, 3 specimens; Tapuaooa, altitude 3500 feet, July 20, 1931, on *Weinmannia* species, 1 specimen; Tovii [Toovii], altitude 2500 feet, August 4, 1931, on *Metrosideros collina*; LeBronnec and H. Tauraa.

Hivaoa: Kaava Ridge, altitude 2800 feet, January 7, 1932, beating on *Weinmannia* species, 1 specimen; LeBronnec.

***Germalus maculatus* Van Duzee.**

Germalus maculatus Van Duzee: B. P. Bishop Mus., Bull. 98, p. 184, 1932.

No additional specimens of this species have come to hand. The type material was from the island of Tahuata.

***Neocymus insularis* Van Duzee.**

Neocymus insularis Van Duzee: B. P. Bishop Mus., Bull. 98, p. 186, 1932.

Nukuhiva: Tapuaooa, altitude about 2600 feet, May 30, 1931, 1 specimen, LeBronnec and H. Tauraa.

Hivaoa: Teava Uhia i te Kohu, February 2, 1930, on *Paspalum conjugatum*, 1 specimen, Mumford and Adamson.

Uahuka: Penau Ridge, altitude 1700 feet. February 26, 1931, on *Weinmannia* species, 1 specimen; LeBronnec and H. Tauraa.

***Ptochiomera castanea* Van Duzee.**

Ptochiomera castanea Van Duzee: B. P. Bishop Mus., Bull. 98, p. 186, 1932.

Uapou: Vaikokoo, Paaumea Valley, altitude 2000 feet, November 26, 1931, on *Weinmannia* species; Teavanui Pass, altitude 2900 feet, November 26, 1931, at light, 1 specimen; Tekohepu Summit, altitude 3300 feet, November 27, 1931, beating on *Metrosideros collina*, 2 specimens; Tekohepu Summit, altitude 3200 feet, November 28, 1931, beating on *Freyrcinetia* species,

1 specimen; Tekohepu Summit, altitude 3000 feet, November 30, 1931, beating on *Freycinetia* species, 1 specimen; LeBronnec.

Hivaoa: Temetiu, slope north of summit, altitude 2000 feet, March 28, 1930, at light, H. Tauraa; Temetiu, slope north of summit, altitude 3860 feet, December 29, 1930, at light, 1 specimen, LeBronnec and H. Tauraa; Temetiu Ridge, altitude 3900 feet, January 14, 1932, beating on *Cyrtandra* species, 1 specimen; LeBronnec.

Paromius pallidus Montrouzier.

Hivaoa: Teava Uhia i te Kohu, altitude 2100 feet, February 15, 1930, on *Paspalum conjugatum*; Mumford and Adamson.

Fatuhiva: Omoa [Oomoa] Valley, near sea level, August 21-22, 1930, on *Cyperus*; Hanavave Valley, altitude 1550 feet, August 23, 1930, altitude 50 feet, September 8, 1930; Tapuhiva, Hanavave Valley, altitude 500 feet, September 9, 1930; Otomahe, Omoa [Oomoa] Valley, altitude 280 feet, August 20, 1930, on *Paspalum conjugatum*; Teavaipuhiau, altitude 2150 feet, August 25, 1930, on *Paspalum conjugatum*; LeBronnec.

Eiao: above Vaituha, altitude 1100 feet, September 28, 1929, Adamson; altitude 1600 feet, March 24, 1931, on *Ageratum conyzoides*, 1 specimen, LeBronnec.

Fatuuku, altitude 860 feet, November 19, 1930, beating on *Morinda citrifolia*, 3 specimens, H. Tauraa.

FAMILY REDUVIIDAE

Ploiaria assimulatus, new species.

Diagnosis

Runs to *floridana* in the key⁴ but it is larger and quite distinct in many characters;⁵ brownish testaceous with a few obscure areas; length 8.5 mm.

Description

Head with the eyes slightly wider than pronotum across anterior acetabulae (13:11); anterior lobe two and a half times as long as posterior (18:7); vertex a little wider than an eye (95:40); distance from eye to base of antennae a little greater than from eye to hind margin of head; anterior lobe slightly convex, posterior almost hemispherical, suture straight, but little anterior to the inner hind angle of the eyes. Pronotum as long as head (20:20); almost cylindrical, sides rectilinear, feebly constricted before the short flaring base; tuberculate anterior angles larger than in *P. carolina*; mesonotum a third shorter than pronotum (15:20), as wide posteriorly as long, median sulcus well developed, with a slender central carina, lateral carinae prominent. Wings attaining apex of abdomen, venation obscured but apparently similar to that of *P. varipennis* as figured by McAtee and Malloch (pl. 5, fig. 73). Antennal II distinctly shorter than I (107:124), other segments wanting. Anterior coxa three fourths as long as its femur, cylindrical; anterior femora slightly fusiform; series of spines reaching base, about four or five longer, the longest about equalling thickness of coxae; tibiae and tarsi together nearly as

⁴ McAtee, W. L., and Malloch, J. R., Revision of the American bugs of the reduviid subfamily Ploiariinae: U. S. Nat. Mus., Proc., vol. 67, pp. 51, 59, 1925.

⁵ The type of *P. floridana* when it got back to me was a mere fragment. The head, pronotum, and legs were wanting and the genital segment had been removed, the mesonotum and wings alone being left for comparison.

long as femur, the tarsi three fifths of the tibiae (15:25); tarsal incisures obscure but discernible, the basal segment almost equal to the next two together. Hind margin of prosternum slightly excavated. Dorsal spine of male pygofer slightly surpassing the claspers, the latter, as is usual in related species, curved upward and inward. Trochanters with two bristles, one below, subapical, the other on inner surface, the apex also produced in a spine.

Color an almost uniform brownish testaceous; an area before and one behind the eyes, sides of pronotum, and ventral aspect of genital segment more infuscated; median sulcus and lateral carinae of mesonotum a little paler; closed elytra appearing a little fuliginous with darker nervures; antennae castaneous, clothed with very minute hairs; eyes castaneous.

Hivaoa: Kopaafaa, February 26, 1930, altitude 2800 feet, in dead stipes of *Marattia* species, holotype male, Mumford and Adamson.

This species is quite distinct from *P. collenetti* Cheesman.

Polytoxus, species.

One nymph of a saicine insect evidently belonging to this genus was taken at Hitikau, Uahuka, March 3, 1931, at 2900 feet, by LeBronnec and H. Tauraa.

FAMILY NABIDAE

Nabis capsiformis Germar.

Uahuka: on crest of north ridge, altitude 2000 feet, September 27, 1929, Adamson; Hanahoua Valley, altitude 45 feet, March 9, 1931, on *Rhynchosia minima*, 8 specimens; Hanahoua Valley, altitude 15 feet, March 9, 1931, on *Ocimum* species, 1 specimen; Hanahoua Valley, altitude 250 feet, March 10, 1931, on *Ocimum* species, 4 specimens; Vaitiake, altitude 1000 feet, March 24, 1921, on *Canthium barbatum*, 1 specimen; Tauheeputa, altitude 1770 feet, March 23, 1931, on *Sida* species, 5 specimens; Teuaei, altitude 350 feet, March 19, 1931, on *Waltheria americana*, 1 specimen; Penau Ridge, altitude 2000 feet, March 4, 1931, at light, 1 specimen; Vaipae Valley, altitude 250 feet, March 17, 1931, on *Ocimum basilicum*, 1 specimen; Hane Valley, altitude 150 feet, March 9, 1931, at light, 1 specimen; Haave [Haavei] Valley, altitude 270 feet, March 9, 1931, 1 specimen; LeBronnec and H. Tauraa.

Hivaoa: Tapeata, on east slope of Mount Ootua, altitude 2500 feet, May 25, 1929; Teava Uhia i te Kohu, altitude 2100 feet, February 15, 1930, on *Paspalum conjugatum*; Mumford and Adamson. Avaoo, altitude 1350 feet, January 4, 1932, 1 specimen, LeBronnec.

Nukuhiva: Vaiotekea, altitude 2200 feet, August 6, 1931, beating on *Metrosideros collina*, 1 specimen, LeBronnec and H. Tauraa.

Tahuata: Hanahevane Valley, altitude 150 feet, July 17, 1930, on *Sida* species, 3 specimens; Hanahevane, near seashore, on *Passiflora foetida* and by sweeping grasses; Vaitahu, seashore, June 17, 1930, at light, 1 specimen; Hanamiai, altitude 500-1000 feet, May 28, 1930; Kiinui, altitude 1100 feet, June 16, 1930; LeBronnec and H. Tauraa.

Fatuhiva: Uia [Ouia] Valley, altitude 0-500 feet, September 2, 1930, some on *Tephrosia purpurea*, LeBronnec.

Hatutu [Hatutaa]: altitude 1300 feet, April 28, 1931, on *Ageratum conyzoides*, 3 specimens; altitude 1500 feet, April 28, 1931, beating on *Desmodium heterocarpum*, 1 specimen; LeBronnec and H. Tauraa.

Eiao: altitude 1600-1800 feet, April 16-24, 1931, on *Sida* species (4 specimens), on *Ageratum conyzoides* (4 specimens), on *Abutilon menziesii*, on *Vernonia cinerea*, 10 specimens, LeBronnec.

***Nabis mumfordi* Van Duzee (fig. 3).**

Nabis mumfordi Van Duzee: B. P. Bishop Mus., Bull. 98, p. 181, 1932.

Uapou: Teavaituhai, Paaumea side, altitude 3020 feet, November 20, 1931, 1 specimen; Tekohepu Summit, altitude 3200 feet, November 28, 1931, at light, 1 specimen; Teavanui Pass, altitude 2900 feet, November 30, 1931; LeBronnec.



FIGURE 3.—*Nabis* species, left male hamus: a, *N. longipes* Van Duzee; b, *N. plicatus* Van Duzee; c, *N. ancora*, new species; d, *N. mumfordi* Van Duzee.

***Nabis ancora*, new species (fig. 3).**

Diagnosis

Very close to *N. mumfordi* Van Duzee, a little smaller and paler with different male claspers; length 7 mm.

Description

Length of head before the collum a little more than the width across the eyes; clypeus and antenniferous tubercles somewhat more prominent. Pronotum nearly as long as wide across the humeri (22:25)—in *N. mumfordi* the proportion is 24:28; sinuate lateral carina continued almost to the anterior margin of the collum—in *N. mumfordi* it becomes nearly obsolete on the collum; posterior lobe minutely punctate, the hind margin nearly straight. Elytra nearly two and a half times as long to the tip of the corium as wide at base (25:65). Rostrum attaining intermediate coxae. Antennae slender, segment I two thirds the length of II. Other characters about as in *N. mumfordi*.

Color yellowish testaceous; a curved line either side on the vertex, hooked at the ocelli, three obscure longitudinal vittae on the collum, a geminate median line and some vermiculate marks on either side on anterior pronotal lobe, the humeri, a slender median line and two vittae, connivent before the middle, on either side the posterior lobe and some marks on the elytral veins, brown; antennae brown, the incisures and about four annulae on segment II pale. Legs pale; anterior femora and tibiae with about four brown annulae, the femora with a row of brown dots above; intermediate and posterior femora with four brown annulae that are intensified apically; intermediate tibiae with five brown annulae, the posterior with seven. Body beneath pale with some brown clouds, more pronounced on the genital segment.

Hamus of male anchor-shaped at apex, the dorsal horn acute, projected at a right angle, the ventral shorter and blunt, apical margin regularly arcuate. In *N. mumfordi* the

hamus is distinctly sickle-shaped, its dorsal horn longer, oblique, and acute. Described from 20 examples.

Hivaoa: Kaava ridge, January 7, 1932, altitude 2800 feet, beating on *Weinmannia* species, holotype male, LeBronnec; Kaava ridge, January 6, 1932, altitude 2820 feet, beating on *Cheirodendron* species, allotype female, LeBronnec; Kaava ridge, January 6, 1932, altitude from 2750-2820 feet, sweeping on ferns, beating on *Weinmannia* species, in dead leaves *Cyathea* species, beating on *Reynoldsia* species, paratypes, LeBronnec; Kakahopuanui, altitude 2610 feet, January 5, 1932, beating on *Bidens lantanoides*, 1 specimen, LeBronnec.

Nukuhiva: Tapuaooa, altitude about 3000 feet, June 16, 1931, beating on *Metrosideros collina*, 2 specimens, LeBronnec and H. Tauraa.

Uahuka: Hitikau crest, altitude 2970 feet, March 4, 1931, ex dead stipes *Cyathea* species, 1 specimen, LeBronnec and H. Tauraa.

Mohotani: altitude 1500 feet, February 1, 1931, on *Ageratum conyzoides*, 1 specimen, LeBronnec and H. Tauraa.

***Nabis longipes* Van Duzee (fig. 3).**

Nabis longipes Van Duzee: B. P. Bishop Mus., Bull. 98, p. 188, 1932.

Nukuhiva: Tapuaooa, altitude 3000 feet, January 1, 1931, taken under dead leaves, one brachypterous female, LeBronnec and H. Tauraa.

This female seems to belong here but it is paler colored and is more slender and possibly may represent a distinct species in the group without ocelli. The finding of a corresponding male would make the determination more certain.

FAMILY MIRIDAE

***Campyloneuropsis seorsus*, new species.**

Diagnosis

Pale, dull yellow, marked and dotted with brown; scutellum with two broad fusiform vittae which diverge posteriorly; beneath marked with red along each side. Length 4.5 mm. to tip of elytra.

Description

Head about three fourths the humeral width (14:20); eyes large, vertical, very slightly sinuate anteriorly, posteriorly touching the collum; vertex horizontal, narrower than an eye (4:6); front somewhat swollen, with an obscure median sulcus, faintly, obliquely striate back to about the middle of the eyes; clypeus prominent, its base well distinguished from the front, in line with the base of the antennae; lorae small, tumid; cheeks narrow and tumid; rostrum attaining base of the intermediate coxae. Segment I reaching to apex of prosternum. Antennal I a little longer than an eye (10:8), one third the length of II; other segments wanting. Median length of pronotum one half the humeral width, hind margin rather deeply excavated, sides straight, callosities prominent, separated by a narrow sulcus, posteriorly delimited by a rather deep transverse sulcus that does not attain the margins; collum broad, nearly flat, bounded by a deep groove behind; posterior disk with a weak median depression. Anterior lobe of scutellum swollen, posterior forming a feeble ridge either side the depressed median line, tip flat. Elytra

narrow, nearly parallel (base 23, apex 25); embolium narrow, subcarinate to near the tip; cuneus narrow; membrane ample, larger areole right-angled at apex; abdomen attaining base of cuneus. Legs slender, clothed with long pale hairs, hind femora not attaining apex of membrane, their tibiae exceeding them by one third their length; tarsi slender, their joints poorly distinguished, I short, II and III subequal. Dextral clasper long, porrect, bent at about the middle, its tip polished, brown; sinistral clasper small; left dorsal angle of pygofer produced in an incurved hook. Whole upper surface of insect opaque, impunctate.

Color pale, dull lemon-yellow, brighter on head and anterior lobe of pronotum; elytra and posterior lobe of pronotum marked with rather large, irregularly spaced round brown dots; elytra with a subapical transverse brown band indicated, more strongly marked on costa and commissural margin behind tip of clavus; basal half of cuneus brown; membrane clouded, darker toward apex; nervure yellow; margin with a whitish spot behind the areole followed by a darker cloud running to the apex; antennae pale brown, the incisures and a broad median annulus on II pale; beneath with traces of a lateral sanguineous vitta and with a narrow red line on the cheeks; legs pale brown with the base of the femora and a broad median vitta on the tibiae pale; hairy vestiture pale yellow, longer on the margins and tibiae; eyes dark chestnut.

Hivaoa: Feani Ridge, January 12, 1932, altitude 3970 feet, holotype male, unique, LeBronnec.

This insect has much the aspect of an *Engytatus*, but the eyes are contiguous to the pronotum. It answers very closely to Poppius' description of his genus *Campyloneuroopsis* except that the hairs are pale, scarcely a generic character. Viewed from before (below) the second antennal segment is about as thick on apical two thirds as the first, the basal third being thinner. Poppius described his genus and species⁶ from East Africa. This seems like a somewhat unusual distribution, but the establishment of a new genus for the present species seems quite unnecessary.

Atractotomus collinus, new species.

Diagnosis

Piceous black, cloth with white scalelike deciduous hairs with long brownish hairs on the head, pronotum, scutellum, and elytra, the incisures of the antennae and legs pale. Length 3 mm.

Description

Head vertical, viewed from in front wider across the eyes than long (10:14); facial angle a right angle; clypeus prominent, its basal suture obscure, in line with the antennal base. Antennae short; segment I elongate conical, attaining apex of head; II incrassate, elongate fusiform, thickest before the middle; III and IV slender, together but little longer than the head (12:10), III longer than IV. Rostrum attaining apex of intermediate coxae. Pronotum viewed vertically to plane of body one half as long as wide. Elytra together one fourth narrower at base than at cuneus (10:14); cuneus and membrane declined at angle of about 45. Hind femora nearly a third as wide as long (6:19). Body opaque, impunctate, clothed above and below with deciduous white scalelike hairs and longer scattering brown hairs, the latter more conspicuous on elytral margins; antennae pubescent.

Color piceous black; antennals I and II rufopiceous with their base and apex conspicuously pale; III and IV fuscous, their base and apex inconspicuously paler; membrane fuscous, becoming blackish at base, connecting vein and marginal vein of cuneus paler;

⁶ Acta Soc. Sci. Fenn., vol. 44, p. 10, 1914.

coxae paler at apex; tranchanters tumid and pale; knees conspicuously pale, the hind tibiae paler by oblique light, bristles black; distal margin of corium sometimes paler. Described from 20 individuals representing both sexes.

Upou: Tekohepu summit, altitude 3200 feet, November 28, 1931, holotype male, allotype female, LeBronnec; altitude 3000-3300 feet, November 27-28, 1931, beating on *Cheirodendron*, *Metrosideros collina*, *Weinmannia* species, ferns; Teavaituhai, Paaumea side, altitude 2020, 3020 feet, November 19, 20, 1931, beating on *Cyrtandra* and *Vaccinium* species, paratypes, LeBronnec.

Hivaoa: Temetiu Summit, altitude 4160 feet, January 20, 1932, beating on *Metrosideros collina*, *Cheirodendron* species, paratypes, LeBronnec.

This species is narrower than our American *hesperus*, the second antennal segment is narrower and the fuscous hairs are longer and more conspicuous. When not completely pigmented the color inclines to castaneous, especially on antennal II, and the tibiae may all be distinctly pale with the black bristles springing from black dots.

FAMILY HYDROMETRIDAE

Hydrometra pacifica, new species.

Diagnosis

A small, rather broad pale brown species, perhaps nearest to *H. mensor* White. Length 6 mm.

Description

Anteocular part of head one half longer than postocular (31:20), the whole head nearly one half the length of the entire insect (52:107), dorsally with two minute setigerous pits anteriorly and two larger, placed close to the hind margin; eyes small. Rostrum long, attaining base of intermediate coxae, the exserted setae reaching to base of abdomen. Antennal I shorter than II (5:7); III longer than I and II together (21:12); IV wanting. Intermediate coxae about midway between I and III. Pronotum nearly one half longer than wide (13:10), covering mesonotum, with two approximate dorsal pits anteriorly; metanotum short, its greatest length about one half its width (7:12); no wing pads visible. Abdomen nearly a third as wide as long to apex of segment VI. Anterior femora reaching almost halfway from eyes to base of antennae, their tibiae exceeding their femora by one sixth their length (30:35); hind femora slightly surpassing tip of abdomen, three fourths the length of their tibiae (36:50). Male genital segment nearly two thirds as wide as long (5:8), its dorsal apex regularly arcuate.

Color uniformly pale yellowish brown, slightly obscured on anterior femora and toward the apex of the head; eyes red; whole surface sparsely clothed with very minute pale pubescence.

Uahuka: Hitikau, altitude 2900 feet, March 3, 1931, holotype male, 1 paratype male, LeBronnec and H. Tauraa.

It is quite possible that these specimens are not fully mature, but their essential characters should be recognizable in the adults.