

FOUR NEW SPECIES OF CYRTOPELTIS (HEMIPTERA:  
MIRIDAE) FROM THE MARQUESAS ISLANDS<sup>1</sup>

By

HARRY H. KNIGHT  
IOWA STATE COLLEGE, AMES, IOWA

The genus *Cyrtopeltis* Fieber appears to have a world-wide distribution, but most of the species are found in warm parts of the world. Counting the four species described here, the total number of known species is 27. Of special interest is *C. tenuis* Reuter which breeds on tobacco leaves and which appears to have been carried with this plant to various parts of the world. It is now known from the southern United States, Madeira, Egypt, Java, Sumatra, and the Fiji Islands. Kirkaldy (1908) described this species as *nicotianae* from tobacco in Fiji; Koningsberger (1922) gave it the same name in Java, while Fulmek (1925) named it *nocivus* in Sumatra. Other species of *Cyrtopeltis* known from the Pacific islands are *hawaiiensis* Kirk. (1902) and *confusa* Perkins (1911) from Hawaii, *indicus* Popp. from Ceylon, *javanus* Popp. and *pulchricornis* Popp. from Java, and *obscuricornis* Popp. and *plebejus* Popp. from Formosa.

It is interesting from the point of view of distribution that four species of *Cyrtopeltis* should be found in the Marquesas Islands, whereas none were present among the 32 species of Miridae recorded from the Samoan islands<sup>2</sup>.

The best characters for distinguishing the various species of *Cyrtopeltis* are in the form of the male genital segment rather than in the flexible claspers. The remarkable modification of the segment wall into horns and processes suggests the taking over of certain functions generally performed by the claspers in other genera.

***Cyrtopeltis marquesanus***, new species (fig. 1, *a*).

Distinguished from allied species by the form of the male genital segment; color uniformly pale lemon yellow, tibiae and ventral surface paler.

Male. Length 3.3 mm., width 1 mm. Head: width 0.69 mm., vertex 0.22 mm., eyes set near collar, removed from it by a space equal to less than width of collar. Rostrum, length 1 mm., reaching to middle of intermediate coxae. Antennae: segment I, length 0.24 mm., not equal to half the width of head across eyes; II, 1 mm., cylindrical; III, 1 mm.; IV, 0.62 mm.; clothed with fine pale pubescence, pale yellowish, last two segments becoming dusky. Pronotum: length 0.47 mm., width at base 0.82 mm., basal margin sulcate, transverse on middle and curving back to basal angles; calli moderately prominent. Hemelytra moderately translucent, membrane uniformly pale translucent, veins yellowish. Clothed with sparsely set, erect, pale pubescent hairs, tibial spines pale. Genital segment distinctive of the species.

<sup>1</sup> Pacific Entomological Survey Publication 8, article 18. Issued April 18, 1938.

<sup>2</sup> Knight, H. H., Insects of Samoa, Hemiptera, (2), 193-228, 1935.

Female. Length 3.4 mm., width 1.08 mm. Head: width 0.56 mm., vertex 0.26 mm. Antennae: segment I, length 0.24 mm.; II, 0.91 mm.; III, 0.91 mm.; IV, 0.52 mm. Pronotum: length 0.48 mm., width at base 0.82 mm. Very similar to the male in color and pubescence.

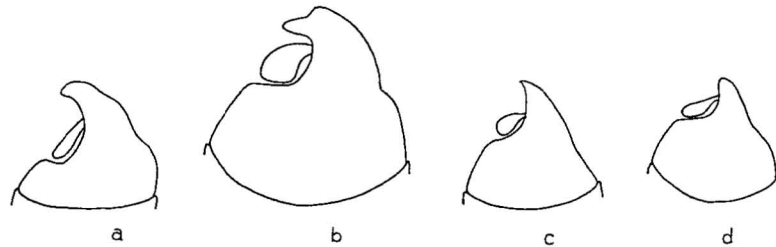


FIGURE 1.—*Cyrtopeltis* species, male genital segments, ventral aspect: a, *C. Marquesanus*; b, *C. tuberculatus*; c, *C. acuminatus*; d, *C. minutus*.

Marquesas Islands: Nukuhiva, Tapuaooa, altitude 2,500 feet, June 30, 1931, on *Weinmannia parviflora*, LeBronnec and H. Tauraa, holotype male in Bishop Museum.

Paratypes as follows:

Nukuhiva: Tovii, 2,500 feet, August 4, 1931, beating on *Metrosideros collina*, 4 specimens, LeBronnec and H. Tauraa. Muake, c. 3,000 feet, August 3, 1931, beating on *Metrosideros collina*, 4 specimens, LeBronnec and H. Tauraa. Oomaka, 2,350 feet, August 6, 1931, beating on *Metrosideros collina*, 2 specimens, LeBronnec and H. Tauraa. Tapuaooa: c. 300 feet, June 18, 1931, on *Metrosideros collina*; c. 2,500 feet, May 30, 1931, on *Weinmannia parviflora*; 3,500 feet, July 20, 1931, 1 specimen on *Metrosideros collina*; c. 3,000 feet, June 16, 1931, 1 specimen on *Metrosideros collina*; c. 3,000 feet, June 18, 1931, 2 specimens on *Weinmannia parviflora*; 3,100 feet, November 13, 1929, beating on *Weinmannia parviflora*; LeBronnec and H. Tauraa. Tekao Hill, 3,020 feet, July 23, 1931, on *Cyathodes tameiameia*, 1 specimen on shrub-fam. Myrsinaceae (*Rapanea* sp. ?), and on *Metrosideros collina*, LeBronnec and H. Tauraa. Tauamaka, 2,900 feet, November 10, 1929, 1 specimen on *Metrosideros*, 2 specimens on *Metrosideros collina*, Mumford and Adamson. Ooumu, May 28, 1931: 3,000 feet, 1 specimen on *Weinmannia parviflora* and 4 on *Metrosideros collina*; 3,200 feet, 1 specimen beaten from *Weinmannia Parviflora*, LeBronnec and H. Tauraa. Vaihakameama: c. 2,700 feet, June 19, 1931, on *Weinmannia parviflora*, 2 specimens, LeBronnec and H. Tauraa; 2,700 feet, July 21, 1931, miscellaneous sweeping, LeBronnec and H. Tauraa. Ridge north of Teuanui, 2,800 feet, October 26, 1929, on *Metrosideros collina*, 1 specimen, Mumford and Adamson.

Hivaoa. Kaava Ridge: 2,800 feet, January 7, 1932, 6 specimens beaten from *Weinmannia* sp., 2 specimens beaten from *Metrosideros collina*; 2,750

feet, January 6, 1931, 1 specimen beaten from *Weinmannia* sp. Kakahopuanui: 2,500 feet, January 5, 1932, sweeping on ferns; 2,600 feet, October 27, 1931, beating on *Weinmannia* sp.; 2,800 feet, October 27, 1931, beating on *Weinmannia* sp., 2 specimens. Matauuna, 3,700 feet, March 2, 1930, beating on *Cyrtandra* sp., Mumford and Adamson.

Fatuhiva. Teavaipuhiau, 2,150 feet, August 25, 1930, sweeping over *Paspalum conjugatum*.

Uapou. Hakahetau Valley, 1,200 feet, December 6, 1929, A. M. Adamson. Tekohepu Summit: 3,300 feet, November 27, 1931, beating on *Cheirodendron* sp.; 3,200 feet, November 28, 1931, beating on ferns and beating on *Metrosideros collina*. Teavanui, Paaumea Valley, 2,900 feet, November 27, 1931, beating on *Cyathea* sp.; Teavanui Pass, 2,900 feet, November 27, 1931, beating on *Freycinetia* sp.

Uahuka. Putataua, Vaipae Valley, 880 feet, September 20, 1929, 2 specimens, A. M. Adamson.

***Cyrtopeltis tuberculatus*, new species (fig. 1, b).**

Allied to *C. marquesanus* but distinguished by the longer first antennal segment and in structure of the genital segment.

Male. Length 3 mm., width 0.9 mm. Head: width 0.5 mm., vertex 0.216 mm.; eyes removed from collar by a space equal to width of collar. Rostrum, length 0.99 mm., reaching to middle of intermediate coxae. Antennae: segment I, length 0.34 mm., equal to two thirds the width of head across eyes, yellow; II, 0.95 mm., pale; III, 1.25 mm.; IV, 0.47 mm.; last two segments pale to dusky. Pronotum: length 0.41 mm., width at base 0.73 mm., basal margin broadly sulcate, basal angles rounded but projecting posteriorly.

Coloration rather uniformly pale greenish yellow, hemelytra translucent, membrane nearly clear, veins yellow. Clothed with sparsely set, suberect, pale pubescent hairs, tibial spines pale. Genital segment distinctive, the apex with distinct tubercle directed transversely to the left side.

Female. Length 3.4 mm., width 1.1 mm. Head: width 0.52 mm., vertex 0.25 mm. Antennae: segment I, length 0.35 mm.; II, 0.95 mm. Pronotum: length 0.43 mm., width at base 0.78 mm. Very similar to the male in color and pubescence.

Marquesas Islands: Hivaoa, Kakahopuanui, altitude 2,500 feet, January 5, 1932, "sweeping on ferns", LeBronnec, holotype male in Bishop Museum.

Paratypes as follows:

Hivaoa. Mount Temetiu, northeast slope: 2,615 feet, July 24, 1929, 1 specimen; 2,500 feet, July 24, 1929, miscellaneous sweeping, 5 specimens; 2,600 feet, September 13, 1929, miscellaneous sweeping, 2 specimens, and on grass; 3,200 feet, September 13, 1929, miscellaneous sweeping, 2 specimens; 2,800 feet, August 3, 1929, 1 specimen; 2,800 feet, July 24, 1929, 2 specimens; 2,500 feet, July 24, 1929, 5 specimens; 2,800 feet, August 3, 1929, 2 specimens; 2,600 feet, September 13, 1929, 5 specimens. Kopaafaa, 2,770 feet, August 2, 1929: on *Tectaria* sp., 6 specimens; on *Freycinetia*, 1 specimen; miscellaneous sweeping; beating on *Scaevola* sp.; on *Tectaria* sp., 8

specimens. Kakahopuanui, 2,500 feet, January 5, 1932: sweeping herbage; sweeping on ferns, 15 specimens. Mount Tapeata, east slope, Ootua, 2,500 feet, May 25, 1929, on *Paspalum conjugatum*. Kaava Ridge, January 6, 1932: 2,820 feet, 7 specimens; 2,750 feet, beating on ferns. Vaiepoepo, 2,300 feet, June 2, 1929, 1 specimen on *Piper latifolium*. All collected by E. P. Mumford and A. M. Adamson (P.E.S.).

Uapou. Hakahetau Valley, 1,500 feet, December 26, 1929, 6 specimens, R. R. Whitten (P.E.S.).

**Cyrtopeltis acuminatus**, new species (fig. 1, c).

Allied to *C. marquesanus* but smaller; distinguished by the shorter second antennal segment which in length exceeds width of head very slightly.

Male. Length 2.5 mm., width 0.86 mm. Head: width 0.45 mm., vertex 0.216 mm.; eyes removed from collar by a space about equal to width of collar. Rostrum, length 1.04 mm., reaching to middle of intermediate coxae. Antennae: segment I, length 0.17 mm.; II, 0.48 mm., only slightly greater than width of head; III, 0.43 mm.; IV, 0.30 mm.; uniformly pale yellowish. Pronotum: length 0.39 mm., width at base 0.78 mm.; broadly sulcate on basal margin, the basal angles rounded, median line of disk slightly impressed, calli apparent as slight swellings. Hemelytra with embolar margins nearly straight and parallel.

General coloration pale greenish yellow, sometimes a slight infuscation developing on inner apical angles of corium, membrane uniformly pale.

Female. Length 2.6 mm., width 0.91 mm. Head: width 0.47 mm., vertex 0.26 mm. Antennae: segment I, length 0.17 mm.; II, 0.47 mm.; III, 0.44 mm.; IV, 0.34 mm. Pronotum: length 0.43 mm., width at base 0.82 mm. Very similar to the male in pubescence and coloration.

Marquesas Islands: Uapou, Hakahetau Valley, Teavaituhai, altitude 3,020 feet, November 20, 1931, beating on *Sclerotheca* sp., LeBronnec, holotype male in Bishop Museum.

Paratypes as follows:

Uapou. Hakahetau Valley, 3,020 feet: Teavaituhai, November 20, 1931, 3 specimens beaten from *Cyrtandra* sp., 2 specimens beaten from *Sclerotheca* sp.; Vaihakaatiki, November 18, 1931, 2 specimens beaten from *Cyrtandra* sp., 1 specimen beaten from *Vaccinium* sp. Tekohepu Summit: 3,200 feet, November 28, 1931, 1 specimen beaten from *Cyathea* sp.; 3,000 feet, November 30, 1931, 1 specimen beaten from *Cyrtandra* sp., 1 specimen beaten from *Cyathea* sp. All collected by LeBronnec.

**Cyrtopeltis minutus**, new species (fig. 1, d).

Allied to *C. acuminatus*, but distinguished by the longer antennal segments and form of the genital segment.

Male. Length 2.5 mm., width 0.73 mm. Head: width 0.43 mm., vertex 0.216 mm.; eyes removed from collar by a space greater than width of collar. Rostrum, length 0.82 mm., reaching to near hind margins of middle coxae. Antennae: segment I, length 0.23 mm.; II, 0.75 mm.; III, 0.86 mm.; IV, 0.48 mm. Pronotum: length 0.35 mm., width at base 0.60 mm.

Coloration uniformly pale greenish yellow, hemelytra somewhat translucent, membrane nearly clear, veins yellowish. Genital segment distinctive.

Marquesas Islands: Uahuka, Putataua, Vaipae Valley, 880 feet, September 20, 1929, A. M. Adamson, holotype male in Bishop Museum.

Paratypes as follows:

Hivaoa: Temetiu Ridge, 3,790 feet, January 14, 1932, beating on *Weinmannia* sp., male, LeBronnec.

Nukuhiva: Teuanui, Tovii, 1,900 feet, October 1, 1929, male, Mumford and Adamson.

