

ADDITIONAL NOTES ON THE DERMAPTERA AND
ORTHOPTERA OF THE MARQUESAS *

By

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A report on the Dermaptera and Orthoptera of the Marquesas was published in 1933¹. The present paper is based on the small collections which had not been prepared for study at the time that contribution appeared.

Much the most interesting material in the present series is representative of the genus *Martina*, an endemic genus of cockroaches. Not only is a new species represented from the island of Uapou, but additional material of the two previously described species shows that they are not each peculiar to a certain island, as might previously have been supposed. Not only does decided size variation occur, but none of these species are very constant in coloration, the extremes of intensification and recession being very different in superficial appearance. In the new species, moreover, certain tendencies toward the related genus *Ancurinita* are also found, though it shows widest divergence in having the dorsal surface of the male abdomen more specialized than in any of the other species.

All this material, unless otherwise noted, was secured by G. LeBronnec.

DERMAPTERA

LABIIDAE

LABIINAE

Labia curvicauda (Motschulsky).

Hivaoa: Temetiu Ridge and summit, 3,900 to 4,160 feet, January 14 and 20, 1932 (under bark of *Reynoldsia* species and *Crossostyles bifolia*), 2 males, 2 females.

Uapou: Tekohepu summit, 3,000 feet, November 30, 1931 (in dead stipes of *Cyathca* species), 1 male.

Labia dubronyi Hebard.

Uapou: Tekohepu summit, 3,000 feet, November 30, 1931 (in dead stipes of *Cyathea* species), 1 female; Teavanui Pass, 2,900 feet, November 27, 1931 (the same), 1 male; Teavanui, Paaumea Valley, 2,900 feet (the same), 1 juvenile female.

¹ Hebard, Morgan, The Dermaptera and Orthoptera of the Marquesas Islands: B. P. Bishop Mus., Bull. 114, pp. 105-140, 1933.

* Pacific Entomological Survey Publication 8, article 12. Issued September 29, 1935.

CHELISOCHIDAE

CHELISOCHINAE

Chelisoches morio (Fabricius).

Hivaoa: Ootua Spring, February 13, 1929 (Mumford and Adamson; in dead flowers of *Zingiber* species), 1 female, 1 juvenile; Kaava Ridge, 2,500 feet, January 8, 1932, 1 male.

Uapou: Vaikokoo, Paaumea Valley, 1,850 feet, November 30, 1931, 1 male; Teoatea, Hakahetau Valley, 1,950 feet, November 21, 1931 (in dead *Cyathea* species), 1 male.

ORTHOPTERA

BLATTIDAE

ECTOBIINAE

Maretina uahuka Hebard.

Hivaoa: Feani Ridge, 3,900 feet, January 19, 21, 1932, 2 males, 1 large juvenile female, 3 small juveniles.

These males are decidedly larger than the type. Length of body 10 and 10.8, exposed length of tegmen 3.7 and 3.8, width of tegmen 3.2 and 3.2 mm.

Maretina hivaoa Hebard.

Hivaoa: Temetiu Ridge, 3,900 feet, January 14, 1932 (on ground), 2 large male juveniles.

Uapou: Tehokepu Summit, 3,200 and 3,300 feet, November 27, 1931 (from ferns and *Metrosideros collina*), 2 females; Vaihakaatiki, Hakahetau Valley, November 18, 1931, 1 male, 1 female.

Maretina marquesana, new species (fig. 1).

General coloration light red brown, maculate with darker brown, the pronotal disk with light brown patches latero-caudad (except in one male) and with symmetrically placed flecks and short streaks very faintly indicated and few in number, individually varying to more decided and moderately numerous. Head vaguely maculate but without definite transverse bands (possibly obliterated through discoloration). Tegmina with humeral trunk occasionally suffused. Abdomen with dorsal surface often dark laterad, that area inclosing pale flecks. Tibiae and tarsi with heavy flecks of dark brown. Rare individuals show greenish (indicating the presence of chlorophyll) in the antennae, lateral lobes of pronotum, tegmina and limbs, as noted above.

Male

Size (averaging) small, form broad for the group. Width between antennal sockets slightly more than three-quarters that between eyes. Palpi with third joint longer than fourth, which is equal in length to the fifth. Pronotum with lateral portions and mediastine fields of tegmina broad. Tegmina slightly overlapping, actually slightly longer than wide but their exposed portions appreciably shorter than the width of one of them, costal margin rounding only very slightly more broadly into the transverse distal margin than does the sutural margin, so that they appear definitely more nearly

quadrate than in the other species; venation and impressions between the veins and veinlets weak (to almost obsolete in some of the paratypes). Wings highly vestigial. Abdomen with second to sixth tergites weakly convex mesad forming a broad longitudinal very low ridge on each side of which is an equally shallowly concave longitudinal channel, the surface of these channels with numerous microscopic short spinulae on the fourth to sixth tergites, such spinulae being very few and only cephalad on the third tergite and absent from the second tergite. Cerci moderately stout meso-proximad, tapering thence to their acute apices, the distal joints normal and not conspicuously elongate. Subgenital plate very deeply cleft mesad; triangularly produced sinistrad with external margin convex and internal margin bearing a small node just beyond a median point; produced in a fingerlike process to an equal distance dextrad, which is twisted opposite the node on the sinistral production and from that point is curved outward to the small rounded apex which is very minutely microscopically shagreenous.

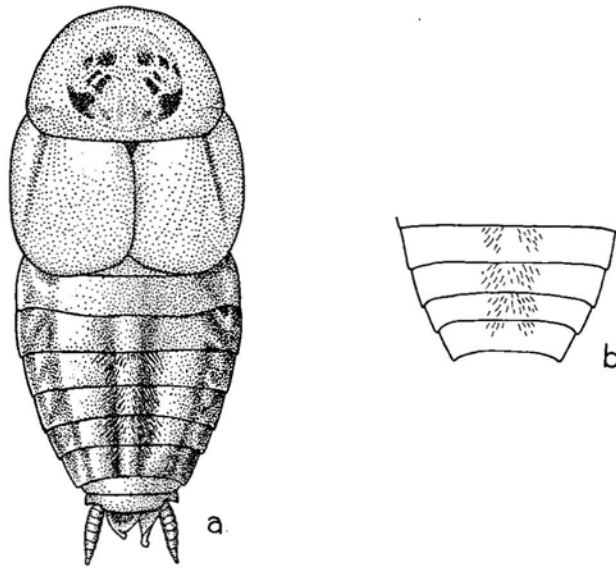


FIGURE 1.—*Martina marquesana*, new species, type male: a, dorsal view; b, dorsal view of portion of abdomen to show the spinulae.— $\times 9$.

Female

Agrees very closely with male. Interocular space and palpi similar. Supra-anal plate triangularly produced with lateral margins very feebly convex and apex (quite strongly to broadly and shallowly in paratypes) bilobate.

The type and allotype measure as follows: length of body, male 8.5, female 8.6; length of pronotum, male 2.2, female 2.5; width of pronotum, male 3.3, female 3.6; exposed length of tegmen, male 2.2, female 2.1; width of tegmen, male 2.6, female 2.6 mm. Little size variation is shown by the other adults at hand. Though apparently averaging considerably smaller than the other species of the genus, the adults of the others now known, though few in number, suggest that considerable size variation is to be expected in all the species.

Upou: Teavaituhai, Hakahetau Valley, 3,020 feet, November 20, 1931 (beaten from *Sclerotheca* species), 1 male, type (Bishop Museum); Vaiha-kaatiki, Hakahetau Valley, 3,020 feet, November 18, 1931 (beaten from

Cyrtandra species), 2 females, allotype and paratype, 2 juveniles; Tekohepu Summit, 3,300 feet, November 27, 28, 1931 (beaten from *Metrosideros collina*), 2 males, 1 female, paratypes, 7 juveniles.

A large number of immature individuals from these and other localities are clearly referable to *Maretina* but their specific identity can not be determined.

The adults of *Maretina marquesana* at hand are small and quite similar in superficial appearance to those of *Aneurinita hivaoo* (Hebard). From that species they may be easily separated by the briefly overlapping tegmina, the specialized dorsal surface of the male abdomen, and the (usually) maculate pronotum.

From the present known species of *Maretina*, *M. marquesana* is distinguished by the more extensive dorsal specialization of the male abdomen and the more reduced tegmina in which the areas between the veins and veinlets are not at all defined in color and impressions there are very weak to subobsolete.

It is interesting to note that traces of chlorophyll are shown in the pronotum and limbs of one male and in the feet and antennal apices of the other male from Tehokepu Summit, this and the tegminal structure indicating markedly closer affinity to *Aneurinita* than the previously described species of the present genus, although the highest specialization of the dorsal surface of the abdomen for males of the species of *Maretina* is found, that area being entirely unspecialized in males of *Aneurinita*.

Genus ANEURINITA, new name

Aneurina Hebard (not of Liroy, 1864), B. P. Bishop Mus., Bull. 114, p. 111, 1933.

Aneurinita viridis (Hebard).

Uapou: Tehokepu Summit, 3,300 feet, November 27, 1931 (beaten from *Metrosideros collina*, *Cheirodendron* species, and *Freycinetia* species), 1 male, 1 female, 4 juveniles; Teavaituhai, Hakahetau Valley, 3,020 feet, November 20, 1931, 1 male, 2 females, 17 juveniles; Teoatea, Hakahetau Valley, 1,950 feet, November 16, 1931 (on *Metrosideros collina*), 1 male, 1 juvenile; Teavanui Pass, 3,300 feet, November 27, 1931 (beaten from *Freycinetia* species), 1 juvenile.

Aneurinita hivaoo (Hebard).

Hivaoo: summit of Mount Temetiu, 4,160 feet, January 20, 1932 (from *Metrosideros collina* and *Freycinetia* species), 1 female, 1 juvenile.

Graptoblatta notulata (Stål).

Uapou: Teoatea, Hakahetau Valley, 1,950 feet, November 16, 21, 1932

(in *Metrosideros collina* and dead fern, *Histiopteris* species), 2 females, 14 juveniles.

PSEUDOMOPINAE

Kuchinga remota Hebard.

Uapou: Vaikokoo, Paaumea Valley, 1,850 feet, November 30, 1931 (under fallen leaves), 1 female.

Loboptera dimidiata (Bolivar).

Hivaoa: Kaava Ridge, 2,750 feet, January 6, 1932 (under dead leaves), 2 males, 2 females.

Uapou: Teoatea, Hakahetau Valley, 1,950 feet, November 21, 1931 (in *Metrosideros collina*), 1 juvenile; Koputukea, Hakahetau Valley, 1,250 feet, November 16, 1931, 1 juvenile; Vaihakaatiki, Hakahetau Valley, 3,020 feet, November 18, 1931 (beaten from *Cyrtandra* species), 17 minute juveniles.

BLATTINAE

Periplaneta australasiae (Fabricius).

Uapou: Hakahetau Valley, 32 feet, November 25, 1931, 1 male; Vaikokoo, Paaumea Valley, 2,100 feet, November 28, 1931.

ACRIDIDAE

CYRTACANTHACRINAE

Patanga pinchoti Caudell.

Eiao: above Vaituha, 1,100 feet, September 28, 1929 (A. M. Adamson), 1 very small juvenile.

TETTIGONIIDAE

COPIPHORINAE

Euconocephalus roberti (Le Guillou).

Hivaoa: Avaao Valley, 1,260 feet, January 8, 1932 (in grass, *Paspalum conjugatum*), 8 males, 3 females, 3 juveniles (4 males, 2 females, and 2 immatures brown, the others green); Kopaafaa, 2,770 feet, August 2, 1929 (Mumford and Adamson), 1 very small juvenile.

Uapou: Hakahetau Village, sea level, November 30, 1931, 2 males (one brown, one green).

CONOCEPHALINAE

Conocephalus tridens Hebard.

Hivaoa: Kakahopuanui, 2,610 feet, January 5, 1932 (beaten from *Weinmannia* species), 1 female; Kaava Ridge, 2,000 feet, October 27, 1931 (swept from herbage), 2 females.

Eiao: 1,700 feet, April 30, 1931 (LeBronnec and Tauraa), 2 females.

LISTROSCELINAE

Xiphidiopsis lita Hebard.

Hivaoa: Kakahopuanui, 2,610 feet, January 5, 1932 (beaten from *Weinmannia* species), 1 female; Kaava Ridge, 2,800 feet, January 7, 1932 (the same), 1 female; Avaao Valley, 1,260 feet, January 8, 1932 (in grass, *Paspalum conjugatum*), 1 female.

Phisis marquesana Hebard.

Hivaoa: Kaava Ridge, 2,000 feet, October 27, 1931 (swept from herbage), 1 female.

Uapou: Teepotatoatetoiki, Hakahetau Valley, 120 feet, November 23, 1931, 1 female; Hapava, Hakahetau Valley, 1,000 feet, November 23, 1931, 1 small juvenile.

GRYLLIDAE

GRYLLINAE

Gryllus oceanicus Le Guillou.

Hivaoa: Kaava Ridge, 2,800 feet, January 6, 7, 1932, 1 female, 6 juveniles.

TRIGONIDIINAE

Metioche tahitensis (Saussure).

Hivaoa: Tenatinaei, Feani Crest, 3,970 feet, January 19, 1932, 1 female, 1 juvenile; Feani Crest, 3,900 feet, January 13, 1932 (from *Metrosideros collina*), 1 female.

Metioche flavipes (Saussure).

Hatutu: 1,500 feet, April 28, 1931 (LeBronnec and Tauraa; beaten from *Canthium barbatum*), 1 juvenile.

Uahuka: Putatauna, Vaipae Valley, 880 feet, September 20, 1929 (A. M. Adamson), 1 juvenile.

Hivaoa: Tenatinaei, Feani Crest, 3,970 feet, January 19, 1932, 1 female; Kakahopuanui, 2,500 feet, January 5, 1932 (in herbage), 1 male.

Uapou: Tekohepu Summit, 3,200 feet, November 28, 1931 (from *Metrosideros collina*, *Weinmannia* species, *Cyathea* species, ferns, and five attracted to light), 1 male, 6 females, 6 juveniles; Paaumea side, Teavaituhai, 3,020 feet, November 19, 1931 (beaten from *Vaccinium* species and *Cyrtandra* species), 3 males, 1 female; Teoatea, Hakahetau Valley, 2,000 feet, November 19, 1931 (swept from herbage), 1 female.

MOGOPLISTINAE

Cycloptilum novarae (Saussure).

Uapou: Teoatea, Hakahetau Valley, 1,950 feet, November 20, 1931 (at light), 2 juveniles; Vaikokoo, Paaumea Valley, 1,850 feet, November 30, 1931 (under fallen leaves), 1 female.