

PSYLLIDAE (CHERMIDAE)

BY PROF. D. L. CRAWFORD, Honolulu

(With 4 Text-figures)

THIS family is well represented in the fauna of the South Pacific Islands, a certain degree of resemblance indicating a close relationship in the species of the various islands, and a tendency toward general distribution of many of the species.

In the collections submitted to me by Dr. Buxton, and by the Bishop Museum in Honolulu, seven species of Psyllidae are represented.

PAUROPSYLLINAE

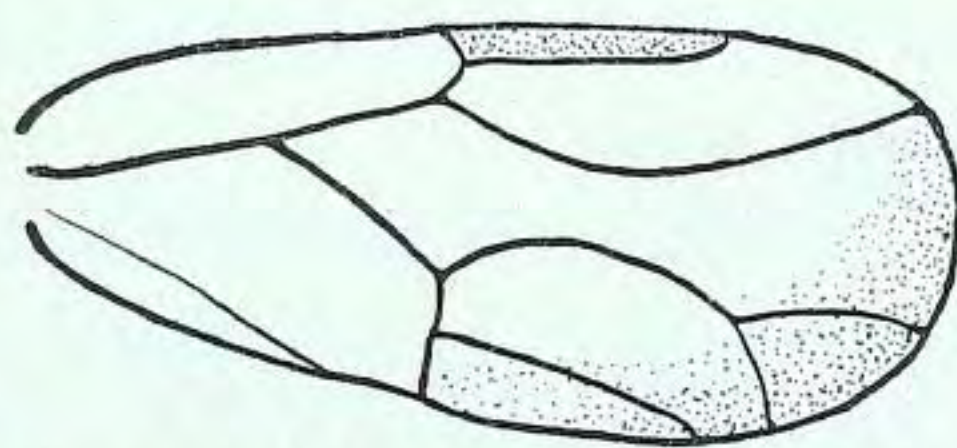
1. *Paurocephala wilderi* sp. n. (Text-fig. 1.)

Resembling *P. psylloptera* Crawford, but smaller. Length of body, female about 1.0 to 1.5 mm., male less than 1 mm. Colour dark chocolate-brown to black, except legs, base of antennae and metasternum, and sometimes the ventral portion of abdomen light brown or straw colour.

Head short, nearly as broad as thorax, deflexed; vertex smooth, with posterior ocelli only a little elevated. Antennae about one and a half times as long as width of head including eyes. Eyes rather small, usually brown or black.

Thorax arched, relatively broad, smooth, finely reticulated. Metascutellum with a small, blunt epiphysis, dorsad. Legs slender. Forewings a little longer than body, clear except a brownish area in apical portion. Hind wings smaller, clear.

Abdomen of female dark brown or black, with a few light brown markings ;



TEXT-FIG. 1.—*Paurocephala wilderi*
Crawf., sp. n. Elytron.

male with ventral portion of abdomen yellow-brown. Genital segment of female sharply deflexed, acutely pointed.

Tutuila, eleven females and seventeen males, collected by Swezey and Wilder, 22.ix.1923, on "Ficus No. 8"; also one male taken by A. F. Judd at Tau, Manua Group, 24.ii.1926, and one male on the Leone Road, Tutuila, 19.ii.1924 (Bryan).

CARSIDARINAE

2. *Tyora buxtoni* sp. n. (Text-fig. 2.)

Related to *T. congrua* Walker, but specifically quite distinct and smaller.

General colour dark brown, with lighter streaks on dorsum of thorax and the ventral portion of abdomen mostly light brown; antennae black or brown, basal segment lighter; legs dark; forewings with broad dark brown band along posterior margin and narrower band along each vein, giving a general dark appearance to forewings;



TEXT-FIG. 2.—*Tyora buxtoni* Crawf., hindwings clear.

sp. n. Elytron.

Body (of male) about 3 mm. long, slender; forewings 4 mm. long; antennae 2.5 mm. long.

Head small; vertex nearly flat, with posterior margin raised a little and posterior ocelli elevated; front ocellus between bases of antennae, which are somewhat enlarged and give a birostrate appearance to front of head. Antennae slender and several times as long as width of head. Rostrum long and conspicuous.

Thorax not strongly arched, moderately broad; legs slender, with conspicuous spur at base of hind tibiae. Forewings long and slender, tapering to a point at apex, with veins conspicuous; two pseudo-crossveins as is typical of this genus.

Upolu, two males, at Lalomanu, Aleipata, 29.iii., xi.1924.

Tyora appears to be a South Pacific genus, somewhat related to *Carsidara* and *Tenaphalara*. The two other known species of this genus are *Tyora congrua* Walker, and *Tyora ornata* (Kirkaldy), first described in the genus *Nesiope*. Other species have been erroneously referred to this genus: *T. hibisci* Froggatt should be known as *Mesohomotoma hibisci* (Froggatt); *T. indica* Crawford

should be known as *Mesohomotoma lutheri* (Enderlein); *T. sterculiae* Froggatt does not belong to the present genus but should be referred to another, perhaps *Neocarsidara*.

3. *Mesohomotoma camphorae* Kuwayama *

Several specimens from Samoa, and a large number in another collection from Fiji, agree in every respect with Kuwayama's description of this Formosan species. It would appear to be a widely distributed species in the South Pacific Islands. This species in Formosa, however, was found on camphor trees while the Fiji specimens before me were taken on foliage of the milo tree, which is somewhat related to *Hibiscus*. A very closely similar species (*Tyora hibisci* Froggatt) was described in 1901 as occurring on *Hibiscus* foliage in Australia. While I have not had the opportunity of examining authentic specimens of Froggatt's species, there is no doubt that the Formosan species is either identical with it or differentiated only by very minor characteristics. The fact that the milo tree is rather closely related to *Hibiscus* is of special interest in this connection.

Apia, Upolu, two males and two females, 30.iv.1925; one female, Pago Pago, 14.xii.1925; one male and three females, Pago Pago, 12.iv.1924 (Bryan).

There are a number of psyllid nymphs taken on *Hibiscus* foliage on Efate Island, New Hebrides, by P. A. Buxton, 3.vii.1925. These may be nymphs of *Mesohomotoma hibisci* (Froggatt), or perhaps of *M. camphorae*.

TRIOZINAE

4. *Megatrioza asiatica* Crawford †

Two specimens of this species were taken on Tutuila, by Swezey and Wilder, 5.ix.1923.

5. *Megatrioza vitiensis* (Kirkaldy) ‡

This widely distributed species was found by Bryan on Tutuila,

* *Trans. Sapporo Nat. Hist. Soc.*, Vol. II, p. 180. 1907.

† *Philippine Journ. Science*, Vol. X, p. 266, 1915; *t. c.* Vol. XV, p. 197. 1919.

‡ *Trioza vitiensis* Kirkaldy—*Proc. Hawaiian Ent. Soc.*, Vol. I, p. 103. 1907. *Megatrioza vitiensis* (Kirk.) Crawford—*Philippine Journ. Science*, Vol. XV, p. 195. 1919.

7.ix.1924, thirty-three specimens of both sexes having been collected by him on foliage of *Eugenia malaccensis*, the common food plant of this species.

6. *Megatrioza swezeyi* sp. n. (Text-fig. 3.)

Rather similar to *M. vitiensis* (Kirkaldy) in general aspect, but differing somewhat in shape and venation of forewings and in the size of hindwings. The forewings are narrower and more acutely pointed at apex, as compared with *M. vitiensis*, with the venation as indicated in the accompanying illustration. A striking characteristic of this species is the extreme reduction of the hindwings, to tiny stubs barely visible at the base of the front wings.



TEXT-FIG. 3.—*Megatrioza swezeyi*
Crawf., sp. n. Elytron.

The body is about 2 mm. long, while the front wings are 5 to 6 mm. long, and more than three times as long as broad. The vertex and thoracic dorsum are sparsely pubescent, brown to dark brown in colour, without the dorsal stripes and markings characteristic of *M. vitiensis*. The genal cones are small, very short, usually yellowish or whitish in colour. The hind tibiae have only a very small spur at base. The genital appendages are similar to *M. vitiensis*, indicating a close relationship between the species.

Apia, Upolu, one female, 15.ix.1923; Tutuila, one female (Swezey and Wilder), Pago Pago, 30.ix.1923. A third specimen is before me, taken at Lau, Fiji (Bryan). All these are in the Bishop Museum collection.

7. *Trioza samoansis* sp. n. (Text-fig. 4.)

Length of body about 2 mm.; length of forewing 2.8 to 3.3 mm. General colour light brown or reddish brown; forewings smoky brown, with apical portion much darker.



TEXT-FIG. 4.—*Trioza samoansis*
Crawf., sp. n. Elytron.

Head small, deflexed; vertex pubescent, with a foveal depression on each side of the median line; genal cones small, a little shorter than vertex, sub-acute. Antennae very slender, nearly three times as long as width of head.

Thorax arched, pubescent on dorsal surface; pronotum short, much depressed below vertex and mesonotum; latter narrowly rounded in front. Legs slender. Forewings with costa and veins setigerous.

Abdomen slender ; female genital segment small, about half as long as rest of abdomen, acutely pointed ; male genital segment small, with anal valve and forceps very small, latter slender, acutely pointed.

Pago Pago, Tutuila, nine specimens collected 30.ix.1923, by Swezey and Wilder.

This species in its wing venation somewhat resembles *Trichopsylla walkeri* Thomson, of Europe.

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AND OTHER SAMOAN TERRESTRIAL ARTHROPODA

PART II. HEMIPTERA

FASC. 1. Pp. 1-45

FULGOROIDEA

By F. MUIR

PSYLLIDAE (CHERMIDAE)

By PROF. D. L. CRAWFORD

AND

COCCIDAE, APHIDIDAE and ALEYRODIDAE

By F. LAING, M.A., B.Sc.

WITH THIRTY-TWO TEXT-FIGURES



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