

## Records and Descriptions of Some Micronesian Psyllidae (Homoptera)<sup>1</sup>

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DR. TEISO ESAKI of Kyushu University, Fukuoka, Japan, has very kindly placed at my disposal the collections of Psyllidae made during his expeditions to the islands of Micronesia during the years 1936 to 1940. Only a few collections have been made in this area and undoubtedly many more members of this family remain to be discovered there. A few species which are widespread throughout the Pacific are represented in the material included. The remainder appear to be unnamed and probably represent forms endemic to the island or group from which they were taken. All specimens bear the collector's label of Teiso Esaki except where otherwise indicated.

The figures have been prepared by Evan L. Gillespie of the Department of Zoology and Entomology, University of Hawaii.

### *Mesohomotoma hibisci* (Froggatt)

Marianna Islands: Charanka, Saipan, October 31, 1937.

Caroline Islands: Paliker-Kolonia, Ponape, December 30, 1937, January 16, 1938, and July 16, 1939; Nipit-Kapiro-i-Reitao, Ponape, July 21, 1939; Lelo, Kusaie, November 30, 1937.

This species is common on the young foliage of *Hibiscus tiliaceus* L. throughout most of the Pacific islands. Esaki notes that it is gregarious and that *Arbela hibisci* Esaki and Ishihara, a nabid bug, is found in association with it.

<sup>1</sup>Results of Professor T. Esaki's Micronesian Expeditions, 1936-1940, No. 78. Manuscript received June 28, 1950.

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### *Tyora ornata* (Kirkaldy)

Caroline Islands: Kolonia, Ponape, December 31, 1937; Toloas, Kutua, Truk, July 31, 1939.

A single male, without additional data, was taken in each of these collections.

### *Leptynoptera sulfurea* Crawford

Caroline Islands: Kolonia-Jokaji, Ponape, January 9, 1938; Paliker-Kolonia, Ponape, January 16, 1938; Kolonia, Ponape, January 17, 1938; Gatzapar, Yap, September 1, 1939.

Palau Islands: Akarokuru, Peliliou, August 12, 1939; Kaishar-Ngardok-Ngiwal, Babeldaob, August 15, 1939.

Esaki reports this species as common in Palau, Yap, and Ponape, feeding on young leaves of *Calophyllum Inophyllum* L., gregariously.

### *Arytaina clara* (Tuthill)

*Ataenia clara* Tuthill, Bernice P. Bishop Mus., Occas. Papers 17: 77, 1942.

Caroline Islands: Kolonia, Ponape, December 31, 1937, and January 1, 1938.

One male and one female constitute the entire collection of this species, which is only known to occur on Ponape. The host plant is unknown.

This and the following related species belong to a large group of species known from the Orient which were assigned to *Arytaina* by Crawford. They are certainly quite far removed from the type species of *Arytaina*, being much nearer *Euphalerus*. I am informed by G. Heslop-Harrison that he is presently revising the many-faceted group that *Arytaina* has become. In the course of such

revision he will undoubtedly erect a new genus for this group of species.

*Arytaina extrema* n. sp.

Fig. 1

Length to tip of folded wings, 3.0-3.25 mm.

*Color:* Dried specimens uniformly brown. When alive probably green, at least abdomen.

*Structure:* Short pubescence general on body. Head broader than thorax, strongly deflexed. Vertex flat, strongly narrowed anteriorly, blunt protuberance next each eye. Genal processes much below plane of vertex, broad, blunt, one-third as long as vertex, with ring of large stiff setae. Antennae slender, three times as long as width of head. Thorax broad, quite flat. Pronotum large, vertical anteriorly. Forewings broad, slightly over twice as long as wide, broadly rounded apically; venation typical,  $Cu_1$  very strongly arched; pterostigma large, prominent. Legs stout. Metatibiae with large, curved basal spine and 5 black apical spines, 2 single and a cluster of 3.

Male genital segment large, with short pubescence. Proctiger in lateral view slender, produced caudad apically. Forceps about as long as proctiger, slender basally, enlarged apically and produced both caudad and cephalad as figured, inner surface beset with numerous short heavy setae. Female genital segment large, slender; dorsal valve elongate, sinuate, abruptly turned up at apex, with area of minute spines laterally in addition to usual setae; ventral valve long, upturned, acute.

Holotype male, allotype female, and 26 paratypes collected at several localities (Matansha-Calabera, Garapan, Garapan-Sadog Tasi, Tapôcho, Fanagam) on Saipan, Mariana Islands, May 2-6, 1940, Yasu. et Yoshi. Type in author's collection.

This species is very evidently related to *A. clara* (Tuthill) but is readily distinguished by the shorter genal processes, which are much more depressed below the plane of the vertex,

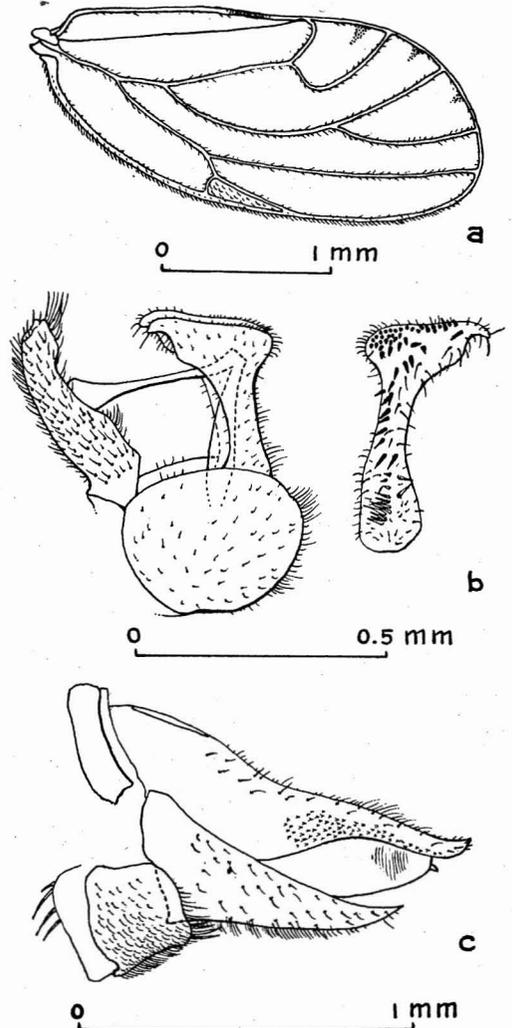


FIG. 1. *Arytaina extrema* n. sp. a, forewing; b, lateral aspect of male cauda and inner face of clasper; c, lateral aspect of female cauda.

the shorter antennae, and details of the genitalia, especially those of the male.

*Trioza (Megatrioza) vitiensis* Kirkaldy

Caroline Islands: Kolonia-Jokaji, Ponape, January 9, 1938; Matalanim, Ponape, January 11, 1938; Matalanim-Nipit, January 12, 1938; Kolonia-Paliker, July 16, 1939.

Esaki notes this widespread species as common on Ponape, where it forms very con-

spicuous round galls, about the size of a pea, on the leaves of *Eugenia malaccensis* L. It was probably introduced with its host tree.

*Trioza suavis* n. sp.

Fig. 2

Length to tip of folded wings, 3.5–4 mm.

*Color:* General color green. Antennae, legs, and margins of thoracic tergites tan. Wings hyaline.

*Structure:* Head slightly wider than thorax. Vertex short, rounded down both cephalad and caudad, medial suture prominent, posterior ocelli on lateral surface of large protuberances. Eyes large, hemispherical. Genae produced as short, blunt processes, 0.5 as long as width across vertex between eyes. Antennae long and slender, 3.7 times as long as width of head, segment III as long as width of head. Thorax strongly arched. Pronotum vertical. Forewings large, acute apically, 2.6 times as long as wide; Rs short, arched to costa; marginal cells large, medial larger than cubital. Hind wings relatively small but extending well beyond tip of abdomen. Legs stout. Metatibiae with small basal spur, 1 outer and 3 inner large apical spines. Mesopleura and sternum strongly produced. Metacoxae normal.

Male genital segment large. Proctiger strongly produced caudad as figured. Forceps a little shorter than proctiger; in lateral view straight to blunt apex; in caudal view arched to acute black apices; seen dorsally apices notched forming 2 black teeth. Female genital segment small, structure as figured.

Holotype male, allotype female, Palau Islands: Ngardok-Ngarmisukan, Babeldaob, February 11, 1938. Paratypes, 1 male same data as holotype; 2 females, Eimilik-Ngarmisukan, Babeldaob, August 18, 1939; 1 female, Ngarmisukan-Kaishar, Babeldaob, August 14, 1939. Type in author's collection.

Esaki reports this species as forming galls on the leaves of *Ficus* sp. It resembles some of the species assigned to *Megatrioza* by Crawford, especially in the conformation of

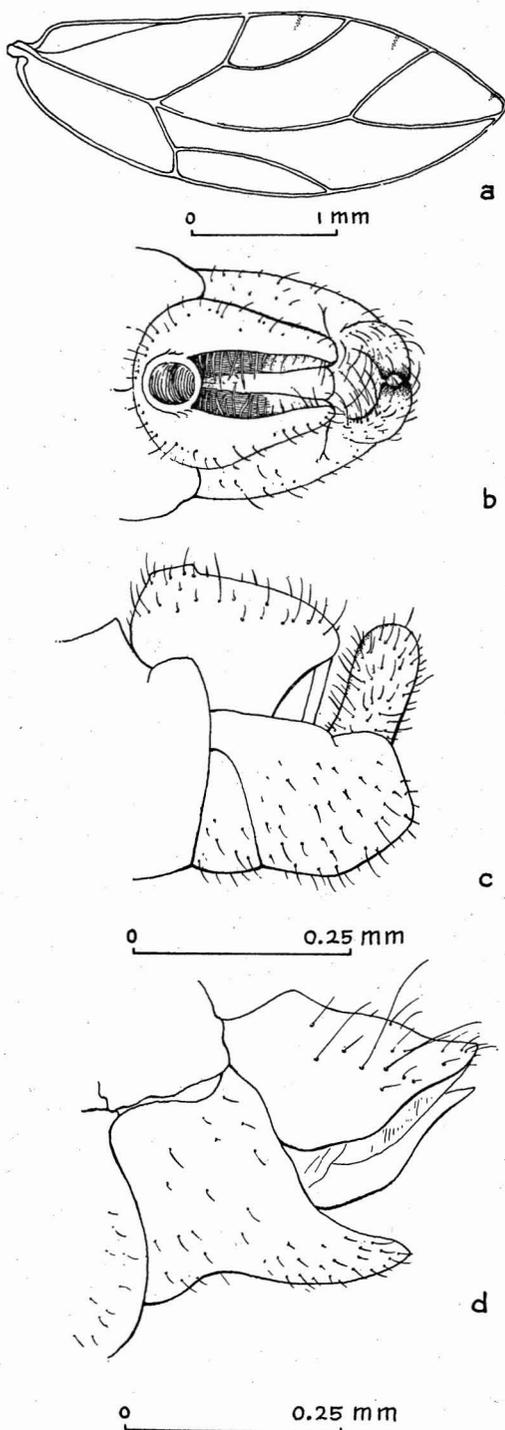


FIG. 2. *Trioza suavis* n. sp. a, forewing; b, dorsal aspect of male cauda; c, lateral aspect of male cauda; d, lateral aspect of female cauda.

the genae and in the very large wings. It is perhaps close to *T. vanuae* Kirkaldy, but I have seen no specimens of that species.

*Trioza propria* n. sp.

Fig. 3

Length to tip of folded wings, 3 mm.

*Color:* Head and thorax light brown dorsally, remainder of thorax orange. Abdomen chocolate-brown dorsally, yellow ventrally. Genae creamy white. Legs very light tan. Wings milky.

*Structure:* Almost glabrous, very small setae scattered over body. Head slightly wider than thorax. Postocular area large. Vertex with 2 deep longitudinal sulci, caudal margin sharp, upraised, cephalic margin rounded down, bulgingly produced each side of medial suture. Eyes large, hemispherical. Genal processes short, about one-third as long as vertex, acute, somewhat divergent apically, not completely covering frons at base. Antennae only slightly longer than width of head. Thorax quite flat longitudinally, very strongly arched laterally. Pronotum depressed far below vertex and mesonotum. Forewings about three times as long as wide; branching of basal vein in only specimen at hand not quite trifurcate, media and cubitus with short petiole, Rs smoothly curved to costa, cubital cell larger than medial. Hind wings 0.6 as long as forewings. Metatibiae with basal carina, 1 outer and 2 inner apical spines.

Female genital segment large; ventral valve larger than dorsal, blunt, dorsal acute, darkened apically.

Holotype female, Marianna Islands: Soñg-soñg-Regusa, Pagan, April 28, 1940, Yasu. et Yoshi. Type returned to Esaki.

The genal processes of this unique specimen are reminiscent of those of *Neotriozella* although much shorter. The presence of only two inner apical spines on the metatibiae is rather uncommon in the species known from the Pacific.

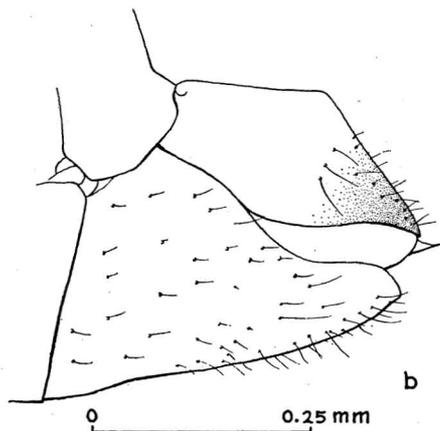
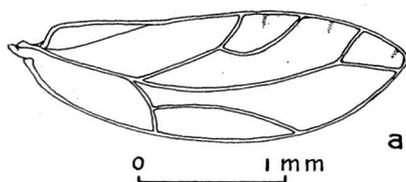


FIG. 3. *Trioza propria* n. sp. a, forewing; b, lateral aspect of female cauda.

*Trioza lyra* n. sp.

Fig. 4

Length to tip of folded wings, 3.25 mm.

*Color:* General color yellow. Incomplete longitudinal brown line medially on mesoscutum and scutellum. Metascutellum nearly white except for large brown  $\Omega$ -shaped or lyre-shaped spot. Abdomen with narrow brown vitta dorsally, sternites light brown. Eyes red. Antennal segments dark apically.

*Structure:* Body moderately pubescent throughout. Head as wide as thorax, postocular area small. Vertex emarginate and very abruptly margined caudad, with very prominent discal circular fovea each side of medial suture, latter very prominent, anterior margin bulging, rounded down to genae. Genal processes one-half as long as vertex, broadly rounded. Eyes large, hemispherical. Antennae almost twice as long as width of head. Thorax moderately arched. Pronotum depressed far below vertex and prescutum.

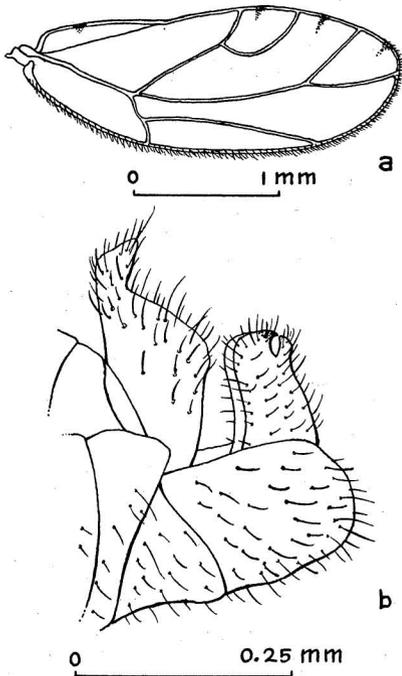


FIG. 4. *Trioza lyra* n. sp. a, forewing; b, lateral aspect of male cauda.

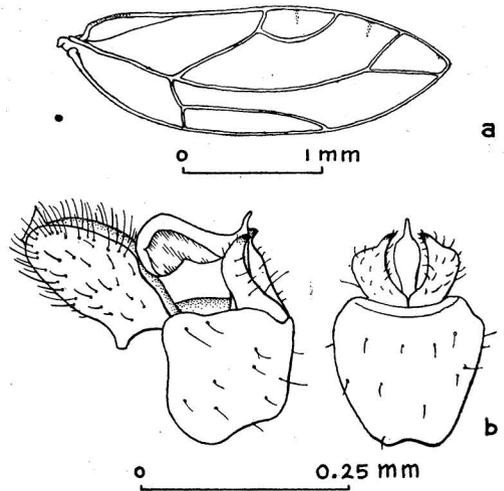


FIG. 5. *Trioza disjuncta* n. sp. a, forewing; b, lateral and caudal aspects of male cauda.

As with the preceding and following species the relationships of this form are not clear inasmuch as the triozone fauna of the area is so incompletely known.

The specific epithet refers to the marking on the metascutellum.

*Trioza disjuncta* n. sp.

Fig. 5

Length to tip of folded wings, 3.25 mm.

*Color:* Uniformly light brown, except eyes red, wings hyaline.

*Structure:* Long sparse pubescence on body. Head narrower than thorax. Vertex sharply margined caudally, impressed discally each side of medial suture, bulging anteriorly. Genal processes broadly rounded, slightly over one-half as long as vertex. Antennae short, 1.7 times as long as width of head. Thorax strongly arched. Pronotum not depressed, strongly descending to level of vertex. Forewings slender, sharply angled; three times as long as wide; Rs short, curving to costa, marginal cells equal. Hind wings small, one-half as long as forewings. Metatibiae with serrate basal carina, 1 outer and 3 inner apical spines.

Male genitalia of moderate size. Proctiger long, produced caudad, excavate before apex as figured. Forceps one-half as long as proctiger; in lateral view broad, straight, with deep apical notch forming 2 teeth as figured; in caudal view slender, nearly straight to incurving black tips.

Male genitalia very small, distinctive in

Holotype male, Caroline Islands: Nipit-Ronkiti, Ponape, January 14, 1938. One very teneral female bearing the same data accompanies the male. No information is available as to host plant or habits. Type in author's collection.

structure as figured; aedeagus, especially, different from usual type.

Holotype male, Palau Islands: Ngarumsukan-Kaishar, Babeldaob, August 14, 1939. Type returned to Esaki.

*Trioza indigena* n. sp.

Fig. 6

Length to tip of folded wings, 3.25 mm.

*Color:* Entire dorsum brown, including dorsal portion of folded wings, except for medial yellow spot on pronotum extending as paler line onto vertex and prescutum. Ventral half of body much lighter brown to green.

*Structure:* Generally pubescent. Head narrower than thorax. Vertex deeply emarginate caudally, prominent discal impression each side of medial suture, at sides smoothly continuous with genae, small protuberances over median ocellus. Antennae far down on genae below line of ocellus, genal processes beyond antennae small, divergent, conical. Antennae slender, 2.5 times as long as width of head. Thorax rather flat for genus. Pronotum vertical, depressed slightly below plane of vertex. Forewings bluntly angulate, 3 times as long as wide, maculate as shown in Figure 6;  $R_1$  very short,  $R_s$  arched to costa, marginal cells small, equal. Metatibiae with serrate basal carina, 1 outer and 3 inner very large apical spines. Metacoxae somewhat produced anteriorly, meracanthi large, sharp.

Male genital segment small. Proctiger strongly produced caudad. Forceps slightly longer than proctiger; in lateral view slender, somewhat sinuate to black apex (see Fig. 6*b*), in caudal view tapering from broad base, slightly arched, apices not touching. Female genital segment large; dorsal valve slightly longer than ventral, both slender, nearly straight, acute; tips blunt, brown.

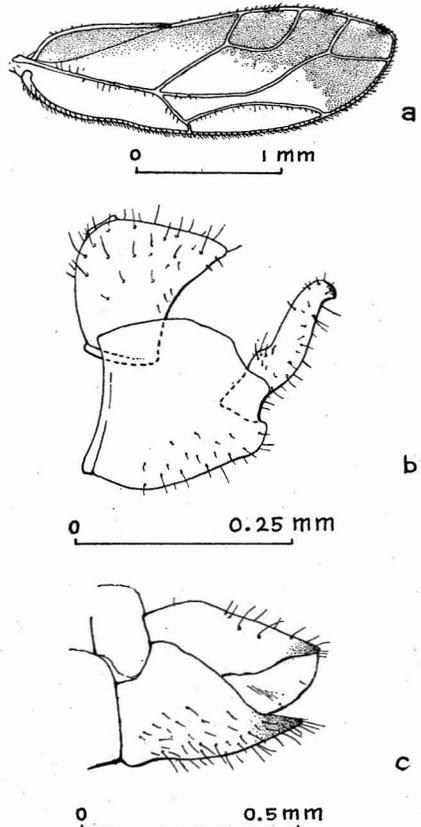


FIG. 6. *Trioza indigena* n. sp. a, forewing; b, lateral aspect of male cauda; c, lateral aspect of female cauda.

Holotype male, allotype female, 7 male and 2 female paratypes, Caroline Islands: Sankakuyama-Kolonia, Ponape, July 15, 1939. Type in author's collection.

This very distinctive species forms small galls on the leaves of *Elaeocarpus Kusanoi* Koidzumi, an endemic tree of Ponape. Dr. Esaki has suggested that perhaps it represents a distinct genus but, although it is markedly different from other species of *Trioza* known from the area, it fits well within the generic limits.