PSYLLIDAE FROM GUAM

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Through the kindness of O. H. Swezey, I have had the opportunity of examining a small but interesting collection of psyllids collected in Guam in 1936, containing six species. Of these, one species and one variety are here described as new. The established species are well known and are listed here with their host records. The collection and distribution notes are by O. H. Swezey.

Leptynoptera sulfurea Crawford. Host, *Calophyllum inophyllum.*

Tyora ornata (Kirkaldy). Host, *Heritiera littoralis.*

Mesohomotoma hibisci (Froggatt). Host, *Hibiscus tiliaceus.*

Arytaina iolani Crawford. Host unknown.

Arytaina variabilis Crawford variety *glabrascuta,* new variety. Host *Intsia bijuga.*

Trioza guama, new species. Host, *Glochidion marianum.*

SUBFAMILY PAUROPSYLLINAE

1. **Leptynoptera sulfurea** Crawford, Philip. Jour. Sci. **15**(2) : 147, pl. 1, figs. 5, 6, 1919.

   Leptynoptera sulfurea variety *rubrocincta* Uichanco, Philip. Jour. Sci. **18** (3) : 271, pls. 1, 3, 4, 5, figs. 4, 20, 38, 48, 1921.

   Leptynoptera didactyla Laing, Ann. Mag. Nat. Hist. IX, **9**: 554, fig. 1, 1922.

Yigo, Nov. 13, reared from *Calophyllum inophyllum* leaves, Swezey; Umatac, on beach, on *Calophyllum inophyllum,* May 28, Swezey.

L. sulfurea was described from Amboina, Moluccas, on a single specimen, without mention of food plant. The variety *rubrocincta* was described from the Philippines as occurring on *Calophyllum inophyllum,* the young feeding beneath the rolled over edge of the leaves. The Guam specimens were reared from the same tree, and similarly situated on the leaves. They agree pretty well with the characters which Uichanco gives as distinctions between the variety and *sulfurea,* except that the Guam specimens lack the red markings on the abdomen. Uichanco had one female in which these were not evident. He concludes: "When more is known about the Moluccan insect, the variety *rubrocincta* may finally have to be merged with the species."

The species *didactyla* described from Fiji in 1922, on *Calophyllum inophyllum* seems more likely to be the same as Guam material, especially on account of white lines on the thorax which are not mentioned in the description of *sulfurea.*

As *Calophyllum inophyllum* is widely spread in Pacific tropics, no doubt

this psyllid will be found more widely spread when more collecting is done. The tree occurs in Hawaii, but does not have the psyllid.

SUBFAMILY CARSIDARINAE

2. **Tyora ornata** (Kirkaldy).

Nesiope ornata Kirkaldy, Linn. Soc. N. S. Wales, Proc. **33**: 390, fig. 5, 1908. Crawford, Philip. Jour. Sci. **15**(2): 161, 1919.

Tyora ornata (Kirkaldy) Crawford, Ins. Samoa **2**(1): 30, 1927.

Described from Fiji without mention of host plant, but a later record from Fiji (1922) states that it was "feeding on the underside of the leaves of *Heritiera littoralis.*" This species has also been recorded from Borneo. The Guam material (28 specimens) was all collected from the leaves of *Heritiera littoralis,* a tree growing near the shore along the road to Sumay, June 21, and July 15, Swezey. This is another widespread tree in the Pacific, and no doubt this psyllid will be found more widely distributed by future collecting. It was being preyed on by larvae of a lacewing fly.

3. **Mesohomotoma hibisci** (Froggatt).

Tyora hibisci Froggatt, Linn. Soc. N. S. Wales, Proc. **26**: 287, pl. 15, fig. 8, pl. 16, fig. 18, 1902.

Mesohomotoma hibisci (Froggatt) Crawford, Ins. Samoa **2**(1): 30, 1927.

Piti, April 30, Swezey and Usinger; Mt. Alifan, May 21, Swezey and Usinger; Machanao, June 30, Aug. 6, Swezey; Barrigada, July 22, Swezey; Ritidian Pt., Aug. 6, Swezey, all collected on *Hibiscus tiliaceus* leaves. Infestations by this psyllid noted on same tree at Inarajan, June 8; Fadian, Aug. 19; Yigo, Oct. 21. Collected by Fullaway in 1911.

Described from Brisbane, Australia, where it occurred on *Hibiscus tiliaceus,* collected by Tryon. In the collection of the Hawaiian Sugar Planters' Association are some specimens collected on *Hibiscus* at Suva, Fiji, Dec. 12, 1904, probably by Perkins. The species is also recorded from New Caledonia and Tahiti. In Guam, growing leaves of *Hibiscus tiliaceus* are infested, and the young insects are hidden by considerable white flocculent waxy material. Commonly found in all places. They are preyed on by larvae of a lacewing fly and a syrphid fly.

SUBFAMILY PSYLLINAE

4. **Arytaina iolani** Crawford, Philip. Jour. Sci. **15**(2): 174, pl. 2, fig. 11, 1919.

Ritidian Pt., June 2, Usinger; Agana, June 26, Usinger; Talofofo, June 19; Piti, Sept. 1, swept from morning-glory vines, Swezey. One specimen each.

Described from Los Banos, Philippines, without mention of food plant. The single host plant record from Guam is not sufficient to be dependable.

5. Arytaina variabilis glabrascuta, new variety (fig. 1).

General color light tan to dark brown with vertex of lighter shade; four basal antennal segments lighter than terminal. Apex of forewing with five large dark areas between the veins, the first in the cubital cell and the last almost at apex of pterostigma; a dark spot present at apex of clavus and sometimes a dark spot present on membrane at junction of cubitus and medius. Structurally similar to the species except body is not covered with stiff pubescence; veins lack setae except costa; pterostigma slightly more elongate, and antennae are longer than body without wings. Length to tip of forewing, male 2.7 mm., female 3 mm.; forewing, male 2 mm., female 2.2 mm.

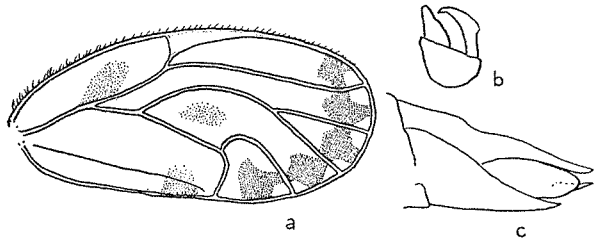

FIGURE 1.—*Arytaina variabilis glabrascuta,* new variety: **a**, forewing of male; **b**, profile of male genitalia; **c**, profile of female genitalia.

Orote Peninsula, April 9, Bryan, male holotype, female allotype, and paratypes; Umatac, Tumon, Upi Trail, Machanao, Mt. Alifan, Barrigada, from March to July, Bryan, Swezey, paratypes. Umatac, Mar. 28, Bryan; Magua, Mar. 31, Bryan; Tiyan, April 2, Bryan; Orote Peninsula, April 9, Bryan; Mt. Alifan, April 20, Bryan, June 19, Swezey; Piti, May 1, Usinger; Upi Trail, May 5, Usinger; Tumon, May 30, Swezey; Machanao, June 4, 30, Swezey and Usinger; Barrigada, July 6, 22, Swezey. Ninety-five specimens.

This insect was very abundant in Guam, always on the *ifil* tree (*Intsia bijuga*), an important tree of the native forests, though a few stragglers were taken on other trees.

The species *variabilis* was described from the Philippines by Crawford in 1917, without mention of food plant. It was later recorded from Malay and Borneo. No doubt it also occurs on *Intsia bijuga,* as this tree grows there also.

SUBFAMILY TRIOZINAE

6. Trioza guama, new species.

General color; body entirely black except ventral sclerites of abdomen narrowly edged with ivory; antennae light yellow except first and last two segments black; genal cones white; tibiae and tarsi light yellowish. Vertex scarcely deflexed; hind margin not concave. Genal cones about one fourth as long as vertex, blunt, slightly divergent, greatly lowered from but parallel to the plane of the vertex. Antennae longer than width of head. Head almost as broad as thorax; eyes prominent. Thorax not arched. Forewing little over twice as long as broad; veins not setose; radial sector short, curved toward costa; marginal cells subequal. Posterior spurs present on metacoxa; hind tibia with no basal spur but with apical ratio of 2-1. Length to tip of forewing, 2.5 mm.; forewing 2 mm.

Piti, Aug. 18, on *Glochidion marianum,* Swezey, holotype male. In collection of Experiment Station, Hawaiian Sugar Planters' Association.