

## New Records of Two-Winged Flies (Insecta: Diptera) from O‘ahu, Hawaiian Islands<sup>1</sup>

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Recent collected material of Diptera from various localities on O‘ahu has resulted in two new state records, one new island record, and range extensions. All material is deposited in the Bishop Museum (BPBM).

### **Cecidomyiidae**

#### **Winnertziinae**

#### **Heteropezini**

#### ***Neostenoptera* sp.**

#### **New state record**

This unusual heteropezine paedogenetic cecidomyiid was collected from a three fairly widely separated localities on O‘ahu, so it may have been established for some time but just not collected previously. Given its extremely small size (1–2mm), it can easily be overlooked in general collecting samples (cf. Plakidas 2017). The provenance and species identification remain unknown. Originally described from an Afrotropical Copal specimen (Meunier 1901, 1902), the genus has since been found extant represented by species from the Congo (Gagné 1979) and the southeastern and eastern United States (Plakidas & Ferro 2016). This marks the first record of the genus from the Hawaiian Islands. Using the key in Plakidas (2017) it easily keys to *Neostenoptera* Meunier, but it does not key to either of the described species and may be new.

*Material examined:* HAWAIIAN ISLANDS: **O‘ahu:** 1 spm, Barbers Point, 0–5 ft, 3–10 May, 2017, 1–14 Sep 2017, W.D. Perreira, D.A. Yee, yellow sticky board trap; 1 spm, Foster Botanical Garden, 20–115 ft, 5–12 May 2017, W.D. Perreira, D.A. Yee, yellow sticky board trap; 9♂♀, Moanalua Valley, 260–350 ft, 27 Apr–14 May 2017, 2–9 Aug 2017, 2–16 2017, W.D. Perreira, D.A. Yee, yellow sticky board trap (all BPBM)

### **Xylomyidae**

#### ***Solva* sp.**

#### **Range extension**

Since the first record of this genus and family in the Hawaiian Islands (Evenhuis 2016), more specimens have been collected on O‘ahu extending the range from the middle of the island to both the northern and southern portions. Its native provenance and species identity remain unknown.

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**Fig. 1.** Specimen of *Leptopteromyia mexicana* Martin from O‘ahu.

*Material examined:* HAWAIIAN ISLANDS: **O‘ahu:** 1♂, Ted Makalena Golf Course, 15–30 ft, 8–16 Nov 2016, W.D. Perreira, D.A. Yee, yellow sticky board trap; 2♂, Makaleha Stream, 3 ft, 18–22 Jun 2017, 22–28 Jun 2017, W.D. Perreira, D.A. Yee, yellow sticky board trap (all BPBM).

### **Asilidae**

*Leptopteromyia mexicana* Martin, 1971

#### **New island record**

This small leptogastrine asilid that mimics wasps (Fig. 1) was originally reported from Maui (Howarth *et al.* 2012: 166) from a 2011 collection, but efforts to re-collect it from the island after the original record proved fruitless (M.T. Fukada, pers. comm. Jun 2013). Recent collecting on O‘ahu, however, show that it has made it to this island. Given its small size, it may have been overlooked in general collecting and may be present on other islands as well. It is a predator on small soft-bodied invertebrates such as plant and leaf-hoppers and inhabits tall grassy areas where it perches on grass blades awaiting prey to ambush.

*Material examined:* HAWAIIAN ISLANDS: **O‘ahu:** 23♂♀, Barbers Point, 0–5 ft, 7–12 Jun 2017, 21–27 Jun 2017, 27 Jun–5 Jul 2017, 5–12 Jul 2017, W.D. Perreira, D.A. Yee, yellow sticky board trap (BPBM).



Fig. 2. Male of *Tylopterna* sp. from O'ahu.

### **Chloropidae**

#### ***Tylopterna* sp.**

#### **New state record**

*Tylopterna* was originally described (Bezzi 1916) from the Philippines based on a single male specimen described as *Tylopterna monstrosum* Bezzi, 1916. It was originally treated in "Ortalidae" [= Ulidiidae] but was transferred to Chloropidae by Sabrosky (1951). The male

has a distinctive flattened face and a wing with a unique erect protuberance in open cell m1 (Fig. 2). Females collected with the males are dimorphic and do not have modified features in the wing and the head is compressed to a substantially lesser degree. This genus is currently under revision by the senior author and will result in a number of new species and synonymies. It is listed here now to record the new state record in a timely manner.

*Material examined:* HAWAIIAN ISLANDS: O'ahu: 4♂, 7♀, Makaleha Stream, 3ft, 3–10 Apr 2017, 8–15 May 2017, W.D. Perreira, D.A. Yee, yellow sticky board trap (BPBM).

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