In this reporting we present new distribution records for 41 species, 5 of which are new to the state. This list resulted largely from recent collecting and identification efforts that were done in connection with a survey of tephritid fruit flies of economic importance. At least 3 of the species reported here may be of medical (Drosophila quadrilineata and Liophilippeletes collusor) and economic (Liriomyza sp. near blechi) concern. The majority of the new records are for Moloka‘i, where this survey work was concentrated. One of us (WDP) conducted most of the collecting activities. Yellow sticky board traps (YSBT) and the sweeping of grasses and bushes with hand-held insect nets were the principal collecting methods employed. Some unpublished records based on specimens collected by others are also included. Nishida (1997) was the primary reference used to determine whether a species had been recorded previously from a given island. Voucher specimens are deposited in the collections of the Bishop Museum.

**Agromyzidae**

*Liriomyza* sp. near *blechi* Spencer **New state record**

The distinct black and yellow color pattern of the mesonotum (Spencer & Steyskal, 1986: fig. 673) is shared with two non-Hawaiian species, *L. marginalis* (Malloch) and *L. sorosis* (Williston) and is used to distinguish this species from other *Liriomyza* in Hawai‘i. Characters of the male genitalia including the presence of a single long hair on the end of the cercus separate it from *L. marginalis* and *L. sorosis* and fit it closest to *L. blechi* Spencer (Spencer & Stegmaier, 1973: 98–99), a polyphagus species described from Florida. Unfortunately, we have been unable to compare the type of *L. blechi* with the O‘ahu specimens, nor do we have any host records for this leaf miner in Hawai‘i. Spencer (1990: 386) provided a list of host plants for *L. blechi*.


**Anthomyzidae**

*Amygdalops thomasetti* Lamb **New island record**

An immigrant species previously recorded from Kaua‘i, O‘ahu, Moloka‘i and Hawai‘i.

*Material examined.* **MAUI:** Haleakalā Hway, 90 ft, 18.xi–2.xii.1995 (YSBT, WDP).

**Asteiidae**

*Loewimyia orbiculata* Hardy **New island records**

Previously recorded from O‘ahu, this endemic species is most commonly found in coastal areas.

**Sigaloessa** sp.  New state record

A genus of 14 described species, *Sigaloessa* (Sigaloessinae) differs from other Hawaiian asteids, *Asteia*, *Bryania*, and *Loewimyia* (all Asteinae), by having both the hind cross vein and alula present. The testaceous-yellow colored *S. insularis* Malloch is from Tahiti. All other species of *Sigaloessa* are from the Americas.

Specimens from Hawaiʻi have the mesonotum polished and shining black and are strikingly sexually dimorphic with females possessing yellow legs with black banded femora and having a conspicuous yellow to yellowish white anterior thoracic spiracular protrusion. Males have legs completely yellow and the anterior thoracic area normal and lacking any distinctive protrusion. Using the key in Sabrosky (1957: 53–54), females key to *S. hillifera* Sabrosky and males with their characteristic genital forceps to *S. nigrifrons* Sabrosky. Both are Costa Rican. Notably, *S. hillifera* was described from three females and *S. nigrifrons* only from the holotype male, in both instances Sabrosky did not positively associate members of the opposite sex in the described material of either species. Based on the Hawaiʻi material (ca. 40 specimens), it appears that *S. hillifera* and *S. nigrifrons* are conspecific. If this proves to be true then *nigrifrons* will be the junior synonym. However, as we have not examined the type material of either species, positive species determination and a clarification of this matter will have to occur at a later date.

*Material examined.* **MAUI:** Hāna Airport Rd., 70 ft, and Keʻanae, 3 ft, 18.xi–2.xii.1995, both YSBT, WDP. **OʻAHU:** Round Top Dr., 900 ft, 10–24.vi.1997, YSBT, WDP.

**Cecidomyiidae**

*Mycodiplosis pucciniacola* (Hardy)  New island record

An endemic species previously recorded from Oʻahu.

*Material examined.* **MOLOKAʻI:** Hālawa Valley, 200 ft, 16–30.ix.1994, YSBT, WDP.

**Ceratopogonidae**

*Forcipomyia borbonica* Clastrier  New island record

An immigrant species previously recorded from Oʻahu, this midge was collected only in the coffee fields of Molokaʻi.

*Material examined.* **MOLOKAʻI:** Kualapuʻu, 750 ft, 31.iii–14.iv.1995, in coffee field, YSBT, WDP.

**Chironomidae**

*Cricotopus bicinctus* (Meigen)  New island record

An immigrant species previously recorded from Kauaʻi and Oʻahu.

*Material examined.* **MOLOKAʻI:** Pāpio Stream, 600 ft, 2–16.ix.1994, YSBT WDP.

*Goeldichironomus holoprasinus* (Goeldi)  New island record

An immigrant species previously recorded from Oʻahu.

*Material examined.* **MOLOKAʻI:** Palaʻau State Park, 1500 ft, 15.iv.1994, WDP.

*Thalassomya setosipennis* Wirth  New island record

An endemic marine species previously recorded from Kauaʻi, Oʻahu, Maui and Hawaiʻi.

*Material examined.* **MOLOKAʻI:** Pukoʻo Harbor, at sea level. 17.ii.1995 WDP.
Chloropidae

*Gampsocera hardyi* Kanmiya  
New island records  
An immigrant species previously recorded from Kaua‘i and O‘ahu.  

*Liohippelates collusor* (Townsend)  
New island record  
First reported by Hardy (1963: 210–11) from Kure, the establishment of this pest species in Hawai‘i was later questioned as possibly being erroneous (Hardy, 1980: 419). A large series was taken at Barbers Point. Fortunately no reports of this species causing irritations or conjunctivitis on O‘ahu have been filed.  
*Material examined.* O‘AHU: Barbers Point Lighthouse, 5 ft, i.1995, YSBT, T.M. Mitomi, WDP (det. by Curtis Sabrosky).

*Meromyza communis* Fedoseeva  
New state record  
A wide ranging Nearctic species which has been collected across the Continental United States, north to Alaska and south to Mexico (Fedoseeva, 1971: 521). The large swollen hind femur of this species serves as a good character to separated it from other Hawaiian chloropids.  

*Neoloxotaenia gracilis* (Meijere)  
New island records  
An immigrant species previously recorded from Kaua‘i and O‘ahu.  

*Rhodesiella elegantula* (Becker)  
New island records  
An immigrant species previously recorded from Kaua‘i, O‘ahu and Hawai‘i.  

Chromyidae

*Gymnochiromyia hawaiiensis* Hardy  
New island record  
An immigrant species previously recorded from O‘ahu, Maui and Hawai‘i.  

*Nannodastia horni* Hendel  
New island record  
An immigrant species previously recorded from O‘ahu.  
*Material examined.* MOLOKA‘I: Kalaniana‘ole Colony, 3 ft, 5–19.i.1996, YSBT, WDP.
**Drosophila quadrilineata** (Meijere)  
*New state record*  
A species which is attracted to ripe fruits, their exudates and animal excreta. Consumption of fruit containing the eggs of this species may result in transitory intestinal myiasis (Bohart & Gressitt, 1951: 92).  

**Drosophila suzukii** (Matsumura)  
*New island record*  
An immigrant species previously recorded from Kaua‘i, O‘ahu and Hawai‘i.  
*Material examined.* **MOLOKA‘I:** Mapulehu nr. ʻIliʻiliʻōpae Heiau, 50 ft, 30.ix–14.x.1994, YSBT WDP.

**Leucophenga maculosa** (Coquillett)  
*New island record*  
An immigrant species previously recorded from O‘ahu, Lāna‘i, Maui, and Hawai‘i.  
*Material examined.* **MOLOKA‘I:** Moloka‘i Airport, ca. 300 ft, 3.ii.1995, WDP.

**Empididae**  
**Chersodromia hawaiiensis** Melander  
*New island records*  
A small dark endemic species previously recorded from O‘ahu has been collected on both dark and light colored beach sands.  
*Material examined.* **MAUI:** Kakahui, Maui Beach, 3–vii–[19]68, J.A. Tenorio. **MOLOKA‘I:** Kamalo, sea level, 17.iii.1995, WDP.

**Elaphropeza sp.**  
*New state record*  
This species belongs a very large cosmopolitan genus. We have been unable to identify it to species.  
*Material examined.* **MOLOKA‘I:** Kalaniana‘ole Colony, 5 ft, 9–23.vi.1995, YSBT placed in *Atriplex* and *Chenopodium* shrubs. J.W. Beardsley, WDP. **O‘AHU:** West Loch of Pearl Harbor, 3 ft, YSBT, WDP.

**Ephydridae**  
**Donaceus nigronotatus** Cresson  
*New island record*  
An immigrant species previously recorded from Kaua‘i, O‘ahu, Maui, and Hawai‘i.  
*Material examined.* **MOLOKA‘I:** Mouth of Honoulimalo‘o Stream, sea level, 17.ii.1995, WDP.

**Notiphila insularis** Grimshaw  
*New island record*  
An endemic species previously recorded from Kaua‘i, O‘ahu, Moloka‘i and Hawai‘i.  
*Material examined.* **MAUI:** Honomanu Bay, 5 ft, 2.xii.1995, WDP.

**Ochthera circularis** Cresson  
*New island record*  
An immigrant species previously recorded from Kaua‘i, O‘ahu and Maui.  
*Material examined.* **MOLOKA‘I:** Kīpapa, 3 ft, 26.v.1995, pond of brackish water, WDP.

**Heleomyzidae**  
**Spilochroa ornata** (Johnson)  
*New state record*  
The infuscation pattern of the wings (Williston, 1908: 297, fig. 117: 3) is unique to this species.  
Lauxaniidae

*Poecilominetta sexseriata* Hendel  
**New island records**  
An immigrant species previously recorded from Kaua‘i, O‘ahu, and Hawai‘i.  
*M*aterial *examined.**  
**WDP.**  
**MAUI:** Honomanū Bay, 5 ft, 2.xii.1995, WDP.

Lonchaeidae

*Lamprolonchaea metatarsata* (Kertész)  
**New island record**  
An immigrant species previously recorded from Kaua‘i, O‘ahu, Maui, and Hawai‘i.  
*M*aterial *examined.**  
**MOLOKA‘I:** Mapulehu, 40 ft, 30.ix.1994, WDP.

Neriidae

*Teleostylinus lineolatus* (Wiedemann)  
**New island record**  
An immigrant species previously recorded from Kaua‘i, O‘ahu, and Hawai‘i.  
*M*aterial *examined.**  
**MOLOKA‘I:** Honomuni Stream, ca. 10 ft, 22.vii.1994, reared from fruits of *Passiflora* sp., WDP.  
**MAUI:** Lo‘ihoa, ca. 600 ft, 18.xi–2.xii.1995, YSBT, WDP.

Otitidae

*Notogramma cimiciforme* Loew  
**New island record**  
An immigrant species previously recorded from Ni‘ihau, Kaua‘i, O‘ahu, Lāna‘i, and Maui.  
*M*aterial *examined.**  
**MOLOKA‘I:** Manawai, 10 ft, WDP.

Phoridae

*Puliciphora borinquenensis* Wheeler  
**New island record**  
An immigrant species previously recorded from O‘ahu.  
*M*aterial *examined.**  
**MOLOKA‘I:** Pala‘au State Park, 1500 ft, 18.viii.–ix.1995, YSBT, WDP.

Piophilidae

*Piophila australis* (Harrison)  
**New island record**  
An immigrant species previously recorded from Kaua‘i and O‘ahu.  
*M*aterial *examined.**  
**MOLOKA‘I:** Hanalilolilo Trail, 3300 ft, 14.ix.1994, WDP.

Sarcophagidae

*Johnsonia elegans* Coquillett  
**New island records**  
An immigrant species previously recorded from O‘ahu.  
*M*aterial *examined.**  
**HAWAI‘I:** Mile post 18 along Hawai‘i Belt Road nr. Pu‘u Anahulu, ca. 2150 ft, 20.x–3.xi.1995, YSBT, WDP.  

Scatopsidae

*Coboldia fuscipes* (Meigen)  
**New island record**  
An immigrant species previously recorded from O‘ahu.  
*M*aterial *examined.**  
**MOLOKA‘I:** Mapulehu nr. ‘Ili‘ili‘ōpae Heiau, 40–60 ft, 28.x–11.xi.1994, YSBT, WDP.

*Psectrosciara brevicornis* Johannsen  
**New island record**  
An immigrant species previously recorded from O‘ahu and Maui.  
*M*aterial *examined.**  
**MOLOKA‘I:** Honomuni Stream, ca. 10 ft, 14–28.x.1994, YSBT, WDP.
Rhegmaclemina parvula  Hardy  
New island records
An immigrant species previously recorded from O’ahu.

*Material examined.* **MOLOKA‘I:** Kakahai‘a County Park, 2 ft, 3–17.iii.1995, YSBT, WDP.

**MAUI:** Ke‘anae, 3 ft, nr. Pa‘akea Gulch, ca. 1250 ft, Honomanu Bay, 5 ft, all 18.xi–2.xii.1995, YSBT, WDP.

Stratiomyidae

*Evaza javanensis* Meijere  
New island record
An immigrant species previously recorded from Kaua‘i, O‘ahu, Maui, and Hawai‘i.

*Material examined.* **MOLOKA‘I:** Hālawa Valley, 200 ft, 16–30.ix.1994, YSBT, WDP.

*Odontomyia ochropa* Thomson  
New island record
An immigrant species previously recorded from O’ahu.

*Material examined.* **MOLOKA‘I:** Kipapa, 1 ft, 23.vi.1995, pond of brackish water, WDP.

Syrphidae

*Eumerus aurifrons* (Wiedemann)  
New island record
An immigrant species previously recorded from Kaua‘i, O‘ahu Lāna‘i, and Hawai‘i.


Tephritidae

*Dioxyna sororcula* Lawson  
New island record
An immigrant species previously recorded from Kaua‘i, O‘ahu, and Moloka‘i.

*Material examined.* **HAWAI‘I:** Kohala Mountain Road, ca. 3400 ft, 20.x–3.xii.1995, YSBT, WDP.

*Tetreuaresta obscuriventris* (Loew)  
New island record
In 1961 this species was purposely introduced from Fiji and released on Kaua‘i, O‘ahu, Maui, and Hawai‘i as a biological control agent for the noxious weed, elephant’s foot, *Elephantopus mollis* Kunth (Asteraceae) (Hardy, 1980: 57).

*Material examined.* **MOLOKA‘I:** Pāpio Stream, 600 ft, 19.viii–2.ix.1994, YSBT, WDP.

Acknowledgments

We thank Dr. A. Norrbom and the late Dr. Curtis W. Sabrosky, Systematic Entomology Laboratory, USDA, Mr. Gordon Nishida, Bernice P. Bishop Museum and Dr. Hampton Carson and Messrs. Kelvin Kanegawa and Dick Tsuda of the University of Hawaii at Manoa and their staffs for access to collections and help in identifying specimens. Special thanks to Kaluakoi Resorts, Coffees of Hawaii, Mr. and Mrs. Steven Petro and the late Dr. Jan Newhouse and Mrs. Jan Newhouse, all Moloka‘i land owners, without whose cooperation much of this paper would not be possible. Field work on Moloka‘i was funded by a grant from the State of Hawaii, Governor’s Agricultural Coordinating Committee to the University of Hawaii at Manoa.

This paper is dedicated in memory of the late Drs. Jan Newhouse and Curtis Sabrosky.

Literature Cited


