
New records of introduced Lepidoptera in the Hawaiian Islands for the year 2024

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Four new state records, thirty new island records, and one new status are reported for introduced or presumed introduced Lepidoptera in Hawai‘i. Information regarding the formerly published distributions in Hawai‘i of species discussed herein is based on Nishida (2002), Starr *et al.* (2004), Howarth *et al.* (2012), Matsunaga *et al.* (2019), and Austin & Rubinoff (2022, 2023, 2024). All identifications were made by the first author. Label data were transcribed verbatim except for corrections to Hawaiian spelling and orthography. Any other corrections to data labels are provided in brackets following the verbatim label. Identifications were based on external morphology and genitalia dissections. Specimens were compared with illustrations and figures in the published literature as well as through comparisons with material deposited at the Bernice Pauahi Bishop Museum (BPBM) and the University of Hawai‘i Insect Museum (UHIM). Voucher specimens and other examined material are deposited in these collections as noted.

Alucitidae

Alucita objurgatella (Walsingham)

New island record

This questionably introduced species is known only from the Hawaiian Islands and is only to known to feed in the fruits of alahē‘e (*Psydrax odorata*). Future studies may reveal it to be a native species, but historically it has been considered introduced. It has been reported from Kaua‘i, O‘ahu, Maui, and Hawai‘i (Nishida 2002). We report it from Moloka‘i for the first time.

Material examined. **Moloka‘i:** 1♂, Moloka‘i F[orest] R[eserve], Mākolelau, 21.0961, -156.9074, 945 m, 25–26 Jun 2024, K.A. Austin, S.L. Pote, K. Coelho, UV bucket trap (UHIM).

Choreutidae

Tebenna sp. A

New state record

This genus is globally distributed and difficult to identify without detailed morphological examination. It includes several minor pest species, at least one of which has been spread well beyond its native range by human activity (i.e., *Tebenna micalis*). All species whose hosts are known are leaf-miners or -skeletonizers on Asteraceae. Species confirmation of the taxon in Hawai‘i may require molecular data.

Material examined. **Kaua‘i:** 1♂, Nā Pali Coast State Wilderness Park, Kalalau Beach, 22.1727, -159.6576, 10 m, 27–29 Mar 2024, K.A. Austin, UVLED light sheet (UHIM).

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Cosmopterigidae***Asymphorodes dimorpha* (Busck)****New island record**

Zimmerman (1978) reported this introduced species from almost all of the Hawaiian Islands: Ni‘ihau, O‘ahu, Moloka‘i, Maui, Lāna‘i, Hawai‘i, Nihoa, Necker, Pearl and Hermes, Midway, and Kure. Austin & Rubinoff (2022) reported it from Kaua‘i. We report it from French Frigate Shoals for the first time.

Material examined. **French Frigate Shoals:** 3♂, 1♀, Tern Island, 26 Sep 2000, G.M. Nishida, at sheet lit by 6-volt lamp (BPBM).

Asymphorodes triaula* (Meyrick)*New island records**

This widespread introduced species was previously known from O‘ahu and Hawai‘i (Nishida 2002). We report it from Kaua‘i, Moloka‘i, and Maui for the first time. It likely occurs on all the main Hawaiian Islands.

Material examined. **Kaua‘i:** 1♀, Nā Pali Coast State Wilderness Park, Kalalau Beach, 22.1727, -159.6576, 10 m, 27–29 Mar 2024, K.A. Austin, UVLED light sheet (UHIM). **Moloka‘i:** 1♂, Moloka‘i F[orest] R[eserve], Mākoelau, 21.0979, -156.9031, 1035 m, 25–26 Jun 2024, K.A. Austin, S.L. Pote, K. Coelho, UV bucket trap (UHIM). **Maui:** 1♂, ‘Āhihi-Kīna‘u N[atural] A[rea] R[eserve], 20.6158, -156.4365, 5 m, K.A. Austin, C. Doorenweerd, UVLED light sheet (UHIM).

Crambidae***Herpetogramma* sp. A****New island record**

This introduced species was previously known from O‘ahu and Hawai‘i island (Austin & Rubinoff 2022). We report it from Maui for the first time. It remains unidentified to species, but adults have been reared from *Drymaria cordata* (Caryophyllaceae) in Mānoa on O‘ahu [link].

Material examined. **Maui:** 1♂, Kanaio N[atural] A[rea] R[eserve], 20.6291, -156.3484, 830 m, 20–21 Apr 2024; K.A. Austin, Z. Pezzillo; UVLED light sheet (UHIM).

Samea multiplicalis* (Guenée)*New state record**

This species was found feeding and causing significant damage on water lettuce (*Pistia stratiotes*) in a small pond on the campus of the University of Hawai‘i at Mānoa. It had been first [photographed](#) at Neal S. Blaisdell Park near Pearl Harbor in September 2023. It is native from the southern United States south to Argentina, where it is a generalist feeder on various aquatic plants, including *Lemna* spp. (Araceae), *Pistia stratiotes* (Araceae), *Salvinia auriculata* (Salviniaceae), *Azolla caroliniana* (Salviniaceae), and rarely *Pontederia crassipes* (Pontederiaceae) (Knopf & Habeck 1976). As several of its known hosts are noxious weeds, it has been deliberately introduced to Australia (Sands & Kassulke 1984), southern Africa (Julien & Griffiths 1998), and Fiji (Day & Winston 2016) as a biological control agent. We can find no records of its deliberate release in Hawai‘i; it likely arrived with aquatic plants, perhaps as part of the aquarium trade.

Material examined. **O‘ahu:** 4♂, University of Hawai‘i at Mānoa, pond behind Krauss Hall, 21.2969, -157.8176, 21 m, larvae/pupae collected 3 Jun 2024, adults eclosed 4–18 Jun 2024, K.A. Austin / HOST: *Pistia stratiotes* (Araceae) (UHIM).

Terastia* sp. A.*New island record**

Upon its discovery, this species was considered introduced in Hawai‘i and has been collected on O‘ahu (Swezey 1923) and Maui (Austin & Rubinoff 2022). Austin & Rubinoff (2024) later considered it an endemic, undescribed species. Despite its current status as a native species, we list a new record here from Moloka‘i because of its historic status as an introduced species.

Material examined. **Moloka'i:** 1♂, Kalaupapa, Kauhakō, 9 Mar 2000, 300 ft [91.4 m], S.L. Montgomery (UHIM).

Erebidae

Galtara extensa (Butler)

New island record

This species was deliberately released on Maui and Hawai'i island in 2013 to control Madagascan Fireweed (*Senecio madagascariensis*) and Cape Ivy (*Delairea odorata*) under the name *Secusio extensa*. Austin & Rubinoff (2022) pointed out that the taxon should be treated as *Galtara extensa*. Austin & Rubinoff (2024) reported it from O'ahu and considered it tentatively established on that island. Anecdotal reports suggest it now occurs on Lāna'i as well, but we have not examined any vouchers. We report it here from Moloka'i for the first time, in the vicinity of a large population of *Senecio madagascariensis*, suggesting that it has successfully colonized another island.

Material examined. **Moloka'i:** 1♀, Moloka'i F[orest] R[eserve], Mākolelau, 21.0980, -156.9045, 1010 m, 25–26 Jun 2024, K.A. Austin, S.L. Pote, K. Coelho, UV bucket trap (UHIM).

Oraesia excavata (Butler)

New island record

This introduced species was previously known in the Hawaiian Islands from Kaua'i, O'ahu, Maui, and Hawai'i island (Haines *et al.* 2011). We report it from Moloka'i for the first time.

Material examined. **Moloka'i:** 2♂, Moloka'i F[orest] R[eserve], Mākolelau, 21.0961, -156.9074, 945 m, 25–26 vi 2024, K. A. Austin, S. L. Pote, K. Coelho, UV bucket trap (UHIM). 1♀, same as previous except 21.0980, -156.9045, 1010 m (UHIM).

Gelechiidae

Dichomeris acuminatus (Staudinger)

New island records

This species was previously known from Kaua'i, O'ahu, and Maui (Nishida 2002, Howarth & Preston 2002). We report it from Midway Atoll, Necker, and Hawai'i island for the first time. This pantropical species is known to feed on a broad range of Fabaceae (Zimmerman 1978).

Material examined. **Midway:** 1♂, Sand Isle, 10 May [20]08, J.J. Le Roux, D. Rubinoff (UHIM). **Necker:** 2♂, 1♀, Annexation Hill, 60 m, 4 Sep 2004, ex. *Sesbania* litter, S. L. Montgomery (UHIM). 1♂, 2♀, Summit Hill, 22 Sep 2000, G.M. Nishida, at sheet lit by 6-volt lamp (BPBM). **Hawai'i:** 2♂, [Hawai'i] Volcano[es] National Park, Thurston Lava Tube, 18 May 2006, W. Haines, blacklight sheet (UHIM). 1♂, [0].5 mi[les] [1km] W[est] of Kamuela, dry scrub, 22 Apr [20]03, Rubinoff & Nogue (UHIM).

Mesophleps adustipennis (Walsingham)

New island record

This introduced species was previously known in Hawai'i from O'ahu and Hawai'i island (Austin & Rubinoff 2022, 2024). We report it from Maui for the first time.

Material examined. **Maui:** 1♂, Kanaio N[atural] A[rea] R[eserve], 20.6291, -156.3484, 830 m, 20–21 Apr 2024; K.A. Austin, Z. Pezillo; UVLED light sheet (UHIM).

Geometridae

Scopula sp. A

New status

This introduced species of was first reported in the Hawaiian Islands from Maui by Howarth *et al.* (2012), who identified it as *Scopula personata* (Prout). Austin & Rubinoff (2022) provisionally followed this identification and reported it from Kaua'i, O'ahu, and Lāna'i. We have thus far been unable to confirm the identification of Howarth *et al.*

(2012), even with DNA sequence data, and consider it questionable, considering the enormous diversity of *Scopula* (>900 currently recognized species; Rajaei *et al.* 2022) and the lack of images, dissections, and keys for much of the world's *Scopula* fauna. Based on wing pattern, it comes closer to *Scopula emma* (Prout) than *S. personata*, but there are still distinct differences. For these reasons, we recommend treating previous records of *Scopula personata* from Hawai'i as *Scopula* sp. A for the present until a more reliable identification can be made.

***Thyrinteina arnobia* (Stoll)**

New island record

This recently introduced species was previously only known in Hawai'i from O'ahu (Austin & Rubinoff 2024). We report it from Kaua'i in a coastal area heavily dominated by invasive Java plum (*Syzygium cumini*), a possible host in Hawai'i.

Material examined. **Kaua'i:** 1♂, Nā Pali Coast State Wilderness Park, Kalalau Beach, 22.1727, -159.6576, 10 m, 27–29 Mar 2024, K.A. Austin, UVLED light sheet (UHIM).

Gracillariidae

***Ketapangia leucochorda* (Meyrick)**

New island record

This introduced species was previously only known in Hawai'i from O'ahu (Austin & Rubinoff 2024). We report it from Kaua'i, where we found it abundantly mining leaves of the introduced sea almond (*Terminalia catappa*) in a remote portion of the Nā Pali Coast, suggesting that it is widespread on Kaua'i.

Material examined. **Kaua'i:** 5♂, Nā Pali Coast State Wilderness Park, Kalalau Beach, 22.1724, -159.6583, 10 m, coll. 27 Mar 2024, ecd. 31 Mar – 8 Apr 2024, K.A. Austin, leaf mines on *Terminalia catappa* (UHIM).

Lycaenidae

***Brephidium exilis* (Boisduval)**

New island record

This introduced species is known from Kaua'i, O'ahu, Maui, Lāna'i, Kaho'olawe, and Hawai'i island (Howarth & Preston 2002, Nishida 2002, Starr *et al.* 2004, Austin & Rubinoff 2023, 2024). We report it from Moloka'i for the first time.

Material examined. **Moloka'i:** 1♂, Kaunakakai, Malama Cultural Park, 21.0880, -157.0240, 10 m, 26 Jun 2024, K.A. Austin, S.L. Pote, K. Coelho, hand collecting adult (UHIM).

Noctuidae

***Argyrogramma verruca* (Fabricius)**

New island record

This introduced species was previously known in Hawai'i from O'ahu, Maui, and Hawai'i island (Austin & Rubinoff 2022, 2023). We report it from Kaua'i for the first time.

Material examined. **Kaua'i:** 1♂, Po'ipū, 20 ft [6.1 m], 27–29 Oct 2003, S.L. Montgomery (UHIM).

***Feltia subterranea* (Fabricius)**

New island record

Prestes (2014) reported this recently introduced polyphagous species from Hawai'i island, Lāna'i, and Maui. Austin & Rubinoff (2022) reported it from O'ahu and Moloka'i. We report it from Kaua'i for the first time.

Material examined. **Kaua'i:** 1♀, Nā Pali-Kona F[orest] R[eserve], Alaka'i Wilderness Preserve, Wai'ālae Cabin, 22.0826, -159.5855, 1110 m, 21–23 Feb 2024, K.A. Austin, UVLED light sheet (UHIM).

Leucania striata Leech**New island record**

This introduced species is known from Kauaʻi, Oʻahu, Lānaʻi, Maui, and Hawaiʻi island (Nishida 2002, Austin & Rubinoff 2022). We report it from Molokaʻi for the first time.

Material examined. **Molokaʻi:** 1♂, Molokaʻi F[orest] R[eserve], Mākolēlau, 21.0961, -156.9074, 945 m, 25–26 Jun 2024, K.A. Austin, S.L. Pote, K. Coelho, UV bucket trap (UHIM).

Pyralidae***Achroia grisella*** (Fabricius)**New island record**

This introduced pest of honey bee hives was previously known in Hawaiʻi from Kauaʻi, Oʻahu, and Hawaiʻi island (Nishida 2002). We report it from Maui for the first time.

Material examined. **Maui:** 2♂, Kanaio N[atural] A[rea] R[eserve], 20.6247, -156.3492; 735 m, 20–21 Apr 2024; K.A. Austin, Z. Pezzillo; UV bucket trap (UHIM).

Elasmopalpus lignosellus (Zeller)**New island record**

This introduced species was previously known in Hawaiʻi from Kauaʻi, Oʻahu, Maui, and Hawaiʻi island (Nishida 2002). We report it from Molokaʻi for the first time.

Material examined. **Molokaʻi:** 2♂, 1♀, Kalaupapa, Kauhakō, 10 ft [3 m], 10 Mar 2000, S.L. Montgomery [“Kauhakō” and elevation crossed out on one male label] / NE sand + *Scaevola* (UHIM).

Loryma cf. recusata (Walker)**New island record**

This introduced species was previously known in Hawaiʻi from Maui and Hawaiʻi island (Howarth *et al.* 2012, Matsunaga *et al.* 2019). We report it from Oʻahu for the first time. Its life history is unknown.

Material examined. **Oʻahu:** 1♂, R[ou]t[e] 803, ditch n[e]a[r] Poamoho Exp[erimental] Farm, 800 ft [244 m], Oct 2001, S.L. Montgomery (UHIM).

Tineidae***Opogona sacchari*** (Bojer)**New island record**

Nishida (2002) included records from Oʻahu and Hawaiʻi island for this introduced polyphagous pest species; Austin & Rubinoff (2022) reported it from Kauaʻi and Maui. We report it from Molokaʻi for the first time.

Material examined. **Molokaʻi:** 2♂, 1♀, Mākolēlau, 2,500 ft [762 m], 8 Feb 2000, S.L. Montgomery (UHIM). 1♂, Mākolēlau, 2,000 ft [610 m], 1 May [20]00 / reared ex stem [of] *Pleomele* (UHIM).

Phereoeca allutella (Rebel)**New island record**

This synanthropic species has been recorded in Hawaiʻi from Kauaʻi, Oʻahu, Maui, Hawaiʻi, Laysan, and French Frigate Shoals (Zimmerman 1978, Nishida 2002). We report it from Molokaʻi for the first time. A photograph of a larval case on Lānaʻi [[link](#)], suggests that it is present on that island as well.

Material examined. **Molokaʻi:** 1♂, Molokaʻi F[orest] R[eserve], Mākolēlau, 21.0961, -156.9074, 945 m, 25–26 Jun 2024, K.A. Austin, S.L. Pote, K. Coelho, UV bucket trap (UHIM).

Trachycentra sp. A**New state record**

This species was encountered while surveying for coqui frogs in Waimānalo, Oʻahu at night. They were commonly seen resting on the bottom of tī (*Cordyline fruticosa*) and kukui (*Aleurites moluccanus*) leaves. The earliest photographic record of this species is from Nuʻuanu in February 2024 [[link](#)]. It has also been photographed in Kāneʻohe and Maunawili. Members of this genus are minor pests of coconut, sugar cane, and screw pine

elsewhere in the Pacific (Veitch 1919, Lever 1945, Hinckley 1967), although it appears to feed primarily in dead or dying wood. Identification to species may require molecular data.

Material examined. **O‘ahu:** 2♂, Waimānalo, mauka of Kaulukānu St[reet]; 21.3286, -157.7289; 150 m; 31 Oct 2024; K.A. Austin, P. Kapu, C. Mayer; hand collecting adults at night (UHIM).

***Trichophaga mormopis* Meyrick**

New island record

Nishida (2002) included records from O‘ahu and Maui for this introduced species; Austin & Rubinoff (2022) reported it from Kaua‘i. We report it from Nihoa for the first time.

Material examined. **Nihoa:** 4 specimens (sex unknown), E[ast] Palm V[alley], Tanager Peak, 240 m, 2 Sep 2004, S.L. Montgomery, M. Richardson (UHIM).

Tortricidae

***Bactra minima* Meyrick**

New state record

This species was widely considered for use as a biological control agent of purple nutsedge (*Cyperus rotundus*) in the Pacific. It was introduced to Fiji and Tonga in 1971 and the Cook Islands in 1973 (Phatak *et al.* 1987). It failed to establish in the Cook Islands and Fiji; it became established in Tonga, but exerted poor control of the target weed. *Bactra minima* is a widespread species, but its native range is unclear. It is known from much of south and southeast Asia, throughout Micronesia and Melanesia, and the Canary Islands (Diakonoff 1956, 1959). We can find no records of its deliberate introduction to the Hawaiian Islands. A related species, *Bactra venosana* (Zeller), was first released in Hawai‘i to control *Cyperus rotundus* in 1925 and was initially very effective before introduced *Trichogramma* (Trichogrammatidae) began parasitizing its eggs (Zimmerman 1978). Although still present in Hawai‘i, *Bactra venosana* is now a very uncommon species.

Material examined. **Midway:** 2♂, 2♀, Sand Isle, 10 May [20]08, J.J. Le Roux, D. Rubinoff / KAA diss. #1219(♂), #1220 (♀) (UHIM).

***Cryptophlebia ombrodelta* (Lower)**

New island records

This polyphagous introduced pest species was previously known in Hawai‘i from Kaua‘i, O‘ahu, Maui, and Hawai‘i island (Nishida 2002). We report it from Moloka‘i and Kaho‘olawe for the first time.

Material examined. **Moloka‘i:** 1♂, Moloka‘i F[orest] R[eserve], Mākoalelau, 21.0961, -156.9074, 945 m, 25–26 Jun 2024, K.A. Austin, S.L. Pote, K. Coelho, UV bucket trap (UHIM). **Kaho‘olawe:** 1♂, Beck’s Cove, 10 m, 11–14 Feb 1980, G.M. Nishida, at UV light (BPBM).

***Lorita scarificata* (Meyrick)**

New island records

This introduced species was previously known in Hawai‘i from Midway Atoll, Kaua‘i, O‘ahu, Kaho‘olawe, and Maui (Beardsley 1979, Nishida 2002, Austin & Rubinoff 2022). We now report it from Moloka‘i and Hawai‘i island for the first time.

Material examined. **Moloka‘i:** 1♀, Kalaupapa, Kauhakō, 9 Mar 2000, 300 ft [91.4 m], S.L. Montgomery (UHIM). 1♂, Moloka‘i F[orest] R[eserve], Mākoalelau, 21.0961, -156.9074, 945 m, 25–26 Jun 2024, K.A. Austin, S.L. Pote, K. Coelho, UV bucket trap (UHIM). **Hawai‘i:** 1♂, N[orth] Kona, Kaloko, 400–600 ft [122–183 m], 12–15 Sep 2008, S.L. Montgomery (UHIM).

***Platynota stultana* Walsingham**

New island record

This polyphagous introduced species was previously known in Hawai‘i from O‘ahu, Lāna‘i, Kaho‘olawe, Maui, and Hawai‘i island (Miller & Hodges 1995, Howarth *et al.* 2012, Austin & Rubinoff 2022). Austin & Rubinoff (2022) initially reported it from Kaua‘i, but later corrected the identification as *P. rostrana* (Walker) (Austin & Rubinoff 2023). We now report *P. stultana* from Kaua‘i once again.

Material examined. **Kaua'i:** 1♂, Po'ipū, 20 ft [6.1 m], 7 Nov 2003, S.L. Montgomery (UHIM). 1♂, 1♀, Kālepa, 90 ft [27.4 m], 28–29 Jul 2003, S.L. Montgomery (UHIM).

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