New arthropod records from Kaho‘olawe

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The following contributions include new island records of arthropods located on the island of Kaho‘olawe. Voucher specimens were collected and determined by the authors. Most specimens were confirmed by Mach Fukada. All vouchers are housed in Bishop Museum, Honolulu.

Araneae: Clubionidae
*Cheiracanthium mordax* Koch  
New island record
Previously known from all the Northwestern Hawaiian Islands except Necker, and from all the main islands except Ni‘ihau and Kaho‘olawe (Nishida, 2002).


Coleoptera: Bostrichidae
*Amphicerus cornutus* (Pallas)  
New island record
Previously known from Ni‘ihau, Kaua‘i, O‘ahu, Moloka‘i, and Maui (Nishida, 2002).

Material examined: **KAHO‘OLAVE**: 3, Honokanaia base camp galley, attracted to UV light, 25 ft [8 m], 22 Sep 2003, Starr & Starr 030922-2. 1, LZ-1, between Pu‘u Moa‘ulaiki and Lua Makika, boring into live tamarisk (*Tamarix aphylla*) stems, 1300 ft [396 m], 23 Sep 2003, Starr, Starr, LeGrande, Abbott, & Busby 030923-1. 1, Honokanaia, beaten from hau (*Hibiscus tiliae*) stems, 25 ft [8 m], 14 Oct 2003, Starr, Starr, & King 031014-3. 5, same location, UV light at galley, Starr & Starr 031014-5. 1, same location, swept from buffel grass (*Cenchrus ciliaris*), Starr & Starr 031014-6.

*Sinoxylon conigerum* Gerstaecker  
New island record
Previously known from O‘ahu, Moloka‘i, Maui, and Hawai‘i (Nishida, 2002).


Coleoptera: Cerambycidae
*Sybra alternans* (Wiedemann)  
New island record
Previously known from Kaua‘i, O‘ahu, Moloka‘i, Maui, Hawai‘i, and Midway (Nishida 2002).


Coleoptera: Coccinellidae
*Coccinella septempunctata* Linnaeus  
New island record
Previously known from all the main islands except Ni‘ihau and Kaho‘olawe (Nishida 2002).

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**Olla v-nigrum** (Mulsant)  New island record
Previously known from Midway and all the main islands except Ni‘ihau and Kaho‘olawe (Nishida, 2002).

Material examined: **KAHO‘OLAWE**: 1, Kaukaukapapa Beach, swept from *Sesuvium portulastrum*, 10 ft [3 m], 15 Oct 2003, Starr, Starr, King, Tokishi, & Busby 031015-5.

**Coleoptera**: **Curculionidae**

**Asynonychus godmanni** Crotch  New island record
Previously known from Midway and all the main islands except Kaho‘olawe (Nishida, 2002).


**Coleoptera**: **Tenebrionidae**

**Gonocephalum adpressiforme** Kaszab  New island record
Previously known from Kure, Midway, and all the main islands except Kaho‘olawe (Nishida, 2002).

Material examined: **KAHO‘OLAWE**: 8, Moaulanui, under *kiawe* (*Prosopis pallida*) pile, 1300 ft [396 m], 16 Oct 2003, Starr, Starr, & Mar 031016-3.

**Diptera**: **Syrphidae**

**Eristalinus arvorum** (Fabricius)  New island record
Previously known from all the main islands except Ni‘ihau and Kaho‘olawe (Nishida, 2002).

Material examined: **KAHO‘OLAWE**: 1, Kaukaukapapa Beach, visiting *kiawe* (*Prosopis pallida*) flowers near the wetland, 10 ft [3 m], 15 Oct 2003, Starr, Starr, King, Tokishi, & Busby 031015-1.

**Heteroptera**: **Pentatomidae**

**Eysarcoris ventralis** (Westwood)  New island record
Previously known from Kaua‘i and O‘ahu (Nishida, 2002).

Material examined: **KAHO‘OLAWE**: 13, Honokanaia, base camp, beaten from buffel grass (*Cenchrus ciliaris*) in gray water overflow near beach, 6 ft [2 m], 6 Oct 2003, Starr, Starr, & King 031006-1. 13, same location, 14 Oct 2003, Starr, Starr, & King 031014-4.

**Hymenoptera**: **Apidae**

**Apis mellifera** Linnaeus  New island record
Previously known from all the main islands except Kaho‘olawe (Nishida, 2002).

Material examined: **KAHO‘OLAWE**: 1, Pu‘u Moa‘ulaiki, visiting *uhaloa* (*Waltheria indica*)

**Hymenoptera: Formicidae**

*Leptogenys falcigera* Roger  
New island record  
Previously known from all the main islands except Kaho‘olawe (Nishida, 2002).  

*Ochetellus glaber* (Mayr)  
New island record  
Previously known from Kaua‘i, O‘ahu, Maui, and Hawai‘i (Nishida, 2002).  

*Paratrechina longicornis* (Latreille)  
New island record  
Previously known from Midway, French Frigate Shoals, Nihoa, and all the main islands except Ni‘ihau and Kaho‘olawe (Nishida, 2002).  

*Pheidole megacephala* (Fabricius)  
New island record  
Previously known from Midway, Pearl & Hermes, Laysan, and all the main islands except Kaho‘olawe (Nishida, 2002).  

*Pseudomyrmex gracilis* (Fabricius)  
New island record  
Previously known from O‘ahu (Nishida, 2002).  
Material examined: **KAHO‘OLawe**: 1, Hakioawa Gulch, on gulch wall, 200 ft [60 m], 23 Sep 2003, Starr, Starr, LeGrande, Abbott, & Busby 030923-3.

*Solenopsis geminata* (Fabricius)  
New island record  
Previously known from Midway, Kaua‘i, O‘ahu, Moloka‘i, Lāna‘i, Maui, and Hawai‘i (Nishida, 2002).  
Technomyrmex albipes (F. Smith)  
New island record  
Previously known from Kaua’i, O’ahu, Moloka’i, Maui, and Hawai’i (Nishida, 2002).


Tetramorium simillimum (F. Smith)  
New island record  
Previously known from Midway, Kaua’i, O’ahu, Lāna’i, Maui, and Hawai’i (Nishida, 2002, Nishida & Beardsley 2002).

Material examined: KAHO`OLAWE: 9, Honokanaia, base camp, at UV light, 10 ft [3 m], 14 Oct 2003, Starr & Starr 031014-2.

Lepidoptera: Lycaenidae  
*Brephidium exilis* (Boisduval)  
New island record  
Previously documented from Kaua’i, and O’ahu (Nishida, 2002) and commonly observed on Maui.

Material examined: KAHO`OLAWE: 1, Kaukaukapapa Beach, flying above saltbush (*Atriplex semibacatta*) foliage next to wetland, 10 ft [3 m], 15 Oct 2003, Starr, Starr, King, Tokishi, & Busby 031015-2.

Odonata: Aeshnidae  
*Anax junius* (Drury)  
New island record  
Previously known from all the main islands except Ni’ihau and Kaho`olawe (Nishida, 2002).

Material examined: KAHO`OLAWE: 1, Keanakeiki Beach, resting on kiawe (*Prosopis pallida*) foliage behind sand dune, 10 ft [3 m], 07 Oct 2003, Starr, Starr, King, Tokishi, & Busby 031007-2.

Odonata: Libellulidae  
*Pantala flavescens* (Fabricius)  
New island record  
Previously known from Kure, Midway, French Frigate Shoals, and all the main islands except Kaho`olawe (Nishida, 2002).

Material examined: KAHO`OLAWE: 1, Kaukaukapapa Beach, flying near wetland at north end of beach, 10 ft [3 m], 07 Oct 2003, Starr, Starr, King, Tokishi, & Busby 031007-1.

Scorpiones: Buthidae  
*Isometrus maculatus* (DeGeer)  
New island record  
Previously known from Midway, Kaua’i, O’ahu, Maui, and Hawai’i (Nishida, 2002).

Material examined: KAHO`OLAWE: 1, Moaulanui, crawling on ground, 1300 ft [396 m], 16 Oct 2003, Starr, Starr, & Mar 031016-1.

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First report of the Asian sea anemone Diadumene lineata from the Hawaiian Islands

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**Anthozoa: Actiniaria Diadumenidae**

*Diadumene lineata* (Verrill)

The intertidal sea anemone *Diadumene lineata* (= *Haliplanella luciae* (Verrill, 1898)) may be one of the most widely distributed asexually reproducing marine species (Minasian, 1982). Its generic junior synonym, *Haliplanella* (“sea wandering”) is an apt reference to its cosmopolitan distribution. A native of Japan, *D. lineata* has spread throughout temperate and tropical regions of the world, including Indonesia, New Zealand, the Pacific, Atlantic, and Gulf coasts of North America, Brazil, and Europe, where it has been recorded from various locations from the North Sea to the Mediterranean (da Costa-Belem & da Cruz Monteiro, 1977; Schick & Lamb, 1977; Dunn, 1982; Kuhne & Rachor, 1996). Surprisingly, given its far flung wanderings, *D. lineata* has not been previously reported from the Hawaiian Islands.

A common member of the fouling community (on pilings, floats, and boat hulls) in many locations, *D. lineata* is also frequently found on both Atlantic and Japanese oysters (*Crassostrea virginica* and *C. gigas*, respectively). Thus ship hull-fouling and the movement of oysters have been thought to be the most likely modes of introduction of *D. lineata* (Verrill, 1898; Stephenson, 1935; Gollasch & Riemann-Zurneck, 1996) around the world.

*Diadumene lineata* was first found by CJZ and JTC in the Hawaiian Islands in Kāne‘ohe Bay, O‘ahu, in February 1999. About 20 individuals, 4 to 6 mm in diameter, were observed living on and among Japanese oysters fouling the remnant pilings of an old former dock, near the low tide mark behind the Kokokahi Young Women’s Christian Association (YWCA) building on Kāne’ohe Bay Drive, on the southern shore of the Bay. No anemones were found in Kāne‘ohe Bay during subsequent searches, but the YWCA population was still thriving 4 years later, being present in March 2003, in about the same numbers.

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