

## New Arthropod Records from Maui, Moloka‘i, and Lāna‘i<sup>1</sup>

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The following contributions include new arthropod records from the islands of Maui, Moloka‘i, and Lāna‘i. Voucher specimens were collected by the authors, members of the Maui public, and staff of the Moloka‘i and Maui Invasive Species Committees (MoMISC & MISC). Most of the ants (Hymenoptera: Formicidae) were collected using peanut butter lures during surveys for little fire ant (*Wasmannia auropunctata*), though many from Moloka‘i were also found in visual searches. Ants (Formicidae) were preliminarily identified by the authors and further identified and confirmed by Paul Krushelnycky. Beetles (Coleoptera) were identified by the authors and confirmed by Al Samuelson. Vouchers are housed in Bishop Museum, Honolulu (BPBM).

### Coleoptera: Buprestidae

*Chrysobothris octocola* Le Conte

#### New island record

Native to the dry Southwest United States and Mexico, *Chrysobothris octocola* was first recorded in Hawai‘i in 1960, when three specimens were collected at Makua, O‘ahu on *kiawe* (*Prosopis pallida*) and two additional specimens were collected at Makaha, O‘ahu on a parked automobile (Ford 1961: 321). Previously known from O‘ahu, Lāna‘i, and Hawai‘i (Nishida 2002: 38), this iridescent spotted borer is now known from Maui where it was collected in Pukalani on a sticky part of a truck that had been near *kiawe* getting cut above Kīhei earlier that day.

*Material examined.* MAUI: Pukalani, Pukalani Terrace Center, on truck that was recently working with *kiawe* (*Prosopis*) above Kīhei, 1400 ft [427 m], 23 Apr 2011, *Starr 110423-01* (2 specimens).

### Coleoptera: Cerambycidae

*Xystrocera globosa* (Olivier)

#### New island record

First recorded from the state in 1900 (Gressitt & Davis 1972: 220), *Xystrocera globosa* (monkeypod borer) was previously recorded from Ni‘ihau, Kaua‘i, O‘ahu, and Hawai‘i (Nishida 2002: 47). This large beetle is now also known from Maui.

*Material examined.* MAUI: Makawao, Seabury Hall, collected on truck near gym by MISC staff, 1900 ft [579 m], 14 Mar 2011, *Starr 110314-01* (2 specimens).

### Coleoptera: Oedemeridae

*Thelyphassa apicata* (Fairmaire)

#### New island record

Previously known from O‘ahu (Nishida 2002: 70), *Thelyphassa apicata* is a potential health hazard, and is now known from Maui, where it was entering homes in Ha‘ikū and inflicting painful dermatitis on occupants while they slept.

*Material examined.* MAUI: Ha‘ikū, Ulumalu, inside house, collected by E. Speith and A. Barry, 600 ft [182 m], 4 Jun 2011, *Starr 110604-01* (16 specimens).

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**Hymenoptera: Formicidae*****Cardiocondyla obscurior* (Wheeler)****New island record**

Native locality unknown. First recorded in Hawai'i in 1994 (Seifert 2003: 272; Krushelnycky *et al.* 2005: 23), *Cardiocondyla obscurior* was previously reported from Kurtistown and Hilo on the island of Hawai'i, and is now known from Moloka'i.

*Material examined.* **MOLOKA'I:** West Moloka'i, Paka'a Right of Way, on sea grape (*Coccoloba*) tree, collected by MoMISC #U4.7, 10 ft [3 m], 28 Sep 2011, *Starr 110928-02* (8 specimens). West Moloka'i, Dixies Right of Way, by rubbish bin, collected by MoMISC #U4.8, 10 ft [3 m], 28 Sep 2011, *Starr 110928-03* (1 specimen)

***Monomorium destructor* (Jerdon)****New island record**

Native to Africa or India, and first recorded from the state in 1899, (Krushelnycky *et al.* 2005: 23), *Monomorium destructor* (Singapore ant) was previously known from Laysan, French Frigate Shoals, all the main Hawaiian Islands except Ni'ihau, Moloka'i, and Lāna'i (Nishida 2002: 169; Starr & Starr 2007: 46; Starr & Starr 2011: 37). This tramp ant is now also known from Moloka'i and Lāna'i, leaving Ni'hau the only main Hawaiian island it has yet to be documented from.

*Material examined.* **MOLOKA'I:** Kaunakakai, Wharf, on *Plumeria* by Moloka'i Princess, collected by MoMISC #M6.1, 5 ft [1.5 m], 19 Sep 2011, *Starr 110919-01* (50 specimens). **LĀNA'I:** Kaunapau Harbor, collected by MISC, 30 ft [9 m], 27 May 2011, *Starr 110527-02* (100 specimens).

***Pheidole fervens* F. Smith****New island record**

Native to Asia, and first recorded in Hawai'i in 1967 (Krushelnycky *et al.* 2005: 24), *Pheidole fervens* was previously known from Kaua'i, O'ahu, Maui, and Hawai'i (Nishida 2002), and is now also known from Moloka'i.

*Material examined.* **MOLOKA'I:** Kaunakakai, Wharf, in warehouse, collected by MoMISC #M6.3 & M6.5, 5 ft [1.5 m], 19 Sep 2011, *Starr 110919-04* (30 specimens)

***Solenopsis* sp.**

Area of origin unknown. First recorded in the state in 2000, from Hilo, Hawai'i (Gruner 2000). This small yellow *Solenopsis* is now known from Moloka'i.

*Material examined.* **MOLOKA'I:** Kualapu'u, Kualapu'u Recreation Center, next to kitchen entrance, collected by MoMISC #P1.8, 900 ft [275 m], 26 Sep 2011, *Starr 110926-01* (100 specimens).

***Technomyrmex difficilis* (Forel)****New island record**

Specimens of this species first appeared in state collections in 1994 (Krushelnycky unpub. data). *Technomyrmex difficilis* is easily confused with *T. albipes* (white-footed ant), and would have been identified as such in the past. Previously known from O'ahu, Maui, and Kaho'olawe (AntWeb 2011). This white footed black ant is now known from Moloka'i.

*Material examined.* **MOLOKA'I:** West Moloka'i, Paniolo Hale, along entrance to building, collected by MoMISC #U1.3, 65 ft [20 m], 28 Sep 2011, *Starr 110928-01* (1 specimen). Kamalo Harbor, on *kiawe* (*Prosopis*) tree, collected by MoMISC #I1.2, 10 ft [3 m], 8 Sep 2011, *Starr 110908-01* (2 specimens). Kala'e, residence, on stairways to yurt, collected by MoMISC #Q1.1, 1250 ft [380 m], 26 Sep 2011, *Starr 110926-02* (7 specimens).

***Tetramorium bicarinatum*** (Nylander)**New island record**

Native to SE Asia, and first recorded in Hawai'i in 1879 (Krushelnycky *et al.* 2005: 24), *Tetramorium bicarinatum* (Guinea ant) was previously known from most of the North-western Hawaiian Islands and all the main Hawaiian Islands except Lāna'i and Moloka'i (Nishida 2002: 170; Starr & Starr 2011). This moisture loving rough textured ant is now found on Lāna'i.

*Material examined.* **LĀNA'I:** Manele Harbor, collected by MISC, 10 ft [3 m], 27 May 2011, *Starr 110527-01* (24 specimens).

***Tetramorium caldarium*** (Roger)**New island record**

Believed to be native to Africa and widely distributed across the Pacific and other tropical regions (Sarnat 2010), *T. caldarium* is nearly indistinguishable from *T. simillimum*, and many instances of *T. caldarium* are likely misidentified as *T. simillimum* (Sarnat 2010). Previously known from all the main Hawaiian Islands except Ni'ihau, Moloka'i, and Lāna'i (AntWeb 2011; Starr & Starr 2011: 38), *T. caldarium* is now known from Moloka'i.

*Material examined.* **MOLOKA'I:** Kalama Kalama'ula, Nā'iwa Landfill, back of check in office, collected by MoMISC #O4.2, 300 ft [90 m], 20 Sep 2011, *Starr 110920-01* (7 specimens). Kaunakakai, Makoa Trucking, makai side of entrance, collected by MoMISC #M8.2, 10 ft [3 m], 28 Sep 2011, *Starr 110919-02* (1 specimen).

***Tetramorium simillimum*** (F. Smith)**New island record**

Native to Europe, and first recorded in Hawai'i in 1934 (Krushelnycky *et al.* 2005: 24), *Tetramorium simillimum* was previously known from all the main Hawaiian Islands except Ni'ihau and Moloka'i, and is now known from Moloka'i, leaving Ni'ihau as the only main Hawaiian Island from which this ant has yet to be documented.

*Material examined.* **MOLOKA'I:** Kalama'ula, Kalawe, in garden in front of house, collected by MoMISC #O1.1, 66 ft [20 m], 20 Sep 2011, *Starr 110920-02* (50 specimens). Kaunakakai, Duke Malii Park, N of bathroom / walkway, collected by MoMISC #M3.2, 10 ft [3 m], 28 Sep 2011, *Starr 110919-03* (1 specimen). Kalama'ula, Kulana 'Ōiwi, W of turnaround, on wall, collected by MoMISC #N1.1, 33 ft [10 m], 28 Sep 2011, *Starr 110920-03* (30 specimens).

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