

Land snail records for Mokapu Islet, Moloka‘i, Hawaiian Islands

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Mokapu is an offshore islet of 110 m (360 ft) elevation with an estimated area of 60,000 m² (14.8 acres), and is located around 2.4 km (1.5 mi) east of Kalaupapa peninsula, Moloka‘i (N21°10'59", W156°55'26" at summit). The islet is managed by the Hawaii Department of Land and Natural Resources (DLNR), Division of Forestry and Wildlife (DOFAW) as a State Seabird Sanctuary. Botanically, Mokapu represents a *Chamaesyce celastroides* var. *amplectens*-*Chenopodium oahuense* coastal dry shrubland with regions dominated by relictual *Diospyros sandwicensis* forest and its total flora is composed of ca 47 vascular plant taxa, 17 of which are endemic, 14 indigenous, 15 non-native naturalized, and one Polynesian introduction (Wood & LeGrande, 2002, 2003). Mokapu islet is characterized by a long narrow summit ridge with very steep slopes and is one of two last remaining sites where the native loulou palm *Pritchardia hillebrandii* (Arecaceae) occurs. Rats (i.e., *Rattus exulans*) were eradicated from Mokapu in February 2008 making this islet ideal for the reintroduction of coastal native species. The land snail fauna of Mokapu has never been reported. Here we report on collections of two species, both introduced to the Hawaiian Islands.

Specimens were collected on 15 October 2008 by collecting surface soil at the base of large basalt boulders along the central summit ridge of the islet and sifting the material back at camp. Shrubs of *Chamaesyce celastroides* var. *amplectens* and *Chenopodium oahuense* composed the dominant vegetation at the collection site. Associated plants included *Sida fallax*, *Plumbago zeylanica*, *Artemisia australis*, *Portulaca lutea*, *Lepidium bidentatum* var. *o-waihiense*, *Cyperus phleoides*, *Eragrostis variabilis*, *Cassipha filiformis*, and *Doryopteris decipiens*. Non-native invasive plant taxa in the immediate vicinity included *Lantana camara*, *Pluchea carolinensis*, and *Portulaca oleracea*.

The collected material is deposited in the Bishop Museum (BPBM) Malacology Collection. Catalog numbers are BPBM Malacology Collection numbers. Latitude and longitude coordinates were recorded by GPS using the WGS 84 map datum.

Subulinidae

Paropeas achatinaceum (Pfeiffer)

This species is widespread and abundant on many Pacific islands (Cowie, 2001) and is one of the most widespread and abundant land snails in the Hawaiian Islands (Cowie *et al.*, 2008). First recorded in the Islands in 1904, it has previously been recorded from Kaua‘i, O‘ahu, Moloka‘i, Lāna‘i, Maui, and Hawai‘i (Cowie, 1997; Hayes *et al.*, 2007).

Material examined: **MOLOKA‘I:** MOKAPU: surface soil at the base of large basalt boulders along the central summit ridge, (N21°10'59.6", W156°55'26.4"), K.R. Wood, 15 Oct 2008 (270274, 18 dead shells).

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Vertiginidae***Gastrocopta servilis*** (Gould)

This species had been previously recorded from Kauaʻi, Oʻahu, Molokaʻi, Lānaʻi, Maui, and Hawaiʻi, as well as from Midway, Pearl and Hermes, and Laysan, and has been present in the Hawaiian Islands since at least 1892 (Cowie, 1997; Hayes *et al.*, 2007).

Material examined: **MOLOKAʻI:** MOKAPU: surface soil at the base of large basalt boulders along the central summit ridge, (N21°10'59.6", W156°55'26.4"), K.R. Wood, 15 Oct 2008 (270273, 17 dead shells).

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