

New Hawaiian plant records for 2012¹

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In this paper, ten new island records in six plant families are reported; all are introduced non-native taxa. Eight are dicotyledonous angiosperms, and three are monocots. Collections were made on Moloka'i, Lāna'i, and Maui. Information regarding the historic distribution of flowering plants is based on the *Manual of flowering plants of Hawai'i* (Wagner *et al.* 1999) and information subsequently published in the *Records of the Hawai'i Biological Survey* (1994–present). Voucher specimens are deposited at Bishop Museum *Herbarium Pacificum* (BISH), Honolulu, with duplicates at the National Tropical Botanical Garden (PTBG), Lawa'i, Kaua'i.

Acanthaceae

Sanchezia speciosa Leonard **New island record**

An ornamental herb first reported from Kaua'i (Lorence *et al.* 1995: 20) to be spreading vegetatively in a low elevation mesic site, and later from Hawai'i (Parker & Parsons 2012: 65). On Maui it is sparingly naturalized in remnant *hala* (*Pandanus tectorius*) Forest invaded by dense monotypic stands of *Ardisia elliptica*. It was also observed in several roadside locations in Hana District, some of which may be escapes from cultivation or neglected plantings.

Material examined. MAUI: East Maui, Hana District, east side of Hanawi Stream, Honoluluui, 31 m, 13 Aug 2012, *Oppenheimer & Bustamente H81219*.

Asteraceae

Montanoa hibiscifolia Benth.

New island record

An ornamental shrub naturalized in dry to mesic, disturbed sites on Kaua'i, O'ahu, Lāna'i, Kaho'olawe, Maui, and Hawai'i (Wagner *et al.* 1999: 345; Starr & Starr 2011: 24), tree daisy is also locally naturalized on Moloka'i. The Moloka'i Invasive Species Committee staff has initiated eradication efforts.

Material examined. MOLOKA'I: Kahanui, S of Kauluwai, 430 m, naturalized at old home-
stead, 30 Mar 2010, *Oppenheimer, L. Buchanan, K. Pali, & S. Aruch H31011*

Picris hieracioides L.

New island record

Previously documented from Moloka'i, Lāna'i, and Hawai'i (Wagner *et al.* 1999: 350; Oppenheimer 2008: 24) this herb was found growing in a mesic shrubland area that had burned three years prior.

Material examined. MAUI: West Maui, Lahaina District, slopes of Helu, 1052 m, 16 Feb 2010, *Oppenheimer et al. H21005*.

Senecio madagascariensis Poir.

New island record

Fireweed is known from Kaua'i, O'ahu, Lāna'i, Kaho'olawe, Maui, and Hawai'i islands (Lorence *et al.* 1995: 24; Starr *et al.* 1999: 11; Oppenheimer & Bartlett 2002: 4; Herbst *et al.* 2002: 11).

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al. 2004: 4; Starr *et al.* 2006: 33). On Moloka'i it was recently found in a pasture near Kalae (B. Garnett, pers. comm.). A single plant was found on the eastern south slope in remnant *Diospyros* Forest, and there are reports of other locations but no specimens have been collected. The Moloka'i Invasive Species Committee is responding to this new threat to island livestock as it is poisonous to cattle and horses.

Material examined. **MOLOKA'I:** Keawanui, 600 m, single plant in dense shade near gulch bottom, 11 Apr 2012, *Oppenheimer; Perlman & Coelho H41209.*

***Tithonia diversifolia* (Hemsl.) A. Gray**

New island record

Originally grown in Hawai'i as an ornamental, now naturalized in low elevation sites on Kaua'i, O'ahu, Maui, and Hawai'i islands (Wagner *et al.* 1999: 370), tree marigold was recently collected outside of cultivation on Lāna'i.

Material examined. **LĀNA'I:** Lāna'i City, south end of Queens Street, 500 m, naturalized, forming small patches and scattered plants in overgrown grassy area, 28 Nov 2012, *Oppenheimer & Perlman H11230.*

Orchidaceae

***Epidendrum obrienianum* Rolfe**

New island record

A hybrid dating back to 1888, and popular in cultivation, sometimes becoming naturalized, this orchid has been known from Kaua'i, O'ahu, Lāna'i, Maui, and Hawai'i islands (Wagner *et al.* 1999: 1472). It was recently collected on Moloka'i.

Material examined. **MOLOKA'I:** Keawanui, 800 m, terrestrial in windswept, short-statured *Metrosideros/Dicranopteris* shrubland, 11 Apr 2012, *Oppenheimer; Perlman, & Coelho H41208.*

***Polystachya concreta* (Jacq.) Garay & Sweet**

New island record

First collected on O'ahu (Staples *et al.* 2003: 17), this epiphyte had not been previously documented in Hawai'i. On West Maui, it is found growing 1.5–3.0 m above ground level, mostly on *Dodonaea viscosa* Jacq., and less frequently on *Metrosideros polymorpha* Gaudich., in degraded *Metrosideros/Dicranopteris* Lowland Wet Forest. As on O'ahu, the site is also in the vicinity of a hiking trail but is obviously not under cultivation. All size classes are present. It has also been observed recently in Hilo (F. Duvall, pers. comm.). *Polystachya* Hook. is a genus of 150–200 species (LaCroix 2008: 376), and *P. concreta* is possibly the most widespread orchid known (Shuttleworth *et al.* 1989: 83), with its distribution reported to be Brazil to Florida and the Caribbean, Africa, and parts of Asia (Pridgeon 2006: 238). As such, it apparently has the potential to be weedy, and its distribution in Hawai'i seems to support this assumption.

Material examined. **MAUI:** West Maui, Lahaina Distr, Pu'u Ka'eo, between Honolua Valley & Mokupe'a Gulch, 396 m, epiphytic on dying *Dodonaea viscosa*, 7 Aug 2010, *J. Ward & K. Marchello 1* (BISH); leeward slope of Pu'u Ka'eo, 500 m, 3 Sep 2010, *Oppenheimer H91005.*

Poaceae

***Tragus berteronianus* Schult.**

New island record

This annual grass has been documented in Hawai'i from O'ahu, Moloka'i, Maui, and Kaho'olawe along roadsides and in arid disturbed sites (Wagner *et al.* 1999: 1601; Snow & Davidse 2011: 20). This is consistent with observations and collections from Lāna'i.

Material examined. **LĀNA'I:** Manele, near Leinohaunui Pt, 10 m. Naturalized in sandy soil under *kiawe* trees. 17 Feb 2011, *Oppenheimer H21114.*

Solanaceae***Physalis angulata* L.****New island record**

Naturalized in disturbed sites on Kaua'i, O'ahu, Moloka'i, and Hawai'i (Wagner *et al.* 1999: 1265; Imada *et al.* 2000:15; Oppenheimer 2003: 26; Staples *et al.* 2006: 8), this annual herb was recently collected on Lāna'i.

Material examined. LĀNA'I: north side rim of Maunalei Gulch, south of Keomuku Rd, Hinuhinu Pali, 150 m. Naturalized on rocky soil in degraded *Dodonaea* Dry Shrubland. 16 Feb 2011, Oppenheimer H21109.

Zygophyllaceae***Tribulus terrestris* L.****New island record**

Known from Kaua'i, O'ahu, Moloka'i, Maui, and Hawai'i Islands (Wagner *et al.* 1999: 1344; Oppenheimer 2003: 27) where it is sparingly naturalized in low elevation sites, often in sandy soils. This is consistent with observations of puncture vine on Lāna'i.

Material examined. LĀNA'I: Manele, near sea level, 17 Feb 2011, Oppenheimer H21113.

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