

New Plant Records from Maui and Hawai'i

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The following contributions include new island, state, and range extension records from Maui and Hawai'i. All records are for nonindigenous species. Images of the material examined can be seen at <www.hear.org/starr>. Voucher specimens and collections mentioned in the text are housed in Bishop Museum's *Herbarium Pacificum* (BISH), Honolulu, Hawai'i.

Acanthaceae

Justicia spicigera Schldtl.

New island record

Justicia spicigera, commonly called firecracker plant or Mexican honeysuckle for its attractive small orange flowers, is a small shrub grown as a landscaping plant. In Hawai'i, it was previously reported as naturalized on the islands of O'ahu and Moloka'i (Staples *et al.* 2002). It is now also known from Maui, where it was found spreading in the understory of dry coastal scrub at Waihe'e Coastal Preserve, escaping from an abandoned house site along the inland back road.

Material examined: MAUI: West Maui, Waihe'e Coastal Preserve, spreading in *kiawe* (*Prosopis pallida*) understory near an abandoned house site, other vegetation in the area included *Carmona retusa*, *Bougainvillea* sp. and *Aristolochia littoralis*, 30 ft [9 m], 13 May 2012, Starr & Starr 120513-01.

Thunbergia vogeliana Benth.

New state record

An upright deep purple-flowered shrub native to Africa through the following regions: West-Central Tropical Africa: Cameroon; Equatorial Guinea - Bioko; West Tropical Africa: Benin; Ghana; Nigeria (GRIN 2012). According to the owner of the botanical garden where this collection was made, the plant spreads by seeds in the garden. *Thunbergia vogeliana* can be distinguished by the following characteristics: "Erect or scandent shrub to 4 m tall; young branches subquadrangular, with scattered to dense sessile glands, with dense tufts of brownish hairs in axils. Leaves with petiole 3–8 mm long, glabrous; lamina elliptic to slightly obovate, largest 8–19(–22)≈3.5–7.5 cm, apex acuminate to cuspidate, base cuneate to rounded (rarely attenuate), margin dentate (often irregularly) along whole length, glabrous. Flowers solitary (Uganda) or in 2–6-flowered racemes on short dwarf-shoots (Tanzania); pedicels 2.3–5 cm long, glabrous (Uganda) or glandular-puberulous (Tanzania); bracteoles pale green or greenish white with pink tinge, ovate to elliptic, 2.7–4.5≈1.2–1.5 cm, acuminate to cuspidate (rarely obtuse), glabrous with finely ciliate margin (Uganda) or glandular-puberulous (Tanzania). Calyx rim to 3 mm high, segments to 1.7 cm long. Corolla limb pale mauve to pale violet or blue, tube whitish, throat yellow; tube 4–6 cm long; lobes 2–2.5 cm long. Filaments 8–10 and 12–14 mm long, with scattered glands along whole length; anthers 4–6 mm long. Capsule ± 3≈1.5 cm, finely glandular-puberulous. Seed dark brown." (JSTOR Plant Science 2012).

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Material examined: **MAUI:** East Maui, Enchanting Floral Gardens of Kula, in association with various other botanical garden exotics, 2300 ft [701 m], 24 Apr 2012, *Starr, Starr & Takeda 120424-02*.

Asteraceae

***Coreopsis lanceolata* L.**

Range extension

This prolific daisy (lanceleaf coreopsis) has been previously documented as naturalized on Lānaʻi, West Maui, and Hawaiʻi (Wagner *et al.* 1999, Meidell *et al.* 1997). It is here reported as naturalized on East Maui, where it was spreading aggressively by seeds from plantings in a botanical garden. Noted as invasive by the garden owner.

Material examined: **MAUI:** East Maui, Enchanting Floral Gardens of Kula, mass plantings with naturalized plants spreading in various locations, in association with various other botanical garden exotics, 2300 ft [701 m], 24 Apr 2012, *Starr, Starr & Takeda 120424-01*.

Bromeliaceae

***Guzmania monostachia* (L.) Rusby ex Mez** **New island record**

Guzmania monostachia (West Indian tufted air plant) was first reported as naturalized in the state from Oʻahu (Frohlich & Lau 2010). This epiphyte is here reported as also being naturalized on Maui, where it was sparingly naturalized in a botanical garden.

Material examined: **MAUI:** East Maui, Enchanting Floral Gardens of Kula, spreading as an epiphyte, in association with various other botanical garden exotics, 2300 ft [701 m], 1 Mar 2012, *Starr, Starr & Takeda 120301-02*.

***Tillandsia gardneri* Lindley**

New island record

This garden ornamental, commonly called air plant, was first documented as naturalizing in Hawaiʻi on Oʻahu by Frohlich & Lau (2010). They note that this species is self-fertile and easily wind-dispersed, forming thick coverings on tree branches and other structures. On Maui, this species was observed doing much the same at a botanical garden in Kula, where it was seeding profusely and spreading downwind, alighting on plants and structures in its path. This collection represents a new island record for Maui.

Material examined: **MAUI:** East Maui, Enchanting Floral Gardens of Kula, many plants of all sizes being grown on *hāpuʻu* (*Cibotium* sp.) and spreading to nearby areas downwind and growing on other plants in its path, in association with various other botanical garden exotics, 2300 ft [701 m], 1 Mar 2012, *Starr, Starr & Takeda 120301-01*.

Euphorbiaceae

***Jatropha curcas* L.**

Range extension

Jatropha curcas, known as jatropha or physic nut, has been documented as naturalized on Maui (Wagner *et al.* 1999) and more recently on Hawaiʻi from the North Kona region (Parker & Parsons 2012). During a field assessment of invasiveness of various proposed biofuels, jatropha was observed as naturalized in the Kaʻu area, where hundreds of scattered plants, some quite large, were observed in dry scrub, pastures, and along the roadside. This population was apparently spread downhill by a flood decades ago, from plantings in an old sugar cane plantation town.

Material examined: **HAWAII:** Kaʻu, dry scrub and pasture, along with *Leucaena leucocephala*, *Megathyrsus maximus*, and *Samanea saman*, 100 ft [30 m], 17 Jul 2012, *Starr, Starr & Ely 120717-01*.

Lamiaceae***Salvia procurrens*** Benth.**New state record**

Salvia procurrens, blue creeper or ground ivy, is native to Uruguay, southern Brazil, and northeastern Argentina, where it is naturally found by stream banks, ponds, and other moist areas, and is sometimes cultivated as a groundcover for its attractive foliage and small blue flowers, though it can become invasive (Salvias.com.ar 2012; Terra Nostra 2010). It is also used medicinally in its native region (Terra Nostra 2010). This blue-flowered creeper was observed as a flowering groundcover forming a dense mat in a shady section of a botanical garden. It had spread from just a few plants to cover a large area and was spontaneously found over wide-ranging parts of the garden. It can be distinguished by the following characteristics: “Perennial creeping stems, radicanes knots, glandular-pubescent or glabrous. Leaves opposite, long petiole, leaf blade circular edge crenate, glabrous or puberula on the upper side, the lower glandulosa. Bilabiadas flowers arranged in long axis (resembling ears) glandular calyx, corolla bluish.” (Terra Nostra 2010).

Material examined: **MAUI:** East Maui, Enchanting Floral Gardens of Kula, sparingly naturalized over widely separated parts of the garden, in association with various botanical garden exotics, 2300 ft [701 m], 12 Mar 2012, *Starr, Starr & Takeda 120312-01*.

Myrtaceae***Rhodomyrtus tomentosa*** (Aiton) Hassk.**New island record**

Hill guava is previously known from the islands of Kaua‘i, O‘ahu, Lāna‘i and Hawai‘i (Wagner *et al.* 1999, Staples *et al.* 2002). This invasive shrub is also naturalized on Maui, where it is being targeted for control by the Hawai‘i Department of Agriculture and Maui Invasive Species Committee. The collection noted here was from plants that had sprouted from seeds of a plant that had been removed sometime around the year 2000. Now in 2012, collections were made from four saplings (all less than 1 m tall) that were flowering and fruiting at the time. These were again removed. Hill guava was previously naturalized and removed in the Ha‘iku area as well.

Material examined: **MAUI:** East Maui, Enchanting Floral Gardens of Kula, four small saplings in area of previously known and controlled plant, in association with various other botanical garden exotics, 2300 ft [701 m], 19 Mar 2012, *Starr, Starr & Takeda 120319-02*.

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