

## New plant records from Maui

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The following contributions include new plant records from the island of Maui. All records are for nonindigenous species. Voucher collections mentioned are housed in Bishop Museum’s *Herbarium Pacificum* (BISH), Honolulu, Hawai‘i.

### Acanthaceae

#### *Asystasia gangetica*

subsp. *micrantha* (Nees) Ensermu

#### New island record

First recorded as newly naturalized in the State on the island of Hawai‘i, along the Waiākea streambed near UH-Hilo (Starr & Starr 2016), *Asystasia gangetica* subsp. *micrantha* is here reported from Maui, where it was found in mesic to wet lowland areas of Huelo, Ha‘ikū, often growing along with the more commonly found *A. gangetica* subsp. *gangetica* in understory areas and along moist roadsides. Subspecies *micrantha* has a similar sprawling habit, but with much smaller flowers.

*Material examined. MAUI:* East Maui, Ha‘ikū, Huelo, Kulike Rd., trail to Pilale Bay, in mesic to wet lowland understory, in association with *Asystasia gangetica* subsp. *gangetica*, *Acacia confusa*, and *Pandanus tectorius*, 100 ft [30 m], (20.933658, -156.257065), 10 Jan 2022, *Starr & Starr 220110-01; loc. cit.*, Waipi‘o Rd., scattered along roadside in mesic to wet lowland vegetation, in association with *Mangifera indica* and *Sphagneticola trilobata*, 500 ft [152 m], (20.911418, -156.230947), 10 Jan 2022, *Starr & Starr 220110-02*.

### Amaranthaceae

#### *Celosia argentea* L.

#### New island record

*Celosia argentea* (Silver cockscomb) was previously reported as naturalized by Oppenheimer (2003) from the island of Hawai‘i, in the vicinity of Waiākea Stream in Hilo. On Maui, it was recently found in a similar habitat, with numerous plants of all life stages observed along the stream margins of ‘Iao Stream at Kepaniwai Park.

*Material examined. MAUI:* West Maui, ‘Iao Stream, close to and scattered along the stream, in association with *Buddleia asiatica* and *Amaranthus spinosus*, 725 ft [221m], (20.882428, -156.535726), 03 Nov 2020, *Starr & Starr 201103-01*.

### Asteraceae

#### *Vernonanthura polyanthes* (Spreng.)

A.J.Vega & Dematt.

#### New state record

Initially found by retired State Forester Bob Hobby, who alerted us and the Maui Invasive Species Committee of its presence on Maui, *Vernonanthura polyanthes* (tree aster, assa-peixe) is native to Brazil and is a known invasive species in parts of Africa, including Zimbabwe, where it was introduced as a nectar supply for bees, and has since spread along roadsides and forest margins (Wikipedia 2022). Aerial imagery showed this seasonally conspicuous tree was widespread on Maui, having invaded about 1,000 acres of

abandoned pineapple fields, pastures, unmaintained areas, yards, and roadsides in the Ha'ikū area from Māliko Gulch to Kaupakalua Gulch, between the elevations of 600 and 1,000 feet. Ground surveys confirmed the distribution, and located another location on West Maui in 'Āao Valley. The 'Āao Valley location was just a single small tree that was controlled. This species can be distinguished by the following characteristics: "Shrub or small tree, up to c. 4 m tall. Stems and branches with numerous, verrucose lenticels. Leaves alternate, oblong-lanceolate, up to c. 12 cm long, dull green and mostly hairless above, greyish stellate-hairy beneath; apex acuminate; margin serrate; petiole 5–7 mm long. Inflorescences in large terminal heads. Capitula white, without ray-florets" (Hyde *et al.* 2022).

*Material examined.* **MAUI:** East Maui, Ha'ikū, side of Kokomo Rd., in fence row, in association with *Megathyrsus maximus*, *Casuarina equisetifolia*, *Leucaena leucocephala*, 800 ft [244 m], (20.903207, -156.322138), 10 May 2021, *Starr & Starr 210510-01*. West Maui, 'Āao Valley, side of 'Āao Stream, lone individual growing among large boulders, in association with *Pluchea carolinensis*, *Casuarina equisetifolia*, and *Melinis repens*, 875 ft [267 m], (20.881318, -156.542884), 11 Aug 2022, *Starr & Starr 220811-01*.

## Lamiaceae

### *Salvia hispanica* L.

#### New state record

Previously unrecorded as present or naturalized in Hawai'i, scattered plants of *Salvia hispanica* (chia) were found along a rural road margin in Pi'iholo, Maui. It is uncertain how these plants got there, or if they will persist. Additionally, an image was posted on iNaturalist in November 2021 of a wild *Salvia hispanica* in 'Āao Valley, next to 'Āao Stream. However, field surveys in August 2022 could not relocate it. It is uncertain whether we were searching in the wrong location, if the species is seasonal, or if the species no longer persists in 'Āao. Chia is an annual herb native to Mexico and Guatemala, where it was cultivated as a crop by pre-Columbian Aztecs and Meso-American Indian cultures for medicinal and religious purposes (Petruzello 2020). In the 1980s chia gained popularity as "chia pets" and in the 1990s was popularized for its nutritious fiber and omega-3 fatty acids, and is now cultivated in various regions of the world. Chia has the following characteristics: "Chia is an annual herbaceous plant that can reach nearly 1 metre (3 feet) in height. Its lime-green leaves are oppositely arranged and have serrated (toothed) margins. The plant bears spikes of small blue, purple, or white flowers that have a high rate of self-pollination. The small oval seeds are about 1 mm (0.04 inch) in diameter and feature a shiny, mottled, or speckled seed coat that ranges in colour from dark brown to gray-white. The seeds produce a mucilaginous gel when soaked in water" (Petruzello 2020).

*Material examined.* **MAUI:** East Maui, Pi'iholo, Pi'iholo Rd., residential roadside, in association with *Ulex europaeus* and *Melinis minutiflora*, 3,175 ft [968 m] (20.818651, -156.281632), 26 Oct 2020, *Starr & Starr 201026-01*.

## ACKNOWLEDGMENTS

We thank the Maui Invasive Species Committee for financial support, and the Bishop Museum staff and volunteers for confirming identifications, curating vouchers, and publishing new records.

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