

New Plant Records from Maui and Kaho‘olawe¹

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The following contributions include new naturalized, island, and range extension records from Maui and Kaho‘olawe. All records are for nonindigenous species. Images of most 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.

Apiaceae

Torilis arvensis (Huds.) Link

New island record

Previously collected on the Kalalau Trail on Kaua‘i in 1989 (Staples *et al.* 2002: 5), *Torilis arvensis* (spreading hedge parsley) is now known from Maui, where it was found on the summit of Haleakalā.

Material examined: MAUI: E. Maui, Haleakalā National Park, HVC (Haleakalā Visitor Center) parking lot, growing in crack in sidewalk, in association with *Dubautia menziesii* and *Plantago lanceolata*, 9750 ft [2971 m], 18 Oct 2011, *Starr 111018-1*.

Asclepiadaceae

Calotropis procera (Aiton) W.T. Aiton

New island records and correction

Calotropis procera (purple crown flower) was previously reported from Kaua‘i, Lāna‘i, and Hawai‘i (Wagner *et al.* 1999: 238; Wood & LeGrande 2006: 19; Wood 2006: 15; Oppenheimer 2008: 23), and is here reported from Kaho‘olawe where this garden escape with wind dispersed seeds has become established and is spreading near the summit, and from Maui where it was collected by the authors and others in dry lowland areas of East and West Maui. Parker & Parson (this volume) report this species from the Big Island. Before the distinction between *C. procera* and *C. gigantea* was known to Hawaiian botanists, specimens of *C. procera* were identified as *C. gigantea*. Revisiting the collections reveals two specimens from Maui (*Starr & Martz 010503-2*; *Starr & Martz 010701-1*) and one from Kaua‘i (*Starr & Starr 020226-3*) to be *C. procera*, resulting in *C. gigantea* no longer documented as naturalized on Kaua‘i or West Maui, and *C. procera* now documented as naturalized on Maui.

Material examined: KAHO‘OLAWE: Pu‘u Mōiwi, along the main road (K1), in association with *Heteropogon contortus* and *Cenchrus ciliaris*, scattered plants in area, collected with James Bruch (KIRC), 1115 ft [340 m], 28 Dec 2010, *Starr 101228-1*. Kanapou Headwaters, growing in bare hard pan, in association with *Heteropogon contortus*, *Cenchrus ciliaris*, and *Prosopis pallida*, dozens of plants, collected with James Bruch (KIRC), 1246 ft [380 m], 29 Dec 2010, *Starr 101229-1*. MAUI: E. Maui, Kīhei, just mauka of the Maui Research and Technology Park, on mauka side of gate, coming up in pasture area recently disturbed to install a culvert, 250 ft [75 m], 3 May 2001, *Starr & Martz 010503-2*. W. Maui, Kahului, in abandoned sugar cane field, 100 ft [30 m], *Starr & Martz 010701-1*. W. Maui, Kahului, west of Kuihelani Hwy, between mile markers 3 & 5, in sandy soil, 120 ft [37 m], 19 Aug 2004, H. Oppenheimer & G. Hansen H80405. KAUA‘I: Kekaha, Kekaha Beach Park, on sand near coast, 10 ft [3 m], 26 Feb 2002, *Starr & Starr 020226-3*.

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Asteraceae***Senecio madagascariensis* Poir.****Range extension**

Documented from all the main Hawaiian island except Ni'ihau and Moloka'i (Lorence *et al.* 1995: 24; Starr *et al.* 1999: 11; Oppenheimer & Bartlett 2002: 4; Herbst *et al.* 2004: 4; Starr *et al.* 2006: 33), and previously collected at an elevation of 4800 ft (1463 m) in Kohala, Hawai'i (Flynn 4302; Wagner 4780), this prolific yellow flowered plant is here reported from an elevation of 10,000 ft (3048 m), where it is sparingly found in bare cinders on the summit of Haleakalā on East Maui.

Material examined: MAUI: E. Maui, Pu'u Kolekole, Haleakalā Observatories Science City, one plant in bare cinders near Faulkes Telescope, in association with *Erodium cicutarium*, *Plantago lanceolata*, and *Tetramolopium humile*, 10,000 ft [3048 m], 12 Apr 2011, Starr 110412-1.

Caryophyllaceae***Silene armeria* L.****New state record**

Not previously reported from the state, *Silene armeria* (Sweet William catchfly) was found on the side of a gravel road in Olinda, Maui. Native to Europe (Jepson Herbarium 2011), and naturalized over much of North America (USDA 2011), this catchfly can be distinguished from other *Silene* in Hawai'i by the annual / biennial habit, glabrous foliage and flowers, and pink to purple flowers.

Material examined: MAUI: E. Maui, Olinda, Hawea Pl, side of gravel road in unmaintained area. Erect, glabrous, pink flowers. Growing with *Conyza bonariensis* and *Pennisetum clandestinum*, 2700 ft [822 m], 20 Jun 2011, Starr 110620-1.

Chenopodiaceae***Salsola tragus* L.****Range extension**

Known from all the main Hawaiian islands except Ni'ihau, Kaua'i, and Lāna'i (Wagner *et al.* 1999: 540; Wagner *et al.* 1997: 55; Herbst & Wagner 1999: 19; Oppenheimer & Bartlett 2002: 5; Herbst *et al.* 2004: 5; Starr *et al.* 2006: 34), *Salsola tragus* (tumbleweed) was previously known from East Maui, where it is well established from Pāi'a to Kēōkea, and is now known from Kahana on West Maui. An attempt is being made to eradicate this isolated population, but a persistent seedbank remains.

Material examined: MAUI: W. Maui, Kahana, side of dirt road in abandoned pineapple fields. Hundreds of plants of all life stages. Growing with *Amaranthus spinosus* and *Urochloa maxima*, 120 ft [37 m], 12 Apr 2011, Starr 110412-1.

Clusiaceae***Hypericum mutilum* L. subsp. *mutilum*****Range extension**

Previously known from Kaua'i, Moloka'i, Hawai'i and East Maui (Wagner *et al.* 1999: 544; Lorence *et al.* 1995: 32; Wagner & Herbst 1995: 18), *Hypericum mutilum* (dwarf St. John's wort) has been collected multiple times since 1981 in moist areas near the Hāna Hwy on East Maui, and is now known from West Maui, where it grows in waterlogged trailsides in Waihe'e Ridge and Hana'ula.

Material examined: MAUI: W. Maui, Waihe'e Ridge Trail, lining side of trail, growing in waterlogged mud with *Tibouchina herbacea* and *Paspalum conjugatum*, 2150 ft [655 m], 27 Aug 2011, Starr 110827-1. Hana'ula, side of trail, small patches growing in waterlogged mud with *Cibotium*, *Melicope*, and *Myrsine*, 4000 ft [1219 m], 28 Sep 2011, Starr 110928-1.

Myrtaceae***Melaleuca armillaris* (Sol. ex Gaertn.) Sm. New naturalized record**

Reported as used in forestry plantings but apparently not naturalized (Wagner *et al.* 1999: 964), *Melaleuca armillaris* (bracelet honey myrtle) is here reported as naturalized, where it was filling light gaps and spreading from abandoned plantings in Kula, Maui.

Material examined: MAUI: E. Maui, Kula, abandoned farm off Crater Rd.. Old plantings, some of which have fallen over, with seedlings filling the light gaps and spreading to nearby areas. Growing in association with *Acacia mearnsii* and *Sicyos*, 3500 ft [1066 m], 31 Mar 2011, *Starr 110331-2*.

Onagraceae***Oenothera laciniata* Hill****Range extension**

Known from Maui and Hawai'i (Wagner *et al.* 1999: 1000), and collected at elevations up to 4500 ft (1371 m) (*Nagata 3544*), *Oenothera laciniata* (cutleaved evening primrose) is now documented from 9725 ft (2964 m) on East Maui, where it was collected in the Haleakalā Summit Visitor Center parking lot.

Material examined: MAUI: E. Maui, Haleakalā National Park, HVC Parking Lot, dozens of plants in a patch near the Sliding Sands Trailhead, in association with *Erodium cicutarium*, *Deschampsia nubigena*, and *Dubautia menziesii*, 9725 ft [2964 m], 12 Apr 2011, *Starr 110412-1*.

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