New Plant Records From the Hawaiian Archipelago

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The following contributions include new island records, new state records, and range extensions of plants located on Midway Atoll, Pearl and Hermes Reef, O‘ahu, Maui, and Hawai‘i, State of Hawai‘i. Voucher specimens are housed in the Bishop Museum, Honolulu (BISH).

Acanthaceae

*Thunbergia grandiflora* Roxb.  
**New Island Record -- Maui**

*T. grandiflora* (trumpet vine) is cultivated and sparingly adventive on at least Kaua‘i, O‘ahu, and Hawai‘i (Wagner *et al.*, 1999: 175). On Maui, it appears to be doing the same, in at least the Makawao area. This collection represents a new island record for Maui.

*Material examined.* MAUI: E. Maui, Makawao District, near Maliko Gulch in undeveloped lot, 1250 ft. [381 m], 8 April 1998, *Starr & Martz 980408-130*.

Amaranthaceae

*Alternanthera pungens* Kunth  
**Range Extension -- Maui**

Wagner *et al.* (1999: 183) report *A. pungens* (khaki weed) to be a common weed of beach parks and other low elevation, dry, disturbed areas on O‘ahu, Moloka‘i, and Hawai‘i, but probably also on the other main islands. Recently collected from West Maui (Oppenheimer & Bartlett, 2000: 1) and Lana‘i (Oppenheimer & Bartlett, in press), this collection confirms its presence on East Maui, where it is widespread, and represents a range extension for Maui.

*Material examined.* MAUI: E. Maui, near fire station at the Kahului Airport, 40 ft. [12 m], 23 March 2000, *Starr & Martz 000323-1*. E. Maui, Haliimaile, near Maui Land & Pineapple buildings, 1100 ft. [335 m], 8 June 2000, *Starr & Martz 000608-1*.

*Amaranthus spinosus* L.  
**New Island Record -- Midway Atoll**

*A. spinosus* (spiny amaranth) is naturalized and often common in low elevation, disturbed sites on Kure Atoll and documented from all the main islands except Ni‘ihau and Lana‘i (Wagner *et al.*, 1999: 188). On Midway, it was observed growing out of open fields in two distinct localities on Sand Island. This collection represents a new island record for Midway Atoll.


Apiaceae

*Anethum graveolens* L.  
**New Island Record -- Midway Atoll**

*A. graveolens* (dill) is cultivated and occasionally escapes on at least O‘ahu and Maui (Wagner *et al.*, 1999: 200). On Midway, it does the same, volunteering in urban areas of Sand Island. This collection represents a new island record for Midway Atoll.


Apocynaceae

*Thevetia peruviana* (Pers.) K. Schum.  
**New Island Record -- Midway Atoll**

*T. peruviana* [Cascabela thevetia (L.) Lippold] (be-still tree) has been grown as an ornamental since its introduction ca. 1900, and is now naturalized in disturbed mesic sites on Kaua‘i, O‘ahu, Maui and probably on the other main islands (Wagner *et al.*, 1999: 215, 1858). On Midway, *T. peruviana* is also naturalized in disturbed areas of Sand Island. This collection represents a new island record for Midway Atoll.


*Avinca major* L.  
**New State Record -- Maui**

Native to the W. Mediterranean and widely cultivated as a ground cover, *V. major* (Greater periwinkle, blue buttons) is naturalized in at least the Kula area of East Maui where it can be found trailing through brush and over steep banks. This collection represents a new state record for Hawai‘i. *Vinca* is a genus of
about 12 species native to the Old World with leaves opposite, entire; flowers solitary, axillary, 5-merous, bisexual, corolla more or less funnelform, stamens borne at middle of tube, anthers short, with prominent, spreading appendages, style broadened toward apex; fruit a pair of erect or spreading, cylindrical follicles, each 6-8 seeded. *V. major* is a prostrate, evergreen, trailing subshrub with arching shoots to several meters long with ovate, obtuse, lance-shaped or acute, dark green leaves, to 9 cm long, truncate to subcordate at base, ciliate, short-petioled. Corolla blue-violet or dark violet, to 5 cm across, tube .5 in [1.3 cm] long; follicles to 2 in [5 cm] long. There are many named cultivars (Brickell & Zuk, 1996; Bailey & Bailey, 1976). *V. major* can be distinguished from other naturalized Apocynaceae in Hawai‘i by opposite leaves, a trailing perennial herb habit, and white to blue flowers with rounded stigmas (Neal, 1965: 604).

**Material examined.** MAUI: E. Maui, Kula, Crater rd., 4000 ft [1219 m], 5 Jan 1999, Starr & Martz 990105-2.

### Asteraceae

**Dyssodia tenuiloba** (DC.) B. L. Robinson

Native to south central Texas and adjacent Mexico, and naturalized in other warm parts of the world where cultivated primarily as a bedding plant *D. tenuiloba* [*Thymophylla tenuiloba* (DC.) Small] (Dahlberg daisy, golden fleece) is a recent ornamental introduction to Hawai‘i which tends to readily naturalize where it is planted on both Maui and O’ahu. On Maui, we collected this yellow aster in sandy sites in Kihei and Waiehu. On O’ahu, B. Gagne collected it along the Pali Highway in lower Nu‘uanu Valley. These collections represent a New State Record for Hawai‘i and new island records for Maui and O’ahu. *Dyssodia* (Dog weed, fetid marigold) is a genus of about 32 species of strongly scented herbs native to the Southwestern United States and Northern Mexico. *D. tenuiloba* is an erect to spreading, bushy annual or short lived perennial, to 1 ft.; leaves opposite in lower part, alternate above, to 3/4 in. long, pinnately parted into 7-11 linear filiform, bristle-tipped segments, margins glandular; heads to 1/2 in. across, involucre turbinate-campanulate, involucral bracts united 3/4 their length, glandular; disc flowers yellow, ray flowers golden-yellow-orange (Bailey & Bailey, 1976).

**Material examined.** MAUI: W. Maui, Waiehu, scattered at base of large sand dune behind residential area, 100 ft. [30 m], 26 Apr. 2000, Starr & Martz 000426-1. E. Maui, Kihei, Kihei Rd. and Lipoa, spreading down road from initial planting at condominium, 5 ft. [1.5 m], 26 Jan. 2000, Starr & Martz 000126-1. OAHU: Honolulu, lower Nu‘uanu Valley, along Pali Hwy. between the scenic overlook above Chinese cemetery and Pauoa Road exit, 100 ft. [30 m], 3 May 2000, B. H. Gagne 3150.

**Verbesina encelioides** (Cav.) Benth. & Hook.

*V. encelioides* (golden crown-beard) was previously known to be naturalized on Kure Atoll, Midway Atoll, and all of the main islands except Ni‘ihau (Wagner *et al.*, 1999: 372). On Pearl and Hermes Atoll, *V. encelioides* was collected on Southeast Island where it is currently restricted to the east side of the island. This collection represents a new island record for Pearl and Hermes Atoll.

**Material examined.** PEARL AND HERMES ATOLL: Southeast I., from large patch in center of east part of island, near sea level, 14 June 1999, Starr & Martz 990614-1.

### Bignoniaceae

**Macfadyena unguis-cati** (L.) A.H. Gentry

Previously known from Kaua‘i, O‘ahu, Lana‘i, and Maui (Wagner *et al.*, 1999: 388, Oppenheimer & Bartlett, 2000: 2-3). This species was recently collected from the North Kohala area of Hawai‘i (Imada *et al.*, 2000: 10) where it formed locally dense mats on the ground and twined around trees in disturbed secondary forest. This collection documents *M. unguis-cati* doing the same in the Honouluau / Kealakekua area and extends the known range to include the Honouluau area of Hawai‘i.

**Material examined.** HAWAI‘I: Honouluau, near painted church, 780 ft. [238 m], 20 June 2000, Starr & Martz 000620-1.

### Caprifoliaceae

**Lonicera japonica** Thunb.

*L. japonica* (Japanese honeysuckle) is widely cultivated and now escaping and becoming naturalized on Kaua‘i and Hawai‘i (Wagner *et al.*, 1999: 495). On Maui, *Lonicera* is also widely planted, producing viable fruit from sea-level to at least 4000 feet, spreading beyond initial plantings, and becoming naturalized. These collections represent a new island record for Maui.
Material examined. MAUI: E. Maui, Kula, near Pony Express, climbing into and over Eucalyptus trees, 4,000 ft. [1219 m], 26 August 1998, Starr & Martz 980826-17; E. Maui, Kula, crest of Kekaulike Ave., sprawling into gulch, 3,750 ft. [1143 m], 9 December 1998, Starr & Martz 981209-1.

Casuarinaceae

Casuarina glauca Siebold ex Spreng.

New Island Record -- Midway Atoll

C. glauca (longleaf ironwood) is known to be planted on all the main islands except Ni’ihau, persisting and extensively spreading by root suckers after cultivation on at least Lana‘i, O‘ahu, (Wagner et al., 1999: 529, 1872) and Maui (Oppenheimer & Bartlett, 2000). On Midway, it was collected by Bruegmann and published in Wagner et al., (1999: 329), but not in Bruegmann (1999: 2). More recently this ironwood species was collected by the authors persisting and spreading in the southwest corner of the antennae field in the center of Sand Island. This collection represent a new island record for Midway Atoll.

Material examined. MIDWAY ATOLL: Sand I., southeast corner of antennae field, suckering away from main patch into nearby field and woods, near sea level, 11 May 1999, Starr & Martz 990511-1.

Chenopodiaceae

Bassia hyssopifolia (Pall.) Kuntze

Range Extension -- Maui

B. hyssopifolia (Bassia) was previously known only from alkaline soil, Kuapa Pond, O‘ahu, and near Kanaha Pond, central Maui (Wagner et al., 1999: 536). On Maui, Bassia has now also been collected from an undeveloped lot in the Kihei area, and has been observed by the authors at Kahakalai National Wildlife Refuge on the island of Moloka‘i. The soils in these areas were also apparently alkaline in nature. This collection represent a range extension to Kihei, Maui.


Cyperaceae

Cyperus difformis L.

New Island Record -- Maui

C. difformis was previously known from wet sites and cultivated fields on Kaua‘i and O‘ahu, presumably in connection with rice cultivation (Wagner et al., 1999: 1395). This collection documents a new island record for this species on Maui.

Material examined. MAUI: W. Maui, Ukumehame Valley, common in cultivated taro lo‘i, 200 ft. [61 m], 24 July 1999, Starr & Martz 990724-1.

Fabaceae

Crotalaria assamica Benth.

New Island Record -- Maui

C. assamica (rattlepod) was previously known from disturbed mesic sites on O‘ahu and Hawai‘i (Wagner et al., 1999: 657). This collection, along with a previous one by R. Hobdy, represents a new island record for Maui, where it can be found in similar sites.


Derris elliptica (Wallich) Benth.

New State & Island Records -- Maui & Hawai‘i

D. elliptica (poison vine, Derris, tuba root) is native from India to Indonesia and is cultivated in the tropics for the insecticide Rotenone (Bailey & Bailey, 1976: 374). In Hawai‘i, Derris has been collected on Kaua‘i, O‘ahu, Maui, and Hawai‘i. First collected on O‘ahu in 1950 by G. Pearsall (446481), this rampant vine was first collected on Maui by Fosberg (55438) in 1974 in the Nahiku area of East Maui, and was collected again in presumably the same spot by the authors in 1998. In 2000 it was also collected in the Honopou area of East Maui near twin falls, and we have since observed Derris near Ha‘iku reservoir and at the top of W. Kuiaha Rd, Ha‘iku. On the island of Hawai‘i, we collected this species from the side of the road in Kealakekua, where it is sparingly naturalized. Derris has also been collected at Hilo (Herbst 9716) on Hawai‘i, at Nanakuli (Pearsall 446481) and Kailua (Staples 1158) on O‘ahu, and in the Waiea Game Reserve (Howard 20222) on Kaua‘i. The current status of these sites is unknown, but is probably similar to what is occurring on Maui and Hawai‘i. These collections represent a new state record for Hawai‘i and new island records for Maui and Hawai‘i. In the Fabaceae (pea) family, Derris is a genus of perhaps 70-80 species of woody lianas and trees, native to Old World (Bailey 1976). Derris is large climber; leaflets in 4-
6 pairs, obovate-oblong, to 6 inches long, brown-silky-hairy beneath; racemes to 1 foot long; petals bright red, standard 5/8 inches across; fruit to 3 inches long, narrow-winged along one margin (Bailey 1976).


**Indigofera hendecaphylla** Jacq.

_I. hendecaphylla_ [syn. _I. spicata_] (creeping indigo) was previously known from Kaua`i, O`ahu, and Maui (Wagner et al., 1999: 675). This collection represents a new island record for Hawai`i.

**Material examined.** HAWAI'I: Captain Cook, growing in parking lot of Amy Greenwell Ethnobotanical Garden, 1640 ft. [500 m], 9 Apr. 2000, _Starr & Martz_ 000409-5.

**Lathyrus latifolius** L.

_L. latifolius_ (perennial pea) was previously known from a single collection by R. Hobdy in the Olin area of East Maui (Wagner et al., 1999: 678). These collections document a range extension of this species to at least the Kula area where it can occasionally be seen in pastures and waste areas.


**Hydrangeaceae**

**Philadelphus karvinskyanus** Koehne

_P. karvinskyanus_ (Philadelphus) has been cultivated in Hawai`i since 1944. Planted on at least Kaua`i, O`ahu, and Maui, it is now escaping by spreading vegetatively and blanketing large areas, becoming naturalized on Kaua`i and noted to appear to be naturalized on Maui (Lawrence et al., 1995: 38). On Maui, _Philadelphus_ is widely planted in the Kula area, and though not noted to be producing viable fruit, is spreading well beyond initial plantings in the Kula area. This collection represents a new island record for Maui.


**Liliaceae**

**Asparagus asparagoides** (Forssk.) Deflers

Native to tropical and south Africa, and introduced to New Zealand and Australia where it has become a weed, _A. asparagoides_ (bridal creeper, smilax) is naturalized on Maui in the Kula area, and has been observed from Waiale Gulch in Kula through lower Poli Poli to Keokea where it twines in and amongst vegetation and cascades down steep banks. Previously collected in pastures in Kula by D. Herbst, these collections represent new an island record for Maui and a new state record for Hawai`i. Tuberculous rooted branching vine, cladophylls alternate, ovate, to 2 in. long, leathery, with many longitudinal veins, flowers bisexual, greenish, solitary or paired, stamens orange, fruit red (Bailey & Bailey, 1976: 118; Bay of Plenty Regional Council, 1996).


**Asparagus plumosus** J. G. Baker

Native to tropical and south Africa, and introduced to New Zealand and Australia where it has become a weed, _A. plumosus_ [syn. _A. setaceus_] (common asparagus fern) was previously known from Kaua`i, O`ahu, and Maui (Oppenheimer & Bartlett, 2000). _A. plumosus_ is now also known from Hawai`i in at least the Honaunau / Kealakekua area. This collection represents a new island record for Hawai`i.
Malvaceae

Gossypium hirsutum L.  

New Island Record -- Maui

G. hirsutum (upland cotton) was previously known from Haleiwa, O'ahu where it was collected by Degener in 1956 (Wagner et al., 1999: 876). More recently, it was collected at La Perouse Bay in leeward East Maui. This collection represents a new island record for Maui.

Material examined. MAUI: E. Maui, La Perouse, stands growing in and near kiawe forest, 10 ft. [3 m], 15 Apr. 2000, Starr & Martz 000415-1.

Sida urens L.  

New Island Record -- Maui

S. urens was previously known from a single naturalized collection made in 1980 in North Kona, Hawaiʻi by K. Nagata & Park (Wagner et al., 1999: 899). It is now also known from Maui, having been collected twice on E. Maui by R. Hobdy in 1985 and 1993, and more recently by the authors near the same spot in 1999. These collections represent a new island record for Maui.


Moraceae

Ficus macrophylla Desf. ex. Pers.  

New Island Record -- Hawaiʻi

Previously known from Maui (Oppenheimer & Bartlett, 2000: 6-7), F. macrophylla (Moreton Bay Fig) is naturalized in at least the Kailua-Kona area of Hawaiʻi. This collection represents a new island record for Hawaiʻi.

Material examined. HAWAIʻI: Kona, Alii Dr., coming up in bare lava and lowland coastal forest, more abundant towards mature trees in downtown, near sea level, 9 Apr. 2000, Starr & Martz 000409-4.

Ficus microcarpa L. f.  

New Island Record -- Midway Atoll

F. microcarpa (chinese banyan) is cultivated and naturalized in low elevation habitats on Kauaʻi, Oʻahu, Molokaʻi, Maui, and Hawaiʻi (Wagner et al., 1999: 924, 1885). On Midway Atoll, it can be seen spreading from initial plantings in urban areas on Sand Island into cracks on sidewalks, buildings, and trees. This collection represents a new island record for Midway Atoll.

Material examined. MIDWAY ATOLL: Sand I., near Midway Mall, near sea level, 28 April 1999, Starr & Martz 990428-5.

Oleaceae

Jasminum fluminense Vell.  

New Island Record -- Maui

J. fluminense (star jasmine) is widely cultivated and was known to be naturalized in at least the Hoʻokena Beach area on Hawaiʻi (Wagner et al., 1999: 990, 1886). It is now naturalized on Maui, where it is established in the Spreckelsville area. This collection represents a new island record for Maui.


Poaceae

Andropogon virginicus L.  

New Island Record -- Midway Atoll

A. virginicus (broomsedge) was known to be common and often dominant along roadsides and in disturbed dry to mesic shrubland on Kauaʻi, Oʻahu, Molokaʻi, Lanai, Maui, and Hawaiʻi (Hughes 1995: 8; Oppenheimer et al., 1999: 9; Wagner et al., 1999: 1497, 1904; Bishop Herbarium Staff, 1999: 7; Imada et al., 2000: 14). It can now also be found on Midway Atoll, scattered throughout and on the margins of the ironwood forest by west beach on Sand Island. This collection represents a new island record for Midway Atoll.

Material examined. MIDWAY ATOLL: Sand I., west beach trail cart path, growing in Casuarina forest border, near sea level, 5 May 1999, Starr & Martz 990407-1.

Cenchrus echinatus L.  

New Island Record -- Pearl & Hermes Atoll
C. echinatus (sandbur) was previously known to be naturalized in arid, disturbed habitats on Kure and Midway Atolls, Lisianski, Laysan, French Frigate Shoals, Nihoa, and all of the main islands. (Wagner et al., 1999: 1513, 1904). On Pearl and Hermes Atoll, C. echinatus was collected on both North and Southeast Islands. These collections represent a new island record for Pearl and Hermes Atoll.

Material examined. PEARL AND HERMES ATOLL: North I., center of island, 14 June 1999, Starr & Martz 990614-3; Southeast I., center of east part of island, 14 June 1999, Starr & Martz 990614-2.

Echinochloa crus-galli (L.) P. Beauv. New Island Record -- Midway Atoll

E. crus-galli (barnyard grass) is naturalized in wet sites such as ditches or stream beds, and in cultivated fields on all of the main islands except Ni’ihau and Kaho’olawe (Wagner et al., 1999: 1535). On Midway, it is localized on Sand Island in the mowed fields near the sea plane ramp on the north part of the island. This collection represents a new island record for Midway Atoll.


Panicum maximum Jacq. New Island Record -- Midway Atoll

P. maximum (Guinea grass) is naturalized and common on all the main islands (Wagner et al., 1999: 1569). On Midway, a lone patch persists in an ironwood grove and grass field border on Sand Island. This collection represents a new island record for Midway Atoll.

Material examined. MIDWAY ATOLL: Sand I., west of boat harbor, growing in Casuarina forest border, near sea level, 5 May 1999, Starr & Martz 990520-1.

Panicum repens L. New Island Record -- Maui

P. repens (torpedo grass) was previously known from usually moist, disturbed habitats on O’ahu, Lana’i, and Hawai’i (Wagner et al., 1999: 1571), and is now also known from moist areas on Maui, at least in the Lipoa area of Kihei. This collection represents a new island record for Maui.

Material examined. MAUI: E. Maui, Lipoa, widespread in moist areas near the coast, 10 ft. [3 m], 27 Sep. 1998, Starr & Martz 980927-1.

Paspalum fimbriatum Kunth New Island Record -- Maui

Previously known from Kure Atoll, Kaua’i, and O’ahu (Wagner et al., 1999: 1576), P. fimbriatum (Panama or fimbriate paspalum) is now also known from Maui where it is widespread in disturbed areas at least on East Maui. This collection represents a new island record for Maui.

Material examined. MAUI: E. Maui, Makawao, Makawao Elementary School, growing on schoolyard, 1640 ft. [500 m], 24 May 2000, Starr & Martz 000524-1. E. Maui, Ha’iku, Ha’iku Elementary School, growing out of crack in sidewalk, 328 ft. [100 m], 29 May 2000, Starr & Martz 000529-1.

Pennisetum polystachion (L.) Schult. New Island Record -- Maui

P. polystachion (blue buffel grass) was previously noted from O’ahu, Lana’i, and Hawai’i (Wagner et al., 1999: 1579), and has recently been observed on Maui in sandy areas of Kahului and Wailuku. This collection represents a new island record for Maui.

Material examined. MAUI: E. Maui, Kahului, naturalized around Kahului airport in areas where Cenchrus ciliaris grows, 50 ft. [15 m], 6 May 1998, Starr & Martz 980506-135.

Setaria sphacelata Stapf & Hubb. ex M.B. Moss New State Record -- Maui

Native to Africa, S. sphacelata is cultivated in experiment stations and escaped along irrigation ditches in California (Hitchcock, 1971: 720). In Hawai’i, it has recently been found in mesic pastures in Kokomo, Maui. R. Hobdy recalls collecting this species near the Pi’iholo experimental station in the 1980’s, about one mile from the Kokomo site. This collection documents the naturalized status on Maui and represents a new state record for Hawai’i. Tufted perennial, glabrous or nearly so, often with stout rhizomes; culms 0.5 to 1.5 m. tall, flattened; blades flat, rather lax, 4 to 10 mm. wide; panicle dense, cylindric, 8 to 15 cm. long, usually orange to purple, bristles mostly 5 or more, 3 to 6 mm. long; spikelets 2.5 to 3 mm. long; fruit finely rugose (Hitchcock, 1971: 720).


Polygonaceae
**Antigonon leptopus** Hook. & Arnott

_A. leptopus_ (Mexican creeper) was previously known from disturbed areas on at least Kaua‘i, O‘ahu, Lana‘i, Maui, and Hawai‘i (Wagner et al., 1999: 1060). It was also recently collected from Midway Atoll by M. Bruegmann and originally published in Wagner et al. (1999: 1888), but not in Bruegmann (1999: 2). On Midway, this plant is indeed sparingly naturalized on Sand Island. This collection confirms the naturalized status and represents a new island record for Midway Atoll.

*Material examined.* MIDWAY ATOLL: Sand I., sprawling out of ironwood forest into adjacent field areas near Harbor, near sea level, 5 May 1999, Starr & Martz 990505-10.

**Coccoloba uvifera** (L.) L.

_C. uvifera_ (sea grape) has recently been noted to germinate and spread at least on O‘ahu (Herbst, 1998: 3; Wagner et al., 1999: 1060, 1888) and Maui (Oppenheimer & Bartlett, in press). On Midway and Hawai‘i, _C. uvifera_ is displaying the same tendencies. These collections represent new island records for Midway Atoll and Hawai‘i Island.

*Material examined.* MIDWAY ATOLL: Spit I., south end of island, a few plants were germinating and growing out of the coral rubble, sea level, 1 April 1999, Starr & Martz 990401-1. MAUI: E. Maui, Kanaha Beach, germinating from beach flotsam, sea level, 5 May 2000, Starr & Martz 000505-1. HAWAI‘I: Kona, germinating out of beach flotsam and forming sea-side stands, sea level, 9 April 2000, Starr & Martz 000409-2.

**Rubiaceae**

**Hedyotis corymbosa** (L.) Lam.

_H. corymbosa_ was previously known from Kaua‘i, O‘ahu, East Maui, and in the vicinity of Hilo to Volcano, Hawai‘i (Wagner et al., 1999: 1141, 1891; Lorenz et al., 1995: 50). It is now also known from the Kona area of Hawai‘i. This collection represents a new range extension to Kona, Hawai‘i.


**Pentas lanceolata** (Forssk.) Deflers

Native to forest margins and scrub from Yemen to tropical East Africa (Brickell & Zuk 1996: 770). In Hawai‘i, _P. lanceolata_ (star cluster) has recently been noted spreading at least on the Hamakua coast, Hawai‘i (Nagata, 1995: 12; Wagner et al., 1999: 1160). On Maui, _P. lanceolata_ volunteers in scrub areas and steep banks from Ha‘iku to Makawao. These collections represent a new island record for Maui.

*Material examined.* MAUI: E. Maui, Ha‘iku, growing on side of road, 400 ft. [122 m], 10 November 1998, Starr & Martz 981110-3; E. Maui, Makawao, volunteering in unmaintained portions of lawn, 1600 ft. [488 m], 16 January 2000, Starr & Martz 000116-1.

**Sapotaceae**

**Sideroxylon persimile** (Hems.) T.D. Penn.

Previously known under the misapplied name _Bumelia buxifolia_ sensu Neal (1965) (Pennington, 1990), large trees of _Sideroxylon persimile_ (bully, bumelia) were apparently originally cultivated on Maui near the Maunaolu Campus (old Baldwin Estate) on Baldwin Avenue, where it was collected as early as 1967. Now this thorny species occurs in gulches and along roadsides from Hali‘imaile to near Paia. There are also specimens from O‘ahu and Lana‘i, mostly from ornamental street trees. These collections represent a new state record for Hawai‘i and a new island record for Maui. Large trees, round-topped to 20 m tall, trunk vertically fluted, 1 m thick, bark rough (ex Fosberg 27116), sometimes armed with painful and irritating thorns (1-3 cm long), with obvious sticky white sap, and stems occasionally bearing red hairs. Leaves dark green, glossy ovate, entire (3-4 cm long). Flowers are sweetly fragrant, greenish (ex Brown 1246, sheet 69020b). Fruit is round to subglobose, about 1 cm, and green turning black or deep blue with maturity during June-July (ex Brown 27116), sometimes armed with painful and irritating thorns (1-3 cm long), with obvious sticky white sap, and stems occasionally bearing red hairs. Leaves dark green, glossy ovate, entire (3-4 cm long). Flowers are sweetly fragrant, greenish (ex Brown 1246, sheet 69020b). Fruit is round to subglobose, about 1 cm, and green turning black or deep blue with maturity during June-July (ex Brown 1246, sheet 69020a). Fruits eaten by birds (ex Neal s.n.). The species has been used as a street tree in Honolulu and has been planted for reforestation.

Scrophulariaceae

**Antirrhinum orontium** L.

*Range Extension -- Maui*

*A. orontium* (lesser snapdragon) was previously known from Diamond Head, O'ahu and Pu'u o Kali, Maui (Wagner *et al.*, 1999: 1237). Recent collections extend the known range on Maui to include Lualailua Hills and Makawao.


**Linaria canadensis** var. **texana** (Scheele) Pennell

*New Island Record -- Maui*

In the state since at least 1911, *L. canadensis* (blue toadflax) was previously known from dry slopes and ridges on O'ahu and Hawai'i (Wagner *et al.*, 1999: 1241). It is now also found in wayside areas of Makawao, Maui. This collection represents a new island record for Maui.

*Material examined.* MAUI: E. Maui, Makawao, adjacent to pineapple field between Aala Rd. and the Veteran's cemetery, 1640 ft. [500 m], 11 Apr. 2000, *Starr & Martz 000411-1*.

**Veronica peregrina** L.

*New Island Record -- Maui*

*V. peregrina* (necklace weed, purslane speedwell) was previously known from Hawai'i Volcanoes National Park on Hawai'i where it was collected by K. Nagata in 1984 (Wagner *et al.*, 1999: 1250) and from Kaua'i (Lorence *et al.*, 1995: 54). It is also naturalized in the Makawao area of Maui. This collection represents a new island record for Maui.

*Material examined.* MAUI: E. Maui, Makawao, coming up as weed in lawn on corner of Ukiu and Baldwin Ave., 1640 ft. [500 m], 31 Mar. 2000, *Starr & Martz 000331-1*.

**Verbenaceae**

**Citharexylum spinosum** L.

*New Island Record -- Maui*

*C. spinosum* (fiddlewood) was recently documented to be naturalized on O'ahu (Evenhuis & Miller 1998: 13; Wagner *et al.*, 1999: 1317, 1895) where the known distribution is rapidly growing. On Maui it is displaying a similar tendency and is naturalized in at least the Ha'iku and Kihei areas. These collections represent a new island record for Maui.


**Phyla nodiflora** (L.) Greene

*New State & Island Records -- Midway Atoll & Maui*

*P. nodiflora* was previously reported to be cultivated as a ground cover that may occasionally escape cultivation (Wagner *et al.*, 1999: 1316). On Midway, *P. nodiflora* was observed to be widely naturalized on Sand Island, especially in moist areas. On Maui, this low groundcover that roots at the nodes was collected near the ocean on leeward West Maui. These collections represent a new state record for Hawai'i and new island records for Midway Atoll and Maui Island.


**Vitaceae**

**Cissus rotundifolia** (Forssk.) Vahl

*New Island Record -- Maui*

*C. rotundifolia* (Arabian wax cissus) has been recently reported to be naturalized on Kaua'i (Lorence & Flynn, 1997: 12) and O'ahu (Herbst, 1998: 4; Wagner *et al.*, 1999: 1895). On Maui, *C. rotundifolia* is volunteering in yards in at least Kihei. This collection represents a new island record for Maui.

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Literature Cited


