

Citharexylum spinosum

Fiddlewood
Verbenaceae

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OVERVIEW

C. spinosum, which turns a beautiful orange in spring/summer is widely planted over much of the islands of O'ahu and Maui. It was previously thought to stay where it was planted, but has since been found spreading into adjacent land in Ha'iku, Kihei and Lahaina. *C. spinosum* is fairly widespread on Maui, but perhaps future damage can be minimized by not promoting fiddlewood in the landscape industry, taking fiddlewood out of the Maui county planting plan, and/or including it in a list of plants not to plant.

TAXONOMY

Family: Verbenaceae (verbena family) (Wagner et al. 1999).

Latin name: *Citharexylum spinosum* L. (Wagner et al. 1999).

Synonyms: *Citharexylum quadrangulare*, *C. subserratum*. (Wagner et al. 1999).

Common names: Fiddlewood (Wagner et al. 1999).

Taxonomic notes: *Citharexylum* is a genus of over 70 species from Bermuda, the West Indies, and southern United States through Mexico to South America (Wagner et al. 1999).

Nomenclature: Fiddlewood's Latin name, *Citharexylum spinosum*, is derived from the Greek *kithara* (lyre or fiddle) and *xylon* (wood) (Wagner et al 1999). Fiddlewood's common name comes from the use of its wood to make stringed instruments by the people of the Caribbean (Turner and Wasson 1997).

Related species in Hawai'i: *Citharexylum caudatum* is a related species which is similar to *C. spinosum* and is also cultivated and naturalized in Hawai'i.

DESCRIPTION

"Tree up to 50 ft (15 m) tall with elliptic, firmly chartaceous blades pointed at both ends, up to 8 in (20 cm) long and 4 in (10 cm) wide, with orange-yellow petioles; the racemes are drooping, simple or branched at the base, and up to 12 in (30 cm) long; the fruits are globose, 0.25 in (0.60 cm) in diameter, and orange or red, turning black when ripe. The leaves characteristically turn russet gold between February and May. The flowers are functionally unisexual and the trees are dioecious (Tomlinson and Fawcett 1972, Tomlinson 1980).

BIOLOGY & ECOLOGY

Cultivation: *C. spinosum* is cultivated as a street tree and is a popular ornamental, primarily in tropical and subtropical areas. The tree is stunning, and gives one the feeling of fall colors when its leaves turn orange and drop.

Invasiveness: *C. spinosum* is a popular ornamental and has begun to produce seedlings in Hawai'i during the past twenty years or so. Ten years ago, it was thought that *C. spinosum* reproduced only in urban areas. However, Wagner et al. (1990) warned that *C. spinosum* may eventually become naturalized. Recently, it was documented as naturalized on O'ahu (Herbarium Pacificum Staff 1998), and has proven its ability to invade native ecosystems in the Ko'olau range. On Maui, *C. spinosum* has spread from plantings and is naturalized in Ha'iku, Kihei, and Lahaina (Starr et al. 2002). Numerous fruits which attractive to birds are produced on drooping racemes and readily germinate forming thickets in hedges, pastures, roadsides, gulches, and disturbed forested areas. *C. spinosum* is able to form a dense canopy and smother other vegetation.

Pollination: Unknown, small fragrant flowers are likely insect pollinated.

Propagation: *C. spinosum* can be propagated from seeds or cuttings.

Dispersal: Seeds are dispersed by fruit eating birds. Plants are dispersed by humans who cultivate the tree in landscaping.

Pests and diseases: None known.

DISTRIBUTION

Native range: *C. spinosum* is native to the Caribbean (Turner and Wasson 1997).

Global distribution: *C. spinosum* is cultivated in warm regions of the world as an ornamental for its fragrant white flowers and attractive foliage. The wood is sometimes used in cabinetry (Turner and Wasson 1997).

State of Hawai'i distribution: *C. spinosum* can be found on the islands of O'ahu, Maui, and Hawai'i (Herbarium Pacificum Staff, 1998, Wagner et al. 1999, Starr et al. 2002, Oppenheimer and Bartlett in press). *C. spinosum* trees likely exist on other islands, as it is a popular street tree. *C. spinosum* can be found growing in a wide range of climatic conditions, from very dry to very wet habitats and from near sea level up to 3,500 ft (1,067 m) elevation. Gerrish and Mueller-Dombois (1980) describe 2 infestations on O'ahu at Tantalus and Pupukeya where it grows in dry habitats generally below 500 m. There is a population at the bottom of the cliffs in Waimanalo in a very dry habitat (Smith 1998).

Island of Maui distribution: On Maui, *C. spinosum* is widely planted in Ha'iku, Kihei, Lahaina and Wailuku. It was found to be naturalized in the area of Ha'iku, especially 'Ohia gulch and Kihei (Starr et al. 2002). *C. spinosum* can be found growing from near sea level in Lahaina to 3,500 ft (1,067 m) in Kula. The wetter areas have more potential for *C. spinosum* to reproduce, but it is successfully spreading from a botanical garden in a very dry setting in Kihei to nearby Kealia Pond National Wildlife Refuge, and is also spreading near Lipoa in Kihei into the yards of nearby condominiums.

CONTROL METHODS

Physical control: If cut and not treated, *C. spinosum* will grow back.

Chemical control: No trials have been done, but because *C. spinosum* is able to grow back after being cut to the ground, herbicides will likely play a role in any efforts to control it.

Biological control: *C. spinosum* has not been evaluated for biological control (Smith 1998).

Cultural control: The public could be discouraged from planting *C. spinosum*.

Noxious weed acts: *Citharexylum spinosum* is not on the Hawai'i state noxious weed list.

MANAGEMENT RECOMMENDATIONS

C. spinosum, which turns a beautiful orange color, is widely planted over much of the islands of O'ahu, Maui, and Hawai'i. It was previously thought to stay where it was planted, but has since been found spreading on Maui into adjacent land in Ha'iku, Kihei, and Lahaina. Maui will never get rid of *C. spinosum*, but it can perhaps minimize potential future damage by not promoting it in the landscape, taking it out of the Maui county planting plan, and/or including it in a list of plants not to plant. People can keep their eyes open for *C. spinosum*, especially in natural areas, and alert USGS/BRD of new locations. Fiddlewood is deciduous during the dry season, and it can be seen from a considerable distance when the leaves turn orange prior to fall. This is the best time to map it.

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