

Clerodendrum inerme

Seaside clerodendrum

Verbenaceae

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January, 2003

OVERVIEW

Clerodendrum species are landscaping plants valued for their unique flowers. In Hawai'i, several species are cultivated and some, including *Clerodendrum inerme*, are beginning to naturalize beyond the garden. *C. inerme* is currently a popular groundcover in coastal gardens of the Hawaiian Islands. A large planting of *C. inerme* can be observed in south Maui on the beach side of the residences along Po'olenalena beach where it rambles over naupaka (*Scaevola sericea*) and other native coastal plants. Though packed with fragrant flowers and attractive green foliage, this plant shows invasive tendencies and is able to thrive near the ocean at the high tide mark, making it a potential weed in the coastal environment. The full potential invasiveness of *C. inerme* in Hawai'i is not yet known. Continued monitoring and documentation of its invasive tendencies on Maui and elsewhere in the state are suggested.

TAXONOMY

Family: Verbenaceae (Verbena family) (PLANTS 2001).

Latin name: *Clerodendrum inerme* (L.) Gaertn. (PLANTS 2001).

Synonyms: *Volkameria inermis* L. (PLANTS 2001).

Common names: Seaside clerodendrum (or clerodendron), embret, Indian privet, glorybower (Neal 1965, Turner and Wasson 1997, PLANTS 2001).

Taxonomic notes: The genus *Clerodendrum* includes over 450 species of tropical regions (Wagner et al. 1999).

Nomenclature: The name *Clerodendrum* is derived from the Greek *kleros*, meaning chance or fate, and *dendron*, meaning tree, in reference to the uncertain medicinal qualities of some of the plants (Wagner et al. 1999).

Related species in Hawai'i: Neal (1965) refers to several species being cultivated in Hawai'i, including *C. ugandense* Prain., *C. thomsonae* Balf., *C. splendens* G. Don, *C. speciosissimum* Van Geert., *C. minahassae* Teijsm. and Binn., *C. indicum* (L.) Ktze., *C. fragrans* (Vent) R. Br. var. *pleniflorum* Schau., and *C. glabrum* E. Mey. Species which have naturalized in Hawai'i include *C. chinense* [syn. *C. philippinum* Schauer, *C. fragrans* Willd.] (Wagner and Herbst 1995, Wagner et al. 1999) and *C. macrostegium* Schauer (Lorence and Flynn 1997, Wagner et al. 1999). Wagner et al. (1999) also note that *C. indicum* and *C. speciosissimum* are garden escapes at least on O'ahu.

DESCRIPTION

Evergreen sprawling shrub 1-1.8 m tall. Stems woody, smooth. Leaves ovate to elliptical (5-10 cm) long, acute to acuminate tip, green, smooth, slightly shiny upper

surface, pinnate venation, margins entire, leaves opposite, simple. Cyme or umbel usually comprised of 3 flowers joined at a common base point; corolla white, fused, with 5 lobes; stamens 4, reddish to purple and upwardly curved. Fruit green turning black, 1 – 1.5 cm long, obovoid. (Turner and Wasson 1997, Ling 2001.)

BIOLOGY & ECOLOGY

Cultivation: *C. inerme* is valued in landscaping as a groundcover or hedge plant. It has attractive evergreen foliage and fragrant white flowers that form in clusters and are accented by delicate red protruding stamens. Seaside clerodendrum, as its name suggests, grows well along the beach tolerating the salt spray of the ocean and the harsh rays of the sun (Turner and Wasson 1997). It is a versatile plant and can be grown as a topiary or as a bonsai.

Invasiveness: This plant has aggressive growth characteristics and may prove to naturalize in places where it is planted, such as Hawai'i. Small seedlings have been observed on the Big Island and it is will probably be documented as an escape from gardens in the near future both there and on Maui. Numerous seeds that appear attractive to birds are produced and vegetative growth is aggressive. Invasion is most likely to occur in coastal sites, where it is often planted and thrives. It has the potential to form dense brambles smothering other plants and would probably be hard to remove as it roots at the nodes and produces large amounts of biomass.

Pollination: Unknown.

Propagation: *Clerodendrum* species can be propagated by seeds and cuttings (Riffle 1998)

Dispersal: *Clerodendrum inerme* is first dispersed into the landscape of Maui via humans using the plant in landscaping. Plants spread vegetatively to adjacent areas. Seeds may be dispersed by birds.

Pests and Diseases: Whiteflies, mealybugs, and aphids are common, according to Brickell and Zuk (1997) and galls, cankers, and a few leaf spots are also known to occur.

DISTRIBUTION

Native range: *Clerodendrum inerme* grows near the seashore in tropical Asia and the Pacific (Turner and Wasson 1997).

Global distribution: This species is also cultivated in at least Hawai'i, Australia, and the West Indies and probably elsewhere in warm climates.

State of Hawai'i distribution: In Hawai'i, this plant was observed in Kona, Hawai'i, and Kihei, Maui. In Kona, it can be seen planted as an ornamental near shopping centers and resorts. There was ample fruit present and small plants were observed nearby plantings. On Maui, a large stand occurs in a residential planting along the beach near Po'olenalena.

Island of Maui distribution: The planting near Po'olenalena is a seaside landscaping between the residences and the beach. It is planted as a groundcover and can be seen aggressively rambling over naupaka and other plants onto the beach.

CONTROL METHODS

No control methods have been refined or found in literature. Plants can probably be removed mechanically or chemically depending on size of infestation. No biological controls are known.

Noxious weed acts: No noxious weed acts are known.

MANAGEMENT RECOMMENDATIONS

A relatively new comer to Maui, *Clerodendrum inerme* is not yet documented as naturalized, though it is showing aggressive tendencies in coastal areas where it is planted in South Maui. The site should be monitored to document naturalized plants and gain a better perspective on invasive characteristics. There are many native groundcovers that grow naturally along the coast which could be used as a substitute.

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