

MELALEUCA QUINQUENERVIA (CAV.) BLAKE

Myrtaceae/Myrtle family

Common Names: Melaleuca, paper-bark, cajeput, punk tree, white bottlebrush tree

Synonymy: *Melaleuca leucadendron* (L.) L. misapplied

Origin: Australia, New Guinea, and Solomon Islands

Botanical Description: Evergreen tree to 33 m (100 ft) tall, with a slender crown and soft, whitish, many-layered, peeling bark. Leaves alternate, simple, grayish green, narrowly lance shaped, to 10 cm (4 in) long and 2 cm (3/4 in) wide, with a smell of camphor when crushed. Flowers in creamy white “bottle brush” spikes to 16 cm (6 in) long. Fruit a round, woody capsule, about 3 mm (3/8 in) wide, in clusters surrounding young stems, each capsule holding 200-300 tiny seeds.

Ecological Significance: Introduced to Florida for ornament in 1906 (Laroche 1994b). Scattered aerially over the Everglades in the 1930s to create forests (Austin 1978). Widely planted, and recommended as late as 1970 as “one of Florida’s best landscape trees” (Watkins 1970). Now recognized internationally as a threat to the Florida Everglades, a World Heritage Site and International Biosphere Reserve (D. C. Schmitz, 1994 Congressional testimony). Grows extremely fast, producing dense stands that displace native plants, diminish animal habitat, and provide little food for wildlife (Laroche 1994b). Has become abundant in pine flatwoods, sawgrass marshes, and cypress swamps of south Florida (Nelson 1994). By 1994, estimated to infest nearly 200,000 ha (490,000 acres) in south Florida, with extensive stands in the Everglades, Big Cypress, and Loxahatchee Slough (Laroche 1994b). Infested acreage since reduced by an estimated 40,470 ha (100,000 acres) through regional control efforts (F. Laroche, South Florida Water Management District, 1998 personal communication). First insect biological control agent released in Everglades by U.S. Department of Agriculture in 1997 (Cox News Service).

Distribution: Found naturalized in Florida as far north as Hernando, Lake, and Brevard counties (Wunderlin *et al.* 1995, Mason 1997). Reported from natural areas in 16 central and south Florida counties (EPPC 1996).

RB



Old capsules

Life History: Prefers seasonally wet sites, but also flourishes in standing water and well-drained uplands (Laroche 1994b). Saplings often killed by fire, but not mature trees. Can survive severe frost damage (Woodall 1981). Grows 1-2 m (3-6 ft) per year; resprouts easily from stumps and roots; capable of flowering within 2 years from seed (Laroche 1994b). Flowers and fruits all year, producing up to 20 million windborne seeds per year per tree, and able to hold viable seed for massive all-at-once release when stressed (Woodall 1983). Releases volatile oils into air, especially when blooming, that cause respiratory irritation, asthma attacks, headaches, and/or rashes in some people (Morton 1971b).

TP



In Big Cypress National Preserve

JRS



Flowers, leaves