

CASUARINA EQUISETIFOLIA L.

Casuarinaceae/Beefwood Family

- Common Names:** Australian-pine, beefwood, ironwood, she-oak, horsetail tree
Synonymy: *Casuarina littorea* L. ex Fosberg & Sachet, *C. littorea* Rumphius ex Stickman
Origin: Australia, south Pacific Islands, Southeast Asia

Botanical Description: Evergreen tree to 46 m (150 ft) tall, usually with single trunk and open, irregular crown. Bark reddish brown to gray, rough, brittle, peeling. Branchlets pine-needle-like, grayish green, jointed, thin (< 1 mm wide), 10-20 cm (4-8 in) long, minutely ridged, hairy in furrows. Leaves reduced to tiny scales, 6-8 in whorls encircling joints of branchlets. Flowers unisexual (monoecious), inconspicuous, female in small axillary clusters, male in small terminal spikes. Fruit a tiny, 1-seeded, winged nutlet (samara), formed in woody cone-like clusters (fruiting heads), these brown, to 2 cm (3/4 in) long and 1.3 cm (1/2 in) wide.

NOTE: May be confused with the related exotics, *C. glauca*, which has 10-17 leaf scales per whorl (see following pages), and *C. cunninghamiana* Miquel, which has 8-10 scales per whorl.

Ecological Significance: Introduced to Florida in the late 1800s (Morton 1980). Naturalized since the early 1900s along coastal dunes (Small 1927). Planted extensively in the southern half of the state as windbreaks and shade trees (Morton 1980). Seeds freely throughout the area and has spread rapidly (Long and Lakela 1971). Salt tolerant, growing even in front-line dunes (Watkins 1970). With rapid growth, dense shade, dense litter accumulation, and other competitive advantages, displacing and extremely destructive to native vegetation (Nelson 1994). Can encourage beach erosion by displacing deep-rooted native vegetation (Klukas 1969). Interferes with nesting of endangered sea turtles and the American crocodile (Klukas 1969).



Coastal-strand monoculture

Distribution: Occurs throughout south Florida, from Orlando south, on sandy shores and in pinelands. Frequently colonizes disturbed sites, such as filled wetlands, road shoulders, cleared land, and undeveloped lots (Maxwell 1984). Occurs as far north as Dixie County on the west coast and Volusia County on the east (Wunderlin *et al.* 1995). Naturalized also in West Indies, Mexico, and elsewhere in tropical America (Long and Lakela 1971).

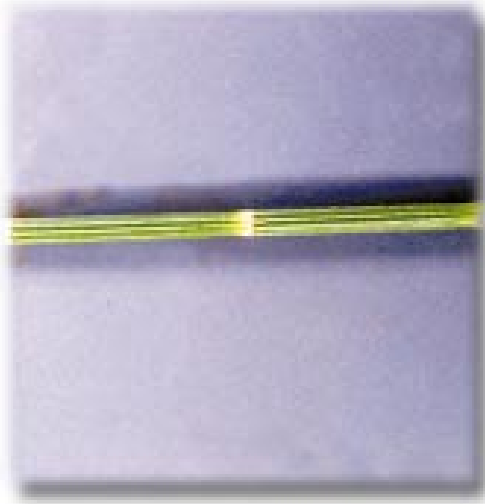
Life History: Not freeze tolerant; sensitive to fire (Morton 1980). Loses branches easily and topples easily in high winds (Morton 1980). Produces allelopathic compounds that inhibit growth of other vegetation (Morton 1980). Can colonize nutrient-poor soils easily by nitrogen-fixing microbial associations (Wilson 1997). Reproduces prolifically by seed, as many as 300,000 to the pound, with seeds dispersed by birds (especially exotic parrots and parakeets), water, and wind (Morton 1980). Fruiting heads float (Maxwell 1984).

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Fruiting heads

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Scale-like leaves at node

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Branchlets