



Florida Department of Environmental Protection

WEED ALERT

Australian pine

(*Casuarina species*)



Australian pines in the Florida Keys

Why Australian pine must be managed:

Australian pine trees threaten native central and south Florida beach plant communities by quickly invading newly accreted beaches, beaches where dredge spoil has been deposited, and beaches where a storm has destroyed existing vegetation. Australian pine trees have also invaded south Florida's hammock and tree island communities in the Everglades. These trees outcompete native vegetation by producing a dense leaf litter beneath them. Because of shallow root systems, Australian pine trees tend to uproot and topple during high winds and pose a significant hazard to coastal storm evacuation routes.

Environmental damage caused by Australian pine:

- ▶ Australian pine invasions often displace native beach plant communities that provide critical wildlife habitat for threatened and endangered plant and animal species.
- ▶ Australian pine trees can encourage beach erosion by displacing deep-rooted vegetation.
- ▶ Australian pine tree's dense shallow root system interferes with the ability of the endangered American crocodiles and sea turtles to construct coastal nests.
- ▶ Australian pine forests provide little or no native wildlife habitat.

Australian pine - Several species of *Casuarina* were introduced from Australia to Florida during the 1890s. Although commonly called pines, these plants are angiosperms, not conifers. Australian pines were widely planted in Florida to form windbreaks around canals, agricultural fields, roads, and houses. Habitats disturbed by both human activities and natural events seem particularly prone to invasions by Australian pine. Because Australian pine trees are resistant to salt spray, and can grow close to seawater, they have invaded thousands of acres of southeastern and southwestern coastal areas of Florida.




Sea turtle trapped in Australian pine roots on a Florida beach


Australian pine forest with no understory vegetation


Because of its aggressive growth rate, never plant Australian pine trees. There are native trees that provide shade and do not harm the environment. Possession of Australian pine with the intent to sell or plant is illegal in Florida without a special permit.


Australian pine *Casuarina species*

A tropical evergreen tree that grows up to 150 feet tall. Common names include beefwood, ironwood, she-oak, and horsetail tree. It is a native of Australia, South Pacific islands, and Southeast Asia.

 **Leaves:** Leaves reduced to tiny scales around branchlet joints, 6-8 in whorls in *Casuarina equisetifolia*, 8-10 in whorls in *C. cunninghamiana*, and 10-17 in whorls in *C. glauca*.

 **Stems:** Branchlets pine-needle like, grayish green, jointed, thin, 10-20 cm (4-8 in) long, minutely ridged, hairy in furrows.

 **Flowers:** *C. equisetifolia*- unisexual (monoecious), inconspicuous, female in small axillary clusters, male in small terminal spikes. *C. glauca*-unisexual (dioecious), inconspicuous, female in small axillary clusters, male in small terminal spikes; female plants rare in Florida.

 **Fruit:** a tiny, 1-seeded, winged nutlet (samara), formed in woody cone-like clusters.

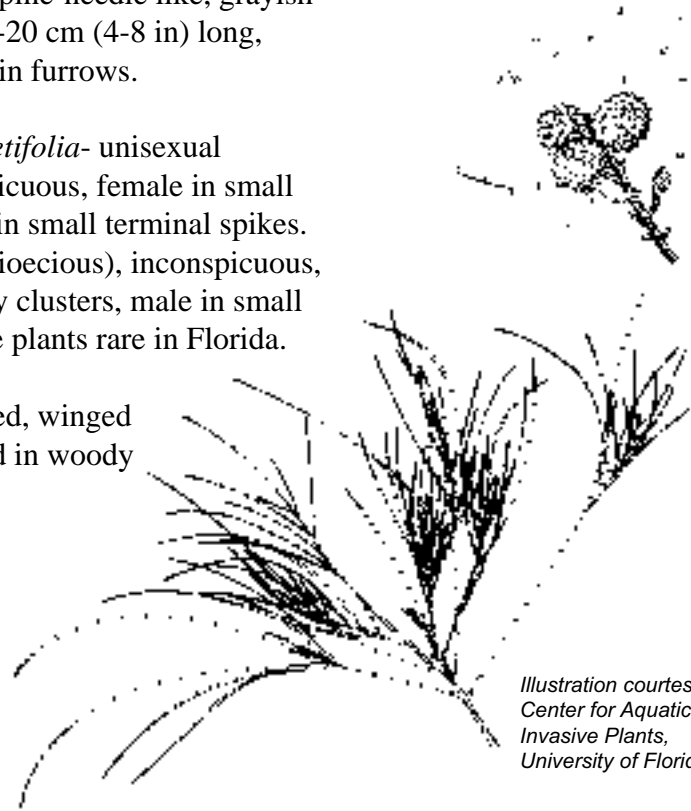


Illustration courtesy of
Center for Aquatic and
Invasive Plants,
University of Florida

LOOK FOR FIRST:

Needle-like branchlets

Small cone-like flower clusters

Distribution - Australian pine now occurs throughout south and central Florida, the West Indies, Mexico, and elsewhere in tropical regions outside its native range.

