



Australian Pine

Casuarina equisetifolia L.

Beefwood family (Casuarinaceae)

NATIVE RANGE

Malaysia, southern Asia, Oceania and Australia

DESCRIPTION

Australian pine is a deciduous tree with a soft, wispy, pine-like appearance that can grow to 100 feet or more in height. Also known as ironwood, beefwood, she oak and horsetail tree, it bears a superficial resemblance to the conifer genus *Pinus* because of its small, round, cone-like fruits and its branchlets of scale-like leaves that look like pine needles. Its flowers are tiny, brown and wind-pollinated. The fruit is a nutlet about 1/2 inch in diameter that contains winged seeds.

ECOLOGICAL THREAT

Australian pine is fast-growing (5-10 feet per year), produces dense shade and a thick blanket of leaves and hard, pointed fruits, that completely covers the ground beneath it. Dense thickets of Australian pine displace native dune and beach vegetation, including mangroves and many other resident, beach-adapted species. Because its roots are capable of producing nitrogen through microbial associations, Australian pine can colonize nutrient-poor soils. Once established, it radically alters the light, temperature, and soil chemistry regimes of beach habitats, as it outcompetes and displaces native plant species and destroys habitat for native insects and other wildlife. Chemicals in the leaves of Australian pine may inhibit the growth of other plants underneath it.

The ground below Australian pine trees becomes ecologically sterile and lacking in food value for native wildlife. Unlike native shrubbery, the thick, shallow roots of Australian pine make it much more susceptible to blow-over during high wind events, leading to increased beach and dune erosion and interference with the nesting activities of sea turtles.



DISTRIBUTION IN THE UNITED STATES

Australian pine is established in the Hawaiian islands, coastal Florida, Puerto Rico, the Bahamas, and many Caribbean islands.

HABITAT IN THE UNITED STATES

Australian pine occurs in open, coastal strand habitat, characterized by sand and shell beaches, rocky coasts, sand dunes, and sand bars in subtropical climates.

BIOLOGY & SPREAD

Australian pine is capable of flowering year-round and can produce tremendous numbers of small, winged seeds which are dispersed by wind.

BACKGROUND

Australian pine was introduced to Florida in the late 1800's and planted widely for the purposes of ditch and canal stabilization, shade and lumber.

MANAGEMENT OPTIONS

No biological controls are currently available for management of Australian pine. For new or small infestations, manual removal of Australian pine seedlings and saplings is recommended. For heavier infestations, application of a systemic type herbicide to bark, cut stumps, or foliage is likely to be the most effective management tool. Prescribed fire has also been used for large infestations in fire-tolerant communities.

Raking and removal of leaf litter, cones and seeds should be done whenever possible. Impacts to native plants should be minimized during any control activities. Whenever possible, efforts should be taken to prevent the introduction or encroachment of Australian pine. For example, recently disturbed beach habitat may be planted with native vegetation to prevent Australian pine from invading.

USE PESTICIDES WISELY: Always read the entire pesticide label carefully, follow all mixing and application instructions and wear all recommended personal protective gear and clothing. Contact your state department of agriculture for any additional pesticide use requirements, restrictions or recommendations.

NOTICE: mention of pesticide products on this page does not constitute endorsement of any material.

CONTACTS

For more information on the management of Australian Pine, please contact:

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SUGGESTED ALTERNATIVE PLANTS

Locally native plants that are adapted to the harsh conditions of the coastal environment should be used for landscape planting and beach restoration projects. Because most of these shrub species are evergreen, they provide year-round shade, erosion control and essential food and shelter for native wildlife. A few examples of Atlantic and Caribbean natives include sea grape (*Coccoloba uvifera*), sea ox-eye daisy (*Borrchia frutescens*), sea hibiscus (*Hibiscus tiliaceus*), sea lavender (*Tournefortia gnaphalodes*) and sea-blight (*Suaeda maritima*).

OTHER LINKS

- <http://www.invasive.org/search/action.cfm?q=Casuarina%20equisetifolia>
- http://www.hear.org/starr/hiplants/images/thumbnails/html/casuarina_equisetifolia.htm

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PHOTOGRAPH

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