

# **Casuarina spp.: Australian-Pine<sup>1</sup>**

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# Introduction

Long-favored for use in erosion control along beaches, Australian-pine tree is now outlawed in many parts of Florida due to its invasive nature, rapid growth rate, and non-native status. It is not a true pine tree and is not related to the pines. A straight, upright tree capable of reaching 70 to 90 feet in height and possessing rough, fissured, dark gray bark, Australian-pine has what appear to be long, soft, gray green needles but these "needles" are actually multijointed branchlets, the true leaves being rather inconspicuous. These "needles" sway gently in the breeze and give off a distinctive, soft whistle when winds are particularly strong. The insignificant flowers are followed by small, spiny cones, less than ½-inch-long.

# **General Information**

Scientific name: *Casuarina* spp. Pronunciation: kass-yoo-ar-EYE-nuh species Common name(s): Australian-pine, *casuarina* Family: *Casuarinaceae* USDA hardiness zones: 9B through 11 (Figure 2) Origin: native to Australia, Southeast Asia, and the Pacific Islands

**UF/IFAS Invasive Assessment Status:** prohibited from use in Florida according to the Federal Noxious Weed List, the Florida Department of Agriculture and Consumer Services (FDACS) 5B-64.011 Prohibited Aquatic Plants, or FDACS 5B-57.007 Noxious Weed List (North, Central, South)

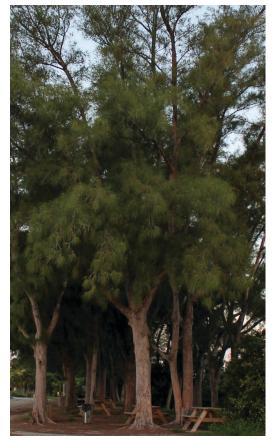


Figure 1. Full Form—Casuarina spp.: Australian-pine

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Figure 2. Range

# Description

Height: 70 to 90 feet Spread: 30 to 40 feet Crown uniformity: irregular Crown shape: upright/erect Crown density: open Growth rate: fast Texture: fine

### Foliage

Leaf arrangement: whorled Leaf type: simple Leaf margin: entire Leaf shape: scale-like Leaf venation: unknown Leaf type and persistence: evergreen Leaf blade length: < 2 inches Leaf color: gray green Fall color: no color change Fall characteristic: not showy



Figure 3. Leaf—Casuarina spp.: Australian-pine

#### Flower

Flower color: yellow

Flower characteristics: not showy; male—emerges on spikes at the end of the needle-like structure; female—emerges in clusters from leaf axils

**Flowering:** year-round but most abundant in the spring, and then again in late summer/early fall



Figure 4. Flower—Casuarina spp.: Australian-pine

## Fruit

Fruit shape: round, oval; cone-like
Fruit length: < ½ inch
Fruit covering: dry or hard; spiny
Fruit color: brown
Fruit characteristics: does not attract wildlife; not showy;
fruit/leaves a litter problem
Fruiting: year-round but most abundant in early summer,
and then again in mid winter</pre>



Figure 5. Fruit—Casuarina spp.: Australian-pine

## **Trunk and Branches**

Trunk/branches: branches droop; not showy; typically one trunk; no thorns Bark: dark gray, fissured, and rough Pruning requirement: needed for strong structure Breakage: susceptible to breakage Current year twig color: green Current year twig thickness: thin, medium Wood specific gravity: unknown



Figure 6. Bark—*Casuarina* spp.: Australian-pine Credits: Gitta Hasing

## Culture

Light requirement: full sun to partial shade Soil tolerances: clay; sand; loam; alkaline; acidic; welldrained to occasionally wet Drought tolerance: high Aerosol salt tolerance: high

## Other

Roots: can form large surface roots Winter interest: no Outstanding tree: no Ozone sensitivity: unknown Verticillium wilt susceptibility: unknown Pest resistance: resistant to pests/diseases

# **Use and Management**

Highly salt- and drought-tolerant, Australian-pine was widely used in seaside landscapes as a windbreak, screen, clipped hedge, and for topiary. Its ability to withstand heat and other adverse conditions made Australian-pine a favorite for street tree or specimen use also. It is not planted now due to the problems it has created including the elimination of habitat for native plants. Injured trees compartmentalize wounds poorly and decay advances rapidly through the trunk. Old trees which have been topped and abused often become hazardous and they can fall over or drop large limbs.

Growing in full sun or partial shade, Australian-pine will tolerate many adverse conditions, dry or wet soil, heat or high winds. Trees are hardy to about 25°F. Vigorous sprouts often originate from the roots of older trees knocked back by the cold.

### Pests

No pests are of major concern.

## Diseases

Root rot.

# References

Koeser, A. K., Hasing, G., Friedman, M. H., and Irving, R. B. 2015. *Trees: North & Central Florida*. Gainesville: University of Florida Institute of Food and Agricultural Sciences.

Koeser, A.K., Friedman, M.H., Hasing, G., Finley, H., Schelb, J. 2017. *Trees: South Florida and the Keys*. Gainesville: University of Florida Institute of Food and Agricultural Sciences.