

Introduction

Species introduced from other countries after the arrival of Europeans in the 1500s are considered exotic. Many of these non-native plants, have become established in our yards, farms and natural areas. In the yard, they may be called weeds, and any homeowner knows what a frustration they can be. Money and time are spent on removal procedures. Money and time that may be better spent some other way. Weeds are a bigger and more expensive problem in agriculture. Billions of dollars are spent to control existing weeds and the industry spends even more to produce herbicide-resistant crops often using Genetic Engineering—which itself carries social, economic and potential environmental issues. It is in our natural areas where invasive exotic plants may pose the greatest problem. Less than half of Florida's land area consists of natural ecosystems; the rest has been developed through housing, urban sprawl and agriculture. Invasive plants may pose as great a threat to natural areas as the destruction of these areas caused by development.

General Information about Invasive Plants

The term invasive exotic or simply invasive, refers to those species that can reproduce themselves outside of their native habitat, establish sustaining populations and displace native species. The term displacement refers to the ability of one species to out-grow, out-compete and eventually crowd-out native species. An invasive vine like Japanese climbing fern (*Lygodium japonicum*) can smother an entire forest, shading out the trees beneath a blanket of its leaves. With the lack of sunlight, those forest trees eventually die.



Brazilian Pepper (*Schinus terebinthifolius*) was introduced as an ornamental landscape plant.

Not every plant that has been introduced into Florida becomes invasive. The majority of non-native agricultural crops (citrus, tomatoes, lettuce, etc.) pose no threat of “escape” from the fields where they grow into yards or natural areas. Many Florida landscape plants come from all over the world and do not reproduce themselves readily outside of their natural home habitat. These plants are called “exotic” as they are native to other lands, but they are not considered invasive exotics.

The Worst Offenders

Cogongrass (*Imperata cylindrica*) - Accidentally introduced into Alabama in the early 1900s. Purposely introduced in Florida (and other states) in the 1930s and early 1940s as potential forage for livestock and soil erosion control. Considered a pest in 73 countries around the world.

Brazilian Pepper (*Schinus terebinthifolius*) – Native of Argentina, Paraguay and Brazil;

thought to have been introduced into Florida by 1842-1849 as a landscape plant.

Australian Pine (*Casuarina spp.*) - Introduced 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.

Tropical Soda Apple (*Solanum viarum*) - With foliage unappealing to livestock, this invasive weed can infest a pasture in as little as one to two years, resulting in reduced forage production and smaller herd sizes.

Catclaw Mimosa (*Mimosa pigra*) - A sprawling, prickly shrub that was first identified in Florida in 1953 and now occurs on 1,000 acres of river floodplain, swamp forest, and lake margins in Broward, Palm Beach, Marin, St. Lucie, and Highlands counties. It is listed as a noxious weed by the Florida Exotic Pest Plant Council (FLEPPC) and the US Department of Agriculture (USDA).

Australian Paperbark (*Melaleuca quin-
quinervia*) In the early 1900s, this tree was introduced into Florida as an ornamental plant. In the 1930s it was intentionally spread throughout the Everglades area for drainage purposes and subsequently began changing the dynamics of this unique ecosystem. It was even planted as a landscape tree in Florida yards until the late 1970s. Today this tree is recognized as a Category I (worst) weed by FLEPPC and is prohibited from being planted in Florida.

Chinese Tallow (*Sapium sebiferum*) - There are places in Florida and in the Houston, Texas area where the tree has escaped from landscapes and is invading native woodlands and the edge of wetlands.

Japanese Climbing Fern (*Lygodium japoni-
cum*) Because of its ability to engulf and out-compete native vegetation, this climbing fern can be of particular concern in natural and disturbed areas where restoration of native species is critical.

Carrotwood (*Cupaniopsis anacardioides*) – Another popular landscape plant that has escaped into natural areas. Habitats that have been invaded by carrotwood include beach dunes, marshes, tropical hammocks, pinelands, mangrove and cypress swamps, scrub habitats, and coastal strands (Lockhart et al. 1999)

Air Potato (*Dioscorea bulbifera*) - Air potato can quickly smother native vegetation in natural areas, climbing high into mature tree canopies.

Skunk Vine (*Paderia foetida*) - Invades native plant communities in Florida and can create dense canopies leading to the death of native vegetation. The plant emits a foul odor, especially when the leaves are crushed. Like the Australian Paperbark it is listed as a Category I (worst) weed by FLEPPC.

What to Do

You can help prevent the spread of these pests by learning how to identify them. Identifying and removing these plants from your yard can have a positive impact on your local environment. The different species have different control methods (see the fact sheets below for information on particular techniques.) As plants, the photosynthesis-disrupting herbicides are usually effective, but repetition and proper application are necessary. If you hire a contractor to apply herbicides on your property, make sure they have the necessary license(s) from

the Florida Bureau of Entomology and Pest Control.

Many counties and local governments hold community clean-up days in natural areas like parks and preserves that you can take part in. Check with your local parks and recreation department to learn of planned events. The Florida Invasive Species Partnership facilitates the formation of Cooperative Invasive Species Management Areas (CISMAs). The Suncoast Chapter (<http://www.floridainvasives.org/Suncoast/>) organizes various work days. Get involved and spread the word!

Be careful when purchasing a new plant for your landscape. The Florida Exotic Pest Plant Council (FLEPPC) has listed species considered to be most invasive or potentially invasive in Florida. Some plants found on the FLEPPC list are still available at nurseries and big box stores! See the list (updated regularly) here: www.fleppc.org/ and bring it with you when you shop for landscape plants.

References:

Help Protect Florida's Natural Areas from Non-Native Invasive Plants - <http://edis.ifas.ufl.edu/ag108>

Cogongrass <http://edis.ifas.ufl.edu/wg202>

Brazilian Pepper <http://edis.ifas.ufl.edu/fw037>

Australian Pine <http://edis.ifas.ufl.edu/st129>

Tropical Soda Apple <http://edis.ifas.ufl.edu/uw097>

Catclaw Mimosa <http://edis.ifas.ufl.edu/fw027>

Australian Paperbark <http://edis.ifas.ufl.edu/fr319>

Chinese Tallow <http://edis.ifas.ufl.edu/st583>

Japanese Climbing Fern <http://edis.ifas.ufl.edu/fr280>

Carrotwood <http://edis.ifas.ufl.edu/ag111>, Lockhart, C. S., D. F. Austin, W. E. Jones, and L. A. Downey. 1999. Invasion of Carrotwood (*Cupaniopsis anacardioides*) in Florida Natural Areas (USA). *Natural Areas Journal* 19:254-262.

Air Potato <http://edis.ifas.ufl.edu/ag112>

Skunk Vine <http://edis.ifas.ufl.edu/ag108>

A handbook, SP 257 Identification and Biology of Non-Native Plants in Florida's Natural Areas Second Edition, is available for sale from the IFAS Extension Bookstore at <http://ifasbooks.ufl.edu> (Ph: (352) 392-1764).

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