

Exotic vs. Invasive Exotic : What's the Difference?

Natural Resources

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Introduction

We often hear about the threats that “exotic” species pose to our wildlife; exotic snakes causing problems in the southern part of the state, exotic toads that can poison our pets, exotic vines that are suffocating our forests, etc. But just being native to another country or region of North America does not make a plant or animal a potential environmental hazard. It is when those species become established, reproduce themselves in the wild and out-compete native species for food and resources that they become “invasive exotics.” These are the species that cause so much damage and cost so much to control/eradicate.

General Information about Exotic Species

There have been many mechanisms through which non-native species have been introduced to Florida. For plants it has been agricultural and horticultural activities. Settlers brought seeds and plants from their native states to establish in Florida; either as a reminder of home, or for those plants' economic/medicinal properties. Later developers landscaped with plants which were proven hardy enough to deal with the difficult seasons of Central Florida. Sitting at the intersection of the Temperate Zone, which features warm summers and cold winters; and the Subtropical Zone, characterized by wet summers and dry winters, we get both. Hot, wet summers and cool dry winters. Developers and landscapers have managed to create a landscape “look” using non-native plants that are adapted to our climate. Many if not most of these landscape plants do not establish themselves in the wild, but some do. And with changes to the climate, more may soon find it



The Cuban Treefrog (*Osteopilus septentrionalis*), an invasive species, is posing a risk to our native tree

possible to reproduce in our wild areas and become problems in the future.

Keeping exotic animals as pets in Florida results from some people's natural curiosity about these animals and their behavior. Captive animals (pets) may be enjoyed for years, but it is not uncommon for pets to find themselves abandoned in the wild. Abandoning any animal into the wild is illegal. Non-native former pets are not adapted to life on their own, and may live out a shortened and very uncomfortable life. Non-native animals may also carry diseases that can infect native wildlife. Tropical fish, reptiles, amphibians, mammals, etc. are sometimes released when their owner can no longer care for them. If you find you can no longer take care of a pet, please contact your local pet store or humane society. Some counties host “Pet Amnesty Days” where unwanted exotic pets can be brought and handed over to organizations that can care for them in captivity. Pets should never be release from captivity (or into the wild).

General Information about Invasive Species

Those plants and animals that have found their way into Florida's natural areas and become established, (reproducing themselves in established populations that persist from year to year) are the ones that pose the greatest risk.

An example of an invasive animal is the Cuban Treefrog (*Osteopilus septentrionalis*), introduced into Florida in the 1930s and now common throughout the state. Cuban tree frogs eat our native tree frogs and compete with them for resources, potentially disrupting the ecology of the areas where they exist.

Invasive plants often pose a bigger and more expensive problem. Plants generally reproduce in greater numbers than animals, and an invasive plant population given the right conditions can overtake a natural area very quickly. Invasive plants like Hydrilla (*Hydrilla verticillata*), Air Potato (*Dioscorea bulbifera*) and Brazilian Pepper (*Schinus terebinthifolius*) cause the degradation of natural areas, and, in the case of aquatic invasive plants, can impair navigation on Florida's waterways.

Aggressive Native Species

Human activities have also resulted in some native plants becoming aggressive and outgrowing other species they were formerly in balance with. An example would be Florida's native Grape species (*Vitis* spp.) These plants have been historically balanced by browsers (deer) and frequent fires. The destruction of deer habitat and the suppression of fire due to development has resulted in many of Florida's natural areas being "taken over" by grape vines. The vines can grow into the canopy of native pine trees creating a net of stems and leaves,

shading out the species below. Despite their "aggression" in the absence of natural control, these native species are not considered invasive.

What You Can Do

Recognizing and eliminating invasive species on any lands that you have authority over can make a difference to the health of Florida's natural ecosystems. Even an area as small as a suburban lawn is a great place to start eliminating invasive species. One way is to keep these species from entering your yard to begin with! Some invasive plants are still for sale as garden flowers. Check the Florida Exotic Pest Plant Council (FLEPPC) list of invasive species before you make a purchase (see references). Become informed before making choices at the garden center. Hand-pulling and herbicides are good choices to control invasive plants.

Non-native and invasive animals are not so easy to control. If you think you've seen an invasive exotic animal (Burmese python, Cane Toad, Cuban Tree Frog, etc.) contact your local animal services agency. Take a photograph if possible to assist in identification. UF has prepared a fact sheet addressing how to identify and humanely euthanize Cuban Tree Frogs (<http://edis.ifas.ufl.edu/uw259>). For more information on exotic species and to learn how to get involved with the reporting on the presence and spread of these species visit: www.ivegot1.org.

The ecological and economic impact of invasive exotic species has hit Florida hard. Learning about these species and getting involved in their eradication is a great way to give back to nature.

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).

Florida Exotic Pest Plant Council
<http://www.fleppc.org/list/11list.html>

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