

# Invasive Species - Background Information

## What is a native species?

Every geographic region is home to specific organisms and species that have evolved over time in that ecosystem. These species are part of the food web and balance each other out through different relationships. They can have a predator-prey relationship or can compete for resources such as water, space, food and light. These species are considered native to that ecosystem.

*Examples:* Pecan tree, bald cypress, tobacco, Louisiana black bear, white-tailed deer, whooping crane, alligator gar

## What is a non-native species?

When a species is introduced into a new region, it is considered non-native. It was brought from its native geographic region and placed into a new one. Some non-native species can be introduced into a new region without having an economic effect or harm on the local ecosystem.

*Examples:* Cat, dog, cow, horse, chicken, sheep, potatoes, rice, sugar cane, cotton, apples, honeybee

## What is an invasive species?

An invasive species is non-native and harmful to the introduced region. There are many different negative impacts that they can have on the local ecosystem. Invasive species may prey on native species and have no native predators. This can cause an increase in the invasive species' population and a decrease in the native species' population. Invasive species can also destroy a habitat by taking over (ex. giant salvinia), uprooting plants (ex. feral hogs), canopy cover (ex. kudzu), and by being overly territorial (ex. Rio Grande cichlid). Invasive species often have an economical effect on the local agricultural businesses because they will cause disease or eat the crops.

*Examples:* Nutria, feral hogs, lionfish, Asian carp, giant salvinia, water hyacinth, hydrilla, pale yellow iris, zebra mussel, fire ant

## How does this affect Louisiana?

### Aquatic Plants

A huge concern for Louisiana is the damage caused by invasive plants. Waterbodies throughout Louisiana are affected by invasive aquatic plant species. Some of the most common ones are giant salvinia, common salvinia, hydrilla, water hyacinth, alligator weed and water lettuce. These six species include both submerged plants and free floating plants. Not only do these species affect people who are trying to access the waterbody, but they also affect the life under the water. The submerged and rooted plants are caught in the boat motors and the free floating plants make it hard for boaters to see where they're going. Thus, this drastically limits the access the public has to fish or to partake in recreational boating activities.

As previously mentioned, invasive aquatic plant species negatively affect the aquatic environment. Free floating plants can eventually cover an entire waterbody which reduces the amount of oxygen in the water. It can also change the pH level and/or water temperature. All three of these water quality alterations can make the waterbody an unsuitable and deadly environment for various aquatic life.



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## Aquatic Animals

Invasive aquatic animals impact Louisiana's waterbodies throughout the entire state. Louisiana has both freshwater and saltwater invasive species. Freshwater species include Asian carp, northern snakehead, Rio Grande cichlid, and apple snails. Saltwater species include lionfish and Asian tiger prawn. Many of these species lack a natural predator allowing them to reproduce and spread rapidly. Some species are introducing new parasites and pathogens that can infect humans. Most importantly, these species are out-competing the native species for food and habitat resources.

## How are invasive species being introduced into Louisiana?

Louisiana is home to 4 of the top 10 international ports which increases the chance of a non-native species being accidentally introduced. Exotic pet owners can also be guilty of releasing a pet into the wild once they are tired of having it or if it gets sick. Natural disasters can also destroy buildings that house exotic pets causing an accidental release. This was the case for nutria in the late 1930's.

An aquatic hitchhiker is the term for invasive plants and animals "hitching" a ride. They can "hitch" a ride on a boat motor, trailer or in the bilge pump. It is very important that these aquatic hitch hikers get rinsed off at the boat dock before traveling to a new location. If remain, they will be introduced into the next launch site. This also goes for any clothing item, like boots, that are worn and exposed to invasive species. Unfortunately, wildlife can also be a culprit in transferring and introducing invasive species to new locations.

## What can the public do to stop the spread of invasive species?

The most important thing that the public can do is educate! Tell others to inspect their boat, trailer and other equipment before leaving the waterbody to make sure there are no plants, animals or mud attached to it. Be sure to leave any plants or animals at the current waterbody. Do not transfer or release any bait into the waterbody. Lastly, never release unwanted aquarium pets into the wild.

## Additional Information:

Nutria damage: <http://www.nutria.com/site4.php>

Invasive species: <http://www.invasive.org/>

Invasive species interactive map of Louisiana: <http://is.cbr.tulane.edu/InvasiveSpecies.html>

