



Character Education



Respect

Elementary School - January, 2006

Having **respect** for our environment is more important now than ever before. Besides being aware of common environmental issues such as water resources and air quality, everyone should be educated about being **respectful** of our native flora and fauna. Planting native species and not introducing exotics into Florida help our environment in more ways than one. The information and activities found below will educate students about the importance of native species, and will show by example how a lack of **respect** for our environment can lead to all sorts of problems.

Introduction to Florida Exotic Species
Source: www.nps.gov/ever/eco/exotics.htm

Definitions:

Native: Originating or growing in a certain place or region

Exotic: Foreign; from another part of the world

Native trees, such as mangroves and cypress, are being replaced by exotic (introduced) species from other countries. Melaleuca, Australian-Pine, and Brazilian Pepper are all serious problems in Everglades National Park, as well as our local communities. Florida largemouth bass share their nesting beds with tilapia and oscars, fish imported from Africa and South America.



The introduction of exotic animals and plants into South Florida began in the late 1800s and has escalated ever since. These newcomers were originally introduced as pets, food sources, or decorative plants. Because these species have few enemies here in their new home, their numbers often become unmanageable. Exotic species displace native plants and animals by competing with them for space and food. The worst part is that exotics are extremely difficult to get rid of. Three plants pose serious threats to the balance that nature has established through time:

Brazilian Pepper is a plant that was first recorded in South Florida in the mid 1800s. It thrives on disturbed soils. With the explosion of development in South Florida in the 1900s and the seeds getting widely distributed, the plant has spread all over South Florida.

Melaleuca is a white-barked tree that was introduced at the turn of the century and defies most methods of control. It is a terrible problem in the Everglades, where it was introduced to help dry them out.

Australian Pine is a weedy exotic that was introduced from Australia and the East Indies in the late 1800s and quickly established itself by competing favorably with native vegetation. This tree's greatest impact has been along South Florida shorelines and islands where it invades areas that have suffered storm damage and soil disruption.



Animal Pests: Many animals are also damaging to the natural habitat of South Florida. Thinking they are doing the right thing, residents have released their pets that are no longer wanted into the environment. Pythons, boa constrictors, parrots, wild hogs, and other unwelcome animals have been observed in our environment, as evidenced by recent news accounts of snakes in the Everglades and our backyards. Blue and spotted tilapias, oscars, and Mayan cichlids, exotic fish which have invaded the Everglades, all pose a threat to native fish populations through predation and competition for nesting sites. Eradication of these fish is impossible, and no effective control method has yet been found.



If you have any questions regarding these activities or have any comments, call 954-519-1220 or e-mail airoutreach@broward.org. You can also visit our web site at www.broward.org/kids/environment.htm.

**Activity 1:** Reading Comprehension Questions

Based on the "Introduction to Florida Exotic Species" information found on the previous page, hold a group discussion about exotic and native species. Have the students answer the following questions:

1. Why do you think releasing a pet into the environment is bad?
2. Why do you think releasing a house plant into the environment can be bad?
3. Brazilian Pepper trees contain thousands of little red berries/seeds. While they look beautiful, they are a big problem because each seed can grow into another tree. How do you think these seeds get distributed around our environment? Why do you think this is such a major problem?
4. Why do you think exotic fish competing with our native fish is a problem?
5. What can we do to help stop the spread of exotic plants?
6. When replanting at our homes, why is it important to research and plant native trees and shrubs?
7. Discuss the quote below. How does it pertain to the subject of exotic versus native Florida species?

"To halt the decline of an ecosystem, it is necessary to think like an ecosystem."

*~Douglas P. Wheeler, EPA Journal,
September—October 1990*

Activity 2: Internet Research on Native Plants

Group the class into four to six groups and have each visit the Broward County NatureScape web site. Go to www.broward.org/naturescape. The NatureScape site will help educate the class about using native plants in the landscaping. Have the class go into the Native Plant Search link on the left side of the page. There, students can enter their zip codes along with information such as light preference (full or partial sun), drought tolerance (high or low), plant form (tree or shrub), and other information. Have the class write down five different native plants found in their areas. For each plant, they should click on the plant name to learn more information and to see pictures of them. Have the students write down information on all five plants, height, growth rates, drought tolerance, or any other information. Once each group has written information about the plants, have them present their findings to the class. They should report which plants they liked best, and which plants would not be good to plant around their homes because of sun, soil, or height requirements. It is good to keep in mind the saying "the right plant in the wrong place."



Did you know that in October 2005, Broward County was certified as a Community Wildlife Habitat by National Wildlife Federation?

In order to accomplish this unprecedented event, the NatureScape Broward program worked for three years developing programs, brochures, outreach materials, web sites, training volunteers, organizing County events such as Water Matters Day and the Emerald Awards, and certifying yards. To date, Broward County has more than 1,175 certified yards. Visit the NatureScape web site at www.broward.org/naturescape to see a map of certified properties and learn about certifying your yard. The NatureScape goal is to get 700 new certified yards each year and eventually, have a certified yard every 1/4 mile throughout Broward County!

To learn more about getting your school certified as a National Wildlife Schoolyard Habitat, log on to www.nwf.org/schoolyardhabitats. Educator resources are available through their website.

NatureScape Broward is making a difference for people, plants, and animals one yard at a time!

ANNOUNCING THE 2006 CLEAN AIR MONTH POSTER CONTEST

Theme: Air Pollution Solutions

Open to Elementary & Middle School Students

Deadline: April 7, 2006



For contest rules visit our web site at www.broward.org/kids/environment.htm or
e-mail airoutreach@broward.org.

