

# Project Wildlife



**I**n  
**L**earning  
**D**esign



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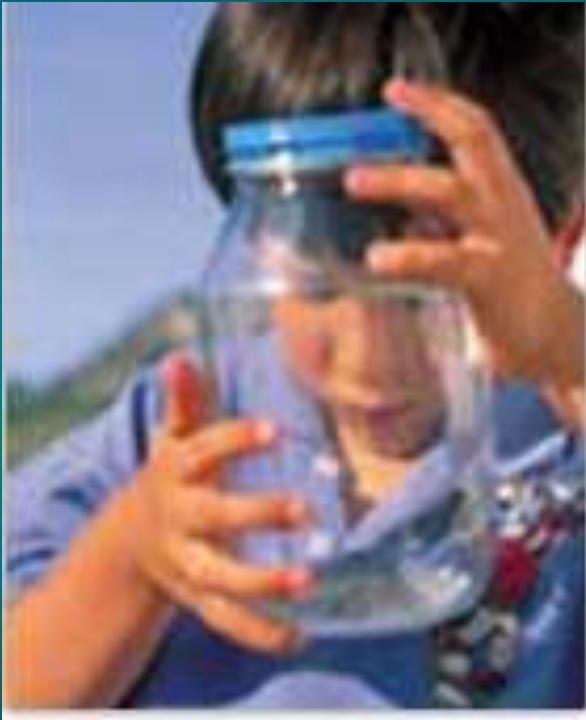
Exotic Species Coordination | Habitat and Species Conservation  
Florida Fish and Wildlife Conservation Commission

# Project WILD is....



- A wildlife focused conservation education program for K-12 educators and their students.
- One of the most widely-used conservation and environmental education
- An international program found in 49 states, the Canadian provinces, Czechoslovakia, India, Japan, Iceland and Sweden.

# Project WILD Mission



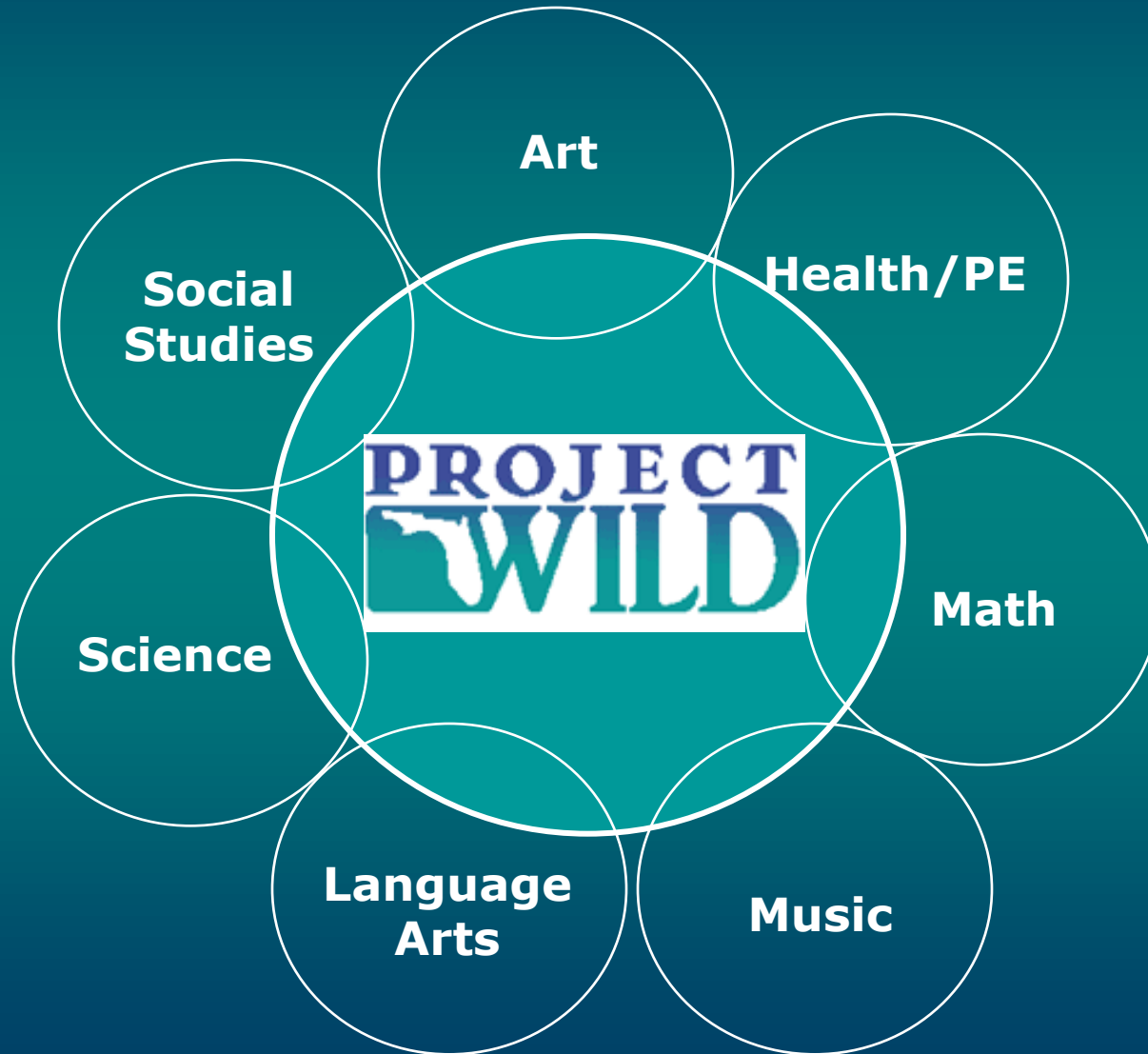
- To provide wildlife-based conservation and environmental education that fosters responsible actions toward wildlife and related natural resources.
- Teaches children **HOW** to think, **NOT** what to think.

# Project WILD Goal



- Assist learners in developing awareness, knowledge, skills and commitment to result in informed decisions, responsible behavior and constructive actions towards wildlife and the environment we share.
- Take students from **AWARENESS** to **ACTION**.

# Interdisciplinary Subject Areas



# Who uses Project WILD?

Classroom teachers,  
public/private schools

Museum, nature and  
science center instructors

Resource agency  
educators



Youth Organization  
Leaders,  
Homeschoolers

Preschool and  
daycare teachers

University  
Professors

Local, state and  
National park rangers  
and interpreters

# Project WILD Offers Educators

- Professional development workshops
- Interactive and hands-on activities
- K-12 Curriculum Guides
- Supplementary educational materials



# Project WILD and Aquatic WILD Guides



- 129 Project WILD activities
- 50 Aquatic WILD activities
- Interactive
- Multidisciplinary
- Includes conceptual framework
- Cross-reference by topic, grade level, activity type and assessment type
- Correlated to Florida SSS



# Facilitators are...

- Volunteers
- Teachers
- Parents
- Park and nature center employees
- Resource professionals
- People with a commitment to wildlife conservation
- LIFE OF THE PROGRAM!



# Florida Project WILD FY 2006-07 Annual Numbers

- Volunteer Network – 150
- Active volunteers – 70
- Volunteer hours – 1,229 (@ \$25/hr = \$30,725 of in-kind support)
- Number workshops facilitated – 72
- Educators reached – 1,400



# Using Project WILD to Educate about Non-Natives



- Project WILD activities can easily be adapted to educate about non-native species issues
- Non-native activities are implemented into Project WILD workshops
- Volunteers are kept up-to-date about non-native issues



# Non-Native Activities

## Aquatic Roots

### Aquatic Roots

#### Objectives

Students will: 1) trace the origin of various species of local aquatic animals and/or aquatic plants; 2) compare their lists and create species; and 3) evaluate the appropriateness of introducing new species.

#### Method

Students use research materials to research various local aquatic plants and/or animals to find out whether they are natives of Florida and to investigate their impacts on people, other animals and the environment.

#### Materials

A world map; paper; paper; reference materials; and a list of local non-native plants and animals.

#### Background

A non-native species is a species that does not naturally occur in a specific location. While species have always migrated from one place to another, certain land barriers have prevented that. With human migration, over time, human activities have changed those barriers. For example, organisms, such as animals, can be transported by ships, ballast water, on clothing and tools, or people move from one place to another.

Zebrus mussels and lampreys have made their way into the Great Lakes through random events and shipping lanes. Zebrus mussels are capable of laying over 1 million eggs each year. This population explosion is clogging the water systems of power plants and water treatment facilities, and reducing native species. Lampreys occur in waters from Florida inland into fresh water parks in the Pacific Northwest, like trout, as a reduction in the population.

Intentional introduction can also become an issue. Many governments, particularly in the United States, have laws that prevent the introduction of non-native species into the United States for use as a garden pest or otherwise. While not all species have the ability to reproduce, many have the ability to reproduce. Some have been introduced to Florida and other states, causing degradation of habitats, a loss of species, and a loss of native species. Another example of an

Grade Level: 1-8

Subject Area: Science, Social Studies, Environmental Education

Duration: Two or three 45-minute lessons, with additional time for student research and preparation of reports.

Group Size: Small or large groups or individual students.

Setting: Indoor

Conceptual Framework Topic Reference: (NRC, 1996)

Key Terms: exotic, native, introduced species, invasive, ballast water, tradeoffs, regulation

Appendix: None

### Objectives:

- Trace the origin of various non-native species and how they arrived to Florida
- Locate their native country on a map



# Non-Native Activities Alien Contenders

## Objectives:

- Define competition, predation, nuisance, disease, hybridize and habitat modification;
- Identify non-native species that cause problems to the environment or economy;
- Describe how or why non-native species cause problems to native

### Alien Contenders (Foe, Rival, Challenger)

Adapted from Project M.E.D.'s "Good Buddies"

#### Objectives

Students will: 1) define competition, predation, nuisance, disease, hybridize and 2) identify non-native species that cause problems to the environment or economy; and 3) describe how or why non-native species cause problems to native species.

#### Method

Students research pairs of non-native and native species, play a card game and classify the pairs of species according to the harm the non-native species causes.

#### Materials

Copies of master cards; chalkboard; research materials

#### Grade Levels: 5-8

Subject Areas: Science,  
Environmental Education,  
Language Arts

Read time: two 60-minute  
sessions, one 30-minute period if  
background is properly provided.  
This activity may require research.

Groupings: Students work in pairs.  
Start with small groups of five or  
six students.

#### Settings: indoors

Key Terms: alien, invasive,  
competition, predation,  
hybridization, disease, nuisance  
and habitat modification.

#### Background

Native species are plants and animals that grew naturally in an area before humans. A non-native species is a plant or animal that does not occur naturally in an area and is usually introduced by humans. Sometimes non-natives are referred to as aliens. When a non-native species begins to spread aggressively and cause harm to the environment, the economy, and sometimes human health it is considered an invasive species. Invasive species can cause harm in a variety of ways. There are at least six different types of damage or consequences an invasive can have on a native species.

**Competition:** active demand by two or more organisms for limited environmental resources, such as food, water, territory, and sunlight

**Predation:** biological interaction where a predator organism consumes an another living organism(s) known as prey

**Hybridization:** mixing two different species or varieties of organisms to create a hybrid (an offspring)

**Disease:** an abnormal condition of an organism that impairs the performance of its bodily functions.

**Nuisance:** problem individuals or populations of certain species that may become habituated to man's presence causing unpleasant encounters, property damage or risk transfer of disease to humans or pets

**Habitat Modification:** limits access to one or more of the requirements for life - food, water, shelter or space

The major purpose of this activity is for students to become familiar with the different types of effects invasive species can have on native or beneficial species and the public community.

#### Procedure

1) Reproduce several decks of master cards. Each deck should contain 30 cards: 15 card pairs showing a non-native and native relationship. Use the information from the first column of the information chart found at the end of this activity to create a list of pairs. Post the list on the board, a file chart or an overhead projector.



# Non-Native Activities Cartoons and Bumper Stickers

## Objectives:

- Identify cartoons and bumper stickers that are designed to make a statement about issues affecting natural resources and the environment
- Describe the influence of humor as a means for conveying information about such issues.

## Cartoons and Bumper Stickers



### Objectives

Students will: (1) identify cartoons and bumper stickers that are designed to make a statement about some issue affecting natural resources and the environment, and (2) describe the influence of humor as a means for conveying information about such issues.

### Method

Students find, analyze and discuss cartoons and/or bumper stickers.

### Materials

Colored pens and strips of construction paper for bumper stickers; drawing materials for cartoons.

### Background

Humor may be one of the most profound and subtle tools used in influencing people's attitudes. The process of humor can be an efficient and pleasant means by which to communicate information. It can diffuse differences of opinion, although—if the joke isn't appreciated—it can make the differences seem even greater.

Humorous media are diverse, including advertisements by stand-up comics, movies, plays, books, articles, photographs, films, paintings, commercial ads and more. One of the most popular forms used in contemporary culture to make a quick political statement are bumper stickers and cartoons.

Stereotypes are a rich resource for the humorist. Stereotypes of animals frequently are used to get a laugh. These may be accurately founded or sufficiently off-base to perpetuate misunderstanding. The Big Bad Wolf may be a classic one of the latter. One humor probably depicts a white chesterfield—based in the headline—by comparison with what could be a darker or a staler.

Not all humor is meant to be funny. It may be poignant, angry, bitter or sad. Political cartoons, for example, frequently pull at a range of such emotions when, after the initial laugh, the response may be, "That's not so funny—it's true."

### Grade Level: 5-8

Subject Areas: Environmental Education, Social Studies, Language Arts, Expressive Arts

Duration: one 45-minute session; time to look for cartoons or bumper stickers

Group Size: six

Setting: indoors (any of three outdoors)

Conceptual Framework Topic Reference: Civics (2002)

Key Terms: stereotypes, media, attitude

Appendix: Local Resources



# SW Florida Exotics



# CURBSIDE CARRY-OUT ON THE CAPE



*Wpofugor*  
THE NEWS-TRIBUNE  
© 2005

TRASH

RECYCLABLES

YARD WASTE

NILE PILE

# LOCAL ISLAND SHAPES

THE MERRY ARTISTS  
MacJagorz



SANIBEL



CAPTIVA



NORTH  
CAPTIVA



PINE  
ISLAND

LITTLE  
PINE  
IS.

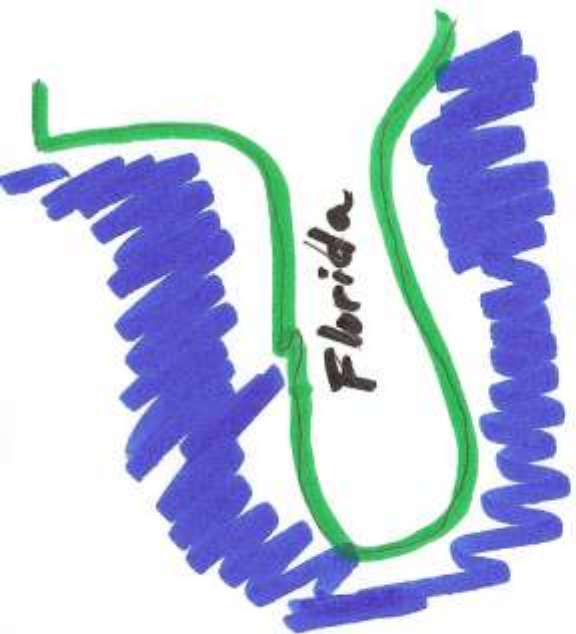


CAYO  
COSTA



BOCA  
GRANDE

(GASPARILLA)  
IGUANA  
ISLAND

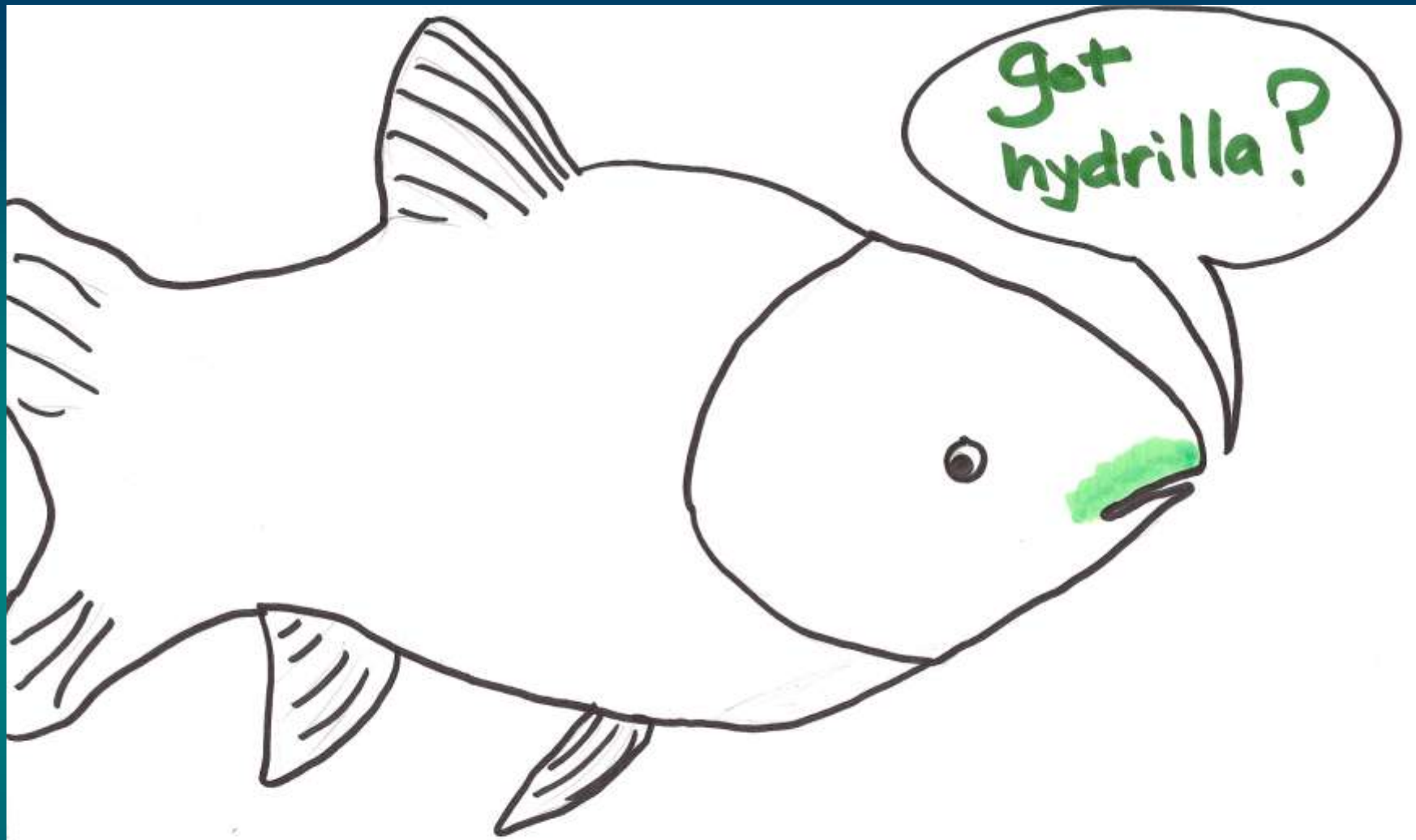


Florida  
Exotics

ARE NOT DANCERS!!



Australian Pine Forest in Florida



"Biological Controls"

# Plant Camp



- Week long summer institute for teachers about non-native plants
- FWC/Project WILD partnered with UF/IFAS – Center for Aquatic & Invasive Species to bring in non-native wildlife component



# Project WILD Schools Program



- Partnership with FWC to help schools develop an ongoing commitment to conservation and environmental education through regular use of WILD activities.
- Different from traditional approach in that activities are implemented with all students in a designated grade level(s).

# Project WILD Schools Program



## Provides schools with:

- Training
- Field trips
- Guest speakers
- Resources
- Nature books
- Engraved plaque
- WILD Schools flag

# Project WILD Schools Program



## Schools promise to complete:

- Seven to ten Project WILD activities per grade level
- Two activities focusing on non-native species
- Reporting form and evaluation



# Project WILD Schools Program

## Charter Members:

- Greenacres Elementary – West Palm Beach, Florida  
Whole school
- Lakeland Christian School – Lakeland, Florida  
4<sup>th</sup> grade



# Florida Project WILD Contacts

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