



# Trading Spaces: Invasive Species

Cally Chauvin

## Focus/Overview

Invasive species are affecting our natural environment. Several of these species are causing devastating damages to our marsh and waterways. This project will help students realize the extent of the problems and get them involved in possible ways to combat these problems.

## Learning Objectives

The learner will...

- identify several major invasive species in their ecosystem.
- research the history of how they were introduced to Louisiana.
- state the affects that these invasive species have on the environment.

## Louisiana Science Grade Level Expectations

5: GLE-50	Describe the consequences of several types of human activities on local ecosystems (e.g., polluting streams, regulating hunting, introducing nonnative species) (SE-M-A2).
7: GLE-39	Analyze the consequences of human activities on ecosystems (SE-M-A4).
HS Env Sci: GLE-10	Analyze the effect of an invasive species on the biodiversity within ecosystems (SE-H-A9).

## Materials List

- Poster and Cooperative Group Grading Criteria
- Trading Spaces template
- Computer and Internet access.

## Background Information

On February 3, 1999, Executive Order 13112 was signed by President Clinton establishing the National Invasive Species Council. The Executive Order requires that a Council of Departments dealing with invasive species be created. Currently there are 10 departments and agencies on the Council.

Working Definitions (based on Executive Order 13112)

- Invasive species: a species whose presence in the environment causes economic or environmental harm or harm to human health.
- Non-indigenous (non-native) species: with respect to a particular ecosystem, any species that is not found in that ecosystem. Species introduced or spread from one region of the US to another outside their normal range are non-indigenous, as are species introduced from other continents

Ecological Impacts on invasive species:

- **Competition** with local species
- **Change to ecosystems**, in which even a whole food web can change
- **Domination of ecosystems** by an introduced species is an extreme case (Zebra Mussel)
- **Disease**: invasive species may carry diseases to which native species are not adapted.
- **Hybridization** occurs when introduced species may not be quite genetically separated from a native species, and can then proceed to hybridize.

## BTNEP Connection

Changes in Living Resources

## Grade Level

5, 7, Env. Science

## Duration

90 minutes

## Subject Area

science, language arts, history

## Setting

classroom

## Extension Area

science

## Vocabulary

invasive species, habitat

## Original Source

Author: Cally Chauvin



[www.btnep.org](http://www.btnep.org)



## Advanced Preparation

1. Refine the Group and Oral Presentation Rubric (**Blackline Master #1**) to meet your expectations.
2. Run of copies of the Trading Spaces Rubric and Template (**Blackline Master #2**) along with the Oral Presentation Rubric.

## Procedure

1. Show a large picture of a water hyacinth in bloom. Ask the students to tell you where they might have seen this plant.
2. Explain to the students that this is one of several invasive species found throughout Louisiana. Have the students create a KWL chart to give you an idea of what students know. Give the definition of invasive species.
3. Give the students a list of invasive species in your area. Use the *Portals & Pathways Map* available at <http://www.cbr.tulane.edu/is/>.
4. Place the students in cooperative groups in fours.
5. Assign roles to each group member: PI = Principal Investigator (Leader-makes sure everything is being done), TW =Tech Writer (recorder – records what reporter will say), TR = Tech Reporter (Major presenter-orally presents ideas of group, *only person to ask the teacher questions about the project.*), TD = Tech Designer (Drawer & materials person-hands on).
6. Hand out the directions and rubric for the Trading Spaces Poster Rubric. Have students create 11x17” posters of information on their invasive species based on the characteristics described in the rubric.
7. Allow students time to research their invasive species. See the websites listed under Resources.
8. Attach all posters to form a mural. (Publish in a hallway to show off your classes’ work).
9. Have each group prepare a five to ten minute oral presentation on their invasive species. Oral presentation must give the following information: name of species, brief history, problems associated with species, control efforts, suggested interventions by group members.

## Blackline Masters

1. Cooperative Group and Presentation Rubric
2. Trading Spaces Poster Template and Rubric

## Assessment

- See attached rubrics

TEAM WORK GRADING CRITERIA		
Name _____	Date _____	Class _____
Team Work Grading Criteria		
	Self Check    Yes or No	Points
1. My Role	Did I do my assigned role to the best of my ability?    Y or N	/4
2. Participation	Did I help with the assigned work equally?    Y or N	/4
3. Attitude	Was I positive, respectful, and able to assist others?    Y or N	/4
	<b>TOTAL</b>	<b>/12</b>

## Extension

### Science

Show the video “Non-invasive species” by Louisiana Public Broadcasting’s *EnviroTacklebox* Project at <http://www.enviroTacklebox.org/modules/m3nonntv.htm> (Gives teachers guide & info).

## Resources

### WEBSITES

Center for Bioenvironmental Research, Tulane University, no date, *Portals and Pathways*, accessed July 22, 2005 at <http://www.cbr.tulane.edu/is/>  
*Comprehensive website on invasive species in Louisiana.*

Louisiana Marine Education Resources, Louisiana Sea Grant College Program, no date, **Exotic Aquatics of the Gulf Coast**, accessed July 22, 2005 at [http://lamer.lsu.edu/topics/exotics/exotics\\_list.htm](http://lamer.lsu.edu/topics/exotics/exotics_list.htm).

*Information on nutria, water hyacinth, hydrilla and zebra mussels in Louisiana. Useful links elsewhere.*

Louisiana Marine Education Resources, Louisiana Sea Grant College Program, no date, **Be On the Lookout! Brochure**, accessed July 22, 2005 at [http://lamer.lsu.edu/topics/pdfs/NIS\\_lookout.pdf](http://lamer.lsu.edu/topics/pdfs/NIS_lookout.pdf).

*Information on nutria, water hyacinth, hydrilla and zebra mussels in Louisiana. Useful links elsewhere.*

InvasiveSpecies.Gov, Louisiana Sea Grant College Program, April 13, 2005, **InvasiveSpecies.Gov website**, accessed July 22, 2005 at <http://www.invasivespecies.gov/geog/state/la.shtml>.

*A gateway to federal and state invasive species activities and programs. Very useful site.*

**Blackline Master #1**

Group Species Name \_\_\_\_\_ Date \_\_\_\_\_ Class \_\_\_\_\_

**Team Members and Roles:**

- PI: \_\_\_\_\_ = Principal Investigator (Leader-makes sure everything is being done)  
 TW: \_\_\_\_\_ = Technical Writer (Recorder - records what reporter will say)  
 TD: \_\_\_\_\_ = Technical Designer (Drawer & materials person, *hands on*)  
 TR: \_\_\_\_\_ = Technical Reporter (Major presenter-orally presents ideas of group, *only person to ask the teacher questions about the project.*)

**Trading Spaces Poster Grading Criteria**

	Self Check Yes or No	Points
1. Name of your invasive species (Bold)	Is the name my species in bold letters? Y or N	/2
2. Scientific name in parenthesis under title.	Is the scientific name in () under the title? Y or N	/2
3. Provide at least three picture of your species.	Did I display at least 3 pictures of my species? Y or N	/6
4. Draw or attach pictures which show where the invasive species came from & how it came to LA.	Did I show where my species came from & how it got to La? Y or N	/10
5. Draw the habitat where your species is located presently in LA.	Did I draw the habitat where my species lives in La? Y or N	/5
6. Draw or attach pictures of how your species harms LA.	Did I show my species harms La.? Y or N	/5
7. Draw or attach pictures of at least one way to control or destroy my invasive species.	Did I show at least one way to control or destroy my species? Y or N	/5
8. Neat and legible	Is my poster neat? Is my poster legible? Y or N	/5
9. Grammatically Correct; No spelling or word errors	Is my poster free of grammatical errors? Y or N	/5
10. Wise use of color	Is my poster colorful? Is color used wisely? Y or N	/2
<b>TOTAL</b>		<b>/50</b>

R Name \_\_\_\_\_ Date \_\_\_\_\_ Class \_\_\_\_\_

**Oral Presentation Shared Responsibility Grading Criteria**

	Self Check	Points
1. TR introduces team, roles, etc.	Did the TR introduce everyone & their roles? Y or N	/5
2. TR states the species name.	Did the reporter tell what invasive species your team had? Y or N	/1
3. Voice Control	Did I speak clearly & so the audience could hear me? Y or N	/5
4. Eye Contact	Did I look at the audience? Y or N	/4
5. Use of Poster	Did I use the poster to help with my presentation? Y or N	/3
6. Team Effort	Did I support my team members during the presentation? Y or N	/3
<b>TOTAL</b>		<b>/21</b>

PI Name \_\_\_\_\_ Date \_\_\_\_\_ Class \_\_\_\_\_

**Oral Presentation Shared Responsibility Grading Criteria**

	Self Check	Points
1. PI gives a brief history	Did the PI give a brief history of your species? Y or N	/5
2. Voice Control	Did I speak clearly & so the audience could hear me? Y or N	/5
3. Eye Contact	Did I look at the audience? Y or N	/4
4. Use of Poster	Did I use the poster to help with my presentation? Y or N	/3
5. Team Effort	Did I support my team members during the presentation? Y or N	/3
<b>TOTAL</b>		<b>/20</b>

TW Name \_\_\_\_\_ Date \_\_\_\_\_ Class \_\_\_\_\_

**Oral Presentation Shared Responsibility Grading Criteria**

	<b>Self Check</b>	<b>Points</b>
1. TW tells the problems with the species	Did the TW give the problems associated with the species? Y or N	/5
2. Voice Control	Did I speak clearly & so the audience could hear me? Y or N	/5
3. Eye Contact	Did I look at the audience? Y or N	/4
4. Use of Poster	Did I use the poster to help with my presentation? Y or N	/3
5. Team Effort	Did I support my team members during the presentation? Y or N	/3
<b>TOTAL</b>		<b>/20</b>

TD Name \_\_\_\_\_ Date \_\_\_\_\_ Class \_\_\_\_\_

**Oral Presentation Shared Responsibility Grading Criteria**

	<b>Self Check</b>	<b>Points</b>
1. TD talks about location, habitat	Did the TD tell where it lives in LA & its habitat? Y or N	/5
2. Voice Control	Did I speak clearly & so the audience could hear me? Y or N	/5
3. Eye Contact	Did I look at the audience? Y or N	/4
4. Use of Poster	Did I use the poster to help with my presentation? Y or N	/3
5. Team Effort	Did I support my team members during the presentation? Y or N	/3
<b>TOTAL</b>		<b>/20</b>

Name \_\_\_\_\_ Date \_\_\_\_\_ Class \_\_\_\_\_

## TRADING SPACES Poster Template


Directions:

Using two pieces of 11x17" poster paper, create the front and back of your Trading Spaces poster for the exotic species your group has chosen to learn about. Refer to the Trading Spaces Poster and Oral Presentation Rubric for guidance about what and how to include all the information on your Trading Spaces Poster.

Front of Trading Poster

Illustration and images go here

Location Map



Back of Trading Poster

Name of Species  
(*Scientific name*)

Information:

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References Cited: