

LESSON 7: MOST WANTED EXOTIC INVASIVE PLANT POSTER

Duration: One or two 45-minute class periods

Background information:

“As a global threat of extinction, bioinvasion may already rank just behind habitat loss” (p21).

For some organisms exotic invasive plant species are a major threat for extinction. In most cases, exotic species suppress native species without making them totally extinct. Successful invasions often cause “functional extinctions” in that native species may exist but grow at such low densities that they cannot fulfill their ecological roles, such as providing forage for native fauna.

Source: Bright, Chris. 1998. Life Out of Bounds: Bioinvasion in a Borderless World. New York: W.W. Norton & Company.

Objectives:

- Convey research findings regarding the history of an exotic invasive plant species.
- Convey research findings regarding the consequences of an exotic invasive plant species’ presence in an ecosystem.

Prepare in advance:

- Copy Handout 1 (Exotic Invasive Species Web Quest Web Sites). Cut into fourths and give one to each student.
- Copy Handout 2 (blank “Wanted” poster template) for each student.
- Copy Handout 3 (Rubric for Most Wanted Exotic Invasive Plant Poster) for each student.
- Optional: make a transparency of the Example Poster provided

Materials:

- one computer connected to the Internet for every two students
- colored pencils
- drawing paper
- lab/field notebooks

Description:

Students will visit several Web sites and choose an exotic invasive species of the Southern Appalachian Region. Students will then gather information about their chosen exotic plants and use it to create a WANTED poster.

Instructional sequence:

(10 minutes)

- **Request** students find their field notebooks and locate their entries about exotic invasive species.
- **Review** some of the species for which they did online research.
- **Instruct** students to create a poster describing an exotic invasive plant of the Southern Appalachian Region using the Wanted Poster template. Posters should include:
 - a simple, line drawing of the plant
 - common and scientific names
 - brief description (leaf shape, flower color)
 - place of origin of the invasive plant
 - why it is a threat (a description of its crime)
 - possible ways to fight/control it
 - reference listing of Websites where information was found for student's poster

Optional assessment task:

Direct students to present their poster to the rest of the class.

Encourage students to give a creative, entertaining presentation of their “culprit.”

Sources:

Southern Appalachian Man and the Biosphere, online at <

http://samab.org/Focus/Invasive/about.html>, accessed 10/12/05.

Invasive and Exotic Species, available online at <http://www.invasive.org/weeds.cfm>, accessed 10/12/05

Image of Ailanthus leaves adapted from photograph by Chris Evans, The University of Georgia,

online at <http://www.invasive.org/browse/detail.cfm?imgnum=1330079>, accessed 10/14/05

National Park Service Fact Sheets, Ailanthus altissima, available online at <

http://www.nps.gov/plants/alien/fact/aial1.htm>, accessed 10/12/05

Handout 1: Exotic Invasive Plant Species Web Quest Web Sites

You may use the following Web sites for your Web Quest:

Exotic and Invasive Species	http://www.invasive.org/eastern/
Southern Appalachian Man and the Biosphere	http://samab.org/Focus/Invasive/about.html
Tennessee Exotic Pest Plant Council	http://www.tneppc.org/

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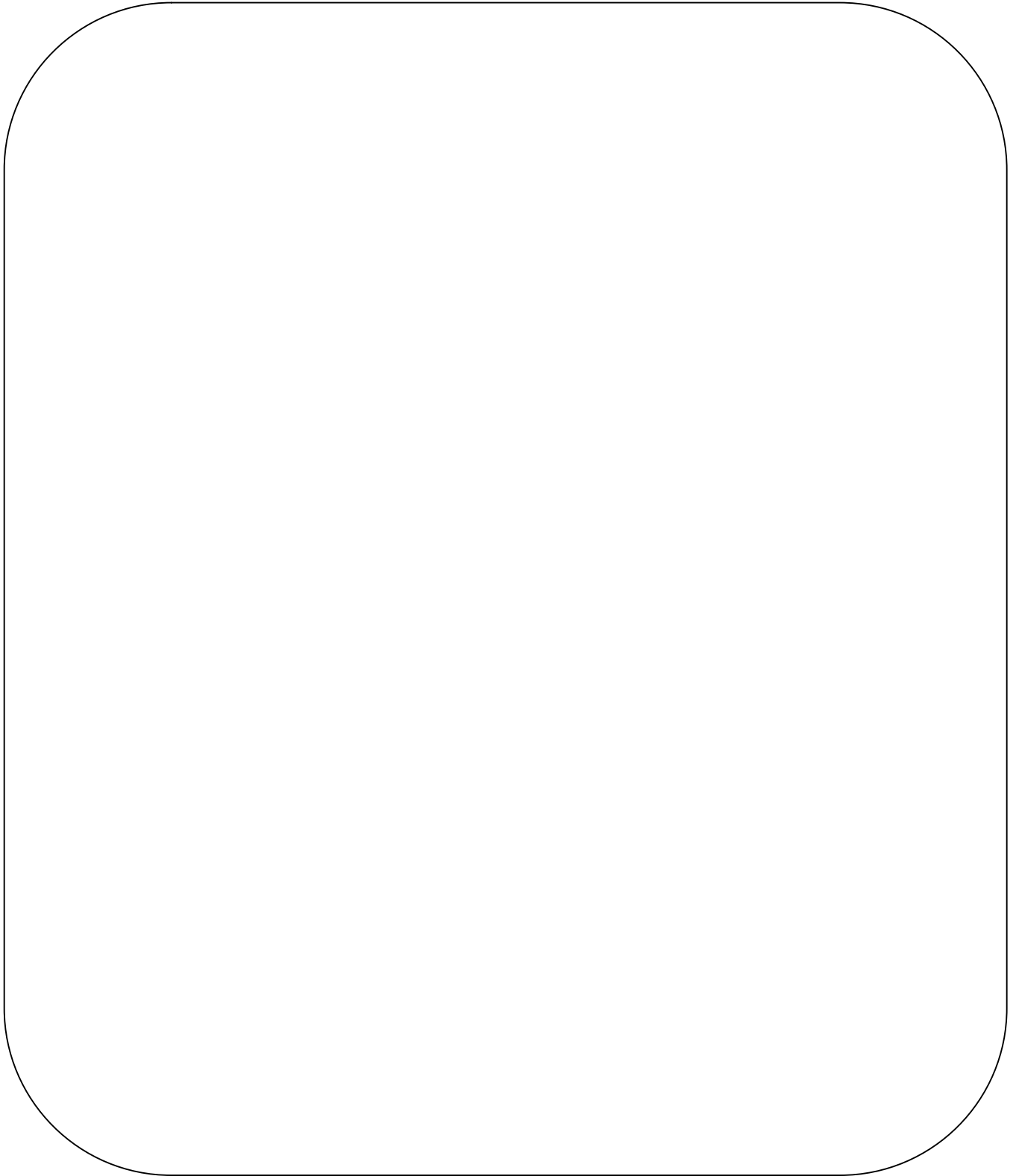
Exotic and Invasive Species	http://www.invasive.org/eastern/
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WANTED!



Handout 3: Rubric for Most Wanted Exotic Invasive Plant Poster

Possible Points	Criteria	Points Earned
93–100	All parts of the poster are complete, including reference listing. Clear and complete explanations show a thorough understanding of characteristics of the exotic invasive plant represented. Common and scientific names are used properly and effectively. Clearly drawn pictures or line diagrams are included. Origin of exotic invasive is clearly explained/described. Threat of exotic invasive to native habitats is clearly described. Possible method(s) of control are clearly stated.	
85–92	All parts of the poster are complete, including reference listing. Clear language demonstrates a good understanding of the key concepts; <i>however, explanations could be more detailed.</i> Common and scientific names are included. Clearly drawn pictures or diagrams are included. Origin of exotic invasive is identified. Threat of exotic invasive to native habitats is clearly described. Possible method(s) of control are clearly stated.	
76–84	Poster is basically complete, including references. Descriptions are <i>satisfactory, however sometimes show confusion (lack of effort in seeking information) about a concept.</i> Common and scientific names are included. Pictures or diagrams are included; <i>however, they may be sloppy and/or unfinished.</i> Origin of exotic invasive is identified. Threat of exotic invasive to native habitats is included. Possible method(s) of control are given.	
70–75	Assignment <i>is not complete.</i> Descriptions <i>are often unclear and show confusion (lack of effort in seeking information) about a concept.</i> Common or scientific names are <i>not used or are not used properly.</i> Pictures are included; <i>however, they may be sloppy and/or unfinished.</i> <i>Attempts to communicate information about the origin, threat to native habitat and possible method of control are somewhat successful.</i>	
10–69	Assignment <i>is not complete.</i> <i>Incomplete descriptions indicate poor understanding of concepts.</i> Common or scientific names are <i>not used or are not used properly.</i> Picture(s) are <i>sloppy and/or unfinished.</i> <i>Attempts to communicate information about the origin, threat to native habitat and possible method of control are somewhat successful.</i>	
-0-	No work was completed.	

WANTED!

tree-of-heaven

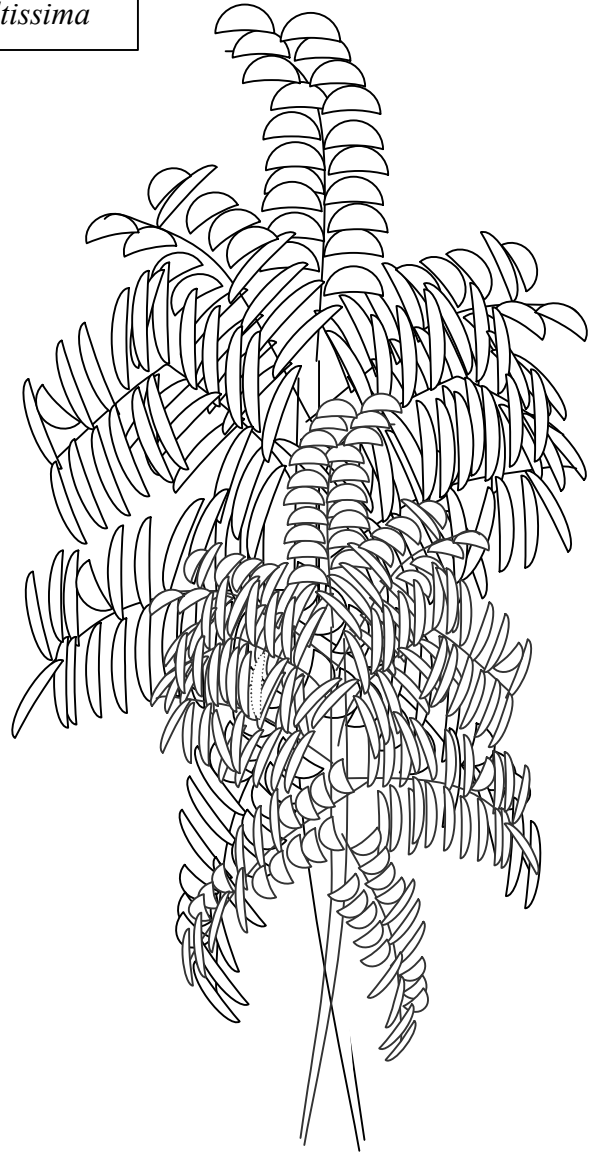
Alias: *Ailanthus altissima*

Menancing Space Invader!

Roots give off chemicals that push out native plants!

HAND PULL freshly germinating seedlings, removing entire root!

CUT DOWN bigger trees in September and immediately spray and inject stump with herbicide!



Help save native trees and plants!

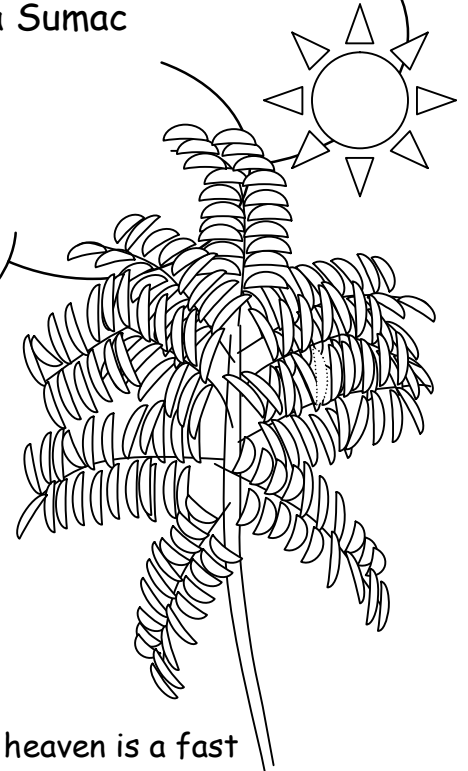
Tree of heaven, native to China, was first brought into America in the 1700's by a Pennsylvania gardener. It was often planted in cities because of its ability to grow in poor soil conditions. It has even been known to grow in cement cracks!

It cannot grow in the shade. Look for tree of heaven at the edge of forests and along open areas. Thick groups will crowd out native species and can quickly take over fields and meadows.



The green leaflets on my long leaves are long and narrow. They have a small notch on both sides, close to the stem - this is how to tell me apart from a Sumac or Hickory tree!

If you crush my leaflets, they give off a **SKUNKY ODOR!**



Tree of heaven is a fast growing small tree that can grow up to 80 feet tall and have a trunk 6 feet thick! Yellow-green flowers cluster at end of limbs in July, turn to gray seed clusters in the winter.