

Abrasive Invasives

Objectives:

Students will:

1. Investigate the impact of non- native, invasive plant species on ecosystems.
2. Choose and research a particular non-native invasive within their community, including prevention, treatment (control), and reclamation.
3. Create a management plan for the prevention and control of the species and the reclamation of an affected area.

Resources / Materials:

- classroom board
- pens/pencils
- paper
- student journals
- resources on local plants
- resources on local non-native invasives
- internet access

Activities/Procedures

Teachers will need to provide example pictures of invaded areas and supply students with sufficient information on non-native invasive species and their management. There are a multitude of sites with educational information. Here are a few links to exceptional sites on the subject.

- <http://www.invasivespecies.gov>
- <http://www.epa.gov>
- <http://www.gaeppc.org/list.cfm>
- <http://www.nps.gov/plants/alien/>

1. Show students pictures of forests or fields that have and have not been affected by non-native invasive plants. As you show the pictures, have students discuss what they already know about non-native species.
2. With material provided and internet access, have students research exotic invasive plants in Georgia, what is being done, and why.
3. Split students up into groups of 4-6 and have them choose (or assign) an individual plant that affects Georgia (Stone Mountain specifically) and research this plant.
4. Tell students that they must develop a management plan for their chosen plant. This plan must cover 3 areas of concern: Prevention, Control, and Reclamation (of the affected area). Each group will be assigned a 300 acre plot of mixed forest

and field. 100 acres of this plot has been invaded by the group's plant. Groups will be assigned a budget of \$10,000 to distribute among the areas of concern. The group must decide how to use their funds as they develop their management plan. This plan must be presentable to the class.

5. Groups will present non-native invasive plant management plans to the class. Explanations of plant origin, spread, effects on environment, management plan; and distribution of funding will be necessary in the presentation.

Further Questions for Discussion

- Are there ever any benefits of non-native species?
- Non-native animals can be just as damaging and invasive as some of the plants you have studied. In what ways might they be harmful to our environments and even our industries? Examples?
- How do these exotic species arrive in our country? Are there ways to prevent them from invading our borders?
- Are there any useful by-products of the non-native plants that are pulled during management?

Stone Mountain Non-Native Invasive Plants

- Mimosa (*Albizia julibrissin*)
- Kudzu (*Pueraria Montana*)
- Nepalese Browntop (*Microstegium vinmineum*)
- English Ivy (*Hedera helix*)
- Japanese Honeysuckle (*Lonicera japonica*)
- Chinese Lespedeza (*Lespedeza cuneata*)
- Chinese/European Privet (*Ligustrum sinense*)