

Native vs. Alien Invasive Plants Script for Teachers

Our objective today is to understand the difference between native plants versus alien or nonnative plants.

1. We are going to look at native plants first. What do you think native plants might be?

Definition: Native plants are those that occur naturally in an area such as a specific country, region in a country, or in an ecosystem or biome. These are plants that have evolved within their native environment.

2. What are non-native plants?

Plants from a foreign ecosystem. They may have intentionally or by accident bring brought into a state or country.

3. This can occur by

- a. shipping plants to a nursery for resale (Pike's, Home Depot, Lowes, etc.) that were grown in another state or country
- b. immigrants who bring seeds from their native country (Europe and Asia)
- c. accidentally by carriers and by ships
- d. people buying exotic plants

4. What role does a native plant play in an ecosystem or biome? Why is a native plant important?

- a. Provides food (nectar for bees, berries for birds, seeds for birds, nuts for squirrels)
- b. Provides shelter (cover for deer and small animals)
- c. Host plant for species such as butterflies
- d. Bark (for beavers)

5. What is the primary source of food for plants?

Nutrients from the soil through root absorption

6. What is the second primary source of food for plants?

sunlight, carbon dioxide and water (2nd in importance as food source)

7. What is wrong with bringing in a nonnative plant into our state or country?

1. They are introduced without their predators (usually insects) to keep the population under control. The presence of native plants and insects keep a population from getting out of control.

2. Predator-Prey Relationship. There is a natural cycle between the two – the plant population grows which means more food for the insects. The insect population grows as a result of having more to eat. Now the plant population decreases because of being eaten. As a result, the insects lose their food source and they decline. Because of less insects, the plants population increases again. They both keep the population of each other under control.
3. No natural predators or pathogens (disease carrying organisms).

- 8.** How does a nonnative plant thrive? What makes them superior competitors?
- a. Have no natural predators in their new home
 - b. They may contain toxic or poisonous plant parts to native plants, insects or animals
 - c. Native animals may not want to eat it
 - d. Fast growers shading out the competition
 - e. May produce a lot of seeds
 - f. Great at acquiring water
 - g. Absorb nutrients that native plants need

Some states have laws against noxious (invasive) plants:

- 9.** How do plants spread their gene pool?
- a. by seeds
 - b. many seeds have miniscule hooks that attach themselves to the fur of animals, to our socks/shoes
 - c. animals eat the berries or seeds (cattle, birds) and deposit them elsewhere. Squirrels bury nuts that sprout and become trees.
 - d. Floatation (milkweed)

Boundaries such as oceans and mountains used to keep plants from spreading far. But, now people can easily travel to other countries and knowingly or not spread seeds to other biomes.

10. Kudzu

(Example of an invasive plant)

- a.** Kudzu was first introduced as a gift from the government of Japan in **1876** at an exposition in Philadelphia where countries were invited to build exhibits. For their exhibit, Japan built a Japanese garden bringing their native plants. Gardeners attending liked the large leaves and scent of the kudzu blooms and began using them in their gardens.

b. During the Great Depression, our government promoted it, as well, for erosion control and hundreds of men were given jobs planting kudzu.

c. 1940s - Articles appeared in the Atlanta Journal Constitution in Atlanta in the 1940s stating that this was a miracle vine, growing as much as a foot a day in the summer months. Channing Cope, an author and radio celebrity, promoted kudzu in Georgia. He explained that kudzu was great for erosion control, a good shade plant, and added nitrogen to the soil. He promoted the vine in the **1940s**.

d. In 1953, that the government stopped advocating use of kudzu.

But, it was not until **1972** that the USDA declared it a weed.

e. Nicknames for Kudzu:

1. mile-a-minute vine,
2. foot-a-night vine,
3. the vine that ate the South

Kudzu in its native habitat of Japan or China does not grow as well or as fast as it does here. It has natural insect enemies there to control the population of the plant. It is a respected plant there. Here, however, kudzu can cover a mature tree in just on season, blocking a tree from access to sunlight and shading out the understory of the tree as well.

11. On Feb 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 13 Departments and Agencies on the **Council**.

WILLIAM J. CLINTON
THE WHITE HOUSE,
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12. "Invasive species" means an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health.

"Native species" means, with respect to a particular ecosystem, a species that, other than as a result of an introduction, historically occurred or currently occurs in that ecosystem.

Source for the following information:

<http://georgiawildlife.dnr.state.ga.us/content/displaypressrelease.asp?ArticleID=1390>

The Georgia Dept. of Natural Resources has targeted more than 180 invasive species threatening Georgia native wildlife. (1/2009)

Georgia's Wildlife Action Plan, the conservation blueprint for the state Department of Natural Resources, rates invasive species a major threat to biodiversity and lists development of a statewide plan to monitor and control them as a high priority. **On a national scale, the economic losses and environmental damage caused by exotic species total approximately \$120 billion a year.**
