

Kudz-*who?* and Other Questions of Invasive Species

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Part I – The Beginnings

What a beautiful morning! As I traveled across Philadelphia's new Girard Avenue Bridge towards Fairmont Park, my pace quickened. This area was jammed packed. All bridges were filled with trains, steam and horse-drawn street cars, carriages, cabs, and pedestrians. They, like myself, were making their way towards America's first world fair. Surely this May 10th, 1876 will be a historic day for our nation and our world.

This Centennial Exposition, as it was more commonly called, was held in honor of the 100th anniversary of the signing of the Declaration of Independence. From May through October, close to ten million people came to Fairmont Park in Philadelphia to see more than 30,000 exhibits from all over the world. Some of the products first displayed included the Corliss Steam Engine, Alexander Graham Bell's telephone, the Remington Typograph Machine, Heinz ketchup, and Hires Root Beer. Lady Liberty's arm and torch was on display as part of a fundraising effort to help pay for the completion of the statue. This event was quite historic for the United States. However, it would also be historic in an ecological sense.

Plant exhibitions were widely popular among gardeners. The Japanese delegation drew the most attention with the construction of a garden filled with some of Japan's beautiful native plants. In particular, American gardeners were instantly attracted to the large leaves and sweet aromatic blooms of *Pueraria lobata*, commonly known as kudzu. There is no evidence that kudzu exchanged hands during this fair in 1876. It would not be surprising if it was distributed to gardeners in small amounts. What is known is that seventeen years later, in 1893, another world fair would serve as a launching point for this plant.

Chicago hosted the world fair in 1893 to celebrate the 400th anniversary of Columbus' arrival in the New World in 1492. It was there in Chicago that two plant nursery operators, Earl and Lillie Pleas, would see the beautiful purple blooms of kudzu for the first time. During the 1920s, Earl and Lillie discovered that animals would eat kudzu. They began selling it and sending samples throughout the United States. During the Great Depression of the 1930s, kudzu was promoted and used for erosion control by the U.S. Soil Conservation Service because of its rapid growth and underground root systems. In the 1940s farmers were paid as much as eight dollars an acre to plant fields of kudzu.

The problem, of course, is that kudzu grows too well in some places and has rapidly spread throughout the Southeast.

Questions

1. List several initial thoughts you have after reading this brief historical account. Include whether or not you think there was anything wrong with people immediately getting excited about the potential benefits of this particular plant.

2. How would you define an invasive species?

3. If kudzu was shipped all over the United States, why is it only prevalent in the Southeast? Why did it not establish itself all over the country?

4. List some pros and cons of kudzu in the chart below.

<i>Pros</i>	<i>Cons</i>

5. Should kudzu have been introduced into the United States?

Part II – The Solution?

Another Asian import, *Megacopta cribaria*, was first observed in Georgia in 2009. This insect is now commonly referred to as the “kudzu bug.” Since 2009, this bug has moved through most of Georgia and South Carolina and has been confirmed in almost every county in North Carolina. The rapid spread is amazing, and initially, people were hopeful because these bugs feed on kudzu and non-native wisterias. The voracious appetites and prolific breeding ability could potentially slow down the spread of kudzu vines.

However, these bugs also feed on soybeans and other bean crops. This has caused farmers throughout the south to become very concerned. Besides destroying crops, these bugs also pose a potential nuisance to homeowners. When cold weather approaches, large numbers of these insects look for shelter in which to overwinter, and a warm house becomes the perfect place.

Questions

- List several initial thoughts you have about the kudzu bug. Does this species provide hope for eradicating kudzu? Why or why not?
- How would you explain the spread of the kudzu bug? Is it a coincidence that the bug looks to be establishing itself in the same areas as kudzu?
- List some pros and cons of the “kudzu bug” in the chart below.

<i>Pros</i>	<i>Cons</i>

Part III – Invasive or Not?

Questions

1. Even though the kudzu bug probably was not intentionally introduced, would there be anything wrong with introducing a non-native (or invasive) species to attempt to get rid of another invasive species?
2. If a non-native species in an area seems to not cause any ecological problems, should it still be defined as invasive?
3. Kudzu has been here in the U.S. since 1876. How do ecologists define a native species? When does a non-native (even if it is invasive) species become a native species? What do we do with native species that are also invasive?

Writing Assignment

As a group, you must now write a letter to the superintendent of a nearby state park. In your letter, please pick one of the following sides of this issue:

- A. Kudzu is an invasive species that is a threat to the ecosystem and should be eradicated as soon as possible. Please outline how to get rid of kudzu from an area using research to back up your plan.
- B. Kudzu has been established for so long in the Southeast U.S. that it should be considered native. If this is the case, please explain why and use research as well as other species to support your argument.



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