

Stand Your Ground

Method

Students will read quotes concerning invasive species from a variety of sources. They will identify the position of the writer, choose sides in a debate, and defend a position that might not be their own.

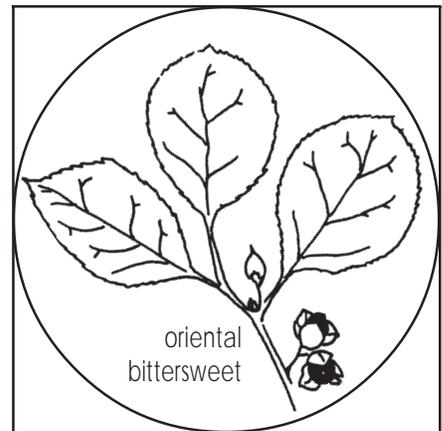
Introducing the Activity

In February 1999, President Clinton signed an Executive Order to combat this major environmental problem. “[N]ow is the time to take action,” remarked Interior Secretary Bruce Babbitt. “The costs to habitats and the economy are racing out of control.”

However, not everyone agrees on whether we should control invasive species, or which plants we should control, or how we should control them.

Doing the Activity

1. **Pass out the quotes and read.** Ask students to read the quotes and indicate next to each quote whether they think the writer is in favor of or opposed to controlling invasive species. **Optional:** Students can also cut the quotes apart and sort them into piles.
2. **Divide into small groups and discuss.** Ask students to compare how they categorized the quotes. Ask them to identify any quotes that were not definitely in favor of or opposed to invasive species control. Do the writers appear to be simply stating their viewpoints or are they trying to convince others of their viewpoints? What methods do some of the writers use to try to persuade others? What does the source of the quote say about its reliability? Can you assume that quotes from authors and professors are based on research, not opinions? Do you “trust” quotes from blogs as much as you “trust” quotes from elected officials?
3. **Prepare for debate.** Assign students to represent one side or the other of the following debate topic: “Should we control invasive plants?” Two students in each group should prepare arguments in favor of control and two students should prepare arguments opposed to control. Allow class time for students to research their positions. They may use the quotes as a starting point for their research.



Objectives

- Realize that there are a variety of viewpoints on any environmental issue.
- Express viewpoints that might be different from their own.
- Refine their personal positions on the control of invasive species.

Grades

9 – adult

Group Size

Small groups of 4 and whole class

Activity Time

Two 50-minute periods plus homework

Setting

Classroom

Materials

- Copy of quotes for each student (pages 107 – 108)
- Access to Internet

Connections

See next page.

Academic Standards

Grades 9 – 12

- English Language Arts: A.12.1, A.12.3, A.12.4, C.12.1
- Environmental Education: D.12.3, D.12.6
- Science: H.12.6
- Social Studies: C.12.8

4. **Practice in small group debates.** Ask the small groups to conduct mini-debates to test their arguments.
5. **Organize for whole class debate.** Allow all students arguing the same position to meet together. Encourage them to share their most persuasive arguments. Together, they should choose a captain, compile a list of debate points, and brainstorm rebuttals to the opposition's viewpoints.
6. **Conduct a debate.** Work with students to set the ground rules for your class debate.
7. **Invite students to share their personal views about invasive species control.** Discuss some of these questions:
 - Was it difficult to represent a viewpoint in conflict with your personal view? Why or why not?
 - Do you agree with any of the positions held by the “other side?” For example, if you think invasives should not be controlled, what are some of the arguments for control that you find convincing?
 - In your opinion, what are the most outrageous views held by either side in this debate?

Assessing the Learning

Take a personal stand. Ask students to write personal statements about whether they believe invasive plants should be controlled or not. Their statements should include the strongest arguments that support their positions. Their statements should also include the strongest arguments against their points of view and their rebuttals to those points.

Check out the local paper. Look for articles, features, or letters that focus on invasive species. Encourage students to respond to items in the local paper by writing letters to the editor.

Extending the Learning

Read one person's rebuttal. Ken Solis is part of The Park People of Milwaukee County. Read his responses to the arguments against invasive plant control. See pages 7 – 10 in **Invasive Plants of the Upper Midwest**.

<p>A few years ago, the state of Idaho floated the idea of poisoning all the rainbow trout in a large stretch of the upper Henry's Fork River, perhaps the most famous trout fishery in the world. After the rainbows were gone, Idaho Fish & Game wanted to restock the river with cutthroat trout, the river's original inhabitants, who had been out-competed over the years by stocked, and subsequently wild, rainbows. Depending on where their priorities lay, various anglers came out either for or against the plan. A friend of mine, who happens to be of Native American origin, offered what I thought was the most appropriate response. "I'm all for getting rid of the exotics," he told me, "as long as we don't stop with the trout."</p> <p>- Posted by tost at April 4, 2005 10:27 PM</p>	<p>Breeding populations of animals do move around even without human assistance, after all. This is a basic part of the natural history of life. It's the pace and scale of the phenomena that has changed, and that obviously has serious implications. But when ecosystems actually endure what we're told is a fatal threat, one has to wonder whether we don't need to be more discriminate and dispassionate about the phenomenon. Say, for example, the way that some places are trying to fight purple loosestrife and predicting environmental disaster if it gets established—but purple loosestrife has been around since the early 19th Century in the East Coast, with some complicated but hardly apocalyptic consequences.</p> <p>- Tim Burke, Swarthmore, history professor</p>
<p>The greatest service that can be rendered to any country is to add [a] useful plant to its culture.</p> <p>- Thomas Jefferson, 3rd president of the U.S.</p>	<p>Give a weed an inch and it will take a yard. Unknown</p>
<p>On a global basis...the two great destroyers of biodiversity are, first habitat destruction and, second, invasion by exotic species.</p> <p>- E.O. Wilson</p>	<p>In pushing other species to extinction, humanity is busy sawing off the limb on which it is perched.</p> <p>- Paul Ehrlich, Stanford University, Center for Conservation Biology</p>
<p>If suburbia were landscaped with meadows, prairies, thickets, or forests, or combinations of these, then the water would sparkle, fish would be good to eat again, birds would sing, and human spirits would soar.</p> <p>- Lorrie Otto, Wild Ones—Natural Landscapers, Ltd.</p>	<p>Alright, well, let me just ask you one sort of a somewhat philosophical question. Why not let nature take its course here? Let the food chain be the food chain, let Darwin take over, and just let this all play its course.</p> <p>- Miles O'Brien, CNN Anchor, September 22, 2002</p>
<p>It's hard to believe that there is nothing more than scientific concern about invasive species behind the current fashion for natural gardening and native plants in America—not when our national politics are rife with anxieties about immigration and isolationist sentiment. The garden isn't the only corner of American culture where nativism is in flower now.</p> <p>- Michael Pollan, <i>NY Times</i>, gardening writer, 1994</p>	<p>If a developer drains a wetland to build a shopping mall, it's a significant loss. But that shopping mall won't of its own accord expand and cover other wetlands nor will birds carry mall seeds one hundred miles and sprout new malls. Invasive species are alive. They reproduce so they'll be around indefinitely.</p> <p>- Robert Devine, <i>Alien Invasion</i></p>
<p>Despite America's status and strength as a super-power, the United States was tragically vulnerable to attack on 11 September 2001. That attack came not from cruise missiles, ballistic missiles, bombing, or other conventional weapons, but by unconventional asymmetric means. Today, the homeland is vulnerable to a different type of asymmetric attack, a biological attack from invasive species. We should act now to strengthen our defenses to protect ourselves from such attacks. Our future and our children's future might depend on it.</p> <p>- Colonel Robert J. Pratt, <i>Invasive Threats to the American Homeland</i>, U.S. Army, 2004</p>	<p>. . . science at its best carries the seeds of self-correction. It's worth noting that a century ago, the scientific community was more or less persuaded that introducing exotic species into ecosystems was a value-neutral event, if not actually a beneficial action for the ecosystem as a whole. It was agricultural scientists who introduced kudzu to the southeast, for instance, choosing it for the very characteristics of fast growth and hardiness that make it anathema today.</p> <p>- Posted by Chris Clarke at April 4, 2005 01:09 PM</p>

<p>The dichotomy of an Invasive Species Act is rooted in its very foundation. The environmentalists believe and profess that any species, plant or animal, which did not exist on this continent prior to the arrival of Christopher Columbus, is an “invasive species.” If one thinks deeply about this philosophy of “environmental hysteria”, one can see the similarities to “ethnic cleansing” in a third world nation. In essence, the environmentalists want to restore any plant or animal whose numbers have declined due to civilization and kill off species that weren’t here prior to Columbus. I am sorry, but their philosophy is clearly “ethnic cleansing” of our plant and animal world.</p> <p>- Jim Slinsky, <i>Ethnic Cleansing of our Plants and Wildlife?</i></p>	<p>While there are a few non-native species which are having a harmful impact in some areas of the country, the majority of plants and animals which have been introduced to America have been brought as crops, livestock and pets. As with our human population, America’s great plant and wildlife diversity is the product of centuries of migration, cultural exchanges and importation. While it is important to prevent and deal with harmful invasive species, federal regulators should not lump all non-native plants and animals into the same category with highly publicized cases like those of the snakehead fish, nutria and brown tree snake.</p> <p>- John Peterson, Pennsylvania congressional representative</p>
<p>The good news is that this is one environmental problem that we can do something about. I have seen the tremendous difference that even a few individuals can make in the battle to regain the land for native species.</p> <p>- Elizabeth J. Czarapata, <i>Invasive Plants of the Upper Midwest</i>, 2005</p>	<p>Our native landscape is our home, the little world we live in, where we are born and where we play, where we grow up, and finally where we are . . . laid to eternal rest. It speaks of the distant past and carries our life into the tomorrow. To keep this pure and unadulterated is a sacred heritage, a noble task of the highest cultural value.</p> <p>- Jens Jensen, landscape architect (1860 – 1951)</p>
<p>I don’t believe that any invasive species has ever been introduced into the United States on purpose by someone who willingly said, ‘Oh yeah, this is going to be a problem, but I don’t care.’ They’ve almost all been inadvertent problems that were introduced by someone who thought they were doing something good or who thought they were bringing in something beautiful.</p> <p>- Katherine Kennedy, Center for Plant Conservation</p>	<p>I have trouble with the concept of invasive species. If plant A can move in and thrive, and grow so successfully that weak plant B fizzles out and dies, isn’t that how it should be? I guess I don’t see how an organism being successful and thriving is a danger. I know the stories about rabbits in Australia and zebra mussels, etc. Y’all can spare me those. I still think things work out the way they should.</p> <p>- posted by waugsqueke, Dec 08 2003</p>
<p>Over the next 100 years or so as many as half of the Earth’s species, representing a quarter of the planet’s genetic stock, will either completely or functionally disappear. The land and the oceans will continue to teem with life, but it will be a peculiarly homogenized assemblage of organisms naturally and unnaturally selected for their compatibility with one fundamental force: us. Nothing—not national or international laws, global bioreserves, local sustainability schemes, nor even “wildlands” fantasies—can change the current course. The path for biological evolution is now set for the next million years. And in this sense “the extinction crisis”—the race to save the composition, structure, and organization of biodiversity as it exists today—is over, and we have lost.</p> <p>- Steven M. Meyer, “End of the Wild,” <i>Boston Review</i>, 2004</p>	<p>Why is it good to eradicate a highly used and appreciated non-native fishery like the introduced salmon in the Great Lakes while reintroducing native wolves that will spread across the country and wreak havoc with stock, pets, game animals, and human safety? Both the salmon and the wolf maintain themselves and interact with the habitat they find themselves inhabiting. Are the Great Lakes somehow poorer? Is the rapidly expanding wolf range somehow richer? The answer is no to each. Just as Asians “invaded” North America 10,000 +/- years ago and were then displaced by Europeans 500 +/- years ago, the environment changed. The environment or ecosystem was neither better nor worse, only different.</p> <p>- Jim Beers, retired United States Fish and Wildlife Service employee</p>