

What the Heck is an Invasive Plant?

It's nifty, and I say it's **noxious**.
It's lovely, and I say it's **lousy**.
Nifty, noxious, lovely, lousy -
We call them what they are!

Native Species? All organisms on planet Earth (until further back in time) each species of bacteria, fungi, animal, and other creature has a home on this planet where it has evolved for thousands of years. A native species is one that occurs in a particular place without the help of humans, which is not always easy to determine. Species native to North America are commonly recognized as those occurring on the continent prior to European arrival.

A species' home, or native range, is determined by a host of influences such as climate, geology, soils, hydrology, biological interactions, and natural dispersal. Creatures are confined within their natural ranges by various means including air, water, animals, and human actions. Beginning with Columbus' arrival in North America in the 15th century, humans played an increasingly significant role in moving plants, animals and other organisms around the world, to places far beyond their likely natural dispersal ranges. That's where the trouble lies!

Invasive Exotic Species? An organism that is not native to a particular area and is introduced by humans, either intentionally or accidentally, into a new area where it can spread and cause harm to the environment, human health, or the economy.

For example, black locust (*Rhus glabra*), a tree that is native to the southern Appalachian region and parts of Indiana, Illinois and Missouri, was introduced throughout the U.S. for living fence posts, control, and other uses for many years. Black locust is considered exotic outside its native range because it got there through human introduction rather than by natural dispersal. Another example is cordgrass (*Spartina alterniflora*), a plant that is native to east and southern American estuaries. Saltmarsh cordgrass was introduced to western North American shoreline habitats, where it did not occur previously. It has established and become a serious invasive species, displacing native species and adversely impacting coastal communities.

European settlers brought hundreds of species to North America from their homelands for use as food and medicine, and for other purposes, sentimental, and other reasons. Introductions of exotic plants continue to increase and are greatly increasing due to ever-expanding human population, international travel and trade, and other factors.

Once an Exotic, Always an Exotic? It is estimated 3,500 species of exotic plants have escaped cultivation in the U.S., and many of them reproduce in the wild, and have become invasive species.

invasive pests that are having serious impacts on native species and ecosystems.

Why do Invasive Species (When is a Guest a Pest?)

Invasive species exist in apparent natural environments where they were not native. For example, a relatively small number of exotic plants (e.g., corn, wheat, alfalfa) form the basis of our agricultural system and pose little to no known threat to native ecosystems. The most important characteristic of an alien plant is how it responds to a new environment. An invasive species is one that displays rapid growth and spread, covers over large areas, and persists. Invasiveness is characterized by robust growth, high reproductive rate, high seed production, high seed dispersal rate, and longevity. Some native species exhibit invasive tendencies in certain

Why are Invasive Plants Invasive?

According to the Plant Conservation Alliance's Invasive Plant Working Group, about 1,100 plant species have been reported as being invasive in various areas in the United States (see link below). This number represents an astonishing 10% or so of the exotic plant species introduced and self-reproducing in the wild. In the 19th century, many invasive species were planted

intentionally for erosion control, agriculture, grazing, wildlife habitat enhancement, and ornamental purposes. Others have come from arboretums, botanical gardens, and even our own backyards. Free from the constraints of natural controls present in their native lands, including herbivores, pathogens, and diseases, exotic plants may experience rapid and unrestricted growth in our environments.

How Bad Are Invasive Species?

Invasive species impact native plants and natural ecosystems by:

- Reducing biodiversity
- Altering hydrologic conditions
- Altering soil characteristics
- Altering fire intensity and frequency
- Interfering with natural succession
- Competing for pollinators
- Poisoning or repelling native insects
- Displacing rare plant species
- Increasing predation on nesting birds
- Serving as reservoirs of plant pathogens
- Replacing complex communities with species monocultures
- Diluting the genetic composition of native species through hybridization

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For additional information, please go to:

Invasive Plant Working Group 'Weeds Gone Wild' -- <http://www.nps.gov/plants/alien/>
Aquatic Nuisance Species Task Force -- <http://www.anstaskforce.gov/>
Ecological Society of America -- <http://esa.sdsc.edu/invas3.htm>