

## What is an invasive ?

An invasive is a plant, animals, or insect (or even a fungi or virus, like West Nile Virus) which is not naturally found in an area, and which spreads and harms human health and native plants and animals. It also goes by names like exotic, alien, non-native or introduced species. However, even native plants, like poison ivy, can be called invasive if they invade disturbed areas or new places if climate changes.

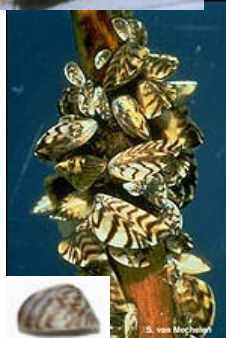
By some estimates, 5,000 alien-invasive plants and 2,300 exotic animals spreading through the United States. Fortunately, most of these do not cause noticeable harm. Some non-native species cause trouble because they do not find natural predators in their new home, so they spread easily and quickly. Of every 100 foreign plants and animals brought to the United States;

- \* about 10 will start to spread through the United States.
- \* 5 will move into nature (our native forests, fields and wetlands), and
- \* 2-3 will become pests, causing problems and costing a lot of money to slow down or stop.

Invasives have made some native species rare and can homogenize our landscape by reducing our rich mix of native plants.

Zebra mussels began to spread in through our rivers and lakes around 1985. By 2003 the cost of controlling the mussels was over **\$5 billion dollars**.

The nationwide cost to taxpayers for controlling introduced plants, animals and insects is now over 137 billion dollars a year.



## Invasive Species in New York State

Because of New York State's unique location, many invasive species start here and spread. New plants and animals have been coming here since the first explorers came ashore in the 15th century. Today, one of three plants in New York has come from elsewhere. Many have been around so long we take them for granted. Today, our airports and harbors, linked to travel corridors in the Hudson and Mohawk River valleys, still spread invasive species.

### Q: How do they come ?

#### A: Transportation

Whenever we move people, products, animals and plants, either accidentally or On purpose. In trade, recreation or travel.

### Where do they hide?

On airplanes, automobiles, trucks, boats, cargo ships, trains, or even on your shoes.



### Why do they come ?

**Species from abroad have come here by accident and on purpose.**

In the past, people immigrating or traveling often brought plants and animals they liked with them for food, medicine, for their beauty, or simply to help them feel more at home in a new land. Today, invasives usually get started by accident, and as a result of world trade.

### Zebra mussels

came over in ship ballast from northeastern Europe.

# Some Invasives in New York and Where They Come from: (Some have been around a long time. All are now spreading. Have you seen any of these?)

**Gypsy moth** was introduced to America in 1869 from Europe by a scientist who wanted to introduce silk-producing worms to America.



**Barberry bushes** were brought over as a good natural fence and medicinal herb from Europe and Japan 300 years ago (see next page).



**Norway maple**, from Russia, was brought over as a nice tree which grows well in cities.

**Halloween ladybug** was introduced from Japan in 1979 to control crop pests in Louisiana.



**Chinese water chestnuts** were brought from Asia to beautify ponds.



**Starlings** were brought from England by a fan of Shakespeare plays because they looked good on the stage.



European Starling  
(winter plumage)  
by Larry McQueen

**Hemlock wooly adelgid** came on plants from Japan and spread before anyone noticed.



**Garden City lizards** arrived in Kennedy Airport from Italy.

**Asian long-horned beetles** came on wood packaging from China to New York City (see cover).

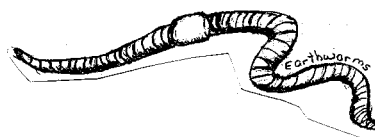
**Cats** were brought over as pets from Europe but originally came from North Africa and Asia.

**Snake Fish** and **Carp** were brought from China as food and part of a holiday tradition (see cover).

**Mile-A-Minute Weed** is just moving into New York State and could soon cover thousands of acres. It can grow 6 inches a day.



**Worms** found in northern forests are all European Earthworms. Glaciers eliminated earthworms in the northern part of the United States. Earthworms from the southern US normally would take 14,000 years to travel 40 miles. Earthworms are changing our forests.



**For more information on the top 20  
invasives in New York State, go to the  
NY Invasive Plants Council at:**

[www.ipcnys.org](http://www.ipcnys.org).



## Are exotic introductions still occurring ?

Yes, and more and more often because of increasing world trade, especially with places where climates are similar to our own. Look in stores, you'll find labels from all over the world, including places like China, India, Hong Kong, Japan, El Salvador, Mexico, Eastern Europe and South America.



Look at the clothes, toys, foods, furniture, lumber, live fish and animals, landscape plants in stores, and the tourists around you ? Have you ever traveled ?

Each time anything is sent or anyone travels, there is a small chance an unwanted hitchhiker has come along. Can you think of other ways invasives are introduced ? Can some animals in pet stores become invasives ?

## What can you do ?

**Don't** bring plants, flowers or foreign Seeds with you from trips abroad or from far away, even within North America.



**Don't** move firewood out of state. Moving firewood, even out of your county, can spread an invasive.

**Avoid** buying and using plants that are known to invade New York's native forests and fields, such as barberry, purple loosestrife, autumn and Russian

Olives, non -native honeysuckles, Japanese knotweed, vinca and Norway Maples - to name just a few. On the internet, the DEC, US Forest Service and many other organizations provide information. Just type In "Invasive Species."

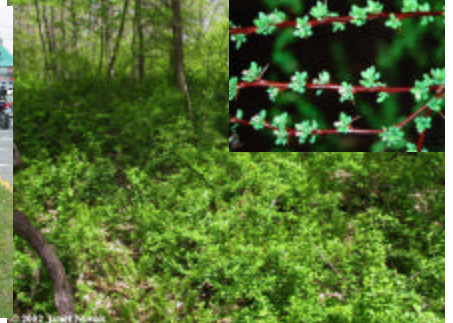
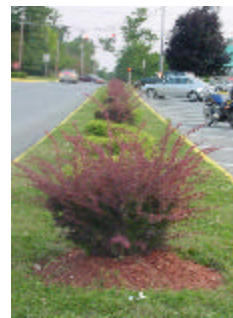
**Wash** your boat thoroughly when moving from one waterway to another.

**Wash** heavy equipment, especially tires If you are a builder or logger on lands known to have invasives.

**Empty** bait buckets and fish buckets before going to another waterway.

**Support** strong laws and customs inspections of travelers and imported/exported goods.

**Insist** that plans for introducing new species be carefully studied and documented - looking at what surprises might happen in a new land. Keep in mind that not all introductions are bad or harmful. Examples are city trees, food crops, medicinal plants and helpful insects.



Top: Multiflora Rose: Used in hybrid rose rootstocks, once used as a great hedge shrub especially on farms. Now its dense growth and thorns can turn a park into a nightmare.

Bottom: Japanese barberry from landscaping to a barberry invasion in nature.

For more information on invasives,  
go to:

[www.ipcnys.org](http://www.ipcnys.org)

[www.invasivespecies.gov.htm](http://www.invasivespecies.gov.htm)

[www.esa.sdsc.edu/invas3.htm](http://www.esa.sdsc.edu/invas3.htm)

[www.sgnis.org](http://www.sgnis.org)

[www.nas.er.usgs.gov](http://www.nas.er.usgs.gov)

**key terms:** non-native, invasive species,  
introduced species, exotics, foreign,  
spread, predators, trade, exotics, Hudson  
Valley.

**For more information, contact:**

- US Forest Service
- County Cooperative Extension Office
- NY State Dept. of Environmental Conservation
- APHIS (U.S. Animal and Plant Health Inspection Service)



**Container ships**

**An "Invasives Game" and  
class lesson plans are available  
from:  
[gvprofou@gw.dec.state.ny.us](mailto:gvprofou@gw.dec.state.ny.us).**

## **Un-Wanted**

### **Invasives: What are They ?**



**Top to bottom:** Asian long-horned beetle (Inset: Emerald ash borer), garlic mustard, Asian carp (inset: Chinese snake fish) and nutria.