

PROTECTING THE OPEN SPACE LANDSCAPES OF MONMOUTH COUNTY

In keeping with the Park System's mission to protect the open resources and landscapes of Monmouth County, it is becoming necessary to address a looming threat to our parks. Invasive species threaten our ability to use and enjoy this natural resource.

Invasive species have the potential to alter the form and function of the landscape by altering biological processes, displacing native species, and introducing pathogens. The commitment to preserve our open spaces will require a plan of action to counteract this threat and preserve the landscape we have grown to love and want to protect for future generations.

WHAT IS AN INVASIVE SPECIES?

A species is considered invasive when it disrupts the form and function of native communities. Invasive species can be plants (both aquatic and terrestrial) animals, including insects or microbes. Many invasive species are plants that are not native to this region, introduced intentionally for erosion control or ornamental purposes. Others have escaped from botanical gardens and our own backyards, or arrived by hitching a ride with imported goods. The increase in international travel, trade and shipping has caused a more rapid spread of invasive species over large areas.

Invasive species grow and spread rapidly, getting established and persisting over large areas. Invasive plants may exhibit robust growth, a high reproductive rate, abundant seed production and longevity.



Ailanthus (Tree of Heaven)



Purple Loosestrife



Autumn Olive

WHAT PROBLEMS ARE CAUSED BY INVASIVE SPECIES?

With little or no pressure from natural herbivores, parasites, predators and pathogens—which can, under normal conditions, provide a check on growth—invasive species can dominate and spread almost without restriction.

Without adequate management, invasive species can overwhelm our landscapes and overtake native plant and animal communities. Our parks and open spaces may in all too short a time, become biological wastelands.

WHAT CAN BE DONE TO MANAGE INVASIVE SPECIES?

In 1993, the Congressional Office of Technology Assessment reported that a devastating invasion of plants, insects, aquatic invertebrates, pathogens and other organisms was changing our ecosystems and permanently diminishing their biological diversity. The extent of this problem was an estimated 4,000 invasive species that cost the US economy about \$123 billion annually. Based on this and other reports, a national plan was developed to prevent and control invasive species. Many effective measures discovered between then and now have been implemented at the federal, state and local level.



This invasive Japanese Stiltgrass has overtaken the forest floor, preventing native trees from regenerating.

INVASIVE SPECIES CAN CAUSE THE FOLLOWING DEVASTATING ECOLOGICAL IMPACTS:

- Disrupt the structure of vegetation
- Accelerate erosion/sedimentation
- Reduce biodiversity
- Increase competition for resources
- Hybridize with native species, altering genetics
- Act as host reservoirs for plant pathogens and other organisms
- Result in loss of food and/or habitat for native insects, birds and other wildlife
- Reduce native plant-animal associations such as pollination and seed dispersal

Reference:

1. *Invasive, non-native species: Background and Issues for Congress*. Updated November 25, 2002. Congressional Research Service. Available at www.invasivespeciesinfo.gov/resources/pubsgen.shtml. Accessed October 20, 2008

A COMMUNITY EFFORT

The Park System has initiated an inventory of invasive species within the properties it manages and has several active projects involving the large-scale removal of invasive plants. But, since invasive species are blind to property boundaries and ownership, a community-wide effort is crucial to stopping their spread. We can all be stewards of the landscape; here are a few ways you can help.

Do:

- 1 Use native plants in your yard and garden—contact the Deep Cut Gardens Horticultural Hotline at 732-671-6906 for suggestions regarding alternatives to popular invasives.
- 2 Help in early detection so managers can make a rapid response. If you recognize an invasive species, let a park manager know.
- 3 Volunteer your time and energy to help rid the parks of invasive species. Contact the coordinator of volunteers at 732-842-4000 x4283 for more information.
- 4 Encourage and support community initiatives to use native plants and control invasives. Ask your municipal public works and parks departments and local garden centers about their policies and practices.

Don't:

- 1 Buy plants or animals that have been identified as invasive—some nurseries, garden centers, and landscapers may promote the use of certain invasives because of their aesthetics, hardiness, and fast growth.
- 2 Carry “hitchhikers” into open space areas on your clothes or pets—you may inadvertently spread invasives from one area to another.
- 3 Discard yard refuse into parks—it may contain invasive seeds.
- 4 Transport firewood—instead buy locally.



Asian Longhorned Beetle.

Current top 10 invasive plants in the parks:

| | | |
|--------------------------|----------------------|----------------------------|
| Norway Maple | Multi-flora Rose | Japanese Barberry |
| Porcelain Berry | Asian Bittersweet | Japanese Honeysuckle |
| Autumn and Russian Olive | Garlic Mustard | Ailanthus (Tree of Heaven) |
| | Japanese Stilt Grass | |

Other invasive species or pathogens to monitor:

| | | |
|-------------------------|--------------------|--------------------|
| Asian Longhorned Beetle | Weeping Love Grass | Purple Loosestrife |
| Gypsy Moth | Mugwort | Wisteria |
| Kudzu | Knapweeds | Bamboos |
| Wineberry | Knotweed | Sudden Oak Death |
| | Canada Thistle | West Nile Virus |



Norway Maple

Monmouth County
Board of Chosen Freeholders
Board of Recreation Commissioners



A8059-5/09



Knapweed



Garlic Mustard



Japanese Barberry



Asian Bittersweet



Autumn Olive



Multi-flora Rose



Japanese Stilt Grass



Knotweed



Kudzu “tower”