# Stopping New Invasive Plants in Their Tracks

Local partnerships prove to be a powerful tool for quickly responding to new invaders.

Story and Photos
By Debbie Maurer

(Photos by Mike Adam, LCHD-LMU.)

**Brazilian elodea was collected by the Lake County Health Department to confirm that the aquatic invasive plant was overwintering in our cold climate.**

## Imagine what if.

***What if*** *we could have prevented purple loosestrife from gaining a foot-hold in our high-quality wetlands and damaging wildlife habitat?*

***What if*** *we could have stopped Eurasian water milfoil from spreading throughout our rivers and glacial lakes, impacting quality fishing areas?*

***What if*** *you could help save endless hours of control work and countless dollars by spotting the first population of the next, worst invasive plant?*

## You can.

Awareness of the ecological and economic harm invasive plants, such as purple loosestrife, Eurasian water milfoil and Canada thistle have on our forests, prairies, lakes, agricultural systems and other important lands and waters in Illinois is growing. Unfortunately, these species—and many others—have already spread across the Illinois landscape. Equally troublesome for those who value our lands and waterways is that there are many more invasive plants, insects and animals that could damage Illinois' natural resources, but are not yet here or have yet to spread beyond small populations.

Early detection and control of species that are potentially invasive, and still in small numbers, is the goal of the Chicago-based New Invaders Watch Program. Developed in 2006 by The Nature Conservancy, the Illinois Natural History Survey and the Lake County Forest Preserve District (funded in part by Chicago Wilderness), NIWP works with volunteers in the six collar-county area and three northwestern Indiana counties to stop new species in their tracks. With annual training opportuni-

**The most frequently reported species on the target list, Oriental bittersweet is found within the Chicago region but, unlike other parts of the United States, it has yet to invade many woodlands and savannas in the region.**

ties hosted by local partners, such as the Morton Arboretum, forest preserve and conservation districts, the National Park Service, and village park districts, NIWP's success relies on the 1,000-plus citizens, volunteers, gardeners, land managers, educators and students who know how to identify the 23 target plants and two insect species.

In addition to a two-hour training session, the program provides each volunteer with a laminated set of identification cards to carry in the field with them to help determine if they have found a target species.

But identification is just the start.

NIWP provides volunteers with an easy-to-use online reporting system, with reports and digital images sent to INHS herbarium staff for verification. Once a report is verified, species locations are mapped onto an aerial image and an e-mail alert is sent to the landowner or a county representative to initiate follow-up control activities.

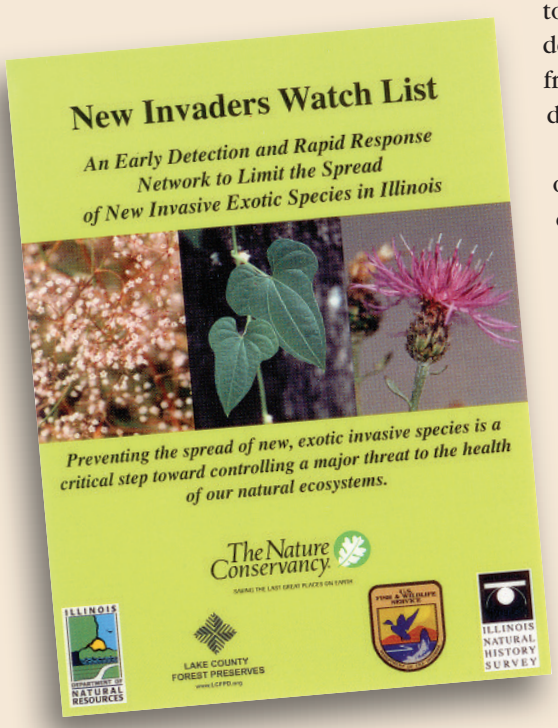
Because NIWP is using the same Web server as the Wisconsin Department of Natural Resources to map target species, we are able to see where target species occur over the state line and vice versa. This is a powerful tool for anticipating which species may come into our area next.

In 2008, 55 reports of target plant species were verified by NIWP. Not only are we gathering information on species that we did not know were here, we are beginning to have a better understanding of the distribution of those species we thought were in isolated populations, but are likely more abundant, such as Oriental bittersweet (*Celastrus orbiculatus*). If we do not understand the distribution of these invasive plants, we cannot adequately prioritize control and management efforts.

For example, in 2008 Brazilian elodea (*Egeria densa*), an invasive plant known from warmer climates and commonly sold for aquarium use, was known in only four counties in Illinois. Previously not known to Lake County, two populations of Brazilian elodea were found in storm water detention ponds in central Lake County by Integrated Lakes Management, an environmental consultant and trained NIWP participant.

In January 2009, after NIWP confirmed identification, the Lake County Health Department's Lakes Management Unit sampled the ponds and found that the Brazilian elodea was overwintering beneath 8 inches of ice. The pond owner plans to begin removal of the populations in early spring of 2009, and LMU and other local partners plan to conduct outreach to increase awareness and educate residents on proper disposal of this species from aquaria, which includes never dumping them into waterways or lakes.

Also in Lake County, when a homeowner unsuccessfully tried to eradicate a confirmed population of Japanese knotweed (*Polygonum cuspidatum*), NIWP partner Liberty Prairie Conservancy and the LCFPD were




**The New Invaders Watch Program ID card set provides partners with a quick field reference tool that includes species images, drawings and important identification characteristics of leaves, stems and flowers.**

**Liberty Prairie Conservancy staff assisted a private property owner control NIWP target species Japanese knotweed with a stem-injection tool to selectively apply herbicide to the hollow stems.**

there to help. Conservancy staff used a stem injection tool to carefully apply herbicide to the plant's hollow stems, increasing the effectiveness of control.

In DuPage County, a local resident noticed what she thought was giant hogweed, a federally noxious weed that has been found in only three other locations in the Chicago region, on private land. The Morton Arboretum verified the population, the homeowner was contacted and, within 48 hours, the population was removed.

In McHenry County, staff of the McHenry County Conservation District monitored many of their natural areas, recording known populations of target species and documenting newly discovered populations.

"This is important information for our restoration ecologists and helps them plan control measures," noted Laurie Boldt, plant ecologist for MCCD. "With population locations mapped, we'll be revisiting those areas in 2009 and managing them as needed."

In 2008, a MCCD volunteer steward reported the first known population of the target species baby's breath (*Gypsophila paniculata*) in a dry prairie.

**Only a handful of populations of black swallow-wort are known in the Chicago region. However, the plant has become very abundant in the New England area.**

## New Invaders Watch List

**Aquatic Plants**
*Hydrilla verticillata* - hydrilla
*Egeria densa* - Brazilian elodea

**Forbs**
*Butomus umbellatus* - flowering rush
*Celastrus orbiculatus* - Asian bittersweet
*Centaurea maculosa* - spotted knapweed
*Dioscorea oppositifolia* - Chinese yam or air potato
*Euphorbia eslua* - leafy spurge
*Gypsophila sp.* - baby's breath
*Heracleum mantegazzianum* - giant hogweed
*Lespedeza cuneata* - silky bush clover
*Polygonum cuspidatum* - Japanese knotweed

**Vines**
*Cynanchum louiseae* - black swallow-wort
*Cynanchum rossicum* - pale swallow-wort
*Humulus japonicus* - Japanese hops
*Polygonum perfoliatum* - mile-a-minute weed
*Pueraria lobata* - kudzu

**Grasses**
*Glyceria maxima* - giant manna grass
*Microstegium vimineum* - Japanese stiltgrass
*Miscanthus sinensis* - Japanese silvergrass
*M. sacchariflorus* - Chinese silvergrass

**Trees and Shrubs**
*Pyrus calleryana* - Bradford pear
*Quercus acutissima* - sawtooth oak

**Forest Insects**
*Anoplophora glabripennis* - Asian longhorned beetle
*Agrilus planipennis* - emerald ash borer

In 2008, a MCCD volunteer steward reported the first known population of the target species baby's breath (*Gypsophila paniculata*) in a dry prairie. Spreading by seed and easily invading sand dunes along Lake Michigan, it is a significant problem in Michigan and is now known from three locations in Illinois, including the MCCD natural area.

It is through the efforts of local partners that early detection and rapid response works effectively. The NIWP provides the foundation for this strategy by building a network of concerned people, providing the outreach necessary to increase awareness and developing the tools that allow partners to communicate the locations of new invaders so that landowners can make informed and strategic management decisions.

The problem of invasive species will not be solved by early detection alone. It is just one strategy. Where possible, preventing new invasive plants from entering the state is a critical component to a comprehensive strategy.

When—and if—a new invasive species breaches a border, programs such as the New Invaders Watch Program could help stem the tide of invasive species and help protect the lands and waterways we all care about.

## Learn more

For more information about the New Invaders Watch Program (including training schedules and materials), visit www.NewInvaders.org or contact Debbie Maurer, Restoration Ecologist II, Lake County Forest Preserve District, (847) 968-3285, dmaurer@LCFPD.org.