



WNY PRISM

Partnering to Protect Western New York
from Invasive Species



Spring 2020 Newsletter

The WNY PRISM mission is to proactively identify, evaluate and address invasive species priorities in western New York using a coordinated partnership of local professionals, organizations and private citizens to improve, restore and protect local aquatic and terrestrial resources.



Native Plants For Your Garden:

Why and How You Should Make the Switch

Wild Bergamot (*Monarda fistulosa*)

Blue Flag Iris (*Iris versicolor*)

Plants are selected for our gardens because they are easy to grow, disease and deer resistant, and produce many showy flowers. These traits are great for an attractive, low maintenance garden, but they are the same traits that many invasive species share and offer a competitive advantage over native species.

Many terrestrial invasive species were originally introduced as landscaping plants. One study determined that out of 300 invasive species in North America, about half were introduced as ornamental plants (Randall and Marinelli, 1996). To make matters worse, non-native plant species continue to comprise up to 80% of nursery stock which may lead to new introductions in the future (Hulme et al., 2017). Fortunately, we can reduce the likelihood of introductions and slow the spread of new invasions by planting native species.

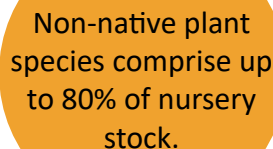
Native plants introduce a host of benefits. They are well adapted to our ecosystems and survive in variable conditions including drought and lots of rain, early spring frosts and early fall frosts. These traits make them a low maintenance investment that will save you money on water, fertilizer and pesticides in the long run. Meanwhile, native plants come in all shapes and colors and their aesthetic qualities rival those of non-native plants. For instance, the native blue flag iris (*Iris versicolor*) and wild bergamot (*Monarda fistulosa*) produce beautiful, showy flowers. (Continued on Page 2)

Native Plants For Your Garden:

Why and How You Should Make the Switch

The introduction of native plants to your garden provide a natural habitat for insects, birds and other animals. While you may see your non-native plants humming with pollinator activity in the summer, these plants often cater to only the most general pollinators like the non-native honeybee, but there are hundreds of pollinator species in NY. The New York Natural Heritage Program's [Empire State Native Pollinator Survey](#) has discovered 825 pollinator species since 2017. Species observed include bees, moths, butterflies, beetles, and flies, many of which have coevolved with native plants to form very specific relationships that simply

cannot be met by non-native plants that evolved to attract different pollinator species. Planting native species is a great way to support all kinds of native pollinators, many of which have seen population declines in recent years.



Non-native plant species comprise up to 80% of nursery stock.

Beyond pollinating plants, insects also provide valuable nutrition for other animals such as birds. Birds need insects to raise their young and they need a lot of them. In fact, 96% of terrestrial birds rear their young on insects (Dickinson, 1999). According to Doug Tallamy, an entomologist at the University of Delaware, a clutch of Carolina chickadee hatchlings need as many as 5,000 insects to reach adulthood. Supporting healthy insect populations in your garden is the first step in supporting many bird species.

Nature is notoriously disrespectful of borders designated and constructed by humans, and though we may think of gardens as isolated, they are a vital part of the ecosystem. This is especially true in suburban areas with few wild areas to sustain our native species. Working to cultivate native plants in your backyard is a great way to enhance your local ecosystem to the benefit of native animals while also saving you on maintenance costs and time. Check out the panel to the right for information and resources on how you can start to make the switch to native plants and visit our [website](#) for more!

How Can I Help?

- **Find a nursery that specializes in native plants.** WNY PRISM's [Native Plant Suppliers List](#) has suppliers throughout the region and beyond.
- **Learn about native plants for your garden and how to plant them.** Buffalo Niagara Waterkeeper's [Native Plant Guide](#) is a great place to start.
- **Ask your favorite nursery to carry native plants.** The more people request them, the more likely they are to carry them in the future.
- **Make small, gradual changes.** If your garden is full of non-native plants, don't become overwhelmed. Gradually replace non-native plants in your garden or create a small garden devoted to native plants and expand this over time.
- **Share what you've learned!** Tell your friends, family, neighbor, book club and strangers on the street about the success you've had planting native in your home garden!

Upcoming Events

iMapInvasive's Certified Trainers Network

Wednesday, April 29; 1:00-2:00 PM

[Webinar Registration](#)

Early Detection Webinar

Thursday, April 30; 3:00-4:00 PM

[Join the Webinar](#) Meeting Code: 596 042 462

iMapInvasives Mobile App Training

Wednesday, May 13; 1:00-2:00 PM

[Webinar Registration](#)

New York Invasive Species Awareness Week

June 7-June 13

For more information on these or other events, visit our [website](#).

Regional and State Updates

- WNY PRISM has redesigned its [Early Detection Assessment and Survey Protocols](#). This will make it easier for our partners to report Tier 1 and 2 (early detection and watchlist) species. These new protocols were presented as part of our [Spring Partner Meeting](#).
- WNY PRISM's 2019 Annual Report and 2020 Annual Work Plan are available on our [website](#).
- The Great Lakes Slender False Brome Working Group has created a comprehensive Strategic Plan for the Management of Slender False Brome (*Brachypodium sylvaticum*) based on the research they've done over the last 2 ½ years. It is available on our [website](#).
- WNY PRISM, in conjunction with the New York State Hemlock Initiative, Cornell Cooperative Extension and Erie County Parks, led two volunteer trainings on hemlock woolly adelgid (HWA). One of our trainees found the first known infestation of this species at Chestnut Ridge Park a week later.
- WNY PRISM's Watercraft Inspection Program was awarded [Erie County's Environmental Excellence Award](#) for its ability to have a significant and lasting impact on the natural environment.



Volunteers head out in the field to survey for HWA at Chestnut Ridge Park.

Invasive Species Profile: Jumping Worms

[Jumping worms](#), also known as Asian worms, (*Amyntas spp.* and *Metaphire spp.*) are recent additions to some WNY gardens. Their jumping worm name comes from the wild, thrashing behavior they exhibit when picked up, which is similar to a fish out of water. They can be distinguished from European earthworms by this movement and by the clitellum (light-colored band) that lays flat along its body, unlike most other species that have a raised clitellum.

While all earthworms in WNY are non-native (most of them are from Europe), the jumping worm is especially harmful as it quickly depletes the soil of organic matter in both forest understories and garden beds. In doing so, the jumping worm makes it difficult for plants to establish, damages the root



The smooth clitellum or band distinguishes jumping worms from other earthworm species.
Photo Credit: Susan Day, UW Madison Arboretum

structure of existing plants and causes population declines of salamanders, birds and a plethora of soil invertebrates. Once a jumping worm infestation has impacted an area, the soil becomes granular with an appearance of dried coffee grounds.

Jumping worms can be introduced through infected compost. Be sure that any compost you bring into your garden has been appropriately heated by following protocols to reduce pathogens. They can also be transported in the soil of plants, so know where your plants come from and buy bare root stock whenever possible. Knowing where infestations are in WNY is the key to limiting its spread, so if you believe you've found jumping worm, please report your sighting to [iMapInvasives](#).

Tall Waterhemp

Written by: Josh Putnam, Field Crops and Forage Specialist, Cornell Cooperative Extension (CCE)

Tall waterhemp is a troublesome weed throughout the Midwestern United States where it largely affects agricultural communities. It can diminish yields and disrupt the weed management practices of farmers. It has begun to spread in New York and has been confirmed in 12 counties throughout the state. Waterhemp is a member of the pigweed family (*Amaranthus spp.*) and has distinguishing features that make this weed unique. Waterhemp is a dioecious plant that can produce up to two million seeds per female plant. Waterhemp can emerge throughout the growing season, and a higher percentage of plants emerge later in the season than most other summer annual weeds. It is very competitive and once it emerges, it can grow almost 1 inch per day if conditions are favorable. Identification of this weed can be difficult as it can look very similar to other pigweeds that we have in New York.

One of the other concerns is that waterhemp has developed a resistance to several classes of herbicides. Preliminary research conducted by Drs. Lynn Sosnoskie and Bryan Brown at Cornell

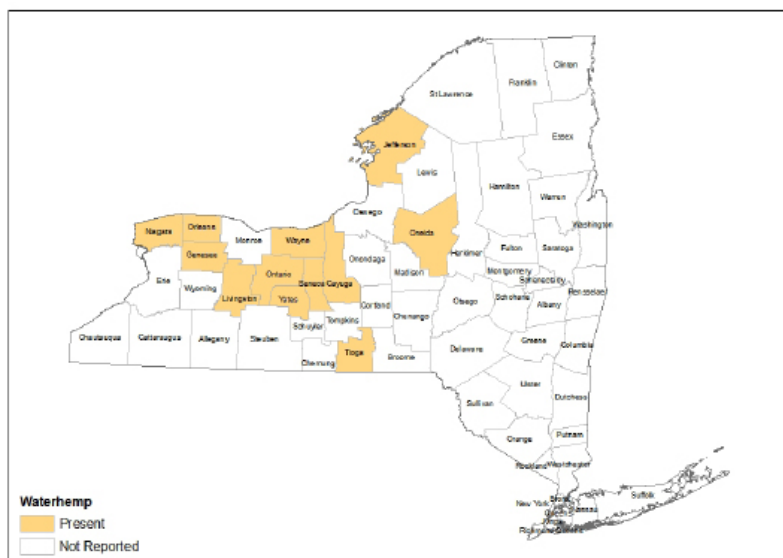
College AgriTech in Geneva, NY has shown that some waterhemp populations from NY might be resistant to herbicide groups 2 (ALS), 5 (PSII) and 9 (glyphosate). Furthermore, Missouri has recently confirmed a 6-way resistance in waterhemp that is resistant to herbicide groups 2 (ALS), 4 (Auxins), 5 (PSII), 9 (glyphosate), 17 (PPO) and 27 (HPPD). Correct identification of this weed is key. Contact your local extension specialist if you have questions or need help with identification.



Waterhemp impacts the yields of agricultural crops and its herbicide resistance make management difficult. Photo Credit: Josh Putnam, CCE

This article was written by Josh Putnam, Field Crops and Forage Specialist, CCE. His office, the [Southwest New York Dairy, Livestock, and Field Crops Program](#)

(SWNYDLFC), is a new initiative that started in July 2019 and operates in Allegany, Cattaraugus, Chautauqua, Erie and Steuben Counties. SWNYDLFC Regional specialists work with Cornell Faculty and Extension Educators statewide to address the issues that impact the dairy, livestock, and field crops industries in New York through educational programming and events, consultations, and on-farm research.



Known waterhemp locations in NY. This map is current as of February 2020. Reporting by Cornell Cooperative Extension and Cornell University. Produced by C. Marschner, Cornell University.

Contact Us!

SUNY Buffalo State
Great Lakes Center, SAMC 319
1300 Elmwood Ave.
Buffalo, NY 14222

(716) 878-4708

wnyprism@buffalostate.edu
wnyprism.org



WNY PRISM



[wnyprism8](#)

Rails to Trails Invasive Plant Mapping and Removal Effort

One of WNY PRISM's most exciting new programs is a collaboration with the Town of Tonawanda. The program focuses on the [Town of Tonawanda's Rails to Trails Pathway](#), a 3.9 mile trail constructed atop an abandoned railbed in 2016. Since then, the trail has become an important part of the local community, one that gives residents the opportunity to connect with nature and their neighbors.

This important community resource, similar to many trails in western New York, is bordered by an abundance of invasive species including [Japanese knotweed](#) (*Reynoutria spp.*), [common reed](#) (*Phragmites australis*), [glossy buckthorn](#) (*Frangula alnus*) and many others. When these species began to threaten the path's infrastructure, the Town of Tonawanda approached WNY PRISM to help develop a volunteer program to manage invasive species and maintain the pathway as a community asset for many years to come.

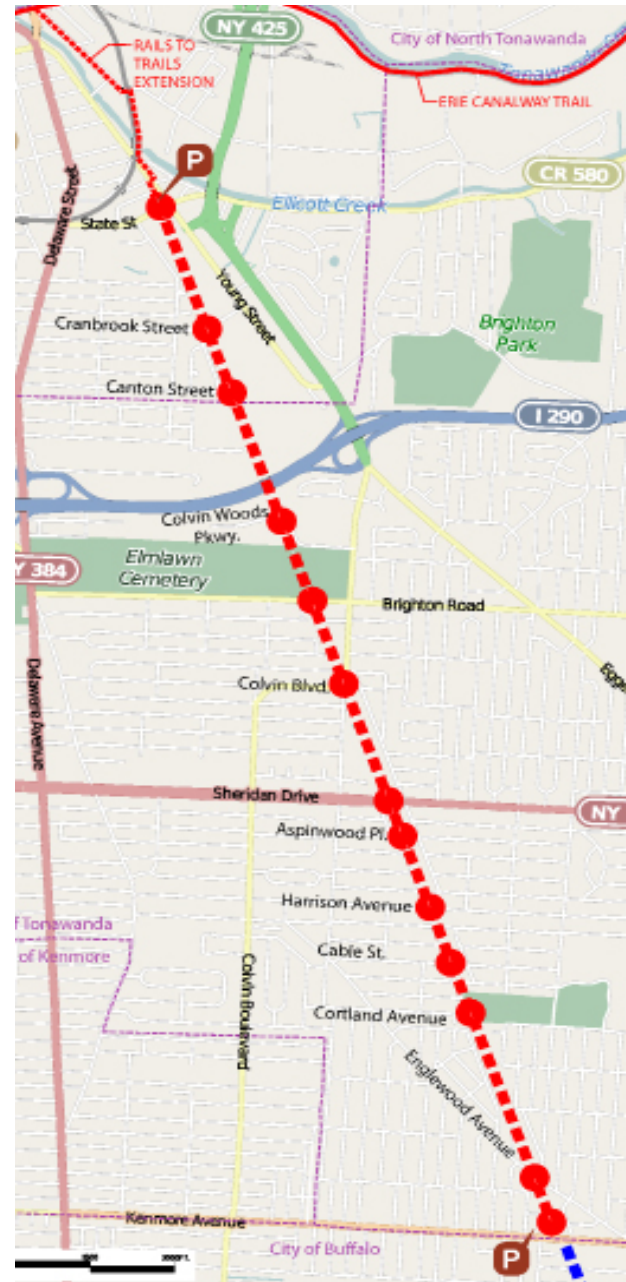
Our first step was to recruit volunteers. Thankfully, the tight-knit community of Tonawanda was willing to step up. Since we introduced the program to the community at a Town Board Meeting in November, over 60 volunteers signed up to take part in the effort.

We held our first event in February to introduce our volunteers to invasive species identification, our mapping protocol and removal techniques. Despite a night of wintry conditions, 30 enthusiastic volunteers attended, eager to learn more.

Early this summer we plan to have our second training to review invasive species identification and teach our volunteers how to map the invasive species along the Rails to Trails Pathway. Volunteers will then adopt a portion of the pathway and will be tasked with mapping the area.

The data we receive from volunteers will allow us to create a management plan for the area and will guide our Volunteer Workday in mid-summer. Here, our volunteers will get their hands dirty helping to remove invasive species along the trail.

We're always looking for more volunteers so if you'd like to learn about invasive species in your area, connect with your neighbors and protect this great community asset, register online at: bit.ly/rails2trailsvolunteer.



The Rails to Trails Pathway begins at Kenmore Avenue in the Town of Tonawanda and extends through the City of Tonawanda before joining the Erie Canalway Trail.

WNY PRISM Steering Committee Members

Buffalo Niagara Waterkeeper | Chautauqua Watershed Conservancy | Cornell Cooperative Extension Ecology & Environment, Inc. | Natural Resource Conservation Service USDA - NRCS | New York Sea Grant NYS Nursery and Landscape Association, Inc. | NYS Office of Parks, Recreation, and Historic Preservation
Roger Tory Peterson Institute of Natural History | Great Lakes Center - SUNY Buffalo State
United States Army Corps of Engineers, Buffalo District
USFWS, Lower Great Lakes Fish and Wildlife Conservation Office