

2018

WNY PRISM Annual Report



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Cover Photo: WNY PRISM Lead Boat Steward, Morgan Leigh Beatey, conducted voluntary boat inspections and visitor surveys at West Canal Park along Tonawanda Creek/Erie Canal.

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Mission

The Western New York Partnership for Regional Invasive Species Management (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.



History

Recognizing the growing threat of invasive species, New York State (NYS) established the Invasive Species Task Force (ISTF), a multi-stakeholder working group made up of agencies, conservation organizations and businesses co-led by the NYS Departments of Environmental Conservation (DEC) and Agriculture and Markets (DAM), with the purpose to investigate invasive species issues and provide recommendations to the Governor and Legislature. The ISTF report, presented in 2005, identified 12 key recommendations which, when implemented would allow for NYS to effectively address invasive species.

Based upon the recommendations from the ISTF, NYS established the Invasive Species Council (ISC) and Invasive Species Advisory Committee (ISAC), and formed the Office of Invasive Species Coordination (ISCS) within DEC. Among the remaining 12 key recommendations were those that led to the creation of the New York Invasive Species Research Institute (NYISRI), establishment of the New York iMapInvasives Program (iMap), and that which supported the creation of PRISMs, regional public-private partnerships designed to strategically deliver invasive species management functions. PRISMs coordinate invasive species management activities which involve collaborations with stakeholders from across each region, effectively providing regional coverage across NYS. Established in January 2014, WNY PRISM is one of these eight partnerships. Combined, these programs and offices make up the NYS Invasive Species Program (ISP).



WNY PRISM

Invasive species pose a significant threat to the environment, economy and human health. This threat has translated into loss of biodiversity and ecosystem services, degraded soil and water health, an economic loss of over 120 billion dollars annually, and significant negative impact to human health. WNY PRISM combats this threat by addressing invasive species priorities through a coordinated partnership network, for which WNY PRISM provides leadership, technical assistance and opportunities for collaboration. Each year new partners join the effort, making the WNY PRISM partner network stronger and better able to improve, restore and protect local aquatic and terrestrial resources.

Geography

WNY PRISM includes some of New York State's most impressive natural features, such as Niagara Falls and the Niagara River Gorge, Lake Erie and Lake Ontario shorelines, forests of the Southern Tier, Zoar Valley, Iroquois National Wildlife Refuge, Letchworth State Park, and Chautauqua Lake. The Niagara River and Niagara River Flyway is a spring bird migration corridor and is identified as a globally significant Important Bird Area with one of the world's most impressive concentrations of gulls. WNY includes major watersheds such as Lake Erie-Niagara River, Southwestern Lake Ontario, and Allegheny River, and is part of both the Great Lakes and Mississippi River Basins.

Land dedicated to agricultural production in WNY PRISM includes over 1.4 million acres, with an average farm size of 170 acres. Three western New York counties (Chautauqua, Genesee and Wyoming) ranked among the top 10 in agricultural sales for NYS, according to a 2007 U.S. Department of Agriculture (USDA) Report, with Chautauqua County ranking as the top grape producer. The WNY PRISM region is home to over 1.55 million residents, and contains the cultural and urban centers of Buffalo, Jamestown, Lewiston, and Niagara Falls. Buffalo was founded in 1801 (incorporated in 1832) and is the second most populated city in NYS. This combination of ecology, geography, agriculture and cultural history make WNY a globally unique and important place. It also highlights the need for coordinated invasive species management.



Houghton Bog, a nature preserve owned by the Nature Sanctuary Society of Western New York, shows-off WNY's unique habitats.

Operational Structure

WNY PRISM operational structure includes a 15-member Steering Committee, Working Groups, partners and staff. The Steering Committee is comprised of a core group of individuals representing a variety of organizations, agencies, private sector businesses and citizens, and is representative of the invasive species management needs of the WNY PRISM region. Working Groups are comprised of additional

partners with specific interest and expertise regarding targeted priorities, and are divided into Terrestrial, Aquatic, Education and Outreach, and Conservation Groups. Partners are comprised of all interested parties and stakeholders taking part in WNY PRISM network activities. Participation in the Steering Committee and Working Groups, and as a partner, is strictly voluntary.

Steering Committee Meetings take place quarterly, with additional meetings held as needed. Full Partnership Meetings, open to all partners and interested parties, take place twice a year in April and October/November. Working Group meetings are held on an as needed basis.

Steering Committee Members

Alisia Vilonen	New York State Department of Transportation
Bob Smith	New York State Certified Nursery and Landscape Association
Gregg Sargis	The Nature Conservancy
Helen Domske	New York Sea Grant
Jonathan Townsend	Chautauqua Watershed Conservancy
Jennifer Dunn	New York State Department of Environmental Conservation
John Grabowski	Buffalo Niagara Waterkeeper
Lynn Greer	U.S. Army Corps of Engineers – Buffalo District
Meg Janis	New York State Office of Parks, Recreation and Historic Preservation
Paul Fuhrmann	Ecology & Environment, Inc.
Colleen Kolb	U.S. Fish and Wildlife Service – Lower Great Lakes Fish and Wildlife Conservation Office
Shanna Shaw	U.S. Department of Agriculture – Natural Resources Conservation Service
Sharon Bachman	Cornell Cooperative Extension of Erie County

WNY PRISM Staff

Dr. Christopher Pennuto
Director

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Education and Outreach Assistant

Julia Kostin
Invasive Species Management Assistant

Rebecca Mann
Invasive Species Management Assistant

Strategic Planning

Invasive species management needs are extensive and beyond the current regional capacity to address in full. Strategic planning and prioritization are necessary to ensure resources are used most effectively. During the initial strategic planning process, WNY PRISM identified Core Functions: Partner/Network Coordination, Information Management, Education and Outreach, Prevention, Early Detection and Rapid Response, and Habitat Management and Restoration. For each Core Function associated goals and strategies were developed. Additional assistance from the Steering Committee, Working Groups, partners and additional stakeholders allowed for further program, species and project priorities to be developed.

WNY PRISM goals and priorities are outlined in the [WNY PRISM 5-year Strategic Plan \(2014-2018\)](#).

2018 Annual Report

The 2018 WNY PRISM Annual Report provides an overview of the projects and programs WNY PRISM implemented this past year. As an organization that includes and depends upon partnerships to achieve success, many of the projects highlighted in this report include considerable effort and support from partner organizations, without whom the projects would not be possible. In this way, the WNY PRISM Annual Report serves not only as an overview of WNY PRISM activities, but as an overview of many invasive species management efforts taking place across the region. Previous Annual Reports, and additional WNY PRISM documents and resources, are available for download at www.wnyprism.org.

WNY PRISM would like to thank all our partners for their dedication to invasive species management. We would also like to thank our host organization, the Great Lakes Center at SUNY Buffalo State and the Research Foundation for SUNY at Buffalo State, as well as our state and federal partners. Finally, we would like to thank our Steering Committee members for the considerable time and effort they have committed to ensure the continued success of WNY PRISM.



WNY PRISM Spring Partner Meeting, held at Reservoir State Park.

Funding for WNY PRISM is provided by the Environmental Protection Fund through a contract with DEC. WNY PRISM is hosted by the Great Lakes Center and is a sponsored program of the Research Foundation for SUNY Buffalo State.

Partner/Network Coordination

Goal: Establish a partnership network and communication for those involved in invasive species information and management within the WNY PRISM region. Facilitate opportunities for cooperation including sharing of information, personnel, equipment and expertise.

No single organization has the capacity to address invasive species alone, so WNY PRISM works to make it easier to access shared resources and regional expertise, by establishing and growing a robust partnership network. WNY PRISM offers many ways to become a partner and become involved in coordinated efforts to address invasive species. Partners include any organization or program with whom WNY PRISM works or otherwise interacts with in working towards invasive species management goals. This may include removal projects, events, management planning or assistance with distribution of news and information. The easiest way to join the partnership is to attend a WNY PRISM Partner Meeting.



WNY PRISM toured the Niagara River Gorge Restoration as part of the Spring Full Partner Meeting. Cut-stump and basal bark treatments can be seen in the lower picture.

WNY PRISM held two Partner Meetings in 2018. The spring meeting was held at Reservoir State Park in Lewiston and featured the Niagara River Gorge Restoration Project. Dave Spiering, Conservation Project Manager with The Western New York Land Conservancy presented on the project and led a tour to see the restoration in progress. The fall meeting was held at the Great Lakes Center Field Station along the Niagara River in Buffalo. Dr. Robert Warren, Associate Professor at SUNY Buffalo State, presented his research on the European fire ant (*Myrmica rubra*), which has been found in multiple locations in western New York. Both meetings included presentations from WNY PRISM, providing

information on statewide and regional efforts, invasive species news and updates on WNY PRISM activities.

WNY PRISM serves on invasive species committees within the region, as well as participates in broader efforts to address invasive species issues within the Great Lakes Basin and the northeastern United States. Involvement with these efforts allow WNY PRISM to better assist the region by providing an important connection and improved communication. This year, WNY PRISM continued to work with the Great Lakes Phragmites Collaborative, Hydrilla Collaborative, Great Lakes Action Agenda, and multiple forest pest taskforces. WNY PRISM also attends regional meetings of additional committees, such as Erie County Water Quality Committee, as needed and time allows.

New York State Invasive Species Program

Invasive species issues are regionally unique, but there are many shared concerns and priorities that cross PRISM boundaries. Coordination between PRISMs allows for effective sharing and delivery of information across the state and ensures state level invasive species management efforts to move forward.

Quarterly meetings and monthly webinars are held to facilitate collaboration between PRISMs and state partners. After hosting a PRISM Leader's Meeting in Buffalo the previous fall, WNY PRISM facilitated the first meeting and webinar held in 2018, and WNY PRISM Director Chris Pennuto presented on invasive crayfish for the March webinar.

The Annual NYS Invasive Species Conference is held at Cornell University, as part of the Cornell Cooperative Extension In-Service, in early November. This conference offers an additional opportunity for PRISM Leaders and the ISP to discuss important invasive species issues and programs over the course of three days. This year's program included a two-day session on developing strategic solutions to initiating behavior change through invasive species education and outreach.

Additional statewide efforts include the NYS Hydrilla Task Force, NYS Invasive Species Documentary planning, forest pest initiatives such as the Hemlock Initiative, iMapInvasives and ISRI prioritization efforts and spotted lanternfly prevention, early detection and rapid response.

Grants

Invasive species management requires significant resources and WNY PRISM continually seeks funding to assist with efforts through grant programs, both independently and in collaboration with partners. The grant proposal process can be time consuming and grant programs increasingly require integration of partnerships into proposals. WNY PRISM works with partners seeking grant funds and provides support for projects. WNY PRISM collaborated with partners on many invasive species related projects and grant proposals in 2018, providing planning assistance, project support and letters of support.

WNY PRISM 2019 -2023

After five successful years, the initial contract to administer WNY PRISM ended in 2018. A request for proposals to administer a new five-year contract was released by NYS. The Great Lakes Center (GLC) submitted a proposal to DEC and we were notified in late summer that GLC was selected to once again serve as hosts to WNY PRISM. We are excited for the opportunity to continue to grow WNY PRISM and work with partners.



The 2018 Invasive Species Conference, held at Cornell University, included a tour through managed areas on campus.

The new contract comes with an expanded scope of work for WNY PRISM and preparations for 2019 began immediately with development of two new full-time staff positions. WNY PRISM hired an Aquatic Invasive Species (AIS) Program Manager and an Education and Outreach (E&O) Program Manager to compliment our Terrestrial Project Manager and seasonal staff. The AIS Program Manager will coordinate a new WNY PRISM Watercraft Inspection Program while the E&O Program Manager will initially focus on updating and expanding current educational programming, before beginning development of new citizen science and volunteer programs.

Additional Funding

Vernal Pool Enhancement Project, Tifft Nature Preserve (2017 – 2018)

WNY PRISM received funding from the Buffalo Museum of Science and Tifft Nature Preserve (Tifft), through the Niagara River Greenway Commission – Greenway Ecological Standing Committee, for work associated with the Vernal Pool Enhancement Project at Tifft. The project involves invasive species removal and habitat restoration within a six-acre project area.

Great Lakes Slender False Brome Working Group (2017 – 2019)

The Great Lakes Center and WNY PRISM received funding from the U.S. Environmental Protection Agency and Great Lakes National Program Office, through the Great Lakes Restoration Initiative, to establish the Great Lakes Slender False Brome Working Group. The Working Group will provide guidance for the management of slender false brome and efforts involve species surveys, development of best management practices, implementation of removal projects and regional outreach.

Priority Lands Invasive Species Removal and Volunteer Monitoring Program (2018 – 2020)

The priority land project is a collaborative effort between WNY PRISM and the Western New York Land Conservancy (Land Conservancy). This project targets high conservation value lands located within Erie and Niagara Counties that are owned by the Land Conservancy and Buffalo Audubon Society. Invasive species removal, spread prevention and monitoring will result in a sustainable level of future management needs within the site. Funding is provided as part of the Cooperative Weed Management Areas program, through the U.S. Forest Service and Great Lakes Restoration Initiative.

Niagara County Japanese Knotweed Removal (2018)

WNY PRISM received funding from the Niagara County Soil and Water Conservation District, via the Cooperative Weed Management Areas program, through the U.S. Forest Service and Great Lakes Restoration Initiative, to assist with treatment of knotweed along creeks and right-of-ways within Niagara County. This is a long-term project with the goal of controlling the spread and limiting the impact of knotweed.



Niagara Escarpment Preserve in early spring.

Information Management

Goal: Collect, utilize and share information regarding invasive species management including species, pathways of invasion, surveys, infestations, control methods, monitoring, research, current efforts/projects and opportunities for partner collaboration.

Information and resource needs evolve over time as new threats and questions arise. WNY PRISM works to meet this need by continuing to solicit feedback from partners and working to integrate that feedback into our priorities and annual work plans. This may lead to shifts in project focus, but most often results in changes to outreach efforts. In the case of new concerns, such as the emergence of spotted lanternfly, we work to identify needed information and provide that to the region through the website.

The WNY PRISM website provides an easy to navigate portal to expansive invasive species information. Visitors to the WNY PRISM website will find resources for project development and management, regional priorities, species profiles, and actions to help stop the spread of invasive species. The website also addresses regional information priorities identified by partners through Working Groups and open feedback, with updated information for new and emerging invasive species, expanded management resources, current news, and a continually updated calendar of events.



WNY PRISM Crew conducted invasive species surveys throughout the summer – here mugwort was observed and reported.

WNY PRISM Listserv

The WNY PRISM Listserv is the primary means by which WNY PRISM shares important information to partners. Common topics sent through the Listserv include press releases, job opportunities, grant programs, educational events, volunteer opportunities, pesticide information and meeting announcements. Bi-weekly WNY PRISM Round-Ups, which include a summary of news, funding opportunities and events occurring in the region, are also sent through the Listserv. The 265 Listserv members further assist with information dissemination by sharing items within their own networks.

WNY PRISM Listserv

- 265 members
- 100 unique emails
 - 20 WNY PRISM News Round-ups
 - 22 News & Grants, 34 Events, 25 Job Opportunities

Research Priorities

WNY PRISM continues to work closely with the NY Invasive Species Research Institute (NYISRI) and additional statewide partners to address research needs. Research priorities are developed through individual discussions, partner and working group meetings and solicitation through the WNY PRISM Listserv. In 2018, identified research priorities remained similar to previous years.

The top of the list continues to be identification and development of biocontrols, and efforts have led to progress being made on this front. Target specificity testing has continued for a water chestnut biocontrol and biocontrols for swallow-wort were field tested in 2018, although not in the western New York region. Hemlock woolly adelgid management and biocontrol efforts have also progressed as the New York Hemlock Initiative continues to make strides.

Management needs led many of the statewide conversations in 2018. NYISRI led efforts to collect and synthesize management data for NYS identified priority species, while WNY PRISM focused on development of Best Management Practices (BMP) factsheets for regional priorities. The BMP factsheets are designed to provide general guidance on the most effective methods of management based on the species, site and size of the infestation. Best Management Practices factsheets for invasive shrubs, knotweed species and Japanese stiltgrass are now available on the [WNY PRISM website](#).

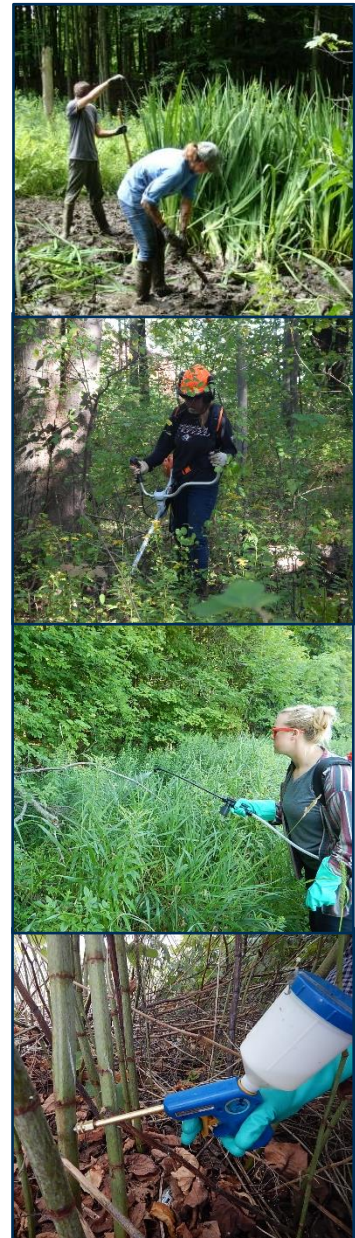
WNY PRISM Research Priorities – New 2018

- Identification of Best Management Practices for early detection and approaching region species.
- Development of central location for managers to discuss and locate Best Management Practices.
- Improved metrics and survey/monitoring protocols for post-treatment maintenance and protection efforts.

Research priorities from previous years can be seen in respective Annual Reports, available on the website.

Species Prioritization

WNY PRISM took initial steps to prioritize invasive species with the development of priority species lists in 2015. However, invasive species threats have changed over time and to address this, WNY PRISM updated the Early Detection Priorities species list and created a new Watchlist/Approaching Region Priorities species list in 2018. New and improved lists will allow WNY PRISM to better prioritize education, outreach and survey efforts, and allow for improved response to regional threats.



Best Management Practices - manual, mechanical, chemical.

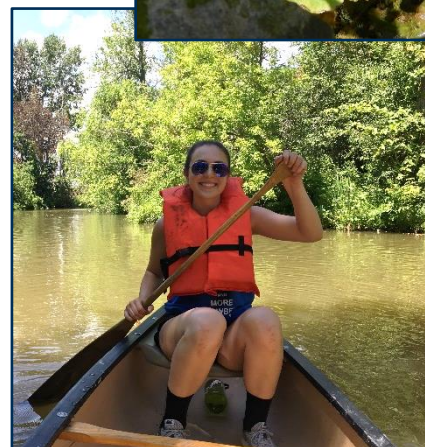
Early Detection Priorities

- *Aralia elata* Japanese Angelica Tree
- *Brachypodium sylvaticum* Slender False Brome
- *Eichhornia crassipes* Water Hyacinth
- *Microstegium vimineum* Japanese Stiltgrass
- *Persicaria perfoliata* Mile-a-Minute Vine
- *Pistia stratiotes* Water Lettuce



Watchlist/Approaching Region Priorities

- *Aldrovanda vesiculosa* Waterwheel
- *Ampelopsis brevipedunculata* Porcelain Berry
- *Anoplophora glabripennis* Asian Longhorned Beetle
- *Channa argus* Northern Snakehead
- *Hypophthalmichthys molitrix* Silver Carp
- *Hypophthalmichthys nobilis* Bighead Carp
- *Impatiens glandulifera* Himalayan Balsam
- *Lycorma delicatula* Spotted Lanternfly
- *Nymphoides peltata* Yellow Floating Heart
- *Oplismenus undulatifolius* Wavyleaf Basket Grass



Rebecca Mann (ISMA) surveyed Ellicott Creek for water lettuce in July as part of WNY PRISM Early Detection Site Monitoring.

A new invasive species management tiered ranking system was developed by iMapInvasives and the ISP in 2017, and WNY PRISM began to use this system to further prioritize species for the region this year, ranking 72 species. Species tier selection is based on overall abundance within the region, species impact and feasibility of management. The system includes 5 Tiers that identify the most appropriate management goal for the species. Tier rankings have been added to WNY PRISM's online invasive species profiles.

- Tier 1 Early Detection/Prevention – high impact species, none found in PRISM region
- Tier 2 Eradication – high impact species, low abundance within PRISM region
- Tier 3 Containment – high impact species, moderate abundance within PRISM
- Tier 4 Local Control – high impact species, high abundance within PRISM region
- Tier 5 Monitor – more information is needed to accurately assess the species

Species Presence and Distribution

Effective management planning requires accurate and complete information concerning the presence and distribution of invasive species. Among the many tools for tracking invasive species data is iMapInvasives, which WNY PRISM uses to both provide information to the region and identify additional information needs. Nine sites were mapped in 2018 as part of WNY PRISM's efforts to fill data gaps within iMapInvasives and as part of efforts to assist partners with the development of preserve management plans. Sites surveyed include Moss Lake, Coyle Hill State Forest, Hunter's Creek County Park and areas along Cazenovia Creek.

WNY PRISM and partners continued efforts to train citizen scientists and professionals on the use of iMapInvasives. The annual Spring Blitz Training was held at Iroquois National Wildlife Refuge. Nine additional trainings were held across the region, instructing 98 participants. Training topics included invasive species ecology and identification, basic data entry, projects, surveys, and infestation management.

Each year, WNY PRISM identifies a new focus within trainings, to better engage citizen scientists. Tree-of-heaven filled the spotlight in 2018, due to the looming threat of spotted lanternfly. As a preferred host for the species, tree-of-heaven may provide a means to slow its spread by allowing managers to target populations of tree-of-heaven for removal. Trainees were asked to be on the lookout for tree-of-heaven and they responded to the call. Tree-of-heaven was the fifth most reported species in western New York this year!

iMapInvasives Report

WNY PRISM Region

- 1,265 Observations
- 143 Not Detected*
- 21 Projects
- 82 Species Reported
- 70 Observers
- 22 Organizations
- Top 5 Species Reported
 - Bush Honeysuckle
 - Common Buckthorn
 - Slender False Brome
 - Multi-flora Rose
 - Tree-of-Heaven

WNY PRISM Office/Crew

- 560 Observations
- 11 Counties
- 6 Projects
- 42 Species

*Not Detected are mostly Hemlock woolly adelgid



Spotted lanternfly and tree-of-heaven. Photo Credits: Tree-of-heaven, Richard Gardner, Bugwood.org; spotted lanternfly, Lawrence Barringer, PA Department of Agriculture, Bugwood.org; tree-of-heaven leaves, Chuck Barger, University of Georgia, Bugwood.org.

Education and Outreach

Goal: Increase the public, partner and stakeholder awareness, understanding and participation in invasive species issues and management within the WNY PRISM region, through effective educational and outreach efforts.



A packed house learned about slender false brome and rare native species at the Bergen Swamp Preservation Society Meet and Greet.

awareness and understanding of new and emerging invasive species threats due to the emergence of species like spotted lanternfly and Japanese stiltgrass.

There is often a short window, from the moment of species introduction to the time when species are well-established, during which eradication efforts may be successful. With focused effort on raising public familiarity with emerging threats, invasive species managers are better able to address issues early, before species become widespread. Presentations at the Rural Landowners Workshop, Genesee Valley Landowners Workshop, Master Gardener trainings, iMapInvasives workshops and multiple survey workshops focused on WNY PRISM's early detection efforts and newly developed

Watchlist/Approaching Region priority species. The Bergen Swamp Preservation Society Meet and Greet, held in April, introduced an attentive audience to some rare native species present in the preserve and the invasive species, including early detection priority species slender false brome, that threaten them.

The Gill Creek Workshop, developed in partnership with Buffalo Niagara Waterkeeper, offered an important counterpoint to early detection outreach efforts. It focused on training citizen scientists and volunteers to assist land



Volunteers at the Gill Creek Workshop learned invasive species identification while visiting the streambank restoration site.

managers with maintaining the initial invasive species removal and restoration efforts, and attendees were taught about the challenges facing habitat restoration and invasive species management. Topics included identification and management for common invasive species found within restoration areas, survey and monitoring protocols and programs, and additional resources. This workshop, and those like it, will aid land managers in implementation of long-term monitoring of restoration projects and will provide increased opportunities for volunteers and citizen scientists to get involved with restoration efforts.

***Phragmites* Adaptive Management Framework (PAMF) Training**

The Great Lakes *Phragmites* Collaborative (GLPC) was formed in 2012 to reduce the spread and occurrence of *Phragmites* throughout the Great Lakes Basin. The collaborative brings land managers, property owners, researchers and municipalities together to address the widespread impacts of *Phragmites*. It is a resource center for biological information, best management practices, and past and current research, all of which is regularly updated by a team of staff and advisory and steering committees, of which WNY PRISM is part.

Recognition of the need to improve upon *Phragmites* management on a landscape scale led to the development of the *Phragmites* Adaptive Management Framework (PAMF). The PAMF team developed a basin-wide database to record *Phragmites* infestation data, created models that adapt to treatment results and established standard monitoring guidelines. Property owners and managers tested the model and, by 2018, it was ready for use. Tifft Nature Preserve served as host to a PAMF training in June. Participants were able to learn how to implement survey protocols, use the database and modeling, and were able to interact with those working on the further development of PAMF. Very thoughtful discussions took place on functionality and potential future uses of the framework. Increasing the number and flexibility of management recommendations and opportunities for the established protocol to be used as a base for citizen science programs were among the discussion topics.



Participants in the PAMF Training learned the Phragmites survey protocol and had the opportunity to test it out.

Invasive Species Awareness Week

New York State’s 5th Annual Invasive Species Awareness Week (ISAW) celebrated this year’s theme, “What *You* Can do to Stop the Spread!”. Thirty-six events, not including webinars, were held between July 8 – 14, 2018, as part of ISAW in western New York. This marked an impressive increase from previous years and demonstrates the dedication to raising invasive species awareness among partners throughout the region. Thirty-six events also marked the most events held in a single PRISM this year!

WNY PRISM assisted partners with event development and planning, provided outreach materials and assisted with event advertising, along with hosting our own events as part of ISAW. The Lending Library was a popular addition to ISAW efforts. Libraries throughout the Buffalo area and beyond displayed the Lending Library poster kits featuring new species posters for Asian longhorned beetle, water chestnut, bloody red shrimp and hemlock woolly adelgid.



WNY PRISM worked alongside the Western New York Land Conservancy and Volunteers to remove honeysuckle and other invasive species from Kenneglenn Scenic and Nature Preserve during ISAW.

Two highlights this year included the Honeysuckle Harvest and Tiff Vernal Pool Restoration Tour. The Honeysuckle Harvest, now in its third year, once again took place at Kenneglenn Scenic and Nature Preserve. The event is a partnership between WNY PRISM and the Western New York Land Conservancy. It provides a wonderful learning experience for volunteers while also sneaking in some important invasive species removal work. Invasive bush honeysuckle is the primary target of the workday, but volunteers also worked on removal of other invasive shrubs and valerian, a nearby garden escapee.



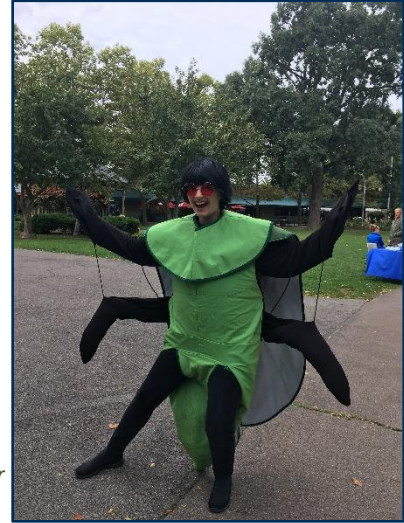
Zach Goodrich, Preserve Steward, Tiff Nature Preserve, explained the restoration process and need for the deer enclosure fence before opening the gate and allowing tour participants to see the restoration up close.

The Tiff Vernal Pool Restoration Tour offered a behind the scenes look at the Vernal Pool Enhancement Project taking place at Tiff Nature Preserve. WNY PRISM has worked with Tiff over the past two years to plan and implement this impressive restoration project. Zach Goodrich, Preserve Steward with Tiff Nature Preserve, led the tour of the 6-acre restoration site, first describing it as it was prior to restoration then unveiling a completely altered landscape. Prior to invasive species removal efforts, the area had close to 100% invasive species cover, primarily composed of common buckthorn. As a result of the project, 4 acres were cleared of common buckthorn, revealing the presence of

multiple vernal pools which were further restored to ensure water was held through the spring breeding season. Fourteen species of native trees and shrubs were planted throughout the area protected by a deer enclosure fence.

Education and Outreach – By the Numbers

- 13 Workshops and Trainings
- 18 Tabling Events
- 10 Presentations
- Outreach events held in all 8 Counties
- Facebook – 75 posts reached 16,133 users, 64 new page likes
- 1200 items distributed
- 2450 Direct Contacts
- >286,000 total event attendees



Julia Kostin (ISMA) wore the Emerald Ash Borer Costume at the 2018 Party for the Planet at the Buffalo Zoo.

WNY PRISM hosted, participated in, and/or provided support in planning for the following Education and Outreach Events held in 2018.

Trainings and Workshops

Event	Host/Partner Organization	Date	Attendees
Rural Landowners Workshop	CCE – Allegany County	3/3/2018	105
Master Gardeners Regional Workshop	CCE – Western Region	4/6/2018	60
Genesee Valley Landowners Workshop	Genesee Valley Conservancy	4/11/2018	150
Master Gardeners – Orleans County	CCE – Orleans County	4/12/2018	14
iMapInvasives Spring Training	iMapInvasives	5/31/2018	24
Stewardship Day	NYS Parks	6/9/2018	26
PAMF Training	GLPC, Tiff Nature Preserve	6/19/2018	18
Honeysuckle Harvest	WNY Land Conservancy	7/12/2018	3
Volunteer Workshop	Genesee Co. Park & Forest	7/14/2018	6
Backyard Invaders Workshop	Genesee Co. Park & Forest	8/25/2018	21
Identification and Survey Protocols	WNY PRISM	8/29/2018	12
Invasive Plant Workshop	Buffalo Niagara Waterkeeper	9/13/2018	9
Master Gardeners – Erie County	CCE – Erie County	11/6/2018	65

Outreach and Tabling

Event	Host/Partner Organization	Date	Attendees
Environmental Fair	Niagara University	4/18/2018	75
Spring into Nature	Friends of Iroquois NWR	4/28/2018	600
Environmental Field Day	Niagara County SWCD	6/5/2018	137
Great Lakes Experience Festival	USFWS	6/9/2018	1,800
Alfred Farmers Market	Alfred Farmers Market	7/8/2018	125
March for Science Festival	Science Demands Action	7/14/2018	1,000
Canal Fest of the Tonawandas	DEC, USACE, NYS Parks	7/15/2018	250,000
Perry’s Farmers Market	Town of Perry	7/21/2018	150

Orleans County Fair	CCE – Orleans County	7/26/2018	24,500
Wild America Festival	Roger Tory Peterson Institute	7/28/2018	1,700
Living with Wildlife	Erie County	7/31/2018	48
Insectival	Tifft Nature Preserve	8/5/2017	300
Hamburg Farmers Market	Hamburg Chamber of Commerce	8/18/2018	250
Clarence Hollow Farmers Market	Clarence Hollow FM	8/25/2018	300
North Buffalo Farmers Market	North Buffalo FM	8/30/2018	150
Party for the Planet	Erie County	9/8/2018	2,445
Reinstein Woods Fall Festival	Reinstein Woods	9/15/2018	2,300
WNY Environmental Summit	Daemen College	9/29/2018	150

Presentations

Event	Host/Partner Organization	Date	Attendees
Early Detection and Response	Niagara Frontier Botanical Society	3/13/2018	23
Spring Partner Meeting	WNY PRISM	4/12/2018	29
Bergen Swamp Meet & Greet	Bergen Swamp Preservation Society	4/28/2018	65
Vernal Pools Restoration	Tifft Nature Preserve	7/9/2018	4
Environmental Science Careers	Genesee Co. Park & Forest	7/18/2018	11
Master Naturalists – Erie County	CCE – Erie County	7/24/2018	8
My Brother’s Keeper	NYS Parks	8/1/2018	7
Niagara Gorge Restoration Hike	WNY Land Conservancy	8/1/2018	25
Knotweed Management	Lily Dale Env. Committee	9/17/2018	17
Fall Partner Meeting	WNY PRISM	10/11/2018	15



Emily Thiel (E&O) engages students at the Niagara County SWCD Environmental Field Days.



iMapInvasives annual Spring Blitz Training, held at Iroquois National Wildlife Refuge.

Prevention

Goal: Facilitate the prevention of new occurrence, spread and further establishment of invasive species within the WNY PRISM region through understanding of pathways of invasion and targeting of priority conservation areas. Prevention measures must address both the movement of invasive species in and out of the WNY PRISM region.

Watercraft Inspection Program

WNY PRISM worked with Boat Stewards for the first time in 2018, hosting two SUNY College of Environmental Science and Forestry students as interns through a DEC program. Morgan Leigh Beatey and Parker Everhart worked from Memorial Day to late August, fulfilling course requirements and helping to educate WNY boaters about Clean, Drain, Dry! Morgan was stationed along Tonawanda Creek/Erie Canal, most often at West Canal Marina and Amherst Veterans Park, and Parker was stationed at Cuba Lake.



WNY PRISM Boat Steward, Morgan Leigh Beatey, inspects a boat at West Canal Marina.

Boat Stewards are dedicated to stopping the spread of aquatic invasive species on recreational watercraft, educating the public about the importance of taking spread prevention, and teaching them how to take action. Most of those whom the stewards encountered were very interested in hearing



WNY PRISM Boat Stewards, Morgan Leigh Beatey and Parker Everhart, set up for our first day at Cuba Lake.

about invasive species and learning more about the Watercraft Inspection Program. Some of those most interested came without boats, visiting launches to walk their dogs, or to just sit by the water. Amherst Veterans Canal Park is situated along the Erie Canal walk and bike path, which lead to an increase in foot traffic that kept Morgan busy even when boats were not going in and out of the water.

In 2018, WNY PRISM Boat Stewards conducted over 1800 inspections, nearly half of which involved people who never encountered a boat steward previously. The acceptance rate for inspections was 94% and the most frequent activity reported was recreation (66%), followed by fishing (32%) and commercial (2%).

Invasive species were found during 42 inspections (2.3%), most of which were curly leaf pondweed and Eurasian watermilfoil. These species were already present within the body of water respective boats were entering and/or leaving.

Launch	Inspections
Amherst Veterans Park	269
Cuba Lake	709
Service Drive	18
West Canal Marina	<u>825</u>
Total Inspections	1821

Boot Brush Stations

WNY PRISM began a boot brush assessment project in 2016, placing five boot brush stations at select trailheads throughout Erie County. Seed was collected from trays placed beneath the stations in 2016 and 2017. Due to dry conditions in 2016, few seeds were collected, but seed collected from Tiff Nature Preserve, Amherst State Park and Seneca Bluffs Natural Habitat Park in 2017 were grown out in the SUNY Buffalo State Greenhouse. By early April, trays were crowded with seedlings needing identification.

Non-native species dominated the plants that emerged from the germination trays. Most of the plants were cool season grasses including Kentucky bluegrass, orchard grass, barnyard grass and tall fescue. Reed canarygrass was found within the 2016 seed collection from Tiff. Other notable invasive species that germinated were mugwort and birds foot trefoil. Stinging nettle was the only native species to be positively identified within the trays.



Boot Brush Station installation at Trestle Park.



Greenhouse at SUNY Buffalo State.

In 2018, WNY PRISM developed 14 additional boot brush stations bringing the total number placed in WNY to 19. Stations featuring early detection priority species were placed at Bailey Peninsula Natural Habitat Park, Red Jacket Riverfront Natural Habitat Park, Whirlpool State Park, Letchworth State Park (2), Genesee County Park and Forest (2), Trestle Park and Drew's Nature Center. Stations installed at Niagara Escarpment Preserve (2), North Tonawanda Audubon Preserve (2) and Zaepfel Nature Center focused on management priorities present at each site.

Early Detection and Rapid Response

Goal: Develop effective early detection, assessment and rapid response protocol(s) for the WNY PRISM region including mapping procedures, volunteer training/involvement, Best Management Practices, permit regulations and response teams, and provide assistance to partners for implementation of recommended protocols.

Early detection provides the best opportunity to address invasive species before they cause damage. New observations for mile-a-minute (*Persicaria perfoliata*), Japanese stiltgrass (*Microstegium vimineum*), water hyacinth (*Eichhornia crassipes*), and water lettuce (*Pistia stratiotes*) were reported in 2018. Japanese angelica tree (*Aralia elata*) was observed at Lake Erie State Park and was subsequently added to WNY PRISM's early detection priority list and additional slender false brome (*Brachypodium sylvaticum*) sites were identified by the Great Lakes Slender False Brome Working Group, through targeted surveys. The number of new reports in 2018 reaffirmed the importance of WNY PRISM efforts to establish an effective early detection reporting and assessment program, along with development of resources to meet the need for species removal and other appropriate management actions.

Early Detection Site Monitoring

WNY PRISM's initial early detection site monitoring list was created based upon established [WNY PRISM early detection priorities](#) and data from three separate mapping databases: iMapInvasives, EDDMapS, and GLANSIS. In 2018 WNY PRISM's early detection priorities were updated, but changes did not result in the removal of any sites from the monitoring list.

Early detection site monitoring in western New York is a collaborative effort among many partners. The College at Brockport, DEC, Parks, USACE and USFWS all assist with site monitoring and conduct surveys in high priority areas for finding new infestations. Entering the 2018 field season, 18 monitoring sites had been identified. Two sites were not monitored this year because plants had not been observed during annual monitoring over the past four years. These sites will remain on the site monitoring list and will be monitored every other year for an additional 4-6 years. If plants are not found during this time, sites will be considered eradicated and removed from the site monitoring list. In addition to the remaining 16 sites identified for monitoring by WNY PRISM, 16 new sites were identified and assessed in 2018, bringing the total to 34 early detection monitoring sites.



The WNY PRISM Crew surveyed Ellicott Creek looking for water hyacinth and water lettuce. Fifteen water lettuce plants were found.

Japanese angelica tree was observed in western New York for the first time in 2018. The species was found and confirmed at Lake Erie State Park by Parks staff. This discovery is what prompted WNY PRISM to update our early detection priority species list. WNY PRISM expects to work closely with Parks on treatment efforts in 2019.

The WNY PRISM Crew monitored five water hyacinth sites and didn't find any new plants. However, one new water hyacinth population was found by DEC during *Hydrilla* post-treatment monitoring in Tonawanda Creek/Erie Canal. A total of 5 individual plants were removed from the new site.

Water lettuce was first reported in Ellicott Creek in 2011 and the site has been monitored annually since 2016 with no plants detected. In 2018, 15 plants were found (and removed) 0.5 miles upstream of this original site. Observer contact information and GPS points were not included in the original 2011 report and therefore an approximate location was selected for monitoring purposes based on a provided description of the site. It is possible that the 2018 water lettuce was located at the original 2011 site, but without the ability to confirm this, the 2018 observation will be considered a new site moving forward.

Water lettuce was confirmed on private property in Clarence in 2017. The landowner did not wish for assistance and didn't allow WNY PRISM to monitor the site in 2018, however the WNY PRISM Crew did conduct surveys on publicly accessible lands near the confirmed site including ditches and parks. No water lettuce was detected.

Mile-A-Minute Response

Mile-a-minute was found at Oak Orchard Wildlife Management Area in 2017 by DEC staff conducting forest monitoring. In 2018, DEC led an effort at Oak Orchard to conduct extensive surveys on site and on adjacent properties. Surveys identified ~1.3 total infested acres, split across adjacent public/private properties. The entire known infestation received treatment comprised of manual removal, chemical

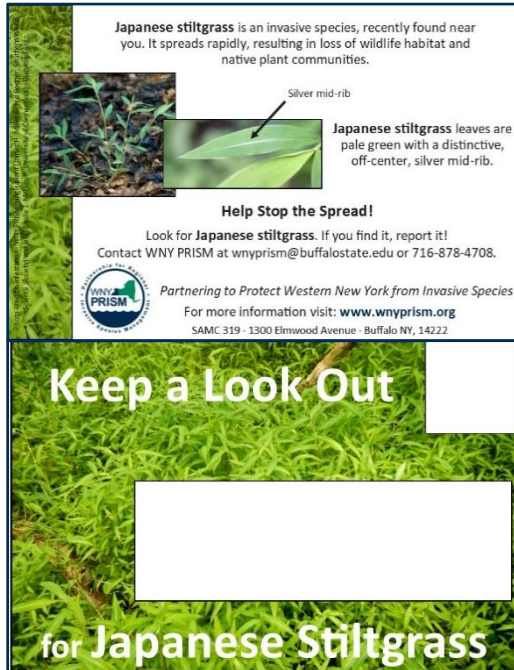


Garrett Koplun, Forester, Division of Lands & Forests, provided a first hand look at the mile-a-minute infestation found at Oak Orchard as part of an iMapInvasives training.

treatment or a combination of both. Initial results were encouraging, but the staggered germination of mile-a-minute made management difficult as new plants would emerge after the initial treatments.

WNY PRISM joined DEC and local partners to assist with response efforts through public outreach. WNY PRISM attended local events and fairs to distribute information on mile-a-minute and developed a post card mailing to 200 private landowners within 2.5 miles of the infestations. Public reports were directed to WNY PRISM and DEC, but all public reports were confirmed to not be mile-a-minute. The WNY PRISM Crew also surveyed 4 nearby public parks and did not find any mile-a-minute.

Japanese Stiltgrass Response

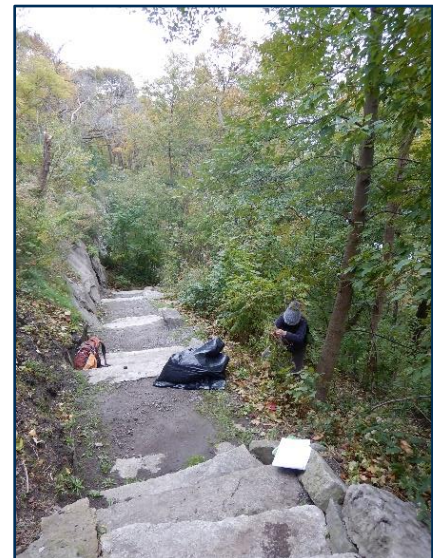


Japanese stiltgrass was first reported within the Village of East Aurora along Cazenovia Creek in 2017. WNY PRISM conducted follow-up surveys and determined the infestation to be within a roughly 6-acre area, though the stiltgrass did not cover or dominate the full 6-acres. This was the first confirmed population of Japanese stiltgrass in western New York. Due to the importance of the discovery and a need to determine the full expanse of the infestation, WNY PRISM conducted expanded outreach efforts this year. WNY PRISM developed a postcard and mailed it to area residents near the current infestation and those up and downstream along Cazenovia Creek. The Town of Aurora and Village of East Aurora are densely populated areas and the land adjacent to the known infestation is almost entirely privately owned. To fully address the desired target area, support from the town and village was necessary. WNY PRISM met with both the town and village and was able to gain support for the

project, including much needed financial assistance with the printing cost of the post cards. The mailing, which took place mid-June, included 3235 post cards. Response to the postcards was modest. Six reports of possible Japanese stiltgrass were submitted to WNY PRISM and in each case it was determined to be a misidentification. However, information on where Japanese stiltgrass isn't is just as important as where it is.

New infestations of Japanese stiltgrass were discovered, however. The WNY PRISM Crew conducted surveys along Cazenovia Creek and found 4 locations upstream of the initial infestation, all within the riparian area of the creek. Small populations were manually removed upon discovery, but one of the infestations will require additional effort moving forward.

Japanese stiltgrass was found at two additional locations in 2018. One location, Hunters Creek County Park, is approximately 6 miles from the Village of East Aurora site. This infestation is too large to hand pull and discussions are taking place to assist Erie County with removal in 2019. The second location was quite a distance away, near Whirlpool State Park and within the Niagara Gorge. A few dozen plants were found in the Niagara Gorge by the Land Conservancy, who is implementing restoration efforts in the area. The detection was reported to WNY PRISM and within the week we visited the site to conduct an assessment alongside Land Conservancy staff. Once the area was surveyed, all of the plants were removed.



Japanese stiltgrass was found and removed from the Niagara Gorge.

Great Lakes Slender False Brome Working Group

The Great Lakes Slender False Brome Working Group (Working Group) represents a collaborative effort to improve the understanding and management of slender false brome within New York State and the Great Lakes Basin. The Working Group consists of federal and state agencies, businesses, universities and private organizations that strive to address the ecological threat posed by slender false brome. It has been tasked with a broad scope of work including determination of the presence and distribution of slender false brome, development of a greater understanding of the threat and species biology, providing education and outreach, and the development of best management practices.

The Working Group developed survey protocols designed to collect habitat preference data along with traditional distribution data. Slender False Brome Survey Technicians Kathleen McCormick and Emily Doores surveyed 53 sites in western New York while Rachel Bonafilia surveyed 33 sites in the central New York region. Previously existing slender false brome sites (5) were monitored by both WNY PRISM and the College at Brockport (Bergen Swamp). New infestations were found in western New York, mostly from along the West Shore Trail that runs through Bergen. While only 2 additional unique sites were identified, 117 distinct observations were made. Despite the high number of observations, we considered survey results from this summer encouraging since the plant was only found near previously identified sites. Survey data from 2017 and 2018 were used to create a new GIS-based habitat suitability model, which was used to identify and prioritize sites for 2019 surveys and to communicate spread risk to partners.



2018 Working Group staff (from left to right) Kathleen McCormick, Emily Doores, Brittany Hernon, Rachel Bonafilia and Melissa Boglioli.

In addition to surveys, removal efforts took place. Management efforts were implemented on a 6-acre infestation at Genesee County Park and Forest, a 42-acre infestation at Letchworth State Park, and individual plants within Drew's Nature Center and Trestle Park. Management method research including manual, mechanical, herbicide only and mechanical and herbicide treatments took place at Genesee



Before and after photos of manual removal at Trestle Park.

County Park and Forest and Letchworth State Park. Pre-treatment data and post treatment seed count data was collected. Initial results are very promising.

Management and Habitat Restoration

Goal: Assist partners with control of invasive species (eradication, containment, suppression) on high priority conservation areas based on identified regional conservation targets. Assist with the establishment of long-term management and monitoring, and the restoration of impacted sites to healthy native vegetation, to provide increased resilience against future invasions.

WNY PRISM invasive species management and habitat restoration efforts focus on aspects of management planning, implementation and monitoring. While management planning is provided to all partners as time allows, project selection is based on established WNY PRISM priorities. To assist with field efforts, WNY PRISM hires a seasonal crew of Invasive Species Management Assistants. The 2018 WNY PRISM Crew (Crew) consisted of two Invasive Species Management Assistants, Julia Kostin and Rebecca Mann, and one Education and Outreach Assistant, Emily Thiel. We ask a lot of our crew and to ensure they can meet the demands of the position they are put through weeks of training. Invasive Species Management Assistants not only need to be able to identify dozens of invasive species, they also need to learn how to conduct surveys and site assessments, learn about how and when different management methods should be used, and how to use stewardship tools safely and effectively. In addition to this, they need to be able to communicate everything they learn to the public.



2018 WNY PRISM Crew (left to right): Emily Thiel, Julia Kostin, Rebecca Mann and Lucy Nuessle (Project Manager).



Julia Kostin and Rebecca Mann removed water chestnut from the Audubon Community Nature Center in Jamestown.

The WNY PRISM Crew Assistance Program (CAP) provides partners the opportunity to submit project proposals for consideration. Proposals are initially reviewed for completeness before they are further reviewed and prioritized by WNY PRISM Staff and the WNY PRISM Steering Committee. Review criteria include species priorities, partnership, project management, project sustainability and WNY PRISM capacity. Sixteen proposals were submitted through the 2018 CAP which included surveys, outreach events, volunteer workdays, invasive species removal projects, and habitat restoration projects.

In addition to the projects highlighted below and in other sections of this report, WNY PRISM assisted with several other efforts. Common buckthorn removal efforts continued at Fredonia's College Lodge, and multiple species were targeted at Woodlawn Beach State Park as the WNY PRISM Crew worked alongside the Parks Invasive Species Strike Team. Both projects entered their third year in 2018. Survey and monitoring project assistance was provided to Erie County Soil and Water Conservation District (SWCD) for a couple of streambank stabilization sites along Cazenovia and Cayuga Creeks. Erie County SWCD received funding through the Great Lakes Commission's Great Lakes Sediment and Nutrient Reduction Program to assist with the restoration efforts that included native plant restoration.



Lucy Nuessle treating the honeysuckle cut-stumps at Conewango Wetland Preserve.

WNY PRISM continued to support additional ongoing projects including the Tonawanda Creek/Erie Canal Hydrilla Demonstration Project and the Hydrilla Collaborative, assisting with pre-treatment data collection and outreach, water chestnut removal at the Audubon Community Nature Center in Jamestown, and removal efforts at Conewango Wetland Preserve and Bergen Swamp. WNY PRISM worked alongside the Nature Sanctuary of Western New York and a cadre of volunteers to remove honeysuckle from Conewango Wetland Preserve and alongside Bergen Swamp Preservation Society members to continue invasive shrub and *Phragmites* removal.

Post-Treatment Monitoring – Evangola State Park

WNY PRISM assisted Parks with post-treatment monitoring of Evangola State Park. Efforts to remove invasive species, primarily reed canarygrass, began in 2014 when the WNY PRISM Crew assisted the Parks Strike Team with manual removal (cutting and biotech fabric placement) of patches within a restored wetland. Four years later, surveys demonstrate that the managed areas had decreased reed canarygrass cover with only a few isolated plants remaining. The survey also uncovered adjacent source populations moving towards the restoration along a ditch. This highlights the need for post-treatment monitoring. Awareness of the approaching reed canarygrass will allow Parks to take necessary action to protect the wetland restoration from re-infestation.



Evangola State Park invasive species removal effort in 2014.

Invasive Species Surveys – Hunters Creek County Park

Hunters Creek County Park, also known as Sergeant Mark A. Rademacher Memorial Park, is a 760-acre natural area situated in southern Erie County. In partnership with Erie County and the Lake Erie Watershed Protection Alliance, the WNY PRISM Crew and an Erie County Park Ranger spent 3 days conducting an invasive species survey along the creek, trails and roadsides. While relatively low invasive species cover was found across most of the park, areas of dense invasive shrub cover were observed, and well-traveled areas had additional species present. A small infestation of Japanese stiltgrass was also discovered within the forested lowland area. Discussions have begun to address this early detection priority species in the coming year.



WNY PRISM Crew mapped Hunters Creek County Park and discovered a small infestation of the early detection priority species, Japanese stiltgrass.

Tifft Nature Preserve – Vernal Pool Enhancement Project

Year two of the Vernal Pool Enhancement Project saw WNY PRISM, Tifft staff and volunteers turn their attention to the native plant restoration aspect of the project. Previously, focus was placed on removal of invasive species in areas around the vernal pools and considerable time was spent cutting and treating common buckthorn. With the invasive species addressed, and a deer exclosure fence put in place to protect the vegetation from deer over browsing, the vernal pool project area was ready for planting. In areas where common buckthorn had recently held near 100% cover, 14 native tree and shrub species including bur and swamp white oaks, hackberry, basswood, northern spicebush, winterberry and American black elderberry were planted. The total number of plants installed was 4,662. Native herbaceous plants were also planted, seeded in between the trees and shrubs.



A volunteer workday was held at Tifft Nature Preserve to help plant 4,662 native trees and shrubs as part of the Vernal Pool Enhancement Project.

Seneca Bluffs Natural Habitat Park

Seneca Bluffs is located along the Buffalo River, less than 4 miles from downtown Buffalo. With high visibility, 2,500 linear feet of shoreline, and habitat that support a wide variety of flora and fauna, Seneca Bluffs has drawn a lot of interest for protection and restoration efforts. WNY PRISM has been working with Erie County to address invasive species management issues for 4 years and continued to provide assistance in 2018. While progress has felt slow at times, the transformation of Seneca Bluffs, from near 100% invasive species dominated to diverse restoration, has been more than worth it. In 2018, WNY PRISM continued invasive species removal efforts by treating regrowth of *Phragmites* and knotweed within restoration areas. With the drastic decrease in the abundance of these species, more time was shifted to other priority species including mugwort, Canada thistle and reed canarygrass.



Cardinal flower bloomed within a restored area once completely covered by knotweed at Seneca Bluffs.

Riverwalk – Porter Avenue

The Niagara River Greenway Shoreline Trail follows the Lake Erie shoreline and Niagara River in Erie and Niagara Counties. The Riverwalk refers to a completed section of trail between the Buffalo River and Niawanda Park. This beloved and well-used trail offers a way for City of Buffalo and Erie County residents to enjoy the Niagara River, but it also provides a challenge for invasive species management. WNY PRISM worked with the City of Buffalo to begin invasive species management within a short section of the Riverwalk between Porter Avenue and the Peace Bridge, right alongside the Great Lakes Center Field Station. The City of Buffalo assisted with management efforts by timing their trail mowing to allow us the best window for herbicide application. Primary targets for removal were knotweed, *Phragmites* and wild parsnip. A few common buckthorn and other individual plants of different species were also removed. In addition to the City of Buffalo, we worked with Parks to continue invasive species removal off-trail allowing important source populations of knotweed and *Phragmites* to be treated.



*Primary targets for removal along the Riverwalk included knotweed, *Phragmites* and wild parsnip.*

Kennegle Scenic and Nature Preserve

The WNY PRISM Crew returned to Kennegle Scenic and Nature Preserve to continue mugwort removal efforts along Hunters Creek. Mugwort was manually removed from sandbars and along the streambank using hand tools and plant material was piled where they would be unable to re-root. The Crew began efforts within patches that have been treated during the previous two years work, removing the individual plants that have regrown, before moving onto new patches along a 1.1 mile stretch of Hunters Creek. A couple of more dense patches remain, which are too large for manual removal, and additional management methods will need to be considered moving forward.

Priority Lands Invasive Species Removal and Volunteer Monitoring Program

The Priority Lands Invasive Species Removal and Volunteer Monitoring Program (Project) has provided WNY PRISM with the opportunity to improve habitat management efforts at high quality natural areas. Niagara Escarpment Preserve, North Tonawanda Audubon Preserve and The Owen's Falls Sanctuary are all project sites where WNY PRISM has been working alongside partners to remove invasive species. Through the Crew Assistance Program, we were able to spend a day or two each year progressing efforts, but the new project allowed us to extend the Crew for 6 weeks into the fall and dedicate that time to management on these properties.

Habitat Restoration Project in Progress
Priority Lands Invasive Species Removal and Volunteer Monitoring Program

Western New York Partnership for Regional Invasive Species Management (WNY PRISM) and the Western New York Land Conservancy are working to restore native plant and animal communities as part of the Priority Lands Invasive Species Removal and Volunteer Monitoring Program.

This program targets the removal of priority invasive species including Japanese barberry, common buckthorn, bush honeysuckle, and other invasive shrubs. Invasive species removal will occur in fall 2018 and 2019, and a final follow-up treatment will take place in spring 2020. Fully trained volunteers will continue to monitor project sites each spring, to maintain efforts and ensure long term success of invasive species removal.

Invasive species removal will result in the natural regeneration of native plant communities, and upon project completion, continual invasive species management needs will be addressed through sustainable levels of volunteer efforts.

WNY PRISM would like to thank our partners:

- WESTERN NEW YORK LAND CONSERVANCY
- Great Lakes RESTORATION
- U.S. FOREST SERVICE
- NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
- GREATER NIAGARA CENTER
- NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
- U.S. FOREST SERVICE

The Priority Lands Invasive Species Removal and Volunteer Monitoring Program received funding from the Great Lakes Restoration Initiative and the U.S. Forest Service and was implemented by WNY PRISM in partnership with the Western New York Land Conservancy.

Additional funding for WNY PRISM is provided by the NYS Environmental Protection Fund through a contract with the NYS Department of Environmental Conservation. WNY PRISM is hosted by the Great Lakes Center and is a sponsored program of the Research Foundation for SUNY Buffalo State.

Project signs were used to inform the public of ongoing invasive species management activities.

The 36-acre Niagara Escarpment Preserve contains a mix of forested upland area and a prairie/grassland restoration area. In previous years, WNY PRISM was able to spend a couple days treating *Phragmites*, reed canarygrass, purple loosestrife and pale swallow-wort. In 2018, efforts were expanded to include treatment of Canada thistle and more significant invasive shrub removal. Approximately 5-acres of Canada thistle was treated in the grassland restoration area and work began to cut-stump treat larger common buckthorn, honeysuckle, privet and multiflora rose present in the southeast section of the forested upland. In addition, two boot brush stations were installed at trailheads within the preserve.



Rebecca Mann cut-stump treating invasive shrubs as part of the Priority Lands Program.

North Tonawanda Audubon Preserve, also known as Klydel Wetlands, provides habitat for hundreds of species of native flora and fauna, and vernal pools present within the property provide essential habitat for frogs, salamanders and other species to breed. The site is also well used by migratory birds, an important feature for preserve owners, Buffalo Audubon Society. WNY PRISM began work on this site in 2016, with an invasive species survey and initial invasive species removal the following year. Efforts in 2018 focused on common buckthorn removal with additional species targets including Japanese barberry, multi-flora rose, *Phragmites*, knotweed, reed canarygrass and Canada thistle.



Lucy Nuessle is cutting common buckthorn at The Owen's Falls Sanctuary.

Most of the time spent as part of the Project was spent at The Owen's Falls Sanctuary (Owen's Falls). Invasive species cover at Owen's Falls is mostly restricted to the trails and property lines and, while dense in some of these areas, the majority of this beautiful property is in very good condition. Woodland song birds and spring peepers are commonly heard at different times of year. These were the primary factors in the decision to focus Project work at Owen's Falls this year. An initial site survey took place in 2017, but this was the first year the WNY PRISM Crew implemented invasive species removal at the Land Conservancy's recent acquisition. Invasive shrubs (common and glossy buckthorn, honeysuckle, privet, and multi-flora rose) were cut-stump treated while *Phragmites*, reed canarygrass and knotweed were foliar treated.



Before and after photos of invasive shrub removal at The Owen's Falls Sanctuary.

2019 Work Plan

WNY PRISM put forth an ambitious 2018 Annual Work Plan that felt very much like the culmination of five years of work it was. The achievements outlined in this Annual Report not only demonstrate the successful implementation of that plan, but also the incredible success and impact WNY PRISM has had since our establishment in 2014. The 2019 Annual Work Plan represents a new beginning for WNY PRISM. With the addition of new staff and programs, possible due to our new 5-year contract, WNY PRISM will be able to reach even further toward achieving our mission.

The WNY PRISM Watercraft Inspection Program will make its debut in 2019. WNY PRISM has hired an AIS Program Manager who will oversee the development and coordination of this new program. There is a short window of time to get everything set for a spring kick-off and we'll need every minute we can get to prepare. WNY PRISM will be hiring between 20-22 Boat Stewards who will work from Memorial Day through Labor Day, spending their summer weekends staffing boat launches throughout the region and teaching visitors how to stop the spread of aquatic invasive species. The first step for this ambitious program is to identify priority boat launches and obtain necessary permissions from partners to allow stewards to set up at each one. Once this is complete, focus will shift to recruitment and training of the Boat Stewards and preparing the necessary outreach materials and supplies.



WNY PRISM is excited to start a Watercraft Inspection Program in 2019



New WNY PRISM Staff Kristin King, AIS Program Manager, (left) and Emily Thiel, E&O Program Manager (right).

In addition to a new AIS Program Manager, WNY PRISM has also hired an E&O Program Manager. This is the first time WNY PRISM has had a dedicated education and outreach staff member outside of the 4-month summer field season. The region identified many needs that have gone unaddressed due to the lack of capacity, and the E&O Program Manager will bring focus to them. One of these priorities is the development of citizen science and volunteer programs. Planning for this new venture will begin in 2019.

The new year also brings with it the need for an updated strategic plan. The initial 5-year WNY PRISM

Strategic Plan provided a roadmap for WNY PRISM but has now run its course. Development of a new 5-year strategic plan will begin early in 2019.

The 2019 WNY PRISM [Annual Work Plan](#) is available on our website.

Partners

WNY PRISM partners include state and federal agencies, local governments, universities, businesses, non-profit organizations and volunteer groups that have worked with, or otherwise assisted WNY PRISM in efforts to increase invasive species awareness and improve invasive species management efforts.

Adirondack Park Invasive Plant Program	Environmental Protection Agency
Alfred Farmers Market	Erie County Department of Environment and Planning
Alfred State College	Erie County Soil and Water Conservation District
Amherst Conservation Advisory Council	Finger Lakes PRISM
Amherst State Park	Fox Valley Farmers Market
Audubon Community Nature Center	Friends of Bond Lake
Bergen Swamp Preservation Society	Friends of Times Beach
Buffalo Audubon Society	Genesee Country Farmer's Market
Buffalo Museum of Science	Genesee County Park and Forest
Buffalo Niagara Waterkeeper	Genesee County Soil and Water Conservation District
Buffalo Zoo	Genesee River Wilds
Byron-Bergen Central Schools	Grand Island Conservation Advisory Committee
Capitol-Mohawk PRISM	Grand Island Memorial Library
Catskill Regional Invasive Species Partnership	Great Lakes Action Agenda
Certified Nursery Landscape Professionals	Great Lakes Center at SUNY Buffalo State
Chautauqua County Forest Pest Taskforce	Great Lakes Media
Chautauqua Institution	Great Lakes Phragmites Collaborative
Chautauqua Lake Association	Great Lakes Restoration Initiative
Chautauqua Watershed Conservancy	Groundworks Buffalo
City of Buffalo	Hamburg Farmers Market
City of North Tonawanda	Jamestown Community College
Clarence Hollow Farmers Market	Lake Erie Seaway Trail Center
Conewango Creek Watershed Association	Lake Erie Watershed Protection Alliance
The College at Brockport	Lily Dale Assembly
CCE of Allegany County	Lockport Community Market
CCE of Erie County	Lockport Public Library
CCE of Genesee County	Long Island Invasive Management Area
CCE of Niagara County	Lower Hudson PRISM
CCE of Orleans County	Master Forest Owners
CCE of Wyoming County	Master Gardeners
Cornell University	National Plant Diagnostic Network
Daemen College	Nature Sanctuary Society of Western New York
Don't Move Firewood	New York iMapInvasives Program
Invasive Species Council	New York Invasive Species Research Institute
Invasive Species Advisory Committee	New York Natural Heritage Program
Invasive Species Coordination Section	New York Sea Grant
Eastern Monarch Butterfly Farm	
Ecology & Environment, Inc.	

NYS Federation of Lake Associations
NYS Department of Agriculture and Markets
NYS Department of Transportation
NYS Hemlock Initiative
NYS Office of Parks, Recreation, and Historic Preservation
Niagara County SWCD
Niagara University
North Tonawanda City Market
North Buffalo Farmers Market
Onondaga Environmental Institute
Orleans County Soil and Water Conservation District
Perry Farmers Market
Plant WNY
PlayCleanGo!
PUSH Buffalo
Reinstein Woods
Research Foundation for SUNY Buffalo State
Roger Tory Peterson Institute
Rushford Lake Association
Seneca Nation of Indians
Silver Lake Association
Saint Bonaventure University
St. Lawrence Eastern Lake Ontario PRISM

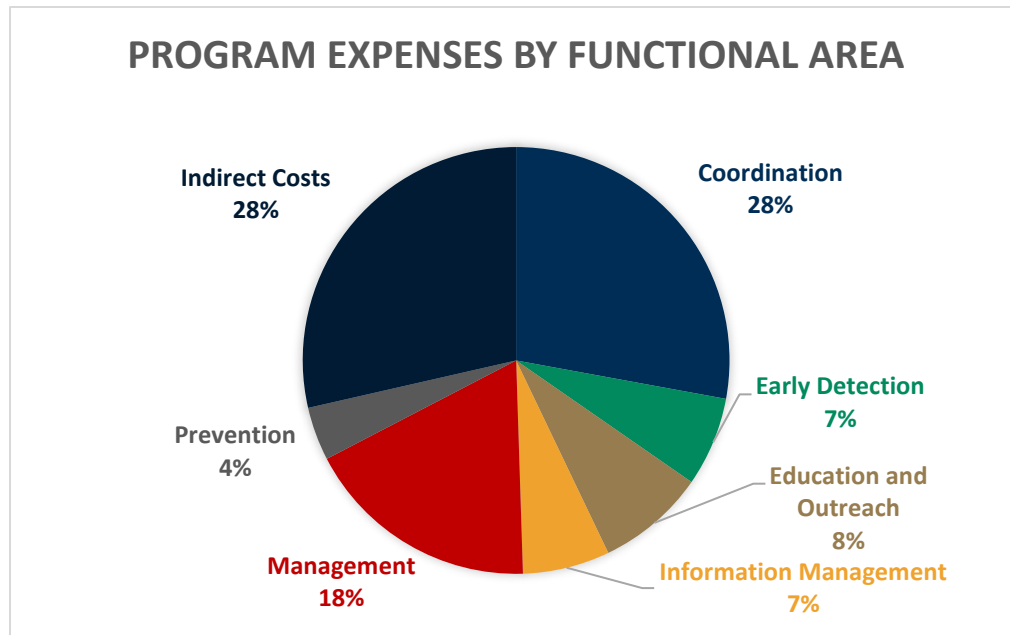
Stop Aquatic Hitchhikers
SUNY Fredonia
SUNY Buffalo State
The Nature Conservancy
Western New York Land Conservancy
Tiff Nature Preserve
Town of Amherst
Town of Aurora
Town of Bergen
Town of Byron
Town of Cheektowaga
Town of Eden – Conservation Advisory Board
Town of Tonawanda
U.S. Army Corps of Engineers – Buffalo District
U.S. Department of Agriculture – National Resources Conservation Service
U.S. Fish and Wildlife Service – Lower Great Lakes Fish and Wildlife Conservation Office
University at Buffalo
Village of East Aurora
WBFO 88.7 NPR
WGRZ Channel 2
WNY Forest Pest Taskforce
Wyoming County SWCD

WNY PRISM would like to thank our partners for their tireless dedication to invasive species management in western New York. Their work and continued support of WNY PRISM is essential to fulfilling our mission and achieving mutual goals.



WNY PRISM Summer Crew (from left to right): Parker Everhart, Morgan Leigh Beatey, Emily Thiel, Julia Kostin, Rebecca Mann.

Summary of Project Expenses



This summary of program expenses is intended to provide a general overview of how WNY PRISM divided time and resources in 2018. Program expenses were grouped together by WNY PRISM Core Function/Goal. Most WNY PRISM activities fall within multiple categories and effort was taken to place expenses in the most appropriate category. This is not intended to serve as a financial report.

Coordination (28%) - Activities and expenses related to Partner/Network Coordination including the cost of administering the program, general office supplies, travel, and related personnel costs.

Early Detection (7%) - Activities and expenses related to Early Detection and Rapid Response including related personnel costs, site assessments and monitoring, outreach, travel, and supplies.

Education and Outreach (8%) - Activities and expenses related to Education and Outreach including related personnel costs, volunteer management, website and online resources management, materials development, travel, and supplies.

Information Management (7%) - Activities and expenses related to Information Management including related personnel costs, survey and monitoring, prioritization, research, outreach, and supplies.

Management (18%) - Activities and expenses related to Habitat Management and Restoration Goals, including related personnel costs, Crew Assistance Program, planning, travel, and supplies.

Prevention (4%) - Activities and expenses related to Prevention including related personnel costs, boat stewardship program management, travel, and supplies.

Indirect Costs (28%) - Indirect Costs as determined by the Research Foundation for SUNY Buffalo State.