

2017

WNY PRISM Annual Report



Prepared By

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Cover Photo: Chautauqua Lake Outlet – 2017 WNY PRISM Crew assisted the Chautauqua Lake Association with invasive species surveys in the outlet. The picture shows an infestation of knotweed (Reynoutria spp.) along the streambank.

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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.



Background

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 business 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 private-public 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. 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.

At its core, WNY PRISM is a partnership organization focused on improving the effectiveness of invasive species management and increasing awareness of invasive species issues within the eight-county region. This is accomplished by addressing invasive species priorities through a coordinated partnership network, for which WNY PRISM provides leadership, information and opportunities for collaboration. Now including over 100 Partners, the WNY PRISM network continues to grow. Partners, including non-profits, universities, businesses, state and federal agencies, and local governments, bring together an incredible wealth of knowledge, drive and expertise in diverse fields of conservation, natural resources, habitat restoration, research, agriculture, urban planning, education, partnership building and landscape design. Over the course of the past four years, WNY PRISM has established itself as the primary source for invasive species information within the region, and use of strategic partnerships has led to significant strides in efforts to protect western New York from the harm caused by invasive species.

WNY PRISM encompasses the counties of Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Niagara, Orleans and Wyoming. This area 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 itself, is a globally significant Important Bird Area with one of the world's most impressive concentrations of gulls, with 19 species recorded. WNY includes major watersheds such as Lake Erie-



Niagara River Gorge, one of the many special places that make western New York beautiful and unique. Photo Credit: Andrea Locke.

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 includes over 1.4 million acres, with an average farm size of 170 acres. Three western New York counties (Chautauqua, Genesee, 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 holds a population of 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.

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 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 ensuring the continued success of WNY PRISM.

WNY PRISM Steering Committee and Staff

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.
Marcus Rosten	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

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Introduction

Invasive species pose a significant threat to the environment, economy, and human health. This threat has translated to loss of biodiversity and ecosystem services, degraded soil and water health, over 120 billion dollars annually in economic cost, and significant negative impacts to human health. WNY PRISM works to address the threat of invasive species using a coordinated partnership network. Our goal to improve, restore and protect local aquatic and terrestrial resources is accomplished by improving the effectiveness of invasive species management efforts, and increasing awareness of invasive species issues throughout the region. With such a broad purpose, it is essential to build strong partnerships capable of addressing landscape level issues. Effective, strategic prioritization is necessary to ensure meaningful work is being done, and that work is achieving long-term, sustainable, positive results. WNY PRISM established invasive species priorities to address regional needs, as identified by partners and stakeholders. WNY PRISM goals and priorities are outlined in the [WNY PRISM 5-year Strategic Plan](#).

The 2017 WNY PRISM Annual Report provides an overview of the projects and programs WNY PRISM implemented this past year. As an organization that depends on collaborations among Partners, many of the projects highlighted in this report include considerable effort and support from our Partners. In this way, the Annual Report serves not only as an overview of WNY PRISM, but as an overview of the invasive species management efforts taking place across the region.

Goals and Accomplishments

2017 Highlights

Seneca Bluffs Natural Habitat Park Restoration

Seneca Bluffs Natural Habitat Park is located along the Buffalo River, less than 4 miles from downtown Buffalo. With 2500 linear feet of shoreline, and unique soils and habitats that support a wide variety of flora and fauna, Seneca Bluffs has drawn a lot of interest for protection and restoration efforts. Multiple goals have been established for this site. Along with ambitious habitat restoration goals, additional goals include improvement of public safety and sightlines, and increased volunteer and educational opportunities for the Buffalo community.



Erie County assisted WNY PRISM invasive species removal efforts by mowing and by providing water for the herbicide treatments.

WNY PRISM first visited Seneca Bluffs and began working with Erie County Department of Environment and Planning in 2014, shortly after WNY PRISM was established. At the time, Seneca Bluffs had near 100% invasive species cover, dominated by

bohemian knotweed (*Reynoutria x bohemica*) along the upper terrace, with a mixture of reed canarygrass (*Phalaris arundinacea*) and *Phragmites* (*Phragmites australis*) along the river's edge. Despite the degraded condition of the site, the ecological significance combined with a strong partner in Erie County and a need to demonstrate the ability to manage similar sites across the region, WNY PRISM identified Seneca Bluffs as a priority project.

WNY PRISM's goal for the removal of invasive species at Seneca Bluffs is to restore the native plant communities once present. Removal efforts began in 2015, with WNY PRISM and Erie County first tackling the knotweed. Due to the amount and density of knotweed, Erie County assisted WNY PRISM efforts by mowing the knotweed 4-5 weeks ahead of the scheduled herbicide application. This allows for the treatment of a larger area with less herbicide, while also improving effectiveness. In addition to knotweed, populations of *Phragmites*, Canada thistle (*Cirsium arvense*) and reed canarygrass were also treated. With the understanding that effective management requires 3-5 years of treatment, efforts continued through 2016 and 2017.



WNY PRISM placed flags out in advance of the "Tap it Forward" Corporate Volunteer Day, marking the areas different species of plants were to be planted.

During this time, additional restoration efforts were planned. Erie County received funding to implement a streambank restoration effort that included bank reshaping, invasive species removal and native plantings. The work was implemented by the United States Army Corps of Engineers – Buffalo District (USACE). In September, 75 volunteers descended on Seneca Bluffs as part of the "Tap it Forward"



Volunteers gathered at Seneca Bluffs for the "Tap it Forward" Corporate Volunteer Day.

Corporate Volunteer Day, to complete multiple projects that furthered invasive species management and habitat restoration efforts. This collaborative effort between Buffalo Niagara Waterkeeper, WNY PRISM, Erie County, Labatt's and volunteers from Pegula Sports and Entertainment, demonstrated the power of partnerships. Areas covered by 100% knotweed just a few years ago, and cleared by WNY PRISM, were restored with native plants. Volunteers planted trees, shrubs, flowers and grasses in restoration areas, and created pollinator gardens. Nearly 600 plants were put in the ground, including 16 different species.

Great Lakes Slender False Brome Working Group



Slender false brome infestation at Bergen Swamp.

Slender false brome (*Brachypodium sylvaticum*) is a newly emerging invasive species of grass with the ability to invade and dominate areas to the near complete exclusion of native vegetation. It grows in full shade, beneath the canopy of riparian, mesic and upland forests just as easily as it will invade open grasslands and wetlands, including our rare and vulnerable fens and bogs. Taking advantage of multiple Pathways of Invasion, *Brachypodium* has the potential for a high rate of spread. Infestations grow visibly larger from year to year, when left unmanaged. A large infestation was discovered at Bergen Swamp in Genesee

County, NY in 2009. Shortly after this discovery, *Brachypodium* was also identified at Taughannock Falls State Park in Tompkins County, just outside of Ithaca, NY and approximately 85 miles from Bergen Swamp. As an emerging threat within New York State and the Great Lakes Basin, WNY PRISM began working with Partners to address *Brachypodium*, forming a working group.

During the initial working group meeting, twelve Partner organizations came together to identify needs and priorities. Priorities include surveys to determine presence and distribution, development of a strategic plan for management, development of control methods, implementation of control projects, and need to share expertise, raise awareness, and further identify questions and research needs. Identified needs exceeded the combined capacity of WNY PRISM and working group, leading to WNY PRISM's submission of a proposal to the Great Lakes Restoration Initiative (GLRI) and U.S. Environmental Protection Agency (EPA) for funding.

While awaiting award announcements, WNY PRISM and the newly formed working group continued efforts to address *Brachypodium*. WNY PRISM brought on a Buffalo State Great Lakes Ecosystem Sciences (GLES) student to assist with development of a GIS-based habitat suitability model. Summer survey and monitoring interns, provided by DEC, assisted with *Brachypodium* surveys. Interns were hosted by SUNY Brockport, New York State Office of Parks, Recreation and Historic Preservation (Parks), and Lower Hudson PRISM. WNY PRISM provided training for both the SUNY Brockport and Parks interns, while also providing supervision for the Brockport intern.



Slender false brome survey interns, Melissa Rivelis (left) and Chenga Drury (right).



Slender false brome (Brachypodium sylvaticum)

WNY PRISM received the GLRI/EPA award for the Great Lakes Slender False Brome Working Group (Working Group) in fall, 2017. Funding will now allow for the further development of the Working Group as a mechanism for all stakeholders to collaborate, and will improve awareness and management of *Brachypodium*. Specifically, the Working Group will increase regional knowledge and coordination of *Brachypodium* management, increase cooperation and collaboration between stakeholders, increase the regional understanding of *Brachypodium* presence and distribution, improve stakeholder access to up-to-date species information, increase

stakeholder communication and timely dissemination of information, increase awareness of *Brachypodium*, increase public involvement and increase resource sharing among stakeholders. Furthermore, the Working Group will reduce the risk of new infestations and establishment of *Brachypodium*, by improving the effectiveness of early detection and response efforts and increasing resilience against future invasion.

Invasive Species Management Planning Workshop

Invasive species management and management planning can be as complex as the ecosystems people are working to protect and restore. Without effective management strategies in place, invasive species can quickly cause the failure of otherwise well-planned projects. Many have experienced this with invasive species returning to pre-management levels within a few years, often involving the same species efforts were intended to control. Invasive species management plans are therefore essential to the success of natural areas management. WNY PRISM developed and held a workshop to address the identified need for invasive species management planning training.

The WNY PRISM Invasive Species Management Planning Workshop was designed to assist managers and planners by providing tools for the development of effective site-based management plans. Participants worked through the components of a management plan, learning how to set goals and objectives and how efforts can be better integrated into larger habitat restoration and project plans. Prioritization and selection of appropriate management methods and strategies were also discussed. Prioritization discussions focused on understanding the difference between species-based and site-based prioritization, and when one may be more appropriate for the situation. Attendees were asked to bring a project or management plan they were working on, to allow for practice working through the multiple step by step decision-making tools presented during the workshop.

The workshop was very well received. Attendance was capped at 20 participants, to ensure everyone received the necessary support as they worked through projects and exercises. Due to the high level of interest, WNY PRISM will consider holding similar workshops in the future.

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.

The management of invasive species is never simple, and is rarely easy. Invasive species cause disruption of complex ecological processes, don't respect human demarcated boundaries, and have far reaching human health impacts, beyond those acutely felt by the unlucky few to have encountered giant hogweed (*Heracleum mantegazzianum*). As the number of species and levels of infestation rise across the landscape, the cost and complexity of management also continue to rise. It has become increasingly important to use a collaborative approach to address invasive species issues, and to share and leverage limited resources. 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.

WNY PRISM held two Partner Meetings in 2017. The spring meeting was held at Tifft Nature Preserve (Tifft), and featured speakers from Erie County Environment and Planning, presenting on habitat restoration efforts at Erie County's Natural Habitat Pocket Parks, and from SUNY Buffalo State's GLES Program, presenting on a GIS-based habitat suitability model for *Brachypodium*. The fall meeting was hosted by the U.S. Fish and Wildlife Service (USFWS) – Office of the Lower Great Lakes, at Iroquois National Wildlife Refuge. At this meeting, Partners heard about the UFSWS Early Detection Monitoring and Management Program, and People United for Sustainable Housing – Buffalo's (PUSH) Watershed and Worker Training Program. Both meetings included presentations from WNY PRISM, providing updates on regional efforts, species information, general invasive species news, and WNY PRISM activities. Meetings also provide attendees the ability to interact with those leading invasive species management activities across the region and state.

WNY PRISM serves on invasive species committees, working groups and taskforces 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. Working groups provide the ability to focus on specific needs such as early detection species and pathways of invasion. By becoming involved in these efforts, WNY PRISM is better able to assist the region and serve as a connection to improve communication. This year, WNY PRISM worked with the Great Lakes Phragmites Collaborative, Town of Amherst Invasive Species Committee, Hydrilla Collaborative, multiple forest pest taskforces, New York State Hemlock Initiative, Great Lakes Action Agenda, and many others.



New York State PRISM Leaders and Invasive Species Program staff, taken in 2016.

New York State Invasive Species Program

Invasive species priorities may be unique to each PRISM region, but there are many shared priorities that cross PRISM boundaries. The New York State Invasive Species Program (ISP) is extensive, consisting of the eight PRISM offices, ISC, ISAC, ISCS, NYSIRI and iMap, along with additional state Partners including Parks and DAM. Coordination between entities allows for the effective sharing and delivery of information across the state and allows for state level invasive species management efforts to move forward. Working together also allows us to address important issues, while also ensuring that regional priorities are represented during decision making. Statewide efforts are currently underway to address aquatic invasive species spread prevention, advancement of biocontrol programs, hemlock woolly adelgid (*Adelges tsugae*) management, development of a prioritization model for management project selection, and to improve early detection programming.

Quarterly ISP meetings are held to facilitate collaboration between PRISMs and state Partners. In October, WNY PRISM hosted the statewide PRISM Leader's Meeting at the Great Lakes Center, in Buffalo. Representatives from across the state came to learn about new programs and updates from each of the PRISM regions, as well as hear updates on statewide species prioritization efforts. Topics discussed at the meeting included new guidance for use of drones within NYS, and the recent establishment of invasive species collaboratives across the state and greater region. After the meeting, participants visited Seneca Bluffs Natural Habitat Park, to see the impact of invasive species removal and habitat restoration efforts that have taken place over the past three years.

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. In addition to the ISP, other stakeholders and the public are encouraged to attend. This year, WNY PRISM presented on the WNY PRISM Crew Assistance Program, its growth and the prioritization process used to determine which projects are selected.

Grants

Invasive species management requires significant financial resources, and the grant proposal process, as with partnership building, can be time consuming. To address this, and the need for increased management in the region, WNY PRISM provides assistance for Partners seeking external funds. WNY PRISM collaborated with Partners on many invasive species related projects and grant proposals in 2017. Proposals ranged from those with WNY PRISM identified as a sub-awardee with specific scope of work deliverables, to those for which we provided technical assistance with development of project plans, or assisted with proposal review. Twelve letters of support and/or commitment were provided for grant proposals, and of the twelve proposals, ten were funded. Funded projects include a vernal pool restoration project, two climate change impact research projects, a starry stonewort (*Nitellopsis obtusa*) invasive species collaborative, DNA barcoding for use in eDNA/early detection surveys, and two rapid response and control projects.

To better assist with regional planning, WNY PRISM has produced an 'Invasive Species Funding Guide for Western New York' (<http://www.wnyprism.org/resources/funding-opportunities/>). This document

identifies federal, state and private sources of funds for invasive species management projects. With the creation of a single document, Partners can more easily identify potential funding opportunities in advance of requests for proposals being released, further improving planning efforts and likelihood of proposals being successful. WNY PRISM will work with Partners to ensure this document remains up to date as programs change and new grant programs are established.

WNY PRISM Funding

WNY PRISM received funding from the Buffalo Museum of Science and Tifft, through the Niagara River Greenway Commission – Greenway Ecological Standing Committee, for work associated with the Vernal Pool Enhancement Project at Tifft. This two-year award will allow for the WNY PRISM Crew to spend at least two-weeks each year assisting Tifft with invasive species removal within the six-acre project area. Target species include common buckthorn (*Rhamnus cathartica*) and *Phragmites* (*Phragmites australis*).



WNY PRISM Crew worked to remove common buckthorn from the edges of a vernal pool at Tifft Nature Preserve.

Funding was also received from EPA through the GLRI to establish the Great Lakes Slender False Brome Working Group. Slender false brome (*Brachypodium sylvaticum*) was identified as a priority species during initial species prioritization efforts in 2015, and has become a primary focus of WNY PRISM early detection, prevention and management efforts. Funding provided through GLRI will allow for a significant increase in capacity, furthering efforts to identify best management practices, improve presence and distribution data, and to increase regional awareness. Funding also allowed for the hiring of a dedicated Project Manager, Brittany Hernon, who joined WNY PRISM in November.

No-Cost Time Extension

To ensure that WNY PRISM may continue serving the region, the Great Lakes Center pursued a no-cost time extension (NCTE) with DEC, to access unused funds from the current WNY PRISM contract and put them toward 2018 operations. The budget modifications approved under the NCTE will provide for increased capacity, a benefit first felt this year with the hiring of WNY PRISM's second full-time staff member. Lucy Nuessle joined WNY PRISM mid-summer as a Project Manager. Lucy's duties include coordination and supervision of the WNY PRISM Crew, management of invasive species removal projects, and leading WNY PRISM's Early Detection Program.

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 is essential for the successful planning and implementation of invasive species management projects, whether these efforts involve removal, restoration, prevention or education. Invasive species management planning is complex, and the success or failure, of a project can be determined by the smallest of details. WNY PRISM works to meet the informational needs of the region by providing the best and most current information available, and ensuring this information is effectively disseminated through multiple pathways. Needs and priorities evolve over time as new issues arise, improved management methods emerge, and researchers publish new studies. To accommodate this changing landscape, WNY PRISM continues to identify new sources of information and continues to solicit feedback from Partners, working to integrate that feedback into our ongoing efforts.

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 continues to address 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 also used social media, gaining 67 new Facebook followers, while posting 109 stories, and reaching over 16,000 users.



Native plants are essential for invasive species management and habitat restoration efforts – suppliers are identified in WNY PRISM's reference guides.

The WNY PRISM listserv has grown to include over 250 members, and was effectively used to disseminate information to the region, and beyond. Common topics sent through the listserv include press releases, job opportunities, funding opportunities, educational and/or volunteer events, 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.

Reference Guides

WNY PRISM developed three new reference guides to assist private landowners and site managers with identifying resources for invasive species management and habitat restoration efforts. The reference

guides will assist Partners by decreasing the amount of time required to seek information, allowing invasive species management projects to move forward more quickly.

The first reference guide, [WNY PRISM Invasive Species Removal Contractors](#), includes information on consulting firms and contractors that provide invasive species removal and habitat restoration services within the WNY region. Contractors identified in this guide provide wide-ranging services including emerald ash borer/ash tree management, invasive plant removal, restoration and construction. The second reference guide, [WNY PRISM Private Lands Programs](#), assists private landowners with identification of technical assistance, as they begin planning new projects. The guide breaks down the different sources and programs available including technical assistance with management planning and easement programs.

The final reference guide, [WNY PRISM – Native Plant Suppliers](#), identifies sources of native plant material. The lack of available native plant materials in WNY is a long-standing barrier to implementation of successful invasive species removal and habitat restoration projects. This is especially true when it comes to the need for local ecotype seed, which is often desired for restoration of high value conservation areas. While need continues to outpace availability, this guide serves to promote the use of native plants by connecting those who wish to use them, with those providing materials.

Research Priorities

WNY PRISM continued work with NYISRI to meet regional information and research needs. Each year, WNY PRISM surveys Partners on management needs that are not being met through current knowledge or resources. The identified topics are shared with NYISRI and combined with those identified from other PRISMs and state Partners. While some needs may be addressed using current resources, the remaining needs are further prioritized, and presented to the joint ISC/ISAC for funding consideration. Previous WNY PRISM requests are currently being addressed, including advancement of biocontrol research, research on climate change impacts, and advancement of *Brachypodium* efforts.



Pale swallow-wort has been a priority target for biocontrol research – approved biocontrol field testing is expected in 2018.

2017 WNY PRISM Research Priorities

- Improvement of remote sensing/drone technologies for early detection surveys.
- Improved information on winter tolerance and invasive potential for water lettuce and water hyacinth.

- Improved understanding of impacts of IS removal on the health of ecosystems, including soil communities.
- Improved methods for measuring impacts of invasive species on tourism.
- Best Management Practices for restoration of emerald ash borer impacted areas, and those not yet impacted.
- Impacts of climate change on invasive species and invasive species management issues.
- Advancement of biocontrol efforts for priority species.
- Synthesis of Best Management Practices for pesticide use, specific for NYS.
- Synthesis of effective management methods – species specific.

iMapInvasives Initiative

The WNY PRISM iMapInvasives Initiative uses a multi-faceted approach to addressing regional invasive species presence and distribution data needs. Working with the understanding that management planning requires accurate and complete invasive species observation data, the WNY PRISM iMapInvasives Program has prioritized identifying and filling data gaps, both geographic and species-based, and has prioritized invasive species identification and iMap training. In addition, WNY PRISM works with Partners to map areas that are being targeted for potential invasive species removal and habitat restoration projects.

WNY PRISM continued efforts to train citizen scientists and professionals on how to use iMapInvasives. The Spring Blitz training was held at the Grand Island Public Library in partnership with iMapInvasives and the Grand Island Conservation Advisory Board. Thirty-one citizen scientists were trained in invasive species ecology, identification, basic data entry, projects, surveys, and other advanced uses of iMap. In addition, attendees were provided information on early detection, and other species that have identified data gaps, to increase the likelihood data will be uploaded for these species. Four additional WNY PRISM iMapInvasives workshops were conducted including a National Invasive Species Week Workshop held in partnership with Roger Tory Peterson Institute.



Tools of the trade, WNY PRISM uses handheld GPS units and data and identification sheets to collect iMap data in the field.

Throughout the summer, the WNY PRISM Crew worked to fill identified data gaps and assist Partners with invasive species management planning, by mapping preserves and providing summary reports. Eight properties were mapped including Chautauqua Watershed Conservancy and Pfeiffer Nature Center preserves. Each project involved a Partner who is interested in using the collected data to inform management decisions moving forward. In addition, mapping was conducted on a few sites that had previously seen invasive species removal efforts. These projects will provide valuable information on the effectiveness of management efforts, and inform future management decisions.

iMapInvasives Report

WNY PRISM Region

- 1847 Observations
- 640 Not Detected*
- 28 Projects
- 65 Species Reported
- 45 Observers
- 22 Organizations
- Top 5 Species Reported
 - Multi-flora Rose
 - Bush Honeysuckle
 - Common Buckthorn
 - Reed Canarygrass
 - Japanese Barberry

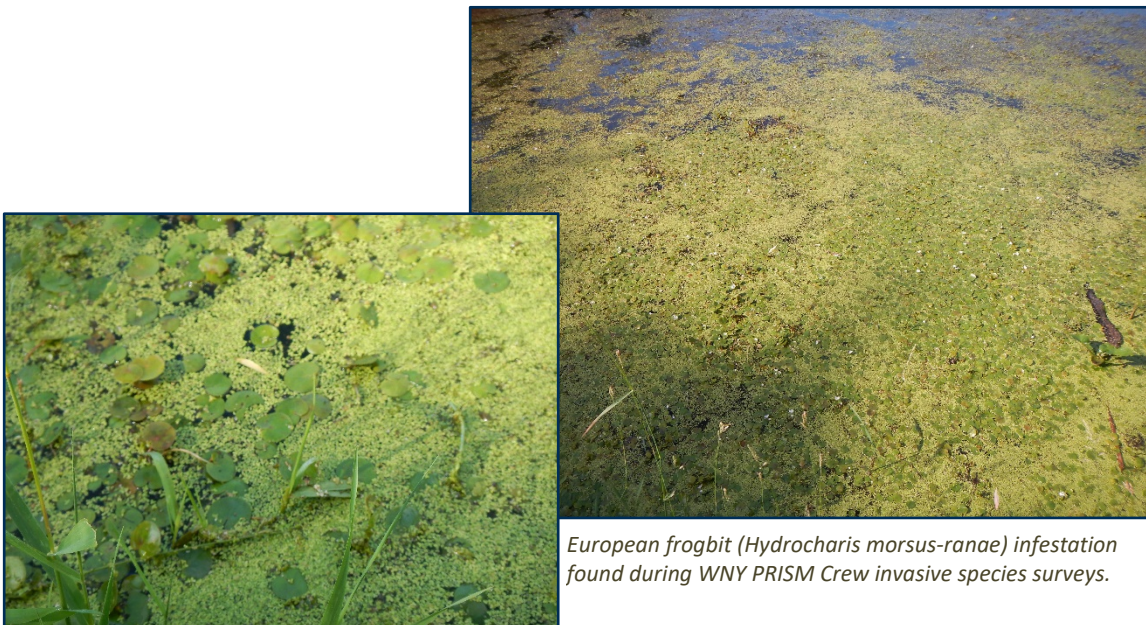
WNY PRISM Office/Crew

- 545 Observations
- 6 Counties
- 13 Projects
- 38 Species



WNY PRISM Crew conducted an invasive species survey along trails at Audubon Community Nature Center.

*in 2017, iMapInvasives allowed for 'not detected' data to be entered for hemlock woolly adelgid (HWA) and water chestnut (*Trapa natans*). WNY PRISM had 634 HWA not detected observations, and 6 water chestnut not detected observations.



*European frogbit (*Hydrocharis morsus-ranae*) infestation found during WNY PRISM Crew invasive species surveys.*

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.

Education and outreach is an essential component of invasive species management efforts, and WNY PRISM works to meet the expansive needs of the region. Over the past four years, the WNY PRISM website was established, outreach displays were created, relationships with regional educators were formed, and outreach materials were either acquired or created. Education and outreach efforts continued to involve multiple tabling events, workshops and presentations. The WNY PRISM Crew finished the summer season tabling at the Alfred Farmers' Market, marking the eighth, and final, WNY PRISM County in which we conducted tabling outreach in 2017.

In addition to the many outreach events during which WNY PRISM handed out numerous pieces of literature, WNY PRISM also distributed 12,412 individual outreach items to Partners for use in their own programs. Items included aquatic invasive species watch cards, species fact sheets and WNY PRISM's Keep A Lookout! fliers. The Plantwise NY brochure continues to be the most requested item, with the next most requested being DEC's Stop the Spread: Terrestrial Invasive Species and Help Stop The Hemlock Woolly Adelgid brochures.



WNY PRISM attended the 2017 Insectival, held at Tiff Nature Preserve.

Panel discussions were among the highlights of WNY PRISM education and outreach efforts this year. WNY PRISM worked with the Silver Lake Association to develop a program focused on public/private partnerships for lake and watershed residents. This program included multiple Partners as part of a panel to present and discuss programs available for the Lake Association and residents, aimed at the protection and restoration of Silver Lake and the surrounding watershed. Panel participants included University at Buffalo, New York Sea Grant, USDA Natural Resources Conservation Service (NRCS), local municipalities, and WNY PRISM. This program will serve as a model for bringing similar discussions to other Lake Associations. A second panel discussion titled Impact of Globalization on our Forests, was developed and hosted by St. Bonaventure University's Campus Conservationists. Invasive species were central to the many different topics discussed, as considerable interest in forest pests such as the emerald ash borer and hemlock woolly adelgid was expressed.

With the groundwork completed, WNY PRISM was able to move forward on some of the more substantial projects and workshops that had been identified as priorities by the Education and Outreach Working Group and stakeholders. A new addition to the WNY PRISM outreach toolkit was the [WNY PRISM Coloring Book](#). Almost a year in the making, the coloring book was completed in time for summer festivals and farmers markets, allowing PRISM staff and volunteers to better engage youth and adults at our display table. The coloring book is available on our website, and Partners are welcome to use it during their own events.

Display Poster Kits – Lending Library

WNY PRISM attempts to fill the many requests we receive for educational programming and outreach assistance. However, regional demand far outweighs our capacity. To fill this gap, WNY PRISM has developed a [Lending Library](#) that includes the Emerald Ash Borer (EAB) Costume and laminated invasive species display posters, as part of WNY PRISM Display Kits. The Lending Library will provide Partners access to educational materials without depending on limited availability of WNY PRISM staff. The EAB Costume is a great resource for outreach events involving youth, while the WNY PRISM Display Kits provide effective messaging. Display Kits feature a large (30" x 40") general information poster, including information on invasive species threats and actions citizens can take, along with a series of smaller posters (11" x 15") that focus on a species or issues. Buffalo Audubon Society borrowed a WNY PRISM Display Kit for use at the 2017 Wyoming County Fair. To better connect our invasive species information with the Buffalo Audubon Society mission, we created two new posters: one identifying Invasive Bird Species and a second, highlighting the negative effect invasive species have on birds. Current available posters include many early detection priorities.



PUSH Buffalo Worker Training Program

In 2016, PUSH Buffalo received funding through EPA to implement the “Buffalo River Watershed Environmental Stewardship Worker Training and Partnership Development” Project, for implementation in 2017. This project served as a worker training program, to provide Buffalo residents the opportunity to learn about invasive species and habitat restoration through classroom and hands-on learning. The project included a streambank restoration project along the Buffalo River, within Silo City, allowing students to work directly with those involved in project planning and implementation. The project also served as a demonstration for how strong partnership can facilitate successful habitat restoration projects. The partnership brought together multiple agencies, businesses, and non-profits, including WNY PRISM.

WNY PRISM’s participation in the worker training program involved project planning assistance, invasive species removal and implementation of two training modules, “Introduction to Invasive Species and iMapInvasives” and “Invasive Species Field Identification and Management”. WNY PRISM staff worked through the management planning process with trainees, using Tifft Nature Preserve as the backdrop. As the final exercise, trainees were separated into small groups and assigned management units within Tifft, for which they were asked to create management plans. Each group provided a description of their assigned unit including a goal and objective, identified and collected observation data for all invasive species found within and adjacent to the unit, prioritized invasive species, selected a management strategy for their top three priorities, and identified at least two methods for measuring management success. Each group was then given the opportunity to present their plans to the class for feedback.



PUSH Trainees collected invasive species data along a trail at Tifft Nature Preserve.

Invasive Species Awareness Week

New York State’s 4th Annual Invasive Species Awareness (ISAW) week took place July 9 – 15, 2017. Events were held across the state and region, celebrating this year’s theme, “Invasive Species Reality Check: Where We Are & Where We Need to Go”. WNY PRISM assisted Partners with event development and planning, while also providing outreach materials, and assisting with event advertising. Seventeen events, not including webinars, were held as part of ISAW in western New York.

WNY PRISM kicked off events early with an Aquatic Invasive Species Management Workshop, held in partnership with USACE, Parks and USFWS. The workshop focused on hands-on, interactive learning for



WNY PRISM worked with the Nature Sanctuary Society of Western New York on a Volunteer Workday, held during ISAW. Volunteers manually removed small patches of yellow flag iris from Furman Preserve.

invasive species professionals and interested public. Presentations included an update on the Tonawanda Creek/Erie Canal Hydrilla Demonstration Project, and lessons on Clean, Drain, Dry Protocols, and invasive species identification with live and preserved specimens on display.

WNY PRISM worked with Partners on ISAW volunteer removal events at Furman Preserve, Franklin Gulf County Park and Kenneglenn Scenic and Nature Preserve, targeting yellow flag iris (*Iris pseudacorus*) Japanese barberry (*Berberis thunbergii*), multi-flora rose (*Rosa multi-flora*), and honeysuckle (*Lonicera spp.*). We finished

off the week hosting a film screening of Making Waves: Battle for the Great Lakes, a documentary focusing on aquatic invasive species found within the Great Lakes. After the screening, a question and answer session was held with local experts on Great Lakes ecology and invasive species, including Great Lakes Center Director, Alexander Karatayev; Professor of Biology and WNY PRISM Director, Dr. Christopher Pennuto; New York Sea Grant Senior Extension Associate, Helen Domske; and USFWS Biological Science Technician, Marcus Rosten. Additional Partner events included multiple invasive species informational displays, an iMapInvasives Training Workshop held at Iroquois National Wildlife Refuge, ‘Knotweed Knock-Out’ at Beaver Island State Park, a Hike and Strike at Letchworth State Park, and various webinars. Also of note, WNY PRISM received the award for the iMapInvasives water chestnut challenge, which was presented to WNY PRISM during the Fall PRISM Leader’s Meeting, by last year’s winner, Capitol-Mohawk PRISM.

WNY PRISM hosted, participated, and/or provided support in planning for the following Education and Outreach Events held in 2017. Events had over 280,000 total attendees.

Trainings and Workshops

Event	Additional Partners	Date	Attendees
iMapInvasives Training	Roger Tory Peterson Inst.	3/4/2017	8
Master Gardeners Training	CCE - Erie County	3/17/2017	31
iMap Spring Blitz Training	Grand Island CAC	5/6/2017	31
AIS Management Workshop	Lake Erie Seaway Trail Ctr.	7/6/2017	32
Cheektowaga Conservation Corps Wksp	Town of Cheektowaga	8/11/2017	22
PUSH Worker Training	Tiff Nature Preserve	8/28/2017	10
ALB Workshop and Tree Tagging	St. Bonaventure University	9/15/2017	11
Invasive Species Management Planning	Reinstein Woods	12/14/2017	22

Volunteer Events

Event	Additional Partners	Date	Attendees
Honeysuckle Harvest	WNY Land Conservancy	7/13/2017	12
Franklin Gulf Volunteer Workday	Erie County	7/14/2017	10
North Tonawanda Audubon Preserve	Buffalo Audubon Society	8/15/2017	9
Mugwort - Day of Caring	WNY Land Conservancy	8/16/2017	15

Outreach and Tabling

Event	Additional Partners	Date	Attendees
Plant WNY: Trade Show & Education Conf.	CCE - Erie County	2/3/2017	250
SUNY Buffalo State Environmental Fair		4/20/2017	200
Party for the Planet	City of Buffalo, Buffalo Zoo	6/24/2017	400
Salamanca Farmers Market		6/27/2017	100
Genesee County Farmers Market		6/30/2017	70
AIS Display	Erie County Parks	7/10/2017	200
Canal Fest of the Tonawandas	DEC, USACE	7/16/2017	250,000
Orleans County Fair	CCE - Orleans County	7/28/2017	25,280

Hamburg Farmers Market		7/29/2017	400
North Tonawanda Farmers Market		8/5/2017	400
Insectival	Tifft Nature Preserve	8/5/2017	280
Clarence Hollow Farmers Market		8/29/2017	400
Reinstein Woods 2017 Fall Festival	Reinstein Woods	9/16/2017	3000
Environmental Summit	Daemen College	9/30/2017	132
Alfred Farmers Market		10/8/2017	100
Great Lakes Center Open House		10/12/2017	25

Presentations

Event	Additional Partners	Date	Attendees
Birds & Invasives - NISAW	Roger Tory Peterson Inst.	2/27/2017	8
Spring Partner Meeting	Tifft Nature Preserve	4/6/2017	28
Impact of Globalization on Forests	St. Bonaventure University	4/19/2017	39
Silver Lake: Private/Public Partnerships	Silver Lake Association	5/13/2017	43
Fall Partner Meeting	USFWS, INWR	10/5/2017	25
NYSFOLA Annual Meeting - Western Region	NYSFOLA	10/21/2017	50
NYS Monthly Webinar Series	NYISRI	10/25/2017	60
NYS Invasive Species In-Service	NYISRI	11/15/2017	111



*WNY PRISM assisted the Western New York Land Conservancy with mugwort (*Artemisia vulgaris*) removal at Kenneglenn Scenic and Nature Preserve, during the Mugwort Day of Caring Volunteer Event.*

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.

Invasive species prevention, much like education and outreach, involves nearly all aspects of management. Prevention efforts include education for taking action to limit movement of established invasive species, working with local, state, and federal governments to support legislation that interrupts known pathways of invasion, and includes information management, to understand where and when new invasions are likely to occur. WNY PRISM strives to reach prevention goals through communication with Partners on potential and emerging invasive species threats to our region, sharing information, raising public awareness, and providing access to available tools and resources.

Aquatic Invasive Species Spread Prevention

WNY PRISM held an Aquatic Invasive Species (AIS) Spread Prevention/Watercraft Stewardship Meeting which brought together regional stakeholders including Parks, DEC, Lake Erie Watershed Protection Alliance and multiple Lake Associations. The purpose of this meeting was to identify regional AIS needs. Participants identified acquiring outreach materials, installing additional disposal stations and developing improved methods for preventing misuse of disposal stations, increasing watercraft steward coverage, and standardizing data collection. Potential mechanisms for addressing materials and disposal station needs were identified, as were desired locations for increased watercraft stewardship coverage, both in and out of the Great Lakes Basin. WNY PRISM continued discussions with DEC about hosting watercraft stewards, identifying appropriate sites and Partners. Standardizing data collection is being addressed by multiple Partners, on a statewide level.

Asian Longhorned Beetle

Asian longhorned beetle (ALB, *Anoplophora glabripennis*) was identified by WNY PRISM as a species of concern. Not currently found in western New York, this species has been found within NYS and in response, DEC led development of an ALB tag program, similar to the successful EAB program. The black and white tags, combined with stripped flagging showcase the unique features of ALB. WNY PRISM led multiple ALB workshops and tagging events, to make use of this program. Events took place at St. Bonaventure University, Stiglemeier Park, and Reinstein Woods. Great Lakes Today produced a story on ALB and WNY PRISM, joining us during an invasive species removal volunteer workday and tagging event at North Tonawanda Audubon Preserve.



ALB tag placed along the trail at North Tonawanda Audubon Preserve.

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 reports saw a significant increase in 2017, with new observations for mile-a-minute (*Persicaria perfoliata*), Japanese stiltgrass (*Microstegium vimineum*), water hyacinth (*Eichhornia crassipes*), and water lettuce (*Pistia stratiotes*) being reported to WNY PRISM. Additional *Brachypodium* sites were identified through targeted surveys. Water hyacinth has been found and reported in WNY PRISM during the previous three years, however 2017 had the first report of water hyacinth re-emerging within the same location, after rapid response removal actions had taken place the year previous. The number of new reports 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.

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. WNY PRISM Partners conduct early detection monitoring for aquatic fish species including those identified as WNY PRISM priority species, therefore, WNY PRISM's site monitoring list includes the remaining plant species.

Entering 2017, eleven sites were identified for early detection monitoring. The reduction in the number of sites from 2016 is due to research showing duplicates within mapping databases originally used to create the list. By year's end, seven additional sites were added through independent early detection reports (4) and *Brachypodium* surveys (3). Due to the timing of some reports, not all new sites were monitored or fully assessed this year.

Site monitoring for *Brachypodium* was addressed by multiple stakeholders. SUNY Brockport and the Bergen Swamp Preservation Society continued to monitor the infestation at Bergen Swamp, while the WNY PRISM Slender False Brome Survey and Monitoring Intern monitored a nearby site. The Survey and Monitoring Intern also conducted site assessments alongside initial species surveys, effectively providing assessment data for all new detections of *Brachypodium*, including an infestation at Letchworth State Park, at this point being considered a single site. Parks conducted additional surveys throughout



Water hyacinth, found and removed from Unity Island.

Letchworth to determine the full extent of *Brachypodium* within the park boundaries. Surveys will continue within Letchworth in 2018.

The WNY PRISM Crew monitored six water hyacinth sites, with no observations. However, WNY PRISM monitoring took place after USFWS had surveyed some of the same locations. During these surveys, water hyacinth was found at one of these sites, and removed. In 2016, WNY PRISM had surveyed land adjacent and near to the infestation and did not find source populations, leading to the potential for this infestation to have overwintered, exhibiting the ability to be persistent.

Site monitoring continued with two of the remaining three original sites, including one Japanese stiltgrass site, and one water lettuce site. Japanese stiltgrass has not been detected at the identified site for five years. Following WNY PRISM early detection site monitoring protocol, this site will be removed from annual monitoring, and will now be monitored every other year, unless the species re-emerges. The water lettuce was also not detected during 2017 site monitoring.

Assessment and Management

The development of management plans in response to early detection species is complex, making the establishment of rigid protocols difficult. Each infestation, even those of the same species, will have unique variables making different management strategies more, or less effective. WNY PRISM developed resources to assist with the identification of appropriate management methods specific to early detection species, but due to the complexities involved, greater effort was placed on the development of assessment protocols as an essential step towards development of effective management plans. The WNY PRISM Early Detection Assessment form is based on assessment data types found within iMapInvasives which allows for easy sharing of information across platforms. The assessment form primarily targets non-submerged plant species, but may be adapted for use on a broader selection of taxa. Having the standardized assessment form will allow for improved data collection across the region.



Japanese stiltgrass was reported in Erie County in 2017. This photo was taken during the site assessment.

New early detections were reported for Japanese stiltgrass, water hyacinth, water lettuce and mile-a-minute. Assessments were conducted by WNY PRISM for Japanese stiltgrass and water hyacinth. The Japanese stiltgrass infestation is on private land and WNY PRISM provided the landowner with information and management recommendations. WNY PRISM also offered additional assistance, should it be desired. The water hyacinth was found during project monitoring by USACE on Unity Island, and all observed plants were removed by either USACE on the initial day of observation, or by WNY PRISM, after the assessment. A formal assessment was not conducted for the water lettuce (private landowner asked to hold-off until 2018), and an assessment for the mile-a-minute will take place in 2018 due to timing of the initial report in December.

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 assisting Partners with the development of effective management plans and identifying resources to further assist with implementation of management plans. Additional assistance is offered through the WNY PRISM Crew Assistance Program, which involves using the WNY PRISM Crew for management projects. Partners can submit projects for consideration, under the Crew Assistance Program. Projects are initially reviewed by WNY PRISM staff for completeness before they are further reviewed and prioritized by WNY PRISM Staff and the WNY PRISM Steering Committee. Review criteria, posted on WNY PRISM's website and released as part of the Crew Assistance Program request for projects, include priorities, partnership, project management and sustainability, and WNY PRISM capacity. Projects submitted for consideration in 2017 included mapping projects, outreach events, volunteer workdays, invasive species removal, and native plantings.

The 2017 WNY PRISM Crew consisted of two Invasive Species Management Assistants, Kevin Sanders and Heather Zimba, and one Education and Outreach Assistant, Nicholas Ransbury. To meet the demands on the WNY PRISM Crew, they take part in extensive invasive species management training over the course of two and a half weeks at the beginning of the season. The Crew is trained in invasive species ecology and identification, management methods, and effective communication. In addition, the Crew is trained on how to use stewardship equipment safely and effectively, and are trained as pesticide applicator apprentices which allow them to apply non-restricted use herbicides under the direct supervision of a certified pesticide applicator.



2017 WNY PRISM Crew (left to right): Nick Ransbury, Heather Zimba, and Kevin Sanders.

In addition to the projects described below, and those highlighted in other sections of this report, WNY PRISM assisted with multiple one or two-day projects. WNY PRISM continued to support the Tonawanda Creek/Erie Canal Hydrilla Demonstration Project and Hydrilla Collaborative, assisting with pre-treatment data collection and outreach. Common buckthorn removal efforts continued at Fredonia's College Lodge, as the Crew worked alongside faculty and student volunteers for a second year. Work also continued for removal of mugwort (*Artemisia vulgaris*) from Kenneglenn Scenic and Nature Preserve, this year including a large group of volunteers to give the project a much-needed helping hand. Multiple species were targeted at Woodlawn Beach State Park, as the WNY PRISM Crew worked alongside the

Parks Invasive Species Strike Team, and knotweed (*Reynoutria spp.*) was targeted at multiple sites, as part of a Niagara County Soil and Water Conservation District project.

Invasive Species Mapping Projects

WNY PRISM invasive species mapping project selection (independent of those selected for information management purposes such as data gaps or early detection) is based on the expectation of data being used to develop site-weed management plans, and the further expectation that data will eventually be used to assist with the implementation of invasive species removal and habitat restoration efforts. Understanding the presence and distribution of invasive species within and adjacent to a preserve is an essential first step towards developing such plans. In 2017, WNY PRISM worked with the Chautauqua Watershed Conservancy to map four preserves including the Chautauqua Lake Outlet Greenway Preserve and the recently acquired Anderson Preserve, located near Bemus Point. The Crew assisted Pfeiffer Nature Center by mapping both of their properties, Lillibridge and Eshelman, a combined 640 acres. The first mapping project of the season was Owen’s Falls Preserve, a newly acquired property of the Western New York Land Conservancy.



WNY PRISM Crew mapped Pfeiffer Nature Center to assist with management planning.

Tifft Nature Preserve – Vernal Pool Restoration

WNY PRISM once again worked with staff at Tifft, this time on an ambitious vernal pool habitat restoration project. Vernal pools are seasonally flooded ephemeral wetlands that provide critical breeding habitat for amphibians, including blue spotted salamanders, and support large populations of invertebrates which are a major food source for many species of migratory birds. Year one of this project saw WNY PRISM and Tifft focus on removal of invasive species in buffer areas around the vernal pools. The WNY PRISM Crew, Tifft staff, and volunteers, spent days cutting and stump



Common buckthorn removal at Tifft Nature Preserve, part of the Vernal Pool Restoration Project.

treating common buckthorn. The Crew also treated small populations of *Phragmites* and bohemian knotweed near the trails within the vernal pool project area. Invasive species removal is the first step in habitat restoration. Continued efforts will involve additional invasive species removal and follow-up control, along with enhancement of the current wetland depression and restoring native plant communities through seed, plugs and tree seedlings. WNY PRISM also conducted the field portion of the Crew's apprentice pesticide training at Tifft Nature Preserve. This training, and our partnership with Tifft, is essential for WNY PRISM to provide this service to the region.

Niagara Escarpment Preserve

WNY PRISM Crew work continued at the Western New York Land Conservancy's Niagara Escarpment preserve, located near Lockport. This 36-acre preserve contains a mix of forested upland area and a prairie/grassland restoration area, and 2017 was the third year WNY PRISM has assisted in management at the preserve. Crew management efforts were enhanced by a prescribed burn taking place within the grassland restoration area in the spring. The prescribed burn removed years of thatch, providing much needed assistance with ongoing management efforts. Crew activities included cut-stump treatments, backpack foliar spraying, and manual removal. Target species included *Phragmites*, reed canarygrass, various invasive shrubs, common periwinkle (*Vinca minor*) and pale swallow-wort (*Cynanchum rossicum*). Previous efforts to remove purple loosestrife appeared successful as no new individuals were found, and *Phragmites* populations have been significantly reduced. To determine the likelihood of *Phragmites* re-establishing within the preserve after treatment, additional mapping was conducted along neighboring properties, with permission from property owners. Although additional infestations of *Phragmites* occur near the preserve, the adjacent property lines did not have *Phragmites*, which is good news for Niagara Escarpment Preserve.



Niagara Escarpment Preserve after the prescribed burn conducted in spring 2017. The reduction in above ground plant material improves the ease and effectiveness of invasive species treatments.

Audubon Community Nature Center

The WNY PRISM Crew assisted the Audubon Community Nature Center (ACNC) with invasive species removal and mapping efforts, spending a full week at this beautiful preserve. Invasive species control efforts continued to focus on water chestnut removal from Spatterdock and Big Ponds, where manual and chemical methods have been in use for a number of years. While progress has seemed slow at times, results are being felt as there was far less water chestnut for the Crew to pull this year as in previous years. In past years, the Crew spent their entire time at ACNC in Spatterdock Pond, while this

year they were able to quickly move onto work in Big Pond because Spatterdock had already been cleared. The remaining time was spent mapping the 600-acre wetland preserve that includes diverse natural habitats and over five miles of trails that are open to the public. The preserve boasts beech-maple forests with understories of witch-hazel, viburnums and an impressive array of ferns, as well as hemlock forests, diverse wetlands, open grasslands and sedge meadows. Mapping focused on and near trails throughout the property, in preparation for invasive species removal projects set to begin in 2018.

Buffalo Audubon North Tonawanda Preserve

WNY PRISM began work within Buffalo Audubon Society's North Tonawanda Audubon Nature Preserve, also known as Klydel Wetlands, after completing invasive species mapping. Providing habitat for hundreds of species of native flora and fauna, North Tonawanda Audubon Nature Preserve contains vernal pools, which provide essential habitat for frogs, salamanders and other species to breed and survive, and it serves as an important area for migrating birds. Work on this project started in 2016, with WNY PRISM conducting an invasive species survey of the site, and continued with developing a management plan and obtaining necessary permits to conduct removal efforts. The primary invasive species target was common buckthorn, with additional removal efforts focused on Japanese barberry, bush honeysuckle (*Lonicera spp.*), multi-flora rose, and herbaceous species *Phragmites* and reed canarygrass. A volunteer workday was held at North Tonawanda Audubon Preserve where volunteers assisted the Crew by hauling and piling up brush.

Bergen Swamp

Bergen Swamp is a 2000-acre nature preserve and Natural National Landmark located in Genesee County. This beautiful property is comprised of diverse wetlands, fens, cedar swamps and pine-hemlock forests and is home to many rare, threatened and endangered species. WNY PRISM began working with the Bergen Swamp Preservation Society on invasive species management efforts in 2015, continuing those efforts this year. The Crew spent two full days at Bergen Swamp removing invasive shrub species, targeting Japanese and common barberry, along with multi-flora rose and some bush honeysuckle. *Brachypodium* infestations were not addressed as part of this project, although efforts continue independently of Crew efforts. SUNY Brockport received separate funding for slender false brome management, targeting 2018 implementation.



WNY PRISM Crew member, Heather Zimba, removing barberry (*B. thunbergii*, *B. vulgaris*) from Bergen Swamp.

2018 Work Plan

WNY PRISM put forth an ambitious 2017 Annual Work Plan, one that recognized previous efforts put towards developing programs and projects, and built upon them. The achievements outlined in this Annual Report have not only demonstrated the successful implementation of that plan, but have also positioned WNY PRISM to have another strong year. The WNY PRISM 2018 Annual Work Plan, in addition to identifying tasks associated with maintaining and expanding established programs, identifies new initiatives aimed at addressing regional priorities.

WNY PRISM will continue to grow our partnership network and work to protect western New York from the harm caused by invasive species. This will be accomplished by advancing efforts to provide the region with improved information, educational opportunities, prevention and early detection programming, and continued assistance with invasive species removal and habitat restoration efforts. WNY PRISM will continue and expand work with the statewide PRISM network to ensure programs focused on shared priorities are being addressed. New focus areas identified in the 2018 Annual Work Plan include further development of WNY PRISM's efforts involving work with municipalities, improving Best Management Practices resources, and advancing early detection, assessment, and response planning. The increase in early detection reports in 2017 will lead to increased focus on early detection species surveys and public outreach aimed at teaching identification skills to citizen scientists, starting with Japanese stiltgrass. Management efforts will continue to focus on providing assistance to Partners for development of management plans with effective strategic approaches. Development of resources for municipalities will be a priority, to ensure WNY will be positioned to take advantage of partnership opportunities as they emerge. In addition, WNY PRISM will work to meet the challenges and opportunities involved with implementing the Great Lakes Slender False Brome Working Group, and other externally funded projects.

WNY PRISM is looking beyond this year, as well. The current 5-year WNY PRISM contract will be coming to an end at the close of 2018, and planning for the next 5-year contract has already begun. Over the course of the past four years, WNY PRISM has made impressive strides towards fulfilling our mission, addressing invasive species priorities. But needs continue to be identified and priorities are always shifting. Too often WNY PRISM has not had the resources on hand to address identified needs. The refunding process provides an opportunity to take a significant leap forward with the programs and services WNY PRISM will be able to provide the region. With the continued support of Partners and Stakeholders from across the region and state, WNY PRISM will continue to grow to meet these needs.



The 2018 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 regional invasive species awareness and improve invasive species management efforts.

Adirondack Park Invasive Plant Program
Alfred Farmers Market
Alfred State College
Amherst Conservation Advisory Council
Amherst State Park
Audubon Community Nature Center
Bergen Swamp Preservation Society
Buffalo Audubon Society
Buffalo Museum of Science
Buffalo Niagara Waterkeeper
Buffalo Zoo
Byron-Bergen Central Schools
Capitol-Mohawk PRISM
Catskill Regional Invasive Species Partnership
Certified Nursery Landscape Professionals
Chautauqua County Forest Pest Taskforce
Chautauqua Institution
Chautauqua Lake Association
Chautauqua Watershed Conservancy
City of North Tonawanda
Clarence Hollow Farmers Market
Conewango Creek Watershed Association
The College at Brockport
CCE of Niagara County
CCE of Wyoming County
CCE of Allegany County
CCE of Erie County
CCE of Genesee County
Cornell University
Daemen College
Don't Move Firewood
Invasive Species Council
Invasive Species Advisory Committee
Invasive Species Coordination Section
Eastern Monarch Butterfly Farm
Ecology & Environment, Inc.
Environmental Protection Agency

Erie County Department of Environment and Planning
Erie County Soil and Water Conservation District
Finger Lakes PRISM
Fox Valley Farmers Market
Friends of Bond Lake
Friends of Times Beach
Genesee Country Farmer's Market
Genesee County Park and Forest
Genesee River Wilds
Grand Island Conservation Advisory Committee
Grand Island Memorial Library
Great Lakes Action Agenda
Great Lakes Center at SUNY Buffalo State
Great Lakes Media
Great Lakes Phragmites Collaborative
Great Lakes Restoration Initiative
Groundworks Buffalo
Hamburg Farmers Market
Jamestown Community College
Lake Erie Seaway Trail Center
Lake Erie Watershed Protection Alliance
Lockport Community Market
Lockport Public Library
Long Island Invasive Management Area
Lower Hudson PRISM
Master Forest Owners
Master Gardeners
National Plant Diagnostic Network
Nature Sanctuary Society of Western New York
New York iMapInvasives Program
New York Invasive Species Research Institute
New York Natural Heritage Program
New York Sea Grant
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
Orleans County SWCD
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
Tift Nature Preserve
Town of Amherst
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
WBFO 88.7 NPR
WGRZ Channel 2
WNY Forest Pest Taskforce
Wyoming County SWCD

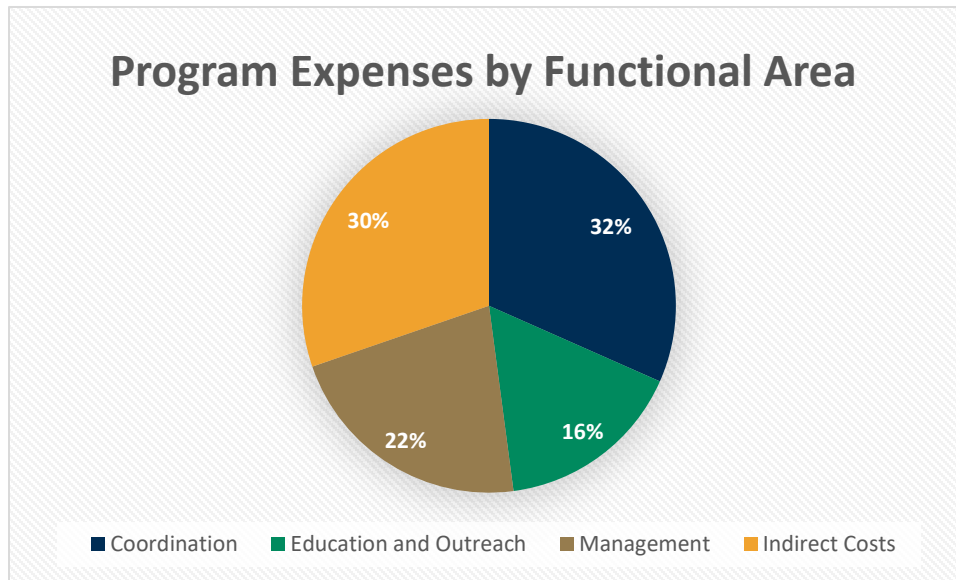
WNY PRISM would like to thank our Partners for the time and effort dedicated to invasive species management in western New York. Their work, and continued support of WNY PRISM, is essential to fulfilling our mission and achieving mutual goals.



WNY PRISM Crew worked with Chautauqua Lake Association to survey the Chautauqua Lake Outlet for water chestnut. Only a few plants were found.



Summary of Project Expenses



This summary of program expenses is intended to provide a general understanding of how WNY PRISM divided our time and resources in 2017, but is not intended to serve as a financial report. Program expenses were grouped together by functional areas.

Coordination	32%
Education and Outreach	16%
Management	22%
<u>Indirect Costs</u>	<u>30%</u>
	100%

Coordination:

Activities and expenses related to our Partner/Network Coordination and Information Management Goals, including cost of administering the program, general office supplies, travel, and personnel cost for Coordinator (75%) and Director (100%).

Education and Outreach:

Activities and expenses directly related to our Education and Outreach Goals, including personnel cost for Coordinator (25%), Education and Outreach Assistant (100%), volunteer management, website and online resources management, travel, supplies and materials.

Management:

Activities and expenses related to our Prevention, Early Detection and Rapid Response, and Habitat Management and Restoration Goals, including personnel cost for Project Manager (100%), Invasive Species Management Assistants (2 @100%), travel, supplies and materials.

Indirect Costs:

Indirect Costs as determined by our host organization, The Research Foundation for SUNY Buffalo State.