



ANNUAL REPORT 2020-2021



HOBART AND WILLIAM SMITH  
COLLEGES

FINGER LAKES  
INSTITUTE



## Acknowledgements

### Finger Lakes PRISM Team

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Lisa Cleckner, Director, Finger Lakes Institute  
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### Finger Lakes PRISM Committees

Steering Committee  
Working Group Members

### Host Organization

Finger Lakes Institute at Hobart and William Smith Colleges

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*The Finger Lakes PRISM in action!*



## Letter from the Coordinator

New York Tough. That is the phrase that bears to mind when reflecting on 2020. We hunkered down and fought our way through the rising COVID 19 rate of infection. In contrast, we saw community members seek outdoor solace in droves via our coveted trailway systems, waterways, and by hiking, fishing and playing outside. Our watercraft stewards inspected an incredible 45,963 boats this past season while removing 5,2777 invasive species. Our steering committee and working groups labored diligently through invasive species ranking into tiered lists, and helped develop and guide our Strategic Plan 2025 which includes a revised mission and vision and new goals and objectives. Our program was able to pivot and offer a wide variety of trainings and programs virtually with topics ranging from prevention strategies, monitoring and survey, reporting in iMapInvasives, and how to access resources through our website and social media. Additionally, we worked with iMapInvasives and Rochester Institute of Technology on their full year capstone course project to increase recruitment and retention in our citizen science programs. While many activities were canceled, our key highlights and outputs reflect dedicated stakeholders and strong programming.

Highlights:

**9170.70** acres surveyed for high priority invasive species across **619** sites

**103** waterbodies surveyed for high priority AIS

**498.77** acres of invasive species control across **487** sites

**114.83** acres restored through replanting and seeding

**29** boat stewards inspected **45,963** boats

**5,277** invasive species removed from boats entering or leaving our Finger Lakes waterways

**2,086** volunteers trained to prevent the spread and impact of invasive species

Outreach to the community about invasive species reached **2,086** people across **71** workshops, webinars, or training event; trained **221** people to record observations in iMapInvasives.

**NY Invasive Species Awareness Week:** With **twenty-two** partner events across the region, including **10** unique programs with a reach of **27,831** people through virtual Facebook campaigns and **261** through webinars and virtual hikes in the region, 2020 NYISAW was a huge success!

New York *IS* tough. And together, we were able to lower our COVID 19 rates; pivot our project delivery; adjust our protocols to current state and federal COVID 19 guidelines; and deliver high quality invasive species prevention programs, early detection and rapid response, increased partnerships and information sharing opportunities, control and restoration at high priority areas, as well as secure funding support for additional projects while managing our current funded projects. I am proud of the work that our team and partners accomplished and I look forward to working with you all in 2021-2022.

**Finger Lakes Institute external funding that support our regional invasive species programming:**

- USDA NRCS Giant hogweed control and outreach project (2016-2021)
- USFS Ganondagan I, II, Finger Lakes National Forest, and Rochester Museum and Science Center Cumming Nature Center, NYS OPRHP Wetland projects (2016-2023)
- EPA GLRI Hydrilla Control and Outreach Project (2017-2021)
- EPA GLRI SSW Collaborative in the GLB (2017-2021)
- USFWS Early Detection of Macrophytes in the Finger Lakes (2019-2021)
- USFWS Hydrilla Control (2019-2021)
- USFWS Spread Prevention in the Finger Lakes (2012-2022)
- NYSDEC Spread Prevention program in the Finger Lakes (2017-2021)
- Watercraft steward private program funds: Canandaigua Lake Watershed Association/Council, Monroe County SWCD, Otisco Lake Preservation Association

**Finger Lakes PRISM SUBCONTRACTED PROJECTS:**

Invasive Plant Management and Outreach Events at Macyville Woods Nature Preserve	Genesee Land Trust
Evaluation of Control Methods for European Dewberry	SUNY Brockport
Seneca Park Zoo Society Invasive Species Action and Awareness Outreach Campaign	Seneca Park Zoo Society
Enhancing Priority Invasive Species Management in Cortland County	Cortland Co. SWCD
Shedding Light on an Unknown Invader: Survey, Control, and Education of Japanese Angelica Tree ( <i>Aralia elata</i> ) in Monroe County, NY	Monroe Co. SWCD

**Strategic Plan 2025**

Strategic Plan 2025 presents five goals (a result of combining some of the original seven goals with significant overlap), a refinement of objectives including the addition of measurable components where possible, a confirmation of strategies, and an identification of key metrics to track progress and guide future action. The Finger Lakes PRISM Vision and Mission also had a makeover to reflect current program and regional capacity.

**Vision:** Finger Lakes PRISM preserves the biodiversity of our natural communities through the prevention, detection, and control of invasive species.

**Mission:** Our mission is to reduce the introduction, spread, and impact of invasive species by working collaboratively with partners to implement effective education, outreach, and control measures.

**Goal 1. Prevention**

Finger Lakes PRISM recognizes prevention as the most important way to reduce cost and ecological and human health impacts from IS. Prevention includes stopping the spread of new IS to the region

and preventing the continued spread of existing IS. In alignment with our Strategic Plan 2025, there are two objectives for our prevention programs:

**Objective 1.1:** Ensure communities can access information about new IS, high priority areas, and IS Prevention Zones (PZ) and can take action that helps prevent IS spread.

**Objective 1.2:** Share resources and information regarding prevention management and control methods for priority species.

Prevent the introduction and spread of IS to new areas within the region through targeted prevention efforts for vectors and pathways of transmission.

### KEY OUTPUTS

While COVID prevented a number of activities with high yield outputs such as Conservation Field Days, programming was in full swing. The Finger Lakes PRISM hosted unique projects and activities aimed at stopping the spread and impact of invasive species throughout the region and within New York State.

A YEAR IN REVIEW: NEW YORK ADDENDUM

# 2020 By the Numbers New York

**10** TARGETED BILLBOARD LOCATIONS

**\$81,500** INVESTED IN AIS OUTREACH & PREVENTION

**CLEAN, DRAIN, DRY.** BOATS, TRAILERS & GEAR STOP INVASIVE SPECIES

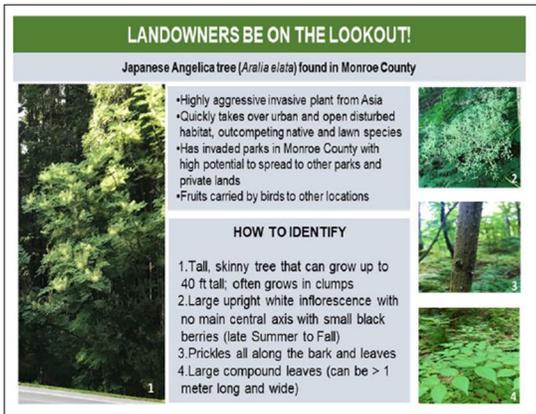
*A win in the Finger Lakes! Our exclusive cost-share program with Wildlife Forever created opportunities for increased messaging about the importance of the Clean Drain Dry initiative. BONUS: folks driving through the region had even more opportunities to ‘get the message’ since our billboards were active longer than our contracted timeframe, which means we had an even bigger reach!*



*Bootbrush stations placed at the Keuka Outlet as part of the Girl Scout Silver Award for Troop 40629. Plans for 2020 included 20 additional signs which, due to COVID, were postponed to 2021. The Finger Lakes region has over 70 stations.*

New invasions reported within the Finger Lakes region included spotted lanternfly in Tompkins County, oak wilt in Ontario County, Japanese angelica tree (JAT) in Monroe County and Dewberry in Monroe County. Highlights from our prevention programs include: piloted a Finger Lakes Trail Survey in the Finger Lakes region with 40 people registering to participate and contribute data to iMapInvasives. There were 287 records reported to iMapInvasives as part of this project. Additionally, the Finger Lakes PRISM provided prevention strategies and information across 71 programs to 2,086 participants. Thank you, everyone!

**OUTCOME:** New invasions to the region are prevented to the greatest extent practicable.



*Postcard mailed to 440 landowners within one mile of the population of JAT by Monroe County SWCD as part of a subcontract with Finger Lakes PRISM.*



*Hydrilla marketing campaign in the Finger Lakes region helps people identify and report this harmful invader. Prevention in action!*

## Goal 2. Early Detection/Rapid Response

Early detection and rapid response (ED/RR) are critical to controlling the spread of IS and managing impacts. Like prevention, ED requires vigilance and monitoring of key resource areas for priority invasives. A protocol for ED/RR and significant coordination and resources are required. The three objectives identified in the Strategic Plan 2025 include:

**Objective 2.1:** Maintain and use an effective ED (early detection) and RR (rapid response) process.

**Objective 2.2:** Continuously monitor priority areas for highly invasive species and species considered early detection near the region.

**Objective 2.3:** Ensure communities can access information about priority ED species, the likelihood of invasion, and the pathways of transmission.

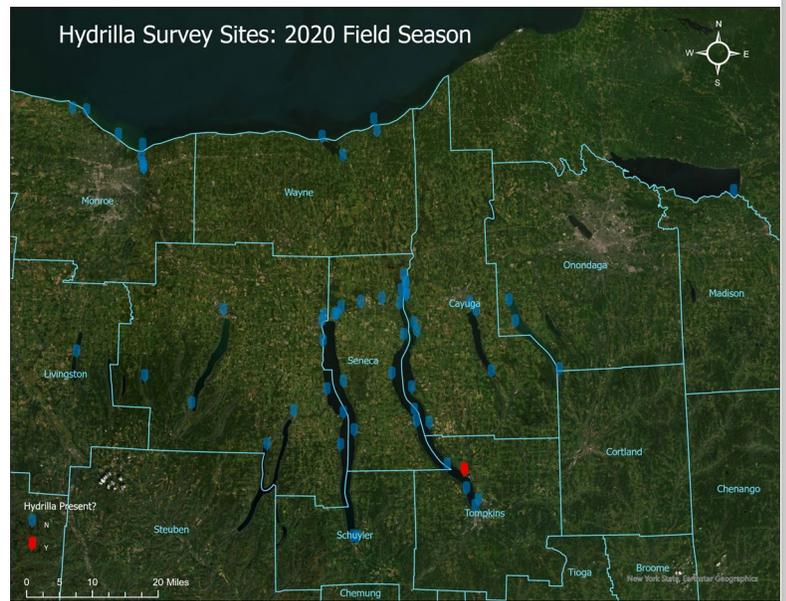
Implement early detection and rapid response measures to identify new IS to the area and respond to mitigate the effects.

Much of the work in the Finger Lakes PRISM focuses on early detection of

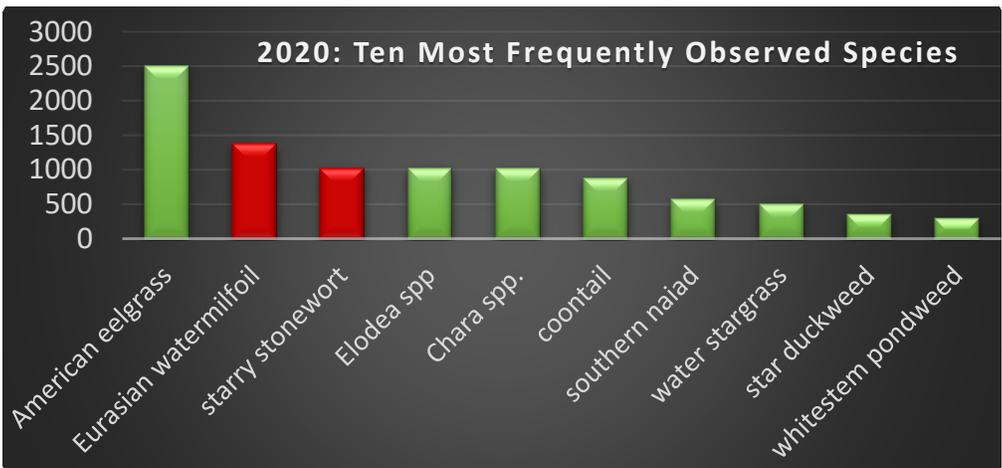
high priority invasive species. This includes aquatic and terrestrial surveys in strategic locations where invasive species are most likely to spread or cause the most damage. In addition to the work of the Finger Lakes PRISM and subcontracts, the Finger Lakes Institute has secured external funding for projects that contribute to the mission and vision of the Finger Lakes PRISM program. These project outputs are included in this report.

**KEY OUTPUTS**

The Finger Lakes Institute EPA Hydrilla Control Project conducts macrophyte surveys across the Finger Lakes region. In 2020, the field crew conducted 10,733 rake tosses across 15 waterbodies in 13 counties. Of these rake tosses, there were 38 macrophyte species identified including algae and unknown pondweeds. The most dominant species found was eel grass followed by Eurasian watermilfoil and starry stonewort. This equates to 8,099.9 acres of survey and protection in the Lake Ontario watershed!

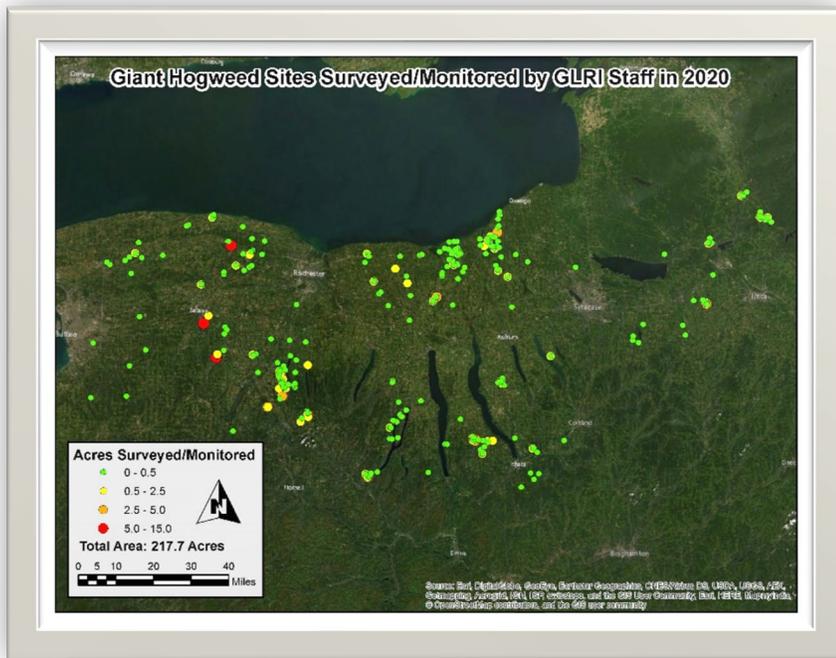


*Locations in blue are where the Hydrilla field crew sampled and did not encounter Hydrilla. The points in red are where Hydrilla was found on a rake toss. No new Hydrilla finds were reported in 2020.*



The Finger Lakes Institute has a cooperative agreement with the US Forest Service for several projects funded under the Great Lakes Restoration Initiative’s Cooperative Weed Management Area grants. Included in this agreement are projects at Ganondagan State

Historic Site, the Finger Lakes National Forest, and the Rochester Museum and Science Center Cumming Nature Center. During 2020-2021, a survey was completed at Cumming Nature Center where approximately 25 acres were assessed for post-treatment efficacy along 4.5 miles of trail ways.



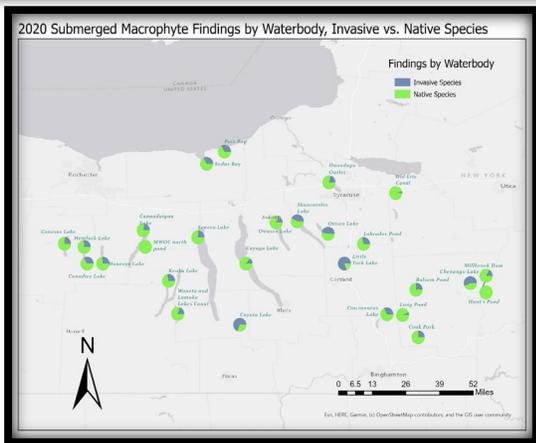
The Finger Lakes Institute holds a cooperative agreement with the National Resources Conservation Service to survey and control giant hogweed in the region. During this past year, field crew members funded under this project visited 473 sites and surveyed 217.7 acres for giant hogweed and other high priority invasive species across three PRISM regions.



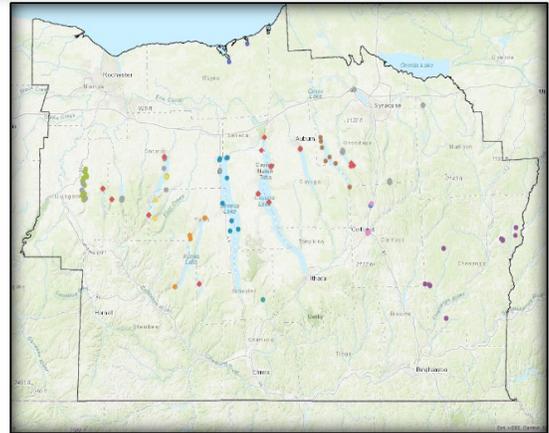
### 2020 Finger Lakes Macrophyte Survey Program

Engaging community members to prevent the spread and impacts of invasive species on our natural resources through early detection and rapid response

**OUTCOME:** Priority conservation targets are protected from new IS infestations.

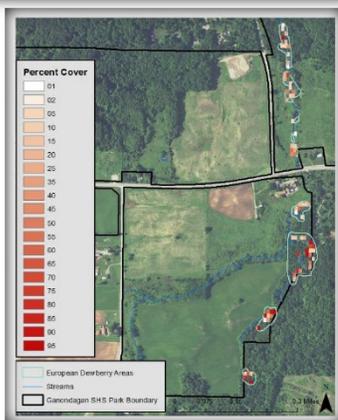


Good news! Our Finger Lakes surveys show more native species than invasive. The figure above shows the distribution of native species versus invasive in all rake tosses taken by volunteers in 2020. The pie charts are mostly green, which are native species versus the blue, which are invasive.



The Finger Lakes PRISM Macrophyte Survey saw a slight decrease in the number of volunteers this season. However, the total number of rake tosses increased and was the highest of all the four years. The above map shows the distribution of volunteers across the Finger Lakes region where rake toss samples were completed. Thirty-one volunteers conducted 372 rake toss samples across 28 waterbodies in 2020.

The Finger Lakes PRISM entered into a subcontract agreement with five organizations for projects that help fulfill the goals and objectives of the Finger Lakes PRISM. Several projects had an EDRR component and they are described below:



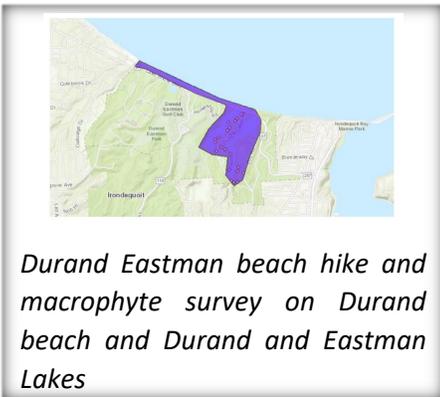
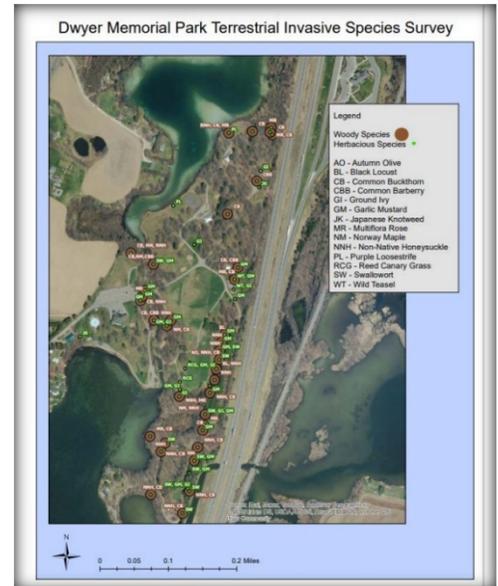
SUNY Brockport surveyed for *Rubus caesius*, a relatively unknown and new invader, at 10 locations and found populations at three locations, one of which was in WNY Prism.



Monroe County Soil and Water Conservation District surveyed 269.1 acres for Japanese angelica tree which was found at an additional site in Monroe County. The oldest tree was aged at over 30 years old!

Cortland County surveyed 550 acres for high priority invasive species on Song, Goodale, Upper Little York, and Melody Lakes and the Cortland County portions of Skaneateles and Tully Lakes as well as Dwyer Memorial Park where 14 invasive species were recorded to iMapInvasives as part of their 220-point upload.

The Seneca Park Zoo Society also conducted early detection activities and engaged stakeholders in 12 early detection hikes in Monroe County parks and conducted macrophyte surveys in several tributaries in Monroe County. In total, 154 people participated in these activities which also provide information about invasive species to these folks.



*Durand Eastman beach hike and macrophyte survey on Durand beach and Durand and Eastman Lakes*

### Goal 3. Partnerships, Education, Information

Build partnerships and networks that leverage effective public education efforts and facilitate the sharing of information, resources, and expertise.

Partnerships are the foundation of Finger Lakes PRISM. Partners and communication networks are key to effective education, outreach and advancement in the prevention and management of IS. The Finger Lakes PRISM Strategic Plan 2025 identified the following objectives:

**Objective 3.1:** Ensure partners reflect the cultural and ethnic diversity of the region and actively represent all key stakeholders.

**Objective 3.2:** Ensure the public is aware of Finger Lakes PRISM and is educated on how to prevent IS introduction and spread.

**Objective 3.3:** Work with partners to share information, data, materials, and combine strengths to manage IS effectively.

#### KEY STRATEGIES

Working groups and PRISM meetings were held remotely during 2020 with high engagement among our stakeholders. Our full partner meeting, held on May 29, 2020 had 36 people in attendance and a second, held on

*Hydrilla video has been viewed 208 times and posters have been placed throughout the region.*

**OUTCOME:** Finger Lakes PRISM is the regional leader in IS management facilitating active partners, effective public education, and information networks.

11/6/2020, had 29 people. Working groups met to discuss the strategic plan update and to prioritize invasive species into the tier ranking for iMapInvasives.

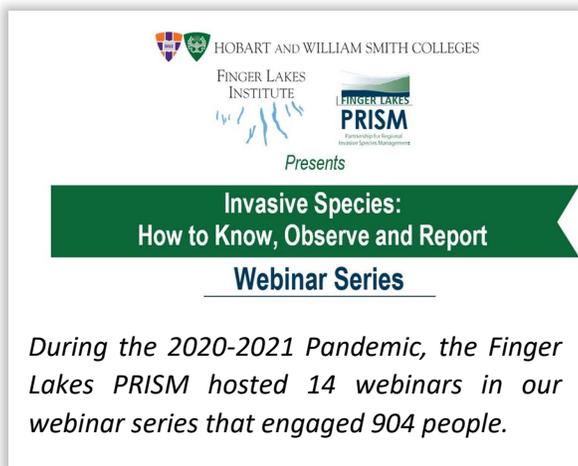
Social media recruitment and placement efforts increased during this past year. The Finger Lakes PRISM Facebook page currently has 653 total likes, an increase of over 120 likes from previous years. Other metrics include 23,128 people engaged with our Facebook page, and 693,852 total impressions. Twitter has 52 link clicks, 7 retweets, 52 likes, and 570 followers while Instagram has 121 posts and 289 followers.

Another tool to provide information to our stakeholders came from the creation of ArcGIS storymaps, which describe our watercraft steward, Hydrilla, starry stonewort, and macrophyte survey programs.

All storymaps can be found at [fingerlakesinvasives.org](http://fingerlakesinvasives.org).

The Finger Lakes PRISM supported invasive species partner projects by writing letters of support for external funding for the NY Hemlock Initiative and NYS Office of Parks, Recreation, and Historic Preservation (NYS OPRHP).

Invasive species program personnel participated in nearly 200 meetings, webinars, in-person workshops, or conferences in 2020-2021.



The graphic features logos for Hobart and William Smith Colleges, Finger Lakes Institute, and Finger Lakes PRISM. A green banner contains the text: "Invasive Species: How to Know, Observe and Report Webinar Series". Below the banner, it states: "During the 2020-2021 Pandemic, the Finger Lakes PRISM hosted 14 webinars in our webinar series that engaged 904 people."

## Goal 4. Control and Restoration

Effective control measures have been identified for many IS with more being developed. These measures, followed by restoration, can effectively manage some IS impacts. Resource constraints are a significant challenge so targeting high priority conservation areas is key. The Finger Lakes PRISM

Strategic Plan 2025 identified three core objectives listed below.

Control invasions through eradication, containment, suppression, and restoration efforts targeting high priority conservation areas.

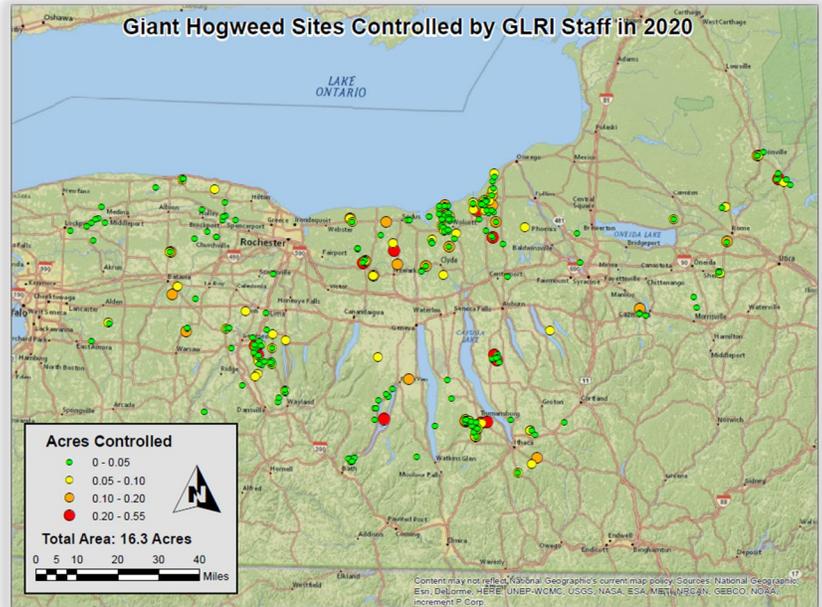
Objective 4.1: Target control measures to stop IS from spreading along predictable pathways to priority conservation areas.

Objective 4.2: Identify isolated outbreaks of priority IS and ED species and eradicate or restrict them from spreading.

**Objective 4.3:** Partner to research, develop, and implement new/improved control measures and restoration techniques; educate and empower targeted landowners and stakeholders.

**KEY STRATEGIES**

The Finger Lakes Institute has a cooperative agreement with USDA NRCS to fund a giant hogweed program in partnership with the NYSDEC who provides direct supervision of the field crew. During the 2020 field season, two staff members were able to control giant hogweed on 16.3 acres in the Finger Lakes, WNY, and SLELO PRISMs, which contributed to statewide efforts to control invasive species across the state.



The Finger Lakes Institute has a cooperative agreement with the USFS for several projects that contribute to the goals and objectives of the Finger Lakes PRISM. In 2020, a project at Ganondagan State Historic Site conducted manual and mechanical control of four invasive species across 96 acres, chemically controlled invasive species on 73 acres, and performed restoration across 47.5 acres using 2000 native plugs and seeds provided by the NYSOPRHP Plant Materials Program.

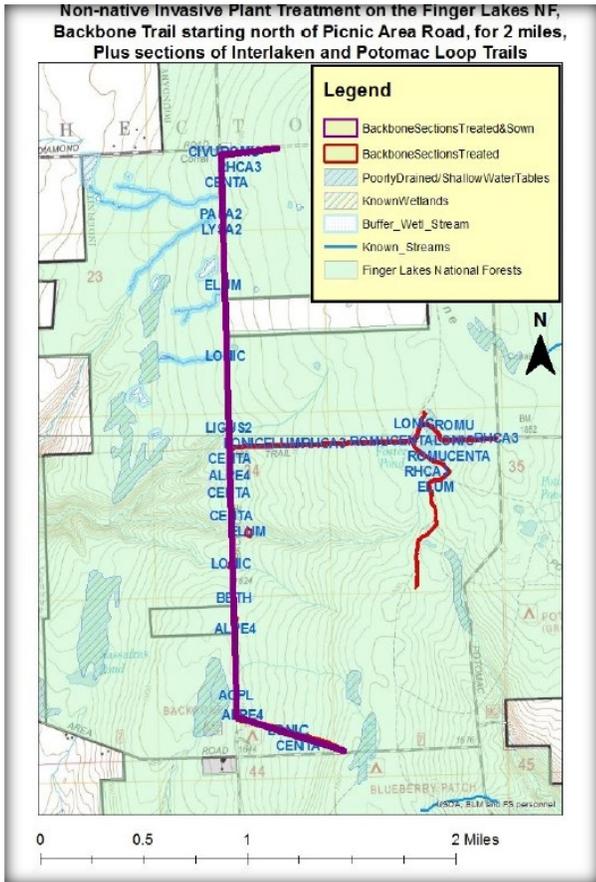
A second USFS CWMA project removed barberry across 89 acres in 2019 at Rochester Museum and Science Center Cumming Nature Center. Ferns were planted in the removal area and 1685 ferns were planted in a restoration plot. During 2020, Finger Lakes PRISM contracted with CC Environment & Planning to complete a post-assessment of these restoration efforts. Treatment was determined with an efficacy code ranging from ‘no effect’ to ‘complete restoration’. Barberry treatments were, on average, considered excellent based on percent cover of invasive species. Overall, CC Environment & Planning reported that treatments were highly

Efficacy Code	% Treatment Effectiveness	% Cover Target Invasive
No effect	0	100
Failure	1-5	95-99
Poor	6-25	75-94
Marginal	26-50	50-74
Fair	51-75	25-49
Good	76-90	10-24
Excellent	91-99	1-9
Complete	100	0

*Efficacy chart for restoration efforts used on Cumming Nature Center to determine if barberry removal and fern planting were effective.*

**OUTCOME:** The occurrence and impact of highly IS are reduced in priority conservation areas.

effective, especially barberry and pale-swallowwort treatments. The Phragmites treatment was less effective and may require additional treatment.



A third USFS project took place in the Finger Lakes National Forest. Previous control along several miles of trails were assessed for efficacy, and native seeds were sown to restore the integrity of the landscape. Restoration efforts occurred across 14.83 acres using native seed.

In 2020, the Finger Lakes PRISM partnered with multiple lake associations, NYSDEC, and Audubon to control water chestnut at four locations. In total, 127 people pulled 24,689 pounds over 14 days do.



Hydrilla was controlled at Lansing on Cayuga Lake with Fluridone in 2020 and then the Hydrilla field crew monitored this site throughout the field season. The crew conducted 1,081 rake tosses at this site. No Hydrilla was observed one week after the final of five treatments took place. Tuber samples were collected from 68 points in the fall and no Hydrilla tubers were detected. That’s a win for the Finger Lakes!

## Goal 5. Funding and Support

Secure funding and legislative support from federal, state, and local governments.

Management of IS is complex and expensive. A major challenge for Finger Lakes PRISM is to secure the funding and support necessary to accomplish our mission and achieve

our vision. Strategies to garner funding and support must be targeted, dynamic, and consistent. The Finger Lakes Strategic Plan 2025 identified two main objectives which are listed below.

**Objective 5.1:** Maintain and grow diverse funding streams to support all Finger Lakes PRISM priorities.

Objective 5.2: Maintain, develop, and strengthen relationships with elected officials and governmental entities at local, state, and federal levels.

**KEY OUTPUTS**

In 2020-2021, the Finger Lakes Institute applied for and received a USFS CWMA grant to conduct invasive species control on wetland areas in the Finger Lakes PRISM in cooperation with NYS OPRHP.

Additionally, the Finger Lakes PRISM supported partner projects through submission of letters of support for projects in the region. The invasive species program staff also participated in meetings and calls to action for funding and shovel-ready projects. Some examples of participation include the ReImagine the Canals Advisory group, Honeoye Valley Association HWA working group, Owasco Lake watershed HWA working group, and the Cayuga Lake Hydrilla Management Plan working group.



**OUTCOME:** Adequate funding and consistent support ensures effective IS management across Region.

## Partner Reports

Partners represent the core foundation of the PRISMs. Through volunteerism, project collaboration, and networking, the Finger Lakes partners are some of the strongest and most dedicated across the state. Upon request, the following are updates from partners who submitted invasive species project results.



### 1. NYS DEC Region 8 lands and forests IS work

- 6 acres of invasive species herbicide treatment at 9 state forests
- 25 acres of Hemlock Woolly Adelgid treatment at Hemlock-Canadice State Forest
- 4 outreach events
  - 3 webinars for 295 people
- 35 nitidulid traps were set on 7 state forests and wildlife management areas from April through October and checked 1-2 times per month
- 1 aerial survey for oak wilt
- 19 trees were removed from an Oak Wilt site and stumps were treated
- Advised numerous landowners on gypsy moth treatment and referred to spray contractors
- 1 outreach video was produced on gypsy moth egg mass surveying
- 14 acres of prescribed fire at 1 state forest

### 2. NYS DEC Region 8 Fisheries

In August 2020, DEC treated 5.5 miles of Cayuga Inlet above the dam and fishway in Ithaca to control larval sea lamprey. Despite very warm dry conditions, the treatment was successful at removing approximately 20,000 larval sea lamprey. As a result, the wound indexes on both lake trout and rainbow trout remain very low and are expected to remain low for the foreseeable future. If high water and large rain events during the spawning season for sea lamprey coincide again, we will need to plan another pesticide treatment to continue protection of the fishes of Cayuga Lake. Over 20 staff participated during the three-day treatment, traveling from all over the state and working through the night to conduct this effort as safely and efficiently as possible.

### 3. Honeoye Valley Association

- **Invasive Macrophyte Survey**
  - Surveyed 8 locations June and August for invasive macrophytes

- 13 years of participation with 3-6 volunteers
- **1 volunteer for Honeoye Lake FLI Macrophyte citizen science program**
- **2020 Honeoye Lake NYS Boat Launch Watercraft Steward Data**
  - This year due to COVID-19 forcing indoor closures, people opted for outdoor activities in unprecedented numbers. Boating in New York appears to be no exception. Watercraft stewards saw a 78% increase in the number of people reached compared to the 2019 season. Total watercraft inspection also rose 68% translating to a 90% increase in the number of inspections per day.

**We Need Your Help to Scout Hemlock Woolly Adelgid**

*Learn how to find and report HWA!*

On February 9, 2021 at 6pm, please join us for a virtual webinar.

You will learn about identifying Hemlock Woolly Adelgid (HWA) and using iMapInvasives to report this tiny insect that has had a disastrous affect on our Eastern Hemlock trees. This training will help you to easily identify and report the insect while you are out taking a winter hike.

[Click here to register!](#)

**Join us in the woods:**

On February 12, 2021, we will be having an in-person training where we will walk a local trail to find HWA and report the insects on the iMapInvasives app. You will need to register for this in-person training and it will be limited to 15 attendees. Email [alaina.robarge@ontswcd.com](mailto:alaina.robarge@ontswcd.com) to sign-up and to get the details. It will be filled on a first-come, first serve basis. Social distancing measures apply.

\*This event will be weather dependent

• Table 1. Watercraft steward coverage at Honeoye Lake Boat Launch for 2020:

Organization	Days Covered	Inspections	Inspections/Day	People Reached
FLI	27 (M-W)	1065	39	2253
OPRHP	44 (Th-Su)	4311	98	9353
Total	71	5,376	137	11,606
<b>Change from 2019</b>	<b>-16%</b>	<b>+68%</b>	<b>+90%</b>	<b>+78%</b>

### Hemlock Woolly Adelgid (HWA) control in Honeoye Lake Watershed

- If you missed the Hemlock Woolly Adelgid Training or would like to watch the presentation again, here is the link to the recording: [https://www.youtube.com/watch?v=pq4hIPvnecc&feature=emb\\_logo](https://www.youtube.com/watch?v=pq4hIPvnecc&feature=emb_logo)
- We have created a resource page on this website: <https://www.ontswcd.com/invasive-species>
- Conducted a winter walk on Friday, February 19, 2021 at 11am to learn more about identifying HWA and using iMapInvasives

#### 4. **CCE Onondaga** conducted invasive species related outreach.

- Provided two webinars on invasive species:

- Invasive Mussels in the Finger Lakes – June 10, 2020. Reached 83 people
- Hemlock Woolly Adelgid Planning and Management in Skaneateles (with the NYS Hemlock Initiative) – March 1, 2021. Reached 38 people
- Provided aquatic invasive species factsheets, brochures, and other educational materials for the Skaneateles Lake Boat Stewards
- Shared information about invasive species on social media (Facebook reaching 900; Twitter reaching 530; and Instagram reaching 400) and in our MailChimp newsletter, which reaches over 700

5. The Montezuma Alliance for the Restoration of Species and Habitats (MARSH!) is a volunteer program that supports the habitat restoration efforts of the United States Fish and Wildlife Service, the New York State Department of Environmental Conservation, and the Montezuma Audubon Center as part of a larger effort to restore, protect, and enhance wildlife habitat on nearly 50,000 acres in the Montezuma Wetlands Complex. Some highlights of our 2020-2021 work are:



\*Mapped the distribution and abundance of 24 invasive plant species across 47 acres.

\*Collected 8.5 pounds of seeds from native plants.

\*Hand pulled all known patches of Japanese stiltgrass from the Montezuma National Wildlife Refuge and monitored the surrounding areas.

\*Managed 140 acres for invasive species across the refuge.

\*Worked with Let's Goat Buffalo to

use goats to reduce the cover of woody invasives including common buckthorn, multiflora rose, and honeysuckle bushes across more than one acre.

\*Engaged ten volunteers during 11 socially distanced MARSH workdays mapping and pulling invasive plants and collecting native seeds.



\*Engaged 14 volunteers in six virtual events to discuss conservation in the Finger Lakes Region including invasive species, webinars, iMap invasives, iNaturalist, online training and tutorials.

#### 6. Seneca Lake Pure Waters annual report data.

Last year we had 10 macrophyte observers, who did their reports every 2 weeks or so, through the

reporting season. We have begun an announcement program to increase those numbers and response looks good. Last year we also worked with Sam Beck-Andersen and the FLI on a grant to procure materials to enable us to do public education events, or have booths at social events. Finally, SLPWA has launched, in conjunction with the other lakes, our Lake Friendly Living Program, and we hope to use the communications inherent in that program to educate the public about invasives, including terrestrial.

#### 7. Invasive Species Work 2020 for Cayuga County

Assisted public with identification of aquatic plants.

Participated on the Starry Stonewort Collaborative.

Participated on the Hydrilla Task Force.

Ecotalk article in the Citizen: “How to help rid Cayuga Lake of hydrilla” written by Michele Wunderlich, Associate Planner, Cayuga County Department of Planning and Economic Development and Hilary Lambert, Steward/Executive Director, Cayuga Lake Watershed Network. The Citizen, June 4, 2020.

Michele Wunderlich presented a webinar on Invasive Species Identification on June 12, 2020 as part of New York State Invasive Species Awareness week with eight attendees.

Updated the Cayuga County Hydrilla webpage with new information and the sampling results from the public drinking water and herbicide treatment areas in Cayuga Lake in Aurora.

Cayuga County utilized Finger Lakes Lake Ontario Watershed Protection Alliance (FOLLOWPA) funds to purchase a CD3 boat cleaning station for Emerson Park.

Asian clam survey held on July 30, 2020 off of the Emerson Park Beaches in Owasco Lake. Article on the survey was published in the WQMA September newsletter.

The fourth WQMA newsletter sent out on December 17, 2020 included the article “Invasive Ghosts of Seasons’ Past / New Practices for Seasons’ Futures.”

Cayuga County WQMA members assisted with the development and Cayuga County provided FLOWPA funding for the “Clean Boating on Cayuga Lake” brochure. Lynn Leopold, the Chair of the Tompkins County Water Resources Council Education Committee distributed copies to Don's Marina, Long Point State Park, Aurora Inn, Frontenac Harbor, Union Springs Village Office, Hibiscus Harbor, Hideaway Harbor Marina/ Campground office, Beacon Bay, Village of Cayuga office, Cayuga Marina and Lock #1 info kiosk.

## 8) Finger Lakes National Forest

32 acres of mostly woody invasive plants were hand-sprayed in an area where timber harvest is planned

- 212 acres of pasture were broadcast sprayed to treat knapweeds and thistles
- 32 acres of mostly woody invasive plants were hand sprayed in an area where timber harvest is planned
- A small (< 1 acre) plot next to our district office was planted with native plant plugs as the next step in creating a pollinator garden where we had previously treated woody invasive plants
- 15 acres were sown with native seeds along trails that had previously been treated for many species of invasive plants.



9. Region 4 of the New York State Department of Transportation (NYSDOT) is in Rochester and includes Monroe, Ontario, Wayne, Livingston, Genesee, Orleans and Wyoming Counties. Of those counties in Region 4, Monroe, Ontario, Wayne and Livingston Counties are within the Finger Lake PRISM. Since transportation systems can play a role in the spread of invasive species, NYSDOT is a participating member of the FL-PRISM.

During maintenance of the highway right-of-way, be it mowing, bridge/ culvert repair or replacement, or highway reconstruction, the NYSDOT takes measures to prevent the spread of invasive species. The maintenance crews are trained for the identification of invasive species, which helps to identify new areas that may be infested. These crews also take care to clean equipment to prevent the spread of seeds from one location to another. Maintenance also applies herbicide in spot locations to address invasive species, typically when we encounter Giant Hogweed. This hasn't covered a lot of plants or area but has stopped small populations from getting larger. We have also coordinated with DEC's Hogweed Hotline – reporting locations to them and coordinating with their field crews.

The construction projects along New York state routes also have exposure to invasive species. Contractors are directed, as part of the contract to control invasives with herbicide, hand pulling and/or excavation. Also included in the projects are direction for the proper disposal of invasives and cleaning equipment to prevent the spread of invasive species.

The Region has both a Maintenance Environmental Coordinator and a Construction Environmental Coordinator, who work to educate maintenance and construction staff about invasive species within the area. They oversee and assist with many environmental concerns, including invasive species and preventing their spread.

The NYSDOT, as a member of the FL-PRISM, welcomes the sharing of information. Being a member has been an educational experience as information gathered at PRISM meetings is brought back and shared with staff at the NYSDOT.

The table below shows a summary of invasive species work completed on NYSDOT projects in Region 4

Item	Description	Qty	Units	Unit Cost	Sub Total
617.01010024	Controlling Invasives with Herbicides	0			0
617.01020024	Controlling Invasive by Pulling	0			0
617.01030024	Controlling Invasives by Excavation	58	Cu Yd	\$9	\$522
617.10000024	Disposal of material Containing Invasives	58	Cu Yd	\$38	\$2,204
617.11000024	Equipment Cleaning for Invasives	1	Project	\$1,150	\$1,150
<b>Total</b>			<b>\$3,876</b>		