

# SLELO PRISM

St. Lawrence Eastern Lake Ontario Partnership for Invasive Species Management  
"Teaming Up to Stop the Spread of Invasive Species"



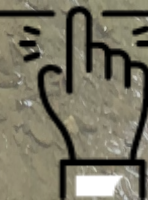
2022 Winter Newsletter

## Aquatic Restoration Initiative

*Efforts to Protect  
Eastern Lake Ontario  
Tributaries*



SUBSCRIBE





# About the Cover

*SLELO PRISM— Rob Williams and Brittney Rogers*

In 2020, the SLELO PRISM embarked on a three-phase effort to suppress invasive species and restore those areas to a more native composition, as part of SLELO's new Aquatic Restoration Initiative (ARI). Phase I was to complete an assessment on the aquatic and riparian areas of Sandy Creek, South Sandy Creek and Deer Creek. The results and recommendations of this work directly determined the next two phases. Phase II, completed in 2021, was to suppress target invasive species, including Japanese knotweed and common reed, and to begin the restoration process.

So far during phase II approximately 3.2 acres of riparian Japanese knotweed and common reed were treated at South Sandy Creek and Sandy Creek. Following treatment, many dead stands were mechanically cut and/or removed from the site. This was followed by the first phase of restoration, where re-seeding with native seed has occurred at many of the control sites to include the following species:

- ◇ Virginia wild rye (*Elymus virginicus*)
- ◇ Spotted Joy-Pye weed (*Eutrochium maculatum*)
- ◇ River bulrush (*Scirpus fluvialis*)
- ◇ Fox sedge (*Carex vulpinoidea*)
- ◇ Pennsylvania smartweed (*Persicaria pensylvanica*)
- ◇ Common soft rush (*Juncus effusus*)
- ◇ Dark-green bulrush (*Scirpus atrovirens*)
- ◇ Canada bluejoint grass (*Calamagrostis canadensis*)
- ◇ Fowl manna grass (*Glyceria striata*)
- ◇ Common sneezeweed (*Helenium autumnale*)
- ◇ Green-headed coneflower (*Rudbeckia laciniata*)

Phase III, scheduled to begin this year, will consist of continued management, planting additional native seed in the treatment areas



Stand of Japanese knotweed treated at South Sandy Creek. Photo Credit: Brittney Rogers-SLELO

and beginning a monitoring program to evaluate and measure the effectiveness of this work overtime, based primarily on native species colonization in areas where these invasive species once dominated.

**This multi-year project is designed to alleviate invasive species from the system and to strengthen these riparian areas to their native biology which should increase their resiliency to external stressors such as a changing climate.** More details about the Aquatic Restoration Initiative are available on our [website](#).

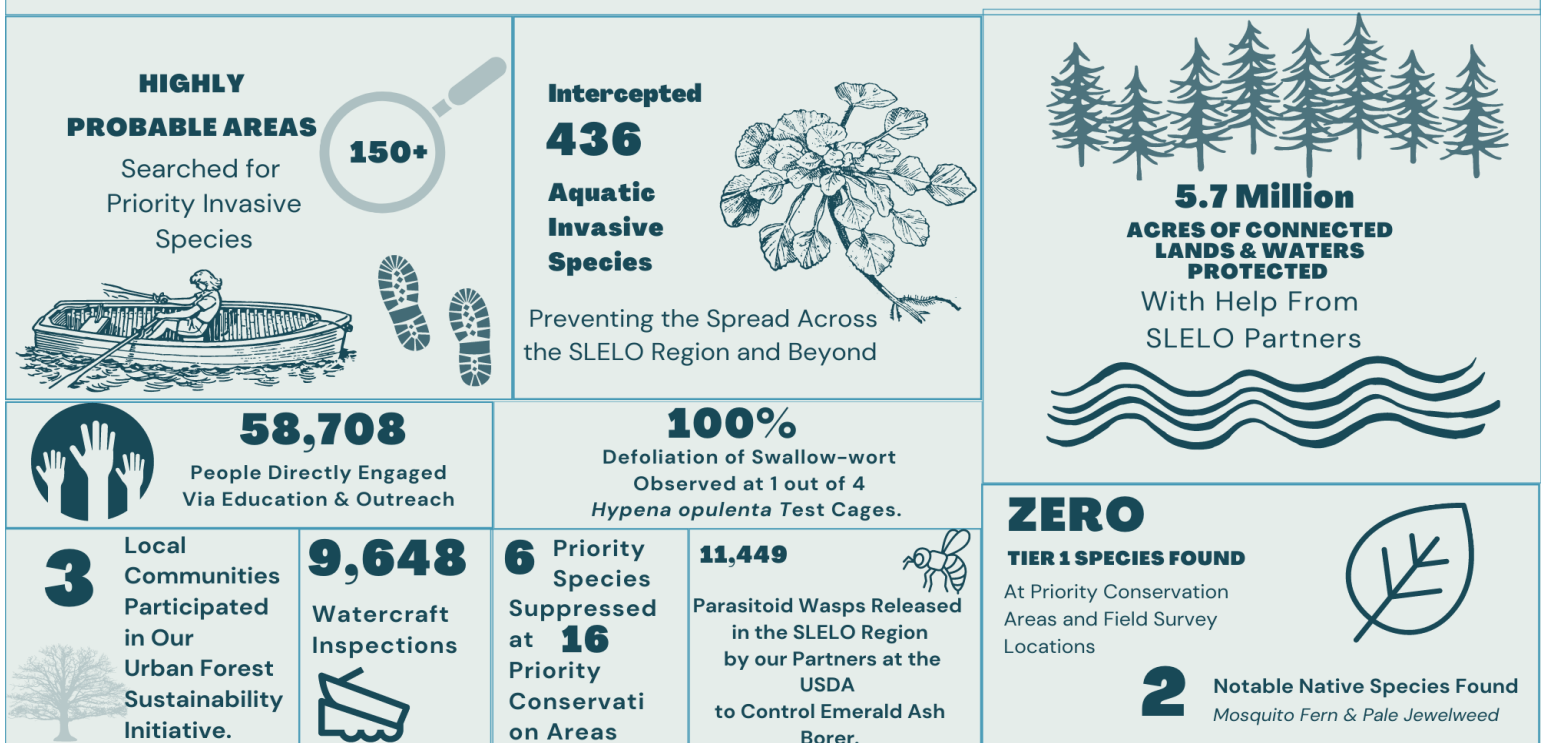
# 2021 Accomplishments

## Rob Williams—SLELO PRISM

Working together, the SLELO PRISM partners have brought many successes in our efforts to protect our lands and waters from the threat of invasive species. The following are a few highlights of strategic accomplishments from our **2021 Annual Report**.

- ♦ Began invasive species suppression and ecological restoration efforts on riparian corridors of Sandy, South Sandy and Deer Creek designed to cool streamside water temperatures and increase resilience to climate changes.
- ♦ Intercepted aquatic invasive species on 436 occasions preventing their spread to and from other North American waterbodies.
- ♦ Prepared a (1st ever) Eastern Lake Ontario Barrier Dunes Invasive Species and Ecological Restoration Management Plan.
- ♦ Successfully launched a Pledge-To-Protect Marketing and Communications Initiative .
- ♦ Liberated approved biological controls for the suppression of swallowwort and emerald ash borer and augmented biodiversity by suppressing 7 invasive species on multiple Priority Conservation Areas.
- ♦ Supported an Urban Forest Sustainability effort promoting native street trees in the communities of Watertown, Massena, Canton and Pulaski.

### 2021 SLELO PRISM GLIMPSE OF ACCOMPLISHMENTS



**INVASIVE SPECIES MANAGEMENT**  
SAINT LAWRENCE  
EASTERN LAKE ONTARIO

"Teaming Up To Stop The Spread of Invasive Species"

[www.sleloinvasives.org](http://www.sleloinvasives.org)



# Collective Conservation Impact

*SLELO PRISM-Rob Williams*

A recent assessment by our PRISM and The Nature Conservancy regarding *connectivity* resulted in metrics that suggest that all the land and water area that our partnership directly manages, results in the total landscape protection of just over 5 million acres.

In the context of prevention, what we do in the core forest of Tug Hill, such as preventing the establishment of a forest pest, along with forest restoration, helps to protect the entire 750,000-acre forest. What we do in the Oswego River and the Erie Canal with aquatic invasive species spread prevention serves to protect the Finger Lakes, the Hudson and Mohawk Rivers, Oneida Lake, and nearly all *connected* waterways.

In addition, our eDNA and watercraft inspection work in the St. Lawrence River, Thousand Islands, and coastal waters serve to protect Lake Ontario and beyond. Our work has a far greater impact than just within our own regional footprint. By protecting and promoting native species we are creating more resilient landscapes. Resilient to changes in climate, stress caused by non-native species, and by human encroachment.

If we combine the work of all eight New York PRISMs, and state partners, we multiply our collective impact even more so. What's needed is a means by which to express our collective work in a meaningful way. For now, it's safe to say that, **“together we *are* making a difference”**.



# Species Spotlight– Marbled Crayfish

Paul Hetzler– Former CCE Educator

Sometime in the 1990s, a mutant crayfish able to conquer and degrade aquatic systems emerged. The marmorkreb, a.k.a. marbled crayfish (*Procambarus virginalis*), is a destructive new species that was first identified in aquariums in Germany. However, their mutation is likely the result of too much inbreeding in captivity, rather than some mad-scientist scheme. They are now here, and your help scouting for them is invaluable.

Marmorkrebs are mid- to large sized, from 10 to 15 cm (4-6 inches). Typically, they are olive to dark brown, but infrequently appear reddish, blue or tan just to throw us off. Also, their claws are narrow, with tinier pincers than those of native crayfish.

Marbled crayfish have a high fecundity, a female can lay around 700 viable eggs at a time without the hassle of finding a mate. All her offspring are females, which soon mature and begin cloning themselves. This talent, known as parthenogenesis, is occasionally seen in insect species but seldom in larger organisms. Being parthenogenic also means that a lone individual can beget her own crustacean kingdom.

They are generalists, thriving in a wide range of habitats from lakes to rivers to marshes and mud puddles. Fast-moving water does not seem to be a problem for them. They're cold-hardy but love the heat, too. Not surprisingly, marmorkrebs eat a host of aquatic life including algae, plants, amphibians, and snails. They burrow into banks, which raises turbidity, releases nutrients from sediments into the water, and accelerates erosion.

Because marbled crayfish are seen as a food source in various regions, they are sometimes deliberately spread, and they are sold on the



US Fish & Wildlife Service. Photo credit: C. Chucholl. Licensed under Creative Commons B-SA 3.0

web and even in some pet stores in the US. While marmorkrebs are known to be widespread here in the pet trade, at the moment there are no reports of wild populations in New York State. This is where public outreach and citizen science come in.

The invaders are dispersed when poorly informed aquarium owners release excess crayfish from their tanks into surface waters, and when anglers use them as bait. To help keep the marbled crayfish from invading natural areas it's important to not use them as bait, and never to dump unused bait or unwanted aquarium pets into waterways.

Report possible sightings of marbled crayfish or other invasive species to [iMapInvasives](https://www.imapinvasives.org), or save a specimen and contact our Aquatic Restoration and Resiliency Coordinator, Brittney Rogers at [Brittney.Rogers@tnc.org](mailto:Brittney.Rogers@tnc.org).

*Paul Hetzler is a former educator with the St. Lawrence County Cornell Cooperative Extension, and SLELO partner. He is known for his humorous writings about nature. Check out more articles about invasive species and nature on his website [Where the Wild Words](http://Where the Wild Words)*



Winter is a great time to start planning for your garden. This year, you can make it a point to support local wildlife while also reducing the spread of invasive plants.

Invasive plants are non-native species that cause harm to the environment or human health. Harm can come in many forms, but one of the biggest impacts invasive plants have is their ability to outcompete and replace native plants. The loss of native plants results in the loss of habitat for native insects and wildlife. This is because native plants have specialized relationships with native insects and wildlife; whereas, invasive plants are not native to the areas they invade, and therefore have not developed these relationships. For example, monarch butterflies need native milkweed to rear their young. Swallow-wort is an invasive plant that often displaces and is confused with native milkweed. Monarch larva laid on invasive swallow-wort doesn't survive which reduces monarch butterfly populations.

Even though native plants are known to benefit native wildlife, due to urbanization and globalization, many plants that are grown in gardens and yards are often not native. Some of those non-native plants may even become invasive. By choosing to grow native rather than exotic non-native plants, you can help protect against the spread of invasive species while also helping other native species like your favorite pollinators.

There are simple actions you can take to protect your yard from invasive species and support native wildlife and pollinators.

- Look around your property, and if you discover invasive plants, the next step is to



## CHOOSE TO GROW NATIVE PLANTS

remove them and replace them with native plants.

- Start by referencing this [Plant Wise Brochure](#) to learn of common invasive garden plants and of native alternatives.
- Check out this [Landowner-Guide-to-Managing-Invasive-Plants](#) to learn some basic management techniques you can apply to control invasives you may find on your property.
- Use this handy [reference list](#) of native flowers, grasses, shrubs, trees, and vines for New York State developed by the NYS DEC.
- Another great tool for garden planning is an online plant look-up by zip code website. It ranks native plants by how many butterfly and moth species use them as hosts. [Use the Native Plant Finder.](#)
- Get recommendations from the Regional Invasive Species and Climate Change Management group for [Climate-smart Plants in the Northeast](#) that you can grow in your own garden!

Take the [Pledge to Protect](#) to get more tips like this sent to your inbox each month!

# Keep an Eye Out for The Spotted Lanternfly

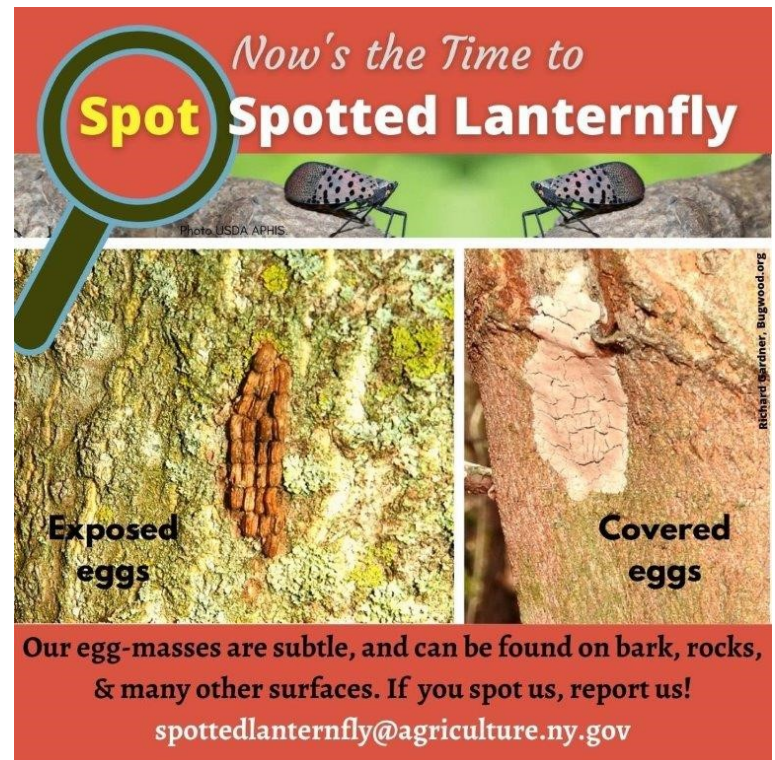
Brian Eshenaur-NYS IPM

Be on the lookout! Unfortunately, spotted lanternfly's range in NYS has expanded over the last year so it's more important than ever to keep a close eye out for this invasive insect.

It can be a nuisance in home and municipal landscapes where large numbers may gather on trees like maple, willow, black walnut and, *Ailanthus* or the tree of heaven.

While feeding, the spotted lanternfly exudes a clear sugary substance called honeydew. Bees and wasps may be found taking advantage of this new source of "nectar". The sweet sticky honeydew coats anything below the insects and in time a thin layer of black fungus called sooty mold can often be found growing on top of the honeydew further adding to the nuisance factor.

Lab studies have shown that cold winter temperatures experienced in the North Country won't kill the dormant eggs masses but in higher elevation locations a shorter growing season may prevent egg-laying of the Spotted Lanternfly. It takes several months of frost-free weather for the spotted lanternfly to hatch from eggs in the spring, develop into adults in the summer, and then lay eggs in the fall. Much of the Adirondacks are unsuitable due to the colder temperatures, especially in the spring and fall. However, areas near Lake Ontario and possibly along the St. Lawrence may be moderating enough for the spotted lanternfly to mature to the egg-laying stage before frost sets in. The micro-climates facilitated by bodies of water also are the choice spots for planting grapes throughout NYS. Unfortunately, of all of the crop plants SLF feeds on grapevines are the most damaged.



Some vineyards in PA have even been killed after the vines were weakened by spotted lanternfly feeding. Strategies can be put in place to manage spotted lanternflies in grape vineyards but early detection is key.

## Think you've found a Spotted Lanternfly?

1. Take pictures of the insect, egg masses, or infestation.
2. If possible, collect the insect and seal it in a plastic bag or jar, and then place it in a freezer, to kill the insect.
3. Note the location (street address and zip code, intersecting roads, landmarks, or GPS coordinates).
4. Email pictures and a location to [spotted-lanternfly@agriculture.ny.gov](mailto:spotted-lanternfly@agriculture.ny.gov)

For more information and the current range of the spotted lanternfly check out the resources at the NYS IPM [spotted lanternfly website](http://www.spottedlanternfly.org).



# Efforts to Combat Spotted Lanternfly in Pennsylvania

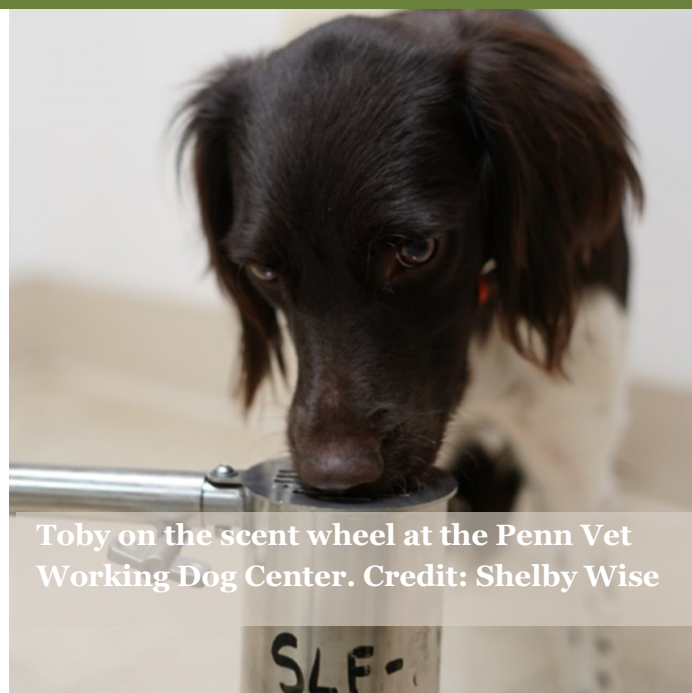
Amy Jewitt, Invasive Species Coordinator

Western Pennsylvania Conservancy/Pennsylvania Natural Heritage Program

The Pennsylvania Governor's Invasive Species Council recently compiled an online [ArcGIS StoryMap](#) highlighting 25 unique stories, each featuring a specific project by an agency, non-governmental organization, or academic institution relating to invasive species research, management, or education and outreach. Three stories in particular spotlight work being done to combat the spotted lanternfly (SLF), a highly destructive invasive insect pest in Pennsylvania, New York, and several surrounding states.

The first of the SLF-related stories discusses the first spotted lanternfly finding in North America by a gentleman named Dan Lynch, an employee of the Pennsylvania Game Commission. His paramount finding in the summer of 2014 came about accidentally at his home in Berks County after he noticed a "strange-looking red and yellow insect" on his garage, later reporting his finding to the Pennsylvania Department of Agriculture. Thankfully, quick action was taken by the Department to visit the site, confirm the species ID, and establish an SLF quarantine zone in southeast Pennsylvania that would later expand substantially across the state, currently comprising 34 counties.

A second story highlights the University of Pennsylvania's Penn Vet Working Dog Center and their efforts to train three special canines; Toby (a small Munsterlander), Pacy (a Labrador retriever), and Grizzly (a German shepherd). Staff at the Center are working with these three dogs by training them to detect the smell of spotted lanternfly egg masses, a useful tool for



future detections of SLF in the field. Dr. Cynthia M. Otto is the principal investigator at the Center leading this important project.

Finally, information from a third story discusses entomological research being conducted by Dr. Julie Urban at The Pennsylvania State University. She and a team of other researchers are working on a four-year grant-funded project to quantify SLF impact on at-risk specialty crops, perform essential research on SLF biology, ecology and behavior, and deliver immediate SLF management solutions to specialty crop stakeholders and the general public. Each article can be accessed in the StoryMap by using the top horizontal navigation pane where abbreviated titles of each story are visible. Look for:

**[PGC \(SLF First Find\)](#)**

**[UPenn \(Canine SLF Detection\)](#)**

**[PSU \(SLF Research\)](#)**



### 2021 Early Detection Field Survey Results

Results of last summer's field season showed the presence of nine of the 10 invasive species that we have seen during previous surveys. Yellow Iris was the only tier invasive species that was not present at any of the six PCAs. Of the 109 HPAs, 82 were found to have one or more tier invasive species. Little John WMA and the Tug Hill ISPZ had the lowest percentages of HPAs with tier invasive species at 57.1% and 61.9% respectively, while Mud Bay had the highest percentage with invasive species found at all HPAs. We found the fewest number of invasive species at French Creek at 2 species and the greatest number of invasive species at Upper & Lower Lakes with 7 species. The field report that includes this information can now be found on the SLELO PRISM [Website](#).

### 2021 Bark & Ambrosia Beetle Survey Results

Last spring, we were asked to assist the DEC in conducting an early detection survey for new arrivals of bark and ambrosia beetle species. We set up three bark and ambrosia beetle traps at Rainbow Shore Preserve. Every two weeks for a period of 12 weeks, we collected and sent all insects found to the DEC for identification. Recently, we received the results of the identification work. From the twelve sites that were surveyed, 16,176 specimens were collected.

72 species were identified from this collection. Of the 72, eighteen were non-native species. All species were previously detected in North America and New York. For just Rainbow Shores, twenty-six species were found, eight of which were non-native. Non-native species did appear to be prevalent in this survey, with six of the top ten species at all twelve sites being non-native. Rainbow Shores, by itself, was only slightly better with five of the top ten species being non-native. The top three, which were all non-native, accounted for most of the beetles found on site (88%). To our knowledge, none of the species found in this survey are of significant concern and we will alert you if a species of concern arrives in the area.

### 2022 Hemlock Woolly Adelgid Surveys

We are currently conducting HWA surveys. This year, we selected 14 sites to survey, and two sites, Altmar and Chateaugay State Forest will be surveyed if time permits. For those who haven't heard, HWA was recently found at Selkirk Shores State Park. We are reacting to this recent find with the addition of surveys directly around this site. These include Deer Creek WMA, Derby Hill Bird Observatory, Sandy Creek State Forest, and Trout Brook State Forest. As usual, we will alert members of the SLELO PRISM community if we find HWA at any of these sites.



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# Aquatic Restoration and Resiliency Initiatives

SLELO PRISM – Brittney Rogers

## 2021 eDNA Sample Analysis Underway

In 2021, 140 samples of water were collected from 14 tributaries across the SLELO PRISM to be analyzed for the presence/absence of eDNA of 13 species, including both native and invasive species.

- Cisco (*Coregonus artedii*)
- Lake whitefish (*Coregonus clupeaformis*)
- Atlantic salmon (*Salmo salar*)
- American eel (*Anguilla rostrata*)
- Black carp (*Mylopharyngodon piceus*)
- Silver carp (*Hypophthalmichthys molitrix*)
- Bighead carp (*Hypophthalmichthys nobilis*)
- Grass carp (*Ctenopharyngodon idella*)
- Northern snakehead (*Channa argus*)
- Tench (*Tinca tinca*)
- Tubenose goby (*Proterorhinus semilunaris*)
- Asian swamp eel (*Monopterus albus*)
- Rusty crayfish (*Orconectes rusticus*)

This project is conducted in collaboration with the TNC Sustainable Fisheries Ecologist and funding from the Arconic Foundation and NYS EPF as administered through the SLELO PRISM contract with NYS DEC. Results are trickling in from SUNY Oswego and we are planning to soon host a webinar to share our experiences and results. We are looking forward to continuing our work with partners, volunteers, and community scientists alike.



Jason Hunter ©

## Underwater Remote Operated Vehicle

During the eDNA project we also initiated use of the new underwater remote operated vehicle to provide us with visualizations of substrate, aquatic macrophytes and even fish. Plans are already underway to continue utilizing this new innovative tool in 2022.



Jason Hunter ©



Jason Hunter ©

For more information on these projects, or any other aquatic invasive species focused project, contact the Aquatic Restoration and Resiliency Coordinator, Brittney Rogers at

**[Brittney.Rogers@tnc.org](mailto:Brittney.Rogers@tnc.org)**

**Learn More About our [eDNA Project](#)**



## Join the iMapInvasives Hemlock Woolly Adelgid Winter Mapping Challenge!

Did you know that winter is the best time to check for Hemlock Woolly Adelgid (HWA)? This tiny insect is a big problem for our forests and water resources in the Northeast (see the [NYS Hemlock Initiative](#) for more info).

### How Can You Help?

From Feb 12 – March 12, [NY iMapInvasives](#) and the [NYS Hemlock Initiative](#) are hosting NY's first statewide *Winter Mapping Challenge*. Join the challenge to help monitor this invasive species and compete to win a prize!

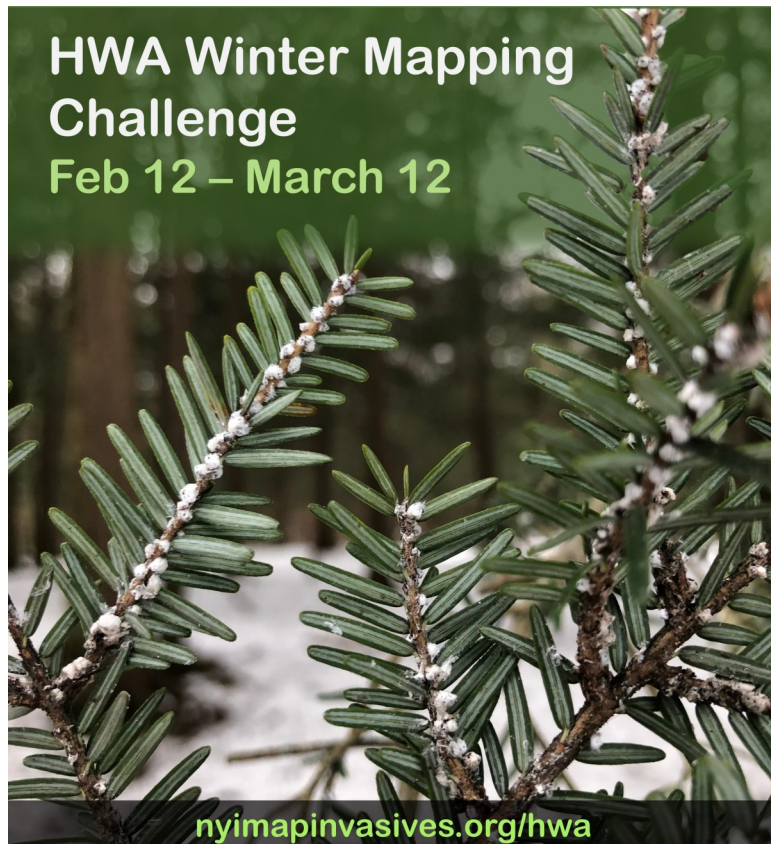
### To participate:

Get outside, find some hemlock trees, check for white “fuzz balls” on the undersides of twigs, and report your findings to NY iMapInvasives – the top-reporters of presence and not-detected records for HWA will win a prize! Visit [www.nyimapinvasives.org/hwa](http://www.nyimapinvasives.org/hwa) to learn more and connect with HWA mapping efforts in your area!

If you live in the St. Lawrence Eastern Lake Ontario region, check out the [#VirtualHikeChallenge](#) and learn of local hiking trails that have hemlocks near the path where you can easily survey for HWA.

### Why report to iMapInvasives?

[iMapInvasives](#) is the official invasives species database for New York State. One of the most powerful components of iMap is the broad spectrum of users – iMap is used by conservation professionals (like PRISM and Agency staff), volunteer community scientists, the general public, and everyone in between.



When you submit a record, it becomes visible to professionals in your area and across the state, who rely on accurate distribution data for their work.

Picture this – you're out hiking on your favorite trail, and you notice strange white fuzz balls on some hemlock twigs. You open your iMapInvasives mobile app, record an observation with a clear photo, and upload it to iMapInvasives. That day, email alerts go out to SLELO PRISM staff and other professionals across the state that allows a response to be planned to help protect the forest in which you've reported your observation.

Outside of reporting observations, iMap data is also used in several analyses, like the [Species Tiers](#) analysis, which categorizes species based on their distributions and helps guide management priorities and goals.



# Upcoming Invasive Species Events and Announcements

## SPECIAL PROJECT WEBINAR SERIES

Zoom Webinar

3.16.22

1PM-2PM EST

Aquatic Restoration Initiative

Presented by:  
SLELO PRISM  
Brittney Rogers



INVASIVE SPECIES  
MANAGEMENT  
SAINT LAWRENCE  
EASTERN LAKE ONTARIO



[CLICK TO REGISTER](#)

## Hike to Protect Hemlocks

Learn to Recognize and Report Hemlock Woolly Adelgid

Guided Walk & Talk Schedule

10:30am -12pm

2/15/22 Salmon River Falls -Altmar, NY (Snowdate 2/16)

2/24/22 Forest Park - Camden, NY (Snowdate 2/25)

3/10/22 Trenton Greenbelt- Holland Patent, NY (Snowdate 3/11)



SLELO PRISM

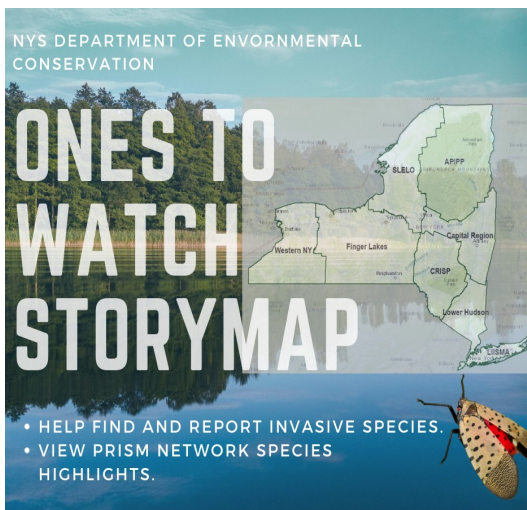
[CLICK TO REGISTER](#)

- [Volunteer Surveillance Network Virtual Training](#)– *schedule a training date.*
- 2/16/22: [Adirondack Forest Pest Hunters Winter 2022 HWA Survey Training Webinar](#)
- 2/23/22 [PRISM Speaker Series Webinar](#)
- 2/28– 3/4 [National Invasive Species Awareness Week \(NISAW\)](#) Flyer for 2/28 webinar.
- 4/7/22 [LIISMA-LINPI Resilient Long Island Virtual Conference](#)
- 4/19/22 [Tug Hill Commission Local Government Conference](#)

## <<Notable Announcements>>



To Host an Event in SLELO,  
Email  
[megan.pistolese@tnc.org](mailto:megan.pistolese@tnc.org)



[View the NYSDEC “Ones to Watch” Story-map.](#)  
*Help Find & Report Invasives*



New York Invasive Species Summit  
RECORDINGS

[Listen to recorded presentations](#)





# Managers' Memo

Managing Invasives for Resilience



Invasive species of plants, animals, insects, and microorganisms are among the most serious threats to the health of our lands and waters. Invasive species are opportunistic and almost always out-compete, damage, or replace native species resulting in serious disruptions in ecosystem processes and balance.

These processes include such things as the interdependency on food and habitat, hydrology, carbon release, nutrient cycling, natural succession, soil erosion, and water quality. Invasive species also cause a significant disruption of biodiversity on our lands and in our waters.

The work of our PRISM and partners has a far greater impact than just within our own regional footprint. By protecting and promoting native species we are creating more resilient landscapes. Resilient to changes in climate, and stress caused by non-native species and human encroachment.

Please take some time to review our most recent Annual Report on our [website](#). In the report, you'll find an overview of our many accomplishments. Kudos to all who have helped with this effort!

## SLELO PRISM Partner List

- ◆ NYS Department of Environmental Conservation
- ◆ The Nature Conservancy in New York
- ◆ Cornell Cooperative Extension Offices
- ◆ NYS Office of Parks, Recreation & Historic Preservation
- ◆ NYS Department of Transportation
- ◆ NY Natural Heritage Program
- ◆ Soil & Water Conservation Districts
- ◆ Fort Drum Military Installation
- ◆ CNY Regional Planning & Development Board
- ◆ NY Power Authority
- ◆ Tug Hill Commission
- ◆ Tug Hill Tomorrow Land Trust
- ◆ Thousand Islands Land Trust
- ◆ Indian River Lakes Conservancy
- ◆ Save The River
- ◆ NY Sea Grant
- ◆ Ducks Unlimited
- ◆ Onondaga Audubon
- ◆ US Coast Guard Auxiliary
- ◆ St. Regis Mohawk Tribe-Environmental Unit
- ◆ Algonquin to Adirondack Collaborative

### Acknowledgements:

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Environmental Conservation  
The NYS Environmental  
Protection Fund

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Articles contributed by SLELO partners



The Nature  
Conservancy



SLELO PRISM  
Host Organization



Department of  
Environmental  
Conservation

Eastern Lake Ontario

Swallow-wort collaborative

