



SLELO PRISM

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

2020 Fall Newsletter

5.7

million acres are
protected as a result
of our invasive
species prevention
efforts.

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About the Cover - Protection at Scale

SLELO-Rob Williams

A recent assessment by our PRISM and The Nature Conservancy regarding “connectivity” resulted in metrics that suggests that the 478 acres that our partnership directly manages results in a total landscape protection of some **5.7 million acres**.

To understand this we must put it into 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, does it not? What we do in the Oswego River and the Erie Canal with aquatic invasive species spread prevention serves to protect the Finger Lakes and nearly all connected waterways. In addition, our eDNA work in the St. Lawrence and Thousand Islands region serves to protect Lake Ontario and inland waters.

On a less scalable level, but no less important, is that our work helps to maintain native and often rare plant and animal species. This past summer our early detection team, Robert Smith and Brittney Rogers, observed two protected terrestrial plant species. One being the twin-leaf (*Jeffersonia diphylla*) found in the Eastern Lake Ontario region, and secondly the green dragon (*Arisaema dracontium*) which was found along the Black River. Our team also observed a rare

Green dragon, *Arisaema dracontium*



fish species currently being reviewed for positive identification

Carrying this work beyond our regional borders requires that we also consider connectivity of our lands and waters. The Blue Ridge to Boreal (B2B) initiative by The Nature Conservancy is based on connected and resilient landscapes. The Blue Ridge to Boreal region stretches almost 2,000 miles along the Appalachian Mountains, across 14 states and three Canadian provinces and includes Tug Hill and the work we do there! Did I mention that protecting our forests can deliver up to 1/3 of carbon emission reductions needed by 2030! (Source TNC). Our waterways are, for the most part, all connected given that the Great Lakes are connected to almost all of New York’s inland waters through the Erie Canal and vice versa.

Our work has far greater impact than just within our own regional footprint. **By protecting and promoting native species we are in fact creating more resilient landscapes.** Resilient to changes in climate, stresses by non-native species and stresses by human encroachment.

Twin-leaf, *Jeffersonia diphylla*



Volunteer Experience

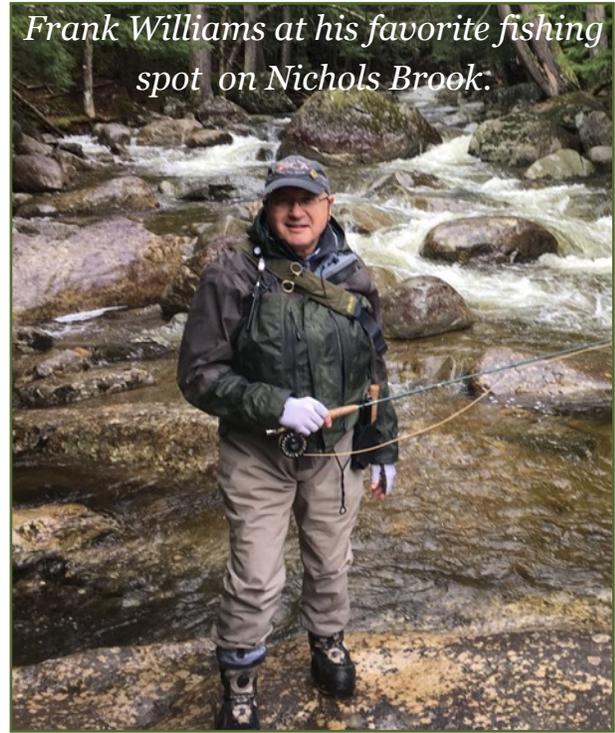
Frank Williams

Volunteering with SLELO has given me a great deal of satisfaction. I've learned how I can protect my favorite fishing and hiking spots from the impacts of invasive species.

I've become a certified iMapInvasives trainer and volunteered to aid multiple workshops and webinars. Volunteering with SLELO and their partners has been a wonderful learning experience for me, and an activity in which everyone should take advantage of.

Surveying for the invasive insect hemlock woolly adelgid, HWA, is one of my favorite volunteer activities with SLELO. I visit beautiful streams, ponds and trails and search hemlock trees for the notorious white woolly masses of HWA. Doing this allows me to do my part to help protect these magnificent trees. I encourage everyone to take part in one or more of the volunteer opportunities with SLELO. You will find it is well worth your time. ~**Frank Williams**

Frank Williams at his favorite fishing spot on Nichols Brook.



Autumn Observations

SLELO-Megan Pistolese

Fall is a good time of year to spot invasive plants. This is especially true for invasive plants like porcelain berry and Oriental bittersweet that grow unique berries in the fall that distinguish them from native varieties.

Porcelain berry has been found in Ogdensburg and Potsdam, NY. There is concern over it spreading to new areas.

Oriental bittersweet has been detected at Upper & Lower Lakes WMA & Lakeview WMA. If you notice plants with berries like the ones pictured below please report the observation via iMapinvasives.org.

[Volunteer with SLELO](#)

[Watch For Inspiration](#)



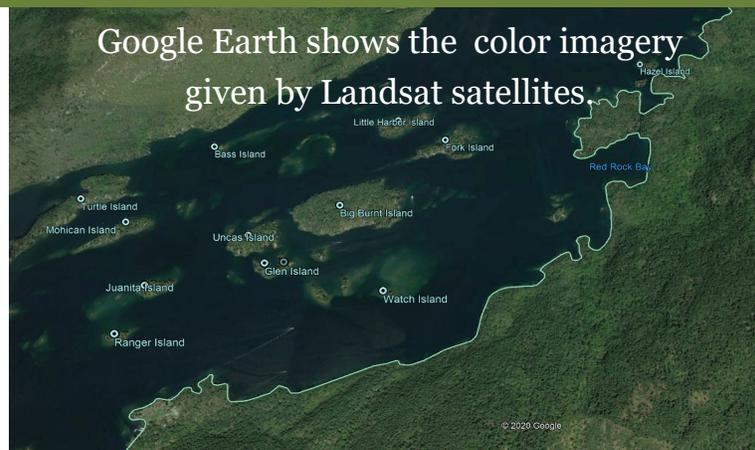
Using Satellites to Spot Hemlock Woolly Adelgid

Zach Simek—APIPP/SLELO

Following the recent discovery of a 250-acre infestation of HWA on the eastern shore of Lake George, a consortium of private and public sector organizations has formed the Save Our Lake George Hemlocks Initiative with the goal of identifying future infestations sooner through satellite-based remote sensing technology and boots on the ground.

A total of \$125,000 is being committed to the pilot project, which is designed for use across the Adirondack Park and potentially, the entire state. Until now, identification of a HWA infestation depended solely on its discovery by someone on the ground who happened to spot the tell-tale signs once they became apparent on a tree: white woolly masses on the underside of branches, gray-tinted needles, and needle loss and branch die-back. While ground verification is essential for confirming adelgid infestations, it is impossible to cover the entire region on foot or by boat.

Using advanced remote sensing technologies and computer modeling, HWA damage can be detected before significant defoliation or tree mortality occurs, allowing for the efficient deployment of rapid-response field crews to confirm infestations and develop treatment plans. Remote sensing satellites not only produce aerial photographic images, but also capture infrared or near-infrared data that can reveal the level of photosynthetic activity taking place within a forest stand. The level of **photosynthetic activity can provide evidence of declining forest health before that decline**



is apparent to the naked eye, making it much easier to direct ground crews to potential infestation sites.

Later this month, the initiative's experts will begin reviewing five years of remote sensing imagery and data for an approximately 4,400 square mile region, extending from the northern portion of the Lake George Watershed south to Troy in Rensselaer County, which, prior to the Lake George infestations, was the northernmost point of established HWA populations in New York State. A time-series model will be created from satellite imagery to identify hemlock stands showing signs of health decline. On-the-ground inspections will be conducted at more than 150 stands to determine if the decline is resulting from adelgid-related damage.

In the meantime, while the remote sensing data is being gathered and modeled, initiative partners are conducting on-the-ground surveys to further assess the extent of the immediate threat. Survey teams will examine more than one hundred ecologically and hydrologically significant sites in the Lake George watershed through this pilot project that will extend into early spring of 2021.

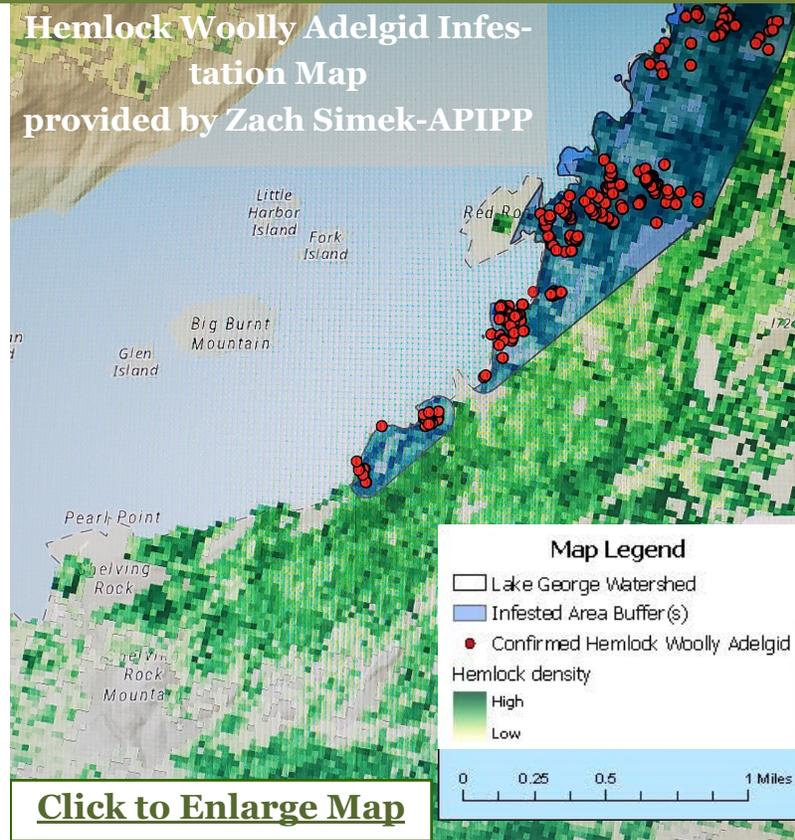
Prepare for Hemlock Woolly Adelgid

Carrie Marschner –Cornell Hemlock Initiative

The rapid response to the recent confirmed presence of HWA at Lake George was made possible due to the years of planning by APIPP, DEC, NY-SHI, and other partners. Starting in 2015, APIPP, DEC, and NYSHI were working with the Adirondack Park Agency, and other stakeholders to plan for management of this forest pest once it arrived. This work enabled stakeholders to coordinate quickly to begin treatment. In the SLELO PRISM, similar work has been underway. Hemlock stands are being identified in the region and monitored for health and signs of HWA by the SLELO Early Detection Team and volunteers.

Although all hemlocks have ecological value, it is impossible to save them all. Having a hemlock conservation plan before your hemlocks are infested with HWA will allow you to put your resources towards protection of your most important hemlocks. The NYS Hemlock Initiative has developed a [Hemlock Prioritization Tool](#) that assists land managers and landowners with this process in addition to [treatment information](#), and [citizen science opportunities](#).

It is also important to consider that the Lake George HWA infestation was first identified by a camper from downstate, who had recognized the signs of infestation at the Glen Island Campground while camping and reported it via iMap. This report then triggered a response from the DEC and led to the rapid response control effort now undergoing in the Adirondacks. Without that citizen scientist participation, the HWA infestation may have continued to be unrecognized. This is a great example of the power of community science. So be sure to keep an eye out for hemlock woolly adelgid this season and report suspicious observations to [iMapInvasives.org](#).



If you are hiking, or boating near a shoreline with hemlock trees,
**PLEASE CHECK BRANCHES FOR
WHITE WOOLLY MASSES.**



2020 Early Detection Work

SLELO-Brittney Rogers

As seasons change, people often feel inspired to initiate change. Change is important, it keeps us in the present and moving forward. So, what better time to share the changes that we have made in our field work than as fall settles across our landscape and the hustle and bustle of the warmer field season slowly comes to an end.

This was the first field season that SLELO PRISM had two full time professional staff on for the entire season. This is an important change because field work can occur from spring through autumn and, in the case of HWA, can occur through the winter months. This has been a tremendous increase in the total length of the field season. If any partners or volunteers are interested in assisting with field surveys, contact Megan to learn more about our [Volunteer Surveillance Network](#).

Our methods of data collection have changed tremendously this year. This includes the use of electronic devices, specifically Samsung Tablets and a Garmin, and no more pencil and paper. We worked with our partners at the NY Natural Heritage Program, the iMapInvasives team, to utilize multiple applications to include iMMA (iMapInvasives Mobile Advanced) and SASPro (Simple Aquatic Surveys for Professionals). This has allowed our data to be more uniform across our sites and standardized across the state as many organizations are using these same tools. Best of all, **the invasive species information we are collecting is automatically cross walked into iMapInvasives** saving both SLELO and the iMap team time on working on bulk uploads. This is important because you can access the data on iMapInvasives at any time!

*Brittney Rogers and Robert Smith
at Lakeview WMA*



With limited resources, we aren't able to respond to and manage every invasive species we find in our region. The SLELO PRISM and partners have worked together to identify the lands and waters that are of the highest priority for surveys and management, known as our **Priority Conservation Areas**. We have recently transitioned to using the Tiered Species Lists which helps us understand the density and distribution of invasives in our region, and of course, what we are working hard to prevent from spreading here. As we continue to expand and improve our field survey efforts, we can look more closely at our management sites and ensure that we are controlling species populations in the areas that need the most attention.

While reflecting on the changes that we have made to improve the program, by collecting more data, reviewing our management sites, and honing in on the natives we need to protect across our region and NY we know it wouldn't be possible without our partnerships and constant collaboration to make these things possible. So with that, we'd like to say thank you to all who have a positive impact on our program!

Tiered Species Showcase

SLELO-Megan Pistolese

As mentioned, SLELO has developed a Tiered Species List that is aimed to help better strategize management of invasive species in our region. The system categorizes species by known presence and feasible management approach's: prevention, eradication, suppression localized control, and monitoring.

Tier 1 species are not known to be present within the region but are within a 100 mile radius or a pathway exists for their introduction. Hemlock woolly adelgid and spotted lanternfly are examples of Tier 1 species. For these species, prevention is the best management strategy to implement. SLELO's early detection team, Robert Smith and Brittney Rogers put Tier 1 species in the forefront of their surveillance efforts. SLELO has also recruited and trained volunteers to recognize and report priority prevention species within this Tier through our Volunteer Surveillance Network.

Tier 2 species are known to be present in the SLELO region, but at low abundance. Eradication is the management strategy in place for these

species within Priority Conservation Areas when feasible. Giant hogweed and fanwort are examples of Tier 2 species.

Tier 3 species are considered to be too widespread for eradication although, some areas remain unaffected. Infestations found within PCAs are targeted and populations are suppressed through targeted control efforts like hand pull removals of water chestnut or spot treatments of swallow-wort.

Tier 4 species are also considered to be too widespread for eradication. High priority resources, like rare plant or recreation assets are protected through localized (landowner) management strategies. Purple loosestrife and wild parsnip are examples of species within this tier.

Tier 5 species are species that require more knowledge to learn of their impacts and distribution.

Utilizing this tiered approach allows us to better strategize our management efforts and target outreach initiatives.



Spotted Lanternfly



Porcelainberry



Emerald Ash Borer



Tench

Tier 1 Species

Recently detected on Staten Island NY

Tier 2 Species

Found in Ogdensburg & Potsdam, NY.

Tier 4 Species

Presence known in 4 SLELO counties. Recently detected in ADK.

Tier 5 Species

Recently detected in the St. Lawrence River

As we wrapped up this year's watercraft inspection steward program, I realized there was a lot to reflect on. First, we expanded our program to reach every corner (literally) of our PRISM and it was a huge success. Our stewards were stationed at nearly 30 launches around the region stretching from Massena to Oswego and Rome. This was a substantial change from the past where we were only able to cover four launches and we are very excited to continue improving next year.

Unfortunately, similar to many, COVID-19 changed the way our program would have traditionally operated. Our stewards were deemed essential by the NYS Governor and they worked hard to keep us up to date on their health, safety and any potential concerns related to the pandemic. A special thank you to the NYSDEC, who provided PPE and support to keep our stewards safe during this uncertain time. Although this year was unique for everybody, especially as the pandemic surged throughout the summer, people looked to the water for a way to escape into nature. Many locals enjoyed the bountiful opportunities of excellent boating, fishing or general aquatic recreation the St. Lawrence Eastern Lake Ontario region has to offer, and the stewards still met visitors from all over the world. The program wrapped up on October 4th and we are currently analyzing data and planning for the 2021 season.

Preliminary results show over 10,000 inspections were conducted reaching nearly 30,000 people. The most powerful result is that the stewards conducted nearly 3,000 inspections on boats where over 7,000 people had never encountered a steward before.

The stewards found nearly 1,000 boats transporting aquatic invasive species and were able to successfully remove those specimen— aiding in the protection of connected waterbodies beyond our region.

Special thanks to our partners at the Thousand Islands Land Trust (TILT) as co-administers of this years effort.

More details about the 2020 program will be shared through a final report on our [website](#) in the coming months. If you are interested in learning more about developing a program or onboarding a steward within your organization, please reach out to Brittney.

2020 Watercraft Inspection
Steward Program

Over 10,000 Inspections

1,000 interceptions

Reached nearly 30,000 people

© TILT Alaina Young

The graphic features a background image of a person in a blue safety vest inspecting a boat on a trailer. The text is overlaid on the image, with icons for a checkmark, a crossed-out circle, and a group of people.

Partner Spotlight

Peter Zimmer-OPRHP

Part of the mission statement of the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) is “to be responsible stewards of our valuable natural, historic and cultural resources”. An important component of responsible stewardship is the long-term control of unwanted pests within State Parks and Historic sites. This year, in an effort to accomplish this task, NYS OPRHP designated funding for Invasive Species Technicians to be employed in each of the 11 OPRHP regions across the state. The technicians in the Thousand Islands have been hard at work surveying, mapping, and removing invasive species throughout the entire region.

One invasive species project that has been ongoing deals with the removal of woody invasive species at the Sackets Harbor Battlefield State Historic Site. This project involves the manual removal of invasive buckthorn and bush honeysuckle species. Buckthorn control is achieved by cutting each shrub and securing a thick, black plastic bag over each stump. These “Buckthorn Baggies” are specifically designed to smother the stumps of buckthorn, preventing re-sprouting and effectively killing the roots of the plant all without using a drop of herbicide. This year, Parks’ environmental staff deployed nearly 800 of these bags on buckthorn stumps just at the Battlefield site alone.

Another ongoing invasive species removal project in the Thousand Islands region has been a milfoil removal effort at Higley Flow State Park. Each year, the water level of the Raquette River is lowered dramatically for a few days for a number of reasons. In recent years, Parks



stewardship staff, along with volunteers and the Town of Colton, have taken advantage of this event by removing invasive milfoil species that have been impacting water resources surrounding the park. This year, ahead of this event, IS techs aboard canoes employed specialized sonar tracking equipment that simultaneously maps topography, percent vegetation biovolume, and bottom hardness of a water body. This survey effort helped stewardship staff to focus removal efforts during the draw-down.

During the draw-down, NYS Parks IS techs, trail stewards, and Student Conservation Association members removed approximately 15.7 acres of Eurasian watermilfoil and variable-leaf watermilfoil. Staff focused primarily on outlier populations to slow the spread of this invasive plant throughout the entire water body. However, a large patch that is believed to serve as a source population for these smaller populations still requires attention. A much larger volunteer effort would likely be needed in order for successful control to occur.

Releases of Swallow-wort Biocontrol Agent

By: Audrey Bowe, Project Coordinator, New York Invasive Species Research Institute

Since the approval of the leaf-feeding moth *Hypena opulenta* as a biocontrol agent for swallow-wort in 2017, the New York Invasive Species Research Institute (NYISRI) has been coordinating efforts to advance research and implementation of this new management option. These efforts have taken the form of two working groups: the Swallow-wort Biocontrol Research Collaborative and the Swallow-wort Biocontrol Outreach Group. Both groups conducted releases of *H. opulenta* in New York State this summer.

The Swallow-wort Biocontrol Research Collaborative is made up of researchers from SUNY ESF, Wells College, SUNY Cortland, USDA ARS, and NYISRI staff, and members have been working on projects including developing mass rearing techniques for *H. opulenta*, studying its establishment and impact on swallow-wort in the field, as well as monitoring native vegetation before and after *H. opulenta* releases to determine whether this agent will improve conditions for native species.

In 2020, the group conducted releases of *H. opulenta* at 10 research sites in Central New York. In mid-June, 30 male and 30 female adult moths were released into establishment cages at each site. In visits made in the weeks after release the researchers observed *H. opulenta* larvae defoliating swallow-wort inside cages entirely or almost entirely for 8/10 sites, with modest defoliation in cages at 2/10 sites. Once plants in cages were defoliated, cages were removed, liberating moths and larvae to spread freely in the field.

This was a pilot year for the Swallow-wort Biocontrol Outreach Group, and we established 4 demonstration sites across the state: 2 in the Thousand Islands Region, with the help of SLELO



PRISM, 1 near Buffalo, and 1 in the Finger Lakes Region at the Ganondagan State Historic Site. At each of these sites, the group worked with partners to test protocols developed to monitor vegetation and assess establishment *H. opulenta*. Initial pre-release vegetation monitoring was done in June and *H. opulenta* pupae were released into establishment cages in July. Cages were visited weekly from July to September, and monitors saw moths emerge at 3/4 sites, however larvae establishment and significant swallow-wort defoliation was observed at only 1 out of 4 sites.

One site located in Henderson NY overseen by SLELO and USDA, saw great success with adult emergence, egg laying and larval development. Better yet is that researchers observed nearly **100% swallowwort defoliation** within the cages within a four-week period.

While this year's establishment of *H. opulenta* in the field is heartening, there are still open questions on its ability to overwinter successfully, and whether it can effectively reduce swallow-wort populations. Both groups are excited to pursue answers to these questions, and are in the process of planning for additional releases, experiments, and continued monitoring in 2021.

Taking Back the Fort From Invasive Knotweed

By: Dallas Robinson- Fort La Presentation Association

Since the acquisition of the property, that at one time was the location of Fort De La Presentation, volunteers from the Fort La Presentation Association, in conjunction with others, have worked hard to improve the landscape and provide a green-space which was not only pleasing to the eye but was also a venue for the preservation of the historical property.



Fort De La Presentation is located in Ogdensburg, NY where the Oswegatchie and St. Lawrence rivers meet. The fort was established in 1749 through a French and Iroquois alliance and brought American, Canadian, Native American, French and British cultures together.

The Fort Association, with its volunteers, have removed debris, planted native trees, developed walking trails and planted a War of 1812 Peace Garden. Our goal now is to remove invasive

plants species from our property and restore native vegetation. First on our removal list, is Japanese knotweed.

We have worked hard to eliminate the plant by means of mowing down and digging the plant up and removing the roots with limited effect. Having this weed on our property decreases the opportunity to reclaim additional portions of our property. Without this reclamation we are restricted from replanting species of grasses which were native to the area.

Earlier this summer Tim Cryderman, Board Member and volunteer, was working at the property when he noticed visitors were having their lunch and enjoying the river view. Since we like to interact with the public whenever possible to get feedback about the property, Tim approached them and introduced himself. One of the visitors was Emily Sheridan with the DEC. As they talked about maintaining the property, the conversation led to discussing the invasive species and Japanese knotweed specifically. She introduced the SLELO PRISM to Mr. Cryderman, and grant opportunities available for invasive species management projects. Emily was invited to attend a Fort La Presentation Board meeting to explain the programs to the other members.

A plan to control the Japanese knotweed at the Fort is in the process of being finalized. We give thanks to all who made this process possible.

Upcoming Invasive Species Events and Announcements



Calling All Hikers

Webinar
10.29.20
1pm-2pm
EST

PROTECT YOUR
Hemlocks

[REGISTER](#)



Virtual
HIKE
CHALLENGE

Take a Hike Check a Hemlock Share a Photo

November - March

[Learn More](#)

October 15th—November 19th on Thursdays [Monthly Webinar Series, Mentor Marsh: History, Tragedy, Recovery](#)
from 2pm-3pm [Fall Webinar Series](#)

Wednesday, October 21st, 10am:
[Gypsy Moth Eggmass Survey Training](#)

Wednesday, October 28th, 10am-2pm:[NAISMA North American Weed Biocontrol Summit](#)

Wednesday, October 28th, 11am-12pm:
[Assessing the Risk of Invasive Introductions at Trailheads](#)

Wednesday, October 28th, 11am-12pm:
Invasive Mussel Collaborative, [Using Boater Data to Inform Risk Models](#)

Thursday, October 29th 11am-12pm: Inter-agency Ecological Restoration Quality Committee

Thursday, November 5th, @ 1:30:
[Utilizing Technology to Understand the Effectiveness of Outreach Initiatives](#) during the [Upper Midwest Invasive Species Virtual Conference](#)

Friday, November 6th 1pm-2pm: [Tools, Tips & Tricks to Enhance Invasive Species Education & Outreach During a Time of Social Distancing](#) during the [Cornell Agriculture, Food & Environmental Systems In-service](#)

November 19th 1pm-2pm [What We're Protecting](#) *a webinar showcasing the unique ecological rarities that make the SLELO region species, and the work we do to protect them.*

Social Media Toolbox

Premade invasive species posts for social media

[OPEN](#)



iMapInvasives

[New Survey 123 Tool](#)

NATURALLY



SPEAKING

[A Nature Up North Podcast](#)



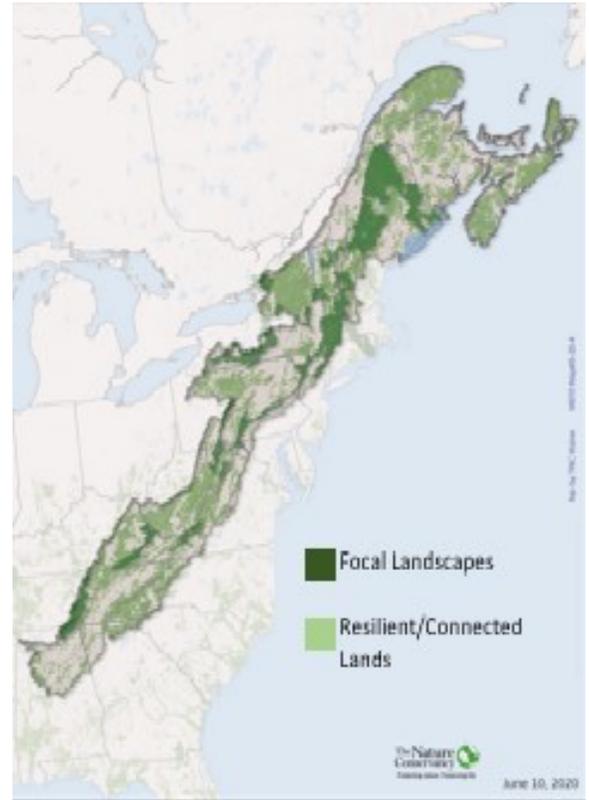
Managers' Memo

Protecting Our Lands & Waters



Our partners at The Nature Conservancy (and host organization for the PRISM) are involved with an initiative known as the Blue Ridge to Boreal or B2B, mentioned in our cover story. The Blue Ridge to Boreal vision is to conserve this resilient and connected continental-scale landscape before it is too late.

By protecting, restoring and managing these lands (including forest pest prevention), we can safeguard the rich biodiversity of the region and tackle climate change by enhancing forests' ability to absorb and store carbon. I am happy to say that SLELO's invasive forest pest work is linked into this vision along with our restoration work on Tug Hill.



~Rob Williams

SLELO PRISM Partners

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

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Articles contributed by SLELO partners



SLELO PRISM
Host Organization



Department of Environmental Conservation

Eastern Lake Ontario
Swallow-wort collaborative

