SLELO PRISM

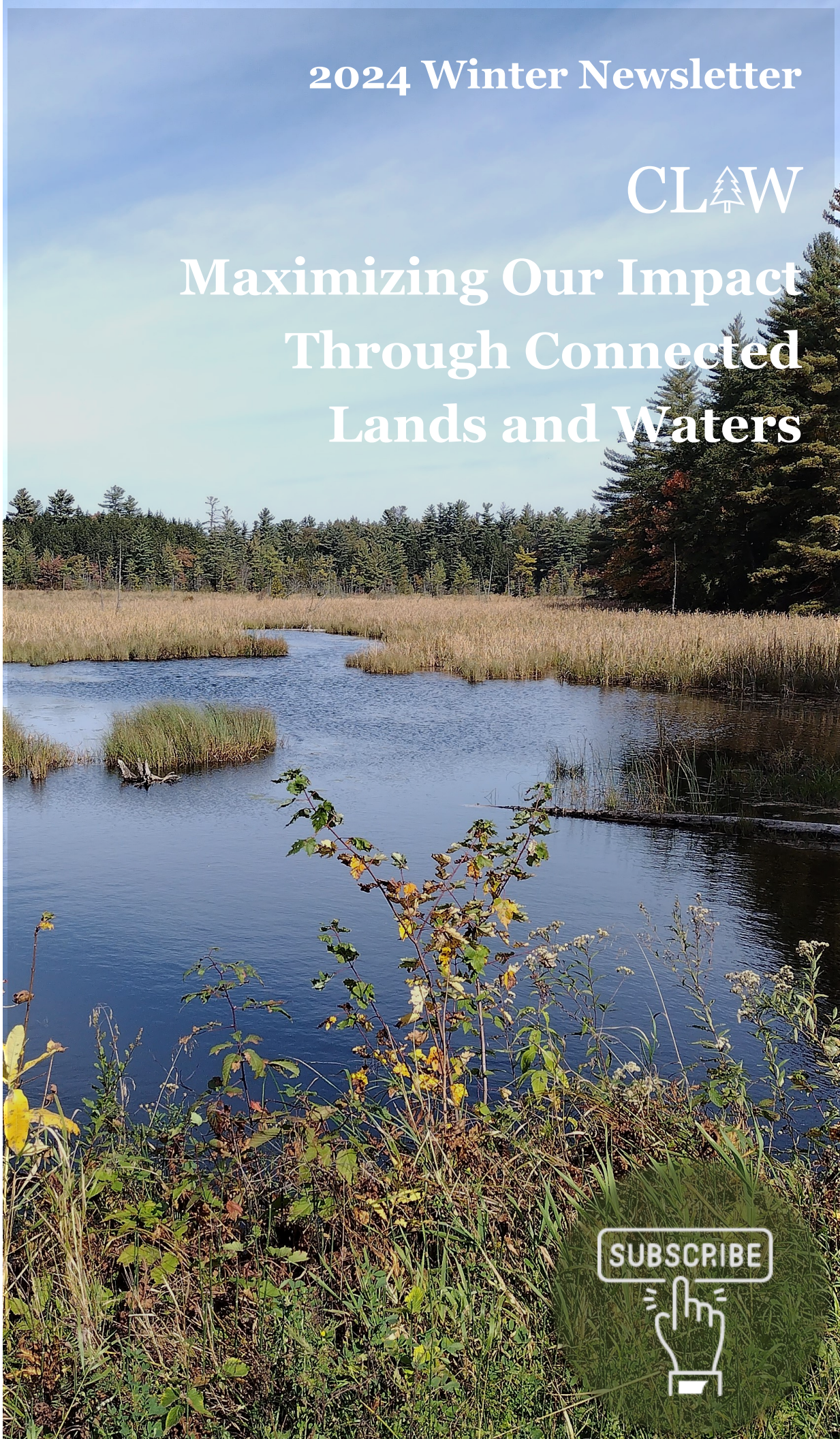
St. Lawrence Eastern Lake Ontario Partnership for Invasive Species Management

"Teaming Up to Stop the Spread of Invasive Species"

2024 Winter Newsletter

CLAW

Maximizing Our Impact Through Connected Lands and Waters



About the Cover: CLAW-Connected Lands and Waters Initiative

SLELO PRISM– Rob Williams & Megan Pistolese-Shaw with contributions from Alisa Trudell

Climate change is expected to alter species distributions, modify ecological processes, and exacerbate environmental degradation (**Pachauri & Reisinger 2007**). To offset these effects, we need a way to set priorities that will conserve biological diversity and maintain ecological functions, despite climate-driven changes in community species composition (**Pressey et al. 2007**). Our partners at The Nature Conservancy (TNC), and their team of scientists have identified a network of **Resilient and Connected Landscapes** that if protected will enhance the resiliency of these habitats against climate change and other external stressors. SLELO PRISM is applying concepts from this research to form a new approach to our work that focuses efforts within resilient Connected Lands and Waters (CLAW) which consist of wildlife corridors and large-scale connected land and waterscapes that run through our region.

Greenwood Creek State Park in the A2A Corridor ©TNC/SLELO

Wildlife corridors are tracts of land that serve as a connection between fragmented habitats. They offer safe passage for wildlife to access different vital resources such as food, water, potential mates, and the ability to adapt to climate change. They also serve as carbon sinks due to their dense vegetation and minimally disturbed forests. The Algonquin to Adirondack corridor (A2A) spans from Algonquin Park in Canada, through the Frontenac Arch which crosses the SLELO region through the St. Lawrence River and surrounding lands to the Adirondack Park in New York. The A2A is considered to be one of the last remaining wildlife corridors in the Great Lakes-St. Lawrence region, and is one of the last of its kind in the Eastern United States. Through the preservation and restoration of natural habitat, this corridor can maintain its connectivity. Large-scale connected lands like the Blue Ridge to Boreal region spans across the Appalachian Mountains, 14 states, and three Canadian provinces, and covers almost 2,000 miles including areas within the SLELO PRISM region. This area holds more than half of the eastern United States's carbon stocks and has great potential for carbon sequestration and offsetting climate change if more sustainable management practices are used and this area gains more protection (**Scarlett & Hurst, 2020**).

To protect these wildlife corridors and large-scale connected lands and waters, we will enhance early detection, management, and restoration efforts within these areas throughout our next five- year contract. To kick off this initiative, 2024 will focus on early detection and strategic planning. In the fall of 2023, our early detection team conducted five field surveys in the A2A corridor region. This information will be used to strategize management and restoration efforts moving forward. In addition, limited special project funding may be available to partners who are interested in aiding management and restoration work focused in CLAW areas. You can learn more about the CLAW initiative on our **website**, and reach out to **team SLELO** for more details.

Protector's Activity

SLELO PRISM-Megan Pistolese-Shaw

There are many fun activities that you can enjoy this winter season like snowshoeing, cross-country skiing, ice fishing, and much more! While you're spending time outdoors this winter there are some simple actions you can take to protect your favorite hiking trails, forests, and waterways from invasive species.

While snowshoeing, cross-country skiing or winter hiking keep an eye out for hemlock woolly adelgid an invasive forest pest that kills hemlock trees. Hemlocks are an important tree species that provide many eco-services for both nature and people. HWA is known to be present in NYS. In the St. Lawrence Eastern Lake Ontario region, HWA is confirmed present in Oswego County and is thought to be spreading along the Eastern Lake Ontario shoreline.

To assist early detection efforts for HWA, you can get involved in our Virtual Hike Challenge to learn how to survey for HWA, find suggested survey trails, and win prizes (**sign up here**)! You can also **join guided** hikes to get in-person training on how to survey for HWA. Be sure to report all observations to NYiMapInvasives, including when you don't find signs of HWA as they help us learn where folks have looked so we can strategize our survey efforts.

Even in the winter, anglers should still be aware of the potential pathways in which invasive species could be introduced or spread. Ice fishing typically requires specific equipment and preferred forms of bait. Invasive species like spiny waterflea can get tangled on your fishing gear and be introduced to new areas if the gear isn't cleaned before use. Uncertified baitfish have the potential to carry **Viral Hemorrhagic Septicemia** (VHS), an invasive fish pathogen that causes the tissue and organs of infected fish to hemorrhage and can lead to fish mortality. Anglers should be aware of their county-specific regulations regarding baitfish use to ensure the health of native fish.

In addition, to following bait regulations, ice anglers should keep an eye out for invasive fish and report sightings. Invasive fish like tench and northern snakehead disrupt the aquatic food web and can outcompete native fish resulting in negative impacts on the fishing industry. To keep from introducing an invasive species, anglers should avoid dumping bait or transporting fish to a new water body. Relocating fish is illegal in New York without a DEC fish stocking permit and you could accidently introduce VHS. If you think you have caught an invasive fish, do not release it and put it on ice, and report the observation including good clear photos to NyiMapInvasives. You can also report invasive fish observations your regional NYS DEC Fisheries Unit.

View the full Pledge to Protect blog for more information on this topic.

Strengthening Conservation Impacts

By: Rob Williams, PRISM Director

In support of and to strengthen conservation outcomes of the NYS DEC's Comprehensive Invasive Species Management Plan, the SLELO PRISM's strategic approach addresses invasive species issues by aligning with key strategies. This includes an integrated approach to protecting, enhancing, and preserving lands and waters in the Eastern Lake Ontario region that leverages science, innovation, and a proven track record of success. To meet our objectives, we consider the following when developing and scoping programs and projects.

Natural Climate Solutions via Green Infrastructure: By implementing ecological-restoration measures post-invasive species management, we foster biological diversity and ecosystem site stability which play a key role in sustaining healthy stable natural areas e.g., climate-ready green infrastructure.

Carbon Sequestration: Maintaining the carbon sequestration potential of places like Tug Hill by reducing the threat from invasive species is an important strategy for success. A recent study showed forest plots damaged by insect pests stored 69% less carbon than less disturbed plots and plots recently impacted by disease stored about 28% less carbon (Quirion et al 2021). SLELO's efforts to slow the spread of forest pests and pathogens is a key strategy for sequestering carbon in regional forests.

Conservation of Connected Lands and Waters: Incorporated into the work of the SLELO PRISM is a resilient and connected lands approach that allows us to maximize conservation impact at scale and the ability of natural systems to sustain themselves in the realm of climate change. The combined work of the SLELO PRISM and multiple partners across the region continues to minimize the impact of invasive species on 7.4 million acres of NY's resilient and connected lands, waters, and wetlands that are at risk.

Recover Ecosystem Resilience and Promote Biodiversity: Implementing effective management on public and private lands to improve the resilience and health of terrestrial and aquatic systems is paramount to maintaining healthy lands and waters. In the Eastern Lake Ontario and St. Lawrence Region, SLELO partners are helping to prevent new infestations of invasive species and are restoring invaded lands to natural conditions. This success directly contributes to "managing for resilience" goals shared by our partner organization, TNC, and to the conservation benefits desired under the NYS Invasive Species Comprehensive Management Plan.

Combined, these attributes in the context of a changing climate, serve to strengthen our conservation outcomes and biodiversity in our region.

2023 Early Detection Field Surveys:

Results of last summer's field season showed the presence of eight of the 9 invasive species that we have seen during previous surveys. Giant Hogweed was the only tier invasive species not present at these seven Priority Conservation Areas (PCA). Of the 100 Highly Probable Areas (HPA) that we visited, the most common species found was honeysuckle, which was found at 33 sites. Common buckthorn and pale swallowwort were the second and third most common, found at 28 and 21 HPAs respectively. Lesser numbers were found of other species such as purple Loosestrife at 14 HPAs, invasive knotweed and phragmites, both at 11 HPAs, invasive bittersweet at 8 HPAs, glossy buckthorn at 4 HPAs, and yellow iris at 2 HPAs. The fewest number of tier invasive species was found at Ontario Bay Initiative (OBI)/Three Mile Creek Preserve with 1, which was pale swallowwort, while the largest number of tier invasive species found was at Upper and Lower Lakes WMA with 7 species. The field report that includes this information should be available soon on the SLELO PRISM Website.


Tug Hill ISPZ


Camp Zerbe

2024 Hemlock Woolly Adelgid Surveys

HWA surveys started in January. There are a total of 18 sites that will be surveyed, 5 of which are led by Megan Pistolese-Shaw with volunteers and serve as a community learning opportunity.

Most of these sites are just outside the areas of known HWA infestation. Partners will be notified if HWA is detected during the surveys. Below is the list of HWA survey sites.

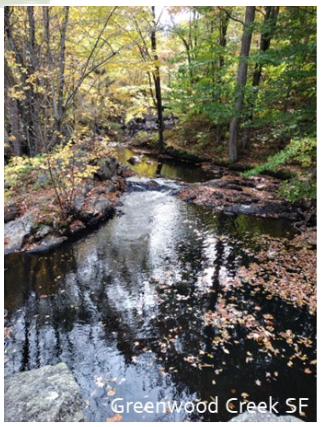
- Altmar SF
- Camp Zerbe
- Deer Creek WMA
- Derby Hill Bird Observatory
- Jadwin SF
- Happy Valley WMA
- Jackson Hill SF
- Lake Julia Preserve
- Little John WMA
- Rainbow Shores Preserve
- Sandy Creek SF
- Three Mile Bay WMA
- Winona SF

Volunteer-led Surveys:

- Whetstone Gulf SP
- Salmon River Falls
- Trenton Greenbelt trails
- Forest Park-Camden
- Great Bear Recreation Area

Recon Surveys for Connected Lands and Water (CLAW) Initiative:

In preparation for CLAW in our new contract for 2024-2028, we surveyed 5 state forests (SF) along the Algonquin to Adirondacks (A2A) corridor last year. These were Beaver Creek SF, Cold Spring Brook SF, Greenwood Creek SF, Trout Lake SF, and Wolf Lake SF. A total of four different tier invasive species were found at the state forests, including, swallowwort, phragmites, common buckthorn, and honeysuckle. Out of all the sites, Wolf Lake SF had the most tier species, while we didn't find any tier invasive species at Cold Spring Brook SF. These surveys were limited in area covered but do give us an idea of the need for further surveys and management of invasive species in this corridor.


Greenwood Creek SF


Wolf Lake SF

Aquatic Restoration and Resiliency Initiatives

SLELO PRISM – Brittney Rogers

Our 2023 Watercraft Inspection Steward Program co-administered with TILT, concluded on October 28, and was yet another successful season engaging the public about AIS issues. This year stewards conducted inspections on over 10,800 vessels and intercepted 1,452 while educating nearly 25,000 people on the importance of Clean-Drain-Dry practices to prevent or slow the spread of AIS. View the final report and launch profiles on our **website**.

Over the past four years, SLELO PRISM WISP staff were able to conduct over 41,600 watercraft inspections, where they intercepted over 4,320 AIS on boating and fishing equipment. Our stewards also interacted with over 100,000 visitors! While looking ahead to the next 5 years, we will not be hosting the program any longer, we are excited to collaborate with the new WISP team and look forward to seeing all they can do to further expand and enhance this important program.

In the summer of 2023, we surveyed 9 aquatic PCAs, and although we detected Tier 3 and 4 species at these sites, no Tier 1-2 species were detected! Field reports for the 2023 field season will be available on our **website**.

With our next 5-year contract we are excited to "shake things up" a bit and will be adjusting our current survey efforts and adding multiple new sites focused on our new **Connected Lands and Waters Initiative**. Through this initiative, we're looking for new sites in CLAW areas for medium-large scale restoration work to occur in 2025-2026. Visit our website for more information on our **past restoration efforts**, and reach out to **team SLELO** to get more details.

Kicking off 2024, Brittney presented at the Northeast Aquatic Plant Management Society's Annual Conference, and Save the River's Annual Winter Conference to over 300 people, to share the aquatic and riparian work happening across SLELO PRISM!

We hope to see you in the field protecting your waters this season!

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**

Community Science Challenge Aids HWA Early Detection

By: Mich O'Neil-iMapInvasives/NYNHP

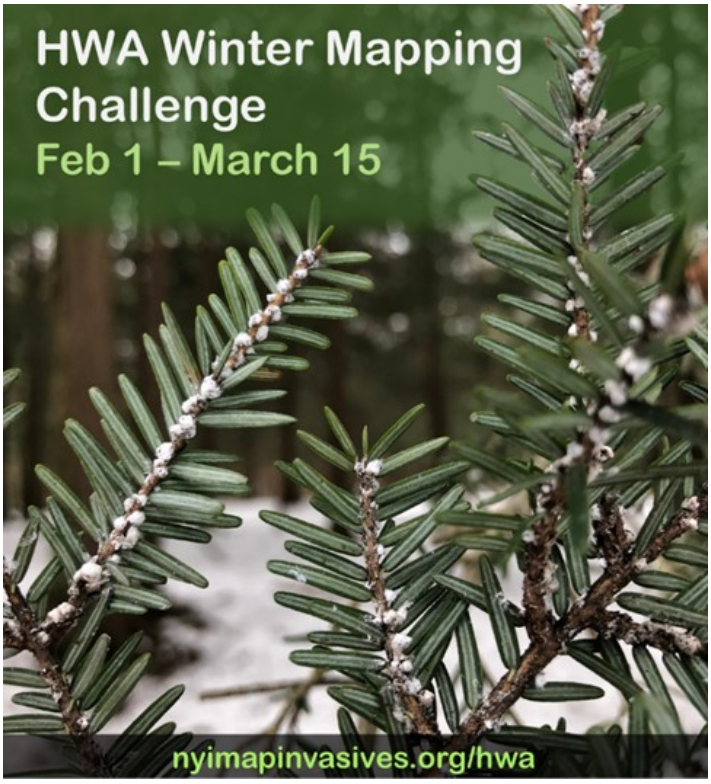
The eastern hemlock is an iconic element of our forests – creating habitat wherever it stands tall, and keeping our drinking water crisp and clear. An invasive insect called hemlock woolly adelgid (HWA) threatens our hemlock stands in New York, but you can help by joining scientists, conservationists, and volunteers across the state in monitoring the spread of HWA.

From Feb 1st – March 15th, the **NY Natural Heritage Program** is hosting the **3rd Annual HWA Winter Mapping Challenge** in partnership with the **NYS Hemlock Initiative**. Join the challenge to help map HWA along the "leading edge" of its current range, and compete to win the prize.

To participate: find some hemlock trees in your area, check for HWA egg masses (look for white fuzz balls on the undersides of twigs), and report your findings to NY iMapInvasives - whether you find it or not. Not-detected records can be just as valuable as presence records.

The iMap users who survey the most sites for HWA will win the challenge and your very own Hemlock Initiative hat!

Oneida, Jefferson, and Lewis counties will count **double** in your totals since these counties are near the leading edge of HWA's currently known distribution.



Visit **nyimapinvasives.org/hwa** to learn more about the challenge and connect with HWA mapping efforts in your area. You can also view the recording of our January 31st **kick-off webinar**, where Caroline Marschner from the Hemlock Initiative delivered a crash course on the importance of hemlocks and HWA, and how to survey for them.

Species Spotlight:

By: Claire Barone , 2023 Watercraft Inspection Steward

Bishop's goutweed (*Aegopodium podagraria*) was introduced to the United States as an ornamental plant throughout the beginning of European settlement. It is a perennial ground cover plant that can thrive in shady dry environments considered less favorable to many other plants. The name "goutweed" originated from its medicinal use for treating gout– which likely lent to its introduction by early settlers. Despite its medicinal purposes, goutweed has become known as an invasive species. Often planted intentionally in gardens, goutweed quickly spreads into natural areas where it outcompetes native ground cover species.

Goutweed gets many of its common names from its outward appearance, such as Snow on the Mountains or Bishop's Weed. The "snow" is referencing the white, five-petaled flowers that form into an umbel shape on top of tall stems that stand 2-3 feet tall. Goutweed is known as a "triternate" due to the leaves being divided into three groups of three leaflets. The leaves themselves are toothed and lobed, with varying colors of green, hints of blue, and creamy white edges.

Since goutweed has branching networks of rhizomes it spreads aggressively and requires some work to remove it. You can dig up the plants taking care to remove as much of the rhizomes as possible. Place remains in a thick black plastic bag and let it sit in the sun to "solarize" or bake the plant which helps to make any remains inviable. Mowing is also effective but it will have to be done annually throughout the growing season.

Goutweed leaves and flowers © TNC/SLELO

Covering the infested area with a thick landscape fabric/plastic in early spring to remain during at least one full growing season can also aid in suppression. Systemic herbicides can be applied as a foliar spray during the growing season, and are best applied to leafy regrowth after an initial mowing has occurred.

Some native alternatives for goutweed that provide ground cover are, Canada Anemone/wild ginger (*Anemone canadensis*), big leaf aster (*Eurybia macrophylla*), pearly everlasting (Anaphalis *margaritacea*), woodland wild strawberry (*Fragaria spp.*), Canada mayflower (*Maianthemum canadense*); some native alternatives that have a similar leaf structure as goutweed are, golden alexander (*Zizia aurea*) and Virginia waterleaf (*Hydrophyllum virginianum*). Learn more about native alternatives for goutweed in this **factsheet** and **website**.

Partner Spotlight: Forest Health Network

James McCready-Forest Health Network

The Regional Forest Health Network (RFHN) was established in 2008 by the Eastern Ontario Model Forest to bring Government Agencies, Municipalities, Conservation Groups, First Nations and landowners together to deal with the threat invasive species bring to our forests. Unfortunately, emerald ash borer was found in Ottawa in 2008 which took over our agenda for a number of years.

In 2017, the RFHN continued its efforts to provide information sharing, support and expertise to municipalities, private landowners, homeowners, property owners and forest practitioners. We reconnected with Cornell University and St. Lawrence County on the other side of the St. Lawrence River and took trainings with these groups in Canton, New York to learn and share information on invasive insects.

We currently have 28 partners in the network who are dealing with what we see on the horizon; hemlock woolly adelgid, spotted lanternfly, oak wilt, Asian longhorned beetle, and spongy moth to name a few. We have also been dealing with climate change which has brought us a derecho in 2022 and an ice storm in 2023.

Four of the partners that we count on for information on various invasive species are the Canadian Food Inspection Agency (**CFIA**), Natural Resources Canada (**NRC**), the Ministry of Natural Resources & Forestry (**MNRF**), and the Invasive Species Centre (**ISC**). The Conservation Authorities of Eastern Ontario have taken over the Administration of the Forest Health Network and work very closely with all the partners. We have recently connected with the SLELO PRISM which gives us the much-needed partnership to share information on invasive species from south of the St. Lawrence.

Partner Spotlight: Tug Hill Commission

Gabriel Yerdon-THC

In support of the Black River Initiative, the NYS Tug Hill Commission and the NYS Department of Environmental Conservation's Great Lakes Program are pleased to present another year of environmental progress, driven by a diverse set of stakeholders within the Black River Watershed. The Black River Initiative Newsletter is an annual showcase meant to highlight important water-quality related work ongoing in the watershed. Some highlights from 2023 include the following: Climate Smart Lewis, drinking water improvements, projects, and partner updates.

The 2023 newsletter, along with editions from past years, can be found **here**.

If you find the content of this newsletter interesting, the **Black River Watershed Conference**, June 2024, will showcase more progress and emerging challenges in the watershed. Keep an eye out for registration details! Thank you for your interest and involvement in keeping the abundant waters of the Black River Watershed safe, clean, and accessible for people and wildlife alike, for generations to come.

Tree Plantings Restore Land

By: Kim Buker-Local Community Member

The smell is sickening. The 15 acres of farm field surrounding our house in Carthage, NY is getting its annual shower of liquid manure. How much of this manure is seeping into our well? Thoughts of HABs (Harmful Algal Blooms) and greenhouse gas production from our neighbor's large-scale dairy farm are filling my head. Why are we allowing this to happen? What can we do to help this situation?

Scrolling through my email, I see the NYSDEC Weekly Digest Bulletin. The **Regenerate NY Forestry Cost Share Grant Program** is advertised. "The purpose of this grant program is to support the regeneration of forests so they may continue to deliver vital services such as mitigating climate change, protecting water quality, and supporting the economy." This was the answer!

I was certainly intimidated by applying for a grant. After learning of the required planting density, I would be planting 4500 trees. What a daunting task, what a challenge. I can do this. I told everyone about my goal as a means to hold myself accountable. I attended a webinar for more information, there were over 100 participants who were also interested. The details were explained and the hosts were very helpful and encouraging. My goals listed on my grant application were biodiversity and carbon sequestration. I now had a clear vision. I planned to plant approximately 1500 trees on 5 acres for 3 consecutive years. I would make individual wire-welded cages for all the hardwood trees to protect them from deer browse. I'd repurpose cardboard to use for weed suppression. With this plan, I could envision the farm field changing into a forest.

Volunteers planting trees. ©Kim Buker.

Excitement filled me when I learned that I was awarded the grant. From that time, July 2021 until the first scheduled plant date in late April 2022, my job was to learn as much as I could about different tree species and the best planting strategy. I reached out to the local DEC office, Jefferson and Lewis County Soil and Water Districts, local tree farmers, and Cornell Cooperative Extensions. Everyone was so generous and supportive.

Each year, loyal volunteers, mostly the Eco Kids from Carthage Middle School and The Sustainability Club from the high school and some friends enjoy digging, pounding stakes, and planting trees. Even though the work is tough, we are filled with joy. To date, we have planted a little over 3000 trees. The final planting is expected to take place this coming April. I welcome help so if anyone wants to volunteer please contact me at 315 222 3946 or email **buker3@gmail.com**.

It's so rewarding to watch the trees grow. The summer job of maintaining the trees, mowing, and weeding does not feel like a job at all. When I am nurturing the trees, they are nurturing me. Reciprocity is so important in any relationship, especially our relationship with our life-sustaining planet.

Volunteer For Birds!

Linda Gibbs-Tug Hill Tomorrow Land Trust

Every spring, Tug Hill Tomorrow Land Trust's **Bird Quest** program enlists volunteer birder teams to record the species and numbers of birds they observe at their bird feeders in and around the Tug Hill region during the third week of May. The land trust provides educational resources, donated supplies upon request, and technical assistance from January through May, with a compilation report for the event distributed in early June.

This year, Tug Hill Tomorrow Land Trust is asking bird watchers to avoid placing bird feeders in or spreading seed on the ground under any Hemlock trees. Gathering birds to feed in or near these trees increases the possibility of hemlock woolly adelgid insects hitching a ride on birds' feet, unintentionally spreading it to other trees. If you feed birds, please take a moment to identify the trees in your yard and nearby, survey any hemlock trees for evidence of HWA (white woolly masses found on the underside of branches), and report your observations in iMapInvasives.

You can help birds further by using best practices to remove invasive and non-native species in your yard and replacing them with native plants. Reducing mowed areas and adding native plants in your yard can be attractive and provide healthy food and cover for insects and birds throughout the year. **Audubon**, the **American Bird Conservancy** and local Cornell Cooperative Extensions are great places to start for native plant recommendations.

Volunteer Spotlight

I wanted to do something to help protect our hemlocks, so I joined an HWA survey training hosted by SLELO PRISM and THTLT. During the training, I learned how to survey for and report HWA to iMap. I am retired and spend most of my free time in my kayak or roaming the woods, either on foot or on snowshoes, depending on the season. I am happy to donate some of my time inspecting trees for the greater cause while I enjoy the outdoors.
I feel we all need to do our part where we can.

~Meg Wheadon
SLELO VSN Member & Volunteer

EVENTS & ANNOUNCEMENTS

Get Details

Get Details

- March 13th 10 AM –12 PM Hemlock Woolly Adelgid Survey Trainings
- March 7-9th: Resilient Long Island Symposium
- March 6th: ADK Lake Ecology and How AIS Disrupt Ecosystems
- NYS IPM First Fridays Webinar Series
- Volunteer Opportunities
- View PRISM upcoming events: ADK PRISM; Capital Region; Catskill; Finger Lakes; Long Island; Lower Hudson; SLELO; WNY

<< Job and Funding Opportunities >>

- **NYS OPRHP**-Seasonal Educator at Southwick Beach
- **SUNY ESF** -Watercraft Inspection Steward Positions
- ADK Research Institute– Herbicide Apprentice and Aquatic Plant Survey Research Assistant
- DEC awarded $2.9 Million through the NYS Environmental Protection Fund (**view awardees**).

View Recordings

Learn More

Get the Guide Reprint

From Our Director

A shout-out to the SLELO Team, our partners, and volunteers for another excellent year in program delivery. Together we made tremendous progress on our conservation initiatives including:

- 45 volunteers and staff planted over 6,670 native plants of 24 different species to restore a 30-acre riparian area along South Sandy Creek.
- We completed invasive species suppression on 122 sites and ecological restoration efforts on 6 sites designed to promote biodiversity and increase resilience to changes in climate.
- Implemented a WISP program resulting in the interception of aquatic invasive species on 1,452 occasions preventing their spread to and from other North American waterbodies.
- Maximized the liberation of biological control agents on multiple target invasives exceeding 9,400 insects released.
- We directly, and indirectly engaged over 47,000 individuals through sponsored events, social media, SLELO-sponsored websites, and via Watercraft Stewardship.
- Developed an online dashboard to better engage and track our Volunteer Surveillance Network (VSN) activities.

Kudos to Zack Simek, Robert Smith, Brittney Rogers, Megan Pistolese-Shaw, our principal partners, and cooperating affiliates and our many volunteers for making 2023 a success. We look forward to advancing our work and further engaging everyone in 2024.

~ Rob Williams

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

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Articles contributed by SLELO partners

SLELO PRISM

The Nature Conservancy — *SLELO PRISM Host Organization*

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation

Eastern Lake Ontario Swallow-wort collaborative