Preparing for sleeper species amidst climate change

A changing climate poised to affect the distribution, spread, abundance, and impact of invasive species (Gritti et al. 2006).

In This Issue:

- ♦ About The Cover & Volunteer Experience Showcase
- ♦ Lurking Invasive Shrubs
- ♦ Enhancing Swallow-wort Management Through Collaboration
- ♦ Plant Sustainably-Plant Natives
- ♦ Species Spotlight—Asian longhorned Tick
- ♦ SLELO Amping up For Emerald Ash Borer
- ♦ Upcoming Events
- ♦ Partner Spotlight-Indian River Lakes Conservancy
- ♦ A Word From Our Coordinator



Teaming Up to Stop the Spread of Invasive Species



About the cover Preparing for Sleeper Species Amidst Climate Change

Recent studies suggest there are non-native species which have been introduced to the northeast region but have yet to reach the exponential growth phase of the invasive curve, which would mark their change from simply non-native to invasive. Such "sleeper species" could be triggered to become invasive by climate changes which create more favorable conditions. Such changes could enable them to "awaken," resulting in rapid population growth and invasion (Bradley et al. 2018).

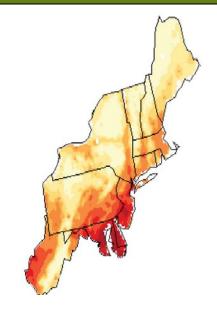
Climate change has the potential to increase average regional temperatures and heating-degree days, creating longer frost-free growing seasons, as well as changes in precipitation and drought patterns. Depending on the species, these are likely favorable conditions which could trigger sleeper species.

The impacts of climate change on prevention and management are notable. As species' ranges shift, it becomes more difficult to prevent their spread into new areas, creating additional early detection species to keep a watchful eye on. Once an invasive is established in a new warmer area, management strategies need to change as well. An example would be water hyacinth (*E. crassipes*). Warmer temperatures and longer growing seasons may allow for better overwintering and thus more robust populations in ensuing years.

According to the Northeast Regional Invasive Species & Climate Change management network (RISCC), land managers should consider potential impacts that climate change may have on invasive species management initiatives. Below are some considerations to explore:

3. Evaluate suppression and/of ture Conservancy's Invasive Plant Species and Provide guidance.

1. identify non-native species in their respective regions that are in low abundance, i.e. sleeper species.



Above: Projected number of days per year with a maximum temperature greater than 90°F averaged between 2041 and 2070 in the eastern U.S. source: NOAA NCDC / CICS-NC . Yellow = no change. Dark red = 70+ days/yr. Cover photo: (Anthemis cotula) stinking chamomile , Mary Ellen Harte, Bugwood.org

- **2.** Prioritize based on potential invasiveness (in NY there is a <u>ranking system</u> for invasive species).
- **3**. Evaluate suppression and/or eradication feasibility. The Nature Conservancy's <u>Invasive Plant Management Decision Analysis Tool</u> can provide guidance.

I'll leave you with this question; If climate change can affect invasive species—can invasive species affect climate change? Hint, (carbon).

~Rob Williams

Volunteering for SLELO PRISM -Experience Showcase

I learned of SLELO while attending a program at Delta Lake State Park. My interest in preserving hemlocks in Camden's 120-year-old Forest Park prompted me to volunteer to check the trees periodically for the presence of the Hemlock Woolly Adelgid. I've encouraged other retired folks to join me in the inspection during our enjoyable early morning hikes. Volunteering with SLELO has equip me with knowledge to help protect our beloved Forest Park.

~ Bob Abrams (SLELO volunteer since 2017)

Learn about <u>volunteer opportunities</u> & <u>workshops</u>

Need inspiration, watch our <u>volunteer video</u>



Bob Abrams searching hemlocks at forest park for signs of HWA at Forest Park in Camden. Photo credit: Emmanuel Vaucher .

Lurking Invasive Shrubs

By: Sue Gwise-Jefferson County Cornell Cooperative Extension

We all may aspire to have a landscape that is free of invasive species. But you may have invasive plants lurking right in your own backyard. If you have any marginal areas on your property (un-mowed areas along property lines, hedgerows, natural areas, etc.), you are probably harboring two invasive shrubs – common buckthorn and exotic honeysuckle species. Both of these shrubs will form dense stands that are hard to eradicate. They also produce berries, and birds deposit the seeds far and wide.

Native to Europe and Asia, common buckthorn (*Rhamnus cathartica*) was probably brought to the New World as a medicinal plant because of its laxative properties (as per the Latin species name). It can be identified by lateral twigs that are sharply pointed, and the shiny bark that looks very similar to young cherry species. Maxing out at a height of 25 feet, buckthorn usually has multiple trunks. The best characteristic for ID is the inner bark. Scratch off the outer bark to reveal the bright yellow to orange colored sapwood. The leaves are oval to round and glossy, dark green in color. Clusters of black, berry-like fruits ripen in late summer to fall

The exotic honeysuckles (*Lonicera spp.*) have a more shrub-like appearance and grow to about 12 feet high. The stems are light gray in color and older stems are often shaggy.

Stems are hollow in the center which is a good way to distinguish exotic honeysuckles from the native species (plus our native honeysuckles are vines, not shrubs).

The leaves have a distinct gray-green color and are opposite each other on the stems. Exotic honeysuckles were planted for their fragrant white or pink flowers that bloom in late spring. These honeysuckles were also marketed as a wildlife species since they have berries that were thought to be beneficial for birds. The berries won't harm birds, but they don't provide enough energy to sustain migrating birds.

Buckthorn and exotic honeysuckles interfere with forest regeneration and tend to invade disturbed areas and abandoned fields. Both leaf out early and outcompete native species for resources. Exotic honeysuckles are shallow-rooted and relatively easy to pull. Persistent cutting of the plants will also eventually starve the roots. Buckthorn is harder to pull out, but cutting is effective if you are tenacious— and is most effective if followed by chemical treatment as cutting encourages re-sprouting.

Herbicides are effective when applied as a foliar or basal-bark spray. Cut-stem applications of glyphosate also produce good results. Check with your local Cooperative Extension or the SLELO PRISM for the best control option for your situation.



Common buckthorn (*Rhamnus cathartica*). Photos compliments of bugwood.org, credits: top & bottom right-Chris Evans; bottom left- Leslie Mehrhoff.



Exotic honey suckle, (*Lonicera spp.*) Photos compliments of bugwood.org, credits: top-Richard Gardner; bottom left-

Enhancing Swallow-wort Management Through Collaboration

By: Rob Williams-SLELO

Swallow-wort (*Cynanchum spp.*) is one of the most aggressive terrestrial invasive species found in the Eastern Lake Ontario region and elsewhere in New York and the lower Great Lakes. Native to the Ukraine and southern Russia, this plant is responsible for inhibiting forest regeneration, and interfering with Christmas tree plantations, crop fields, pastures and valuable natural areas. It also disrupts insect populations, and bird populations with specialized feeding habits.

Significant resources continue to target swallow-wort. Over the years, numerous best management practices (BMPs) have been the focus for land managers. Some BMPs include herbicides, smothering, burying, and mowing. Recently a biological control has been approved in the U.S. for use on swallow-wort, and new studies are underway to develop additional biological controls for this species.

With the approval of new biological controls, the time is right to develop a means by which stakeholders can learn and share information pertinent to the management of swallow-wort. We believe that an Eastern Lake Ontario Swallow-Wort Collaborative (ELOSC) would be advantageous to all those concerned about this species. Although we call this an Eastern Lake Ontario collaborative, we welcome and encourage collaborators from the northeast and Great Lakes regions.

Eastern Lake Ontario Swallow-wort Collaborative



Linking People, Information & Action Through Enhanced Communication

ELOSC will be a platform for sharing up-to-date information about swallow-wort best management practices, *including biological control development*, to inform stakeholders about the prevention, management and suppression of this highly aggressive invasive. It is our hope that ELOSC will foster greater cooperation between different stakeholder groups to improve our understanding of swallow-wort. Additionally, this collaborative will help transfer knowledge between researchers and managers, share advances in science and management, provide technical assistance, and connect the stakeholder community through a variety of platforms.

Stay tuned for a formal launch of this collaborative, scheduled for June 2019, with a kick-off webcast designed to engage all interested parties and stakeholders.

Plant Sustainably-Plant Native

By: Megan Pistolese-SLELO

Spring is here and after a LONG winter, many of us are aching to enjoy some sunshine in the garden, or what I like to call "earth therapy." There are many beautiful plants to choose to grow in your gardens, but not all plants are created equal. Some plants, despite their beauty, may even damage native plant communities and natural areas.

Many invasive plants were once considered desired exotic ornamental or landscape species. However, over time some of these "beauties" showed their true colors by escaping our gardens and spreading across the landscape. Once established, invasive plants can completely take over an area and cause significant harm to natural areas by displacing native plant communities and damaging the intricate natural relationships that exist between plants, insects and animals.

You can protect our natural areas by selecting native plants for your garden or landscape instead of species that are now known to be invasive, or exotic/non-native species that may later become invasive. Choosing native plants enhances the resiliency of urban and natural landscapes.

There are many beautiful native plant species that you can grow which will not only enhance your landscape but will also support native wildlife. And because native plants are adapted to our climate & soils they will likely require much less work to establish in your garden. If you need a bit of inspiration, the NY Invasive Species Clearinghouse at Cornell University has created a New York Gardener's Tip Sheet that provides native alternatives to invasive plants commonly grown in gardens. The NYS Department of Environmental Conservation has a comprehensive list of Native Plants for Gardening and Landscaping showcasing native flowers, grasses, groundcovers, vines, shrubs & trees.

This growing season, plant sustainably—plant native.

To learn more about the benefits of planting native species, and of alternatives to invasive garden plants attend an upcoming workshop.

Join us on Thursday, May 30th 1-4pm at the IRLC Redwood Hill Preserve Trailside Learning Center.



View the Events Page (9) for details.

Species Spotlight

By: Paul Hetzler- St. Lawrence County Cornell Cooperative Extension

Black flies bite, but ticks suck...well enough complaining – that never helps. After such a long winter, we are all grateful that spring has finally sprung, even though the price of warm weather seems to be the advent of biting insects. Swarms of mosquitoes can drain the fun from an evening on the deck, but a single black-legged or deer tick (*Ixodes scapularis*) can take the shine off an entire summer if it infects you with Lyme disease and/or another serious illness.

As recently as a decade ago in northern NY State it was unusual to find a single deer tick on oneself after a long day out-doors. Now all you have to do is set foot in the brush to collect a whole set of them on your pant legs. Research has found that deer ticks were never here historically, even in low numbers, but moved up from the Mid-Atlantic states over the past few decades. Arguably they are an invasive species in northern NYS.

The newest tick on the block, however, is without question an invasive species. Native to Korea, Japan, eastern China, and a number of Pacific Island nations, it is known as the Asian bush or cattle tick (*Haemaphysalis longicornis*). It is also called the Asian longhorned tick, which is confusing because we already have Asian longhorned beetle. Plus, the bush tick has no long ap-pendages of any kind. In fact it is short on any distinguishing features. As Jody Gangloff-Kaufman of NY's IPM Program writes, "Longhorned ticks are difficult to identify, especially in the younger stages. Adults are plain brown but look similar to brown dog ticks." NYSIPM also states that tick-ID services can be found at: The Northeast Vector Center website.

Closely related to our beloved deer tick, the Asian bush tick was first discovered in the wild in North America in 2017 in New Jersey, where a pet sheep was reportedly infested with over a thousand of them. Since then it has spread to eight other states, including NY. Their high reproductive potential is one of the concerns about the species. They are all parthenogenic (asexual) females, meaning they churn out 1,000 – 2,000 eggs apiece without the bother of hooking up to mate. Columbia News reported a good example of the new tick's fecundity last December, when the Asian bush tick was first confirmed on Staten Island in 2017, surveys found their density in public parks was 85 per square meter. In 2018, the same parks had 1,529 per square meter.

Another concern, is whether it is a vector of human and animal disease. In its home range, the bush tick is known to transmit a plethora of diseases including Lyme, spotted fever, erlichiosis, Anaplasmosis, powassan virus, tick-borne encephalitis virus, and severe fever with thrombocytopenia syndrome, similar to ebola. As terrifying as this is, researchers have yet to find infected ticks in North America, and there is uncertainty among experts as to the potential for this invasive tick to serve as a vector for disease in the U.S.

Right now the bush tick is restricted to downstate NY, but it is considered cold-hardy and will be heading our way.



Nymph and adult Asian longhorned or bush tick, view from top. Photo credit: Center For Disease Control

Though ticks only walk a few meters in a lifetime, they hitch rides on migratory birds. A study on deer tick range expansion led by Katie M. Clow of the University of Guelph in Ontario concluded that they are moving north at an average rate of 46 kilometers (28.5 miles) per year, aided by birds.

This isn't to say we need to panic, though feel free to do so if you like. Avoiding ticks is the first order of business. Ticks "quest" at the tips of tall grass or brush, waiting to glom onto the next thing that brushes past. Use products containing 20-30% DEET on exposed skin. Clothing, footwear and gear such as tents can be treated with 0.5% permethrin. Follow all label instructions. Consult your veterinarian for recommendations specific to your situation and animals."

Hikers should stick to marked trails, and never follow deer trails. Treat pets regularly with a systemic antitick product and/or tick collar so they don't bring deer ticks into the home. Talk to your vet about getting your pets vaccinated against Lyme (sadly there is no human vaccine at the moment).

Check for ticks each evening after bathing. Ticks like hard-to-see places such as armpits, groin, scalp, sock hems, and the backs of the knees, so look closely in these areas. If you find a tick has latched onto you, prompt removal is critical. The CDC recommends you grasp it as close to the skin as possible with tweezers and pulling straight up until it releases. You may have to pull hard if it has been feeding for a while. Tick mouthparts commonly remain in the skin after tick removal; this is not a problem. Do not use heat, oil or other home remedies to get ticks to release, as it induces the tick to disgorge back into you, greatly increasing the chance you may get sick.

Homeowners can help. The CDC website states: "Maintaining a 9-foot distance between lawn and wooded habitat can reduce the risk of tick contact. Other tips include removing dead leaves and keeping grass short, creating a barrier of woodchips or gravel between your lawn and wooded areas, placing playground equipment, decks, and patios away from yard edges, and trees, and stacking wood neatly in a dry area to discourage rodents that can carry ticks, like mice and chipmunks.

SLELO Amping up for Emerald Ash Borer

By: Paul Hetzler-St. Lawrence County CCE, Aaron Barrigar St. Law. SWCD, Megan Pistolese-SLELO

Given that northern NY State has been alternately either white or brown from mid-November through the first week in April, it is natural that we are hungry to see a bit of green show up in the landscape. So it is especially unfair that some areas have too much of a certain shade of green. Emerald to be exact., emerald ash borer (EAB), a tiny bullet-shaped Asian beetle sporting a metallic green paint job with copper highlights, has arrived in large numbers in the SLELO region.

EAB has been detected in the following areas within SLELO borders: Oneida county in Rome, Oswego county in Sandy Creek, Hastings and West Monroe, and in St. Lawrence county in Hammond, Morristown, Waddington, Louisville, and Massena. Just within the past two months, citizen volunteers in St. Lawrence County and on Mohawk Territory at Akwesasne have found many new EAB infestations, confirmed by the NYSDEC, concentrated along the Seaway stretching from the Jefferson County border north to eastern Franklin County, with the heaviest infestation in Massena. Click Here to view zones within five miles of known EAB infestations in St. Lawrence County.

At this time, emerald ash borer hasn't been confirmed in Jefferson or Lewis. Click Here to view a map showcasing EAB removed. Only sound, healthy ash should be treated, to infestations in and near SLELO boundaries.

First discovered near Detroit in 2002, EAB quickly spread throughout the Upper Midwest and Great Lakes regions in the US, and across southern Ontario in Canada. Apparently they wanted Crackerjack prize. The adult beetles do little harm, but killing them. Since EAB kills only true ash, mountain ash is

risk than we are accustomed to.

All three species of native ash - white, green and black - are In addition to EAB management initiatives, education and outequally vulnerable to EAB. Sadly, we will lose all our ash trees. reach efforts are amping up to promote the Ecological Re-A very small percentage of ash seem to have a degree of re-search Institute's Managing and Monitoring ash (MaMa) prosistance to EAB, taking longer to die, but none are immune. gram throughout the SLELO region. The program provides These "lingering ash" are of interest to researchers for genetic mitigation and management guidance & aims to identify lingering studies. The only ash which will survive are those protected by ash to aid genetic conservation of the species. MaMa workshops systemic insecticides.

For residents within 15 miles of known EAB infestations, who want to protect landscape ash trees, the time to act is now. Before deciding to treat your trees, it is essential to have a Certified Arborist evaluate them. Some trees will have hidden problems that could limit their lifespan, and they should be



Thomas Colarusso- USDA APHIS peeling an ash tree in search of EAB galleries. Photo credit: Rob Williams-SLELO.

connect with local arborists visit the International Society of Arboriculture website. The DEC website has a page dedicated to EAB resources & recommendations for property owners, municipalities, and wood products industry.

came free in boxes of cheap Chinese auto parts, like an un- Chemical treatments are also available. The most effective chemicals are restricted to licensed pesticide applicators. If the their babies (larvae) feed on cambium, the living tissue between tree is near a water bodyor if the home is on a well, this the inner bark and the wood, of ash trees, girdling and thus method should be avoided. You can search for a licensed applicator by county Here.

SLELO partners are teaming up to prepare for EAB through a The sky may not be literally falling, but soon, plenty of ash variety of strategies including: using annual trap tree clusters to trees will be tumbling to Earth. One of the big problems with lure the bugs and then removing the infested trees to reduce the infestation is that when the EAB kill an ash, the wood loses overall EAB populations; conducting tree inventories and hazstrength much more rapidly than if the tree was killed by an- ardous tree assessments to prioritize management strategies; other cause. Within 12 to 18 months, an EAB-killed tree un-implementing tree removals, replacements and chemical treatdergoes a fivefold reduction in shear strength. Such trees will ments when feasible; establishing an EAB biocontrol program snap off with no wind or other provocation, posing more of a using approved parasitoids in efforts to contain infestations and using funnel traps to help locate new infestations.

> are being planned for this summer. Participants will have an opportunity to help monitor for lingering ash trees and adopt a plot to monitor through the MaMa Monitoring Plot Network.

> For more information on EAB efforts in the SLELO region, contact either the St. Lawrence EAB Task Force (John Tenbusch <u>ITenbusch@stlawco.org</u>.) or the SLELO PRISM.

Partner Spotlight

Welcoming Indian River Lakes Conservancy

By: Heidi Sourwine- Program Coordinator IRLC

New to the SLELO partnership, the Indian River Lakes Conservancy (IRLC) was formed in 1998 to conserve, protect, and encourage the sustainable management of the water, land and biological resources within the Indian River Watershed of northern New York for the benefit and enrichment of future generations. The IRLC is a nationally-accredited land trust and currently protects 2,500 acres of land within the watershed.

The Indian River Lakes system, located on the St. Lawrence River plain in Jefferson and St. Lawrence Counties, includes 18 natural lakes. The region takes its name from the Indian River, a picturesque mostly slow-moving river that begins as a small stream at Indian River Village and flows almost 100 miles to Black Lake. There it joins the Oswegatchie River which flows into the St. Lawrence River.

Within IRLC-protected lands, 20 miles of woodland hiking trails are open to the public. They are stewarded by volunteers, who regularly monitor for invasives using iMapInvasives to report what they find. Many of the volunteers have also been trained by the SLELO partnership to monitor for hemlock woolly adelgid should it find its way into our forests.

Through outreach and educational programming, the IRLC seeks to cultivate a community centered around environmental values, elevating the importance of land and water as part of the regional identity and as a priority for maintaining a high quality of life and a robust economy.

Increasing the public's literacy around local native (and non-native) species has, and continues to be, an area of concern for the organization. The IRLC partnered with SLELO PRISM in 2018 to host a Pollinator Pathway Project Workshop. This summer, a follow-up workshop is planned for May 30th and will focus on planting and caring for native plants.

Additionally, a new program, Project WHIRL (Protectors of Water and Habitat in the Indian River Lakes), is currently under development for Summer 2019. SLELO partners have provided their expertise in the advancement of the project.



From the left: Greg Washburn (IRLC/SLELO volunteer), Heidi Sourwine (IRLC Program Coordinator, Wylie Hoffman (IRLC Executive Director). Photo compliments of IRLC.

Project WHIRL aims to get high school-age students involved with the natural environment in and around the Indian River Lakes. The student participants will be mentored by field professionals and university student interns who are majoring in environmental science-related fields.

The program will consist of three tracks including watershed management, invasive species management, and aquatic resources. One major component will be to conduct invasive species surveys and create field reports that will guide IRLC invasive species management strategies and prevention tactics on our preserves.

The IRLC also partners with the SUNY Oneonta Lake Management Program to provide support for SUNY students who research the Indian River Lakes and provide feedback to the IRLC and our local Lake Associations about how to manage invasive species. Partnering with environmental and community organizations such as SLELO is essential to the IRLC's success. The IRLC envisions a partnership with SLELO that promotes early detection, strong stewardship, public outreach, and educational programming and research.



Upcoming Invasive Species Events

We encourage our partners to highlight their upcoming invasive species related events in each newsletter. Please contact Megan Pistolese to submit an event at megan.pistolese@tnc.org.

Visit our website Events Page to learn of upcoming events near you!

Invasive Species & Citizen Science Workshop for Teachers Tuesday, May 14th 4pm-6pm at Indian River Middle School 32735, County Rd 29, Philadelphia, NY 13673. For teachers only. Register Here.

iMap Early Detection Training Friday, May 17th 1pm-3pm at the St. Joseph A. Blake Wildlife Sanctuary. Guided walk and talk, learn to recognize and report invasive species using the iMapInvasives mobile app. Register Here.

Learn to Plant with Native Species & Invasive Species to Keep an Eye Out For in Your Garden Thursday, May 30th 1pm-4pm at the Redwood Hill Preserve Trailside Learning Center on Stine Rd. Redwood, NY. Register Here.

iMapInvasives Training Thursday, June 6th from 1pm-4pm at the Cornell Cooperative Extension of Lewis County, 7395 East. Road, Lowville, NY. Learn to recognize invasive species of concern and how to report observations using the online and mobile app version of iMapInvasives.org. Registration required, contact Mellissa Spence mms427@cornell.edu, 315-376-5270.

Akwesasne Pollinator Forum Wednesday, June 12th 8am-5pm at the Hogansburg-Akwesasne Volunteer Fire Department, 1817 St. Rt. 37, Akwesasne, NY. Contact Wayne Samphier, wayne.samphier@srmt-nsn.gov, 518-358-5937 x138.

2019 Eastern Lake Ontario Invasive Species Symposium Thursday, June 20th at Tailwater Lodge 52 Pulaski Road, Alt-mar, NY. Check for available registration Here. Only a dozen seats left!

<u>Invasive Species & iMapInvasives Workshop</u> Saturday, June 22 9am-2pm. Meet at the Thousand Island Land Trust's office in Clayton. Take a field trip to TILTS conservation property and learn to identify invasive species, control techniques and how to use iMap. <u>Register Here.</u>

Aquatic Invasive Fish Workshops

- Tuesday, June 25th 10am-2:30pm at the Nicandri Nature Center in Massena, NY, with special presentation on Tench impacts research. Register Here.
- Thursday June 27th 10am-2:30pm at the Keewaydin State Park in Alexandrea Bay, NY. Register Here.



NYS Invasive Species Awareness Week (ISAW) will be observed on July 7th through July 14th.
Theme: Explore, Observe, Report.

Calling all SLELO Partners & Volunteers! Help enhance ISAW participation throughout our region

Help raise awareness of invasive species & engage communities in stewardship. Host or participate in an event, contact megan.pistolese@tnc.org for details.

Visit SLELO PRISM on Facebook & YouTube







Emerald Ash Borer Awareness Week May 20th—26th



Raising awareness for EAB enhances preparedness efforts. For community engagement ideas visit www.dontmovefirewood.org.

SLELO has outreach materials available upon request. Contact megan.pistolese@tnc.org, 315 387 3600 x7724



COORDINATOR'S COLUMN



Aligning Our Strategic Plan with a Deeper Mission The Next Five Years

missed it—you missed a good one!, we conversed about the tion success. next five years, being awarded a new five year service contract longer lasting impact towards protecting our lands and waters from invasive species and their impacts to nature and people. I am excited to report my confidence that we have designed a path forward to meet these objectives.

The New York State Department of Environmental Conservation (DEC) recently developed a strategic framework for addressing invasive species. The goals and strategies identified in the NYS Invasive Species Comprehensive Management Plan, including recommendations for invasive species education and outreach, are all reflected in SLELO's current Strategic Plan and corresponding annual work plans.

The mission of our host organization, The Nature Conservancy, is to conserve the lands and waters on which all life depends and ensure that both people and nature thrive. The Conservancy is also very interested in working closely with DEC and the New York State Invasive Species Council to evaluate our past invasive species actions and work with all partners across the state and region to ensure our invasive species work

At our spring partner meeting, for those of you who is effective, efficient and sets the stage for long-term conserva-

This strategic alignment is reflected in the expansion of and how our programming can be more robust with greater, the SLELO PRISM's core program that includes: prevention, early detection, rapid response/control, education/outreach as well as ecological restoration. In addition, over the next five years, we will embrace new initiatives to include: expanding awareness in our cities, enhancing ecological restoration with climate adaptability and invasive species resilience, conservation innovations, freshwater stewardship through expanded watercraft inspection and enhanced communications through a strong marketing campaign. Many thanks to the NYS DEC for supporting our renewed service agreement.

> These types of collaborations and alignments, bring longevity to our efforts, strengthen partnerships and create lasting conservation impact, something that we should all be humbled by.

> > ~ 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

Acknowledgements:

NYS Invasive Species Council NYS Dept. Environmental Conservation The NYS Environmental Protection Fund

Rob Williams SLELO PRISM Coordinator Megan Pistolese SLELO PRISM E/O Coordinator







Our host organization



Department of **Environmental** Conservation