SLELO PRISM

St. Lawrence Eastern Lake Ontario Partnership for Invasive Species Management

"Teaming Up to Stop the Spread of Invasive Species"

2021 Spring Newsletter

85 Riparian Acres Surveyed & Prioritized for Restoration along the Black RiveTrail

In This Issue:

About the Cover

SLELO PRISM– Robert Smith

The Black River Trail is a trail that extends from the Village of Black River, near Fort Drum to Watertown. It is a frequently visited trail with an estimate of 104,000 visits in 2019. Affecting the trails ecological integrity is the abundance of invasive species present, including phragmites, swallowwort, oriental bittersweet, buckthorn, and honeysuckle. To get a better understanding of the extent of the invasive species problem and the native species that are at risk on this trail, and how we might approach this issue with some practical solutions, we decided to conduct a feasibility study. The first step in this study was to conduct a survey of the plant species, both native and non-native, man-made features, and landscape features along this trail. Our area of concern was a 3.5 mile segment adjacent to the river that was approximately 85 acres in size. Given the large size, it was decided that the trail should be broken down into 1/8 mile long segments. This method would also tell us where the highest quality plant communities and greatest invasive species problems were located. This survey was completed last summer and we then moved on to the analysis. We decided during the analysis that a prioritization system was needed to tell us where management was of the greatest need and where the need was low. Projects of this size are often hampered by budgetary constraints. This prioritization system would allow us to work on the highest priority sections that our limited budget can afford. The prioritization system we came up with is a little complicated, but is basically a comparison of native plant community quality and invasive species quantities in each segment. Major breakdown of prioritization resulted from a

calculation of what is called a **Floristic Quality Index** (FQI). This is a common index for determining the quality of a plant community. The resulting scores placed all segments into 1 of 3 categories (Low, High, Natural Area). Natural Area was the highest category, so these are the areas of greatest value to protect and are the highest priority. Low Areas were placed at the bottom as they contain little or no species of concern. Those sections in the high category were in the middle and required a further breakdown. What we came up with was called a summary score and compared native community quality with the types and quantities of invasive species present in each segment. The final part of the prioritization is a spatial analysis that considers where each prioritized section is located. This allows our system to be flexible in that we can include a lower priority section if it is located between higher priority segments. This ensures continuity of control in an area and avoids a segment becoming a source for reseeding invasive species. The end result of our prioritization system allows us the freedom to focus our management where it needs it most within a limited budget. The feasibility study report is currently being completed and will be available soon on the SLELO PRISM website.

Emerging Common Backyard Invasives

SLELO-Megan Pistolese

Invasive plants are starting to emerge! Keep an eye out for some common backyard invaders honeysuckle bushes, wild parsnip, garlic mustard, common and giant hogweed.

You will likely spot invasive honeysuckle bushes along roadsides as they are one of the first to leaf out in the spring. You can remove this plant by cutting the stems or digging up it's roots. A basal bark treatment can be applied year round, and a foliar treatment can be applied in the fall– do not cut treated plants for a full growing season and follow all label instructions.

Garlic mustard leaves are not very tall this time of year, so look close to the ground when searching for these and if the infestation is small just pluck them out if you find them, large infestations are better off left alone *(see why on the next page)*. Wild parsnip is also not very tall in the spring but come late summer it will have yellow flowers, and can grow between 3-4 ft in height. Manual control is not recommended for this plant as the sap irritates the skin. Foliar applications work best if applied to the rosette stage in the spring.

Giant hogweed begins to emerge in early spring. Their leaves differ depending on the life stage; emerging cotyledons have more rounded leaves that emerge from three thin stems, as the plant matures the leaves become deeply ridged and compound in arrangement eventually forming a rosette after multiple growing seasons; mature giant hogweed plants can grow between 10-15 feet tall with leaves up to 5 feet wide, flowers are white and umbel shaped, and stems have purple blotches and white course hairs. The sap inside the stem of giant hogweed can cause **severe skin burns.** For safety, follow these steps to remove giant hogweed.

Gearing up Volunteers

SLELO-Megan Pistolese

Spring is here and summer is fast approaching so it's time to get ready for another field season. Volunteer Surveillance Network (VSN) members who are new or need a refresher on how to recognize and report invasive species can sign up for a training with me by filling out this **google form**. Species we're focusing early detection efforts on this season are: tench, fanwort, porcelain berry, spotted lanternfly and tree of heaven. Learn about these species, suggested survey sites and sign up to be a member of the VSN on our **website**.

Those who are interested in searching for spotted lanternfly and tree of heaven are encouraged to join a state-wide early detection effort for these species and adopt a grid square to commit to surveying. You can learn more about this survey initiative at iMapInvasives.org.

We would like to give a special thank-you to the following volunteers for their extraordinary contributions:

Frank Williams, Lauren Nachbauer, Tim Evans, and Greg Washburn.

Trapping Invasive Beetles

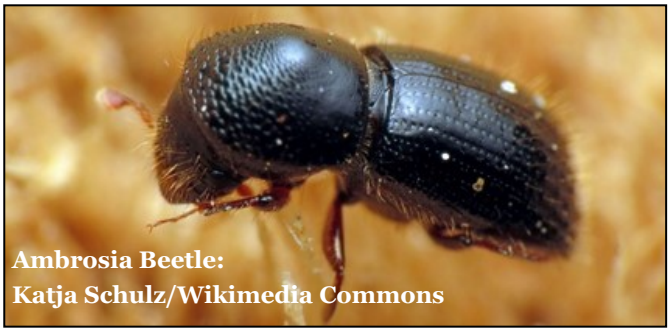
SLELO - Rob Williams

Non-native Ambrosia beetles attack stressed, dying, or dead trees. There are several species that belong to two different bark beetle families. Target species for this trapping project include: Non-native *Trypodendron sp., Gnathotrichus sp., Xyleborus sp., Curculionidae: Scolytinae, Platypus sp., and Curculionidae: Platypodidae.*

These invasive beetles can attack freshly cut lumber and lumber in decks before it is dried, and they cause pinhole defects and dark staining in the outer wood. Galleries formed in the sapwood or heartwood also cause damage.

The St. Lawrence Seaway is a high risk area for the introduction of these invasive beetles. Highly probable areas include ports of entry, landscaping companies, and shipping distribution facilities where large quantities of wood shipping pallets and containers may be stored.

With assistance from SLELO PRISM, NYS DEC has deployed three traps that will be monitored until mid-June. To enhance the probability of capturing the invasive beetles, traps have been deployed in both conifer and hardwood stands along the St. Lawrence Seaway. Specimens will be collected every two weeks and sent to the DEC lab to be analyzed.



Ambrosia Beetle:
Katja Schulz/Wikimedia Commons

Bottom: Gallery pupae. Wikimedia Commons, free media repository.

EAB Could be on the Move in St. Lawrence County

John Payton-National Grid

National Grid has partnered with both the St. Lawrence County EAB Task Force and the Franklin County EAB Task Force to track and monitor the spread of Emerald Ash Borer. Working closely with these task forces, National Grid established and monitored 35 green funnel traps and created 12 Sentinel trees across both counties in 2020. In July (2020), we received a positive find with the green funnel traps at a location 4 miles south of Heuvelton on Rt. 812. In March of this year (2021), our team harvested and peeled the bark of our sentinel trees. We had two positive finds in St. Lawrence County; one found on the Westway Road in Madrid, and the other on Mayhew Road, in Rensselaer Falls.

These findings indicate that the Emerald Ash Borer is likely moving further south away from the St. Lawrence River. View a full **report** on these findings.

National Gird Team looking for EAB larvae

When Doing Nothing is Better?

Paul Hetzler–certified arborist and a former Cornell Cooperative Extension Educator

Until recently, ignoring problems in hopes they'll go away hasn't served me well. However, a decade-long study done by Cornell University researchers has clearly shown that avoidance is the best way to manage garlic mustard (*Allaria petiolata*), a pernicious exotic plant.

According to Dr. Berndt Blossey, a Cornell University conservation biologist who specializes in invasive plants, pulling up large swaths of garlic mustard is not only futile, it is worse than leaving it alone. It bears echoing: When well-intentioned people rip out this stuff, it actually prolongs the infestation period because the plant self-limits if undisturbed. Also, these mass garlic mustard-removal events do more damage to the ecosystem than the target species itself does and there are other factors at play that encourage the spread of garlic mustard that we should pay attention to.

Dr. Blossey has long contended that deer abundance and non-native earthworms are the drivers of garlic mustard infestation. Garlic mustard only establishes after earthworms have invaded a site for some years, he says, and although how deer spread earthworms is not yet known, they apparently do, as exclusion plots show. I first heard Berndt's idea that well-established garlic mustard should be left alone in 2014 at a talk he gave at Cornell. I was surprised, and admittedly rather skeptical. But he and his team have now done enough controlled trials and amassed enough evidence to back up his assertions.

It turns out that while garlic mustard competes with native species, it does not displace them where deer are excluded or drastically reduced in number. And it is earthworms, not our maligned invasive plant, which make a neighborhood less attractive to salamanders. Furthermore, garlic mustard dwindles in biomass, plant vigor, and site prevalence over time. Within ten to 12 years it becomes scarce and remaining plants greatly stunted.

Side-by-side controlled trials showed that where garlic mustard is "managed," the plants are considerably larger and cover a higher percentage of a site (at times by an order of magnitude) than the sections where nothing has been done. Not only that, but biomass on the managed sites tended to be roughly stable over the ten-year time frame studied, whereas it declined year after year in the unmanaged plots.

Pulling garlic mustard where it is abundant prolongs its run. It also robs a great deal of nitrogen, macro- and micronutrients, and organic matter from the ecosystem. Mass-removal also results in the site being trampled, and runs the risk that soil and native plants might be inadvertently removed.

Professor Blossey's February 26, 2021 talk "When Doing Nothing is the Best Invasive Plant Management Tool" can be found on **YouTube**.

A Source for Genetically Appropriate Native Plant Seed

Molly Marquand-Mid Atlantic Regional Seed Bank (MARSB)

The Mid Atlantic Regional Seed Bank (MARSB) is a mid term active seed bank based in Staten Island, NY serving the Mid Atlantic Region. MARSB aims to increase the availability of genetically appropriate native plant seed through seed collection and seed banking across the area it serves. Since MARSB's inception, the group has worked towards the conservation of several species threatened by invasive species, such as ash *(Fraxinus sp*) and viburnum (*Viburnum sp*).

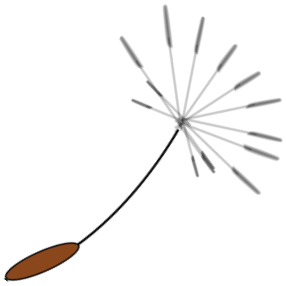
This year, MARSB is focusing on increasing the amount of ecotypic native plant seed available to groups in New York state conducting restoration projects. Currently, most native plant seed is produced and sourced many hundreds of miles from the sites in which it is ultimately sown. Genotypically native ecotypes (individual plant populations that have evolved locally) are better adapted to the vagaries of their local climate, soils, and other ecological factors. There is mounting evidence that these local native species are better endowed with the genetic diversity that will allow them to weather the alterations climate change will inevitably bring

If you are a non-profit, municipality, state agency or other group interested in acquiring native plant seed local to your area, collected by MARSB staff, please contact Molly Marquand at **mmarquand@marsb.com** to hear what is available.

Seed of an aster ©MARSB

The species collected this year will accommodate a spectrum of conditions from wet to dry, will have pollinator value, and are suitable for most roadside-type conditions.

If you're interested in helping MARSB scout for this year's target collection species, send Molly an email letting her know your plant identification skill level. Although MARSB hopes to engage new learners, the plants sought for collection this year require some background in plant identification. If you are interested in collecting species and want to attend a webinar to learn more please fill out this **google form**.
For other information, check out the MARSB website at **www.marsb.org**.



Terrestrial Restoration & Resilience Initiatives

SLELO- Robert Smith

2021 **Hemlock Woolly Adelgid** (HWA) Surveys in SLELO PRISM: Of the 14 HWA sites that Brittney Rogers and I surveyed over the winter, 3 were confirmed to have HWA present. These sites were all located in southwest Oswego County. On February 18th, 2 woolly masses were found at site 1, which were confirmed by Cornell Entomologist Mark Whitmore to be HWA. Site 2 was visited the following week (February 25th) and a patch of hemlocks within the site was found to have dense quantities of HWA along the lower branches. A delimiting survey to determine the extent and severity of the HWA was conducted a few weeks later with the assistance of the land manager, the Oswego County Soil & Water Conservation District, and some dedicated volunteers. Survey 3 was surveyed on March 25th. It had a few small patches of hemlocks present. One of these patches was found to have dense quantities of HWA. The DEC and landowner were notified of the presence of HWA at each site. Also, we provided guidance and assistance about HWA management to all landowners.

Landowners and managers have no obligation to treat this insect, but we are encouraging treatment for two reasons: 1) to protect the land managers investments by supporting tree stand health, integrity and resiliency to other forest pests and pathogens and 2) to reduce the rate of spread of HWA into other parts of our region. A full HWA Survey Report will be available soon on the SLELO **website**.

2021 **Invasive Species Control Work**: As a direct result of our surveys last year, we retired several treatment sites, while adding new treatment sites. This year, we will be treating 5 more sites than last year (14 new sites, 9 retired sites). Species managed include pale swallow-wort, Japanese knotweed, phragmites, oriental bittersweet, and yellow iris. As part of DEC's Giant Hogweed Program, we will be monitoring and treating, if necessary, at 48 sites in Lewis and Jefferson counties. To date, giant hogweed has been eradicated (that is free of giant hogweed for three or more years) at 33% of our sites . Also, 54% of those sites eradicated since SLELO PRISM was formed were manually treated using the root cut method to reduce the use of herbicides.

Our invasive species control program encourages the health of native flora and fauna, a necessary first step in restoring these lands to a more resilient state.

Phragmites in the SLELO Region (Part 1)

SLELO– Brittney Rogers

Invasive species are plants, animals or microorganisms that are introduced to an ecosystem in which they are not originally from and they cause economic or environmental harm or harm to human health. Though all invasive species must fit into the definition above, not all invasives are created equal. Introduction of these species is often through trade via ballast water, accidental translocation via shipping cargo, or even species that were planted purposely in gardens. Once introduced, some species may disrupt natural communities and ecological processes as they often reproduce and spread rapidly, create monocultures, and utilize important space and nutrients that native species would typically depend on to survive. Beyond the negative impact to native species, invasives can decrease property values, recreational opportunities or even impact aesthetic views.

SLELO provides region-wide coordination for invasive species monitoring and management across the region. Given the extent of our region, we are not able to manage every invasive species everywhere and often seek the support and effort of landowners to participate in the protection of our region. The most commonly reported species to iMapInvasives in the SLELO region include purple loosestrife (*Lythrum salicaria*), Japanese knotweed (*Reynoutria japonica*), garlic mustard (*Alliaria petiolata*), leafy spurge (*Euphorbia esula*), pale swallow-wort (*Vincetoxicum rossicum*), common buckthorn (*Rhamnus cathartica*), and common reed (*Phragmites australis* ssp *australis*) *which is* the second highest reported species in our region, which will be the species of focus for the remainder of this article.

Phragmites is a non-native species that is believed to have been introduced from Europe in the 19th century via ballast water. This invasive species, in the grass family *Poaceae*, can grow over 15 feet in height. It often grows in very dense stands or monocultures, which consists of both living and dead stems from previous years growth. Mid-summer, *Phragmites* is in bloom with purple inflorescence, or the complete flower head, which fade to gold as they dry in the winter. *Phragmites* can spread via its seeds, which are covered in silky hairs and dispersed via humans, animals and the wind; through underground stems capable of growing roots and shoots called rhizomes; and through stolons which are stems that grow along the soil surface that can grow over 40 feet from the parent plant.

Characteristic	Invasive	Native
Leaves	Bluish to dark green	Yellow to green
Stems	Dull tan to green, center ridge	Red to purple
Growth Habit	Dense monoculture stand	Intermixed with other species

Phragmites—landowner response (Part 2)

SLELO– Brittney Rogers

As a landowner, it is important to preserve native biodiversity and protect your assets from the negative impacts of invasive species.

Human-induced disturbances, such as development, may also promote non-native species or *Phragmites* invasions and dispersal can also occur via construction equipment that was not properly cleaned. Roadsides are also a frequent pathway of spread as they have increased connectivity of ecosystems where transport of plant fragments and seeds can spread. Roadsides in NY are harsh environments with high inputs of sand and salt, vehicular contaminants and frequent disturbances. Simple ways to prevent the spread of *Phragmites* include ensuring that the contractors you work with are cleaning equipment between sites using guidance from this **Clean Equipment Protocol**, purchasing native plants, and avoiding the use of **NYS Prohibited and Regulated Plants** as part of the NYCRR Part 575 Invasive Species Regulations. Monitoring for and controlling invasive species at sites with newly laid topsoil and aggregate is also recommended.

Once *Phragmites* has established on a property, it can quickly grow into dense stands and spread to adjacent areas, so it is important to identify and respond as early as possible. If a population is already well established, it is recommended to work with adjacent property owners to manage and remove the entire population.

Creating a plan for managing an invasive species can help increase the potential for success. Objectives and goals can be directly outlined and shared with neighbors, friends, and professional staff. The following steps – **Assessment, Management and Restoration** – should be included in your plan. It is always best to check with your local NYSDEC regional office to determine if permits are needed for your planned project and if so, they will be able to provide you with the necessary applications.

The Benefit of Our Efforts

This summer, SLELO PRISM is working with landowners on North Sandy Pond to manage the *Phragmites* growing in the dune areas along the end of Renshaw Bay Road. SLELO PRISM will also collaborate with the Eastern Lake Ontario Dunes Foundation for the purpose of developing a Dunes and Wetlands Area (ELODWA) Comprehensive Invasive Species Management Plan. The project team will coordinate and collaborate with land managers at El Dorado Beach Preserve, Black Pond Wildlife Management Area (WMA), Southwick Beach State Park, Lakeview WMA, Sandy Island Beach State Park, Deer Creek Marsh WMA, and private property owners along with a subcontractor to develop the ELOWDA Comprehensive Invasive Species Management Plan utilizing integrated pest management and best management practices which may include invasive species suppression and dune ecology restoration.

Because of the persistence and aggressiveness of *Phragmites*, long term management and monitoring may be necessary. While controlling *Phragmites* on your property may be both time and monetarily expensive, the environmental and social benefits that result from restoring your property far outweigh the costs. Together we can make a difference.

For more information visit
www.sleloinvasives.org/phragmites

Partner Spotlight

Normand Genier– Land Resources Manager
Saint Regis Mohawk Tribe-Environmental Unit

Below are a few invasive species related initiatives that our partners at the Saint Regis Mohawk Tribe-Environmental Unit are undergoing.

EAB Surveillance in Akwesasne

Funded by the USDA-APHIS-PPQ-EAB program, the Saint Regis Mohawk Tribe, Environment Division, will deploy 23 EAB survey traps this summer in accordance with USDA established guidelines (USDA-APHIS-PPQ-EAB, 2008 Emerald Ash Borer Survey Guidelines). The Tribe works in conjunction with USDA-APHIS- PPQ and will deploy the traps during the summer months when EAB is biologically and reproductively active. The traps are designed to attract EAB only if they are present using natural lures (pheromones) and a sticky substance to trap them onto the trap. The EAB traps will be periodically inspected and suspect insects collected, preserved and shipped to USDA for identification.

Black Ash Crop Tree Release

This past winter, the Environment Division implemented a silvicultural treatment on a small black ash stand at the Brasher State Forest. The focus of the treatment is to improve the growing conditions of selected black ash seed trees also referred to as crop trees by removing some of the competing trees, which in turn would help "release" the crop trees and increase the probability of seed production. Some of the positive outcomes of this silvicultural treatment project include: harvesting of 4 black ash basket logs, release of hundreds of black ash crop trees, and the harvesting of over 13 cords of firewood. The firewood will be donated to the elders and disabled of the community to assist with winter heating needs.

Tyler Jacobs with Black Ash Tree Crop-SRMT.

Native Plant Nursery Restoration and Capacity Building Project

The Native Plants Restoration and Capacity Building (NPRCB) project will develop the capacity to operate and manage a native plant nursery with a focus on addressing native plant restoration priority sites on *Phragmites* management areas and dam removal shoreline sites along the St. Regis River. The NPRCB project will prepare and plan for long-term sustainability to lay the foundation for a fully developed native plant nursery to meet the future needs for native plant restoration on Tribal lands. The NPRCB project will involve active community participation in project visioning and sustainability planning, align supportive resources and develop partnerships that will be vital to the long-term success of native plant restoration, and educate and inform community members on the importance of native species propagation.

Upcoming Invasive Species Events and Announcements

Click to View the Agenda & Register

Click to View Details & Register

- **June 6th-12th** NY Invasive Species Awareness Week .Virtual experiences and COVID compliant events are being planned. **Contact *megan.pistolese@tnc.org* if you are interested in hosting a *NYISAW event*.**
- **May 6th 7pm EST** Saving Our Trees: Preventing Imported Forest Pests
- **May 12-June 30th** Black River Watershed Wednesday Webinars
- **May 15th-22nd** National Invasive Species Awareness Week: Part II Outreach/Education
- **May 26th 10am-12pm EST** PAMF Virtual Training Session
- **June 10th 6pm-8pm EST** Science Speaker Series– Dock & Shoreline Invaders: Identification and Management
- **June 12th** *(2-hour sessions between 9am-1pm)* Live Aquatic Plant ID & Floating Classroom
- **June 7th 1pm EST** Identifying & Reporting Spotted Lanternfly & Tree of Heaven
- **June 7th 7pm EST** Q&A SLF Panel Discussion more iMapInvasives.org Trainings

<<Notable Announcements>>

INVASIVE SPECIES MANAGEMENT LONG ISLAND

Northeast RISCC Management
Regional Invasive Species & Climate Change

St. Lawrence River Watershed Project

Our partners with LIISMA PRISM have a new **Tick-Tok** Page.

4th Annual RISCC Virtual Symposium **Recordings**

Final Revitalization Plan

Managers' Memo

Nature Knows No Boundaries

Scale is an important factor when it comes to conservation work. When you think of large continental conservation efforts, the Blue Ridge to Boreal Initiative for example- the vision can be so big that it is easy to forget the power of the smaller scale work that can collectively impact our efforts. Humankind is a fan of creating boundaries, we like to think of things in terms of here or over there, ours or theirs, but nature knows no boundaries. A single forest pest smaller than the size of a sesame seed can take down an entire forest. A non-native mussel can reap havoc on aquatic food webs which took eons for native species to synchronize with. With this comes opportunity. The opportunity to work collaboratively to protect land and water systems that go way beyond our own backyards and to remove social barriers thus augmenting our collaborations.

To understand this, we must put it into the context of 'prevention'. What we do in the core forest of the Tug Hill, such as preventing the establishment of a forest pest, helps to protect the entire 750,000 million acres of the connected Blue Ridge to Boreal landscape, does it not?

The same concept of protection applies in our aquatic conservation- and since aquatic ecosystems are often more connected than terrestrial and, in many cases, even more difficult to manage - prevention can be considered even more vital. There are an estimated 1.61 million acres of surface water within the St. Lawrence Eastern Lake Ontario Region. Given that the Erie Canal connects Lake Erie to nearly all of New York's inland waterbodies, the prevention of even a single invasive species spreading through this canal system serves as doing our part to protect all the Great Lakes, the Finger Lakes and other inland waterbodies that connect to the canal. What it will take is for all organizations that fall within the watershed of the Erie Canal to commit to and collaborate on invasive species prevention from one end of the system to the other and all areas in between – can you imagine the collective impact?

Nature knows no boundaries isn't just about nature – it's about nature being accessible to everyone and the need to remove social barriers. Having the ability to connect with nature, is the foundation for inclusive stewardship of the same.

~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
- 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