

# SLELO PRISM

2017



## Annual Report

St. Lawrence - Eastern Lake Ontario

Partnership for Regional Invasive Species Management

*Teaming Up to Stop the Spread of Invasive Species*



## The Connection Between People, Their Way of Life and Invasive Species in New York

A recent survey conducted by the SLELO PRISM Partners shows that 92% of those surveyed stated that invasive species affect their wellbeing (general happiness) and 74% stated that invasive species have a negative impact on their livelihood (food on the table, money in their pockets or financial means). This, combined with the ecological and economic impacts of invasive species and the fact that New York is a continental hub for the import and export of invasive species, solidifies that our obligation to land, water and people stewardship through invasive species prevention is paramount.

The partners of the St. Lawrence Eastern Lake Ontario Partnership for Regional Invasive Species Management (SLELO PRISM) remain committed to protecting our region's natural areas for all who benefit and for all to enjoy.

Copies of this report can be obtained  
from the SLELO-PRISM website:

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

Under the menu item:

Resources/Information Sharing/Downloads / 2017 Annual Report

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Cover photo: Trail near the Salmon River Reservoir

By Rob Williams©

# 2017 Strategic Accomplishments

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*SLELO PRISM Partners strive to protect the ecological integrity of the Eastern Lake Ontario region and Northern New York's natural & cultural resources from the threat of invasive species. In 2017 partners collaborated on making the following accomplishments, a.k.a. strategic measures:*



- ◆ *Completed a ground-breaking survey to document the cultural impacts that invasive species have on people, their well-being and livelihoods.*
- ◆ *Assisted with a unique forest resiliency project on Tug Hill.*
- ◆ *Prepared a Citizen Science Reference Guide for the use of environmental DNA and underwater video as practical early detection tools for aquatic invasive species.*
- ◆ *Prevented the spread of aquatic invasive species from four strategic boat launch locations along Eastern Lake Ontario.*
- ◆ *Completed early detection surveillance on thirteen priority conservation areas resulting in the detection of invasive rusty crayfish in Oneida Lake and Delta Lake.*
- ◆ *Eradicated 19 giant hogweed sites reducing the threat to human health.*
- ◆ *Strived to create healthy, sustainable and resilient ecosystems to maintain lake and inland-based ways of life.*

**Nice Work Partners!**

## Acknowledgements

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-

Central and Western New York Chapter of The Nature Conservancy

As Host Organization



-

The New York State Department of Environmental Conservation,

Invasive Species Coordination Unit



The New York State Invasive Species Council

***The numerous partner organizations and their representatives who contribute their expertise, time and resources to the development and success of the SLELO PRISM.***

## Why We're Involved

According to a recent people survey, **92%** of participants, indicated that invasive species affect their wellbeing (*general happiness*) and **74%** stated that invasive species have a negative impact on their livelihood (*food on the table, money in their pockets or financial means*).



New York is a continental hub for the import and export of invasive species. If we don't do our part to protect our lands and waters, who will?



Invasive species are a factor in the decline of 49 percent of all threatened or endangered species. (Pimentel 2004).



Invasive species are the second largest threat to biodiversity after habitat loss. (Pimentel 2004). When considered as a type of habitat loss, invasive species then compete for first place (Williams, 2013).



## Evidence Based Conservation

The colonization of ecologically important natural areas by invasive species, negatively impacts the diversity and abundance of native flora and fauna requiring conservation to restore, sustain and create resiliency.

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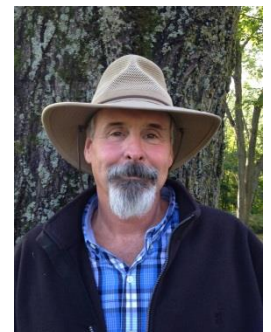
# Collaborations and Partnerships

Conservationists realize the benefits of working together to achieve a natural resource goal; establishing a set of goals, objectives and strategies requires expertise and collaboration. SLELO partners have established a strong sense of collaboration and this collaboration is perhaps one of the leading components of our PRISM's success since our formal inception. Our efforts cannot be realized, however, without the support we receive from the Central and Western New York Chapter of The Nature Conservancy as our "host organization", the support we receive from iMapinvasives and from the New York State Department of Environmental Conservation, Invasive Species Coordination Unit and Invasive Species Council.

## Strategic Approach

During our strategic planning phase, our partners recognized the importance of linking our annual strategies to our objectives, and subsequently linking our objectives to our goals. More importantly our partners recognized that by following this approach we increase the likelihood of success. **This report reflects our calendar year 2017 accomplishments in direct relation to the seven goals identified by our partners.**

*"Many of our accomplishments are achieved not by default, but through commitment and robust collaboration among our partners. The numbers tell a great story, but it's how we as a partnership, set up our strategic plan and since our work is directly linked to this plan, it's safe to say our momentum remains strong. I hope you will be as pleased as I am with the progress that the partners of the SLELO PRISM have made in 2017. "*



*~Rob Williams*  
PRISM Coordinator



# Where we worked in 2017

(Figure 1) Showing spatial distribution of partner efforts.

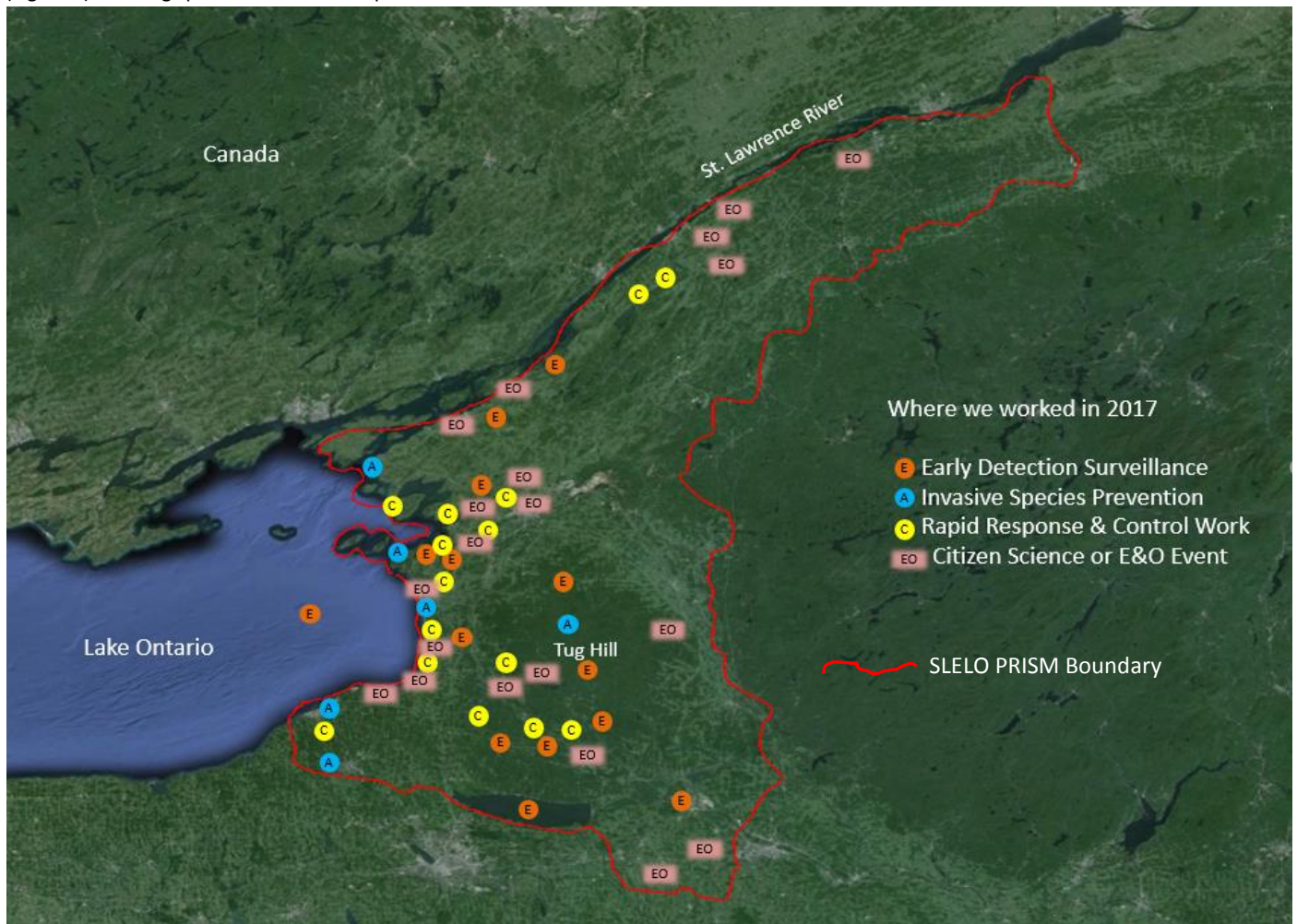
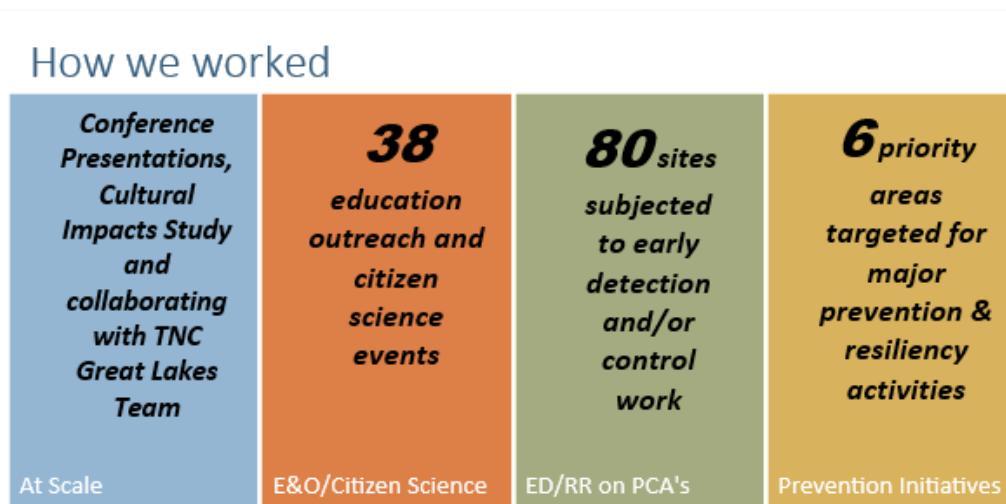


Figure 2 - below: Shows major initiative categories.





## Goal 1 – PREVENTION

Prevent the introduction of invasive species into the SLELO PRISM's Priority Conservation Areas.

### Eastern Lake Ontario Aquatic Invasive Species Spread Prevention

2017 marks the second season of an intense effort to reduce the introduction and spread of aquatic invasive species (AIS). Through a \$100k grant from the NYS DEC Invasive Species Spread Prevention Grants Program (NYS Environmental Protection Fund), AIS stewardship specialists (Boat Launch Stewards), (Figure 2) were strategically placed at high use/high priority boat launches along Eastern Lake Ontario. Statistics collected in 2017 are presented in (Table 1).



Figure 2: Boat Launch Stewards

Table 1: Statistics collected from boaters.

- 626 boaters engaged (2-year total = 1,657)
- 14% from out of state/country
- Aquatic organisms found on 9% of boats in 2017 compared to 67% in 2016. Likely due to reduced boating caused by lake speed restrictions.
- 89.6% of all participants received "Clean-Drain-Dry" literature.
- Top 3 travel routes identified: Route 3, Route 81, Route 12-E.

### Spread Prevention at Scale

Lake Ontario, its bays and tributaries have always been a destination for fishing enthusiasts as well as recreational boating. Professional anglers participate in competitions from all over the east-coast and internationally. During the 2016-17 season when asked what waterbody the boater visited last or where they intend to go to next revealed the following locations/areas:

Canada  
Adirondacks  
New Hampshire

Florida Keys  
Pennsylvania  
Hudson River

Alabama  
New Jersey  
Ohio River

Louisiana  
Connecticut  
Alaska

Finger Lakes  
Texas

## Participation with the New York State Invasive Species Advisory Committee

The New York State Invasive Species Advisory Committee (ISAC) was formed to provide information, advice and guidance on invasive species issues to the New York State Invasive Species Council. This includes discussions and recommendations regarding the prevention of invasive species introductions into New York State along with spread prevention across PRISM regions.

## Collaboration at Scale

In 2017, assistance was needed to address aquatic invasive species on a grander scale in the Oswego River which connects the Great Lakes with the entire state of New York through the Erie Canal system. The SLELO PRISM received expanded assistance from our PRISM's host organization and collaborated with The Nature Conservancy's Great Lakes Team. Guidance was also received from the New York State Department of Environmental Conservation Invasive Species Coordination Unit and the United States Fish and Wildlife Service to address possible aquatic invasive species in this connected river/lake system.

*"The SLELO PRISM is the most organized and effective organization that I have ever had the privilege to be involved with. I am continually impressed with the breadth of our accomplishments!"*

~ Sue Gwise  
Cornell Cooperative Extension  
Jefferson County







## Goal 2 – Early Detection

Search for new and recent invaders and respond strategically before they become established.

Timing is critical when responding to the initial detection of an emerging invasive species in any area. Detecting and responding to the invasion of an unwanted plant, animal or other organism before it can become established is the first step in eradicating or effectively managing a newly-arriving invasive species.

### Environmental DNA

Genuine early detection means detecting the presence of a species before it can populate and cause irreversible harm to the ecosystem of concern. In 2017 the SLELO Partners (Figure 3- top) completed a special project funded through the Great Lakes Restoration Initiative, that utilized environmental DNA as an early detection tool. A Citizen Science Reference Guide was published as one of the project deliverables.

### Scouting for Invasives Within Priority Conservation Areas

During our strategic planning sessions, our partners identified 25 Priority Conservation Areas or PCA's. Each year, two seasonal employees (Figure 3- bottom) make up our early detection team. This team is tasked with conducting early detection surveillance on half of our PCA's resulting in a two-year rotation for completing surveillance on all PCA's.



Figure 3- Top: eDNA team collecting samples. Bottom: ED team Bryna Daykin and Alicia Wood







### Early Detection

In 2017 rusty crayfish (*Orconectes rusticus*) were confirmed in Oneida Lake and for the first time in the Delta Lake Reservoir (Figure 4 - left)

## Priority Conservation Areas (PCA's)

In 2017, early detection surveillance was conducted on twelve Priority Conservation Areas (PCA's) including 12 forest pest Highly Probable Areas (HPA's), Table 2.

Table 2: Summary of Priority Conservation Areas where early detection took place in 2017.

Priority Conservation Area (PCA)	Number of Highly Probable Areas (HPA's) searched (terrestrial and aquatic)	Prevention Species Found	Target Management Species Found	Rapid Response or Management Response Conducted
Little John WMU	15	none	B	8 sites treated
Forest Pest Surveys	12	none	n/a	n/a
Fish Creek WMA	10	none	PL, CF, B, P, PBS	n/a
Guffin Bay	51	none	WC	hand pull
Salmon River Estuary	12	none	PL, EF, WC, EWM, CLP, JKW	Water chestnut hand pull
Mud Lake	17	none	EF	n/a
Upper Lower Lakes WMA	24	none	PL, EF, P, B, JKW,	n/a
Tug Hill I.S.P.Z.	27	none	JKW, PBS	2 sites treated
Dexter Marsh & Muskellunge Creek	31	none	PL, EF, WC, EWM, CLP,	n/a
Delta Lake	10	Rusty crayfish	BN, EWM, P, PL, JKW	
Oneida Lake	28	Rusty crayfish	SSS, BN, EF, EWM, CLP, ZQM, WC, PL, JKW, H	
French Creek	22	none	EWM, CLP, B, P, CF,	n/a
Key: B=buckthorn, EWM=Eurasian water milfoil, H=honeysuckle, P=Parsnip, CLP=curly leaf pondweed, CF=coltsfoot, JKW=Japanese knotweed, WC=water chestnut, ZQM=zebra/quagga mussel, BN=brittle naiad, PH= phragmites, PBS=pale/black swallow-wort, PL=purple loosestrife, EF=European frogbit, SS=starry stonewort, H=honeysuckle				



## Goal 3 – RAPID RESPONSE, CONTROL & MANAGEMENT

Control invasives using three basic levels of control; Eradication, Containment/Exclusion, Suppression.

The SLELO PRISM response team consists of two individuals of which one is a New York State licensed herbicide applicator. Their job is to respond to invasive species that are in low abundance and control them to varying degrees. Multiple techniques are used to include manual, mechanical and chemical. Below is a summary of control work completed during the 2017 field season (Table 3).

Table 3: Summary of Control Work

Priority Conservation Area or Location	Species Controlled	Number of sites and treatment type
Multiple	Giant Hogweed *	40 sites herbicide 8 sites root cut
Black River Trail	Swallow-wort**	2 sites herbicide
Chaumont Barrens	Swallow-wort	28 sites herbicide
Deer Creek WMA	Phragmites	28 sites herbicide
Eldorado/Black Pond	Swallow-wort	6 sites herbicide
Limerick Cedars	Swallow-wort	3 sites herbicide
Little John WMA	Phragmites	8 sites herbicide
Mud Bay Boat Launch	Swallow-wort	4 sites herbicide
Pine Grove Boat Launch	Swallow-wort	1 site hand pull
OBI-Couch Easement	Swallow-wort	4 sites herbicide
Selkirk Fen	Phragmites	2 sites herbicide
Three Mile Bay/Creek	Swallow-wort	2 sites herbicide
Tryon Road	Swallow-wort	1 site herbicide
Tug Hill I.S.P.Z.	Swallow-wort, knotweed	4 sites herbicide
Isthmus	Swallow-wort	1 site herbicide
Black River Bay Launch	Swallow-wort	1 site herbicide
Upper/Lower Lakes	Swallow-wort	1 site herbicide
Carleton Island	Swallow-wort	1 large site herbicide
*To date 19 giant hogweed sites have been eradicated		
**Pale swallow-wort is the most common species being managed in the SLELO region		

## Water Chestnut Control

Partners of the SLELO PRISM collaborated on the hand harvesting of countless water chestnut plants (*Trapa natans*) within the SLELO PRISM region. Noteworthy is that all sites are still producing plants, although some chemically treated sites show reduced abundance and new populations are being identified primarily in backwater, previously undetected areas. Numerous volunteers participated this year on water chestnut hand pulls sponsored by the New York State Department of Environmental Conservation, the SLELO PRISM and the Oneida Lake Association (Figure 5).

The amount of water chestnuts that were hand-harvested and reported in 2017 totaled: **24,511 pounds removed (wet)**.

Figure 5: Volunteers at Guffin Bay water chestnut hand-pull event.



## Conservation Outcomes from Control Activities:

Control efforts help reduce the spread of invasives and foster the growth of native species which support the ecological balance and health of our native habitats.



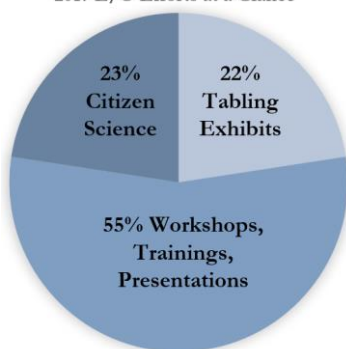
## Goal 4 – EDUCATION / OUTREACH / CITIZEN SCIENCE

Increase public awareness and understanding of invasive species issues.

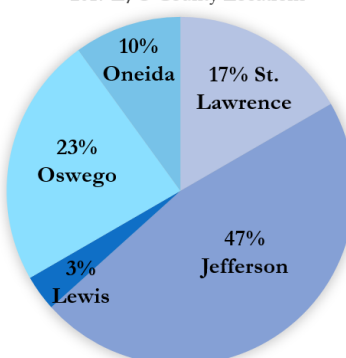
Increasing public awareness and understanding of invasive species issues is a goal of SLELO's educational efforts summarized in (Table 4). Distribution of efforts are presented in left column.

Table 4: Education and outreach accomplishments in 2017

2017 E/O Efforts at a Glance



2017 E/O County Locations



2017 EVENTS	DATE/LOCATION	PEOPLE ENGAGED
Presentation for Master Gardeners	January 24, Watertown	15
eDNA presentation for the WQCC	January 26, Lowville	10
Volunteer Opportunities Workshop	March 28, Watertown	12
Tug Hill Commission LGC	March 30, Watertown	30
Clinton EAB Tree Survey	April 6, Clinton	10
JCC Earth Week Presentation	April 17, Watertown	10
Adopt a Trap Training	April 19, Sackets Harbor	39
Forest Pest training	May 9, Watertown	10
Pollinator Pathway Project	May 11, Watertown	24
Dune Fest	May 30, Southwick Beach State Park	78
Gouverneur School IS Project	May 31, Gouverneur	51
Canton EAB Ash Tree Tagging	May 16, Canton	14
ELO Invasive Species Symposium	June 7, Selkirk Shores State Park	104
iMap invasives Spring Training	June 14, Watertown	22
Herb & Flower Festival	June 17, Oriskany	40
Lakeview Water Chestnut Pull	July 11,12 Lakeview WMA	19
Integrated Pest Mgmt. Conference	July 13, Albany	20
Port Ontario Water chestnut pull	July 15, Port Ontario	19
Pollinator Pathway workshop II	July 18, Henderson	15
Grindstone March Water Chestnut Pull	August 3-7, Pulaski	45
Guffin Bay Water Chestnut Pull	August 10, Dexter	19
Lyme School Environmental Days	August 1, Lyme	96
Invasive Insects Talk	August 17, Fort Drum	30
Woodsmen Field Days	August 18, Booneville	24
Dune Grass Workshop	August 5-6, Pulaski	16
IPM Pollinator Forum	August 22, Akwesasne	10
NYPA Wildlife Festival I	September 9, Utica	32
NYPA Wildlife Festival II	September 23, Massena	12
Salmon River Fish Hatchery	September 23, Altmar	30
CCE Environmental Days	September 26, Fort Drum	550
Potsdam LGC	October 10, Potsdam	17
Thousand Islands Land Trust Fall Hike	October 15, Alexandria Bay	57
DEC EAB Workshop	November 1, CCE St. Lawrence County	40
ADK Mountain Club	November 4, Lowville	40
eDNA Workshop	September 21, Cornell University	62
Cultural Impacts Presentation	November 14, Cornell University	53
Cultural Impacts Presentation	December 19, Albany	23
ISC Swallow-wort in SLELO Region	August 22, Albany	28
<b>38 Events 1,726 People Directly Engaged</b>		





## Goal 5 – COOPERATION

Facilitate opportunities for sharing resources, including funding, personnel, equipment, information and expertise.

Working together towards a common cause is perhaps one of the SLELO Partnership's strongest attributes. Our partners are interested in the subject matter, there is a tremendous amount of expertise within the partnership, and we are engaged, motivated and work extremely well together. Cooperative highlights from 2017 include:

- In 2017, we collaborated more closely with The Nature Conservancy's Great Lakes Team on scaled-up activities.
- Seasonal employees from various partner organizations collaborated on various activities such as water chestnut hand pulls at multiple locations.
- Partners collaborated on our third Eastern Lake Ontario Invasive Species Symposium.
- Our Education and Outreach Committee collaborated to promote education and awareness activities.
- We implemented special projects through our partners to complement our invasive species work.
- Partners continued to promote a cooperative forum at monthly meetings.
- Partners were invited to participate and/or volunteer at events/exhibits & public speaking engagements.

*"It's extraordinary to be associated with such an outstanding group of committed professionals. SLELO PRISM is a shining example of how knowledge, collaboration and concern for the environment can translate into tangible results!"*

~ Joshua Payette  
NYS Parks, Recreation & Historic Preservation



## Volunteer Surveillance Network

Volunteers are a critical aspect of invasive species activities throughout the Eastern Lake Ontario and St. Lawrence region. Voluntary participation in community activities such as invasive species surveying is important and is an accepted cultural form of reciprocity. Volunteering extends our early detection surveillance capacity and increases our effectiveness in conservation activities while at the same time provides for a valuable learning experience for volunteers. In 2017 an effort was made to increase the number of individuals participating in our volunteer surveillance network thus broadening our regional coverage.

Established surveillance networks include: **Fanwort Surveillance Network** (3 active volunteers searching 8 out of 10 HPA's<sup>[1]</sup>), **Emerald Ash Borer Surveillance Network** (12 volunteers searching 13 HPA's not including the volunteers and trap locations for the adopt-a-trap project) and our **Hemlock Woolly Adelgid Surveillance Network** (8 active volunteers searching 13 of the 27 HPA's).

## Adopt-A-Trap Project

This season, SLELO partners initiated an Adopt-a-Trap project whereby volunteers place forest pest traps into tree stands and periodically monitor the traps for invasive insects. In 2017, 44 volunteers hung and monitored traps at 37 different locations within Oswego, Oneida, Jefferson, St. Lawrence Counties. After receiving training, volunteers hung the traps, monitored each trap and reported findings (Figure 6).



Figure 6. Volunteers receiving training on forest pest trap deployment.

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<sup>[1]</sup> Highly Probable Area



## Goal 6 – INFORMATION MANAGEMENT & SHARING

Collect, utilize, and share information regarding invasive species

Providing and sharing information in a way that is easily accessible is an important aspect of regional collaboration. To manage and share information among SLELO partners and the public, and to maintain continuity in reporting, our partners maintained several initiatives in 2017 including:

- **Partner Roundtable Reports:** All partner meetings begin with a roundtable opportunity for partners to share information regarding invasive species. All meetings end with an open dialogue as well.
- **Field Reports:** Field reports are sent directly to partners and posted on the SLELO website.
- **In-Situ Treatments Page:** In 2017, treatment pages were added to our website that shares information and maps of rapid response and treatment areas within the PRISM.
- **iMapinvasives:** 1,333 observations were recorded into iMap during the 2017 field season. Observations included 9-aquatic animal, 21 insect, 204 aquatic plant, 1,090 terrestrial plant.
- **SLELO PRISM Website:** The SLELO PRISM website has become an important medium for managing and sharing information. The popular site is used to: announce partner meetings, display field reports, share information on invasive species management and post relevant information.
- **Quarterly Newsletter:** Four issues of the SLELO PRISM newsletter were published in 2017. This was accomplished with a commitment from our Education and Outreach Committee along with our Education and Outreach Coordinator Megan Pistolese.
- **Participation with Statewide Webcasts:** Partners participate in and facilitate monthly New York statewide webcasts.



## Goal 7 – ECOLOGICAL RESTORATION

Develop and implement effective restoration methods

Restoring and protecting the biological diversity of unique habitats and cultural resources from the negative impacts posed by invasive species is the core purpose for our work. This, and sustaining the habitat which supports rare, threatened or endangered species, is at the forefront of our mission. Areas that have been treated for invasive species may be considered as disturbed areas and can be restored more effectively with intentional planting of native species.<sup>1</sup>

### Treatment Sites – General:

As a general practice and where appropriate, the SLELO team plants native grass seed to expedite the growth of ground cover to reduce the susceptibility of the site to the infestation of a non-native species.

### Chaumont Barrens Alvar Restoration:

European buckthorn and honeysuckle have become dominant around the edges of the Chaumont Barrens Nature Preserve which was treated with herbicides in 2016 as an initial step. In 2017, post treatment restoration work occurred which included; natural recovery, direct seeding with resident native seed and nursery transplants.

*“As a wildlife biologist, my responsibility as a land steward for the NYS DEC, has given me the challenge of managing diverse habitats for the plants and animals that depend on them. Protecting these properties from the impact of invasive species has not been easy, but being able to work with partnerships such as the SLELO PRISM, the task has been less of a challenge”.*

~ Irene Mazzocchi

NYS Dept. of Environmental Conservation. Region 6



<sup>1</sup> Salon P.R. and C. F. Miller. 2012. A Guide to: Conservation Plantings on Critical Areas for the Northeast  
USDA, NRCS, Big Flats Plant Materials Center, Corning, NY.





## SPECIAL PROJECTS and PARTNER INITIATIVES

Deliverables that help to meet contractual obligations and deliver invasive species management.

### Invasive Species Cultural Impacts Survey:

Much is known about the ecological and economic impacts of non-native, invasive species. Much less is known about the impacts invasive species have on the well-being and livelihoods of people living in the survey region. 92% of survey participants reported that their *well-being* was being affected by invasive species in the SLELO region. Roughly 74% of survey participants reported their *livelihood* was being affected by the invasive species in the SLELO region.



### Tug Hill Forest / Climate Resiliency Project:

A large-scale tree planting effort was implemented on the Tug Hill Lyndaker property, focusing on species diversity, that will help to promote both climate and invasive species resilient forest succession. One goal is to accelerate regeneration and enhance species diversity by planting 45,000 tree seedlings from 26 different species over two years. Long lived legacy trees include; sugar maple and red spruce. Northern edge species included; oaks, native pine and hickory.

### Young Forest Initiative

In 2017, the New York State Department of Environmental Conservation's - Young Forest Initiative (YFI), completed projects on four Wildlife Management Areas including; Perch River, Cranberry Creek, Lakeview, and Upper and Lower Lakes located in St. Lawrence County. YFI crew members suppressed populations of swallowwort, common buckthorn, honey suckle and wild rose.

## RESEARCH PRIORITIES

As requested by the New York State DEC Invasive Species Coordination Unit, the NYS Invasive Species Council and the NYS Invasive Species Research Institute.



### New York as a Continental Hub

A new research item submitted by the SLELO PRISM Partnership is related to obtaining a better understanding of New York's role as a continental hub for the import and export of invasive species. Questions to pose include; are we doing everything we can to prevent imports and exports of invasive species, how might this effect North America and are there additional partners we should engage.

### Pheromone Based Bait

A new research item submitted in 2017 was for the development of a species-specific pheromone based bait and netting protocol for confirmation and removal of invasive fish.

### Biological Controls

Identifying and bringing biological controls to realization requires research and if found these biological controls can offer long term suppression of invasive species. To date the SLELO PRISM partners have advocated for the development of biological controls for water chestnut (*Trapa natans*), Swallow-wort (*Cynanchum spp.*) and Japanese knotweed (*Fallopia japonica*).

*"Cornell Cooperative Extension and SLELO PRISM have partnered on a number of invasive species programs over the years, and this cooperation is invaluable in helping to deliver invasive species education in St. Lawrence County".*

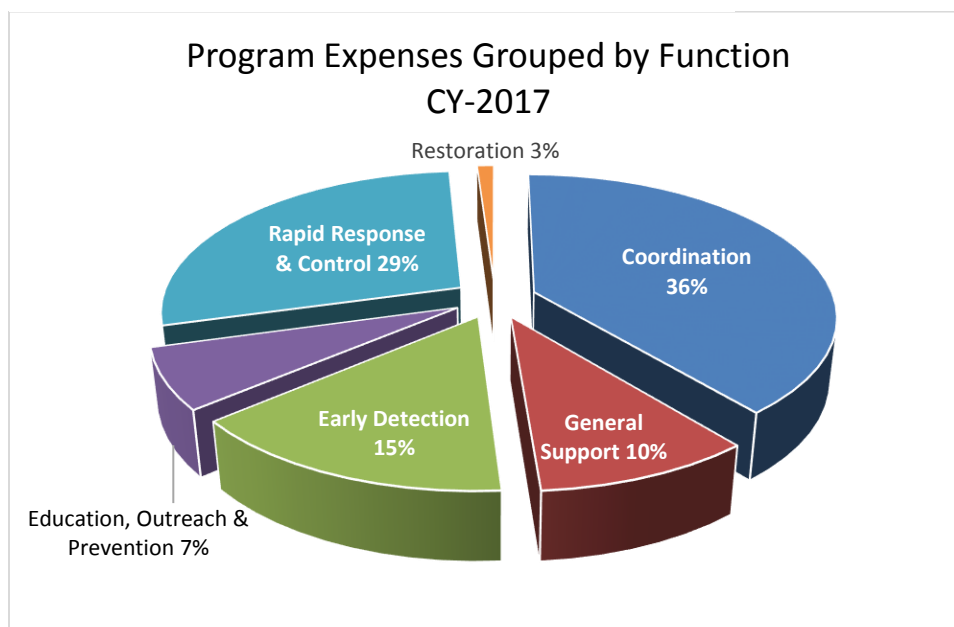
~Paul Hetzler  
Cornell Cooperative Extension  
St. Lawrence County



## Expenses by Function:

In 2017 program expenses were grouped together based on functional/programmatic categories (Figure 7). This allows for a general understanding of the current program focus and does not reflect a financial report.

Figure 7: Program expenses grouped by function.



Function	Description
Rapid Response and Control Activities	Licensed seasonal pesticide applicator and field technician, control related sub-award.
Program Coordination	Activities and expenses related to administering the program including full time staff.
Education, Outreach and Prevention	Events, supplies and materials related to education, outreach, prevention and related special projects.
Early Detection Surveillance	Seasonal employees x2 to conduct early detection surveillance
General Support	Travel, communications, etc.
Restoration	Site preparation, native grass seed, seedlings, plant materials.

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### *Figures with accompanying photo credits:*

- Figure 1: Where we worked in 2017 showing spatial distribution of partner efforts. Created by Rob Williams and Megan Pistolese
- Figure 2: Major initiative categories. Created by Rob Williams.
- Figure 3: Top-Collecting DNA samples. Bottom Early Detection Team. Photos by Rob Williams
- Figure 4: Rusty crayfish. Photo by Bryna Daykin
- Figure 5: Volunteers at Guffin Bay. Photograph by Megan Pistolese.
- Figure 6: Forest pest volunteers. Photo by Megan Pistolese.
- Figure 7: Pie chart showing program expenditures by function. Created by Rob Williams.
- Page Headers: All photos by SLELO PRISM

### *Tables:*

- Table 1: Statistics collected from boaters along Eastern Lake Ontario, 2017.
- Table 2: Summary of Priority Conservation Areas.
- Table 3: Summary of control work and locations.
- Table 4: Education and outreach accomplishments in 2017.

## Appendix A: List of Current PRISM Partners

### Principle Partners:

- New York State Department of Environmental Conservation
- The Nature Conservancy, CWNy
- Cornell Cooperative Extension
- New York State Department of Transportation
- New York State Department of Parks Recreation and Historic Preservation
- Sea Grant of New York
- Thousand Islands Land Trust

### At-Large Partners:

- St. Lawrence County Representative, Cooperative Extension
- Jefferson County Representative, vacant
- Lewis County Representative, Soil & Water Conservation District
- Oneida County Representative, vacant
- Oswego County Representative, Soil & Water Conservation District

### Cooperating Affiliates:

- Ducks Unlimited
- Tug Hill Tomorrow Land Trust
- Tug Hill Commission
- Fort Drum Military Installation
- Save The River Organization
- Audubon Central New York
- Private Consultant
- New York Power Authority
- CNY Regional Planning and Development Board
- United States Coast Guard Auxiliary

## Appendix B: SLELO PRISM's Current Species Lists

### PREVENTION SPECIES

✓ Mile-A-Minute Vine	( <i>Polygonum perfoliatum</i> )
✓ Didymo	( <i>Didymosphenia geminata</i> )
✓ Hydrilla	( <i>Hydrilla verticillata</i> )
✓ Asian Long horned Beetle	( <i>Anoplophora glabripennis</i> )
✓ Hemlock Woolly Adelgid	( <i>Adelges tsugae</i> )
✓ Silver, Big Head and Grass Carp	( <i>Ctenopharyngodon spp.</i> )
✓ New Zealand Mud Snail	( <i>Potamopyrgus antipodarum</i> )
✓ Hemimysis	( <i>Hemimysis anomala</i> )
✓ Asian Clam	( <i>Corbicula fluminea</i> )
✓ Kudzu	( <i>Pueraria lobata</i> )
✓ Feral swine	( <i>Sus scrofa</i> Linnaeus)
✓ Porcelain Berry	( <i>Ampelopsis spp.</i> )
✓ Water Soldier	( <i>Stratiotes aloides</i> )
✓ Rusty Crayfish	( <i>Orconectes rusticus</i> )
✓ Water Hyacinth	( <i>Eichornia crassipes</i> )
✓ Fanwort	( <i>Cabomba caroliniana</i> )
✓ Slender false brome	( <i>Brachypodium sylvaticum</i> )

### TARGET MANAGEMENT SPECIES

✓ Black & Pale Swallow-wort	( <i>Cynanchum spp.</i> )
✓ Water Chestnut	( <i>Trapa natans</i> )
✓ Giant Hogweed	( <i>Heracleum mantegazzianum</i> )
✓ Emerald Ash Borer	( <i>Agrilus planipennis</i> )
✓ Phragmites	( <i>Phragmites australis</i> )
✓ Purple Loosestrife	( <i>Lythrum salicaria</i> )
✓ Japanese Knotweed	( <i>Polygonum cuspidatum</i> )
✓ Glossy Buckthorn	( <i>Rhamnus spp.</i> )
✓ Japanese Stiltgrass	( <i>Microstegium vimineum</i> )
✓ Wild Chervil	( <i>Anthriscus silvestris</i> )
✓ Leafy Spurge	( <i>Euphorbia esula</i> L.)