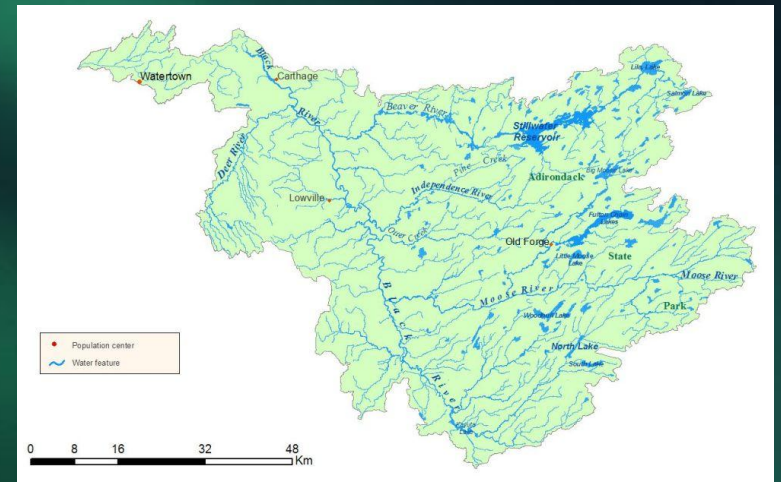


Invasive Species in the Black River Watershed

Presented By

Rob Williams

Invasive Species Program Coordinator
SLELO-PRISM



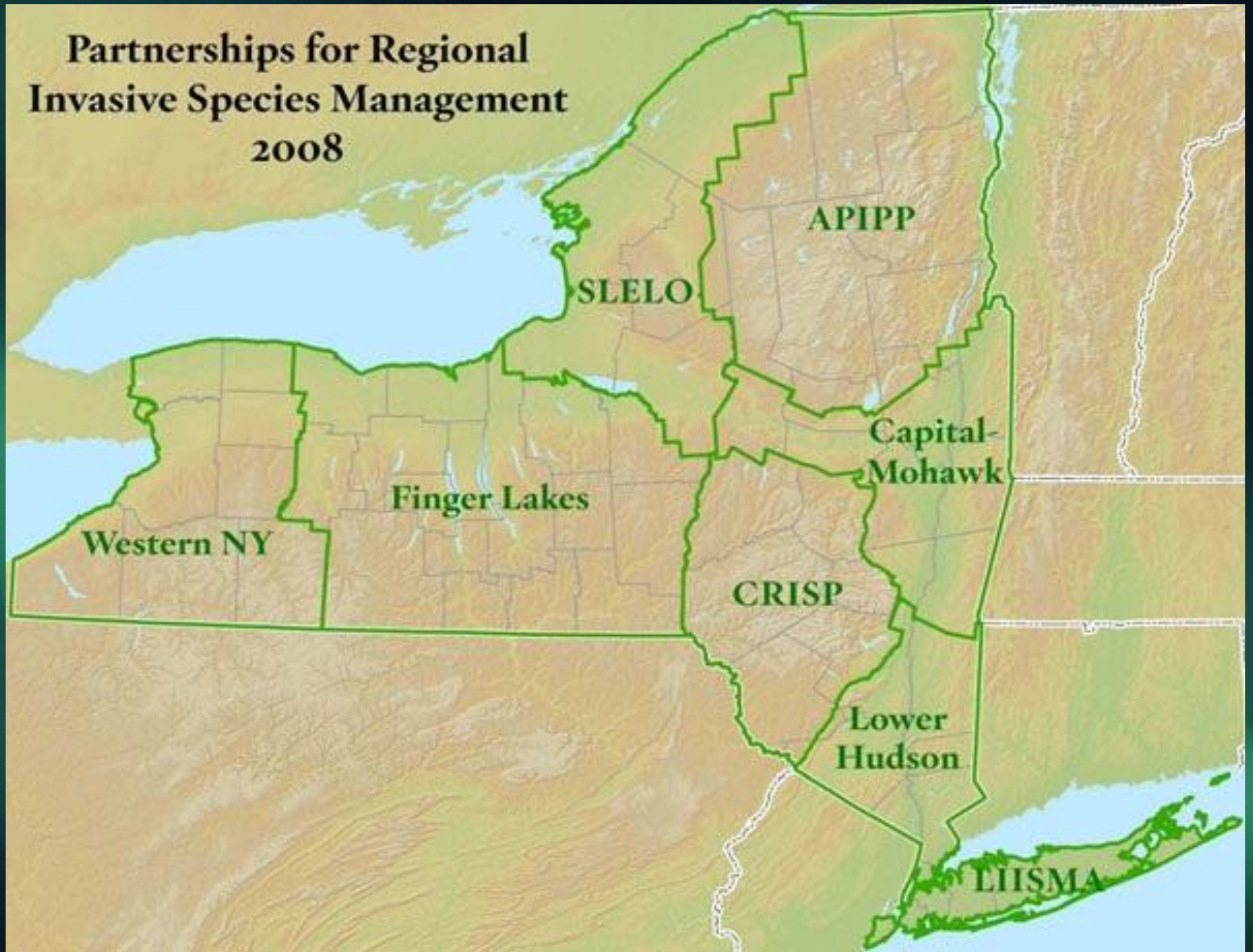
Presentation Topics

- Introduction to the SLELO-PRISM
- Invasive Species in the Black River Watershed
 - Examples of Terrestrial Plants
 - Forest Pests of Concern
- Call Out Giant Hogweed
- What We Can Do!

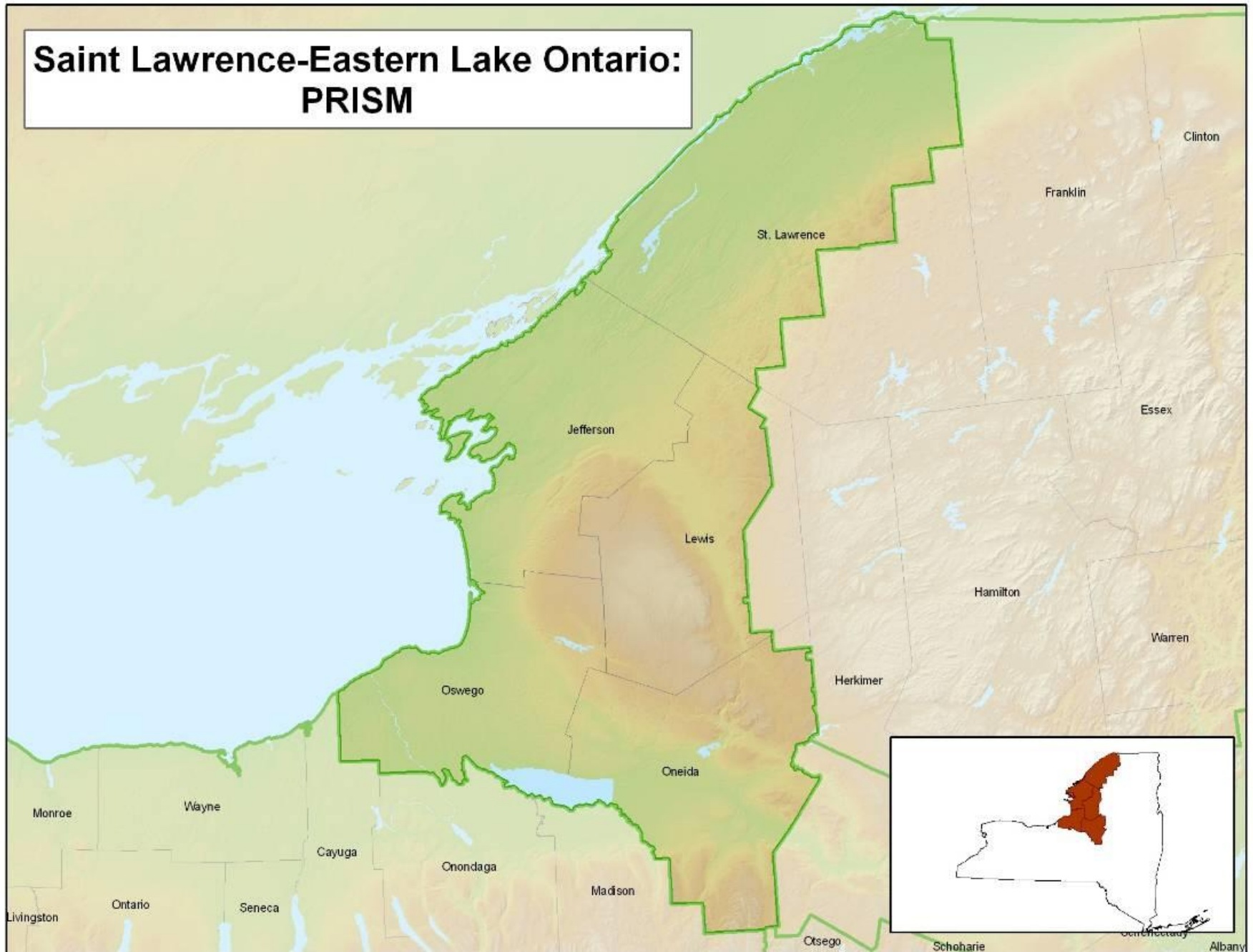
St. Lawrence Eastern Lake Ontario Partnership for Regional Invasive Species Management (SLELO-PRISM)

- One of eight planned PRISM's for New York.
- 4th PRISM to be approved by New York State.
- Currently we have 20 partners to include: principles, at-large and cooperating affiliates from a wide range of charters.
- 5-Year Strategic Plan which includes 5 counties.
- Annual Work Plans for Invasive Species

Partnerships for Regional Invasive Species Management 2008



Saint Lawrence-Eastern Lake Ontario: PRISM

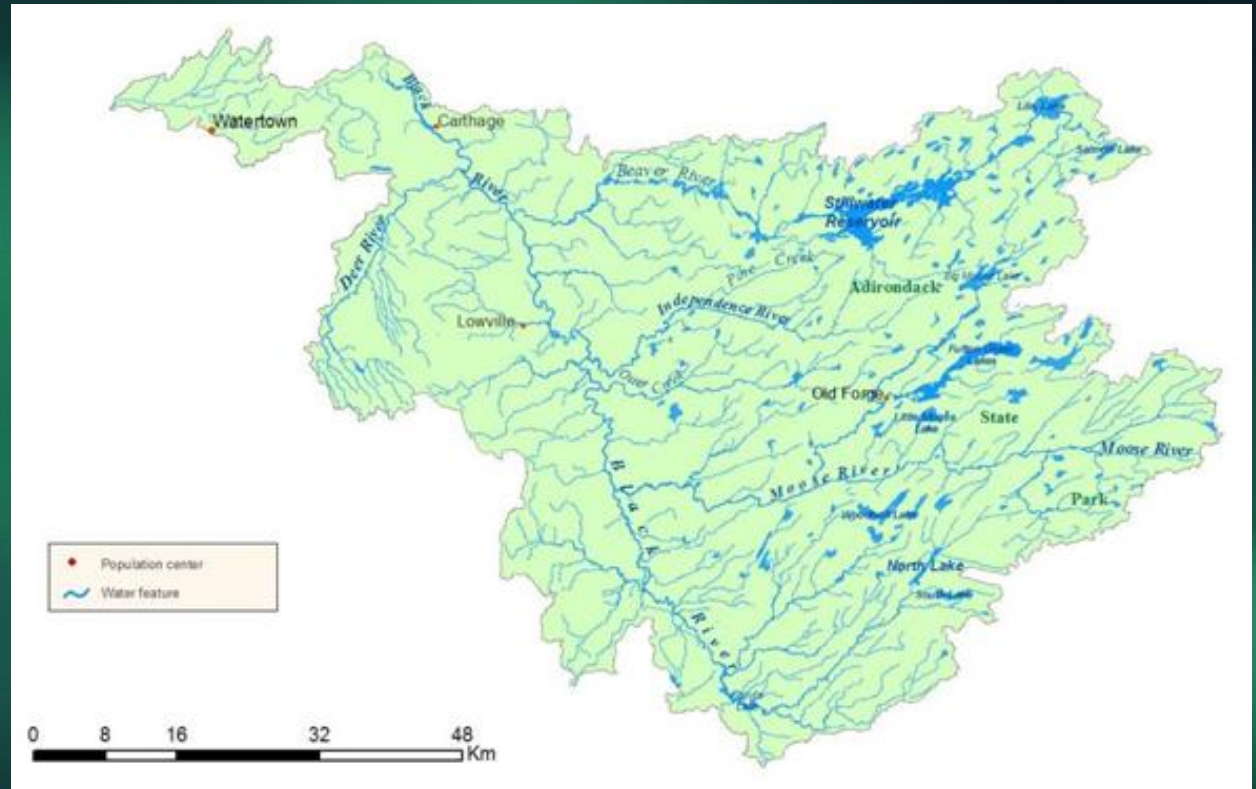


SLELO PRISM Priorities

- **Prevention:** Preventing the introduction of new invasive species not currently found in the SLELO region
- **ED/RR:** Contain, suppress or eradicate species populations upon initial detection.
- **Education & Outreach:** Educating the general public on various Inv. Spp. issues.
- **Community Preparedness:** Helping communities be prepared to deal with invasive species.

The Black River Watershed

The Black River Watershed is ~1.2 million acres in size covering parts of Hamilton, Herkimer, Jefferson, Lewis and Oneida Counties and contains 1 City, 37 Towns and 18 Villages.



Invasive Species In *(and near)* The Black River Watershed

	Giant Hogweed	Swallow-wort	Knotweed	Glossy Buckthorn	Water Chestnut
Oswego	24	77	69	48	18
Oneida	68	0	8	0	0
Lewis	36	2	62	0	0
Jefferson	5	302	21	5	8
Totals	134	381	160	53	26

Based on “reported” observations

Swallow-wort (*Cynanchum spp.*)

● Impacts

- Swallow-worts aggressively choke out desirable native species.
- Swallow-worts interfere with forest regeneration.
- Pale swallow-wort contains substances that are toxic to deer and other grazers so it offers no food value. It also changes the microbial composition of the soil.
- Because it is a member of the milkweed family, monarch butterflies sometimes lay their eggs on swallow-wort, but their larvae do not survive.



Leaves: The leaves are opposite in arrangement, oval to wedge-shaped with pointed tips. Generally, the leaves are 2.5" to 4.5" long and 2" wide.

Flowers: The star-shaped flowers are small and fleshy, with 5 pink to reddish colored petals.

Fruit: The fruit is a smooth, slender, pointed pod that looks much like a milkweed pod.

Can produce **2,000 seeds** per square yard.

Best Control: Herbicide application or hand dig.

Japanese Knotweed (*Polygonum cuspidatum*)

● Impacts

- Knotweed spreads quickly to form dense thickets that exclude native species, reducing species diversity and diminishing an area's value to wildlife.
- Problematic in riparian areas because it can survive floods and rapidly colonize scoured shores and islands.



Leaves: normally about 6 inches long by 3 to 4 inches wide, alternating on stem, broadly oval to somewhat triangular or heart-shaped, pointed at the tip.

Flowers: small, greenish-white flowers in branched sprays in summer.

Fruits: Small winged fruits.

Best Control: Foliar Herbicide application or Cut-Stem or hand dig.

Glossy Buckthorn (*Rhamnus frangula*)

● Impacts

- Glossy Buckthorn is very aggressive in wet areas. It produces dense shade that eliminates other trees and ground species.

Leaves: thin, glossy, ovate or elliptic leaves. The upper leaf surface is shiny.

Flowers: 1 to 8 small, pale yellow flowers with 5 petals clustered in leaf axils. Blooms late May to first frost.

Fruit: Red to dark purple, pea-sized. Develop early June through September. The seeds remain viable in the soil for two to three years.

Best Control: *Cut-stump treatment* using 20 – 25% *Glyphosate* has been effective.



2-Forest Pests

Not found In the Black River Watershed, but on the watch list!



Asian Long-horned Beetle (ALB)
(Anoplophora glabripennis)



Emerald Ash Borer (EAB)
(Agrilus planipennis)



Asian Longhorned Beetle Eradication Program

New Jersey & New York Overview 2011



Legend

- Infested Tree (4/26/2010)
- Infested Trees (historical)
- Regulated Boundaries (Active)
- Previously Regulated Area
- Major Roads
- NYC Boroughs or County Boundaries

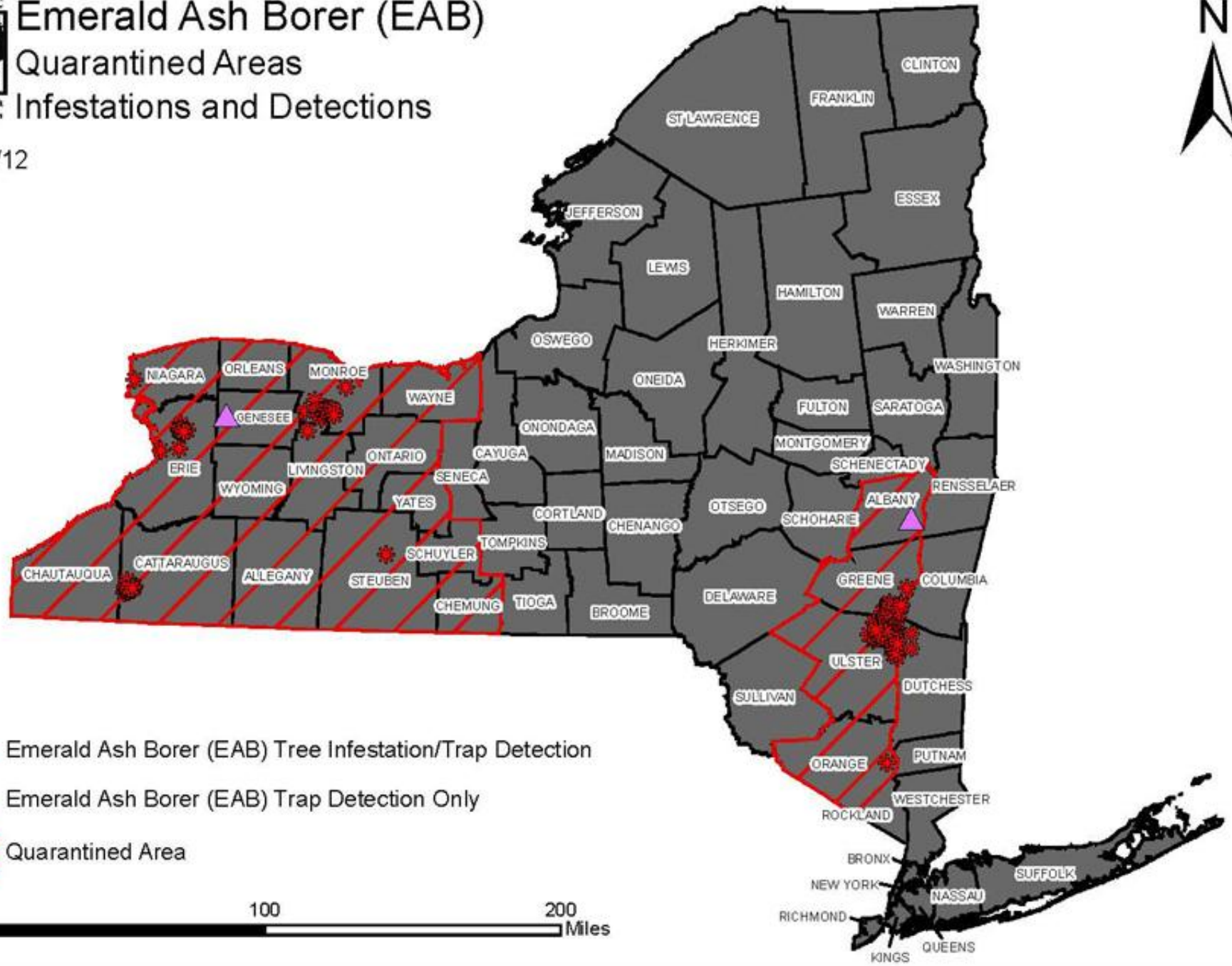
DISCLAIMER: The U.S. Department of Agriculture's Animal Plant Health Inspection Service collected the data used for this map for internal agency purposes only. This map may be used by others, however, the data is not to be used for their original intended purposes. This map was provided by NYC DOITT Office of GIS, & TeleAtlas. Other contributors include: The New York State Department of Agriculture & Markets, New York State Department of Environmental Conservation, and New York City Department of Parks & Recreation.




Emerald Ash Borer (EAB)

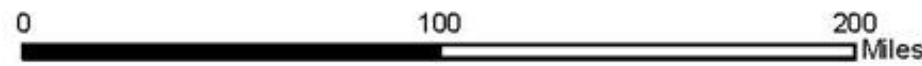
Quarantined Areas

Infestations and Detections

04/25/12



-  Emerald Ash Borer (EAB) Tree Infestation/Trap Detection
-  Emerald Ash Borer (EAB) Trap Detection Only
-  Quarantined Area



Giant Hogweed (*Heracleum mantegazzianum*)

● Impacts

- Giant hogweed has two major impacts: **ecological** and **human health**. It suppresses growth of native plants, which has a negative impact on the wildlife that depend on them. In addition, direct skin contact with giant hogweed induces extreme photosensitivity, which can lead to severe burns and scarring and may cause blindness if sap comes into contact with the eye.



Leaves: palmate compound, with three deeply incised leaflets, with spotted leaf stalk, enormous, lower leaves can be 5' wide. Only basal leaves are produced the first year.

History:

- Native to southern Russia.
- In 1901 botanist's discovered the plant and brought seeds back to Europe.
- Seeds distributed to enthusiasts.
- Entered U.S. circa 1905.



AN
ILLUSTRATED WEEKLY JOURNAL
OF
Horticulture in all its Branches.

Founded by W. Robinson in 1871.

Edited by Miss Jekyll and Mr. E. T. Cook.

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LONDON.

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Published by HUDSON & KEARNS, 20, Tavistock Street, Covent Garden, W.C., and by
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can).—A form with small dark purple flowers. Central Europe. *Var. Bernarui*.—Tall, three to seven flowered; slender spur of petal not more than half as long as lamina. Corsica. *Var. nicea*.—A form with white flowers. *Var. parapsesia*.—With large dark violet flowers. Transylvanian Alps. *Var. platysepala*.—The sepals of this form are shorter and more obtuse than in the type. *Var. Sternbergi* (A. Haenkeana).—A dwarf alpine form with small leaf divisions and bright lilac-purple flowers, larger than in the type. Central Europe. *Var. subalpina*.—With the foliage of the type and flowers of Sternbergi. Pyrenees and mountains of Central France. *Var. transilvanica*.—Similar to A. Sternbergi, except that the whole plant is glabrous. Flowers bright blue. Transylvanian Alps.

(To be continued.)

Heracleum mantegazzianum.

In the year 1892 two botanists living at Florence—Mr. N. Levier, a doctor of medicine, of Swiss birth, and Mr. Sommier, a French amateur—explored the Central Caucasus, traversing the range from Koutais to Batalpachinsk. The aim of their travels was a botanical exploration, and it resulted in the discovery of a good number of species new to science. Several of these were of horticultural interest, and we have grown them in the Jardin Alpin d'Acclimatation, viz. :—

Androsace raddeana	Potentilla foliosa
Anemone alpina var. aurea	" Levieri
Artemisia macroglossa	" Sommieri
Artemisia sericea	" svanetica
Astragalus Sommieri	Ranunculus alchianicus
Carlina longicaulis	" ginkobolus
Chamaemelon rupestre	" Sommieri
Corydalis glareosa	Rosa svanetica
Echinops raddeanus	Saxifraga caucasica
Ceum latifolium	" coreifolia
Gnaphalium caucasicum	" purpurascens
Heracleum Freyilii	Sclerogonia sclerogonia
" mantegazzianum	Scabiosa correvoniana
" caucasicum	Senecio comipes
" glabratum	" platyphylloides
" pachyrrhizum	" primulaefolius
Hypericum Sommieri	Silene kulianensis
Jarinea pumila	" subuniflora
Omphalodes Lofkii	Vincetoxicum scandens, &c.
Potentilla adjarica	

A considerable number of species have not been determined or described, as they were collected in the form of seed only. The seeds have been sown in the Jardin Alpin d'Acclimatation at Geneva, and later will be cultivated in the garden of La Linnea at Bourg St. Pierre, where there is a space of rock garden

specially reserved for the plants of the Caucasus. Many of them have done very well, but none has produced such an effect as the soon-to-be-renowned Heracleum mantegazzianum (Sommier and Levier), on account of its gigantic proportions and its monumental aspect. This plant in our Geneva garden, or, rather, in its auxiliary department at Lancy (for it is too large to find space at Plainpalaix), has given superb results. It is certainly the largest species of its genus, and one of the finest plants for an isolated position. Our plants are grown from seed collected in the Caucasus on the banks of the Sekon, in Abkhasia. They were sown in the spring of 1893 and did not vegetate till 1894, but already in 1896 we obtained in our garden at Lancy a specimen whose stem was 8 feet high and whose umbel had a diameter of 4 feet, the leaves being 3 feet long from the base of the petiole to the tip of the leaf.

According to Dr. Levier, to whom we sent a portion of the umbel, the plant must have borne something like 10,000 flowers. It supplied us with the seed which we were able to distribute to the trade and to amateurs, and also to its discoverers, Messrs. Levier and Sommier, who grew it at Florence and at Bormio. In the latter place it assumed an



HERACLEUM MANTEGAZZIANUM IN A PRIVATE GARDEN IN ITALY.

altered character, for, instead of having very large leaves and a tall stem bearing a single umbel, the stem was shorter and divided from the base with a much greater number of umbels.

The description of this remarkable plant has appeared in the *Nuove Giornale Botanico Italiano*, vol. ii., April, 1895, where it is stated to be the giant of an already very large race, and also one of the handsomest of its genus. Its cultivation is an easy matter. It likes deep, rich soil that is cool and damp. It is only in these conditions that it will attain its greatest size, but even in those that are less favourable it will do fairly well. We have observed that the finest plants are those whose roots have not been in any way cut or mutilated, and especially whose tap-root is uninjured. It is best to avoid transplantation: the finest plants are those that are self-sown.

HENRY CORREVEON.



HERACLEUM MANTEGAZZIANUM AT HOME IN THE ABKHASIAN CAUCASUS.

NOTES ON LILIES.

LILIUM TESTACEUM.

A DELIGHTFUL Lily is this and seen at its best when grouped in the manner so well portrayed recently (p. 108) in THE GARDEN. Apart from its beauty, the fact that it succeeds so well in most gardens is another great point in its favour, for no special care and attention are needed. Thanks to the various horticultural publications, but more particularly to THE GARDEN, the cultural requirements of

Hogweed continued....



Umbel

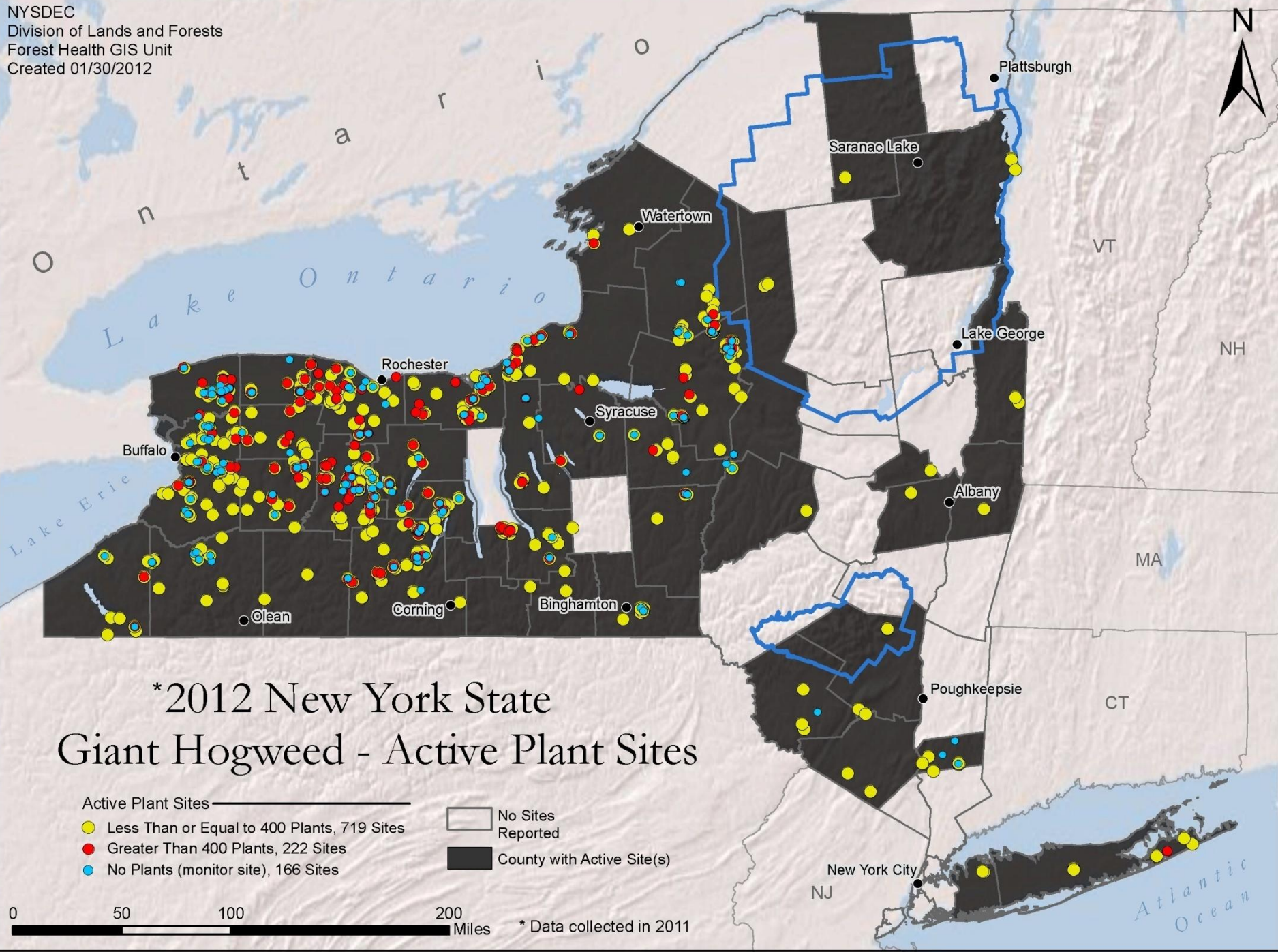
Rays

Flowers: The flowering head is called an **umbel**. G.H has 50 or more **rays** per umbel which distinguishes it from Cow Parsnip (15-20 rays).

Seed maturity:



- ❖ It takes three years for the plant to produce seeds.
- ❖ Sometime during the third year of growth the plant “bolts” and produces a seed head.
- ❖ Eradicating the plant population prior to seed maturity is the best approach.



*2012 New York State Giant Hogweed - Active Plant Sites

Active Plant Sites

- Less Than or Equal to 400 Plants, 719 Sites
- Greater Than 400 Plants, 222 Sites
- No Plants (monitor site), 166 Sites

- No Sites Reported
- County with Active Site(s)

0 50 100 200 Miles

* Data collected in 2011

Control Efforts 2012:

- In 2012 hogweed control will be a cooperative effort among NYS DEC and SLELO-Partners.

County	Partner Responsible for Control	No. of Sites
St. Lawrence	n/a	0 reported
Jefferson	SLELO	5
Oswego	SWCD	24
Oneida	DEC	68
Lewis	SLELO	36

Root-cutting control



Cut must be made at least 10 cm below soil surface.

Chemical Control

- 37 sites treated with chemicals
- 2 sites treated by root cut technique
- 1 site denied access/permission.
- 1 site requires root cut with large crew

= 95% Completion Rate



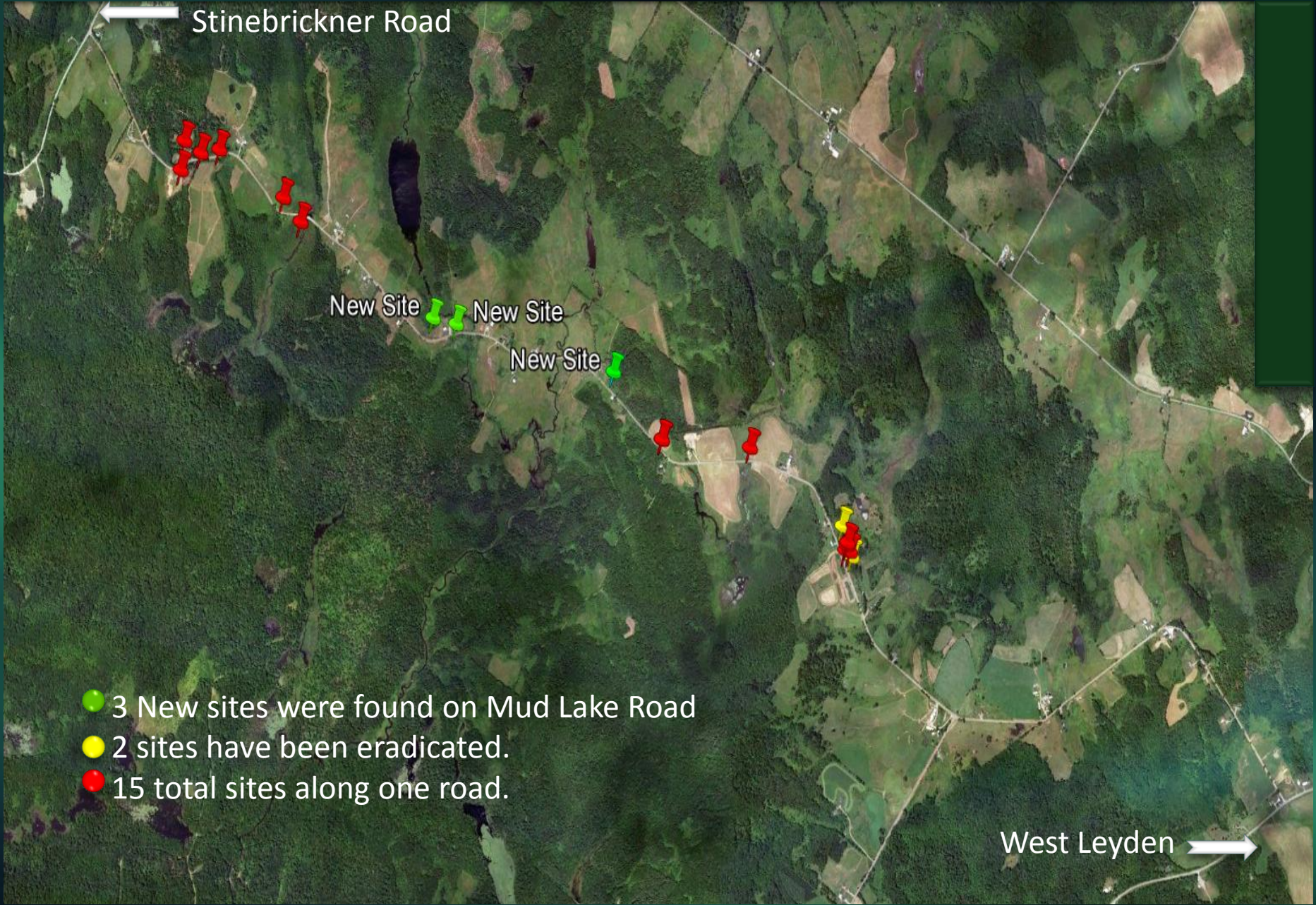


Stinebrickner Road ←

New Site
New Site
New Site

- 3 New sites were found on Mud Lake Road
- 2 sites have been eradicated.
- 15 total sites along one road.

West Leyden →



Hogweed Control 2012 Summary



Total reported sights in SLELO region	= 136
Sites being monitored for reoccurrence	= 16 *
Number of <i>treatable</i> sites adopted by SLELO	= 41
Sites treated to date by SLELO	= 39

* 4 of the 16 sites being monitored are within the Black River Watershed.
To date no plants have been found
= success!

Success in Hogweed Control

- Number of sites in the SLELO PRISM = 136
- SLELO Sites being monitored for reoccurrence = 16

16 sites within the SLELO PRISM are being monitored for re-occurrence with no sightings reported!

4 of the 16 sites being monitored are within the **Black River Watershed**. To date no plants have been found.

= Success

What You Can Do !

- Learn how to identify invasive species. Visit www.sleloinvasive.org

Report Hogweed sightings to the hotline 845-256-3111

Or Email ghogweed@gw.dec.state.ny.us

- Report ALB to: www.beetlebusters.info
- Report EAB to: 1-866-640-0652
- Report other sightings to: SLELO PRISM (315) 387-3600
- Become an active participant in your PRISM.



Public Information Sessions

Session Schedule & Locations

- St. Lawrence County** :Thursday **June 14th** 7-9 pm. St. Lawrence County Cooperative Extension Learning Farm Classroom. 2043 State Highway 68. Canton NY.
- Lewis County:** Thursday **June 21st** 7-9 pm. Lewis County Cooperative Extension Office. 5274 Outer Stowe St. Lowville, NY.
- Oswego County:** Thursday **July 12th** 7-9 pm. Oswego County BOCES. 179 County Rt. 64 Mexico, NY
- Oneida County:** Thursday **July 19th** 7-9 pm. Madison-Oneida BOCES Triplexus Conference Room. 4937 Spring Road. Verona,NY
- Jefferson County:** Thursday **July 26th** 7-9 pm. Jefferson County Cooperative Extension. 203 North Hamilton St. Watertown NY

All sessions are free, but registration is required. Reserve online at <http://tinyurl.com/6w9ycag> by email sconley@tnc.org or call (315) 387-3600, ext. 23

Special thanks to
Naja Kraus, NYS DEC

www.sleloinvasives.org

