Invasive Species in Haliburton

11 June 2011

Invasive Alien Species (AIS)

- Background
- OPP
- MNR
- OFAH
- Research

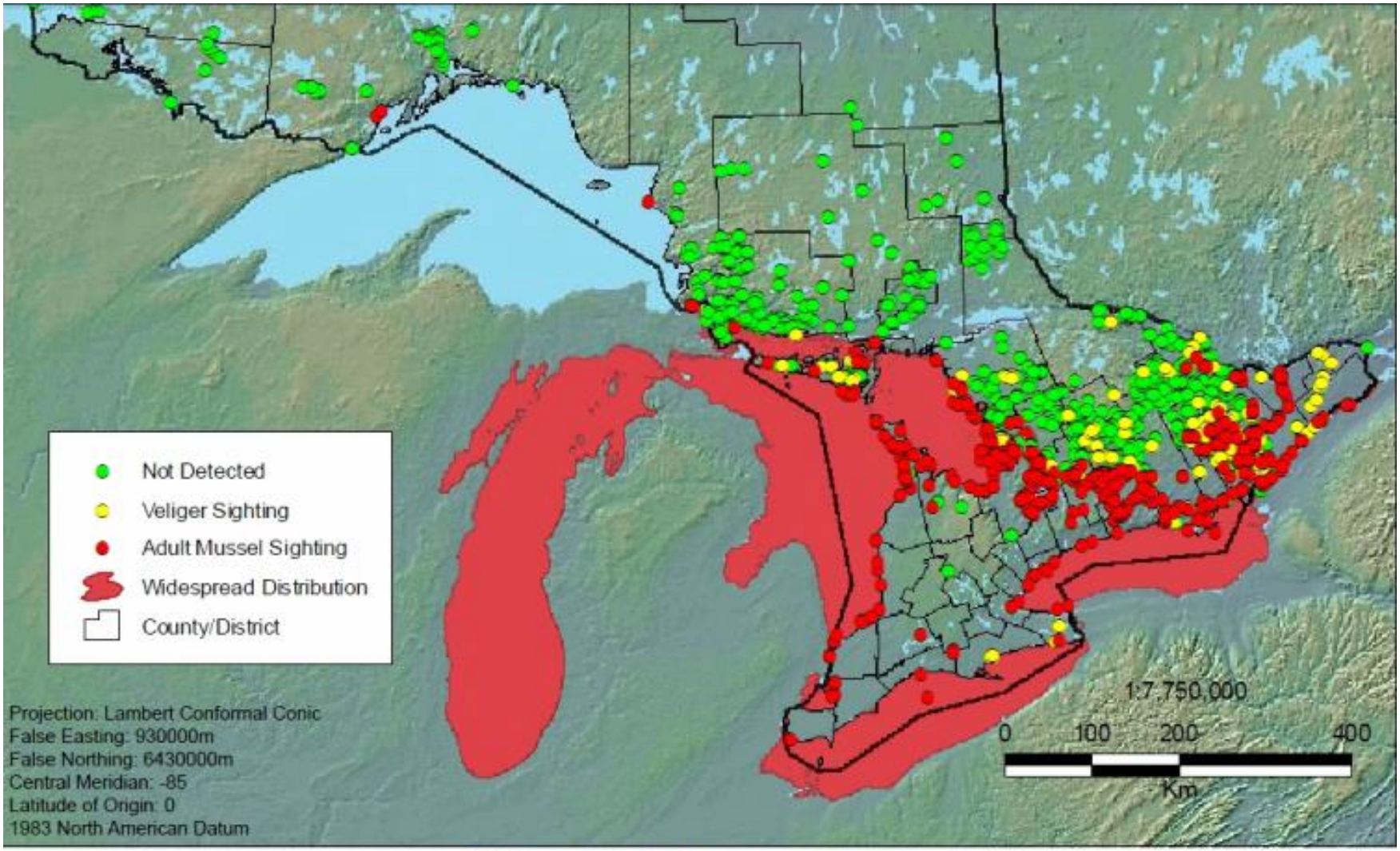
Invasive Alien Species (AIS)

- Zebra Mussels
- Spiny Water Flea
- Rusty Crayfish
- Rainbow Smelt

- Purple Loosestrife
- Giant Hogweed

Zebra Mussel

Zebra Mussel Distribution



Ontario

Keep All Our Lakes Great!

You can stop invading species

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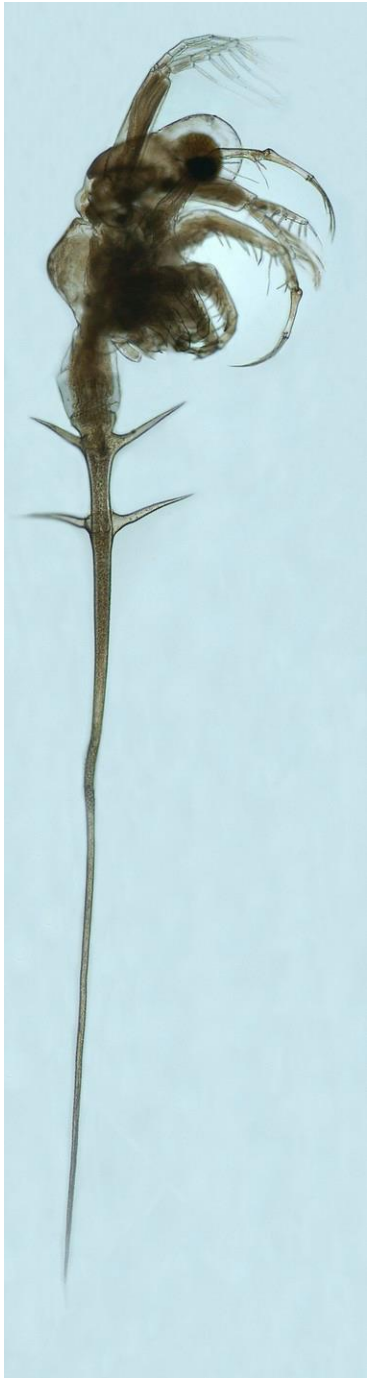
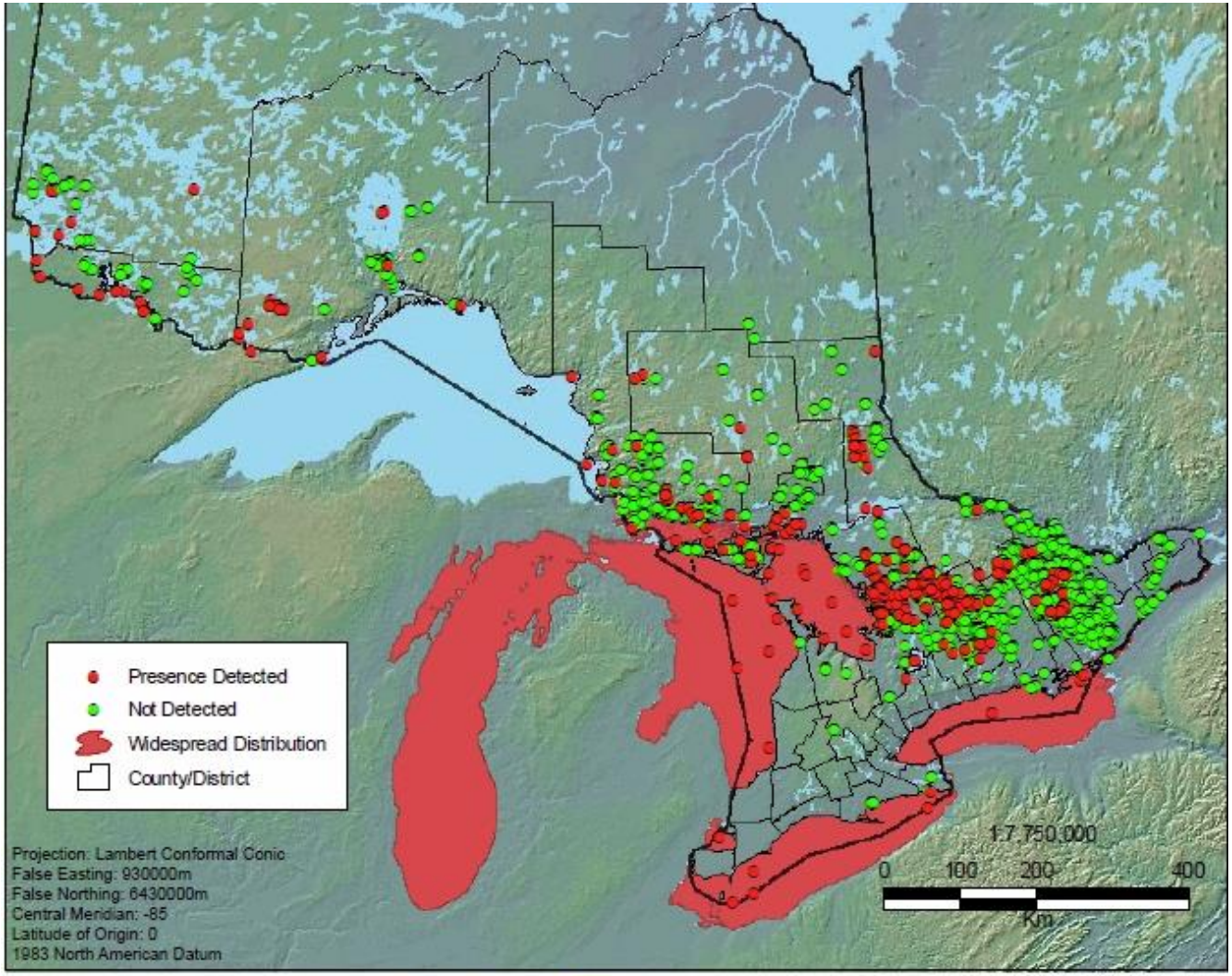
Invasive Alien Species (AIS)

Zebra Mussels - from Eurasia, they were first seen in lake St. Clair in 1988. They have quickly spread and are now in all of the Great Lakes and have come to Haliburton via the Trent-Severn waterway. Even though they live only 2-5 year, a female can produce up to one million eggs per year and like all invasive species they have few natural enemies in Ontario. They live on phytoplankton, which is a core element in the food chain and therefore have an adverse effect on many native species. From a human perspective, they have a positive and negative effect. An adult can filter one litre of water per day, so they make the water more clear. But they attach to hard surfaces and cause millions of dollars in damage to power generating facilities, water treatment plants and home/cottage water intakes. Their shell can also cut swimmer's feet. Luckily most lakes in Haliburton are slightly acidic and this has an adverse effect on the mussel's shells, but this has not stopped their spread into our lakes.



Spiny Water Flea

Spiny Water Flea Distribution



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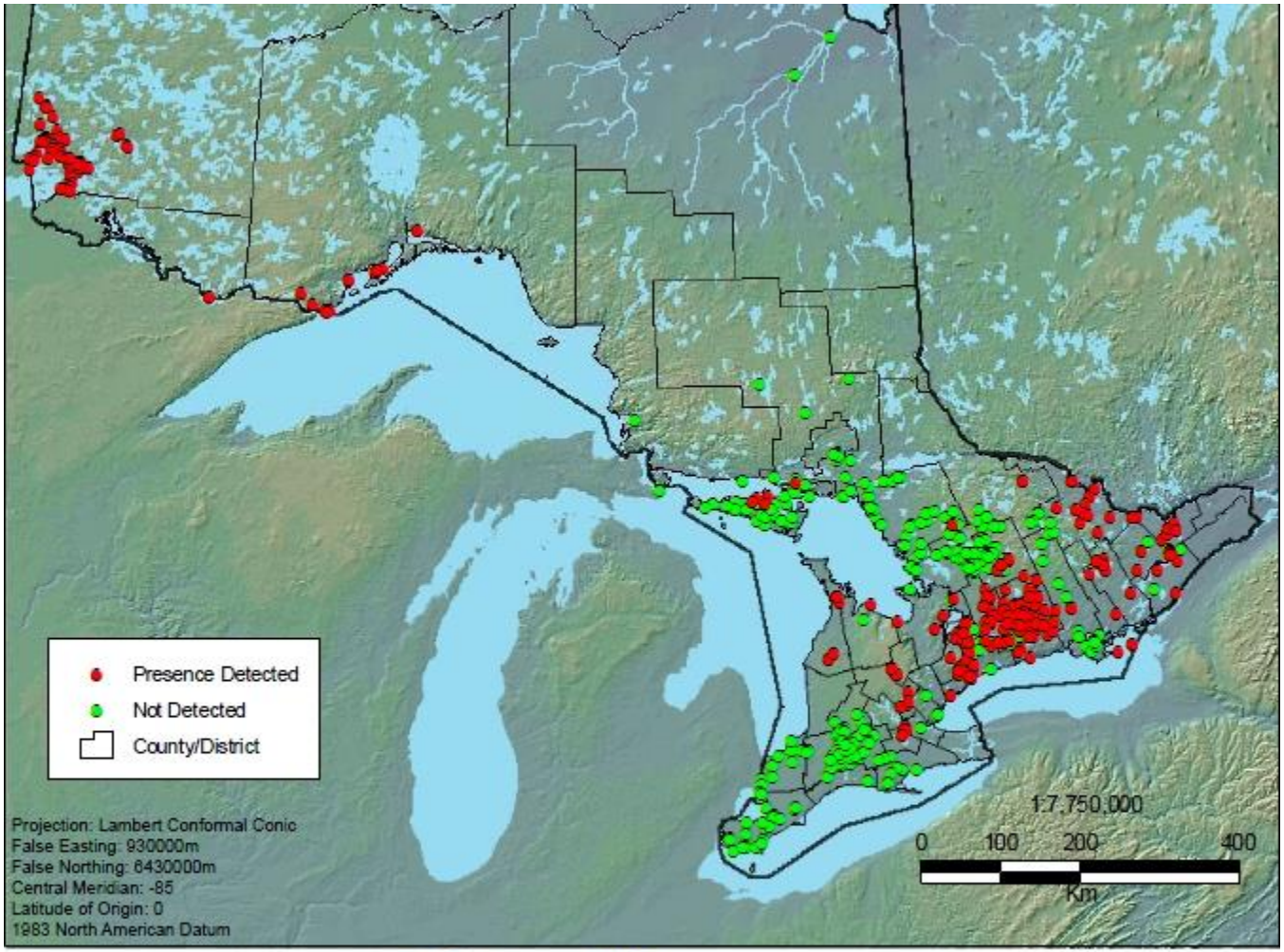
Spiny Water Flea – also from Eurasia, this tiny crustacean was first noticed in 1982. Its lifespan varies from several days to a few weeks, and females may reproduce with or without male involvement. Eggs can become dormant over long periods of time - over winter and even out of water. They feed on zooplankton and can consume three times as much food as native species. Although not harmful to humans, they can have an adverse effect of native species that rely on a zooplankton food source.

Invasive Alien Species (AIS)

Rusty Crayfish – is a native crustacean of the Ohio River system and was first noticed in the Kawartha Lakes in the early 1960's. One of 350 members of the North American crayfish family, their claws are larger and more robust than native Ontario crayfish and they can live for 3-5 years. They compete for food with native crayfish and fish and will prey on fish eggs. Unlike native crayfish, these may pinch a dangling finger or toe.

Rusty Crayfish

Rusty Crayfish Distribution



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Rainbow Smelt

General Characteristics

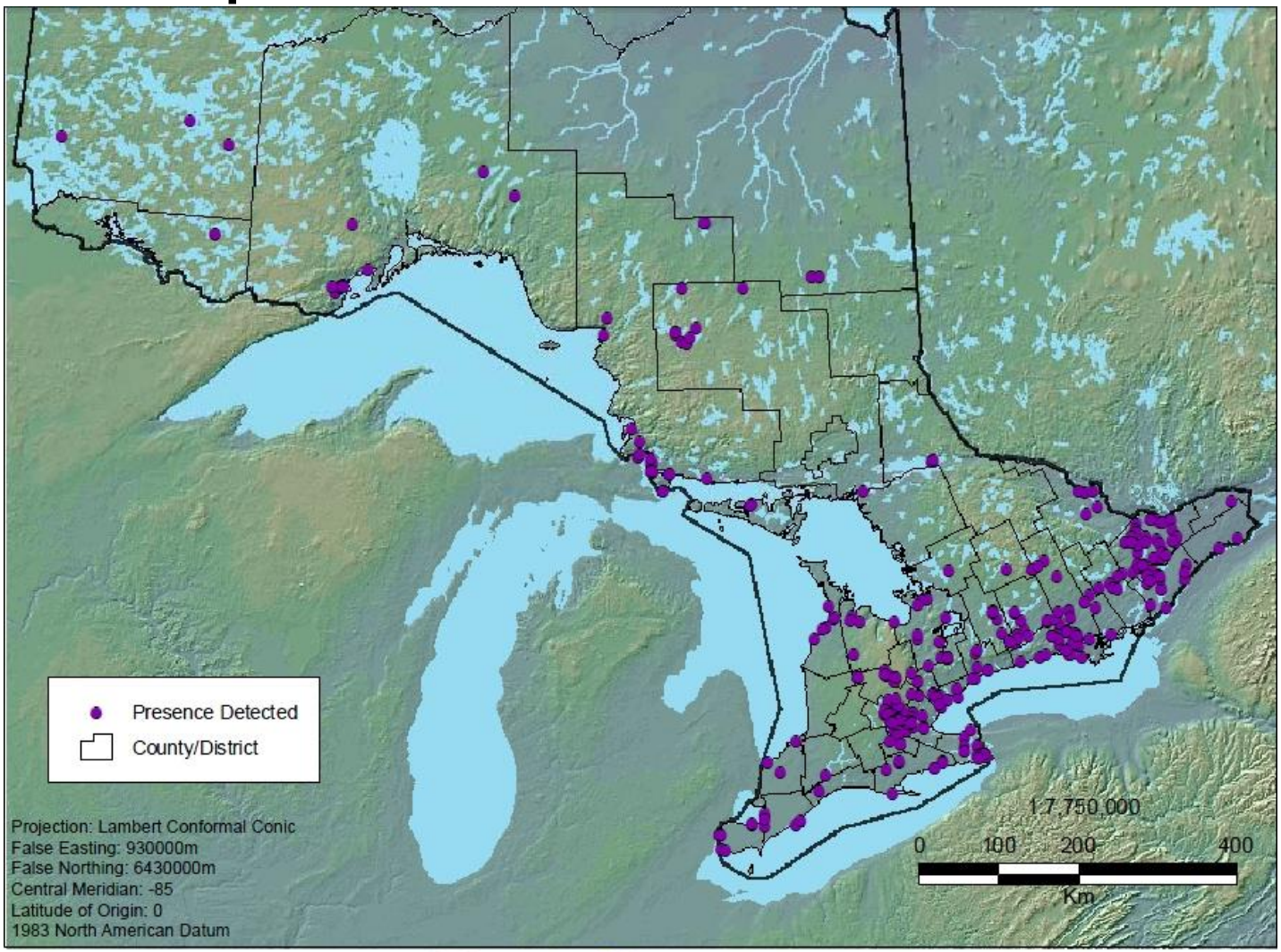
- Body is slender and cylindrical. Back is silvery pale green and the sides are iridescent purple, blue, and pink. The underside is white. The body has 26-35 gill rakers, a dorsal fin, an anal fin, pectoral fins, pelvic fins, an adipose fin, and a deeply forked tail fin. It has a pointed snout and large black and silver eyes.
- The average size when full-grown is 7 – 9 inches.
- Weight: 3 oz.

Invasive Alien Species (AIS)

Rainbow Smelt – were originally introduced into lake Ontario from the Finger Lakes in N.Y. in the early 1900's and into the Upper Great Lakes from Green Lake, Maine. They were probably brought into lakes in Haliburton as bait for Lake Trout when ice fishing. Great food for game fish and welcome during spawning runs in many areas of the Great Lakes (particularly lake Erie). The main problem with this species is that it is a voracious feeder of young or small native fish and crustaceans. They can live to a maximum of 6-7 years.

Purple Loosestrife

Purple Loosestrife Distribution



Ontario

Ontario Federation of Anglers and Hunters

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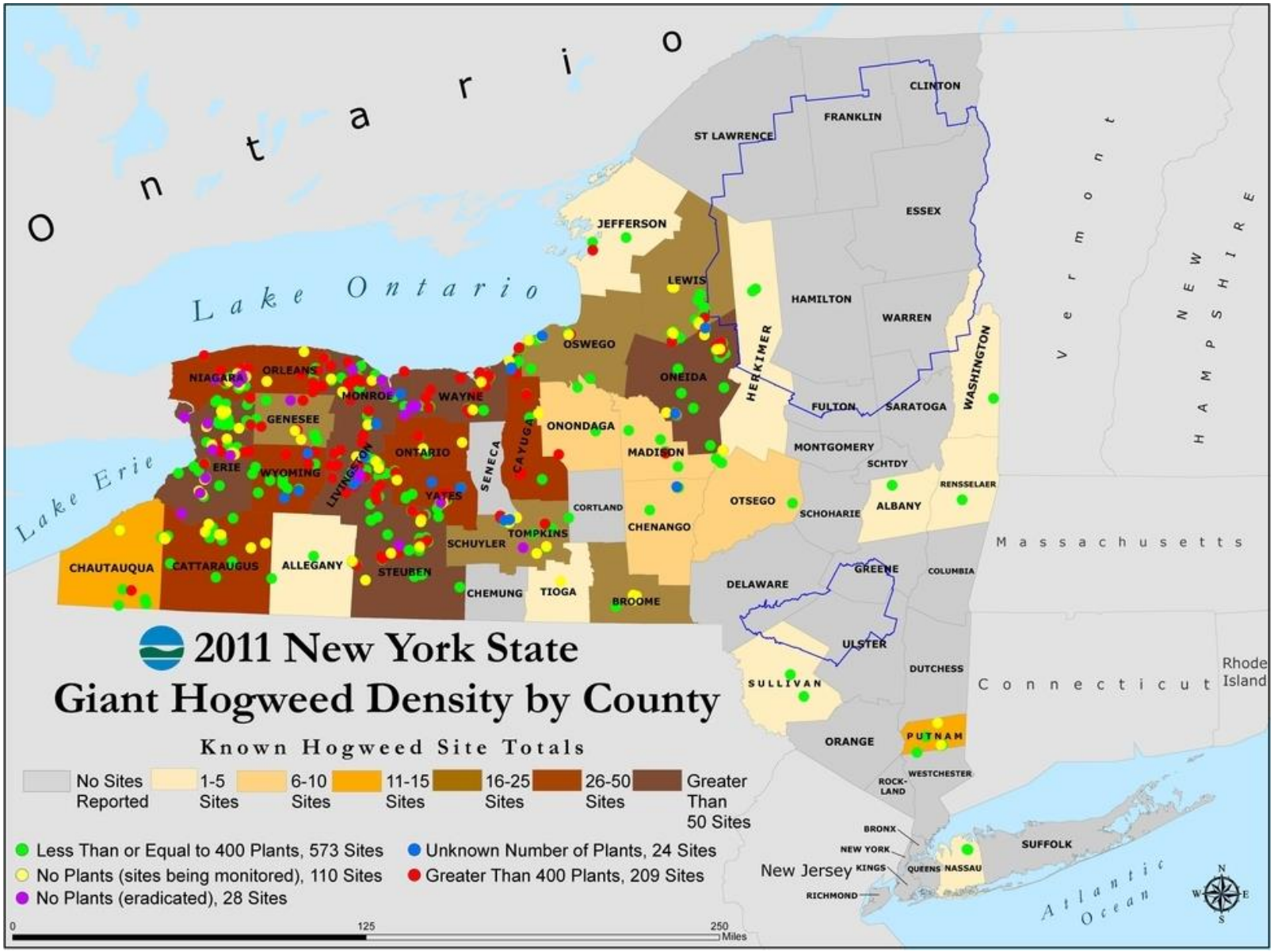
Invasive Alien Species (AIS)

Purple Loosestrife – has been in Canada since the early 19th century and has been confirmed near only one lake in Dysart. It lives in wetlands, near streams and in fields. Although attractive, it is a hardy plant that can spread easily and displaces native plants (and indirectly reduces numbers of native birds and invertebrates.

Giant Hogweed

Giant Hogweed Distribution (NY)



Invasive Alien Species (AIS)

Giant Hogweed – really is a giant as it can reach a height of 5.5 metres under ideal conditions, and is by far the most hazardous of these invasive species. Each plant can produce up to 50,000 seed, which can remain viable for up to 7 years.

The clear watery sap contains toxins that can cause serious skin problems within 48 hours, particularly when exposed to the sun (primarily UV). Effects include redness, a burning sensation, blisters and even black or purplish scaring. Eye contact with the sap may cause temporary blindness, so immediate flush the eyes and seek urgent medical attention. Do not try to burn or compost this plant and it is wise to hire a professional to eradicate it. In spite of these dangers, it is often used as a garden ornament in its native southwest Asia. The white flower clusters resemble Queen Anne's Lace, but can form a flower head of one metre in width. You are encouraged to seek more information in order to become familiar with the appearance and dangers of this plant.

Impact of Giant Hogweed

Impact of Giant Hogweed

AIS - List

Lake	Invasive Species
Bark Lake	Spiny Water Flea
Basshaunt Lake	
Beech Lake	Rainbow Smelt, Spiny Water Flea
Bentshoe Lakes	
Big East Lake	
Big Hawk Lake	Spiny Water Flea
Black Lake	Rainbow Smelt
Boshkung Lake	Rainbow Smelt, Spiny Water Flea
Canning Lake	Spiny Water Flea, Zebra Mussel
Drag Lake	Rusty Crayfish, Spiny Water Flea
Grace Lake	Spiny Water Flea
Grass Lake	Zebra Mussel
Gull Lake	Rainbow Smelt, Spiny Water Flea
Halls Lake	Spiny Water Flea
Head Lake	Rusty Crayfish, Spiny Water Flea, Zebra Mussel
Horseshoe Lake	Rainbow Smelt, Spiny Water Flea
Kabakwa Lake	
Kashagawigamog Lake	Rusty Crayfish, Spiny Water Flea, Zebra Mussel
Kelly Lake	
Kennisis Lake	Spiny Water Flea
Koshlong Lake	Rainbow Smelt
Kushog Lake	Rainbow Smelt
Lipsy Lake	
Little Boshkung Lake	Spiny Water Flea

Lake	Invasive Species
Little Hawk Lake	Spiny Water Flea
Little Kennisis Lake	
Loon Lake	Spiny Water Flea
Maple Lake	Rainbow Smelt, Spiny Water Flea
Moore Lake	Rainbow Smelt, Rusty Crayfish
Mountain Lake	Spiny Water Flea
Nehemiah Lake	
Paudash Lake	Zebra Mussel
Plastic Lake	Rainbow Smelt
Port Hope Creek	Lamprey (reported, but not confirmed)
Raven Lake	Zebra Mussel
Red Pine Lake	Spiny Water Flea
Redstone Lake	Spiny Water Flea
Sherborne Lake	
Soyers Lake	Spiny Water Flea
St. Nora Lake	Rainbow Smelt, Spiny Water Flea
Twelve Mile Lake	Rainbow Smelt, Spiny Water Flea

Region	Invasive Species
Fishtail Lake	Giant Hogweed
Loon Lake	Purple Loosestrife
Tory Lake	Giant Hogweed (reported, but not confirmed)
Cardiff	Purple Loosestrife
Harcourt	Giant Hogweed

What Can We Do ?

Three simple steps:

1. identify where the specific species are present,

2. inform MNR about the sighting (or even suspected sighting) of an invasive species.

3. ensure that all cottagers and residents are not only aware of the problem, but are prepared to properly clean their boats and fishing tackle after visiting any water body (both inside and out of Haliburton County),

(The Invading Species Hotline is 1-800-563-7711)

Excellent Web Sites

MNR (Biodiversity)

http://www.mnr.gov.on.ca/en/Business/Biodiversity/2ColumnSubPage/STDPROD_069027.html

OFAH

http://www.invadingspecies.com/indexen.cfm

http://www.ontarioinvasiveplants.ca/

US Department of Agriculture

http://www.invasivespeciesinfo.gov/

US Geological Survey (NAS)

http://nas.er.usgs.gov/default.aspx