



Invasive
Species
Centre

European Water Chestnut in the Welland River

Presented by Karen Alexander

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AGENDA



Introducing the Invasive Species Centre

European Water Chestnut Rapid Response program

Questions?



The Invasive Species Centre acknowledges that we are living and working on the traditional territory of the Anishinaabe Peoples, in the Robinson Huron Treaty area. We recognize the long history of Indigenous and Métis Peoples in this area and across Canada and want to show respect to them and demonstrate our gratitude for their ongoing care of the land and water.



The **Invasive Species Centre** is a not-for-profit organization that connects stakeholders, knowledge and technology to prevent the introduction and spread of invasive species that harm Canada's environment, economy and society.

www.invasivespeciescentre.com



European Water Chestnut



Economic	Social	Ecological
<ul style="list-style-type: none">• Decreases property value• Impacts commercial fishing	<ul style="list-style-type: none">• Inhibits boating and swimming• Sharp seeds are painful to step on	<ul style="list-style-type: none">• Kills native vegetation• Reduces oxygen levels• Impacts fish populations• SAR habitat



Photo credit: David J. Moorhead

European water chestnut

Trapa natans

Forms dense floating mats, making angling and boating nearly impossible.

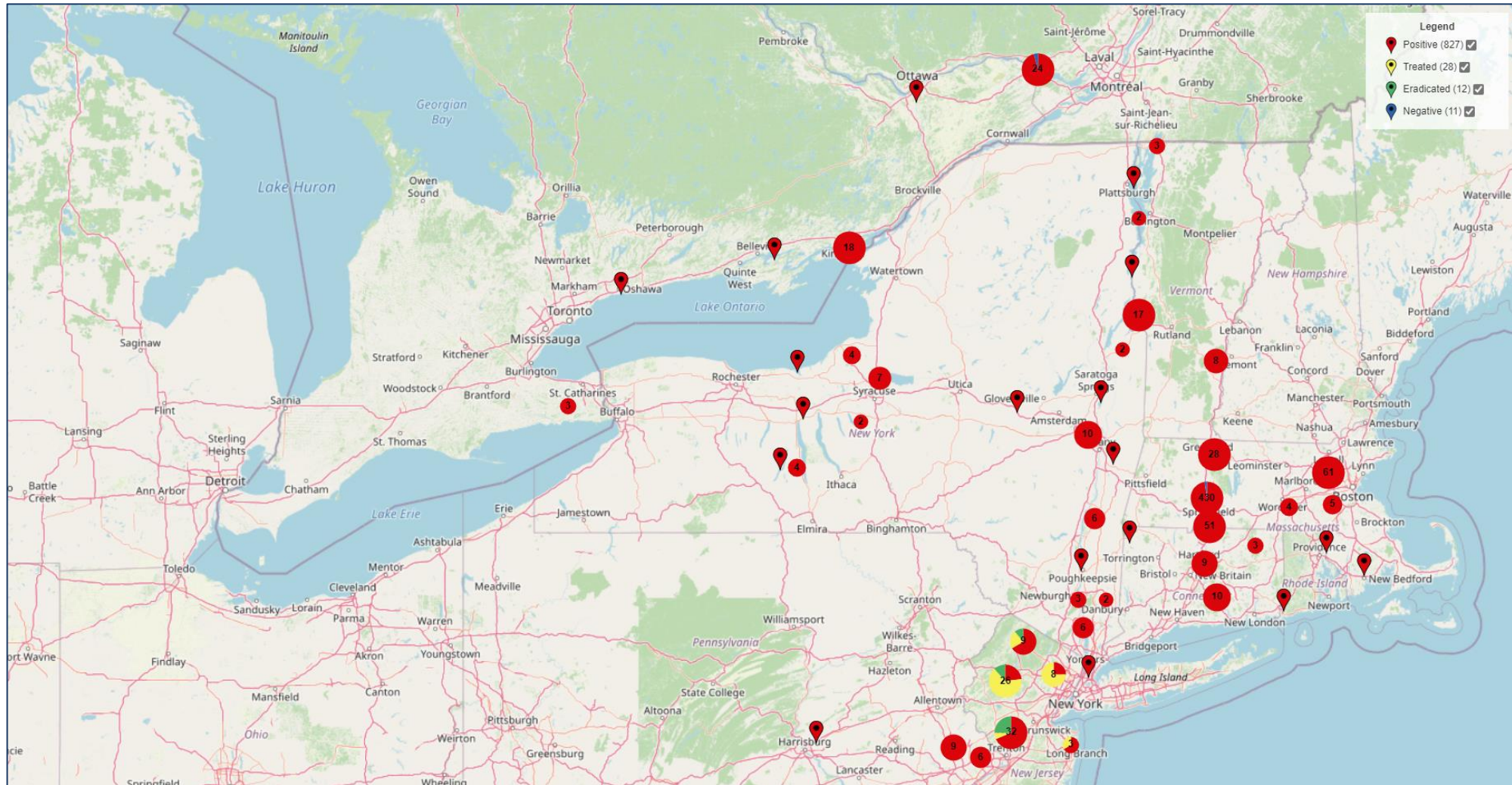
Prohibited species in Ontario

- Prohibited species in Ontario under the Invasive Species Act (2015)
- This means:
 - It is illegal to import, possess, release, transport, breed/grow, sell, lease or trade
 - Anyone boating in infested waters must:
 - AVOID spreading the plants
 - Remove plants from boat, motor, trailer, etc. Before travelling over land
 - Dispose the plants so they won't end up back in the water



European Water Chestnut

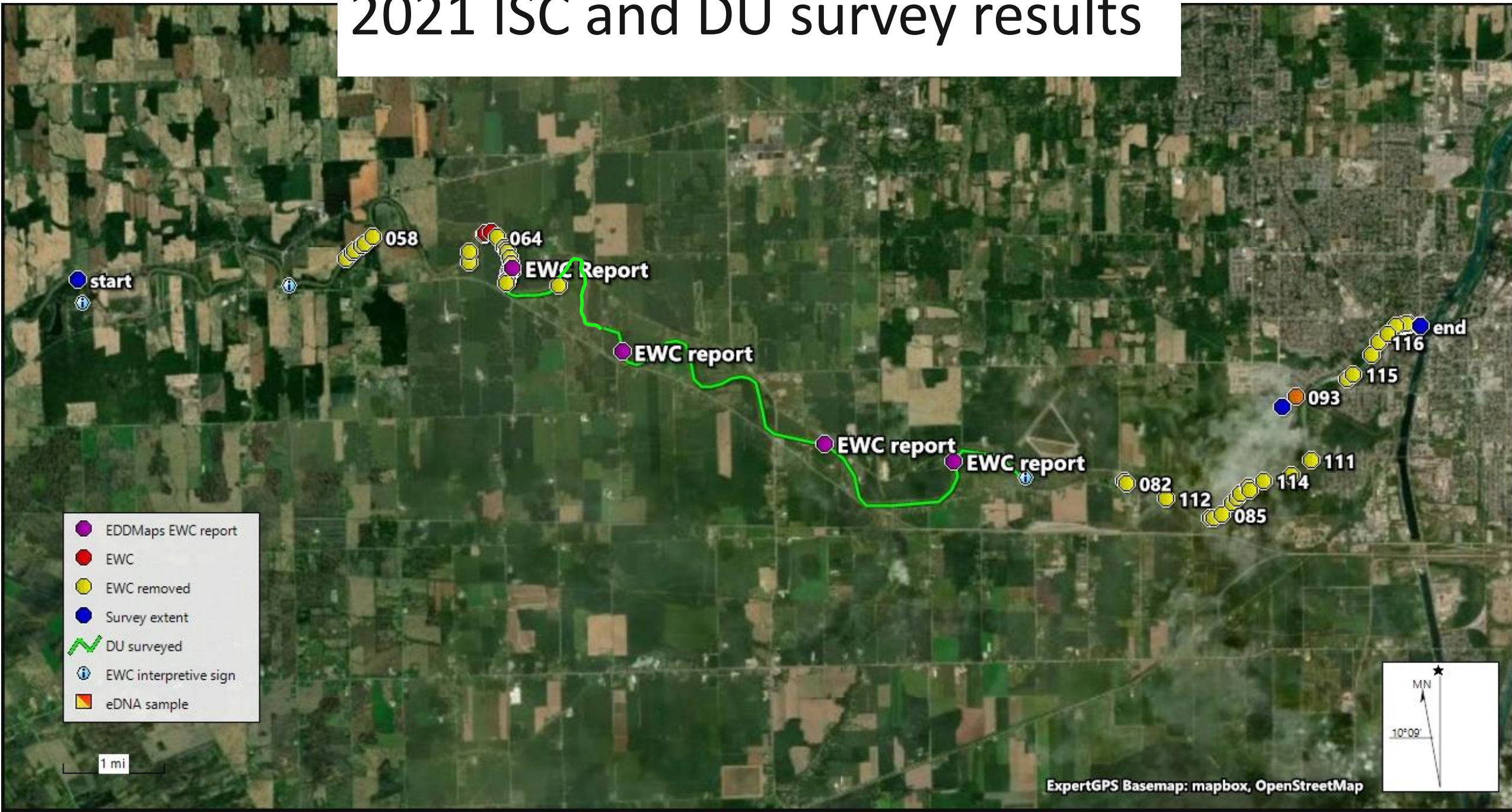
Pathways of Spread: seeds generally fall almost directly beneath their parent plants. Rosettes can move downstream in currents with/without seeds. Waterfowl may also spread nuts if they get caught in feathers.



Known Locations of EWC In Welland River (2020)



2021 ISC and DU survey results



Small Steps to Prevent Unintentional Spread *Public Launch Signage*

- ISC coordinated production and installation of EWC signage at 3 key water access points along the Welland River
 - Chippewa Creek Conservation Area (NPCA)
 - Wellandport Community Centre Boat Launch (West Lincoln)
 - E.C. Brown Boat Launch (NPCA)



Control Methods

- Efficacy: 95% reduction in seed viability within 4 years @ Voyageur PP
- 0 – 100 m², mixed with native vegetation
 - Hand pull individual plants or use rakes; wading or from canoes, kayaks, boats
 - Pull before the plant matures and nutlets (seeds) drop off the plants
- >100 m², mixed with >50% native vegetation
 - Employs heavy equipment to cut or rake (e.g., Truxors)
 - Herbicide (Reward Aquatic Herbicide)
- Requires repeat monitoring and follow-up control for up to 10 yrs.

Proposed EDRR program

- Welland River Collaborative
 - NPCA, low-tier municipalities, Peninsula Paddlers, Bert Miller Nature Club, Niagara College, others as interested
- Field program, July 2022 – September 2022
 - 4 ISC hires through the OFAH Hitsquad program
 - Manual control & NPCA home base @ Chippewa Conservation Area
 - Potential contractor with heavy equipment
- Community Engagement
 - Riverfront landowner mail out
 - Organized paddling tours/ River Watchers



Long term control and monitoring

- Invasive Species Centre intends to continue to invest in control of EWC as required
- River Watchers
 - Paddling tours to teach community how to identify and report observations
- Exploring options for long-term management
 - OFAH Hitsquad students
 - Niagara College partnership / paddling trips (limited to September)



Forms of Co-operation between ISC and NPCA

Joint teaching/training and supervision of OFAH Hitsquad hires

Participation in the Welland River Collaborative

Co-host River Watchers paddling tours

Biomass disposal plan & equipment storage and facility use

Joint community outreach and engagement activities

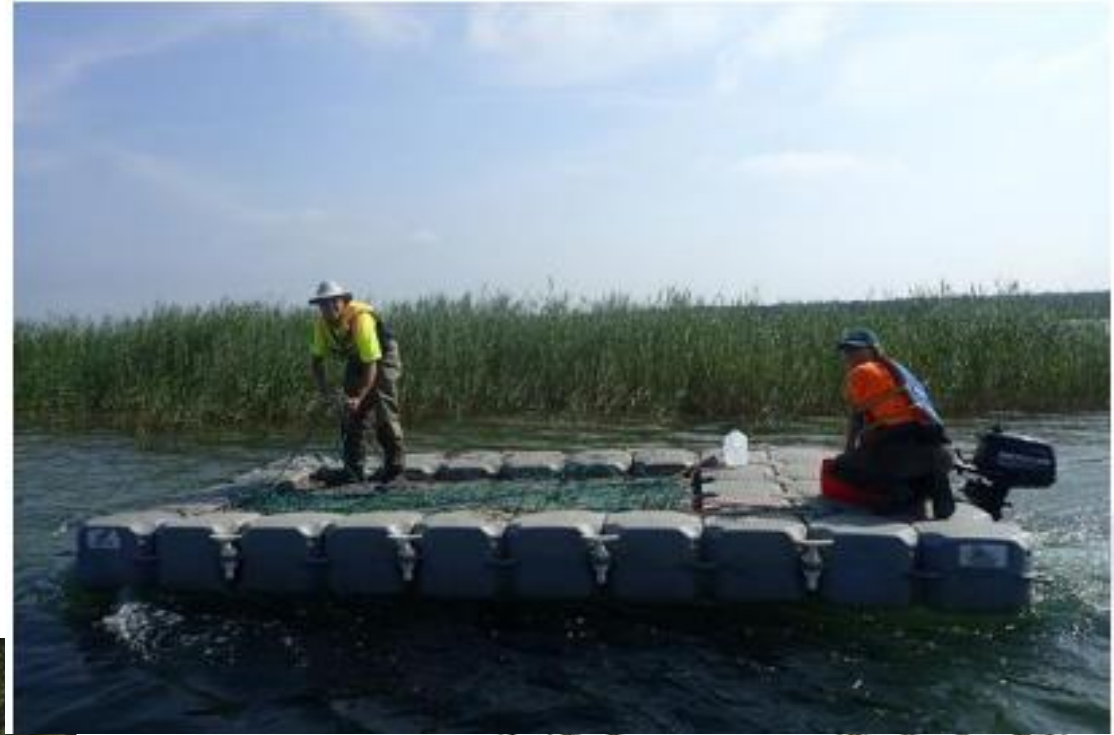
NPCA Participation (in-kind):

- site-specific training for Hit Squad team
- access to the Welland River at EC Brown and Chippawa Creek
- equipment storage for the Hit Squad team and facility use
- monthly meetings with ISC
- community outreach and engagement activities
- locations for biomass disposal at EC Brown and Chippawa
- participation in the Welland River Collaborative
- provide letters of support for funding applications



Funding Dependent: Bring in Heavy Equipment

- Truxors & Barges (contractor-owned)
- On-shore heavy equipment to lift biomass off the barge





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