Indian River Lakes
Milfoil Weevil Rearing

Presentation by: Sarah Trick
Watershed Coordinator at the IRLC
Strick@indianriverlakes.org

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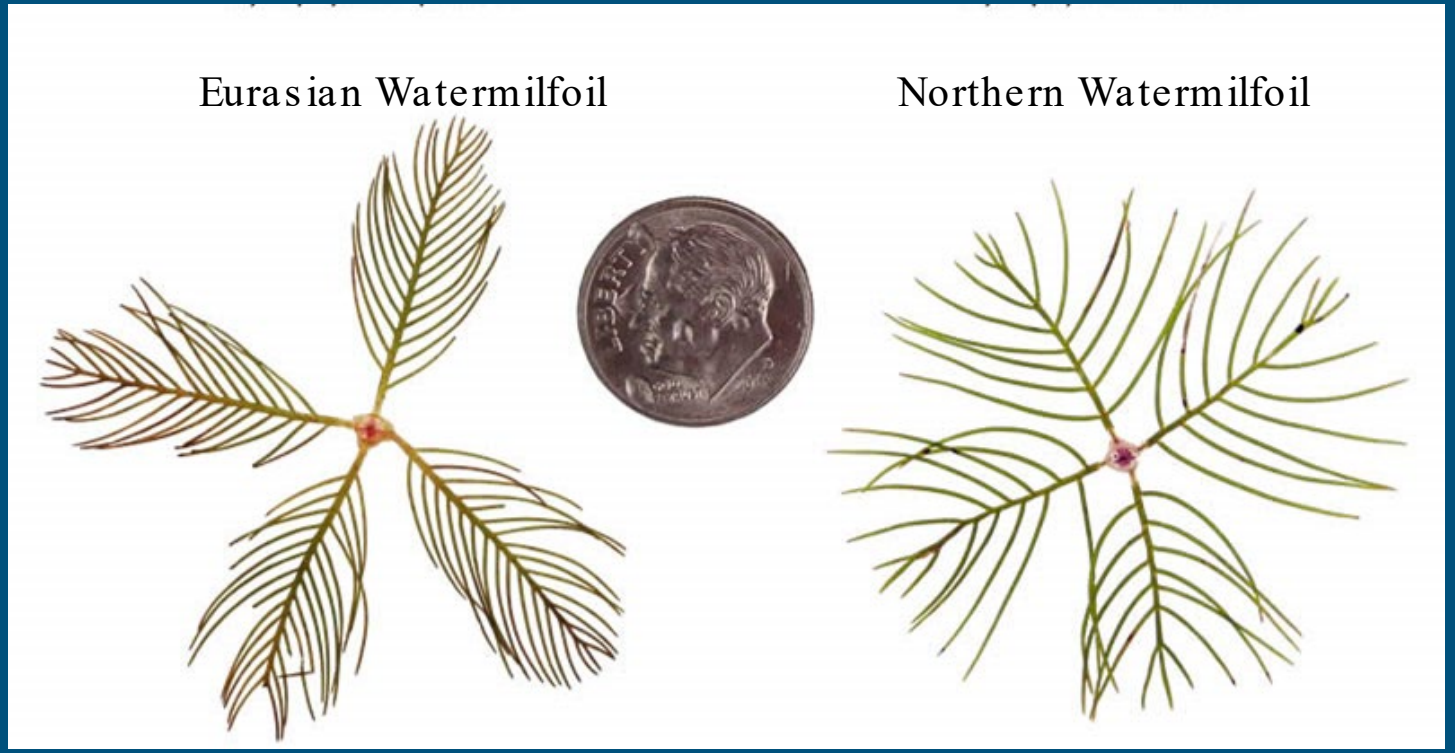
Watermilfoil

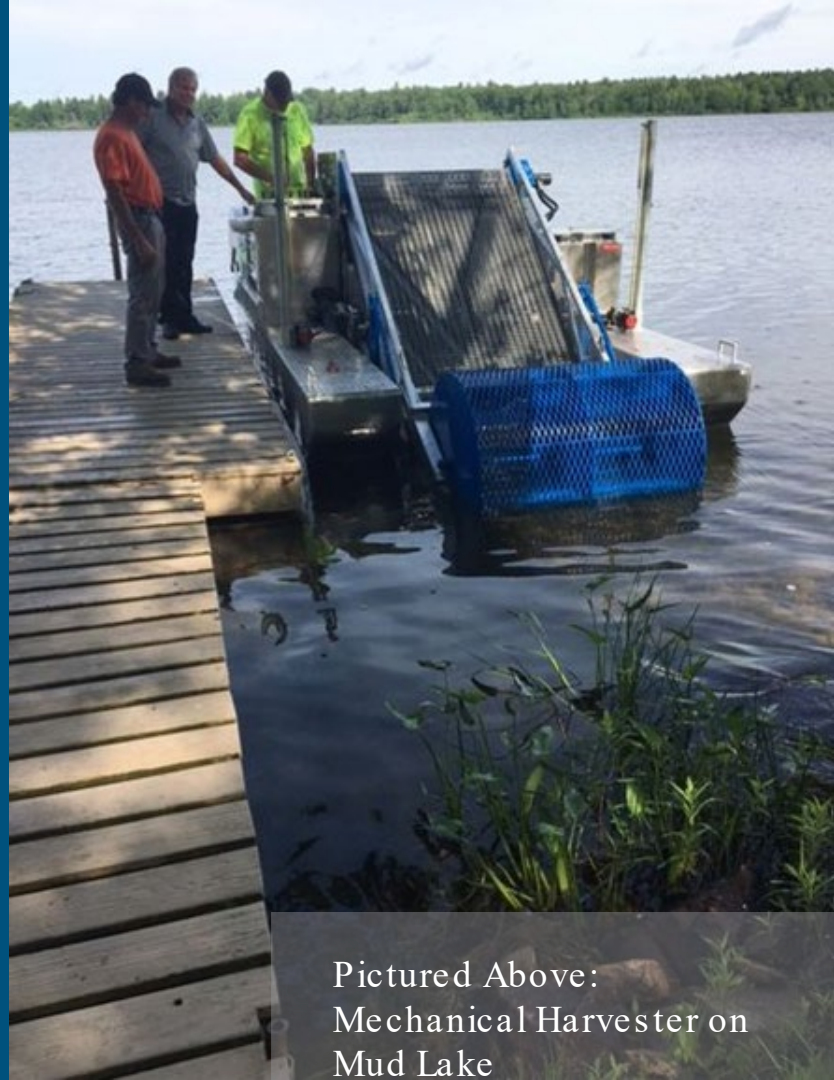
Three Types:

- Eurasian
- Northern
- Hybrid



Management Techniques

- Chemical Controls
- Mechanical Harvester
- Benthic Mats
- Hand Pulling
- Biological Control



Pictured Above:
Mechanical Harvester on Mud Lake

Historical Management in the Indian River Lakes

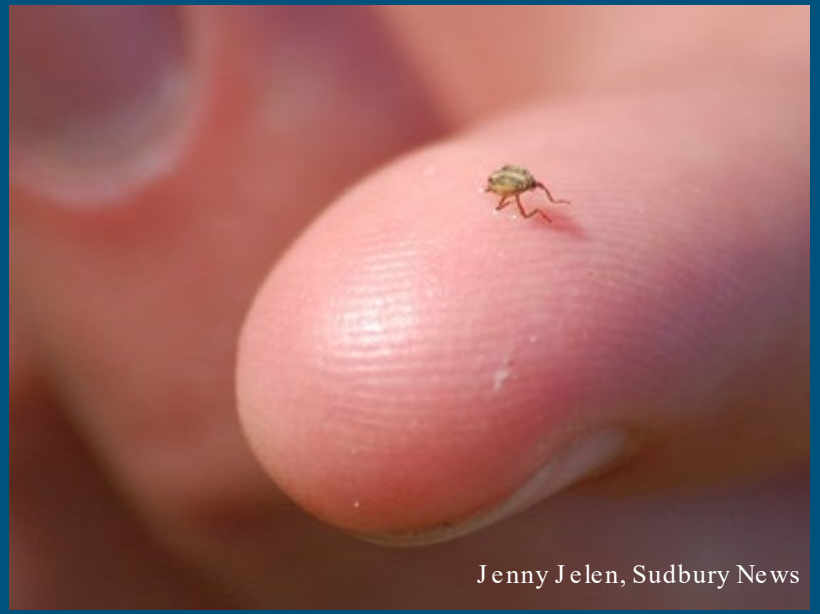
Millsite Lake:

- Over-run with milfoil in the late 80's
- Tried benthic mats and weed cutter
- Started herbicide application in 90s - switched to every other year starting 2018 (because milfoil wasn't creating mats at the surface)
- Plan on reevaluating strategy in 2022

Mudd Lake

- Worked with Goose Bay and the town of Alexandrea to receive a grant through the Great Lakes Restoration Initiative (GLRI)
  - Received federal funding in 2016
- Equipped the town with the knowledge and tools to address EWM at a municipal level.
  - Included funds for two years of herbicide application **and** the purchase of a mechanical harvester


Kawartha Lake Stewards Association


Jenny Jelen, Sudbury News

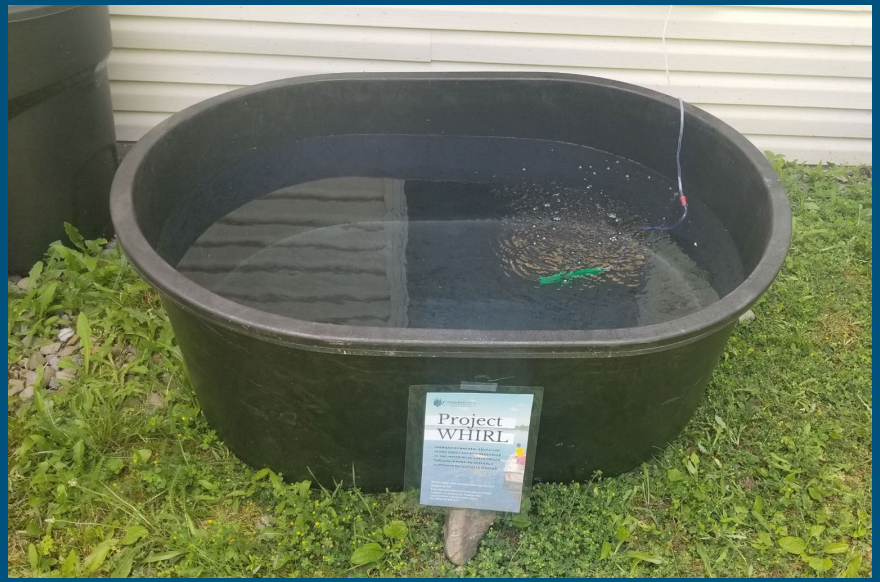
Benefits of Weevils

- Prefer Eurasian Milfoil over native
- Inexpensive
- Natural Control Method
- Once established, limited need for continued treatment

Drawbacks

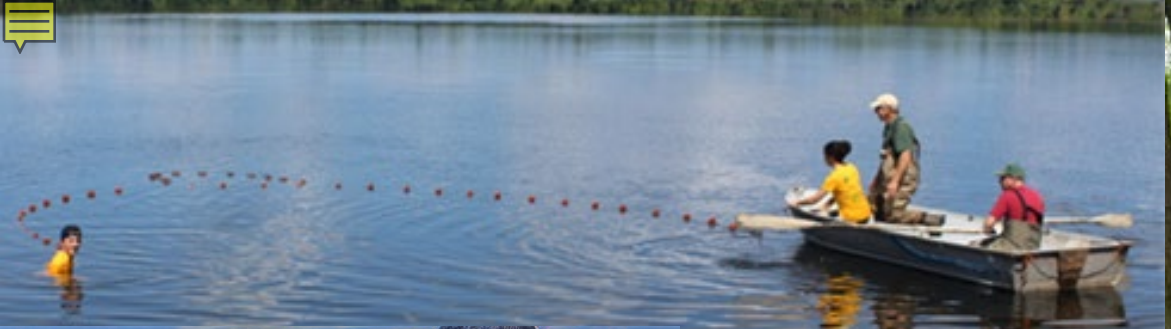
- **Finding Them**
- Overwintering
- Awareness
- **Control**. Not Eradication.

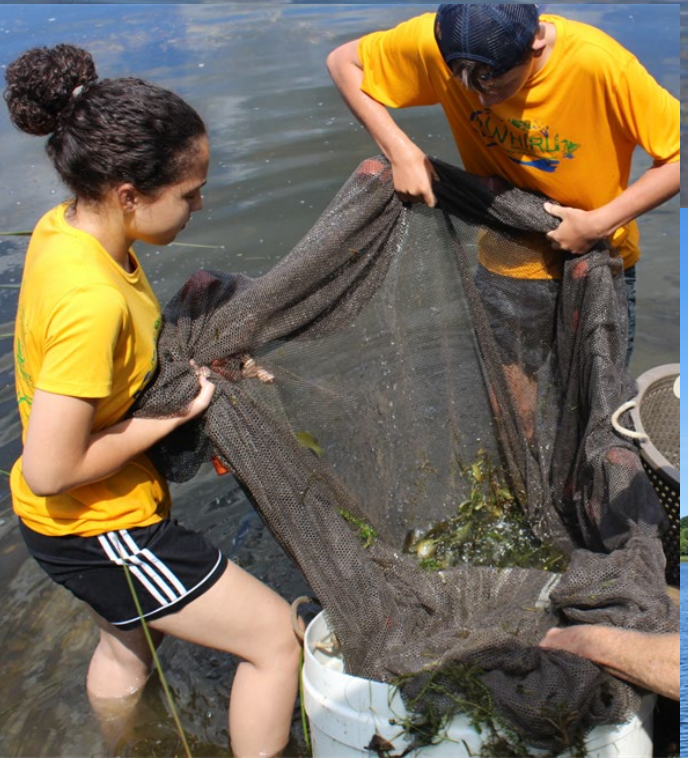
How it works

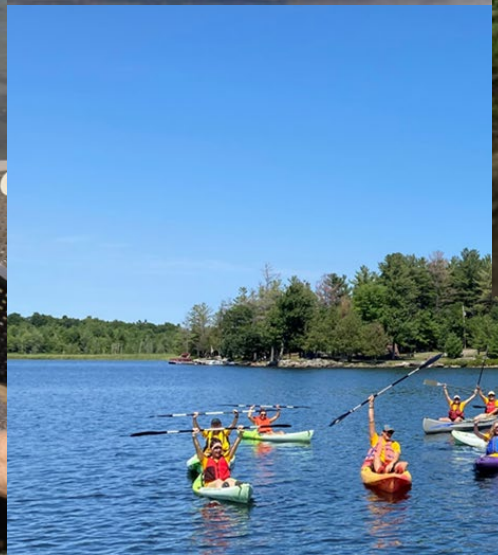


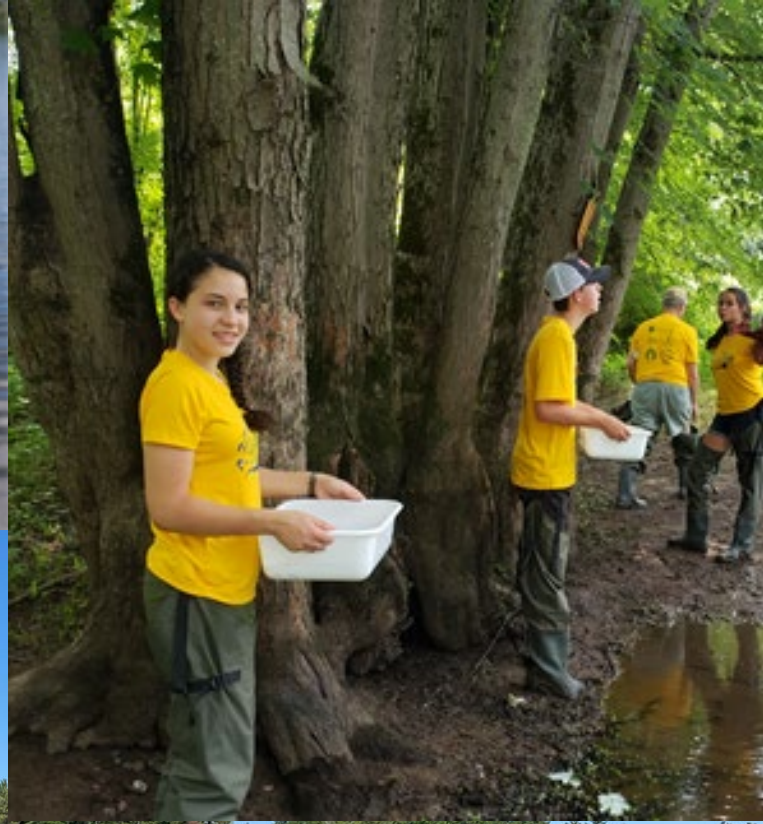
- Trough or floating set-up
- Find weevils - spring/early summer
- Collect and bundle milfoil
- Monitor water temperature
- Suggested release: after fresh stems begin to be rapidly eaten
    - If tanks were originally stocked with 70 weevils each (suggested) this should take between 44-54 days

Set-up suggestions taken from: The Golden Sands Resource Conservation and Development Council









Mathematical Modeling: Predictors of Success

- Latitude
- **Maximum Depth**
- Lake Depth
- **Shoreline Buffer Zones** (at **least** 10ft)
- Secchi Depth
- Phosphorus Levels
- **Weevil Treatment Frequency**
- Number of Weevils Added

Model is in preliminary stages but has been found to be **75% accurate**

The number of panfish (such as sunfish and bluegill) has been cited as an important factor in other studies, but isn't considered in the current model

Clarkson

Researcher: Diana White

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