



Aquatic Plant Management in Crooked Lake

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Assessing Aquatic Plants



Point-Intercept Plant Survey

Assess the entire plant community in the lake

Delineation Surveys

Map Areas of Milfoil and Curlyleaf Pondweed for treatment with herbicides

Plant Community 2016



- **70% of the lake supported plants**
- **Max Depth of Plant Growth was 14 ft**
- **10 submersed native plant species**
- **7 floating & emergent plant species**
- **2 Invasive plant species (CLP + EWM)**

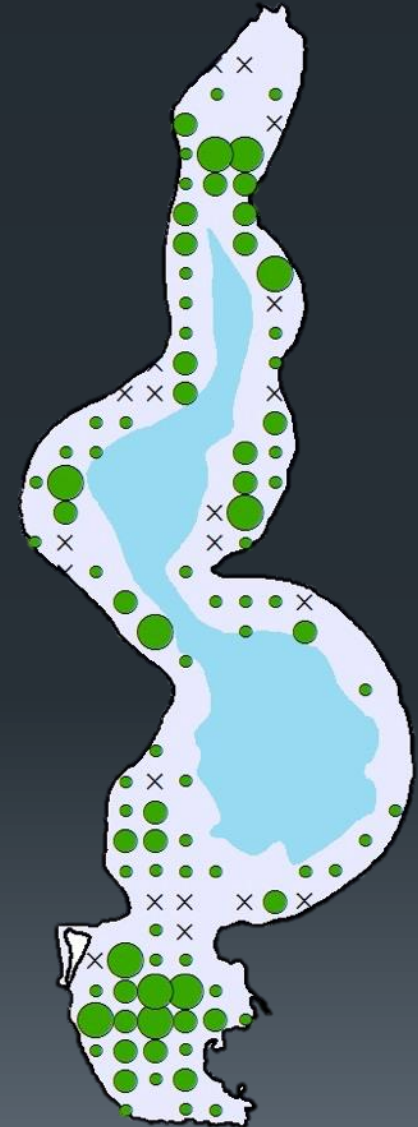
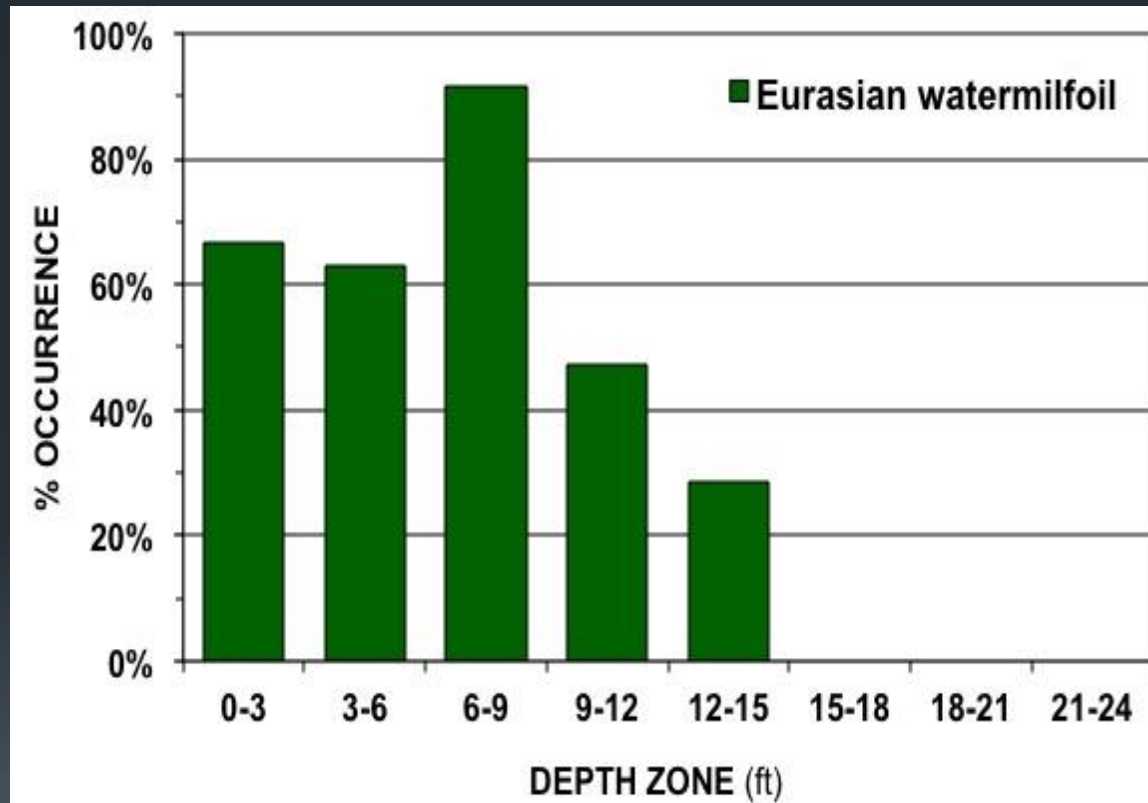
Plant Community



Most Common Plants

Plant Species	% Occurrence
Eurasian watermilfoil	60%
Coontail	50%
Chara (muskgrass)	41%
Illinois Pondweed	29%
Sago Pondweed	17%
White Waterlily	17%

Eurasian Watermilfoil 2016



2014



2015



Eurasian Watermilfoil

Previous herbicide treatments have reduced nuisance areas to some degree, but have not provided substantial lake-wide reductions or long-term control.

2016 Fluridone Treatment

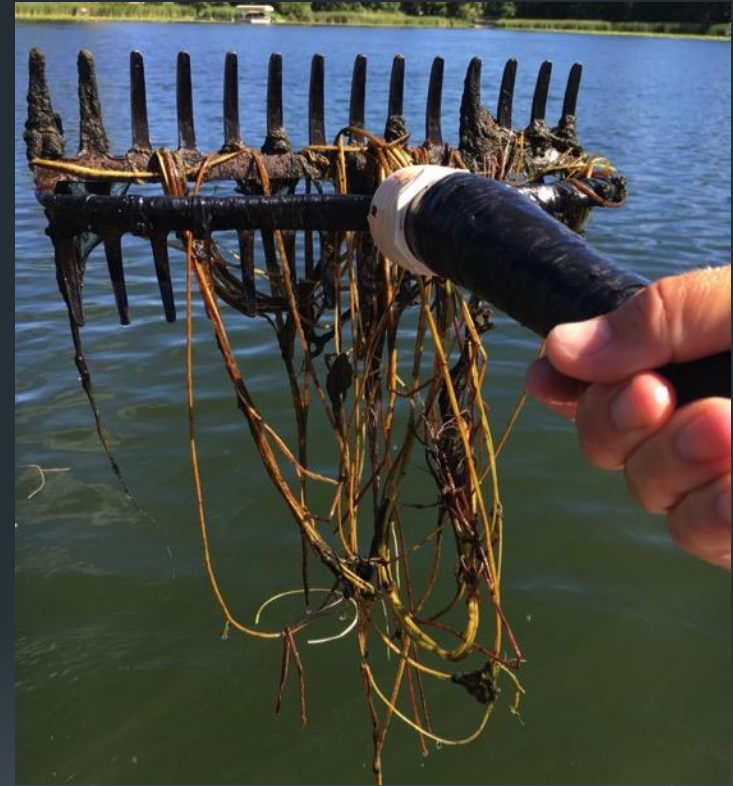
Experimental Treatment

Collaborative effort by CLAA, PLM, Freshwater, and the MDNR

- Granular fluridone herbicide (Sonar™)
- Dosing calculated for lake-wide concentration
- Granules only applied to areas of milfoil

This strategy exposes the milfoil beds to lethal doses of herbicide, while protecting the native plants throughout the rest of the lake

Milfoil Heavily Damaged



**Very Promising Results in 2016:
Milfoil plants lost leaves and collapsed by late summer**

Next Steps



This year we will learn the degree to which milfoil has been reduced, and will see how the native plants respond

- Assess regrowth of milfoil in 2017**
- Assess effects on native plants**
- Transplantings to promote natives**
- Potential treatment of EWM patches**



Thanks

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