

**Summary of Monitoring at Boat Landings for
Eurasian Water Milfoil (*Myriophyllum spicatum*) on
Pipe Lake (WBIC: 2490500) and North Pipe Lake (WBIC: 2485700)
Polk County, Wisconsin**



Project Initiated by:
Pipe Lakes Protection and Rehabilitation District



(EWM Scan – Berg 2007)

Landing Monitoring and Shoreline Surveys
Conducted by and Report Prepared by:
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INTRODUCTION:

During the summers of 2007 and 2013, extensive point-intercept plant surveys found there was no Eurasian water milfoil (*Myriophyllum spicatum*) in the Pipe Lakes (Figure 1). As part of their Aquatic Plant Management Plan (APMP), the Pipe Lakes Protection and Rehabilitation District decided that monthly transect surveys at the lakes' landings would be a prudent measure considering the increasing number of neighboring lakes that have EWM infestations (Horseshoe, Echo, Beaver Dam, Kidney, Shallow, Lower Vermillion, and Duck).

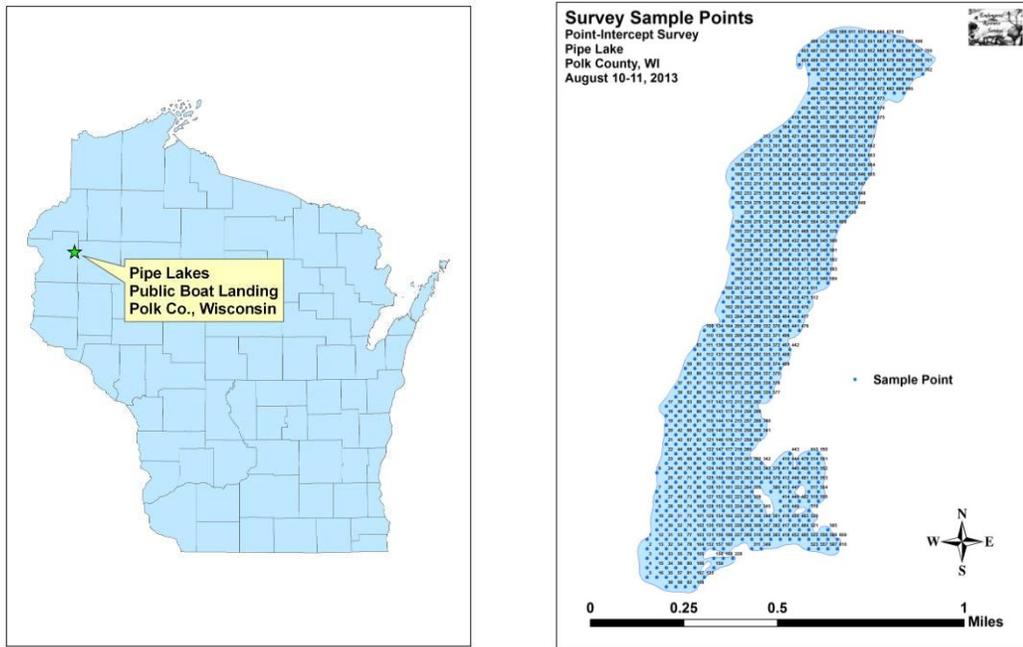


Figure 1: Pipe Lakes, Polk Co., WI and Point Intercept Points 2013

METHODS:

During the five month growing season from June-October 2016, we conducted landing inspections at least once a month at the north boat landing and the “unofficial” south landing on Pipe Lake (Figure 2). If conditions allowed us to see deep into the littoral zone (not raining/good water clarity/no people present swimming at the north beach), we conducted a boat survey to look for EWM. Using three 100-150m parallel transects approximately 15, 30 and 45m from shore; we motored at idle speed looking for any evidence of EWM’s characteristic red growth top. Once we had finished the three transects, we returned to our starting point using a stitch pattern that crossed back and forth over all three lines to look for any plants we may have missed between the transects. As EWM primarily reproduces by shedding numerous vegetative fragments, we also walked along the north landing shoreline to look for pieces of EWM that would likely wash up if plants were present.

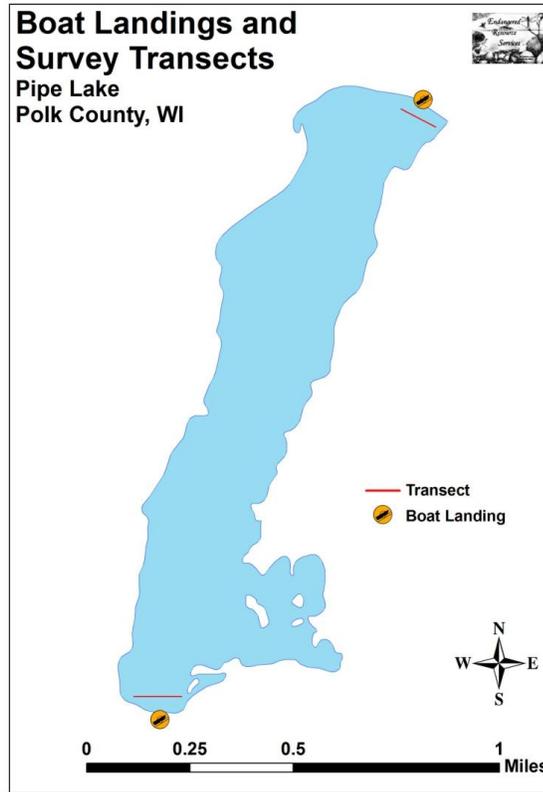


Figure 2: Boat Landings and EWM Survey Transects 2016

Following the boat inspection, if conditions warranted, we also surveyed using SCUBA/snorkel gear and compass along those same transects. Because Pipe Lake is essentially an elongated bowl and it was easy to do, on the first survey in June and the final survey in October, we conducted a boat survey along the shoreline of the entire lake to look for EWM in the zone of growth it would most likely be found in. We also surveyed North Pipe Lake at these times.

RESULTS AND DISCUSSION:

In late May 2015, Dick Hollar and Greg Warner – PLPRD - informed us that a boat trailer that had a considerable amount of Curly-leaf pondweed (*Potamogeton crispus*) on it had launched at the north landing. As in 2015, despite extensive looking during our initial June 14th survey, we found **NO** evidence of CLP in the lakes. In addition to this preliminary search, we also conducted four transect surveys on July 15th, August 15th, September 18th (a training dive where we were joined by 6 other volunteers), and October 10th. We also conducted whole-lake aquatic invasive species (AIS) shoreline surveys on both Pipe and North Pipe on June 14th and October 8th (Figure 3). Fortunately, we did **NOT** find any evidence of CLP, EWM or any other AIS in or adjacent to the lakes other than the previously reported Reed canary grass (*Phalaris arundinacea*), and even this seemed to have diminished with the rising lake levels experienced during the 2016 growing season.

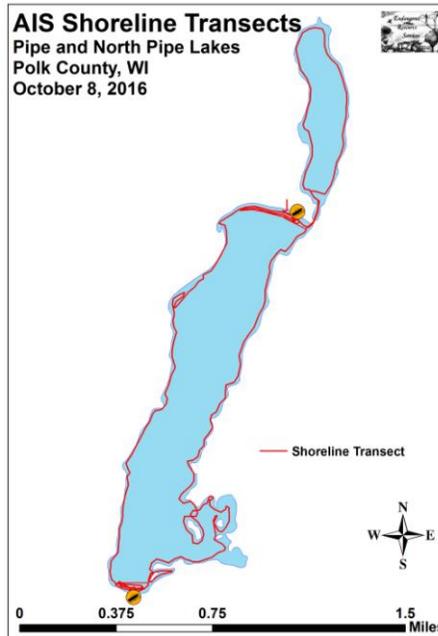


Figure 3: October 8, 2016 Full Shoreline AIS Survey

As in the past, the only branched/feathery aquatic plant we found in the lakes was Farwell’s water milfoil (*Myriophyllum farwellii*) – a valuable habitat producing native plant that is relatively uncommon in the state. It continues to grow in dense beds in the sheltered bays of the southeast corner of Pipe Lake in shallow water over thick organic muck (especially near the beaver lodge on the east side of the northeast island). Farwell’s is also found scattered through North Pipe Lake, but here it is very uncommon and never bed forming. Farwell’s water milfoil can be told from Eurasian water milfoil in that it has leaves with leaflets numbering <16 whereas EWM normally has >26 leaflets (Figure 4). EWM also has an emergent flower stalk where Farwell’s flowers are scattered along the stem and look like tiny nuts.

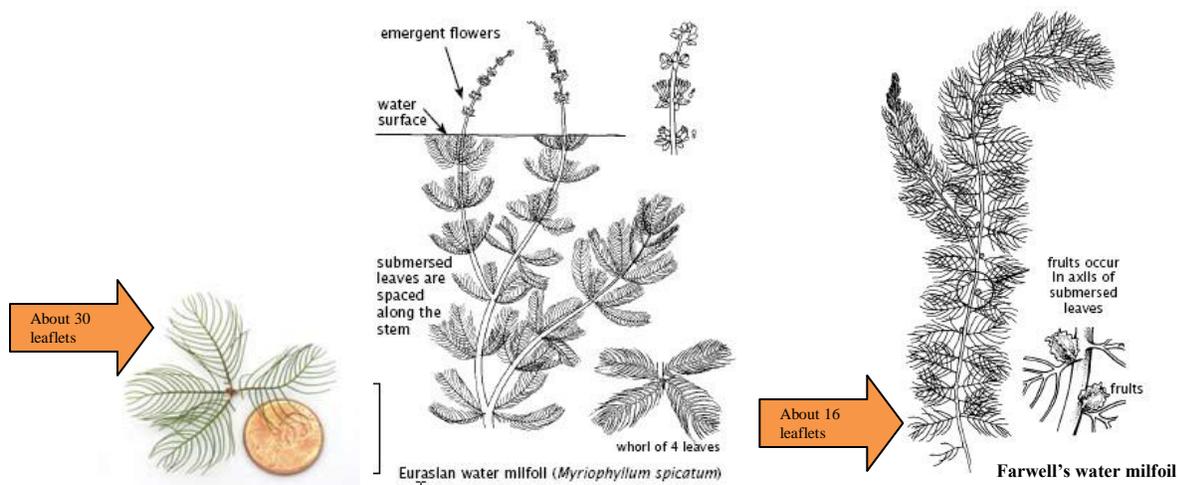


Figure 4: EWM and Farwell’s Water Milfoil Identification
(Hill et al. in Maine’s Field Guide to Aquatic Invasive Species and Crow and Hellquist 2006)

CONSIDERATIONS FOR FUTURE MANAGEMENT:

The south shore landing (posts with signs driven into the ground to instruct people not to trespass/to use the north public landing instead) was closed in 2014, and we see no evidence that people have used the area since. Because of this, we feel that the two full shoreline surveys at the beginning and end of the growing season are sufficient to monitor this area. In 2017, assuming landing monitoring is to continue, we propose focusing along the entire northern shoreline where fragments from EWM would likely be blown by the prevailing summer winds.

As always, if lake residents or boaters discover a plant they even suspect may be CLP or EWM, we again encourage them to immediately contact us (Matthew Berg, ERS, LLC Research Biologist) at 715-338-7502 saintcroixdfly@gmail.com and/or Pamela Toshner or Alex Smith, Regional Lakes Management Coordinators in the Spooner DNR office at 715-635-4073 for identification confirmation. A fresh specimen, JPG photograph, and GPS coordinates of where the specimen was obtained would aid in the identification and location of any suspect plant(s).