

**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 - Summer 2011**



Project Initiated by:  
Dick Hollar; Pipe Lakes Protection and Rehabilitation District



(EWM Scan - Berg, 2007)

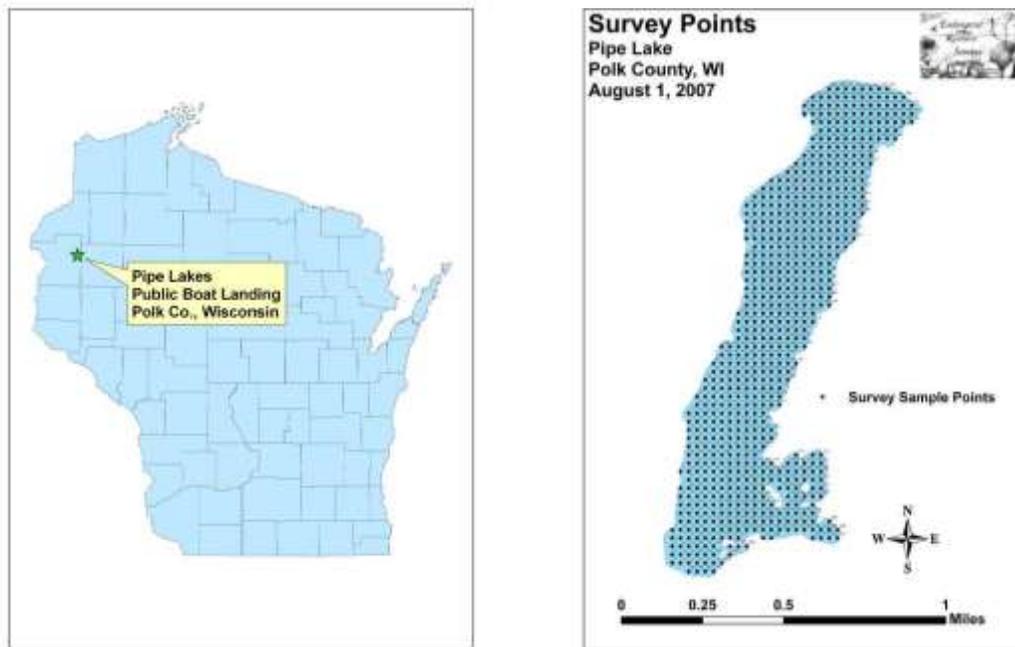
Landing Monitoring and Shoreline Surveys  
Conducted by and Report Prepared by:  
Endangered Resource Services, LLC  
Matthew S. Berg, Research Biologist  
St. Croix Falls, Wisconsin  
June-October, 2011

## TABLE OF CONTENTS

	Page
INTRODUCTION .....	1
METHODS .....	1
RESULTS AND DISCUSSION.....	2
FUTURE MANAGEMENT CONSIDERATIONS.....	3

## INTRODUCTION:

During the summer of 2007, an extensive point intercept plant survey found there was no Eurasian water milfoil (*Myriophyllum spicatum*) in the Pipe Lakes (Figure 1). As part of completing an Aquatic Plant Management Plan (APMP), the Pipe Lakes Protection and Rehabilitation District, Cedar Corp. and ERS, LLC decided that monthly transect surveys at the lakes' boat landings would be a prudent measure considering the increasing number of neighboring lakes that EWM has invaded (Horseshoe, Echo, Beaver Dam, Lower Vermillion, Duck etc.). These surveys will be conducted annually until the next full Point Intercept Survey. At that time, this and the rest of the items in the lakes' APMP will be reexamined.



**Figure 1: Pipe Lakes, Polk Co., WI and Point Intercept Points 2007**

## METHODS:

During the five months from the June-October 2011, 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 (not raining and/or no people present swimming in area), we initially conducted a boat survey of the area. 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.



**Figure 2: Boat Landings and EWM Survey Transects 2011**

Following the boat inspection, we surveyed using SCUBA/snorkel gear, and compass along those same transects with the return to start again using a stitch pattern to maximize coverage of the area. Because Pipe Lake is essentially an elongated bowl and it was easy to do, on the first and final surveys of the year, 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. In October, we also surveyed North Pipe Lake.

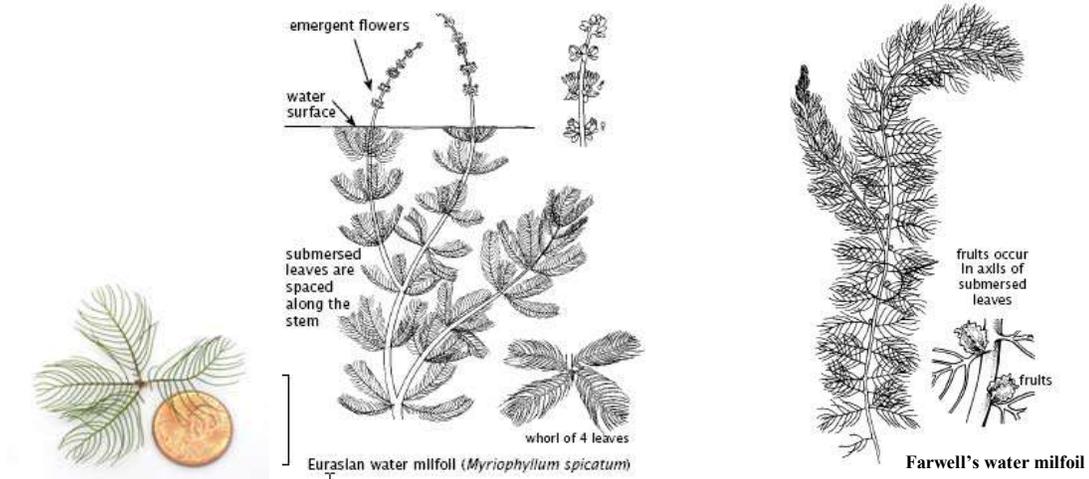
**RESULTS AND DISCUSSION:**

During the summer of 2011, we conducted five transect surveys on June 10<sup>th</sup>, July 9<sup>th</sup>, August 5<sup>th</sup>, September 5<sup>th</sup> and October 1<sup>st</sup>, and shoreline surveys on Pipe on June 6<sup>th</sup> and both Pipe and North Pipe on October 1<sup>st</sup> (Figure 3). Water levels, following the drought of the past few summers, had returned to normal, and the plant community was adjusting accordingly with species dying off at the edge of the littoral zone, but recolonizing areas on the shoreline edge. During the June and August surveys, I was accompanied by two other and four other divers who served as extra eyes on our search. We did not find EWM or any other aquatic invasive species in or adjacent to Pipe Lake.



**Figure 3: October Shoreline AIS Survey 2011**

We again found dense beds of Farwell’s water milfoil in the sheltered bays in the southeast corner of Pipe Lake in shallow water over thick organic muck. The only plant in the Pipe Lakes that looks like EWM can be told from it by its normal number of 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 lakes are scheduled for a full-point intercept survey in 2012 meaning the board may decide that landing inspections would be redundant for 2012. However, if any lake resident or boater discovers a plant they even suspect may be EWM, they are encouraged to immediately contact Matthew Berg, ERS, LLC Research Biologist at 715-338-7502 and/or Pamela Toshner, Regional Lakes Management Coordinator 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 of any suspect plant.