

Wisconsin Department of Natural Resources SWIMS Project Summary

General Project Information

Project ID: AEPP-079-07

Name: GOLDEN SANDS RC&D: Emily EWM-Crayfish

Type: Aquatic Invasives Grant

Subtype: Aquatic Invasives Education

Status: COMPLETE

Start Date: 4/1/2007

End Date: 12/31/2009

Purpose: Golden Sands RC&D, in conjunction with the Friends of Lake Emily, proposes to implement a Clean Boats, Clean Waters program with paid field staff who will also organize EWM hand-pulling parties, map EWM concentrations with GPS, produce a end-of-season map for comparison with past years and issue news releases and news letters to enhance community awareness. Field staff to also conduct a study rusty crayfish in conjunction with the UW Stevens Point Invasives and Exotic Species class.

Objective:

Comments: Grantee is GOLDEN SANDS RC&D

Outcome:

Study Design:

QA Measures:

People

Name	Role	Status	Start Date	End Date	Organization	Comments
Golden Sands RC&D Council, Inc	GRANT_RECIPIENT	COMPLETE	4/1/2007	12/31/2009	Golden Sands RC&D Council, Inc.	

Project Statuses

Date	Reported By	Status	Comments
------	-------------	--------	----------

Actions

Action	Detailed Description	Start Date	End Date	Status
Grant Awarded	AEPP-079-07	4/1/2007	12/31/2009	COMPLETE
Issue News/Media Release		4/1/2007	12/31/2009	PROPOSED
Grant Awarded	AEPP-079-07Emily EWM-Crayfish	4/1/2007	4/1/2007	COMPLETE
Control Invasive Species		4/1/2007	12/31/2009	PROPOSED
Watercraft Inspections Clean Boats, Clean Waters	17934203	4/1/2007		PROPOSED

Monitoring Stations

Station ID	Name	Comments
------------	------	----------

Assessment Units

WBIC	Segment	Local Name	Official Name
189800	1	Emily Lake	Lake Emily

Wisconsin Department of Natural Resources SWIMS Project Summary

Lab Account Codes

Account Code	Description	Start Date	End Date
--------------	-------------	------------	----------

Forms

Form Code	Form Name
-----------	-----------

Methods

Method Code	Method Description
-------------	--------------------

Fieldwork Events

Start Date	Status	Field ID	Station ID	Station Name
------------	--------	----------	------------	--------------

Documents

Wisconsin Department of Natural Resources SWIMS Project Summary

Title	Description	Author	Published	Comments
EURASIAN WATER MILFOIL ASSESSMENT	<p>Eurasian water milfoil (EWM) (<i>Myriophyllum spicatum</i>) is an exotic aquatic plant that has been gaining notoriety across the United States for its aggressively invasive nature. Native to the Eurasian continent, it has been inadvertently introduced to water bodies across the U.S. by boaters, recreationalists, and various aquatic industries. Once introduced, EWM, a champion of reproductive ingenuity, spreads rapidly via stolons or fragmentation. The submersed aquatic plant goes through two flowering periods each summer, after which, it fragments into many pieces. Each fragment may sprout roots and can remain afloat and stay viable for several weeks until it drifts to a suitable site, where it can become another plant. A perennial, the plant may wait out the winter under the ice, intact, and will be growing and well established by April or May, much sooner than native aquatics. It will grow rapidly, reach the water surface and then spread into a dense, tangled mat, shading out the sunlight the other plants need. This dense mat also increases fluctuations in dissolved oxygen content, carbon dioxide content, pH level, and temperature stratification, while also inhibiting water circulation. EWM aggressively out-competes the native aquatic plants, which results in a rapid decrease in the diversity of the lakes plant community. This in turn decreases the diversity of the insect and fish populations. Dense growth of EWM can impede predator-prey relationships between fish, stunting the growth of the larger fishes as it reduces their ability to see prey. The tangled mats at the water surface can become dense enough to strand boaters, become a safety hazard for swimmers, and create a stagnant breeding ground for mosquitoes (Jester 1998).</p>	Amy L. Thorstenson	12/1/2006	

Wisconsin Department of Natural Resources SWIMS Project Summary

EURASIAN WATER MILFOIL ASSESSMENT	<p>Eurasian water milfoil (EWM) (<i>Myriophyllum spicatum</i>) is an exotic aquatic plant that has been gaining notoriety across the United States for its extremely aggressive invasive nature. Native to the Eurasian continent, it has been inadvertently introduced to water bodies across the U.S. by boaters, recreationalists and various aquatic industries. Once introduced, EWM, a champion of reproductive ingenuity, spreads rapidly via stolons or fragmentation. The submersed aquatic plant goes through two flowering periods each summer, after which, it fragments into many pieces. Each fragment may sprout roots and can remain afloat and stay viable for several weeks until it drifts to a suitable site, where it can become another plant. A perennial, the plant may wait out the winter under the ice, intact, and will be growing and well established by April or May, much sooner than native aquatics. It will grow rapidly, reach the water surface and then spread into a dense, tangled mat, shading out the sunlight the other plants need. This dense mat also increases the dissolved oxygen fluctuations, carbon dioxide fluctuations, pH fluctuations and the temperature stratification of the water, and it inhibits water circulation. The EWM aggressively out-competes the native aquatic plants, which results in a rapid decrease in the diversity of the lakes plant community. This in turn decreases the diversity of the insect and fish populations. Dense growth of EWM can impede predator-prey relationships between fish, stunting the growth of the larger fishes as it reduces their ability to see prey. The tangled mats at the water surface can become dense enough to strand boaters, become a safety hazard for swimmers, and create a stagnant breeding ground for mosquitoes. (Jester 1998)</p>	Amy L. Thorstenson	12/1/2005	
-----------------------------------	---	--------------------	-----------	--

**Wisconsin Department of Natural Resources
SWIMS Project Summary**

EURASIAN WATER MILFOIL ASSESSMENT 2003	<p>Eurasian water milfoil (EWM) (<i>Milfolium spicatum</i>) is an exotic aquatic plant that has been gaining notoriety across the United States for its extremely aggressive invasive nature. Native to the Eurasian continent, it has been inadvertently introduced to water bodies across the U.S. by boaters, recreationalists and various aquatic industries. Once introduced, EWM, a champion of reproductive ingenuity, spreads rapidly via stolons or fragmentation. The submersed aquatic plant goes through two flowering periods each summer, after which, it fragments into many pieces. Each fragment may sprout roots and can remain afloat and stay viable for several weeks until it drifts to a suitable site, where it can become another plant. A perennial, the plant may wait out the winter under the ice, intact, and will be growing and well established by April or May, much sooner than native aquatics. It will grow rapidly, reach the water surface and then spread into a dense, tangled mat, shading out the sunlight the other plants need. This dense mat also increases the dissolved oxygen fluxuations, carbon dioxide fluxuations, pH fluxuations and the temperature stratification of the water, and it inhibits water circulation. The EWM aggressively out-competes the native aquatic plants, which rapidly decreases the diversity of the lakes plant community. This in turn decreases the diversity of the insect and fish populations. Dense growth of EWM can impede predator-prey relationships between fish, stunting the growth of the larger fishes as it reduces their ability to see prey. The tangled mats at the water surface can become dense enough to strand boaters, become a safety hazard for swimmers, and create a stagnant breeding ground for mosquitoes. (Jester 1998)</p>	Amy L. Thorstenson	12/31/2003	
--	--	--------------------	------------	--

Wisconsin Department of Natural Resources SWIMS Project Summary

EURASIAN WATER MILFOIL ASSESSMENT 2004	<p>Eurasian water milfoil (EWM) (<i>Myriophyllum spicatum</i>) is an exotic aquatic plant that has been gaining notoriety across the United States for its extremely aggressive invasive nature. Native to the Eurasian continent, it has been inadvertently introduced to water bodies across the U.S. by boaters, recreationalists and various aquatic industries. Once introduced, EWM, a champion of reproductive ingenuity, spreads rapidly via stolons or fragmentation. The submersed aquatic plant goes through two flowering periods each summer, after which, it fragments into many pieces. Each fragment may sprout roots and can remain afloat and stay viable for several weeks until it drifts to a suitable site, where it can become another plant. A perennial, the plant may wait out the winter under the ice, intact, and will be growing and well established by April or May, much sooner than native aquatics. It will grow rapidly, reach the water surface and then spread into a dense, tangled mat, shading out the sunlight the other plants need. This dense mat also increases the dissolved oxygen fluxuations, carbon dioxide fluxuations, pH fluxuations and the temperature stratification of the water, and it inhibits water circulation. The EWM aggressively out-competes the native aquatic plants, which results in a rapid decrease in the diversity of the lake's plant community. This in turn decreases the diversity of the insect and fish populations. Dense growth of EWM can impede predator-prey relationships between fish, stunting the growth of the larger fishes as it reduces their ability to see prey. The tangled mats at the water surface can become dense enough to strand boaters, become a safety hazard for swimmers, and create a stagnant breeding ground for mosquitoes. (Jester 1998)</p>	Amy L. Thorstenson	12/1/2004	
--	---	--------------------	-----------	--

Wisconsin Department of Natural Resources SWIMS Project Summary

Eurasian Water Milfoil Assessment 2007	Complete summary of study findings (2003 to 2006) and treatment recommendations for the nine subject lakes have been provided in previous reports, which are available in hardcopy or electronic format from Golden Sands RC&D. Contact Amy Thorstenson at 715-346-1264 or thorstea@co.portage.wi.us .	Amy L. Thorstenson	12/1/2007	
Final Report Lake Emily EWM-Crayfish [Portage]	Discusses hand-pulling parties for control of EWM, AIS plant mapping, CBCW boat checks, building community reports, a 2007 rusty crayfish study, a 2008 study by UW-SP on milfoil weevils, and 2008 control methods used.	Paul Skawinski	1/15/2010	

Budget

Combined Budgets:

Combined WSLH:

Combined Total: \$0.00

Funding

Organization	Source	Type	Amount	Start Date	End Date
--------------	--------	------	--------	------------	----------