

## Michigan Inland Lakes Convention Minutes

I attended the inaugural Michigan Inland Lakes Convention at the Boyne Mountain resort in Boyne Falls, Michigan on Friday, May 2, 2014. The Association Board received the notice via our lake management company, PLM Lake & Land Management Corp. It was a three-day convention but I only attended one day to hear lectures that I thought were appropriate to our lake management plan. I have summarized what I found interesting. Details of the lectures are provided by clicking on the links for each presentation.

The lectures I attended were:

### 1) *Invasive Species in Inland Waters*

- a) *Benefits in incorporating genetic identification of watermilfoil into aquatic vegetation mapping*
- b) *Recent changes in invasive zebra mussels densities in Michigan inland lakes*
- c) *Using boater surveys to inform invasive species early detection and rapid response programs*

### 2) *Portable Boat Wash*

### 3) *Lake Management A to Z*

- a) *The Basics of Lake Ecology: Links Between Management Activities and Lake Systems*
- b) *The Art and Science of Lake Management Planning: What's Your Plan?*
- c) *Proactive vs. Reactive Pond and Lake Management*
- d) *Various Impacts Associated with Decades of Aquatic Plant Community Management in Michigan Inland Lakes*

Summaries:

1a) There has been a huge growth in hybrid milfoil - a genetic cross between Northern watermilfoil (native) and Eurasian watermilfoil (invasive). The hybrid grows faster and is less susceptible to normal chemical treatments of Eurasian watermilfoil (EWM). So it's important to identify it correctly and prescribe the correct treatment plan.

Impact to Bear Lake: We have no known hybrids in the lake; however, I will ask PLM to ensure this is the case during this year's surveys.

Further details:

[Syndell\\_Parks\\_Ryan\\_Thum\\_GVSU\\_Benefit\\_of\\_Incorporating\\_Genetic\\_ID\\_of\\_Watermilfoil\\_into\\_Aquatic\\_Vegetation\\_Mapping.pdf](#)

1b) There was a huge kill-off of zebra mussels around the state in the 2010-2012 seasons. This was primarily due to increased water temperatures during those summers. They have somewhat rebounded last year.

Impact to Bear Lake: Due to our generally cooler lake temperatures, we probably did not have any reduction in zebra mussels, in fact, we probably had more. From many property owners' reports I get, they have now nearly encircled the entire lake. We still wait for a DNR approved treatment.

Further details:

[Jeffrey\\_White\\_Recent\\_Changes\\_in\\_Zebra\\_Mussel\\_Populations\\_in\\_Michigan\\_Inland\\_Lakes.pdf](#)

1c) Over a thousand surveys from boaters around the state were collected and studied by Michigan State University. The researchers were looking for correlations from the survey results about what, why and how often boaters use the lake and the presence of invasive species.

Impact to Bear Lake: None unless we choose to install a boat wash.

Further details: [Abigail\\_Fusaro\\_Using\\_Boater\\_Surveys\\_to\\_Inform\\_AIS\\_Early\\_Detection.pdf](#)

2) This is a trailer loaded with an 18hp engine compressor, water heater, fresh and filtered water 240 gallon tanks, and vacuum pick-up that filters the water as it falls onto a ground mat and dumps it into a holding tank. The DNR purchased this trailer to tour the state and to educate residents about the importance of keeping your boats clean as you leave and enter lakes.

Impact to Bear Lake: None unless we choose to buy one at a cost of \$15,000-20,000 depending on accessories. We will have discussions about this in the near future.

3a) This lecture discussed the evolution of a lake biomass (plant and animal life within the lake) and how a proper lake management plan could address the specific needs.

Impact to Bear Lake: We have already contracted PLM to manage our lake and unless we feel they are not meeting our needs, we plan to keep them. So far the Board feels they are doing a good job.

Further details: [Doug Pullman Aquest Corp Aquatic Vegetation.pdf](#)

3b) This lecture discussed the Manistee Lake case study to manage, primarily, the overgrowth of Eurasian watermilfoil (EWM). Other goals included a reduction of the white sucker population which accounted for over 50% of the biomass in the lake. It addressed the methodology of planning, monitoring, funding, treating, and evaluating a plan to address the issues identified. For the EWM, they decided to use weevils in lieu of chemical treatments. What surprised me was that weevils are only effective in reducing the canopy of the plant and does not, usually, kill it. So after about 15 years and \$150,000 of weevils (about \$1 each), the plants continue to grow and spread. Personal comment: It seems that they have exchanged increased plant densities and poorer fishing conditions with safer boating.

Impact to Bear Lake: Obviously, we took a different approach. We have been very successful in killing the EWM and have greatly reduced the size and number of plants without affecting the health of the water itself.

Further details:

[Tony Groves Progressive AE The Art and Science of Lake Management Planning.pdf](#)

3c) This was 20 minute infomercial about aerating the lake to increase oxygen levels to discourage algae growth and promote fish and native plant growth for a well balanced ecosystem.

Impact to Bear Lake: None unless our oxygen levels decrease to the point of requiring assistance.

Further details: [Jeff Suttner AIRMAX Presentation.pdf](#)

4c) This a 30 minute discussion on the methods, metrics, and algorithms used to evaluate lake management plans.

Impact to Bear Lake: None. I was trapped in the room with no escape route.

Further details: [Steve Hanson Aquatic Ecosystems Emphasis on Food Webs.pdf](#)

Extra Credit: I met Doug Fast, the designer, manufacturer and owner of The Lake Mat as advertised on our website. He has developed a new mat that eliminates the

weighted steel rods and uses a perimeter aluminum frame to greatly reduce the amount of effort to move the mat. I have an older version and highly recommend either one.

Here is a link to all the presentations and workshops:

<http://michiganlakes.msue.msu.edu/convention>

I will ensure that each of you receives a notice of next year's convention. There were many more topics that may be an interest to you, including but not limited to fish, wildlife and shorelines.

Respectively submitted,  
Sam Rahaim