



PLM NEWS

PLM Lake & Land Management Corp.
Great Lakes Division

Harsh Winter May Result In Fish Kills

“Harsh” may be an understatement. This past winter was one of the coldest and snowiest winters in our life times. While we are looking forward to spring, the “Harsh” winter may have some lingering effects.

The thick ice and heavy snow cover on lakes and ponds this winter may take a toll on fish populations across the region. Under thick ice and snow, photosynthesis by aquatic plants and algae is greatly diminished. Normal biological activity such as respiration by plants and aquatic organisms, along with microbial decomposition of organic materials can use up oxygen reserves in the water column. The longer the ice and snow cover persists into late winter and early spring, the greater the risk of oxygen depletion and ultimately, fish kills.



The Michigan Department of Natural Resources released a statement earlier this winter warning of the potential impacts of this winter to fish populations. Although we can not predict which water bodies will be affected, shallow lakes and ponds with high organic sediments and high biological oxygen demand are the most susceptible to winter kill. Recently, PLM has sampled oxygen levels on a handful of lakes and found moderate to very low concentrations. Unfortunately there is nothing we can do to prevent winter fish kills in most situations.

Aeration is commonly used to benefit deep, nutrient enriched and oxygen impaired water bodies during the summer months. It may also be used during winter months in water bodies that are susceptible to winter-kills. Aeration may assist with late winter oxygen levels by preventing icing around diffuser heads, but there are potential drawbacks to using aeration especially during winter months. Liability factors on public waters are a major concern. However, a private water body may have reduced liability concerns and may make aeration a viable option.

If you have questions or notice dead fish as the ice retreats, please feel free to call us.

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...Thirty years of invasive plant management

PLM Happenings...

Nate Karsten, our Southern MI Assistant Manager, and wife welcomed their first baby on October 18, 2013. Lillian Grace weighed in at 5lb 12oz and was 18.5 inches long. Lillian and family are doing great! Congrats Nate!

Fact or Fiction, Do We Really Have to be Concerned About Hybrid Milfoil?

YES, it is a fact that: 1) we do have hybrid milfoil throughout Michigan, 2) it grows faster than true Eurasian watermilfoil, 3) it is less susceptible to low dose herbicide concentrations, 4) it requires genetic analysis to confirm specific species, 5) increased herbicide concentrations will help reduce resistances, and 6) diversity of herbicides will help reduce resistances.

PLM will be making recommendations to: perform genetic analysis of your milfoil populations, increase herbicide application rates, alternate herbicide active ingredients.

Over the last several years Grand Valley State University (GVSU) research has provided the aquatic industry scientific “Fact’s” regarding hybrid milfoil. GVSU has performed numerous research projects which continue to provide us a better understanding of genetic variations associated with milfoil. As an example of GVSU ongoing research, Syndell Parks, Graduate Assistant to Dr Ryan Thum recently presented this presentation at the 2014 Midwest Aquatic Plant Management Society Conference:

Benefits of Incorporating Genetic Identification into Aquatic Vegetation Mapping

“Eurasian watermilfoil (Myriophyllum spicatum) is an invasive aquatic plant that is extensively managed to mitigate its large economic and ecological impacts in many lakes. Eurasian watermilfoil hybridizes with the ecologically benign and native northern watermilfoil (Myriophyllum sibiricum). These hybrids can differ significantly from Eurasian watermilfoil in patterns of nuisance growth and response to management. However, due to their morphological variability, many hybrids are difficult to distinguish from Eurasian and northern watermilfoil, even for those with aquatic plant identification training. In contrast, molecular genetic methods of identification have proven more reliable. Incorporating genetic monitoring of watermilfoils into existing aquatic vegetation mapping can therefore inform nuisance watermilfoil adaptive management decisions.”

For further information regarding this abstract and more GVSU research: aquagen@gvsu.edu

Fiction: There is nothing more to learn about hybrid milfoil....



Michigan State University has partnered with several organizations including the DEQ and Department of Agriculture to develop an online/mobile resource for the general public to actively participate in invasive species management. The **Midwest Invasive Species Information Network (MISIN)** is a regional effort to develop and provide an early detection and rapid response (EDRR) resource for invasive species. The goal of the MISIN is to assist both experts and citizen "scientists" in the detection and identification of invasive species in support of the successful management of invasive species.

The MISIN website has over 230 invasive species listed along with colored pictures and detailed descriptions to help you determine if the plant or animal you have found is of concern. If you believe you have found a species on the list you can submit your findings to the MISIN for further review. The MISIN also has regional maps that show areas where new invasive species have been found. A MISIN offers a Smartphone app that provides a mobile solution for the capture of invasive species field observation data. Therefore if you are out on your lake and see a unique aquatic weed or animal you have an immediate resource available.

As riparian's, you can play an important role in the early detection and rapid response to new invasive threats in your area by contributing invasive species observations to the MISIN database. Please take a moment and familiarize yourself with the MISIN website www.misin.msu.edu, and contact your PLM account manager if you believe you have found a new invasive species.



European Frog bit



Parrot feather watermilfoil



Hydrilla

Michigan Inland Lakes Convention: Partnering to Protect Michigan's Inland Lakes

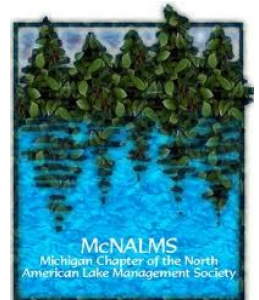
May 1-3, 2013. Boyne Mountain

The inaugural Michigan Inland Lakes Convention will take place May 1st through 3rd at Boyne Mountain Resort in Boyne Falls, Michigan. The Convention presents an opportunity for lake enthusiasts, lake professionals, researchers, local government officials and anyone else interested in protecting our water resources to participate in three days of educational presentations and discussion, in-depth workshops, tours, exhibits and much more focused on Michigan's 11,000 inland lakes.

Convention sessions will cover a wide variety of topics, including aquatic invasive species management and control, natural shoreline management, Cooperative Lakes Monitoring Program training, the latest in lake research, riparian rights and water law, and much more!

The 2014 Michigan Inland Lakes Convention is brought to you by the Michigan Inland Lakes Partnership, launched in 2008 to promote collaboration to advance stewardship of Michigan's inland lakes. The Convention is a cooperative effort between many public and private organizations including the Michigan Chapter of the North American Lake Management Society, Michigan Lake and Stream Associations, Inc., Michigan State University Extension, Michigan Natural Shoreline Partnership, Michigan Department of Natural Resources, Michigan Department of Environmental Quality, and the Michigan State University Institute of Water Research.

For the latest information on the Michigan Inland Lakes Convention, visit michiganlakes.msue.msu.edu. Registration for the conference is now open.



Important Information – Please Read!

The 2014 season will soon be underway and you will be receiving a copy of our 2014 tentative treatment schedule and notice. This is a piece of information that lets you know the estimated time of treatment as well as the products that **MAY** be used during those treatments. The notice also indicates the restrictions associated with those products. The tentative treatment schedule and notice must be distributed to all property owners within 100 feet of the treatment area not more than 45 days before and no less than 7 days prior to the initial treatment. Please contact your PLM manager to confirm that notices have been distributed within this timeframe.

As a reminder, please note that the treatment schedule is **TENTATIVE**. Plants and algae don't grow on schedules so treatment dates may need to be altered based on the conditions. Furthermore, the prolonged ice cover and slow spring warm up may possibly impact the timing of growth compared to previous years. We are uncertain what this will do to treatment timing but have scheduled treatments comparable to previous seasons with the strategy of being adaptive as needed.