



Aqua-Talk Tid-Bits

September 2008



Hello PLM Customers!

We are currently wrapping up the 2008 season. With our last lingering treatments, water quality sampling, and vegetation surveys, we will soon be parking the boats for the winter and preparing for next year. Many of you are receiving contract renewals or letters informing you of next year's program details. If you received a statement for the 2009 permit fee, please try your best to get the fee to us ASAP. It is frustrating for us all when treatments get delayed due to permitting hold ups. Although we may not be on your water body these days, we are hard at work preparing to be there when you need us next spring.

PLM Headlines

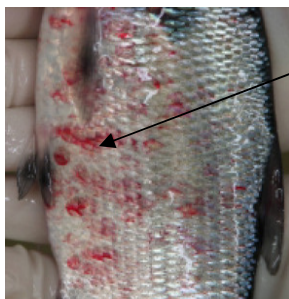
Beach Closures on the Rise in 2008

If you have watched the news this past summer you have probably seen an increase of a beach closure due to high levels of E.Coli. E. Coli measurements count the number of live fecal bacteria in a water sample. The bacteria are reliable indicators of fecal contamination. When E.Coli is found in a lake or pond, it is very likely that the water is being contaminated by animal feces. High levels of contamination can potentially be derived from a number of sources, including failed septic systems, agricultural runoff, or waterfowl or wildlife droppings. Currently, PLM tests for E.Coli in all lakes enrolled in the water quality monitoring program. The current program samples one shoreline area of the lake where swimming or boating may occur. Although, this is an accepted way to determine a potential issue, PLM has decided to increase the number of sites in 2009 to get a better picture of the entire waterbody. PLM is now recommending sampling 3 sites equally spaced around the lake to determine a geometric mean of E.Coli counts. If the mean value is above State of *Michigan Total Body Contact Water Quality Standards* the lake association contact will be called immediately and additional sampling will be required. Due to the expansion of the current water quality programs there will be a slight increase of \$100.00 in the cost of the programs. Please contact your lake manager with any questions regarding these changes.



Viral Hemorrhagic Septicemia (VHSv)

Many of you may be aware of this new threat to our water bodies. Viral hemorrhagic septicemia (VHSv) is a viral fish disease that has produced large scale fish kills. It was identified in the Great lakes in 2005 and has caused fish mortalities in Lake Huron, Lake St. Clair, and the Detroit River. It has also been found in Budd Lake near Harrison MI. It most likely arrived to our waters from ballast water of Ocean going vessels. It can infect many species of fish, but mortality does not seem to be based on infection alone. Usually stressed fish populations are more prone to infection and mortality. There is no known treatment for VHSv leaving our best approach to reducing its spread by the education of anglers and boaters. A simple precaution such as not moving fish from one water body to another is a good start. Emptying live wells completely, disposing of bait fish properly, washing boats with a 10% bleach solution when transporting between water bodies, and knowing the regulations associated with VHSv management areas are all important to containing this spread of this potentially disastrous disease.



Hemorrhagic areas on Lake St. Clair Gizzard Shad. Photo Courtesy of Dr. Mohamed Faisal, MSU and Michigan DNR website.

For more information contact the Michigan DNR or look up information @ www.michigan.gov/dnr/

Starry Stonewort (*Nitellopsis obtusa*)

Once again our waters are under attack from another invasive species. Originally identified in the St. Lawrence River in 1978, Starry stonewort has begun its spread across our state. This species of macro algae is known to inhabit water from a few inches to 6 meters deep. It forms a dense carpet, sometimes a meter or more thick that crowds out native species, covers over fish spawning habitat and greatly impedes recreational activities. We are currently monitoring water bodies for this species and have begun proactive management programs where we have found it. We will be adding this species to our Michigan Aquatic Invasive Species information and we will keep you informed on advances in identification and treatment of Starry stonewort.



Starry stonewort

What is an AVAS Survey and Why is it Important?

Have you noticed PLM staff driving around your lake throwing out a rake and pulling up weeds? Have you wondered what we are doing? The answer is an AVAS survey. An AVAS (aquatic vegetation assessment site) survey, performed in MI-DEQ approved format determines plant diversity and density throughout the entire littoral (shoreline) zone of a lake. The shoreline of the lake is broken down into 300' sections and each section of the lake is surveyed to determine growth within that section. This data is crucial in locating exotic species, but also in documenting plant trends and changes in plant growth over time. In most lakes, an AVAS survey is the recommended format for determining treatment areas, plant density, and for permitting regulations. An AVAS survey is very efficient for most lakes with a defined shoreline littoral zone. Large lakes that are very shallow do not have defined littoral zones and can support aquatic plants throughout. In these situations a survey may be conducted using the grid point method. A grid-survey, typically used in lakes with hundreds of acres of littoral zone, only determines plant growth at specific coordinates versus determining plant growth throughout an entire section of shoreline. Both surveys are beneficial for different reasons. However, PLM uses AVAS surveys, in most bodies of water, as they provide extensive information on plant diversity and density, assistance with permitting regulations, and allow for accurate treatments.

PLM updates:

- For customers who participate in our water quality program, we have or will be completing the fall sampling. Reports will be issued once we receive the sample analysis. You will be receiving an invoice for the water quality programs with the report.
- **RENOVATE UPDATE:** In 2008, PLM has been utilizing the product Renovate OTF on several of our lake management programs. In 2007 we began to experiment with this product but it was very difficult to apply. In 2008, the product was reformulated and is now a viable tool for management. We have seen very good results when using this product and will continue to utilize it in our management programs where appropriate.
- **EVALUATION UPDATE:** During the 2008 season, PLM had been approved by MDEQ to conduct two evaluation treatments using Sonar (fluridone) for the control of exotic species. On Lake 21 (Barry County) a whole lake treatment using Sonar A.S. was conducted for control of Cabomba. While not a common exotic species, Cabomba poses a significant problem in that there are few control methods. Sonar A.S. was applied to Lake 21 this spring at a rate of 20 ppb and concentrations were maintained throughout the summer. Based on frequent visits to Lake 21, the treatment has been very successful with a significant reduction in Cabomba. On Selkirk Lake (Allegan County) a treatment was performed using a pellet formulation of Sonar (Sonar P.R.) for the control of Eurasian watermilfoil. Unlike the liquid formulation, Sonar P.R. releases slowly off the pellet and provides an extended, slow release of fluridone over the spring and early summer. As an evaluation treatment, we wanted to evaluate if a lower dose with prolonged exposure would provide better results than a traditional liquid Sonar treatment. Based on visits to Selkirk Lake, the treatment has been successful in controlling Eurasian watermilfoil. However, control took a longer period of time and Eurasian watermilfoil reductions were not observed until August. We will continue to monitor Selkirk Lake in the following seasons to determine if the Sonar P.R. will provide extended Eurasian watermilfoil control.



Cabomba