



WATERSHED NEWS

Letter from the President

How many of you noticed the increase in fishermen traffic in April and early May this year. The reason was an article in one of the fishing magazines that highlighted the excellent Wall-eye fishing in Upper and Lower Herring Lakes. I talked with several fisherman and indeed they were catching significant numbers of Walleye. It is great to be highlighted in a magazine but when you get many fishermen coming from other lakes they may be carrying unwanted invasive species with them. This is one reason for the Benzie Conservation District's (BCD) boat washing program to prevent invasive species. Benzie Conservation District now has 2 boat washing units that will give us more opportunity to wash boats and keep invasive species out of the lake. But we will need volunteers to help with the boat washing program. Members must step up and help with this program if we want it to be even partially successful in controlling invasive species.

In last year's newsletter we alerted Association members to a potentially serious problem, the identification of Eurasian Water Milfoil (EWM), an invasive species of plant that can grow very rapidly creating floating mats of vegetation that can reduce the native plants, reduce the natural food, and impede recreational activity. Later in the newsletter our efforts to manage EWM will be described and some results from DNA testing will be shared. EWM and native water milfoil have crossed and there is now a hybrid. We will be working on a control program for next year.

Our membership is back up this year to 46 members. This is good news but to have funds to treat the lake we will need even more members. We have picked up a few new members from Evergreen Shores and Indian Trail but there are still many property owners from these two lake associations that are not UHLA members. They may not realize that if water quality degrades or invasive species impact the lake, they have the most to lose. Current UHLA members can help us recruit new members. We hope you will all help by talking with neighbors and friends who live on or use Upper Herring Lake to tell them how important it is to have good water quality and fight the invasive species in our lake. Growing our membership will help the lake and the association.

We would like members to become more involved. There are many opportunities, recruiting new members, sampling the lake or streams, and volunteering at the boat launch for boat washing. We are looking forward to each member becoming more involved in some way. This is the way we can keep the lake we all love in good condition for us to use and enjoy.

Dave Long
Dave Long

UHLA Officers:

President: Dave Long • **Vice President:** Dan Bonner

Treasurer: Bill Henning • **Secretary:** Marilyn Thornton

In This Issue

Boat Washing at Upper Herring Lake

Eurasian Milfoil Update:

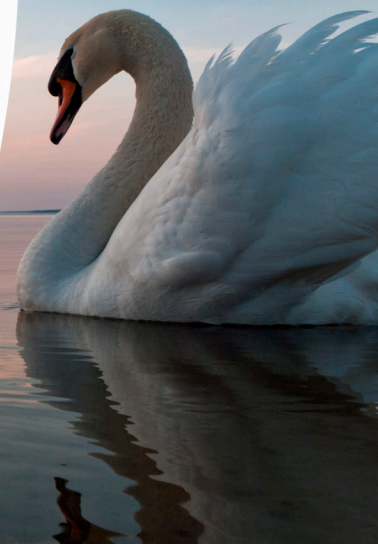
Aquatic Weed Survey

***Update On the Watershed
Management Plan***

Save the Date

Water Quality Update

Membership





Boat Washing at Upper Herring Lake

A big THANK YOU to all of the folks that showed up at the DNR boat launch to help with the Benzie Conservation District (BCD) portable boat wash. The unit was here on Upper Herring Lake on June 29 - 30 and again on July 30-31. The main purpose of this program is to educate boaters on the importance of cleaning a boat before entering a new lake to reduce the spread of invasive species. All of the volunteers were also trained in the operation of the unit and had a chance to wash some boats.

This boat washing program is funded by a grant from the state. The funds to purchase the portable boat washing unit and to pay the salaries of the BCD personnel are provided by the grant. One stipulation of the grant is that 10% of the overall cost must be paid by the BCD, a 10% match. This match can come in the form of volunteer hours spent on the program so each volunteer we had at the boat launch helped pay off part of 10% match obligation.

Prior to obtaining the grant, the BCD solicited the lake associations in the county to commit to a certain number of volunteer hours on this project. Due to the great number of volunteers we were able to surpass our commitment, and we were the only lake association that did that. Way to go Upper Herring Lake Association! Currently the boat washing program does not have a definitive plan for 2019 as they are waiting to hear about grant funding. Hopefully, they will be back sometime this summer and we can once again have a great turnout to help.

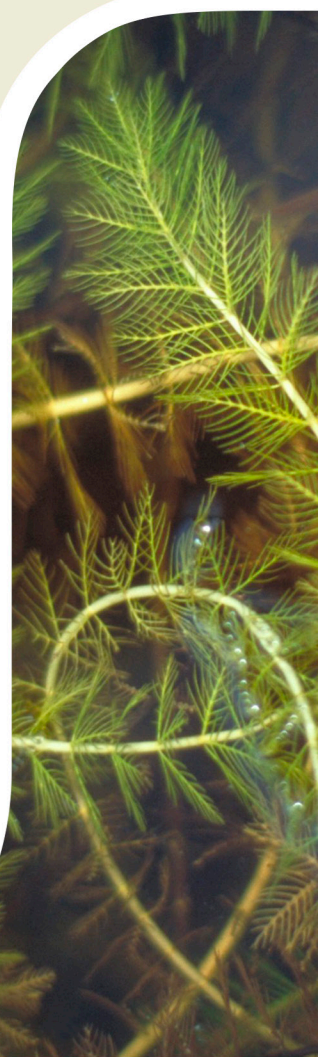
Eurasian Milfoil Update:

Several things have happened this past summer in regards to the Eurasian milfoil (EWM), just not what we had originally planned. John Ransom and Jane Perrino from the BCD completed a visual examination of the two big beds of milfoil we know about (one near the inlet and one at the outlet). This survey was done by snorkeling to get a good view of the weed beds. Based on their observations it was believed we might have hybrid milfoil along with native milfoil. The hybrid is a cross of the native milfoil with Eurasian milfoil. It was their recommendation that we do genetic testing on samples to definitely determine if we have the hybrid as it can be even harder to treat than the EWM. They also reported the bed of milfoil at the outlet, which they thought was the hybrid variety, was not growing very well. It was growing close to the bottom and the leaves were covered with a solid, which is assumed to be calcium carbonate.

The genetic testing is rather expensive so it was not something we wanted to jump into too quickly. Right about this time we were contacted by Dr. Jo Latimore. She is one of the leaders of the CLMP, which we have participated in for the past 5 years. She wanted to know if we would be interested in participating in a study to determine what type of milfoil we have in the lake, native, Eurasian, or hybrid. There would be no cost to us. Needless to say, we jumped at the opportunity.

During our annual summer weed survey, a total of 13 samples of milfoil were taken from 7 different locations on the lake. These samples were sent to Dr. Ryan Thum at Montana State University for DNA analysis. While the final results are not complete, we did hear from Dr. Thum that 5 of the 13 samples were hybrid. We hope to have the final results early in the new year. Once we get these results a treatment plan can be finalized.

Whatever the final treatment plan is, we do know it won't be cheap. Lower Herring Lake hired a lake management company (PLM Lake and Land Management Corp) to handle their treatment of EWM. They treated in 2017 and again in 2018. They are spending about \$650/acre to treat and the total cost they have incurred to date is about \$11000. Obviously, we do not have the funds for this level of treatment. A big part of the cost depends on how many acres need to be treated. It is our hope at this time that we do not have as large of areas as Lower Herring Lake had.



Aquatic Weed Survey

Once again this summer, the lake was surveyed for invasive/exotic aquatic plants. We are happy to report that no new invasive plants were found, but we definitely have some invasive milfoil (see previous article)

A total of 10 separate locations (transects) were sampled with multiple rake tosses. 15 different types of aquatic plants were tentatively identified. The table below shows what plants were found at each sampling site.

Plant Type	TRANSECT NUMBER									
	1	2	3	4	5	6	7	8	9	10
N. Milfoil	X	X	X			X		X	X	
Hybrid Milfoil						?	?	?	?	
Eurasian Milfoil						?				
Clasping Leaf P.W.	X	X				X	X	X	X	X
Narrow Leaf P.W.				X	X	X	X		X	X
Elodea		X	X		X	X				
Sago P.W.		X						X		
Chara	X			X		X	X	X	X	X
Large Leaf P.W.						X		X		
Bladderwort						X			X	X
Cattails						X				
Spatterdock						X				
Water Lilly						X				
Common Naiad								X		
Wild Celery				X		X	X		X	X

Update On the Watershed Management Plan

Our Watershed Management Plan has been under review by the DMDEQ during most of 2017 & 2018. Grobbel Environmental responded to questions from the initial review and the MDEQ did a second review. In May, 2018, we heard from the MDEQ their review was almost complete. As of the end of October, we were told the Watershed Management Plan is about ready to be forwarded to EPA Region V for their review and approval. We also heard the EPA has 3 or 4 other Management Plans in line for review before our plan. Grobbel Environmental has not been contacted with any questions or apprised of a timeline for final MDEQ and US EPA approval. We are expecting we will either receive questions or get approval some time in 2019.

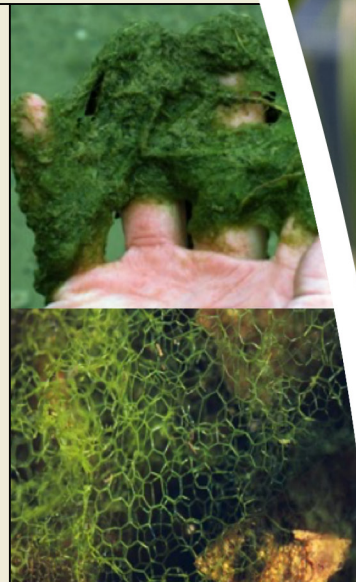
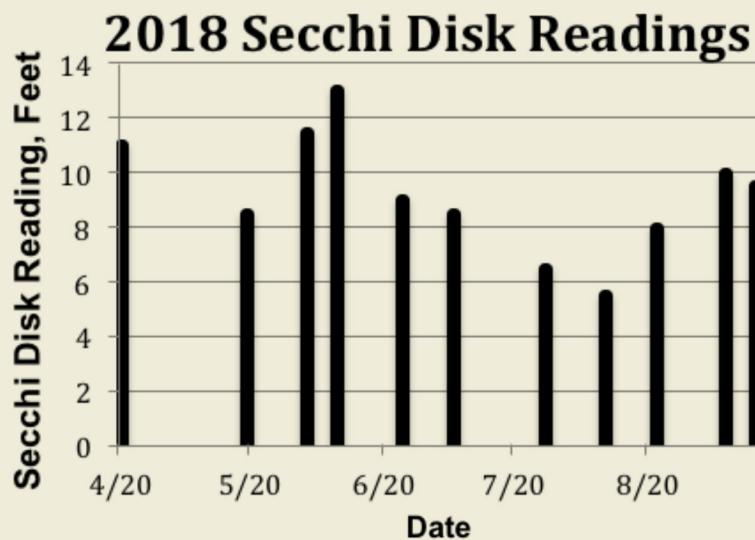


Save THE DATE | JUNE 08 2019 |

The 2019 Annual meeting is scheduled for Saturday, June 8, 2019 at Blaine Christian Church at 10:00am. We had good attendance last year and we hope to see even more members in attendance next year. Please consider inviting a neighbor or perspective member to join us for the meeting. We will be electing officers this year. Please consider running for an office. It does not take that much time and we really need more people to become actively involved in the association. If you are interested/willing to run for an office, please contact one of the existing officers.

Water Quality Update

In 2018 we significantly cut back on the water quality testing since we expected we would need funds for treatment and control of Eurasian Water Milfoil. We again participated in the CLMP Lake program. This is the program that includes Secchi disc and phosphorus testing. This year phosphorus was within the acceptable levels for lakes at about 7 ppb. If you remember Secchi disc reading are a measure of the clarity of the water which is an indication of how much algae and zooplankton are suspended in the water. The Secchi disc readings followed the expected pattern. The water was fairly clear in the spring.



April Secchi disc reading was 11 feet. May sees a bloom of cold water green algae dropping the clarity to 8.5 ft. In June the cold water green algae died off and the water becomes clearer. As the water warmed in July and August we saw another bloom of algae, reducing the clarity. The warmest water in August encouraged the growth of the Blue Green algae, *Microcystis*. This is the colonial blue green algae that you can see suspended in the water that looks like little balls of yellow green. Secchi disc reading were only 6.5 ft in July and 5.5 in August. As the *Microcystis* die off in late September the water starts to clear again.

In July we saw a bloom of “water net” near the inlet to the lake. This was quite a large bloom that lasted for several weeks. Water Net (*Hydrodictyon reticulatum*) is a green algae that is filamentous with hexagonal connections.

When you paddle through the bloom it is very difficult since your paddle get tangled in the “water net”. Do not try to motor through “water net” since it will totally bog down your propeller and motor. So far we are lucky the bloom has been confined to the inlet area. Jo Lattimore Aquatic Specialist at MSU has reported that other lakes have also seen “water net” in areas never seen before.

We also participated in the Benthic Macro Invertebrate study in the Herring Creeks with both the spring and fall sampling. We found good diversity for the habitat and the streams are in good condition. The only issue is there may be excess nitrogen in the streams which could be the cause of the algae and plant growth.



Membership

Upper Herring Lake Association is one of the youngest and smallest lake associations in the area. Crystal Lake Association has a very large membership partly because of the size of the lake and the numbers of properties. Lower Herring Lake has about 100 members and dues are \$150 riparian members and \$50 for Associate members. Riparian land owners on Lower Herring Lake are required to be members and many others around the lake have joined. The LHLA was started many years ago to address the need for a new dam. Today LHLA continues to have dam issues and have spent considerable funds for Eurasian Water Milfoil control.

Being a small lake association with voluntary membership creates challenges. Many riparian owners around Upper Herring Lake have not joined our association. With a budget based on \$35 per member our budget has only supported modest water quality testing. We were able to get a grant of over \$100,000 for development of The Watershed Management Plan. Now that we are facing control of Eurasian Water Milfoil or its hybrid we are looking at a much greater expense. Increasing our membership is the best way to address our needs for more funds. When the lake water quality is good, the nutrients are not causing visible issues, and the invasive species are not impacting the recreational value of the lake, people are content and say why should we join the Association. Well water quality has been good, nutrients are a little high but have only caused issues in a limited areas of the lake. However, we now have a significant threat to the lake from Eurasian Water Milfoil and its hybrid. Both the Eurasian Water Milfoil and hybrid are rapidly growing aquatic plants that are difficult and costly to control. If not controlled the Eurasian Water Milfoil can choke the lake. Riparian owners land value will decrease significantly if the lake becomes clogged with Eurasian Water Milfoil.

When you own waterfront, you get more than just property to the waters edge. You get a view, you get use of the waterfront and the lake bottom extending into the water. You have the right to put out a dock or anchor a boat on your bottom land. You also assume certain risks (like flooding and erosion) and you get what are known as riparian rights. Riparian land owners should want to be members of their Lake Association since they have a vested and financial interest in the quality of the lake. Let's have a goal to encourage every Riparian owner to become a Upper Herring Lake Association Member.

