

AT OUR WATER'S EDGE

Friends of Beaver Lake, Inc. • Fall 2009

A LETTER FROM THE PRESIDENT..

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For those of you who do not know me, I am Michele Deubel the current President of Friends of Beaver Lake. My term began the first part of June and I follow in the footsteps of Mike Mooney. As a Beaver Lake resident, fellow board member and new President, I want to thank Mike for his commitment of time and continued leadership to this organization, our lake and to me.

I would like to share a short family story. It took place when my daughter Anna was about three years old. My husband, Derek, came home from work and Anna was sitting in the playroom enjoying a box of Tic Tacs. Derek asked her, "Anna, did Mommy say you could have those?" Anna took a moment and then replied, "No, but I asked myself and myself said it would be ok".

When asked to be a member of the FOBL board and most recently to be President of FOBL I asked myself, "How important is this to me? Do I have time to play a part in this organization?" Myself said, "Yes. I love Beaver Lake and enjoy and care about it. I am concerned about Beaver Lake's future in this ever changing world and I want to play a part in protecting it".

Be a Part of the Ripple Effect:

I have chosen one way to try to positively impact the lake; there are so many more. Every decision, good or bad, has an impact. As is evidenced by the "Ripple Effect", every action can cause or stimulate another action.



Please "ask yourself" to consider acting, by either continuing or starting to support FOBL, by volunteering to help, or simply by taking the time to read the many wonderful and informative articles in this newsletter.

Thank you for your support.

AVOIDING DISASTER

This summer, several residents reported pontoon boats cruising parallel to the shore and close to shore, in several instances between a raft and the shoreline. This is a disaster waiting to happen. On one occasion, children were in the water and hidden from the driver by a Rave raft.

It is a fact of lake living that swimmers may be in the water late in the day or early in the



evening. Kids can be underwater, or behind a raft, or obscured by the reflection of the sun off the water.

One disaster, one death or maiming, would be one too many. Please do not cruise close to shore or inside rafts. Let's leave swimming areas to swimmers.

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BLUE GREEN ALGAE REPORT

By Bob Corris

This summer, we had a number of blooms of blue green algae (BGA) along shorelines, but no major blooms. Most of these blooms began during the hot, still days in late July and continued through most of August, when there was little wave movement and water levels were low. By in large, these blooms failed to sustain themselves and would dissipate by evening.

FOBL began testing in early June to establish a baseline and continued to test for BGA bacteria and toxins throughout the summer. Once again, FOBL used the Lake Superior State University in Michigan to test water samples. We thank Jeri Mesching for once again offering the services of East Shore Specialty Foods to ship samples overnight.

Depending on the organization whose standards are used, the safe recreational limit for BGA toxins is either 10 micrograms/liter (μ/l) or 20 μ/l . Toxin readings for Beaver Lake in 2009 rarely exceeded recreational levels, although we did have a result or two that exceeded 10 μ/l . Only once did we receive back test results that exceeded 20 μ/l ; however, the results that day included readings over 40 μ/l and over 220 μ/l . FOBL sent a blast warning e-mail to residents on that occasion.

We know that phosphorous is a major cause of BGA, and that is why we emphasize that residents should not use phosphorous and phosphates. This summer, we learned of a scientific article linking BGA blooms with zebra mussels. Experience teaches us that hot temperatures, still water, and lower water levels increase the likelihood of a bloom. This year, at least as far as BGA blooms, we may have benefited from the colder summer. We know from observation that the slow no wake zones inside the buoys has allowed more good weeds to grow, and those weeds will compete with BGA for nutrients. There may be a cause and effect that inhibited the spread of BGA blooms.

Blue Green Algae are bacteria. They do not like to be oxygenated, which is why many retention ponds have fountains. This summer, Bob Corris experimented with pumping water through his sprinkler back into the lake when blooms began to manifest themselves, and anecdotally, he reported some success in breaking up blooms. See the attached picture. He recommends trying it if you can.



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CRAYFISH – ANOTHER BEAVER LAKE RESIDENT

By Nicole Kaiser

After catching a baby crayfish in Beaver Lake, we did some research on these interesting animals.

Crayfish are related to lobsters. These crustaceans have a hard exoskeleton that protects and supports the body. The crayfish has eight jointed walking legs, a segmented body, two pairs of sensory antennae, and compound eyes. It has two large pincers or claws called chelipeds. These claws are important tools for catching food and for defense. If a crayfish loses a leg, the leg will regenerate. Using gills, which can't be seen because they are under the hard body shell, a crayfish breathes oxygen that is dissolved in water.

As a crayfish grows, it often molts, that is they shed their carapace (shell) when they outgrow it, and form a new hard shell. When they first molt they are soft, and very vulnerable to attack by other crayfish or fish. It can take a couple days for the new shell to fully harden. Juveniles can molt every week or so. Adults may only molt a couple times a year and only under the right conditions. The empty shell should be left alone. The crayfish will eat it over the next few days to recover the lost minerals and help form the new shell.



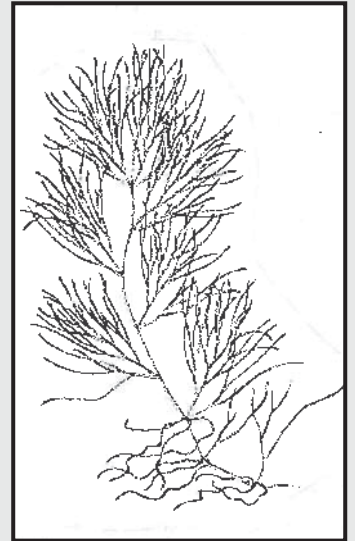
There are 150 crayfish species in North America and over 540 species worldwide. Crayfish in North America range from two to six inches long. The crayfish is an omnivore, which means that it eats both plants and animals. Crayfish hunt mostly at night. It prefers a meal of plants and dead animals but will catch its dinner if given a chance. In

the spring look for eggs or young attached under the female's tail. Many animals eat crayfish, including fish (like pike, trout and perch), herons, snakes and crayfish can be used in many tasty recipes eaten by people.

BEAVER LAKE WEEDS YOU SHOULD LOVE

Sago Pondweed: (*Potamogeton pectinatus*)

We are fortunate to have a fertile growth of this valuable plant. Sago pondweed is widespread throughout the US and the world, and is considered one of the most valuable food sources for staging and migrant waterfowl. All parts of the plant are eaten but the seeds and tubers are especially nutritious. If you enjoy the many diverse species of spring and fall migrant ducks, this pondweed should get some credit. Submerged portions of all aquatic plants provide habitats for many micro and macro invertebrates. These invertebrates in turn are used as food by fish and other wildlife species. After aquatic plants die their decomposition by bacteria and fungi provides food (called "detritus") for many aquatic invertebrates.



"Sago" is a perennial plant that arises from thickly matted rhizomes and has no floating leaves. The stems are thin, long and highly branching with leaves very thin and filament-like, about 1/16 of an inch wide and 2 to 12 inches long tapering to a point. The leaves grow in thick layers and originate from a sheath. Reproduction of this pondweed is amazing, both by seed formation (sexual) and vegetative (asexual) reproduction. Sexual reproduction occurs from June through August. Bead-like flowers form a spike at the end of a stalk. Pollen is released from the flowers and floats on the water resulting in fertilization. The developing seeds remain on the spike until autumn when they fall to the bottom. Asexual or vegetative reproduction is more common and happens in two ways. One type of tuber is produced at the ends of the underground rhizomes and runners. Another type of tuber forms at the end of the leaf shoots; this type of tuber occurs alone or in pairs and later released to sink into the bottom. After overwintering, both kinds of tubers form new plants in spring.

Watch our local and migrant waterfowl tip "upside down" to eat this delectable edible weed, and be thankful Beaver Lake has a large supply.

VOLUNTEERS NEEDED

By Michele Deubel

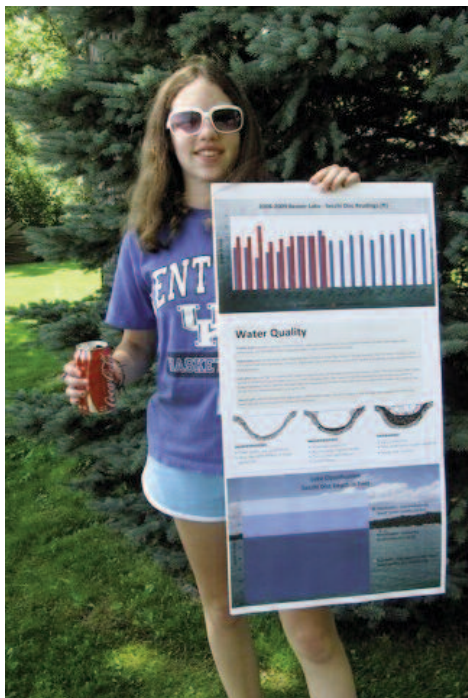
One can never underestimate what committed, passionate individuals are capable of doing for the common good. Volunteer your commitment and passion for the welfare of Beaver Lake.

Here is your chance to learn more about Beaver Lake.

Web site development - Participate in a couple meetings to access the current newly built website and help determine what information should be on the website. This small group will be a mixture of Beaver Lake residents and FOBL board members. Your input is valuable. Our first meeting will be the first part of November.

Water Quality Monitoring (three opportunities)

1. Secchi Disk - It's black and white. Test the water clarity of the lake once a week, by dropping a black and white disk in the deepest hole to determine the water clarity. Sarah Barnett did a great job last year. Who will do it in 2010? This is a great learning experience for a young lake lover.
2. Phosphorus and Nitrogen Summer Testing - This test is taken three times per summer (June, July & August). Fill a sample bottle, record the date and deliver to East Shore Foods.
3. Algae Testing - Green with envy? Work with Bob Corris, our resident algae tester, to monitor the lake's algae levels. Here is your chance to learn more about Beaver Lake.



Buoys In & Out - This takes place mid October and mid May. Join Derek Deubel and his GPS to make the lake a safer place. Details to follow. After the work is done, this group will have some fun. :)

Educating Children - Grandparents, empty nesters, here's your chance...we are seeking volunteers to assist in helping with a fun, educational lake activity for the kids in the summer of 2010.

Newsletter Article - Gift for the gab? FOBL publishes two newsletters per year. We are always looking for great stories, informative material or even pictures.

Storm Water Inflow Committee - Join the front line with Ken Jansen and his committee to find out where storm water inflow may be damaging our lake and look for the possible solutions.

Want to volunteer your time, but not sure where or how? Contact us by

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Carol Apuli: capuli@wi.rr.com

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ANOTHER GREAT FOBL PICNIC

This July Jeri Mesching again hosted a fabulous Friends of Beaver Lake picnic at her home. It was a beautiful day and many neighbors attended this event. Besides the grilled chicken lunch, Jeri also offered some environmental education.

Jeri invited us to all come and visit her newly planted shoreline garden. Keir Peckham from Natural Landscapes, Inc. was on hand to answer any questions. Keir explained the process of designing and planting the garden. Shoreline gardens are so important because they filter and slow down runoff, they offer shoreline erosion control, and provide a natural wildlife habitat. If you are considering enhancing your shoreline, please contact Keir Peckham at 262-488-5347 or www.naturallandscapesinc.com. Thank you Keir for educating Beaver Lake residents on the importance of shoreline gardens.

Jeri also arranged for Kara Naramore, a land management technician from EC3 Environmental Consulting Group, Inc., to attend the picnic. EC3 is located in Madison and they offer environmental planning, restoration, and consulting services. Some of their services that may be especially interesting to Beaver Lake residents may include erosion control, soil evaluations, native landscape design, rain garden installation, and lake shoreline stabilization. Thank you Kara for your time and donation of prairie seed packets for our residents. You will learn more about EC3's service by visiting their website at www.ec3grp.com. Kara can be contacted directly at 920-988-6022.

Again, thank you Jeri, Keir and Kara for providing our residents with food for thought!



BEAVER LAKE "TREASURES"

By Rich and Nicole Kaiser

It has been an amazing experience raising our three kids on Beaver Lake. Ryan and Ellie have both learned to sail an Opti on their own, and they have both had the opportunity to sail with their "Grannie Annie" on her MC. This is a bond that they will share with her forever. They have learned so much from sailing with her and created wonderful memories. Our entire family (mom included) was waterskiing this summer, little four year old Audrey went a lot - waving to everyone as she passed. We always enjoy our three-generation pontoon boat cruises. The kids all love fishing from the pier catching the same fish again and again - he has been named "Not So Smart." Ryan has fishing buddies that come by and invite him along on their adventures. These are all experiences that we will treasure for years. We feel very blessed to live on Beaver Lake.



As a new lake resident, everyone is very aware of the recreational use of the lake. These water activities probably helped "sell" the idea of lake living to us. We learned there is so much more to lake living than just sailing, skiing and boating. After a conversation with a friend who doesn't live on the lake, we realized that we appreciate the more subtle advantages living on Beaver Lake has to offer. This parent was complaining that his child didn't know how to just play and explore without any structured activity planned. I felt fortunate that this isn't true for our kids. When our kids have some "downtime" from their activities, they will run and grab their nets and buckets. Every summer we make a big investment at the Dollar Store purchasing colorful nets on long sticks. The kids spend hours lying on the pier looking over the edge trying to catch minnows. The minnows are in shallow water and are easy to catch. They gather them in a bucket to collect as many as they can. Eventually, they free them only to start the process over again.

If it is a hot day, they will don their water shoes and stand calf deep in the water trying to catch something. Carefully they explore under the rocks and check under our pier. They have discovered other "treasures" while looking for minnows including open and closed clam shells, baby rock bass, tree frogs, a baby snapping turtle about the size of a quarter, tadpoles, a baby gar fish, and a tiny little crayfish. They will call over to the neighbors to share their discoveries. Quite often we will end up researching online to find out more about these critters. These real life science lessons are the best...they don't even realize they're doing something educational. They're just being kids and having fun.

WHAT'S YOUR SHORELINE SOLUTION?

By Larry Gregg

This summer I applied a retirement hobby to produce a video about Beaver Lake shorelines. Following suggestions from the FOBL Board, I visited the Siepmanns, the Deubels, and the Mooneys to videotape their "shoreline solutions".

What I learned, and what the video shows, is that a shore's natural characteristics can positively influence its landscaping. For Mary and Ron Siepmann, a native or prairie plant garden was appropriate for their sunny, level shore. It is beautiful and it keeps the geese away.

For Michele and Derek's steep, oak-covered slope, erosion control was important. They went with a natural approach - removing invasives and bringing in native, flowering plants. They kept an old stone wall and added a companion to it, along with a stone "fish pond".

Mike and Marilyn's north-facing, moderate slope

allowed a more "formal" approach that incorporates many environmentally functional and desirable aspects. As anyone who has visited the Mooneys can attest, the results are striking.

The Siepmanns, the Deubels, and the Mooneys all landscaped with regard to their particular shoreline situation. The results are all different, but they are all attractive and environmentally sound. All three "shoreline solutions" address the important issues of erosion and run-off (be sure to read Ken Jansen's article on the "Top 6").

The video was shown at the recent FOBL annual meeting. It is 11 minutes long, and is on DVD. The Board is looking at getting it on the website. Anyone who would like a DVD can contact me at lgregg@wi.rr.com, or call FOBL President Michele Deubel. They are free. After viewing it you can keep it, return it, or pass it on to a neighbor.

THE TOP 6: A GUIDE FOR A CLEAN AND HEALTHY BEAVER LAKE

By Ken Janson

#6 Don't "feed" the lake

As concerned lake users, we need to be aware of the limitations of lawns as runoff filters, and make an informed assessment of what is really needed to maintain an adequate lawn.

In many suburban lots, the ground is so hard that a sharp metal soil probe cannot be pushed more than two or three inches into the lawn. Unfortunately, neither grass roots nor rainfall can easily penetrate the compacted ground. As a result of the compaction, the typical residential lawn cannot filter runoff adequately.

Compounding the compaction problem, turf grasses have a very shallow root depth (two to four inches). Effective infiltration of rainfall is limited to the top few inches of the turf, severely limiting the ability of turf to filter runoff.

Conversely, native grasses, trees and shrubs have a rooting depth of two to three feet, resulting in a much higher rainfall infiltration capacity, and more effective filtering of runoff. In addition, the taller vegetation in natural buffer areas and landscape beds slows down rain and runoff water, allowing more time for infiltration. Therefore, properly established and managed natural buffer areas and landscape beds have the capacity to absorb runoff much more effectively than turf areas.

#5 Let rainwater infiltrate

Hard surfaces like rooftops, roads, driveways, and patios prevent rainwater from absorbing into the soil, contributing to runoff pollution and affecting groundwater level. Closely cropped shallow rooted turf grass and compacted soils have a similar effect. The disappearance of our natural areas, which capture precipitation, is causing a growing proportion of rainwater to be delivered quickly to the lake as direct runoff versus groundwater flow. This short circuits the natural process where water is able to soak through the ground.

#4 Prevent erosion, Cover your bald spots

Erosion can happen whenever the ground is disturbed or bare soil is left exposed to the weather. Eroded sediment destroys fish spawning beds, destroys water clarity, fuels noxious weed and algae growth. Prevent soil erosion by planting vegetation, trees, ground cover, shrubs and other plants. Roots from these plants will help hold soil in place on the ground. Soil will not be blown away by wind, or be washed away by rain as easily. Apply mulch to retain moisture and also help prevent soil erosion. Topsoil is not as likely to be washed or blown away when it is covered by mulch.

#3 Beware of exotics

Many of you are familiar with names like Eurasian milfoil, zebra mussel, purple loosestrife, Asian carp, reed canary grass, and common buckthorn. These represent just a small fraction of the invasive plants and pests that can spread prolifically and can cause any number of unintended consequences. If you are planting a new rain garden or shoreline buffer, be sure your plants are native species. Do your part in learning how to distinguish exotic plants and animals from their counterparts. Then help prevent their spread through responsible gardening practices. Inspect and clean your boat as needed.

#2 Bring back nature

Remember those by gone fishing days, on a remote lake off the beaten path? Lushly vegetated shorelines... Turtles basking on fallen tree limbs.... The sounds of frogs from a thick bulrush stand... Fish teeming around submerged timber and aquatic plant beds? Our suburban landscaping rituals are carving up fish and wildlife habitat into monocultured lawns, sterile beach fronts, and "improved" lake views. Try restoring some natural habitat by planting a native shrub and perennial garden, or just sharing your swimming beach with un-raked native pondweed.

#1 Get involved

Apathy and complacency are huge impediments to success. They threaten the investments we all have made to protect Beaver Lake. Human impact on the landscape and lake is ongoing, far-reaching and in many cases ever intensifying. More people, more development, more demands on the resource... more impact. Consequently, years of progress can easily be erased without our sustained vigilance and a long term commitment to maintain lake quality.

2009 BUOY UPDATES

By Bob Corris

This summer FOBL completed the application process to add buoys in both the large and small bays as well as by Turtle Bay. Local DNR officials and FOBL representatives met several times, working together to identify the types of buoys required and GPS coordinates for those buoys.

In total, there are now 16 buoys: 5 'Slow No Wake' buoys in the north bay, 1 'Danger, Shallow Water' buoy off Hatches' point, 5 'Danger' buoys along the east shore in the south bay, 1 'Danger, Shallow Water' buoy off Boysa's point, and 4 'Slow No Wake' buoys by Turtle Bay.

Since the DNR processed the passage of ordinances by the Town of Merton and the Village of Chenequa, the GPS coordinates are required by law. The buoys will be placed at those coordinates in the spring.

We are confident that the new buoys and locations will result in safer boating, foster the growth of good, native weeds on the lake bed, and improve the lake environment.

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RUSTY CRAYFISH – AN INVASIVE TO AVOID

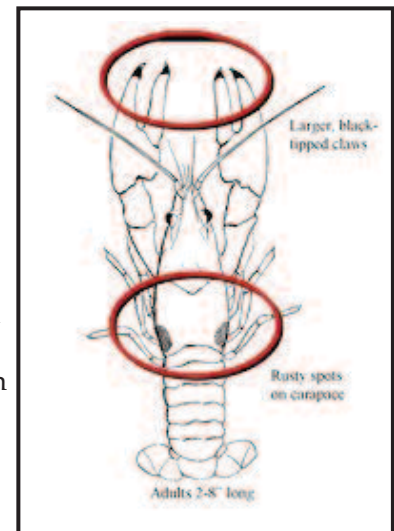
Rusty Crayfish are native to the Ohio River Basin. They are invasive crustaceans that have spread to lakes in several areas of North America, luckily Beaver Lake doesn't have them yet. They have likely spread through the actions of innocent bystanders such as fishermen through bait bucket release or by kids and teachers who let them go after studying the critters. Zebra mussels have also been known to attach themselves to the crayfish bait – this is another way zebra mussels have spread to different waterways. It is illegal to transport live crayfish from one place to another or to use live crayfish for fishing bait in Wisconsin!

Rusty Crayfish are more aggressive than other native crayfish. They are better able to avoid fish predation, and can harm native fish populations by eating those fish eggs and young. They can displace native crayfish and graze on or eliminate aquatic plants. In some northern Wisconsin lakes, they have eaten most of the aquatic plants, hurting the quality of the lakes. The Rusty Crayfish eats **twice** as much as other crayfish, gobbling down small fish, invertebrates, crustaceans and aquatic plants by using their claws to uproot them. Aquatic plants provide important habitat for fish and other aquatic animals, as well as prevent erosion. Fish

that normally eat crayfish don't like the feisty, aggressive Rusty Crayfish. Rusty Crayfish reproduce quickly and females lay 80-575 eggs!

How do you identify a Rusty Crayfish?

Rusty Crayfish have a shell with a pair of dark, rust-colored spots near the legs. The Rusty Crayfish claws are larger and smoother than many other crayfish - they usually don't have wart-like white bumps. The tips of the claws have black bands. The claws have oval gaps when closed – with no distinct thin slit or notch present.



What to do?

The best method of control is to prevent their introduction. Educating anglers, bait dealers, students and teachers about the threats posed by the Rusty Crayfish will help reduce the risk of spreading Rusty Crayfish to new areas.