

Once plants are munched down and there is evidence of new adult beetles, plants will be placed in wetlands with known purple loosestrife populations. Beetles will then be free to move from their host plants to plants that are estab-



Before (1994) and after (1998) images of purple loosestrife populations after beetle introduction in a wetland in Minnesota. Photo credit: purpleloosestrife.org

lished in the wetland and start their control efforts-one bite at a time.

This form of control may not be a one time solution and impacts are not immediate. Extensive purple loosestrife populations may need beetle introductions every few years. Populations around Lake Ripley are small, so we may see more of an impact right away.

This program has been adopted by school groups, scout groups, ecology clubs, and wetland enthusiasts. The WDNR is always interested in helping new groups set up their own programs. Costs are low and most equipment is free. Please check out the WDNR website and search "purple loosestrife biocontrol" for more information.

Purple Loosestrife is a perennial that can grow between 3-5 feet tall, have up to 50 stems topped with purple flowers. Clipped plants will grow back and cut stems can re-root in soil. There are purple loosestrife look-a-likes, so be sure you have the right plant.

These efforts and others to help sustain native plant populations in our natural areas are one way we help to protect Lake Ripley. Native wetland habitat supports various life stages of wildlife that many enjoy seeing around the lake. Pike, eagles, dragonflies, red-winged black birds, frogs and turtles all need healthy wetlands to thrive. Healthy wetlands mean a healthy Lake Ripley.

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# Ripples



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## FROM THE HELM



In this issue of *Ripples*, you will find an article that explains the nuts and bolts of being a member of the Lake District's Board. The Lake District is the only unit of government in Wisconsin that a non-resident property owner is allowed to vote and hold office. This presents a unique opportunity for residents to take an active role in protecting and preserving Lake Ripley.

Since its inception in 1990, the Lake Ripley Management District has taken an active role in managing our amazing resource. The District has been on the cutting edge of lake management law, was responsible for initiating changes in the Statutes to expand the size of the board from five to seven members and in allowing districts to carryover capital funds for anticipated large capital expenses.

The Board meets monthly during the spring and summer, and quarterly in the winter. Unfortunately, we have very minimal public attendance at our meetings. This is a two edged sword. On one hand we're doing a pretty good job because we receive few complaints. On the other hand we don't have a large pool of individuals who have a working knowledge of the day-to-day operations of the District.

When the time comes for new board members, as we have now, we don't have a lot of residents applying to run for the Board. Here is what I suggest, if you're interested in the Lake and how it is managed, attend a few meetings. You may be surprised and want to take a more active role. If not on the Board, then maybe as a volunteer in the Lake District Preserve, one of our lake monitoring programs, or our weed harvesting program. There are plenty of opportunities to help out a little bit or a lot. Stop by and find out how it all works.

*John Molinaro, Chair*

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Changes to Board Commissioners

Lake District Boards are a dynamic mix of members who bring knowledge, information, and expertise from their personal and professional lives and contribute those attributes to further the mission and goals of the Board as outlined in the Lake Ripley Improvement Plan.

The Lake Ripley Management District has been extremely fortunate to have dedicated members who are passionate about the protection and preservation of Lake Ripley. The 7 member District Board is made up of 5 elected commissioners and 2 appointed commissioners, one representing the Town of Oakland, the second representing Jefferson County.

John Molinaro has served since the inception of the District. John first served as Secretary, then in 1994 was elected as Chairman where he continues to serve. Michael Sabella, a Certified Public Accountant, continues to serve as Treasurer since his election in 1997. Georgia Gomez-Ibanez has been a dedicated member since 2007 and is integral in restoration efforts in the Lake District Preserve. Our most recent Board Commissioner is Craig Kempel, who joined the Board in 2015 and serves as our volunteer lake monitor. Jimmy DeGidio has served as the Town of Oakland Representative since 2014.

Walt Christensen served on the Board as the Jefferson County Appointed Commissioner from 2008 to 2016. In Spring of 2016, a new representative from Jefferson County will join our Board to replace him. We are grateful to Walt for his passion and dedication to natural areas within Jefferson County and wish him well in his next endeavors.

Jane Jacobsen-Brown, our current Secretary, has served since 2004. Jane has notified the Board that she will not be seeking reelection.

Jane and her husband Kent have been leaders in efforts to promote natural shorelines and reduce storm water runoff. We thank Jane and Kent for their past and continued support and are grateful for their life-long passion for a healthy Lake Ripley.

Board members are elected by members of the district at the Annual Meeting, and serve for 3 year terms. To serve as an elected district commissioner, a person must be a U.S citizen, eighteen years or older, and either an elector (resident voter) or an owner of property within the Lake District.

Board members have the opportunity to increase their lake knowledge by attending several educational opportunities such as the Wisconsin Lakes Partnership Convention and the Lake Leaders Institute offered by the UW Extension-Lakes program. Each year monies are allocated for these activities to encourage member participation.

The Budget Hearing and Annual Meeting is Scheduled for August 20, 2016 at 9a.m. and is held at the Oakland Town Hall. Persons interested in running for the Lake District Board should provide written notice 45 days prior to the Annual Meeting. Notice should be sent to the district office. Nominations are permitted at the Annual meeting and can be included as a write-in candidate.

Please consider how you can be a part of the Lake District, either through volunteer opportunities or as a member of the Board. A great first step is to attend a Board meeting! Meetings are held the third Saturday of the month. Our upcoming meeting dates can be found below. We hope to see you there!

**2016 Lake District Meeting Dates**  
**9 a.m. Oakland Town Hall**

- ☼ **June 18**
- ☼ **July 16**
- ☼ **August 20 Budget Hearing/Annual Meeting**
- ☼ **September 17**
- ☼ **Future meetings TBD**

Growing beetles to control Purple Loosestrife

In efforts to promote invasive species awareness and help to restore valuable wetlands around Jefferson County, we have partnered with numerous groups to control purple loosestrife populations.

Purple loosestrife is an introduced wetland plant brought over from Europe and planted for its showy flowers and ease of care. However, once introduced to new areas and away from their natural predators, it quickly spread uncontrolled to wetland areas.

The spread inhibited the growth of native wetland plants depleting habitat and food sources for the abundance of wildlife that depend on wetlands.

Control methods in wetland areas can be challenging and scientists looked for a long term, less damaging method to control purple loosestrife populations. Through extensive research, scientists determined that a beetle may be the answer.

Purple loosestrife beetles (*Galerucella* sp.) depend on purple loosestrife as a food source and are not a threat to other plants. Many people lovingly refer to them as lightning bugs, but without the glow. Using beetles to reduce populations of purple loosestrife is a form of biocontrol.



Photo Credit: Paul Skawinski  
UW Extension-Lakes

The WDNR and UW-Extension have been controlling purple loosestrife with beetles since 1994. Insect releases have shown to reduce plant size and seed output. This evens the playing field for native plants who were unable to compete with purple loosestrife for resources.



Invasive purple loosestrife grown in tented pools to help increase beetle numbers for future release.

In spring of 2016, partners from the WDNR, U.S. Fish and Wildlife, Friends of the Glacial Heritage Area, Cambridge School District, and Severson Learning Center partnered to join efforts in controlling purple loosestrife populations in Jefferson County.

Students from Ms. Klingbeil's Horticulture class dug 30 plants from wetlands by Red Cedar Lake in early spring. The plants were then potted, netted, placed in kid sized pools to mimic wetland conditions, and are housed at the Severson Learning Center. These invasive plants will serve as hosts for beetles. Approximately 10 beetles will be placed on each plant. The nets will keep the beetles on the plants but also keep insect predators out.

Over a span of 3-4 weeks, beetles will eat and reproduce in their tented homes. The number of beetles will climb from 10 per plant to 100's. Students attending Severson Learning Center can learn about the life stages of insects, invasive species, the importance of wetlands, and this unique biocontrol method. (Continued on Page 8)



Horticulture students helped collect purple loosestrife plants in early spring from wetland areas.



### Management Updates

For some, winter means holding up and waiting for the robins to return. For others, it means winter sports, tip-up's, and the chance to use a snowmobile. Winter in the preserve is not only a good time to snow shoe, ski, look for animal tracks or just take a quiet walk, the frozen ground gives us an opportunity to do certain kinds of restoration work.

In 2013, the Lake District adopted the Lake District Preserve 20 Year Management Plan to help anticipate costs and management needs for restoring our 167 acre preserve where restored wetlands, prairie and woodlands all help to protect our lake's only inlet stream and thereby, the water quality of Lake Ripley.

This winter additional restoration work was done in our preserve. A forestry mower was used to shred invasive woody species such as buckthorn and honeysuckle in the small woodland west of Hwy A. The dense brush in this area had suppressed the forest floor plants, leading to bare soil prone to erosion. Ongoing restoration efforts in this area will include re-establishing native Oak Savannah plants to reduce erosion on this slope above our meandering inlet stream.



Winter's frozen ground allows for heavier machines like a forestry mower to make efficient work of invasive brush removal.

This spring additional restoration efforts included a prescribed prairie burn in two upland areas. Prescribed burns are used to help manage invasive species and promote a healthy prairie ecosystem. Prior to European settlement, prairie burns were a natural occurrence and many native plants evolved to depend on fire in their lifecycles. Today, with the help of a certified burn crew, prairie, wetland, and woodland burns are a proven method in natural area restoration.

A winter survey discovered that one of the wetland areas is not functioning as well as it should. Meetings will be held in the next few weeks with partners from U.S. Fish and Wildlife and Wisconsin Waterfowl Association to determine how wetland function could be restored.

Additional efforts this spring are to repair the broken fence located by the parking lot. Unfortunately, vehicular damage to the fence has meant that instead of replacing some sections, we now have to replace the entire structure.

We are planning more work in the future in our woodlands to remove invasive woody and plant species, prevent erosion, enhance infiltration, and improve wildlife habitat. This long term work will be accomplished in stages over the coming three years in accordance with our goal to protect and improve the water quality of Lake Ripley.

Additional work this year includes reseeding portions of our main trail through the prairie where turf is sparse.

The geese, herons, sand hill cranes, red-winged black birds, great egrets, frogs, turtles and other wildlife have made their way back to the preserve. Please stop out and enjoy a quiet walk on our trails.

### Critical Habitat Designation

Efforts to designate Critical Habitats Areas of Lake Ripley continue. Last year several WDNR Wildlife, Fisheries, and Lakes Biologists from departments surveyed Lake Ripley with the goal of defining critical habitat areas.

A draft report has been compiled and is currently under review by WDNR. Once complete, a public notice will be provided through a state newspaper and local media.

A hearing may be conducted if a request is made in writing within 30 days of the notice. If a hearing is not requested, it will not be held, but LRMD and the WDNR would like to hold a public meeting to allow members of the public to discuss the designation and ask questions.

Once we receive the notice of the completed document, we hope you will take the opportunity to review the designation and look forward to your participation at the meeting.

### Clean Boats, Clean Waters

Once again we will conduct Clean Boats Clean Waters watercraft inspection throughout the summer at the Town of Oakland public launch. The goal of these outreach efforts are to engage and inform boaters and anglers about aquatic invasive species rules and to stop the spread of invasive species both into and out of our lake.

As the program evolved, focus has moved beyond removing visible plants from boats and trailers, as more threats can still be moved from lake to lake unseen.

Zebra mussels larvae, or veligers, can be spread through contaminated equipment or by transporting lake water. Spiny water fleas, though not found in our lake, are a small organism easily transported by similar means (something as simple as a bucket of lake water).

Starry stonewort is also a focus for our watercraft

inspectors as this newly discovered invasive species has been found in other south eastern Wisconsin counties.

Please feel free to stop by and meet our Clean Boats Clean Waters intern at the public launch. Volunteer opportunities are available for youth groups, high school students or anyone looking to perform community service while learning about invasive species impacts.



### Healthy Lakes Grant Awards

We are happy to announce the award of \$3,200.00 from the WNDNR Healthy Lakes Implementation Plan to two local property owners who have pledged to install small-scale lake-friendly practices on their properties.

A total of three projects will be completed. Each project is eligible for \$1,000.00 to offset costs. Technical guidance is available through both the WDNR Healthy Lakes Program and LRMD staff. This reimbursement grant allows homeowners an opportunity to enhance stormwater infiltration and increase native habitat on their properties.

If you've considered installing small-scale lake-friendly practices on your shoreline or upland areas of your property you may qualify for this program. Please contact our office for more information.

We are grateful to the WNDNR for this opportunity to support the on-going commitment of property owners looking to protect beautiful Lake Ripley.



[www.healthylakeswi.com](http://www.healthylakeswi.com)



Aquatic plant management was the cornerstone for the inception of the Lake District in 1990. Extensive growth of Eurasian water milfoil reduced the native plant community and choked the shallow littoral areas, inhibiting recreation.

Since then, the LRMD has conducted numerous studies on the lake to gauge plant community health and to help guide management decisions. Over time, those studies and their methods have been modified as better techniques were developed.

The LRMD manages invasive species and nuisance plant growth through the use of a mechanical weed harvester. A comprehensive plant management plan is updated every 5 or so years to include the latest plant inventory of the lake. This information is also required as a part of our DNR issued mechanical harvesting permit. This permit guides the location and species allowed for mechanical harvest.

In 2015, our most recent plant inventory was conducted by the WDNR, LRMD staff, and volunteers. This inventory was used to verify Critical Habitat Designations which are discussed on page 3.

Using a hand held GPS, surveyors located predetermined GPS points to collect a sample. In 2015 369 sites were sampled and plants were collected from 330 sites.

A rake is lowered from the boat to collect plants. The depth of the water, sediment type, density of the plant material, are all noted as the sample is pulled up. Once the sample is obtained, an analysis of the species of plants found and that species density is also noted. This information is used for statistical analysis.

Additional plants found within close proximity to the sample site and along the shoreline fringe are also noted. Surveyors take specimen samples for undetermined species and also to voucher plant species on the lake. This additional information has allowed us to confirm a



DNR and LRMD staff and volunteers collect samples using a rake to collect plant data. Plant depth, sediment type, plant species and density are recorded.

hybrid species of invasive Eurasian water milfoil (*Myriophyllum spicatum*) and native Northern water milfoil (*Myriophyllum sibiricum*) within Lake Ripley. Three non-native plant species are now documented in Lake Ripley; Eurasian water milfoil, hybrid water milfoil, and curly leaf pondweed (*Potamogeton crispus*).

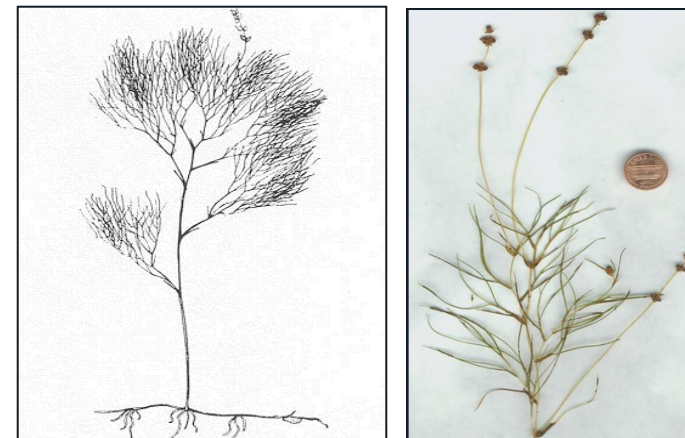
By performing these inventories, we are able to gauge plant community health and trends over time. In 2006 and 2011, similar methods were used during the inventory. Prior year inventories utilized different methods. Though the data of those inventories is valuable, that data is not used in this comparison.

As found in prior surveys, Lake Ripley supports a diverse and healthy plant community. A thriving and diverse native plant community is the foundation of a healthy and high-functioning lake ecosystem. Our most recent inventory documented 32 species found in and around the lake. Prior inventories conducted in 2006 showed 31 species and 28 species in 2011.

The maximum depth of plant growth has also fluctuated between the past three surveys. In 2006, plant growth was found in depths less than 17 feet. The 2011 maximum depth was 21 feet and 2015 maximum depth was 15 feet. This 15 foot depth covers approximately 54% of lake surface areas. However, not all areas support plant growth and some areas are devoid of aquatic plants.

Over time, the dominance of certain species has changed. In 2006, muskgrass (*Chara sp.*) was the most dominant followed by spiny naiad (*Najas marina*), sago pondweed (*Potamogeton pectinatus*) and coontail (*Ceratophyllum demersum*).

In 2011, muskgrass remained the dominant species but sago pondweed continued to expand over other species. This trend continued into 2015 with sago pondweed becoming the most dominant species. This information along with visual observations of plant growth conditions through out the growing season has allowed for an amendment to our harvesting protocols to allow for the removal of floating sago mats. This valuable native species is considered one of the top food producers for waterfowl and is good cover for walleye.



Sago pondweed is the most dominant plant species found in the 2015 plant inventory. Photo credit: Through the Looking Glass, [www.aquaplant.tamu.edu](http://www.aquaplant.tamu.edu)

Additional species have also been documented with the latest inventory. Muskgrass (*Chara sp.*), which resembles a plant but is actually an algae, have been split into two distinct species; *Chara contraria* and *Chara globularis*. These important native species are a valuable food for waterfowl, provide fish habitat, and slow the movement and suspension of sediments.

The population of invasive Eurasian water milfoil continues to decline. With the confirmed presence of hybrid water milfoil, additional management considerations may need to be made. As

a hybrid species, the characteristics these plants take on can vary. The LRMD will continue to monitor the presence of Eurasian and hybrid milfoil populations.

Invasive curly leaf pondweed populations were lower in the most recent 2015 inventory. This inventory was conducted in August when most curly leaf pondweed plants would have died back. The trend of the prior two inventories showed an increase in curly leaf pondweed populations. Curly leaf pondweed will continue to be monitored throughout future growing seasons and inventories.

Changes in plant communities can vary due to a number of environmental factors. Weather, water clarity, sediment disturbances, nutrient inputs and the presence of zebra mussels are a few of the factors that impact plant growth and dominance.

The mechanical harvesting season will soon start. Removal of invasive plant species and nuisance growth in defined areas are allowed via WDNR permit guidelines. At the end of this year, the LRMD will reapply for a mechanical harvesting permit. Information gathered in these past inventories and recreational uses are considered when defining the permit conditions.

Preservation of a healthy plant community continues to be a major goal of the LRMD. Efforts to enhance or re-establish native plant beds is encouraged and is a cost-share eligible practice. If you've considered enhancing the aquatic plant community by your property, please contact the office for more information.

We would like to thank the WDNR, Jefferson County Land and Water Conservation Department, and volunteers for their assistance with the latest inventory and analysis. If you would like more details on the findings of this and prior inventories please visit our website or contact the district office.