Ripples

Lake Ripley Management District

Vol. 30, No. 3

Summer 2023

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Weed Harvest Crew

Richard Moen
Bruce Larsen
Jim Jermain

From the Helm – High School Teacher Turned Harvester

We had the opportunity to sit down and speak with longtime weed harvester, Ed Grunden, about his time with the Lake District and how he became involved with us. I think you'll enjoy his story and all the work he has done for the Lake District.

In 1986 Ed began teaching Biology at Cambridge High School. Shortly after the Lake District was formed Ron Kroner, the District's first Lake Manager, approached Ed to see if he would be interested in working together to help educate students about lake ecology. Ed was thrilled! The two sat down together and developed a curriculum which combined in-class lectures with year-round field studies to give students hands-on experience to bring the science alive. This was a unique opportunity for students to go out into the field and collect biological and chemical data. The students began by testing four different parameters (flow, dissolved oxygen, clarity, and temperature) at the inlet and outlet of Lake Ripley and were studying how each of these parameters correlate to water quality. They were collecting these water quality samples a few times a year and were adding different parameters that they wanted to test for such as phosphorus and nitrates. By 2006, the number of water quality samples that were being collected had grown to 26!

Ed and Jimmy admiring the rain garden after Ed and his students planted it almost 20 years ago!

By 1994, Ed and his students from his AP Biology class decided to take it one step further and developed an "ice lab". During the winter, they would venture out onto the lake on a Saturday morning to learn about lake stratification. They would drill a hole in the ice using an auger and collect nutrient samples from Lake Ripley's deep hole using a Van Dorn sampler. The students would also study the layers of the lake by measuring the temperature and dissolved oxygen every three feet of the water column. Ed also developed and executed the first "Pontoon Classroom" with his students! He would take the students out on a pontoon boat and teach them about lake ecology while on the lake. It was during one of the pontoon classroom events that Ed first saw the weed harvester on the lake and thought what a great gig that would be once he retired.

(High school teacher, page 2)

High School Teacher continued

Other innovative ideas meant to connect the students to the lake and the land were created. "Lake Sweep Litter Cleanup" happened for the first time on Earth day; Ed and his students cleaned up trash from Lake Ripley's outlet to the old candy store, Melster Candies. Melster Candies and Fosdal Bakery donated bags of candy and doughnuts to the students to help the cause! Ed spoke about both of those businesses fondly and was very grateful for their longstanding support. Over the next 20 years, the "Lake Sweep" initiative grew bigger and more roadways in the watershed were added to the cleanup route.

Ed and his students planting native plant plugs at the Oakland Town Hall.

In 2005, the students wrote and were awarded a $2,000 grant to install a rain garden at the Oakland Town Hall that is still helping infiltrate runoff today!

Under the cheerleading leadership of Ed, students were recognized for their achievements in water quality monitoring by Natural Geographic, United Nations, and the United States Congress! They also had the opportunity to present their findings at the Wisconsin Lakes Convention.

In 2006, Ed retired from Cambridge High School and in November 2011 decided to join the Weed Harvesting Crew. It was a perfect mix of his interests: working to help the environment and driving a big piece of machinery! Ed grew up on a farm, and harvesting weeds on the lake reminded him of the times he would help his family harvest crops.

Ed has worked with every Lake Manager since the inception of the Lake District and has truly enjoyed every minute of it. We asked Ed what he liked most about being a weed harvester and he replied that he enjoyed helping to improve the water quality. He said it was a perfect retirement job and he got to continue helping to improve the lake's health.

Ed emphasized how many friendships he made during his time as a weed harvester. "I got to work with some of the best weed harvesters on the lake and remain friends with some of them today. I also was able to see the lake improve over the years and in some major ways, such as the reduction of the invasive Eurasian watermilfoil."

One of the greatest achievements Ed talked about was influencing the purchase of the new weed harvester. During that time the District's weed harvester was aging quickly and there was a DNR grant that would help cover a large portion of the cost of a new machine. Ed had heard that the grant was going to be dissolved within a year or two, which prompted him to get a move on! With help from Ed and the DNR, the District applied for and received a grant to help us purchase new weed harvesting equipment!

When asked about the most difficult part of being a weed harvester Ed replied managing public perception. He was passionate about educating lake residents about how the lake works; once a teacher, always a teacher! The District is lucky to have had such a passionate, dedicated weed harvester on our team for over ten years!

Jimmy DeGidio, Chairman

Jimmy and Ed on the weed harvester

The Little Things That Run the World

An ant finding its way around a cup plant's leaf.

The "little things that run the world" is what E.O. Wilson, the eminent biologist of our time, called the diverse world of invertebrate species. Many human endeavors would fail without these tiny workers who provide services such as pollination, soil improvement, and water quality maintenance.

For example, that ant nest in the lawn might seem like a nuisance unless you consider their important contributions to your yard's soil. Ants are not only pollinators, but they are soil farmers, aerating the soil, facilitating decomposition and the recycling of nutrients. Many even tinier organisms are also at work in the soil. But the harsh chemicals used in most lawn-care products, including fertilizers as well as pesticides and herbicides, actually kill the underground workers who are keeping lawn soil healthy.

Likewise, bees and butterflies are not our only pollinators! Ants, beetles, wasps, flies, and moths are also pollinators. While the honeybee is possibly best known, it is not a native bee, and though it is good at collecting nectar, it is not nearly as good at pollinating flowers as our native bees. Thus, it is the less well-known native bees who are the important pollinators of our crops! One in every three mouthfuls of food depends on pollinators.

As our native prairies and woodlands became farm fields and villages, hedgerows, roadsides and railroad track edges remained important pollinator habitat. But as hedgerows were removed, roadsides were mowed and railroad tracks were herbicided, native pollinators lost their habitat.

Habitat loss is the leading cause of species decline. That is why the Lake District encourages the recreation of habitat in the Lake Ripley watershed, through planting native plants, shrubs and trees. We also encourage this because including deep-rooted native plants in yardscaping helps improve water quality in our lake by reducing stormwater runoff. Improving our watershed's ability to protect our lake is one of the primary ways we can achieve our goal of improving water quality in the lake. You can help us reach that goal of clean water for everyone by creating lake-friendly yards where the tiniest of workers can thrive.

To Save a Butterfly

Paul Skawinski, UW-Extension Lakes. Reprinted from Lake Tides, Vol. 43, No. 3

We've all been there – that moment when you're outside and your eyes are pulled away to follow a streak of orange and black floating through the air. A monarch butterfly! A beautiful symbol of freedom and happiness. As it lifts skyward, this delicate creature can lift your spirits and the corners of your mouth to form a smile.

The monarch butterfly lives throughout the United States, feeding on nectar from hundreds of species of plants, but laying its eggs on only one group of plants – the milkweeds (Asclepias species). The caterpillars feed on milkweed for about two weeks, until they are ready to transform into a chrysalis, during which time they develop into the wonderful butterfly that we all know and love. The monarchs that are here in September and October will migrate to the mountains of Central Mexico to spend the winter. The following spring, they lay eggs on milkweeds in the Southern U.S. before dying, and leave it all up to those little eggs to hatch, feed, and fly northward to keep the species going.

Do you remember watching monarchs as a kid? Do you feel like you don't see as many monarchs as you used to? You're not alone. In the last 20 years, our central U.S. population of monarchs has declined by nearly 90%, due primarily to loss of milkweeds for breeding, loss of healthy flowers for the adult butterflies to drink nectar, and careless use of pesticides, which can kill or sicken the butterflies and their caterpillars.

But there is hope for monarchs. Wisconsin and other states throughout the central U.S. are collaborating on a strategic plan for monarch recovery, called the Mid-America Monarch Conservation Strategy. It recognizes an all hands-on-deck approach that can propel monarchs back to a time when they were a common sight, ready to captivate the curious mind of a child, right here in your backyard.

One person creating one small change can make a world of difference. A phenomenon coincidentally known as the "butterfly effect" declares that a very small, seemingly inconsequential change to a natural system now, can induce major changes later. A few milkweeds or native flowering plants installed this fall could be the first step to start the recovery of this amazing insect. In fact, a favorite plant of the monarch in Wisconsin is our moisture-loving red milkweed (Asclepias incarnata), which grows naturally along lakeshores and streambanks. It also makes a striking addition to a rain garden or lakeshore planting, displaying large clusters of pink-red flowers for several weeks.

It is easy to let a few milkweeds grow next to your house or add some native plants to your landscaping to feed the adult butterflies. It is also easy to avoid careless use of pesticides. All of these things will not only help monarchs, but help a nearly infinite number of other creatures, including people. A pesticide-free landscape with a diversity of plants and animals creates a healthy place for children and pets to play, gatherings to be held and life to flourish.

A monarch caterpillar munching on a milkweed plant!

Turtle Time: The Blanding's Turtle


Photo credit: Wildlife Epidemiology Laboratory

Blanding's turtles need your help. This native species of turtle is a species of Special Concern in Wisconsin and is listed as globally endangered by the International Union for Conservation of Nature. This turtle is a late-maturing, long-lived species that struggles to find its place living alongside humans. Habitat fragmentation and loss, predation, and mortality when traversing roads all contribute to their declining population. They are primarily found in the Great Lakes region of the United States and Canada.

A colorful medium-sized turtle, the Blanding's turtle can grow five to ten inches long. Their dark brown or black carapace, or shell, can have various degrees of yellow speckles and is more domed than most aquatic turtle species. Its most prominent identifying characteristic is a bright yellow chin and throat that makes it appear as if they're smiling all the time. Blanding's turtles prefer calm, shallow waters like wetlands, marshes, ponds, and bogs with rich, aquatic vegetation. They will eat snails, crayfish, insects, frogs, small fish, and duckweed. Although they are often observed in aquatic habitats, these turtles can spend a substantial amount of time on land. Terrestrial habitats are used for nesting, as well as for aestivation under certain conditions in the summer. These turtles overwinter submerged in a variety of aquatic habitats.

Blanding's turtles can live to be 70 years old! They do not reach reproductive maturity until 14 to 20 years of age and is determined by size rather than age. Females will travel up to a mile to find a suitable nesting site; during this voyage they become vulnerable to cars. Besides humans, adult Blanding's turtles have no documented predators. Hatchling mortality has been estimated to be as high as 93%, due to predation of eggs, infertility, or the hatchlings do not develop. Such losses have had an irreversible impact, decimating many local turtle populations.

Protecting wetlands for Blanding's turtles is essential to their survival. Restoring and connecting open space is also important to improve and expand available habitat for these turtles and other turtle species. These actions would increase access to habitat and nesting grounds and give these turtles a fighting chance!

Critical Habitat Designation and Our Lake

A good question was asked at the Public Hearing about the Critical Habitat Designation (CHD) for Lake Ripley: "Why do we need Critical Habitat Designations if our lake is in good condition?". All things considered, Lake Ripley is in good condition. But the only constant on Earth is constant change. The changes occurring now make the lake more vulnerable to stressors.

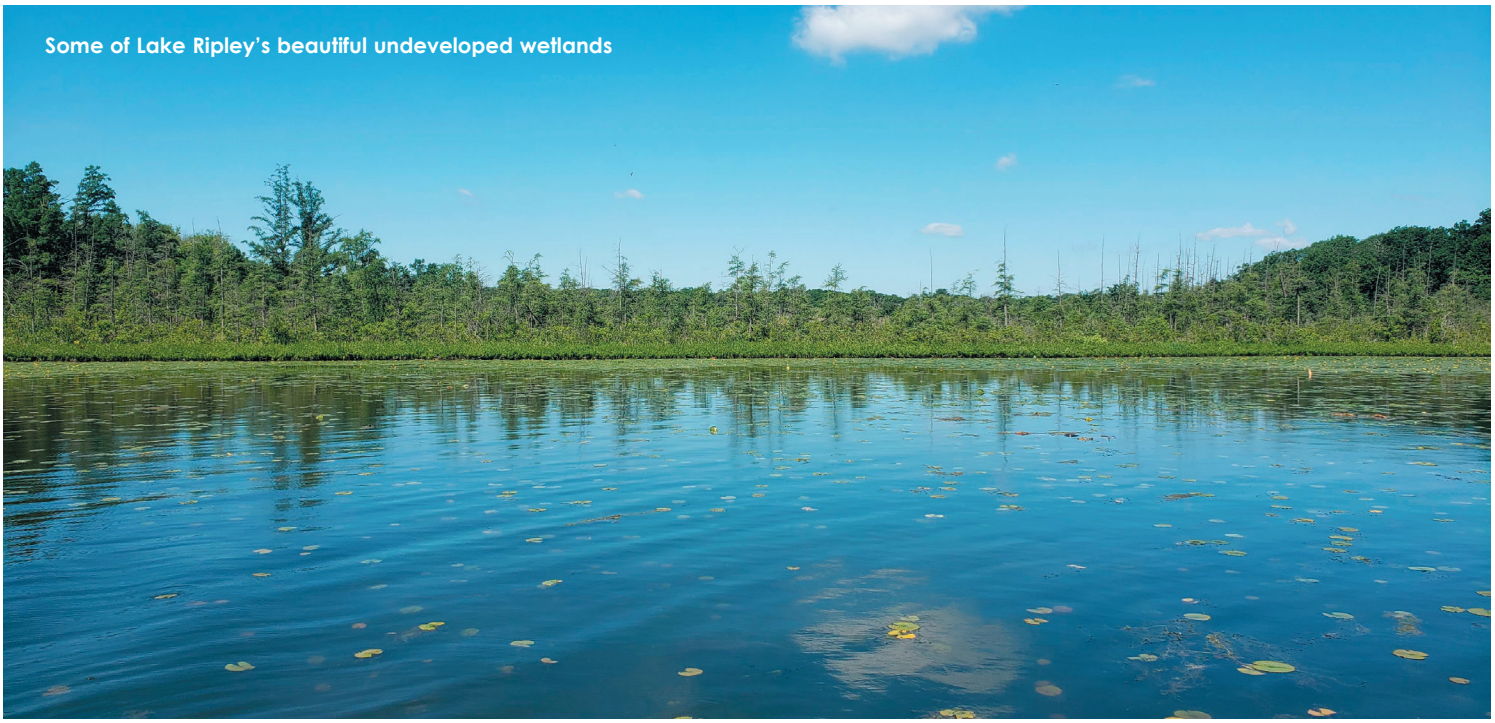
The watershed of Lake Ripley is changing. Steady development around the lake adds more impervious (waterproof) surfaces like roofs, patios, and driveways that accelerate stormwater runoff into the lake, adding both nutrients that feed algae and pollutants that are toxic to the organisms that keep our water healthy.

Climate change is here. Ice-free days have increased, giving algae a boost. Winter rains are replacing winter snow, sending salty runoff into the lake, harming both aquatic plants and animals. Hot dry weather has increased, warming lake water so that fish must seek relief in the shade of aquatic plants. Even though rainfall is less regular, when it comes it falls in intense storms that frequently produces more stormwater runoff, adding sediment, nutrients, and pollutants.

Recreational boating has gone from the canoes, sailboats, and the fishing rowboats of yesteryear to jet-skis and other speedy craft which can scour the lake sediments when accelerated too early in the slow-no-wake zone. Recently introduced wake boats enhance wake-size on our small lake, enough that shoreline residents are experiencing damage to their shorelines. The good news for water quality is that our annual boat census shows a modest increase in people-powered crafts, and a modest decline in gasoline-powered boats. People can choose lake-friendly recreations!

So, the answer is really that the Critical Habitat Designation protects the parts of our lake which are most helpful to healthy water quality, even though climate and watershed issues increasingly put water quality at risk. By placing protections on these healthy, aquatic-plant rich shorelines, we create protections for the whole lake. This is a science-based action that involved many different scientists taking surveys of fish, aquatic plants, indicator species, substrate sampling, water-quality sampling, and more!

So yes, we are fortunate to have a lake that is in relatively good condition. The Critical Habitat Designation will help us keep it that way.



Some of Lake Ripley's beautiful undeveloped wetlands

2024 PROPOSED BUDGET

	2022 ACTUAL	2023 BUDGET	2023 JAN-JUNE ACTUAL	2023 JAN-DEC ESTIMATED	2024 BUDGET
Revenues:					
Real Estate Tax Levy	159,588	175,117	129,693	175,117	191,709
Interest Income	1,111	260	2,346	3,200	2,500
Carryover	16,970	13,564	12,976	12,976	5,366
Total Revenues	177,669	188,941	145,015	191,293	199,575
Operations:					
Landowner Cost Sharing	348	15,000	270	15,000	15,000
Weed Harvesting	15,031	13,800	3,832	14,050	15,000
Preserve Restoration/Management	10,827	15,000	10,644	15,000	19,000
Staff Payroll/Fringes/Taxes	87,126	83,941	40,378	83,941	88,600
Insurance	7,502	8,000	6,996	8,000	8,650
Legal & Accounting	1,665	3,500	738	2,500	3,500
Dues & Conferences	1,402	2,500	1,189	1,765	1,775
Office & Community Outreach	4,698	9,750	4,747	9,950	10,150
Commissioner Stipends	2,450	5,400	1,350	2,700	5,400
Rent	1,800	1,800	1,800	1,800	1,800
Capital Reserve,Land/Equip Acquistion	27,437	25,000	15,930	25,000	25,000
Miscellaneous & General Lake Mgmt.	4,406	5,500	996	5,500	5,500
Special Programs		250	-	150	200
Total Disbursements	164,693	188,941	88,870	185,927	199,575
Balance	12,976		56,145	5,366	

LAKE RIPLEY PROTECTION FUND

Restricted Fund:

Estimated Balance (12/31/22)	$109,634
Additional 2022 Activity	
Increase	447
Final Balance 12/31/22	110,081
2023 Estimated Activity	
Interest Earned	2,000
Spent for dump truck	12,000
Estimated Balance 12/31/23	$100,081

Anyone wishing to see a detailed budget may come to the District office at the Oakland Town Hall, N4450 Cty Hwy A, Cambridge, during normal business hours. Phone ahead to make sure office is open at 608-423-4537.

Budget Hearing
August 19, 2023
9 a.m. at Oakland Town Hall
N4450 County Road A
Cambridge

Annual Meeting
Immediately following budget hearing
Oakland Town Hall

I. Call to Order
II. Approval of 2022 Annual Meeting Minutes
III. Nomination of Board candidates, Statements of candidates, and Election - two open positions
(Names on Ballot: Jimmy DeGidio)
IV. Chairman's report
V. Treasurer's report
VI. Approval of the budget and tax levy
VII. Discussion and possible action on other business that can be legally considered by the District
VIII. Tabulation of vote and election of board members
IX. Adjournment

Meeting of the Board of Directors
Immediately following Annual Meeting
Oakland Town Hall

I. Call to Order and Roll Call
II. Election of Board Officers
III. Adjournment

Note: Public Comment will be taken at discretion of District Chair

Be sure to visit, to LIKE and FOLLOW our Facebook page at: **www.facebook.com/LRMDLS2020**

Budget & Annual Meeting info Inside

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