



LAKE TIDES

The newsletter for people interested in Wisconsin lakes

Strip Show

Restoring a Native Shoreland

Volume 24, No. 2
Spring 1999

The strip of land at the margins of our waters is the place where all life comes together... a bridge between two worlds. It is a place essential for the survival of plants and creatures. Eighty percent of the critters and plants found on the endangered species list live all or part of their lives in this near-shore area. We are well aware of the skyrocketing demand for home building sites in these areas. We are also becoming aware that keeping our waterfront vegetation in a natural state is the best way to help preserve a healthy lake ecosystem. What we are not so clear on is how to restore and preserve this area with native vegetation. Never fear—the information is here!

In the month of March, over 500 people attended workshops on shoreland restoration. The purpose of these workshops was to show participants how to develop a plan, determine what plants to use as well as how to plant them. Landscapers, nursery owners, contractors, and property owners gathered in places like Minocqua, Stevens Point, Tomahawk, Antigo and Wausau to work together and share information on ways to restore and preserve vegetation in shoreland areas.

Planning for Plants. One of the first steps discussed was how to develop a plan for planting. Participants worked in teams to actually design the restoration of a site. They were asked to consider many factors like soil type, slope, shading, plants available, homeowner's feelings, timing and cost. Speakers also described ways to keep shore vegetation intact while maintaining a view of the lake. The suggestion was made to identify the best view from the home and remove only the branches and vegetation which block that "view corridor." New ideas on lawns were explored. One idea was to plan smaller grassy areas sized for their use, like a picnic area, and to connect these areas with mowed paths. Grassy space is created for family activities yet less time is spent mowing. Less mowed lawn allows wildlife and song birds to share your yard, provides more privacy, increases the sense of space on your property and reduces noise from the lake.

What about bugs? If you live in the country, you will have bugs. The point was made at the workshops that mosquitoes and ticks don't necessarily increase with less mown lawn. Some virtuous bugs, however, will come back with more native vegetation and less mown lawn, like butterflies and dragonflies.

Erosion. Participants learned how aquatic plants can help limit shore erosion. They discovered that plants buffer wave action and plant roots hold soils, keeping nutrients out of the lake. Plants also provide food and cover for fish and wildlife. Folks got a chance to see and hear about new materials like BIO LOGS and other wares that help reduce erosion during construction.



Wisconsin Lakes
Partnership

Planting Tips. Workshop speakers explained how to prepare a site for planting. Site preparation can play a significant role in limiting invasive weeds. One way to limit turf grass is with black plastic laid out over the site for four to six weeks. Knowing which plants to use and when to seed and water them is also important.

Choosing Plants. Once the plan is ready and the site is prepared, choosing the proper plants is extremely important. Instructors pointed out the importance of plants being suitable for the site. They also detailed which plants benefit wildlife, like common elderberry and smooth wild rose. Other trees, shrubs and vines like sumac, high bush cranberry, or blueberry may be chosen for their height, shape, flowers and fruits.

Development is not a bad thing; as long as there are humans we will build homes. It is how much we build, where we build and how we build that will determine if we protect or harm our lakes. Improperly done, construction and landscaping can have a dramatic impact on a lake's water quality and habitat both in the water and on the land.

Speakers for these workshops included Joan Ellis, an ecological consultant from Iron County; Paul Hlina, environmental educator and co-owner of Leaning Pines Native Landscapes from Douglas County; Peter Kling, St. Croix County Land and Water Conservation Department; Cathy Wendt, Wisconsin Valley Improvement Corporation; plus zoning administrators from Langlade, Oneida and Lincoln counties. Attendees received copies of a new book, *Lakescaping for Wildlife and Water Quality*, published by Minnesota DNR, a copy of the video *The Living Shore*, and many other handouts.

Reference Materials for Native Landscaping:

Lakescaping for Wildlife and Water Quality. 1999. Available from the Minnesota Bookstore, 1-800-657-3757.

Life on the Edge... Owning Waterfront Property. 1998. Available from the UWEX-Lakes Partnership, 715-346-2116 or Wisconsin Assn. of Lakes, 1-800-542-5253.

The Living Shore (video). 1998. Available from WI Assn. of Lakes, 1-800-542-5253.

Nursery Sources for Natural Landscaping. UWEX-GWQ014A. Available from County Extension Offices or UWEX-Lakes Partnership, 715/346-2116.

Through the Looking Glass... A field guide to aquatic plants. 1998. Available from the UWEX-Lakes Partnership, 715/346-2116 or WI Assn. of Lakes, 1-800-542-5253.

*Rusty crayfish,
zebra mussels,
round goby...
learn about these
and other exotics.*



it's not just a matter of time...

A SPECIAL ONE-DAY EXOTIC SPECIES WORKSHOP FOR:

lake associations, conservation and recreation organizations,
shoreland property owners, other interested people.

This special session is planned in conjunction with the 9th International Zebra Mussel and Aquatic Nuisance Species Conference, **Thursday, April 29th** from 9:30 am-4:30 pm at the Duluth Entertainment Convention Center.

Registration: \$15.00—Come curious, leave with a plan! To register or for more information, contact Marcia Shepard, *Focus 10,000*—1-800-450-5253.

Wildfires and Lakeshore Landscaping

One of the driest winters and springs has lake levels down and wildfires up in parts of Wisconsin. There are a few things you can do to lessen the chances of property damage if a fire burns your way.

Living with natural landscapes can enrich our lives and provide healthy habitats for both humans and wildlife. More and more people are protecting and enhancing natural landscapes and bringing conservation to backyard areas. Natural landscapes can provide some benefits: less lawn mowing, garden maintenance, fertilizer and watering.

Lakeshore areas (buffer zones) are especially rich in diverse habitats. In these sensitive areas which are particularly vulnerable to disturbance, a “don’t mow-let it grow” attitude is common. Any sort of vegetation removal, including burning, is not recommended. However, in extremely dry conditions vegetation within 30 feet of our homes and cabins may be a fire hazard. In early spring before the lush green growth of summer, tall dry grass, leaves and twigs—the very thing that provides great habitat—can be the fuel for a fire.

Fire has been part of the natural landscape in Wisconsin for centuries, maintaining the tall grass prairie and the pine-oak Savannah. Trees such as jackpines and oaks are uniquely adapted to a landscape where fire is a natural part of the environment. However, because of intense development, wildfires or intentional burning often harm more than trees and can have devastating effects on personal property. In 1980, the Oak Lake Fire burned 150 homes and cabins in one day, as fire swept across the lake rich sand country of northwest Wisconsin. Many of the homes and cabins that were lost to fire had pine needles and branches on roofs and tall grass and shrubs surrounding and touching the buildings.

Wildfire experts suggest maintaining a green space around your structures. If practical, a 30-foot zone can act as a

small fire-break. Within this area, allow for plenty of open spaces between combustible vegetation such as pine trees and dead tree limbs. Where possible, trim branches to a height of 15 feet. Eliminating brush piles, lumber, firewood and other easily combustible materials within this zone can slow or stop the spread of fire.

Maintaining a wild lakeshore and shoreland buffer need not prevent you from making the area close to your cabin less wildfire prone. A home in the middle of a 100 foot lake lot may be only a few feet from the edge of the lot, making a firebreak impractical. However, there are some things you can do to limit the opportunity for fires to spread to your home.

A few simple steps can reduce your risk of fire while still maintaining the natural world in your back yard:

- ◆ Build with non-flammable materials when possible.
- ◆ Keep your chimney clean and install a spark arrester.
- ◆ Keep your roof free of branches, leaves and pine needles.
- ◆ Don’t burn during dry periods; get a permit and use proper techniques.
- ◆ Have an outside water supply and 100 feet of garden hose.
- ◆ Develop and practice a plan to escape from a fire.
- ◆ Provide adequate access and turn-around areas for fire equipment.
- ◆ Be careful how you use fireworks, campfires or cooking grills.

Follow these common sense rules for fire safety to protect your property and the natural beauty of your shoreline while preserving valuable wildlife habitat.

by John Haack, St. Croix Basin Educator

Fire has been part of the natural landscape in Wisconsin for centuries.



A Common Vision... Looking toward the future

The Wisconsin Lakes Convention closed out this century with a record-breaking crowd of over 650 participants and a multitude of workshops that shared our common vision... better lakes for the future. From the pre-conference technical session on shoreland habitat and shoreline restoration, through question and answer sessions with Representative Black and Senator Cowles, a plethora of workshops on all kinds of lake-related topics, to a closing ceremony with music, food and fun, this year's convention had something for everyone.

A record crowd attended the 1999 Wisconsin Lakes Convention to celebrate "A Common Vision."

We saw many familiar faces and lots of new ones too, as more and more folks take the lead to get involved in the management of their lakes and watersheds. Presentations by the first graduating crew of the Lake Leaders Institute sparked more interest in taking a leadership role. Student presentations woven into the workshop streams and the plenary sessions show that our youth are also taking an active role in the stewardship of our lakes.

Stewardship Awards Announced

All across the state we can see examples of the fine work done by many women and men in regard to lake stewardship. It is a pleasure to recognize the activities of some of these individuals and groups through the Lake Stewardship Awards. As usual, the nominations were plentiful and it was difficult to choose only one recipient in each of the categories. For 1999, the Stewardship Awards were given to **Mike Dresen**—Public Service, **Charlie Shong**—Individual, **Rock Lake Improvement Association**—Group, and **Lake Holcombe High School Future Farmers of America**—Student group.

Be sure to mark your calendar for next year's convention—the first of the new millenium! It will be held on **March 9, 10, 11-2000** in Stevens Point. Join us as we work together and celebrate the future of our state's great natural jewels.

Lake Awareness Week — June 27 - July 4, 1999

Governor Tommy Thompson has proclaimed June 27-July 4 as **Lake Awareness Week**. Now is an ideal opportunity to share your lake stories and educate others about the importance of lakes. Let everyone know that Wisconsin's 15,000 lakes are critically important and should be preserved for future generations to enjoy. Wisconsin citizens should take pride in their lake resources and recognize the unique qualities of these rich water resources. Share with others your knowledge and enthusiasm for lakes and how important these resources are for their economic, natural, cultural, and aesthetic value.

Questions on how you can get involved? Contact your regional Department of Natural Resources lake coordinator, your county Extension agents, Board Members of the Wisconsin Association of Lakes, or the UW-EX Lakes Partnership staff for information on things you can do to leap into lake protection.

Share your lake awareness week success stories! *Lake Tides* would like to share your success stories. Send us short stories and photos regarding your lake's participation in the 1999 Lake Awareness Week. We'll include as many as we can in future issues of *Lake Tides*.



Youth Stewardship at Wisconsin Lakes Convention.. Adopt-A-Lake Style

ASA Clark River restoration project

Over the past five years, 650 Pewaukee students have had the opportunity to restore a forgotten community. Through a partnership between the Department of Natural Resources, the Lake Pewaukee Sanitary District, the village board, and the district middle school, students have taken their knowledge into the environment. Students have put into place riprap bank stabilization, walkways, fishing platforms and benches to create an environment that the public may enjoy. Hats off to these young lake stewards for a job well done!



Students constructed fences, placed riprap, laid sod, and are now adding bark chips to finish the trail along the Pewaukee River.

Lake Holcombe

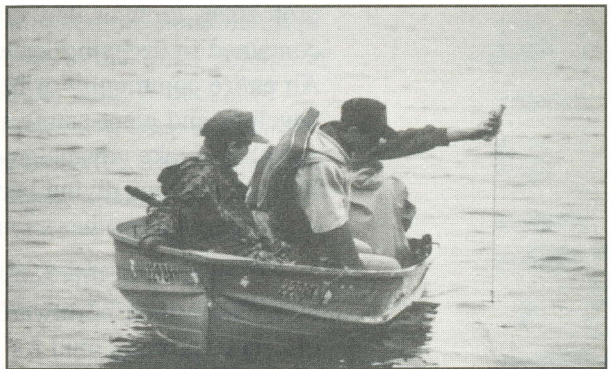
For over eight years, the students in the Lake Holcombe FFA, under the guidance of advisor, Brian Guthman, have been working on the Chippewa Flowage. Their projects have ranged from litter clean-ups and public awareness to bio-control of purple loosestrife (see additional information on page 9). This was their third year of presenting information about their projects at the Wisconsin Lakes Convention.

Hartford Union High School

Druid Lake Management District and the Hartford Union High School Environmental Club now know how successful an invader Purple Loosestrife can be. After 9 tons were hauled out of the Druid Lake Marsh, the outlet is now open to encourage better water flow, reduce flooding and allow native plants to flourish. That these students care about the water resource was demonstrated in their excellent presentation at the Lakes Convention.

Lucky Hills 4-H Club

Lucky Lake Katherine and Lake Esca in Taylor County have a 4-H club that has given over 10 years of service in promoting lake awareness. These youths have monitored the lakes regularly for oxygen content, clarity and "critter" life. Determining what lives in and around the lake has also taken the form of an historical search for these stewards. Although the members range in ages from 5-19, workshops and formal presentations are still offered to fellow lake lovers. Congratulations to Lucky Hills for continuing to be an excellent role model for all!



Older members teach younger members about lake monitoring, then they will become teachers.

Cambridge High School

Lake Ripley Management District should be proud of the Cambridge High School Aquatic Club for their professional presentation at the Wisconsin Lakes Convention. Four years of hard work has paid off for this organization as they were recently awarded a Sea World/Busch Gardens Environmental Excellence Award. This group has continuously demonstrated the potential of youth stewardship. Cambridge High School's Aquatic Club, under the guidance of their instructor Ed Grunden, is a shining example of how the Adopt-A-Lake program can foster lake protection. Excellent job!



A Springtime Oasis

By Dean Premo

In the first days of spring, I hiked atop a foot of crusted snow in a hardwoods near our home to visit a small opening and depression that will soon hold shallow water instead of snow. Standing in the center of this house-sized hollow, a particular favorite soon-to-be pond, I imagine the chuckling chorus of wood frogs and the piercing high notes of spring peepers that will produce a din here in just a few weeks. I remember a warm night last April, leaning over this pond's edge, hand-in-hand with my 9-year-old daughter, our flashlight illuminating a small oval of the watery world. We both watched in awe and delight as a spotted salamander gracefully swam through our yellow beam and then quietly disappeared under sodden maple leaves at the bottom of the pond. This is the vernal pool—a tiny ecosystem teeming with diversity and productivity in the spring and early summer, but otherwise apparently asleep for the rest of the year.

Vernal pools are small, ephemeral ponds that result from spring rains and snowmelt but disappear as the “green” season progresses. They flourish with productivity during their brief existence and provide habitat for a great variety of aquatic invertebrates; feeding and breeding habitat for amphibians and reptiles; feeding, resting, and breeding habitat for songbirds; and a source of food and water for many mammals. These wetlands also provide unique habitats for plants. Vernal pools contribute in unappreciated ways to the biodiversity of Wisconsin's forests, grasslands, and larger landscapes.

The high biodiversity of a typical vernal pool ecosystem originates from a springtime burst of productivity in the pond's nutrient-rich waters. Leaves and other organic material decaying on the forest floor release carbon and other nutrients that are carried to the pond by spring runoff. Using these food sources, algae and other plants thrive in the warming waters of the pond and provide the basis for a large food web. Populations of microscopic fungi, bacteria, and protozoans grow as they consume the available food contained in decaying leaves and single-celled algae. An entire community of herbivorous invertebrates develops and plant-eating vertebrates (like frog tadpoles) also take advantage of the “bloom.” In turn, predators (like predaceous diving beetles and salamander larvae) and various scavengers form other strands of the vernal pool web.



But all of this activity is not confined to the water—on the edges of the pond, songbirds, weary from their northward migration, replenish energy by capturing winged adults of aquatic insects or probing mud for worms and grubs. Hunting the pond margins, small mammals and snakes find frogs, salamanders, beetles, and other prey. Amazingly, this biological activity gets started in very early spring, when many other ecosystems are still relatively dormant. Ice still covers the inland lakes of northern Wisconsin while salamanders lay their eggs in vernal pools. On one March day a few years ago, we counted twenty species of birds using a vernal pond for a feeding and resting stop during migration. In an otherwise cool and hushed early spring landscape, the pond was a hub of activity.

The kinds of animals that use vernal pools as habitat range from microscopic protozoans to the largest vertebrates. A researcher in Michigan's Upper Peninsula has tracked radio-collared black bears for several years, carefully characterizing their movements. He observes that black bears, especially females with cubs, frequently visit vernal pools, foraging for nutrient-rich riparian vegetation that greens up early.



Vernal pools are literally as “old as the hills.” The depressions in which they form were gouged by the glaciers. A sediment core retrieved from a vernal pool would reveal pollen and other evidence that chronicles thousands of years of pond life. Imagine generations of salamanders marching over hundreds of springs to the same half-acre puddle.

In spite of their ecological importance, most land uses do not offer vernal pools any special consideration to protect and perpetuate their functions and values. To the contrary, these small natural openings, dry for most of the year, are often unrecognized as aquatic ecosystems and become sites where brush and stumps are piled or domestic animals are grazed or watered. In an effort to bring every acre under tillage, I’ve seen cornfields tilled and planted through perfectly wonderful vernal pools. This practice invariably dooms the pool and thereafter grows nothing but stunted corn plants since the water-saturated soils remain.

Often seen as mosquito factories, vernal pools are sometimes treated with biocides. In our experience, naturally diverse vernal pools are not big producers of mosquitos, because there are plenty of predators to eat the aquatic mosquito larvae. Pools whose natural fauna is diminished because of chemical treatments may actually become bigger sources of mosquitos in the future because their natural predators disappear.

Vernal pools are typically not protected by federal or state wetland laws. This is a result of their small size and hydrological isolation (lack of connection to permanent water). Vernal pools do not typically harbor fishes, yet in some areas landowners excavate vernal pools and stock them in an attempt to rear minnows or panfish. This practice decimates much of the vernal pool community which evolved in the absence of fish predators. In these cases, amphibian populations that have used the vernal pool as a breeding spot for millennia dwindle and disappear.

The primary hope for ensuring that vernal pools continue to grace our landscapes is through educating landowners and the public. Luckily, the vernal pool provides us with a marvelous classroom by which to accomplish that education. They have organisms aplenty. In a vernal pool study in 1996, we estimated the standing crop of aquatic invertebrates in the water column at one-hundred pounds per acre. A bucket of water from a vernal pool will keep a class of

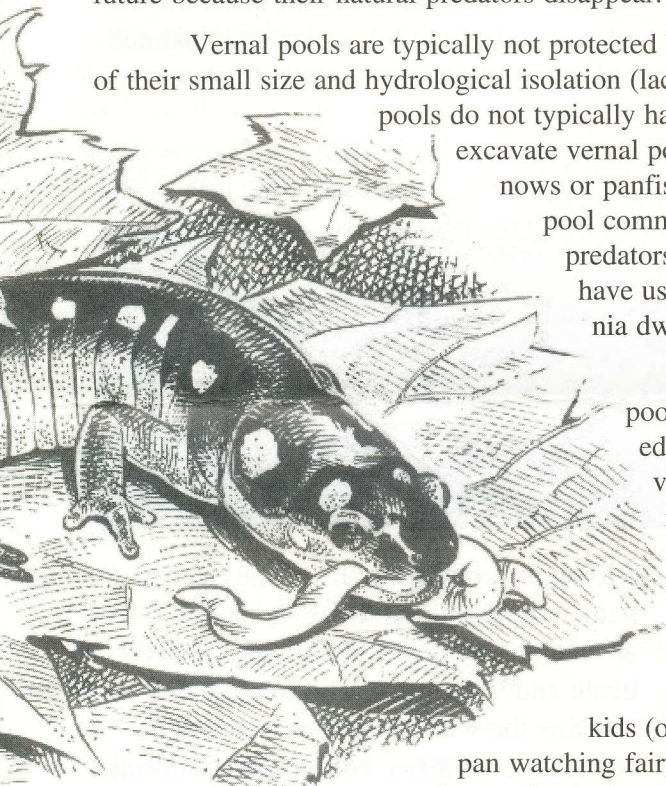
kids (or adults) busy for hours, peering over a shallow pan watching fairy shrimp, phantom midges, predacious beetle larvae, water mites, and tadpoles. They are in full blown activity during the spring portion of the school year so teachers can take full advantage of a vernal pool’s offerings. We have found them invaluable for teaching forest ecology and concepts of bio-diversity to first graders as well as resource professionals.

I am obviously an unabashed supporter of vernal pools. My hours spent in their vicinity are among my most vivid experiences. Not surprisingly, Robert Frost found beauty in “These pools that, though in forests, still reflect the total sky almost without defect, ...” In the next few weeks, visit a vernal pool, preferably with a child or grandchild in tow, and experience one of Wisconsin’s true springtime treasures.

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Dean Premo, Ph.D., is President and co-founder of White Water Associates, Inc. The company works in wetland delineation, riparian habitat restoration, natural landscaping, ecology education, and water chemistry throughout Wisconsin and Michigan. His work regarding biodiversity and ecosystem health has been featured in The New York Times. You can visit White Water’s website at <http://www.white-water-associates.com>.

These small natural openings, dry for most of the year, are often unrecognized as aquatic ecosystems.



Self-Help Lake Monitoring



Secchi Disk in Black and White

By Maureen Janson

How to say the name of the oldest and most popular limnological tool, the Secchi disk, varies depending on who you talk to. Some say it like “sketchy”, others say “see-key”, while “say-kay” is yet another variation. In Italy, one would fluidly say “say-key” with an optional hand gesture. The most comfortable version of pronunciation here in the U.S. seems to be a quick “seh-key”, accent on the first syllable.

However you say it, the Secchi disk has been around for a long time. One hundred and thirty four years ago in Italy, the disk was actually devised by Papal fleet Commander Cialdi (pronounced “chi-all-dee”). This first all-white disk was turned over to astronomer and Jesuit priest, Pietro Angelo Secchi for experimentation. On the historic date of April 20, 1865, Father Secchi dropped the first disk over the side of the Papal yacht, L'immacolata Concezione (Immaculate Conception!), into the Mediterranean.

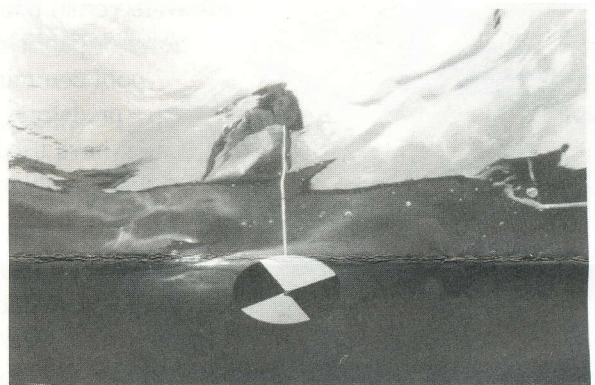
Through time, the disk has come a long way, and like its pronunciation has seen many variations in use and construction. Initially, Secchi used both a 43 cm white clay disk and a 60 cm disk made of sail cloth stretched over an iron ring. Later he tried both brown and yellow disks.

In 1900, American limnologists E.A. Birge and C. Juday took Secchi readings on Lake Mendota in Madison. This followed about 27 years after John Le Conte, using a white dinner plate in Lake Tahoe, measured the first freshwater lakes. Birge and Juday used a traditional all-white disk. Since that time, several sizes and colors of disk have been tested in studies on Lake Mendota.

Now, most freshwater lakes are measured with a black and white disk, first devised in 1899 by George Chandler Whipple, a

professor of sanitary engineering at Harvard University. The alternating quadrants of black and white supposedly make the disk easier to see.

In spite of the fact that Secchi disks are generally manufactured out of steel or marine plywood, water clarity monitoring volunteers have gotten creative with measurements by substituting dinner dishes for lost or forgotten disks. Clarity of Lake Geneva was once measured by a 15 cm disk made from the plastic top of a margarine container. One statewide study was done using white plastic plates. Other reports of alternative Secchi disks include a large coffee can lid, a pizza pan painted black and white, and a white Frisbee!



Although pronunciations of the Secchi name still varies, we have more or less arrived at a standard eight-inch diameter black and white disk. This simple disk remains the water clarity measurement foundation of many volunteer monitoring programs. Over 700 volunteers measure Secchi clarity in Wisconsin lakes as part of the Self-Help Lake Monitoring Program, making it one of the largest lake monitoring programs in the country! The dedicated volunteers contribute data that can be used to detect seasonal variation and long-term trends in water clarity. We've come a long way since 1865.

So, next time you dip a Secchi disk, remember that not only are you contributing to the valuable protection of a lake, but you are also becoming a part of Secchi history!

How can I initiate youth involvement on our Lake?

Ideas to Enhance Youth Stewardship

- ◆ Host a boat tour of your lake and offer transportation to the site as well as personal flotation devices for all!
- ◆ Host a picnic or water festival to get the youths/adult leaders comfortable with property owners.
- ◆ Offer to sponsor a youth group to get them started in water monitoring.
- ◆ Send seasonal photographs of your lake to local schools encouraging them to use your lake as an outdoor laboratory.
- ◆ Invite youth groups to perform a lakeshore clean up. You provide trash bags and treats to celebrate a better view.
- ◆ Offer to be a guest speaker at youth group meetings or special interest days at school, relating the history of your lake and the benefits of becoming lake stewards.

For more information, contact Laura Felda, Adopt-A-Lake /Project WET Coordinator...715-346-3366

Lake Awareness Week 2000

In honor of Lake Awareness Week 2000, North American Lake Management Society (NALMS) is hosting a poster contest for grades 1-8 in the US and Canada. The winning design will be used for the Lake Awareness Week poster. The poster theme should express the importance of lakes, why we enjoy them, and/or why we should protect them. Posters cannot be bigger than 22" x 28". Markers, crayons, paints and pencils may be used to create the posters. The poster finalist will be awarded \$100 for the artist and \$250 for the school. For more information, contact Stephanie Bowser, NHDES, 6 Hazen Drive, Concord, NH 03301 (603-271-3503).

Beetlemania

*The beetles are coming;
the beetles are coming....*

No, it is not the 1960's! John, Paul, George and Ringo are not making another album; rather its *Galerucella californiensis*!

This is purple loosestrife's nightmare. *Galerucella californiensis* is the latest approved biocontrol in beating purple loosestrife in the wetland habitat. This small beetle (less than 2-mm) has a hungry appetite for green leaves of the maturing purple wonder. The ultimate goal is to decrease flowering and seed production and get loosestrife under control. Brock Woods, WDNR Research Center, has available beetle starter kits at \$110 for 100 beetles. If all goes well, these 100 will make 10,000 later in the summer and may be released at an approved site. For more information contact Brock (woods@dnr.state.wi.us /608-221-6349) or your regional DNR Aquatic Plant Management Coordinator. In addition, the **Adopt-A-Lake** program will participate in raising beetles and initiating a local insectory for future beetle collection! Watch for *Beetlemania* updates!

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● **Lake Holcombe FFA** are biocontrol experts in Wisconsin! Over the last 8 years these youths along with their advisor, Brian Guthman, and the Lake Holcombe Improvement Association have been attacking Purple Loosestrife problems. After pulling out over 150 truckloads of the purple wonder in 3 years, a new plan was started. Under the guidance of Brock Woods, WDNR Research Center, the students raised *Galerucella californiensis*, the famous leaf-eating beetle from Cornell University. Research from their data plots found that over 48% of the plants exposed to the beetles demonstrated plant damage. This group should be congratulated for their cutting edge stewardship—no wonder they were awarded the **1998 Wisconsin Adopt-A-Lake Stewardship Award!** Congratulations!

Adopt-A-Lake/Project WET

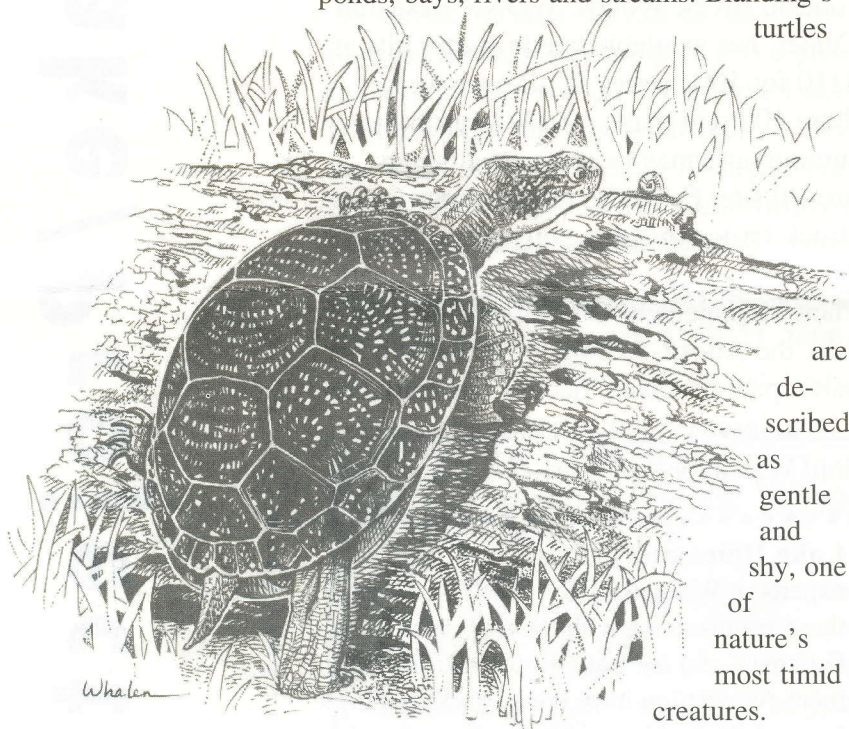


Meet the Blanding's, our Lifelong Neighbors

by Marilyn Leffler
with contributions
from Bob Hay

Imagine growing up in and around water. That's easy for some of us. We begin our life exploring our immediate surroundings, learning to swim, catching fish, basking in the sun, sharing the shore with our neighbors. The years go by, we mature, our kin go to the lake. We carry on this tradition for 50, 60 or perhaps even 70 years...heading for the open water when the weather turns warm...burying ourselves in silt before winter sets in...

Such is the life of a Blanding's turtle (*Emydoidea blandingii*), in some ways not so different from our own. They are long living creatures forever adjusting to the seasons, just like us. They are "active" from April through October and spend the winter months in hibernation at the bottom of deep ponds, bays, rivers and streams. Blanding's turtles



are described as gentle and shy, one of nature's most timid creatures.

Blanding's turtle

(*Emydoidea blandingii*)

Although rare, you may find Blanding's turtles living almost anywhere in Wisconsin except in the mature hardwood forests of the north-central region. They prefer marshes, soft-bottomed backwater sloughs with aquatic vegetation, and shallow bays of lakes but they may also be found in shallow, slow-moving rivers and streams. They not only forage in the water but will also move to land for food. Their diet consists of crustaceans, snails, insects, frogs, fishes, crayfish, earthworms, slugs, grasses, succulents and berries.

The adult Blanding's turtle is about eight to ten inches long and may weigh up to three pounds. You may recognize it from its bright yellow throat. Its carapace (upper shell) is smooth and usually black with yellow specks while its plastron (lower shell) is yellow with brown or blue-black splotches. Its head, tail, and legs are blue-black or brown in color. A distinct characteristic of this turtle is the hinged plastron that allows the front section to close for protection from predators.

Blanding's turtles usually nest in open, sandy areas that may be as far as 1½ miles from water. They tend to return to the same place each year. Beginning in June, the female lays anywhere from three to 17 eggs and then returns to the water. The eggs, incubated by the sun, hatch in 65 to 90 days. The 1¼-inch hatchlings have tails that are nearly as long as their shell. They begin their life negotiating their way to water, escaping predators and crossing highways. Their coloring at this young age is a dark gray or green, which helps to camouflage them on their journey, but their hinged plastron is not functional until they reach three to five years of age.

The Blanding's turtle is listed as threatened in Wisconsin. Low nesting frequency, increasing populations of nest predators (e.g. crows, skunks, raccoons), habitat destruction (over 50% of Wisconsin wetlands have been lost to development and farming), and traffic mortality all threaten its survival. Highway barriers have been successful in reducing traffic mortality. We can do our part by driving carefully and watching for these and other creatures that need to negotiate our highways. We can help protect their nests by covering them with a 2' x 2' piece of ¼" or ½" hardware cloth, staked down in the corners. This works for all turtle nests. Remember to remove the mesh after 60 days, though, so the young can get out of the nest successfully. We can also protect their environment by preserving the land and water on which they depend. Emergent shoreline vegetation is not only preferred, but is critical for the survival of the young.

And thus the tradition continues. The sun warms the water and we awaken. We toss back the cover, and meet again at the shore...



WAL Receives Technical Assistance Grant

The state of Wisconsin is rich in water resources, but is faced with an ever increasing demand for the use of its lakes and lakeshores. To assist counties, legislators passed laws in October 1997 which allow counties to tailor local land and water management programs to classes of lakes in response to various development and recreational use pressures.

As a continuance of the work the Department of Natural Resources (DNR) recently awarded a \$198,000 contract to the Wisconsin Association of Lakes (WAL) to provide statewide technical and educational assistance for local lake classification efforts. An outcome of Act 27, the 1997 Budget Bill, the grant recognizes the support needed to make county lake classification efforts successful.

Act 27 added \$700,000 to the state lake protection grants program and created a new category of grants for counties to undertake lake classification projects. It also created a provision to allow the state to award a grant for technical and educational assistance to supplement the limited resources it had to dedicate to this effort. Many counties have raced ahead with projects, causing University Extension and DNR staff to struggle to keep pace and respond to assistance needs. There are still many projects in development stages and lots of opportunities to expand and improve local classification systems. According to Carroll Schaal, WDNR Lakes Team Leader, "local lake classification is an ongoing process rather than a one-time effort or project. Once a classification system has been adopted there are still many issues associated with implementation. There is still a lot of work to do."

WAL's proposal lays out a strategy to identify and then provide the key services and materials needed to support local government and lake organizations in implementing lake classification and protection efforts. The effort will build upon the efforts already in place and will work cooperatively with and complement existing state agency staff. "WAL was a natural for this project," reports Schaal, "given their statewide networking capabilities and experience in sponsoring workshops and developing educational materials. In addition to filling a big need for assistance, WAL will grow as a service provider, strengthening the Lakes Partnership and its relationship with local governments." *WAL is in the process of getting set up to handle the grant. If you have questions or suggestions, call the WAL office at 1-800-542-5253.*

The Spirit of the North

What embodies the spirit of northern lakes more than the loon? Many believe the fate of loons and lakes are inextricably tied. There has been an organization that has worked on assuring a secure future for both lakes and loons for over twenty years, and they need your assistance.

LoonWatch, a program run through the Sigurd Olson Environmental Institute at Northland College in Ashland, has been gathering annual observations of loons on Wisconsin lakes since 1978. These observations are recorded and sent in by volunteer "Loon Rangers" who live or vacation on the lakes they observe. Though this monitoring program is not designed to provide an estimate of the state's loon population (the five-year comprehensive survey is set up for that), it does provide a means of "keeping a finger on the pulse" of loon productivity on Wisconsin lakes.

In 1998, 175 Loon Rangers reported on 160 lakes in 24 counties in Wisconsin. They observed a total of 128 territorial loon pairs which produced 117 young. This number of observers declined 15% from 1997 when 208 observers sent in reports.

LoonWatch is always looking for new volunteers to help monitor Wisconsin's loon population. If you would like to participate in this very important annual effort, contact LoonWatch, SOEI, Northland College, Ashland WI 54806, or email LoonWatch@wheeler.northland.edu. There is no limit to the number of people who can observe on any lake, so if you are interested and you live or vacation on a northern lake, please consider helping out!

***Want to help
Gavia immer?
Become a Loon
Ranger!***



Lake Tides - 905004

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Permit No. 19
Stevens Point, WI

Volume 24, Issue 2

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Printed on recycled paper with soy ink.

Wisconsin Lakes Partnership



Published Quarterly

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Reflections...

At the recent Wisconsin Lakes Convention, we asked participants to predict what their lake may be like in 2100. Here, and in future issues of Lake Tides, we would like to share some of these predictions...

It is a warm sunny day in the summer of 2100. Two young girls are splashing in the clear, cool water of Moon Lake, chasing the shimmering, elusive minnows darting in the shallow reeds on the shoreline. One of them pauses to admire the clusters of Northern blue flag iris growing along the sunken log next to the steep slope. Sally tells her younger sister that her great-great-great grandmother Mary planted them along the shore over 100 years ago to keep the sandy bank from eroding. And then she whispers a secret passed along for three generations, "Don't pick the flowers or Grandma Mary's Ghost will GET YOU!"

M.P. —Alma-Moon Lakes, Vilas County

People will come to the understanding that we are responsible for taking care of the lake, not having the lake take care of us. It is not our lake, but a natural wonder that we have assumed the responsibility to ensure that it is here far into the future to enjoy its beauty.

M.M.—Williams Lake, Marquette County