

Canada geese, nests, and eggs are all protected under the Migratory Bird Treaty Act. This federal law prohibits the capturing or killing of Canada geese outside of legal hunting seasons without a permit. Presently, the U.S. Fish & Wildlife Service allows the Wisconsin DNR to issue permits to property owners to help control nuisance populations. Most permits are issued to oil or addle eggs, which prevents them from developing into viable embryos. In some cases, qualifying communities are issued permits for goose roundups in which the meat is processed and donated to food pantries. Not surprisingly, such control methods can create considerable controversy, and should be carefully investigated in terms of need and appropriateness before pursued.

For many locations, including Lake Ripley, an effective strategy is to simply choose native landscaping over the open, lakeshore lawns that geese find so appealing. Replacing some of your lawn with taller grasses and wildflowers will not only help discourage geese, but can greatly enhance the natural beauty of the shoreline, as well as offer an attractive oasis to visitors like frogs, turtles, songbirds and butterflies.

Strategies for Waterfront Landowners

Prevention is the key! Make your property less appealing to geese by taking these simple actions:

1. Ask your guests and neighbors not to feed them.
2. Rethink maintaining lawns next to the lake. Instead, consider planting a 20-30-ft. lakeshore garden of tall grasses and wildflowers.
3. Plant dense hedges or erect wire goose fencing to restrict access from neighboring properties.
4. Check for nest-building activity in the spring; remove any nest material prior to nesting.
5. Outside the nesting period, persistently scare off geese that frequent your property. Coyote decoys (particularly those that move) can be temporarily effective. For larger park settings, trained herding dogs have been used successfully.
6. Ask about the Lake District's volunteer goose-monitoring program, especially if you own shorelands that are heavily frequented by geese. Goose-count information will help us evaluate whether existing populations are at nuisance levels, and can be used by property owners to apply for control permits.

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Vol. 18, No. 3

Fall 2010

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FROM THE HELM



Some may see the end of the summer season as a sad time. Boats and piers coming out for another winter can be seen as an ending. I prefer to see it as a rebirth, a time for the lake to rest and regenerate. It is a time of calm and peacefulness when the early morning mist rises from a perfectly calm lake that reflects the clouds above and the fall colors in the trees along its shore. If you sit at just the right angle, you can imagine what the lake must have looked like 175 years ago, when the first settlers came to what is now called Jefferson County. The only lake visitors now are the flock of migrating waterfowl that stop to rest before continuing south to their winter homes.

The Lake District also rests a little during the winter months. It our time to reflect on what we have accomplished and what challenges lie ahead. Like a good parent, we attempt to anticipate and respond to the needs of the lake, doing our best to meet the challenges that present themselves. This year we had a resurgence of lake weeds that led to increased weed harvesting efforts. Thanks to our volunteer water quality monitor and Board member, Dennis McCarthy, we added to our already impressive store of data describing the lake's past and current conditions. Further out in the watershed, we have started the process of reestablishing prairie at our newly expanded Lake District Preserve. And with the help of the Friends of the Preserve, we will continue to make improvements to encourage even greater use and enjoyment of this important natural area that protects Lake Ripley.

The Lake District Board wishes you all a happy and safe holiday season. We will be there when the boats and piers return come spring. Until then, our mission remains the same: to protect and preserve Lake Ripley. With your help, we will continue to move toward a future where every ending is matched with the promise of an even better beginning.

John Molinaro, Chair

Weed Warriors

Cutting and removing invasive plants, retrieving floating trash and debris, repairing machinery, and saving fish are all in a day's work for Lake Ripley's two "lake technicians," Ted Teske and Bill Ratzberg. As trained harvester operators, they have a combined 17 years of experience working on Lake Ripley. Their efforts help ensure that the lake remains navigable for watercraft and that beneficial aquatic plants can thrive. Their foe is Eurasian watermilfoil (often referred to simply as milfoil), a non-native, invasive aquatic weed that grows rapidly and can spread from leaf and stem fragments carried by boat motors.



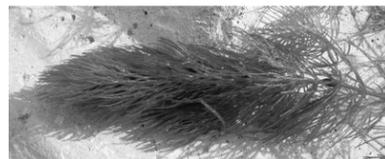
Bill Ratzberg (left) and Ted Teske (seated at right) heading out on the mechanical weed harvester. Photo by Beth Ratzberg.

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Each spring the District lake manager uses a map of the most recent aquatic plant survey to designate where they should cut. By the time of this spring's strategy meeting, Lake Ripley's East (Inlet) Bay and portions of the east shore were already clogged with milfoil. The rampant spread of the milfoil so early in the season was an indication that it would be a busy summer. For the first time in many years, harvesting operations commenced in May instead of June. In just the first week, says Teske, the milfoil "was so thick that we made a pass in and a pass out and were full." To better gauge just how unprecedented the milfoil growth had been this year, consider that in a typical year they will remove between 18 and 22 dump truck loads of weeds. As of the end of this summer, the total tally was 49 loads, or more than double the usual number.

While an early spring melt followed by ideal summer growing conditions seem to be the obvious culprits of the milfoil boom, lake manager Paul Dearlove says that is only half the story. "What we're seeing is also the result of two years of high runoff from record flood events. Most of this runoff enters through the inlet as stream drainage, and it takes time for this increased fertility to work its way through the system. Meanwhile, algae and lake weeds feed on those extra nutrients." He also suspects that the invasive zebra mussels are partially responsible. "Zebra mussels clear up the water by consuming free-floating plankton and algae. In turn, they trans-locate nutrients from the water column to the lake bed where they're more accessible to rooted plants."

Selectively cutting the right weeds is not as straight forward as it sounds. It requires being able to distinguish overly aggressive Eurasian water milfoil from the ecologically-valuable coontail and northern watermilfoil, all of which are similar in appearance. Furthermore, the invasive milfoil often grows amongst native plants; therefore, any decision to cut must weigh the costs against the benefits.

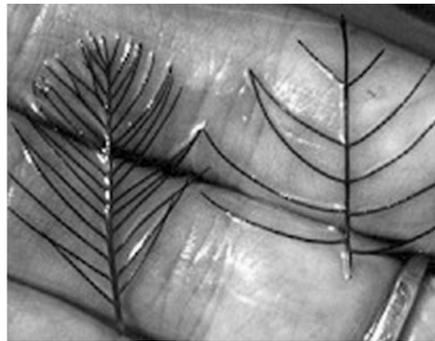


Top photo by James Daly. Bottom photo courtesy of Washington Department of Ecology.

"If [the plant community composition] is 50 percent or more milfoil that's starting to canopy at the sur-

face, we encourage them to go in and cut," explains Dearlove. All cutting decisions are guided by a weed-harvesting plan and DNR permit conditions.

Teske and Ratzberg perform all the maintenance on the 1993 Aquarius Systems' mechanical harvester and its supporting equipment, including a converted hay elevator used to transport the weeds from the harvester to the dump truck. They also take on duties not found in the standard job description. For example, they serve as Lake Ripley's unofficial clean-up crew, towing in stray rafts and canoes, and doing their best to collect floating weed and algal mats. Also, they save a lot of fish. While Ratzberg operates the harvester, Teske stands over the conveyor belt, holding a metal pole with a circular basket at the end. He attentively watches the cut weeds as they come out of the water. Whenever he sees the occasional fish, he scoops it up and flicks it back into the water. Same goes for any turtles.



A Eurasian watermilfoil leaf fragment is shown at left, while the native Northern watermilfoil is shown at right. Eurasian watermilfoil has 12 - 21 leaflet pairs. Photo courtesy of Washington State Department of Ecology



From the perspective of a harvester operator, cut weeds are seen traveling up the conveyor belt.

Such attention to detail characterizes their labor of love. "We care about the lake and we take pride in our work," professes Teske, and it shows. Lake Ripley is not the milfoil choked lake that it was back in the late 80s and early 90s when harvesting operations first began. In fact, water recreation proceeded as usual this summer thanks to the efforts of these two dedicated Lake District staff. And while most of East Bay is once again cleared of thick milfoil beds, a variety of beneficial plants are left untouched, allowing them to continue to protect water quality while serving as habitat for fish and other aquatic life.

-By James Daly

A major attractant is people who feed geese, thus providing an artificial food supply that concentrates the geese in unnatural numbers. Well-intentioned but misguided people typically feed bread, which does not provide geese with the proper nutrients they require. When large numbers of geese congregate due to artificial feeding, diseases such as avian botulism or avian cholera can develop and could potentially affect the entire local goose population.

Mating and nesting

Canada geese pair up and mate as soon as open water returns in early spring. Most do not breed until they reach three to four years of age. The nesting period then lasts through April or early May, with an average clutch size of 5-6 eggs. Nests are constructed on the ground near water. Preferred nest sites are slightly elevated so the birds can maintain a fairly unobstructed view in many directions. Consequently, islands and muskrat dens make popular nest sites. The male guards the nest while the female incubates the eggs over a 25-30-day period. Geese mate for life, and return to the same nesting areas year after year.



Canada goose nest. Photo courtesy of www.canadagoosemanagement.com.

Migratory behavior

Many Canada geese have begun to alter their migrations due to changes in climate, human settlement patterns, hunting pressure, farming practices and other factors. Typically, the birds summered in northern North America and flew south to the southern U.S. and Mexico when cold weather arrived. While this migration cycle endures, some northern populations are not traveling as far south to traditional wintering grounds. Other Canada geese have become permanent, year-round residents of parks, golf courses, and other urbanized locations across much of North America.

For migrating birds, individuals tend to return to the same migratory stopover and wintering areas every year. Tracking these migrations can be difficult due to the comingling of resident and migrating birds, and also due to movements between nighttime resting and daytime feeding areas. When the birds do migrate, flocks will form classic V-formations in the air. Some experts believe these formations enhance aerodynamics and/or in-flight communication. The geese travel along established flight paths that in-

clude designated "rest stops." They are social birds that remain in flocks year-round, except while nesting when they become territorial.

The link to lake health

Canada geese have been known to number in the hundreds and even thousands on many of our urban lakes. This can be a problem when you consider that, by one estimate, just 50 geese can produce two and a half tons of excrement in a single year.

Geese droppings not only pose a nuisance to park and beach users, but can contribute to nutrient contamination. Even with a small 1.3% phosphorus content, this adds up to a lot of phosphorus that can fuel algal blooms and excessive plant growth. In addition to the unsightly aspects of accumulating fecal matter, it can also cause increased levels of E. coli bacteria in the water, causing the closure of public swimming areas. This was likely the case when the Ripley Park beach had to be temporarily closed this summer. A high bacteria count can occur after a beach is frequented by a large concentration of geese, and particularly right after a storm washes any accumulated goose droppings into the water.



Other problems associated with large populations of geese include crop damage, attacks on humans and pets by aggressive birds, displacement of other wildlife, and damage to beaches, lawns and golf courses that can lead to soil erosion. Geese are also known carriers of the parasite that causes Swimmer's Itch, and can potentially transmit diseases to other animals. All these problems are most common with concentrated geese populations, which are largely a symptom of the habitat alterations and suburbanized lakeshores that we humans have created.

What can be done?

Recently, some communities have had to begin considering Canada geese as nuisances (for fouling lawns and polluting waterways) or even hazards (such as around airports). While a large number of Canada geese are harvested every year by hunters in North America, these harvests have not reduced their numbers, particularly in urban areas where hunting as a control measure is less practical. The question then becomes how to achieve a healthy, sustainable population in a legal and humane manner.

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At the District's August meeting, Winn expressed the significance of the restoration for the future of the camp: "I'm elated that we have the opportunity to insure the integrity of the property and improve the water quality of Lake Ripley."

The Hoard-Curtis Scout Camp is already a dramatically improved place. Soon, scenes like the one envisioned below will undoubtedly play out and be enjoyed by local residents and visitors alike. And each time they do, we will be reminded of the value that is returned to us when we protect and restore our precious lakeshores.

Waves lap against boulders and fallen trees strewn along the shore. Past the boulders, stands of bulrush peak above the water surface, alive with the sounds of frogs and the splash of feeding fish. A turtle lies motionless on a partially-submerged log, basking in the sun. It dives for safety as an angler, fishing near one of the tree-falls, plays a game of tug-of-war with a hungry bass. On shore, a humming bird darts amongst lavender hyssop and wild columbine framed by red-osier dogwood, elderberry, and buttonbush. A group of boy scouts busy themselves identifying the variety of lakeshore plants and animals to earn their "nature" merit badge.

-By James Daly



Workers are shown installing native shrubs and plants along a steep section of the scout camp shoreline.

94% of all lake life is born, raised, and fed within 30 feet of where the water meets the land. Source: [Protect and Restore Our Living Shore](#); a cooperative effort of the Wisconsin Department of Natural Resources and University of Wisconsin-Extension

The Hoard-Curtis Scout Camp is a not-for-profit, non-denominational camp that was founded to offer year-round recreation to youth of all ages. It is funded by The United Way of N. Jefferson & Walworth Counties and user fees. Inquiries about the camp and rentals should be directed to Joel Winn, Treasurer, at 612 Frederick Ave. Fort Atkinson, WI 53538.



Giant Canada geese stop to rest and forage for food on a lakeshore lawn. Photo courtesy of news.medill.northeastern.edu.

Canada geese (*Branta canadensis*), which include several recognized subspecies in North America, are found in every contiguous U.S. state and Canadian province at one time of the year or another. "Giant" Canada geese are the largest subspecies with a wingspan that can approach six feet and a weight that can top out at over 15 pounds. Once thought to be in danger of extinction during the early 20th century, they have made a dramatic recovery following extensive management and reintroduction efforts. Recent surveys suggest the Nation's resident breeding population is increasing and now exceeds 1 million birds in both the Atlantic and Mississippi Flyways. Wisconsin's estimated breeding population of 165,853 is up 12% from 2009, and is double the long-term (24-year) mean.

While native to our continent, many geese we see today around our lakes and shorelands are actually considered invasive newcomers. This is due to their remarkable ability to thrive in urban and suburban environments, causing growing numbers to take up year-round residency rather than migrate south to traditional wintering grounds. Unfortunately, one consequence of this adaptability is increased nutrient and bacterial contamination to our lakes that contributes to beach closings.

Habitat and diet

Canada geese can thrive in a variety of habitats near water, grassy areas, and grain fields. They are particularly drawn to our open lawns and lakeshore parks. Lawn grass is easy to digest, and the short-cropped grass allows birds to keep a watchful eye out for any approaching predators. In spring and summer, the herbivorous (plant-eating) geese concentrate their feeding on young grasses and sedges. During fall and winter, they rely more on berries and seeds, including agricultural grains. >>



For years, Pat and Lori Long (pictured above) have worked to limit soil erosion and runoff from their land, but that is just the beginning for these conservation-minded farmers. Photo by James Daly.

Two and a half miles northeast of Lake Ripley sits a section of the Long Sod Farms. It is a little known fact that the landowners, Pat and Lori Long, have made significant contributions to the health of the Lake Ripley watershed over the years.

In 1997, the Lake District offered the Longs cost-sharing to reshape and stabilize an eroding system of drainage ditches cutting through their sod fields. The ditch banks were too steep for the unstable peat soil on which sod is grown, resulting in excessive soil erosion. Pat Long was well aware that the ditch banks needed attention to keep sediment and nutrients out of Lake Ripley. "It was a good thing to help clean up," he reflects. The District was able to cover 70% of the cost through a generous grant from the Wisconsin DNR, yet Long's willingness to cover the other 30 percent was crucial to the project's success. "The Longs have invested more money [in projects that have benefitted the watershed] than any other landowner in the watershed," says Lake Manager Paul Dearlove.

The massive project reshaped 17,600 feet (over three miles) of ditch bank and was completed in 2004 after a multi-year effort. In the same year that the bank reshaping commenced, the Longs committed to a nutrient management program to more effectively target and reduce the amount of fertilizer they applied to their fields. First, the Longs shifted from a machine that spread the fertilizer pellets horizontally, which resulted in some pellets ending up on the banks and in the ditches, to a drop spreader. The machine was more expensive to use, but it was far more accurate. Next, they increased the frequency of testing the concentration of nutrients in their soil from every three years to every year, and found that they could apply less fertilizer.

Now the entire 104-acre farm is going to be eased to the U.S. Department of Agriculture's (USDA) Wetland Reserve Program (WRP). Beginning in late 2011, the USDA will fill in the ditches, break the underground tile lines that drain the property, and seed the fields with native plants. When complete, newly restored habitats will include shallow marsh, wet meadow, floodplain forest, and upland prairie grass. These changes will not only help absorb and clean stormwater runoff flowing toward Lake Ripley, but will undoubtedly attract more wildlife to the area.

"The intention of the WRP," says Alice Klink, a biologist with the USDA, "is to offer landowners who have problematic farmland an alternative to cropping." The Longs were motivated to participate due to three factors: the recession, deteriorating tile lines, and wetter summers. The collapse of the housing market forced the Longs to switch to growing corn and soy beans; however, their fields were saturated from heavy rain. "In the past four years we have been getting twelve to eighteen inches of rain mid-summer," says Mr. Long. This year, the Longs could crop only 70% of their land.

"We were in a very wet weather cycle even before the flooding in 2008," states Klink. "It can be really disheartening to a landowner when Mother Nature keeps slapping them upside the head," she adds. In order for the fields to adequately drain and be profitable, new tile lines would have to be added and the existing ones repaired – a renovation with a high price tag. Fortunately, says Mr. Long, the WRP became available for the farm, and the USDA is paying "a substantial amount of money" for the conservation easement. >>



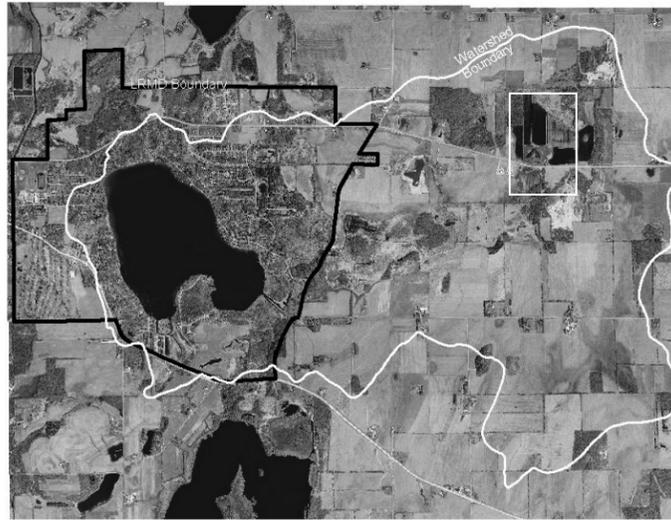
One of several ditches at the Long Sod Farms that will be filled in next year. Without these drainage ditches and subsurface tile lines, much of the low-lying property will revert back to marsh. Photo by James Daly.

According to Klink, participation in the WRP has increased steadily since 2007. The number of acres in Wisconsin added to the WRP in 2009 was more than double the number added in 2005 (7,353 acres compared to 3,105). American Sod, which abuts Long Sod farms, eased its land to the WRP several years earlier.



Pat Long points out a 12-acre section of his farm that was too wet for him to plant soybeans. Photo by James Daly.

It was a difficult decision for the Longs to enroll in the WRP. Pat Long's father acquired the wetland property in 1947 and proceeded to convert it into agricultural fields—a common and even encouraged practice before the value of wetlands was understood. "We have spent a number of years getting to this point," Long admits. Despite the hardships he has experienced, he exudes peace of mind. Long believes that for him and his wife everything coalesced at the right moment. "We feel that we have a calling from God to do less work on the farm and to help the people around us," he explains. After adding that he had to do something with the farm, he says cheerfully, "It all came full circle. It all makes sense."



Shown above is an aerial photograph with superimposed watershed and Lake District boundaries. The white box in the northeast corner of the watershed marks the approximate location of the Long Sod Farms. The east edge of the Lake District Preserve is located about one-half mile to the southwest.

-By James Daly

Did You Know?

- Lots of litter** ends up in Lake Ripley each spring once the ice and snow disappears. Discarded bait containers, tangled fishing line, cans, wrappers and cigarette butts are among the refuse that turn up on shore or on the lake bottom. Please make sure that whatever items you decide to take out onto the ice come back with you at the end of the day.


- The **dumping of beach sand** into Lake Ripley is illegal without a permit. This includes the stockpiling of sand where it can wash into the lake unimpeded. Beach sand can be carried by currents and can smother lake-bottom habitat that is important for fish spawning.
- An accumulation of **white foam** along the lake edge is a natural and harmless phenomenon that is common on wind-swept shores. The foam is a response to organic decomposition, and is not an indicator of phosphate pollution. When plants and algae decay, a chemical is released that reduces the surface tension of the water and produces foam.


- A bumper crop of **Eurasian watermilfoil** was harvested this summer. Cutting began a month earlier than usual, and more than double the normal number of loads was taken out of the lake. Increased weed and algae growth was likely due to a combination of factors: 1) excess runoff from 100-year flood events in recent years; 2) an ideal summer growing season that was warmer and longer than average; and 3) increased water clarity and nutrient availability as a result of zebra mussel activity.
- Our email has changed!** The new address is ripley@oaklandtown.com. We hope you continue contacting us with your questions, concerns and comments.



Joel Winn, Board Treasurer of the Hoard-Curtis Scout Camp, stands next to one of the entrance gates to the camp. Photo by James Daly.

For over 60 years, the Hoard-Curtis Scout Camp has been a destination for scouting troops, campers, church groups, and school groups. Boy scouts come from as far away as Illinois to fish, canoe and camp in the summer, and cross-country ski and snow shoe on frozen Lake Ripley in the winter. Located at the end of the peninsula that juts into Lake Ripley (next to the public boat landing), the property "was donated by the Hoard and Curtis families for the purpose of creating a year-round recreational opportunity for youth," explains Joel Winn. Winn is treasurer of the 10-member, all-volunteer board that was established at the same time of the camp to improve the property and encourage youth recreation.

In recent years the property has faced an uncertain future. Non-native, invasive trees and shrubs such as honeysuckle and buckthorn have conquered the forest ecosystem. At the same time, erosion from violent waves and ice has eaten away at approximately 870 feet of vulnerable shoreline. Despite this degradation, the woodland property remains key habitat for the wildlife that Lake Ripley supports, and the Wisconsin DNR has taken notice. The camp offers the type of natural shorelands that have become increasingly rare around the lake. It also sits next to mapped "Critical Habitat Areas" found in Lake Ripley's south and east bays. These areas provide food and shelter for many sensitive species of fish, reptiles, amphibians and birds.

Alarmed at the deteriorating condition of the property, the Lake District formed a partnership with the camp to apply for a DNR lakeshore restoration grant. This past August, news arrived that a grant had been awarded worth an astounding \$62,682, covering 75% of the estimated restoration costs. The grant is in ad-

dition to \$7,162 already received from the Jefferson County Land and Water Conservation Department that paid for some of the initial brush clearing and planting work. It is also in addition to roughly \$17,000 in private donations raised by the camp as matching funds. Depending on need, additional cost sharing may be sought from the Lake District.

The work plan—which is already well underway—consists of protecting the eroding shoreline with glacial rock, re-establishing shallow-water bulrush beds, removing invasive brush that is taking over major portions of the four-acre property, and restoring woodland understory vegetation within a 70-foot band along the lakeshore. In addition, some non-native trees will either be cut down or turned into tree-falls, which provide refuge for fish and aquatic wildlife.

Work actually commenced earlier this summer, under the county grant, with over 6,000 square feet of native shoreland plantings. Lauri Latsch of Fort Atkinson's Blodgett Garden Center was hired to coordinate this initial project phase. Then, earlier this fall, the rock and tree-fall installations were completed by landscape contractor Rodney Zuerner, owner of CHILS headquartered in Eagle, Wisconsin. The planting and seeding work will then wrap up this spring with the help of Frank Hassler of Madison's Good Oak Ecological Services.



Pictures of the camp's shoreline following the completion of the rock work this fall. The rock is intended to protect the shoreline from further erosion caused by waves and ice heaving. Also shown are the start of some engineered tree-falls.