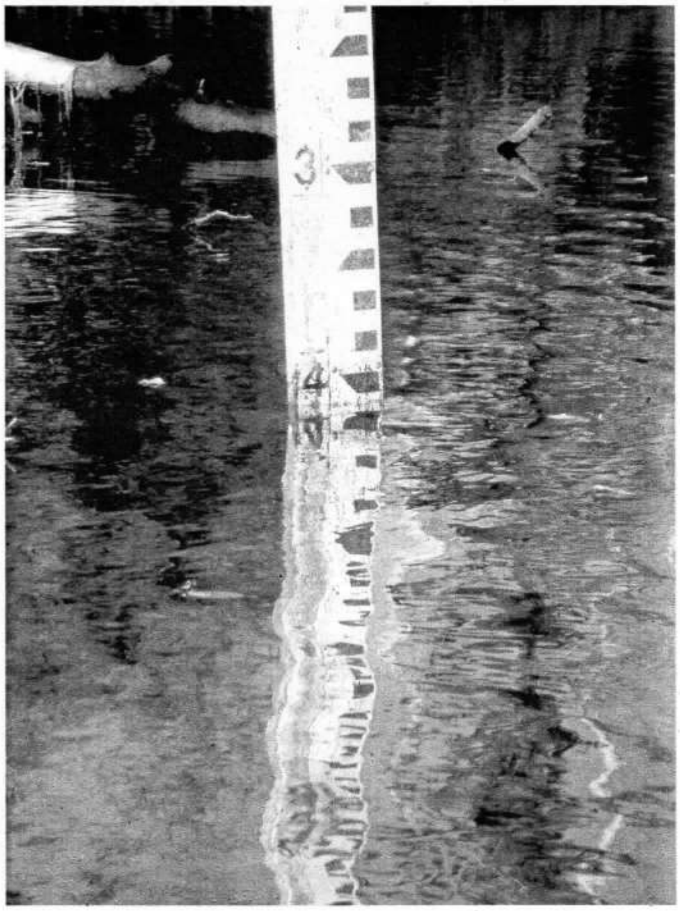
Driftwood

The newsletter of the Turtle Flambeau Flowage and Trude Lake Property Owners Association, Inc.

Fall / Winter 2012-2013

2012 Water Levels Downs – Ups – Downs!

By Jim Bohmann



Our flowage endured yet another difficult year of water-level fluctuations together with Xcel's noncompliance with the Memorandum of Understanding (MOU). These fluctuations had an adverse impact on the flowage environment, the local economy, and opportunities for utilization of the flowage (fishing, boating, hunting, etc.) by our members and other citizens.

As previously documented on the association's website *www.tfftl.org*, the spring refill was over a foot short by the required April 20th refill date. The required refill level was finally reached near the end of May. This delayed refill may well have rendered potential spawning habitats inaccessible; for certain it had a deplorable impact on this year's loon nesting activities. The annual survey of loon nesting successes indicated a 29% failure rate, which directly correlates with the flowage refilling approximately 35 days late. The delayed refill washed out numerous loon nests which had already been constructed at lower water levels.

Our association had alerted the WDNR as early as mid-February of the potential refill issue. The WDNR consulted with Xcel and was assured that the spring refill would be accomplished as required by the MOU. In spite of obvious evidence to the contrary (no snow pack and 70+ degree temperatures in March) the WDNR accepted Xcel's projection. They were incorrect and, regrettably, the loons paid the price.

After a satisfactory water level throughout most of the summer, a rapid rate of water-level decline became apparent in the middle of August—in part due to continuing drought conditions. Unfortunately, Xcel was late to recognize this challenge and did not decrease outflow to the minimum level until mid-September. Xcel's delayed response resulted in the flowage dropping below the MOU maximum summer drawdown.

These water level issues have been a recurring problem for the last 5 years. Members of our board met with senior

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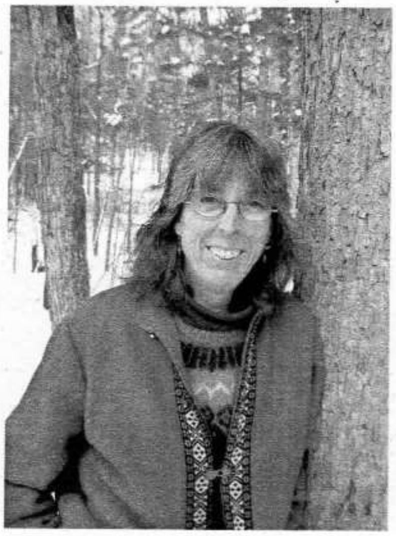
President's Letter

By Terry Daulton



This summer I spent an inordinate amount of time thinking about the phenomena associated with living on a lake with a dam. Conversations with neighbors "nice weather, blah blah..." were often supplanted by "When is the water going to come up?" I have to admit I have mixed feelings about living on a flowage. The wilderness-loving part of me wishes that our lake was totally natural, a pristine artifact of the last glacial retreat. When visitors praise the flowage as being "as close to Canada" as you get in Wisconsin, I find myself explaining that our flowage is very fine, but it was created by scions of industry for economic purposes and is in a sense artificial.

What made my ponderings this summer so different? It started this spring when my biologist husband launched a study of loons using trail cameras. His goal was to identify nest predators. He and Northland College intern, Steve Theilking, set up 10 trail cams. As they began their surveillance (the first nest was on May 8), the flowage level began a steady rise. Xcel had not made the spring refill date, which meant that loon nests were at risk of flooding. TFF loons generally nest within 6 inches of water. Of the 26 pairs that nested, trail cams showed a 29% loss to flooding. Nests on floating bogs did a bit better (a 22% loss) but nests on solid ground had a 33% flood rate. While the researchers did find predation on nests (mink, raccoon, and one clumsy loon that rolled its own eggs out) washouts were the largest cause of nest loss. When you spend 8 hours a day studying loons, you gain a strong appreciation for the effort these birds put into each nest attempt. Each flooded nest sent us pondering, and later cursing, the relentless machinations of the dam!

In August, I assisted with a water chemistry study of lakes in our four county area. This work sent my mind off in new directions with regard to dams. I was stunned to see a large number of lakes where water levels had not recovered from the 2007-2009 drought. Many seepage lakes were a foot or two low. These lakes, which have no inflow or outflow, receive most of their water from precipitation. On some lakes boat landings faced huge mud flats and we had to drag our canoe for hundreds of yards to find water. On one lake we visited, a dock sat high and dry, a boat still moored alongside but surrounded by waist high willow shrubs. I thought these people might be happy to have a dam!

In the fall, flowage levels fell and our board reviewed the environmental assessment (EA) on the Rest Lake Dam. Many of you know that a battle has been raging over water management at this dam. The Manitowish Chain is currently managed with a priority on protecting docks, sea walls, and boathouses from ice damage and maintaining recreational boating through the summer. In brief, the water in the Chain is lowered in the fall to keep ice below structures. After ice out in spring, the outflow is abruptly lowered to refill the Chain. In summer they only have a two inch fluctuation. This flow regime is opposite natural processes. In nature, rivers have high water in spring as the snow melts. This provides for spawning of fish, and breeding habitat for amphibians, reptiles and birds. In summer, flows slowly decrease. The current management impedes the spawning of river fish and leaves wetlands above and below the dam dry at a

Loon eggs afloat in washed out nest.

critical times of year. Our association sent a letter supporting a moderate flow regime which would hold over more water in winter, keep river flows high enough for spawning in spring, allow for 1.5 foot change in summer elevation, and keep the river stable in fall to protect wetlands. The decision on this flow regime will have significant implications for the health of the Chain, Manitowish River, and the TFF and Trude Lake. If you are interested in more detail on this issue you can visit *http://dnr.wi.gov/water/basin/upwis/restlakedam/index.htm*. The DNR is taking public comments until Dec 31, 2012, and I would encourage association members to write and express their views. Our letter will be posted on our website.

This fall, we saw the flowage go below the 4 foot maximum drawdown (see water level article). The defense was that Xcel expected rain (which did not come) and to keep the minimum outflow, elevation levels had to drop. We disagreed. Our association has been arguing for conservative management of the water for years, based on current weather patterns and climate change predictions. Long-range climate models suggest our region will continue to see drier hotter summers and lower snow packs. It is time to spell out what conservative water management should be. For example, if Xcel can't make spring refill from snowpack, and outflows are at the minimum, then Xcel shouldn't lower the water as far in the winter. If there is not enough rain in summer to avoid excessive drawdowns, maybe Xcel should only plan to take three feet of water. If the rain comes, they can still take the surplus water in September or October.

Changing weather and climate have clearly affected the seepage lakes I visited this summer. Sadly, those landowners have no recourse but to hope for wetter seasons. I am starting to feel thankful that I live on a lake with a dam. It is, however, a mixed blessing. There are multiple demands for our water, complex with bureaucracy and economics. Our association has the responsibility to speak for the loons, fish, and the thousands of citizens who visit the flowage each year.

The Water Column: Fall Turnover

By Diane Daulton, WDNR

Fall leaves are beginning to show the promise of their annual spectacle of color. Nighthawks have migrated south and the first few V-shaped flocks of geese are taking wing. This time of year, it's hard not to know that nature is moving into another phase. Summertime visitors are tucking away their seasonal residences, locals are digging out their hunting gear, and everyone so inclined is getting ready for another season of you-know-what sport on television. Just as cooler weather signals us to ready our firewood pile and tuck our garden veggies into canning jars, the underwater world of lakes is beginning its transition for a long winter's nap.

DNR's field season for aquatic plant work is winding down with changes in aquatic vegetation clearly visible. Evidence of invasive curly leaf pondweed is already long gone, since it becomes dormant in mid-summer when other native plants are thriving. It is, after all, the earlybird of the world of aquatic invasives, growing under ice and snow and appearing in spring just after ice-out. Eurasian water milfoil can still be seen on affected lakes. By mid-September, native plants are also dying back with a few bright green tips topping off the pallor of the summer

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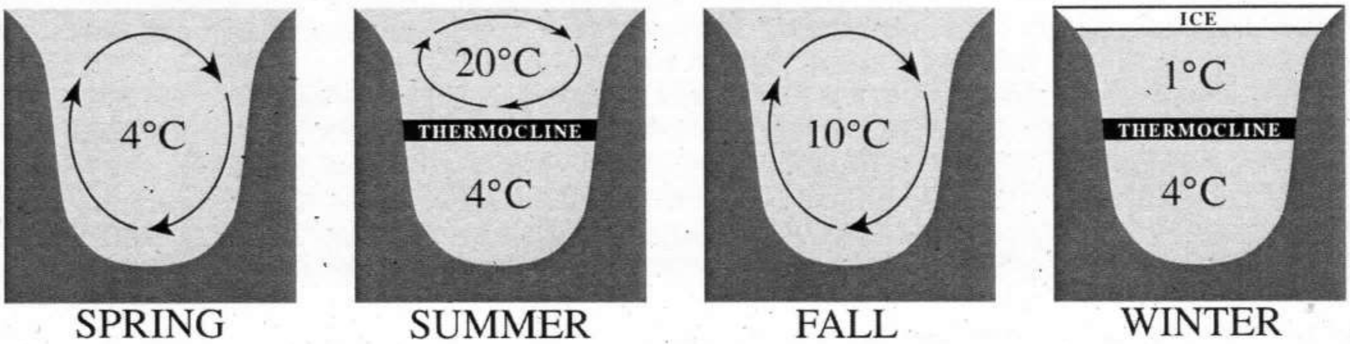
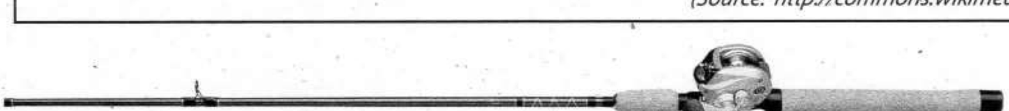
Seasonal Changes in Lake Water Temperature and Circulation Patterns



(Source: http://commons.wikimedia.orgwiki/File:LSE_Stratification.png)



The Water Column

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season's older leaves. Other changes are also taking place under the surface of the water.

With cooler nights and fewer hot days, mist often seen rising from still early morning waters is a sure sign that the water is warmer than the air. In early fall, most area lakes are still relatively warm ranging from 68-72 degrees Fahrenheit at the water's surface. As fall air temperatures cool the surface of the water, less visible effects are also afoot in the water column.

During summer's hottest months most lakes exhibit warm surface temperatures with a distinct change at depth. For scuba divers not wearing a thick insulating wetsuit, it is readily recognizable as that layer of the lake called the thermocline—BRRR. During the summer the sun warms the upper layers of the lake's surface. This layering of warm water on cooler water leads to a summer phenomenon called lake stratification for almost all northern Wisconsin lakes. The thermocline separates the warm layer near the surface called the epilimnion from the cold dense water below it termed the hypolimnion (easily remembered, as an extended visit to the hypolimnion might lead one to hypothermia). During summer, water below the thermocline rarely circulates to the surface and organisms living in the deep cool water deplete available oxygen.

As winter approaches, surface waters begin to cool and increase in density. These cooler waters sink down under the influence of gravity to begin a bi-annual mixing process called turnover (in this case, fall turnover). This mixing process can cause movement of nutrients and oxygen, sometimes triggering algal blooms, and even changes in fish movement to vex the most avid fall fishermen.

Eventually, on northern Wisconsin lakes, the surface water gets cold enough to freeze. Unlike other substances, water is less dense as a solid than as a liquid. As the temperature of water drops, the molecules slow down and contract just like any other substance until the water reaches 4° Celsius (39.2° Fahrenheit), at which point it begins to expand. For a short explanation without a full chemistry review, imagine it's all about "bonding."

Picture water molecules as young lovers, free to move and break up their bonds easily and often. They have a lot of energy, so they can slip in and out of relationships easily. As the temperature drops, the molecules become more like older couples – they slow down and keep their hydrogen bonds for longer. At 4° C and below, water molecules become "set in their ways", can no longer break-up their bonds, and lock into a crystalline lattice (with four neighbors, LOL). The crystalline form keeps those "neighbors" at arm's length in an expanded, more open structure, taking up more volume and making it less dense than the surrounding liquid water.

In winter, the densest water sinks to the lake bottom, but the ice layer (less dense due to its crystalline form) floats on the surface. As a result, in winter, colder water rests above the denser, somewhat warmer waters at the bottom of the lake.

For a fun family experiment to show how lakes turn over and how water density works, check your kitchen for two empty canning jars, some food coloring, and a ziplock freezer bag or index card for separation. Try filling one jar with hot tap water and the other with cold water. Stack them carefully and watch the type and rate of color exchange (or not) when the separating layer is removed and water in the jars begins to mix. Now switch them as if the seasons are changing. For simple instructions check out this fun website: http:// raisingsparks.com/kids-science/water-density-experiment/

2012 Water Levels

Cont'd. from Page 1

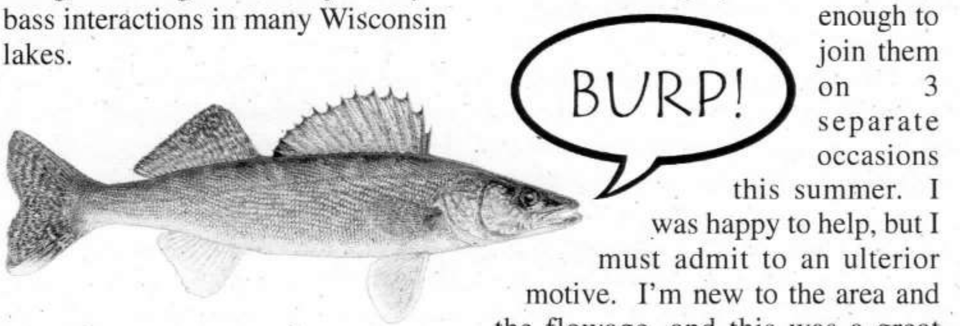
members of the WDNR on October 25th. The result of this meeting is currently inconclusive. We believe that the WDNR understands the issues, our concerns, and our previous efforts to deal with this matter (monitoring water levels, sending alerts about impending problems, developing a conservative water-level management model, and engaging in direct talks with Xcel and WDNR). Unfortunately, we disagreed on several key interpretations of the MOU. The plan is to meet again with flowage watershed parties. That meeting will attempt to construct a water-level regime that meets the intent of the MOU while addressing the legitimate concerns and needs of the various parties.

In the meantime, the board of directors of the association will review other strategies for securing compliance with the MOU, and we will seek additional legal advice concerning the language and intent of the MOU.

Walleyes vs Smallies: Round #2

By Jeff Malison

Many Wisconsin fishermen have probably experienced, or at least read about, how bass populations are increasing and walleye populations are decreasing in many lakes in northern Wisconsin. To address this issue, scientists from the WDNR and UW-Madison and -Stevens Point received a large federal grant to study walleye/bass interactions in many Wisconsin lakes.



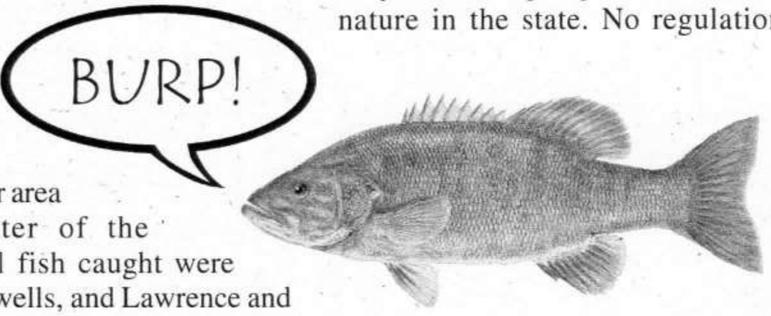
Our local Iron/Ashland county fisheries biologist Lawrence Eslinger was certainly aware of this project, and had also heard concerns from a number of local fishermen that an increasing smallmouth bass population in the Turtle-Flambeau Flowage might be impacting the highly esteemed walleye population. So earlier this year Lawrence requested and received approval to conduct a study on walleye and bass on the flowage. This study is receiving no grant support, but is reliant only on the efforts of the Mercer DNR Fisheries Management Team, and the help of local fishermen.

The objectives of the project are, in general, to quantify bass and walleye diet contents in order to evaluate their prey preferences in the Turtle-Flambeau Flowage, and to examine the amount of dietary overlap that exists between the two species. The plan was to head out onto the flowage at least once a month from June through October, and use electrofishing gear and conventional angling to catch smallmouth and walleye for the analysis.

The DNR conducts the electrofishing sampling on their own. For the conventional angling sampling, the DNR solicits volunteer anglers to assist with the project. I was lucky enough to join them on 3 separate occasions this summer. I was happy to help, but I must admit to an ulterior motive. I'm new to the area and the flowage, and this was a great opportunity for me to learn how to fish the flowage better by observing the techniques of some of the more experienced volunteers. Each day we headed out as a loose group of boats and fished mostly in the Big Water area in the center of the flowage. All fish caught were kept in live-wells, and Lawrence and his team would go from boat to boat to sample the fish. The fish would be weighed, measured, and a scale was taken to determine age. Then a small pump was used to fill the fish's stomach with water. This caused the fish to regurgitate all of its stomach contents, which were filtered and kept for later analysis. Legal fish were then returned to the fishermen if desired.

The data from the project won't be fully analyzed until this winter. But preliminary observations indicated that crayfish have made up a high percentage of the food of smallmouth bass, and fish, particularly young-of-the-year yellow perch, have made up a high percentage of the stomach contents of walleye. To date, one young walleye was positively identified within the stomach contents of an adult walleye, but no walleye have been positively identified within the contents of a bass stomach.

Lawrence told me that the information gained from this project will be used for additional insight into the bass population itself, along with potential impacts on the rest of the fish community (i.e. walleye). He will be putting forth a bass regulation change proposal next year regardless of the outcome of this project. The current 15" minimum length limit and daily bag of two fish on bass is the only remaining regulation of that nature in the state. No regulation changes for walleye are being considered at this time.



As for me, I'll have to say that I learned how to fish the flowage—at least a little bit. And I need to give credit to my neighbor, co-fisherman, and "guide," Hank Carstens, for putting me onto a bunch of walleye one day, including 20" and 26" dandies.

From the
Fish Habitat Committee...

A very big "THANK YOU" to all the members who have donated money, time, and effort to our crib-building program over the years. We have built over 400 cribs for the TFF and Trude Lake! This year, however, we are going to hold off on building additional cribs as we evaluate different options for enhancing fish habitat. We are doing this for two reasons. First, with over 400 cribs built and placed, we feel we have created some excellent fishing opportunities. Second, at this time we are interested in new ideas that may include fish habitat studies, shoreland restoration and improvement projects, and other projects that are for the "good of the flowage." We believe that what is good for the flowage is good for fishing on the flowage. We continue to work with our Fisheries Biologist, Lawrence Eslinger, on improving the fishing habitat on our beloved crown jewel of the North. If you have an idea you would like to share, please feel free to contact me, Chris Ederer, at chris@jobsdoctor.com

Moose hanging out within a mile of the Springstead landing. Could this be Thidwick, Dr. Seuss' immortal character, whose antlers broke off just in time to save his life? This same moose also posed for Jim Bohmann's trail camera.

Retrospective: The TFF-TL POA at 16 Years and Counting

By Mike Hittle

Under the leadership of Paul Gottwald, a retired DNR Area Director, and Maryann and Rod Brown, flowage resort owners, 25 flowage residents gathered on June 8, 1996, to bring into being the Turtle Flambeau Flowage-Trude Lake Property Owners Association, Inc. Those present approved a set of By-Laws for the organization; elected a slate of officers and board members; and set annual dues for members at $15 dollars per year. By July 23 of the same year, the association had a bank account, with a balance of $363. 63, and a post office box, #631, in Mercer. The association was officially incorporated by the state in 1997 and received its federal tax exemption (501C4) in 1998.

No single, immediate threat to the flowage prompted the foundation of the association. The state of Wisconsin had only recently completed its purchase of the flowage bottom and shoreline from the Chippewa and Flambeau Improvement Company - thus taking off the table the possibility that the flowage might someday be subject to extensive development. Nonetheless, the time seemed right to bring strong citizen involvement to bear on its long-term future. In the words of Paul Gottwald, the first president of the association, "we wanted to be prepared - to build some camaraderie with stakeholders [property owners] around the flowage - to make sure that nothing bad happened."

The association moved quickly to build that camaraderie, as well as a sense of shared aspirations, when it scheduled a cookout on Hot Dog Island for late September of 1996. It also sent out a survey to 200 flowage property owners, in an effort to gauge their aspirations and concerns. The returns were few, but their content was telling. Respondents described the flowage as "remote," "pristine," "peaceful," and "quiet." And they spoke as one in their aspiration that the flowage should be "preserved," "protected," and "kept as it is." They also expressed concerns— about declining fish populations, threats to the stability of the flowage, fluctuations in the water levels, and the need to control or limit high-powered boats, personal watercraft, and water skiing. A subsequent survey in 2001, this one with a 75% response rate, reiterated the concern about fish populations and added two new ones: water quality and the threat of exotic, or invasive, species. As it turns out, the aspirations and concerns expressed by the membership in the early years of the association have driven the agenda of the association from its very inception.

The following paragraphs, organized topically, describe some of the projects and actions undertaken by the association in the sixteen years of its existence.

Fishing and Fish Habitat

With regard to fish and fishing, the association has sought to keep open lines of communication with the DNR (especially the fisheries personnel at the Mercer Ranger Station) and to provide some "hands-on" activities for association volunteers. Association leadership and members have regularly conveyed to the DNR our members" concerns about the changing character of the fishery (especially the growing perception that walleye numbers are down and smallmouth bass way up); and we have worked closely with the fishery biologists at the Mercer Ranger Station to obtain and disseminate - primarily through *Driftwood*, our newsletter—data obtained from scientific studies of the flowage fishery. In 2005, the association hosted a "visioning session,"

2011 Crib Builders pause for a photo op.

at which the community at large was invited to express to the DNR their views on what the ideal flowage fishery would be like. Concrete activities in support of the fishery began in 2000, when, at the invitation of Warden Stuart Pfeiffer, association volunteers engaged in their first "walleye-watch' - a springtime nocturnal vigil intended to protect vulnerable spawning walleyes at the falls on the Turtle River. An organized walleye watch became an annual event for the next half dozen years, and continues informally to this day. Starting in 2002, members of the association, working along side DNR personnel and others, have built 425 fish cribs, which the DNR has then placed strategically around the flowage and Trude Lake. (Starting in 2004, the association has picked up the expense for the logs.) In 2004 the association purchased a pontoon boat to be used by the DNR in the placing of cribs and in 2007 donated the boat to the DNR.

Currently, the association is exploring a variety of alternative strategies - in addition to or in place of cribs— for enhancing fish habitat. We are, as this article is being written, also cooperating with the fisheries biologist, Lawrence Eslinger, in a study of the diets of walleyes and smallmouth bass with the goal of understanding the extent to which these two species are in competition with one another. And earlier this fall association members assisted DNR personnel in clipping the fins of some 4,000 musky fingerlings that were then released into the flowage. Needless to say, the association's involvement in fishery matters has been, and likely will remain, a major priority.

Exotic and Invasive Species Control

With encouragement and assistance from Roger Jasinski and Jeff Wilson of the DNR, the association began its battle with purple loosestrife in 1997. Beginning that year, and every year since, association volunteers , have surveyed the flowage to locate infestations and then worked with DNR personnel to eradicate plants or to prevent their re-seeding by removing and destroying blooms. Diane O'Krongly has taken the lead in this effort, not only through organizing the association's activities, but through her efforts to deploy beetles to fight loosestrife. In 2000, the association pressed the DNR to post information on invasives at public landings on the flowage. After a bureaucratic hiccup, the recommendation was approved in 2001 and signs soon went up. In 2010, these signs were replaced on boat-landing kiosks by a new generation of signs developed by the Iron County Land and Water Conservation Department (ICLWCD). Association volunteers, working at boat landings during the opening of the fishing season, have handed out information about invasives and counseled boat-owners on good practices to prevent the spread of these harmful exotics. In the fall of 2009, the association brought together representatives from Xcel Energy, WDNR, US Geological Survey, and ICLWCD to discuss water quality and invasives. Those present worked out a plan, to be funded in part by Xcel and in part by the WDNR, whereby ICLWD would hire interns who, under the auspices of the Clean Boats Clean Waters program, would work with boaters at the various put-ins on the flowage through the course of the summer. Finally, a 2009 grant from the DNR enabled association volunteers to survey parts of the flowage to catalog beneficial plant species (some 34 different species were identified) and to search for invasives other than purple loosestrife (none was found). These results provide solid evidence of a healthy, diverse plant community in the flowage. In short, the

Dave Pierce about to deliver a chemical coup de grace to a loosestrife plant.

association's commitment to prevent, and where necessary, control invasive species has been in place for 12 years and is ongoing, both through the work of our own volunteers and in conjunction with partner agencies.

Water Quality

Water quality - so critical to the long-term health of the flowage - found its way onto the association's active agenda in 1999, when Arlen Wanta (who was to become association president in 2000) became a certified water-quality monitor. He was soon joined in this work by Jim Leever, and the association was on its way to building a solid data base against which future measurements of water quality could be compared. The next big step came in 2009, when the association, under President Terry Daulton, received a $10,000 grant from the WDNR to study flowage water quality in greater depth. The basic monitoring work was carried out by the US Geological Survey - which contributed $5,000 in staff time and expenses. The USGS concluded that there were no serious threats to water quality in the flowage, but they recommended that the association expand its monitoring program to more parts of the flowage and that we be especially attentive to possible problems upstream. Since their report, association volunteers have begun the systematic monitoring of all sites studied by the USGS. These efforts by the association and other interested parties have established solid baseline data on flowage water quality. As a consequence, we should be able to quickly identify any adverse trends in water quality and take timely action to rectify them.

Water Quality Monitors at 2012 Training Session

Water Levels

Fluctuating water levels, which had showed up as a concern in the initial survey of members (1996), became a far more pressing problem as the flowage experienced the drought years of the first decade of the current century—as the membership survey of 2009 made abundantly clear. The extreme low water level of 2007 prompted the board of directors to initiate a series of meetings with the DNR and Xcel in an effort to encourage Xcel to adopt a more conservative program of water-level management on the flowage. In 2008, at the time Xcel was in the process of securing a license for the Turtle Dam from the Federal Energy Regulatory Commission (FERC), the association recommended (unsuccessfully, as it turned out) to the DNR that changes be made in the Memorandum of Understanding that would diminish the likelihood of severe drops in the water level.

In addition, the water-level committee, headed by Jim Bohmann, closely monitored both the water levels and the discharge rates. Using that data, the committee then developed its own set of guidelines for water-level management - which was dubbed the "reasonableness curve." Xcel, however, rejected our suggested water-management regime. The board has also engaged the DNR in our efforts to secure water levels that are beneficial both to the ecology of the flowage and to the various recreational of members and the general public. An accounting of our most recent efforts to deal with water-level issues can be found elsewhere in this newsletter. Suffice it to say, the struggle to secure more stable and predictable water levels remains high on the association's agenda.

Other Projects and Activities

Judging from the record of its activities, the association has focused the balance of its attention on four core issues: enhancing the fishery; combatting invasive species; monitoring water quality; and seeking an improved water-level regime. But that is not the sum total of its work. There have been a number of one-time actions designed secure the essential qualities of the flowage as perceived by our membership. For example:

- The association persistently and ultimately successfully lobbied the Town of Sherman to adopt an ordinance on the use of personal watercraft that was identical to that of the Town of Mercer. This process, begun in 1999, finally came to fruition in 2008, and made possible uniform enforcement of the rules across the entire flowage.
- Representatives of the association were at the table when the DNR sought input on the development of group campsites.
- In 2001, to inform visitors of the dominant ethic of long-time flowage users, the association developed and distributed a "courtesy code."
- For a number of years the association assisted the Natural Resources Foundation when the latter sponsored tours of the flowage.
- The association has also dispensed funds to support such varied projects as building osprey nests on the flowage (2002), fighting against legislation that would permit "dockominiums," purchasing water-quality monitoring equipment, etc.
- In some instances, the association has taken public stands on issues that directly affect the flowage. Our opposition to the proposed gravel pit in Springstead, our public stand against motor trolling on the flowage, and our support of a revised flow regime for the Rest Lake dam fall into that category.
- Through our newsletters, and now also through our website (www.tfftl.org) we have tried to provide our membership not only with "hard news" about big issues, but also some coverage of nature, people, flowage history, and even the odd recipe.
- Finally, in keeping with the spirit of camaraderie that animated the association in its early years, Maryann Brown, the association's third president, initiated the Cabin Fever Party - an opportunity for association members from differing parts of this big body of water to meet and make friendships and have some mid-winter fun.

Conclusion

As of the fall 2012, the Turtle Flambeau Flowage and Trude Lake Property Owners' Association has a total membership of 185 (174 regular members and 11 special members). The membership represents approximately 180 parcels of property on the flowage. The treasurer's report shows a balance of $ 12,284, of which $2,732.75 is in a fund dedicated to the improvement of fish habitat. Attendance at the last five annual membership meetings has averaged slightly more than 25 people, more than double the attendance at the association's first five membership meetings.

As important as membership, money, and attendance at meetings may be, however, the association cannot pursue its goals without a good base of volunteers. Their time, energy, and commitment lie behind the accomplishments outlined in this brief history.

Afterword

Volunteer organizations, such as the TFF/TLPOA, are a defining feature of American civil society. They represent a myriad of interests and draw on the energies and enthusiasms of their members. But there are severe limits to what these institutions can do on their own. Moreover, they do not exist in a vacuum. In the case of our association, we are dealing with a body of water that has many masters: Xcel Energy, The Federal Energy Regulatory Commission (FERC), the Wisconsin Department of Natural Resources, and the Towns of Mercer and Sherman. The pursuit of our agenda requires constant interaction and cooperation — sometimes with people who see things our way, sometimes not - as well as a readiness to compromise with those in authority. Other times we have to reach out for assistance from others - advocacy groups such as Wisconsin Lakes, or state-created agencies, such as the Iron County Land and Water Conservation Department. The complexity of our situation explains the alphabet soup of acronyms that dot the historical narrative that appears above, as well as the important roles played by others in securing our ends. For without working through established channels, an association like ours would have meager results to show for its efforts. Successful outcomes for volunteer organizations depend first of all on knowing how things actually get done. Then comes the hard work, persistence, and patience. M.H.

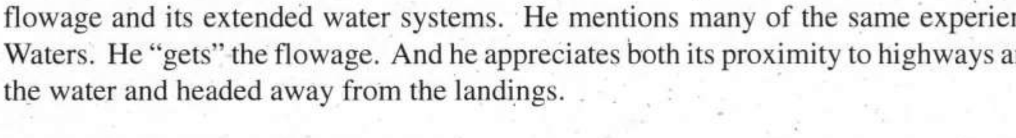
What Does It Mean To Be "Lite?"

By Bill Stewart

"Lite" is everywhere, on food, on magazines, on beer. We look for it on labels; it is often short hand for "healthy." Now "Lite" is on us according to the travel section of the Sunday Chicago Tribune of July 29, 2012. In an article titled "Boundary Waters Lite," Kevin Rovolinski describes a canoeing and kayaking visit to the flowage with two of his friends. The details of their experience capture much of what we love about our time on and around the flowage and its extended water systems. He mentions many of the same experiences one can find in the Boundary Waters. He "gets" the flowage. And he appreciates both its proximity to highways and its remote feeling once one is on the water and headed away from the landings.

Mr. Rovolinski writes of the serenity and solitude of the place, and the diversity of wildlife that is so hard to find in camping and fishing areas that are closer to cities. We are blessed that we are able to be here and that we live with so many others who respect the beauty of the environment and the diversity of the critters who live around us. It is because of this respect for Mother Nature and our wildlife neighbors that this all works so well. Guests at our flowage home have seen otters, mink, bears, wolves, foxes, loons, a variety of ducks, geese, pileated woodpeckers and so much more; and they love that we can see these things more than they do. (Especially they like not seeing bears around home.) However the Chicago Tribune of October 4, 2012, includes an article about the arrival of larger predators in urban areas, which may join the well adapted coyotes. But, I digress; back to the bears. Regardless of their fondness for bears in the woods and elsewhere, I suspect Chicago sports fans would like more Bears to show up on Sundays down there.

Being called "Boundary Waters Lite" seems OK to me, and I hope Kevin Rovolinski comes back with his friends. On the other hand, having searched long and hard for an empty campsite for a shore lunch with a pontoon boat full of guests only to retreat to our yard for a picnic makes me hope that no one else read the article.



The Larch and the Landscape

By Chad McGrath

Larch (*Larix laricina*) is the golden ghost that haunts our northern swamps around Halloween. In spring, she's the fine textured lady who hangs out around the wet edges of the flowage and farther inland in low and moist bogs. Over summer her needles color her a glorious blue-green. And in winter, she's the North's only conifer to drop her needles, becoming as naked as any deciduous tree.

During summer, needles are arranged in whorls along her twigs, dense rosettes of 15 to 30 soft leaves, which range in length from three-fourths of an inch up to about 1 1/2 inches. In the winter, the larch is fine-textured with reddish brown twigs lending a ruddy hue to the tree's silhouette. Tiny (one-half of an inch to nearly an inch wide), seed-bearing cones hang onto the branches for many years and add interest to the tree's winter outline. New cones are particularly striking in the spring. Before they ripen, they take on a deep, yet bright, purple color.

Larch, also called tamarack, boast one of the broadest ranges of any North American conifer. They are found along the Atlantic Coast in eastern Canada, and they extend down to more isolated inland locations as far south as West Virginia. The range of the larch stretches across the northern limit of the tree line in Canada, then back down to the limits of the northern prairies into northern and central Minnesota, most of Wisconsin and Michigan, and some of Pennsylvania and New York. There is a disjunct (separated from the main population) population in central Alaska that was originally recognized by some authorities to be a subspecies, alaskensis, but is now felt to be indistinguishable from other populations of larch.

There is a place for larch in everyone's landscape, especially on and around the Turtle Flambeau Flowage. Their fall color is spectacular; and because that color comes on so late, they are often the last trees to project a golden hue across the water. The soft blue-green summer needles lend the tree a wonderful, cool, warm-weather look. And although fleeting and necessitating a closer look, the purple cones are striking.

Larch works well as a specimen, and is the only northern conifer that can be used on the south and west sides of buildings for shade in the summer that will not also shade the area in the winter. (Winter sun streaming into the living room provides welcome warmth during a cold February day). Tamarack is also an excellent plant for use as a transition from a natural-looking area to a more formal landscape.

Another positive landscape attribute of the larch is its relatively fast growth rate (for a conifer), up to a couple of feet a year for most of its life, and even a bit faster in its youth. A two- to three-foot tall, containerized plant typically sold at a garden center will, in ten years, attain a height of 15 to 20 feet and a width of eight feet. The tree grows up to 70 feet tall and 30 feet wide. The largest larch in the country (National Champion) is located in Crow Wing, Minnesota and is 133 inches in circumference and 71 feet tall. The largest larch in Wisconsin is located in Dodge County and is 98 inches in circumference and only 46 feet tall. (Trees qualify by totaling the circumference in inches, the height in feet, and one quarter of the crown spread in feet.)

Drawing by Terry Daulton

Larch will tolerate moist sites and, while it grows natively in acid soil conditions, will flourish in more neutral soils, as well. Most of our soils here near the flowage are acidic. Although found almost exclusively in moist conditions natively, larch grows well in upland, dryer soils. It grows very well on typical home sites around the flowage.

There is one other larch native to the US, L. occidentalis, (western larch). It occupies a rather small geographic area in the Northwest, including mountainous locations in Idaho, Montana, Oregon and Washington, plus southern British Columbia.

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A Crayfish Primer

By Diane O'Krongly

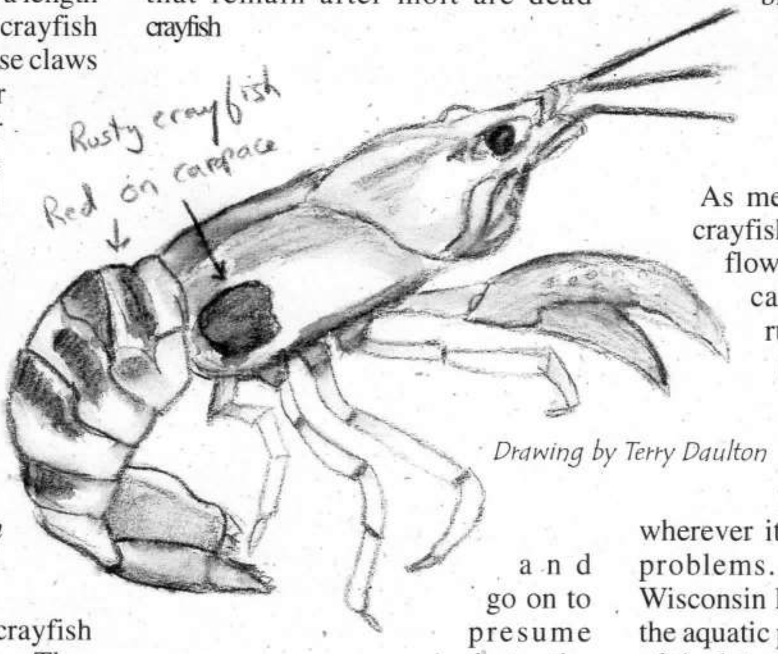
There are about seven common species of crayfish in Wisconsin waterbodies. One species, *Orconectes propinquus*, or northern clearwater crayfish, is common in lakes. All species of native crayfish are rather small—attaining a length of no more that 2.36 to 4.72 inches. The largest crayfish found in the northwoods are rusty crayfish, an invasive species not found in the Turtle Flambeau Flowage. Rustys can grow to a length of 6 inches. All Wisconsin crayfish have impressive pincers. These claws are important tools for catching food and for defense. Their periscope eyes help them see in all directions. They breathe through gills that are hidden under their hard body shell. They live for about 3 to 4 years if not eaten by a smallmouth bass or other large game fish.

The life history of Northern Clearwater Crayfish

Niche: Northern clearwater crayfish are most active during the day. They use their vision to find food while foraging among the rocks and debris along the bottom of lakes. They are omnivores who feed on insects, snails, other invertebrates, and aquatic plants— including algae. They prefer eating dead animals but will catch a live dinner if given a chance.

Habitat: This type of crayfish lives in clear-water environments as its name implies. They live their lives on the bottom of the lake, excavating burrows in which to hide. They take refuge in the burrows at night. The depth at which they live depends on water temperature and the availability of food.

Growth and molting: Because they have a hard, inflexible exoskeleton, all crayfish must molt to grow. The young will molt several times while still attached to the mother. Once they leave their mother, young crayfish go through 8 -10 additional molts to attain full size of about 4.72 inches. Adult males molt twice a year; adult females molt once a year. Some observers mistakenly think that shells that remain after molt are dead crayfish and go on to presume that the crayfish population is undergoing some kind of stress. In fact, what they are witnessing is an essential part of the life-cycle of healthy crayfish.



Drawing by Terry Daulton

Reproduction: Northern clear water crayfish breed several times a year. Water temperature is an important factor in crayfish breeding. Females will not release eggs for fertilization unless water temperatures are warm. As the eggs pass out of the female, the male fertilizes the eggs. The eggs become attached to a mucous-like substance on her swimmerets. From 80-575 eggs are laid with each mating, but up to 30-40% of eggs are lost as they are pushed away by water currents. As long as the eggs or young are attached to the female's swimmerets, she will protect them. Once the young drop off, she provides no additional care for them.

Predators: The primary predators of crayfish young and eggs are other crayfish and fish. Adult crayfish are an important food source in the ecosystem, and are preyed on by large fish, otters, raccoons, mink, and great blue herons.

RUSTY CRAYFISH: A potential threat to native crayfish

As mentioned above no rusty crayfish have been found in the flowage to date, but if anyone catches a crayfish with a rusty spot on each side of the carapace, it is an alien invader or exotic. The rusty crayfish was accidentally introduced into Wisconsin and wherever it is introduced, it causes problems. In some northern Wisconsin lakes it has eaten most of the aquatic plants, hurting the quality of the lakes. It takes over the homes of native crayfish and has been known to eat fish eggs. Moreover, fish that normally eat crayfish don't like the feisty, aggressive rusty. To prevent the spread of the rusty crayfish, the WDNR has prohibited the transport live crayfish from one place to another or the use of live crayfish for fishing bait.

http://www.biokids.umich.edu/critters/Orconectes_propinquus/

http://dnr.wi.gov/org/caer/ce/eek/critter/watercritter/crayfish.htm

Flowage Campsite Restoration Started

Black-eyed Susan and little Bluestem plants peek through a coconut erosion blanket at campsite R26 (on Blair Lake).

A cedar fence at campsite R26 to keep people off the newly restored slope. From left to right, Mercer high school students who assisted with the project are John Michael Klopatek, Tanner Hiller, D'Kota Engler and Hailey Pischer. Madison Gingras, second from left, also lent a hand.

The Larch and the Landscape

Cont'd. from page 12

Two non-native species of larch can be found for sale at garden centers. Both European (*L. decidua*) and Japanese (*L. kaempferi*) larch are very similar to our native larch. Both have slightly larger cones and both tolerate warm climates better than our larch. There is also a mutation of the European larch which develops a weeping form and can be quite striking as a specimen. Placed near the entrance to a home or along a sidewalk, it can be the focus of lots of conversation.

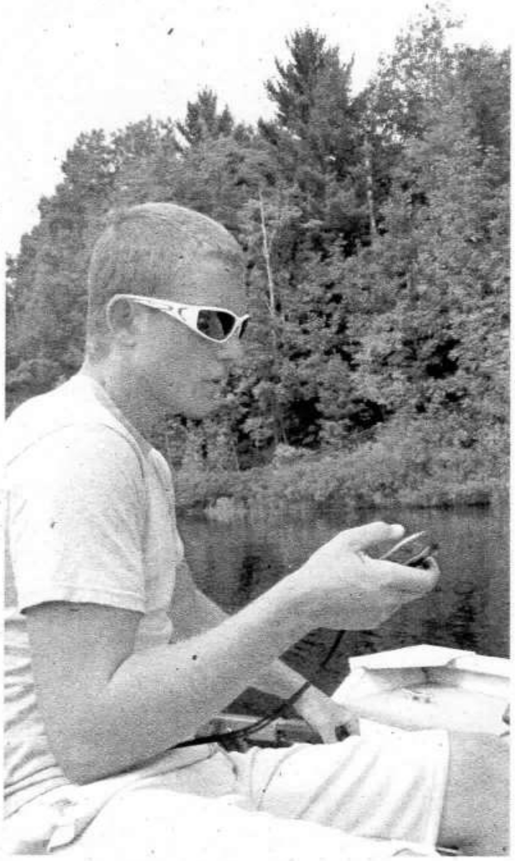
So that golden fall ghost haunting native swamps late in October may be one you want to recruit for your yard. Her ability to change with the seasons, to provide lots of interest year around, plus her speedy growth rate, are seductive features many home owners just can't resist. Go ahead, give in, try a larch. You won't regret it.

Chad is a nurseryman and writer living in Springstead.

Report from the Loosestrife Front

By Heather Palmquist

It was a great summer to be out on the flowage enjoying the beautiful weather we were fortunate enough to have. The Land & Water Conservation summer staff was kept busy with boat inspections and monitoring for aquatic invasive species (AIS) on the flowage again this year. If you headed to the landings, you were likely greeted by either Olivia or Dylan and asked a few questions pertaining to your boating habits.



Dylan Weber marks a GPS location

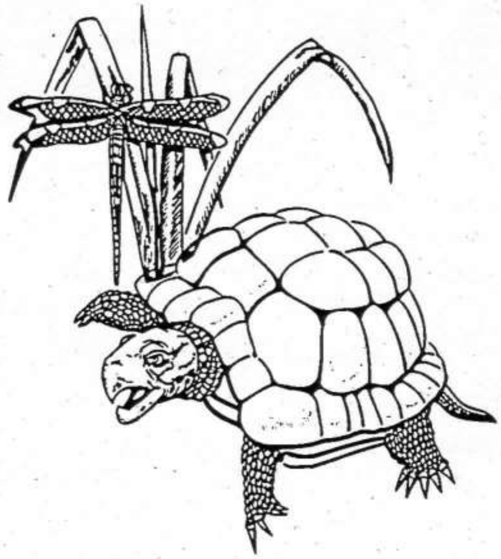
The Clean Boats, Clean Waters program has been active across the state of Wisconsin since 2003, educating boaters on AIS and ways to slow their spread. Iron County has had an active program on the Turtle Flambeau Flowage, Trude Lake, and Wilson Lake since 2010 through funding from the DNR and Xcel Energy. To measure the program's effectiveness, this year's inspection form was revised to capture data on boater behavior.

Some of the new data gathered included how many times boaters had been approached by an inspector, and how many different waterbodies recreationists use in a month. Over the summer Dylan and Olivia contacted 1,624 boaters and conducted 845 inspections. The data collected at the boat landings show that 64% of the visitors to the flowage were being contacted for the first time by an inspector. Of those surveyed, 71% reported they were aware of the laws regarding aquatic invasive species. When asked what steps they took to prevent the spread of invasive species, 87% said they removed all plants from their boat/trailer, 80% reported they removed all animals from their boat/trailer, 63% drained all water from their boat, and 5% said they took no preventive measures at all.

Dylan and Olivia also monitored invasives on the flowage and on Trude Lake. At the end of the season they had documented some purple loosestrife, but found no other invasive species. In addition they supplemented volunteer efforts during the annual purple loosestrife survey by covering some of the sections that volunteers where unable to get to.

All the purple loosestrife sites reported by LWCD staff and volunteers were treated over a few work days scheduled at the end of July and the beginning of August. A big thank you to all of those involved; 2012 proved to be another successful year!

If anyone is interested in receiving training on AIS monitoring or on conducting boat inspections, please contact Heather Palmquist by emailing lakes@ironcountywi.org or calling 715/561-2234.



Driftwood

The newsletter of the Turtle Flambeau Flowage and Trude Lake Property Owners Association, Inc.

— Mission Statement —

The purpose of the Association is to maintain, protect and enhance the quality of the lake and its surroundings for the collective interest of members and the general public.

Published Twice Annually

If you would like to contact the Association electronically, please visit our website www.tfftl.org and search under "Board Members-DNR Contacts"