



photo by Tom Moser

Fish Stocking Information

In Seattle, NOAA scientist Beth Sanderson, reported, "I'm working on a project looking at fish stocking and today I'm requesting data from Wisconsin. In the process I looked up Diamond lake stocking and learned there were 1,536 large fingerling walleye stocked in 2011 (average size 6.6 inches)."

She also provided the web site from which she accessed the data:

http://infotrek.er.usgs.gov/apex/f?p=220:1:0::NO::P1_COUNTY_NAME:BAYFIELD . The web site tabulates data going back to 1972.

Becky Brown's Wildflower Woods Presentation to the Diamond Lakers Annual Meeting Saturday, July 21, 2012, 3 PM

Becky Brown spoke about the importance to the North woods of native plants and location appropriate plantings, as well as rain gardens. All of those are environmentally healthy factors. Becky stressed the desirability of locally collected seed and the undesirability of digging plants from the wild. She came armed with her enthusiasm, ready smile, curiosity about and knowledge of her subject.

Becky's spouse, Kim Bro, brought marvelous slides of woodland and lakeside plantings, as well as of some rain gardens she has installed. The results of Becky's research and experience are evident in her expanding clientele. She welcomes visits to her greenhouse by appointment. She left us with book references and plant lists. Questions? her email is bjbro-wn@centurytel.net.

Pho: (715)373-0214 (Thanks to Ellie Rath)

The Diamond Lake Newsletter profiled Becky Brown in the Fall, 2011 Newsletter. You can find it in the Newsletter archives on the Diamond Lake website: <http://www.diamond-lakers.org>.

Diamond Lakers, Inc. Annual Association Meeting July 21, 2012

The Annual Meeting of the Diamond Lakers Inc. was held at Tim and Nancy Tully's residence, on Saturday, July 21, 2012. In the absence of Tim Tully, President, Nancy Rabe, Vice President, chaired the meeting.

Minute Review

The minutes of the July 23, 2011 annual meeting were reviewed as posted on the web site and there was a motion to approve.

Introduction of New Families on Diamond Lake

There are three new families on Diamond Lake and those in attendance were introduced.

Treasurer Report

In the absence of Treasurer Larry Sanderson, Nancy Rabe reported that there is a balance of \$2300 and deposits of \$1060 but there will also be expenses so a final report on the balance will be reported in the Newsletter. .

Diamond Lakers Inc. Web Site

The lake association web site continues to provide a communication vehicle for the membership and Nancy reported that there are between 200-2800 hits per months along with 600-800 downloads.

Legislative Updates

Nancy Rabe report that Wisconsin Act 170 was signed into law this spring, which prohibits counties from having more restrictive zoning laws that the State of Wisconsin.

Summary from:

<http://www.wisconsinlakes.org/index.php/current-legislative-a-legal-issues/90-2011-wi-act-170>

At the very end of the last legislative session, the Wisconsin Legislature changed how state law regulates non-conforming structures and substandard lots in shoreland zones of counties and local municipalities. In a direct reversal of past practice, the shoreland zoning standards in NR115 of the state Administrative Code for non-conforming structures and substandard lots are now the strictest standards a county or municipality could enforce. Previously, the state set the minimum standards. In addition, local government can no longer regulate changes to non-conforming structures and substandard lots based on **the cost of the work being done, meaning** areas with only cost-based regulations would have no ability to stop work on these structures or lots.

Fishing Report

Jerry Robotka reported that the DNR are continue to stock and monitor the lake and the walleye are doing well. In addition to the early spring walleye survey, they have conducted a blue gill survey.

Wildlife Update

The loons have succeeded in hatching a baby loon and there are reports of a second pair of loons on the South end of the lake and they had 2 baby loons and one may have been killed.. There are also two eaglet this year and they have moved to their alternative nest on the west side of the lake.

Nominations Committee Report

Jerry Robotka presented the results from the Nominating Committee, and the following officers and board members were re-elected:

Tim Tully	President
Susan Trankel	Secretary Board
Jerry Robotka	Member Board
Bruce Pankonin	Member Board
Audrey Sanderson	Member

Location of 2013 Annual Meeting

Nancy Rabe announced that the 2013 Annual Meeting will be held on Saturday, July 20 and Kris and Ernie Brown volunteered their home for the location of this meeting.

Respectfully Submitted,

Susan Trankel, Secretary

Thanks to Susan Trankel for the following pictures from the Social Hour following the meeting:



The Water Column (by Diane Daulton, DNR)

Article published in Bottom Line 9/18/2012

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 aquatic invasives world 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 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. 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.

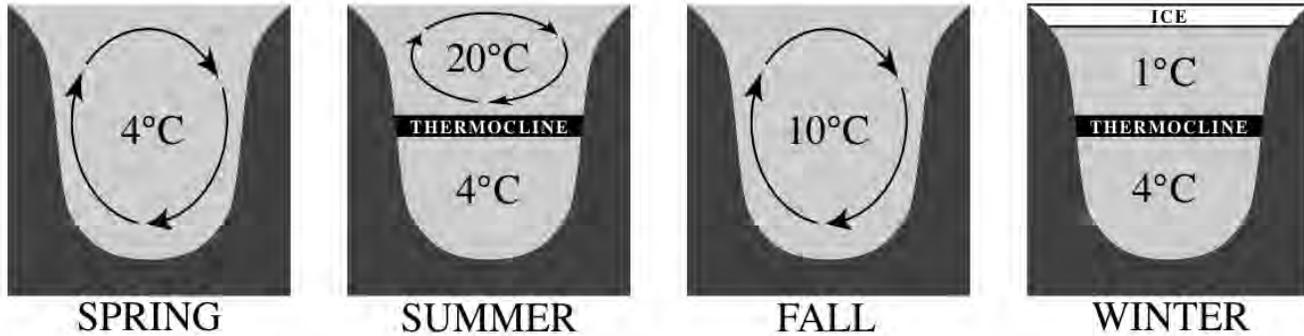
For a fun family experiment to show how lakes turn over and how water density works, check your kitchen for two empty canning jars, some food coloring, and a ziplock freezer bag or index card for separation. Try filling one jar with hot tap water and the other with cold water. Stack them carefully and 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/>

For more information on aquatic invasive species and what you can do to prevent the spread contact Diane at diane.daulton@wisconsin.gov. To learn more about this year's WDNR Invasive Species Project for Ashland, Bayfield, Douglas, Iron, and Vilas Counties, call (715-685-2911), visit, or send an email request to Diane at the Ashland DNR Service Center.

Diane Daulton is an Aquatic Invasive Species Specialist working in the Lake Superior region for the Wisconsin Department of Natural Resources.



Summer Scrapbook

