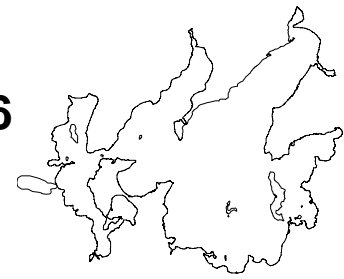




Leech Lake Update 8/31/2006

Walker Area Fisheries Office
07316 State Hwy. 371 NW
Walker, MN 56484
218-547-1683

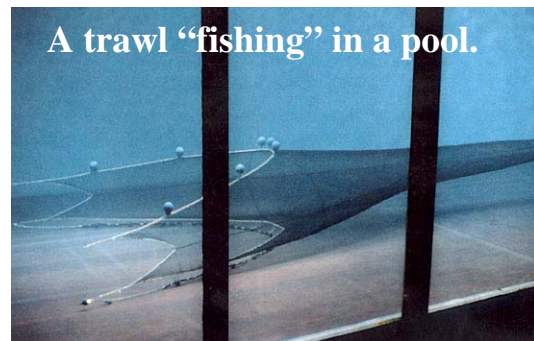


Greetings!

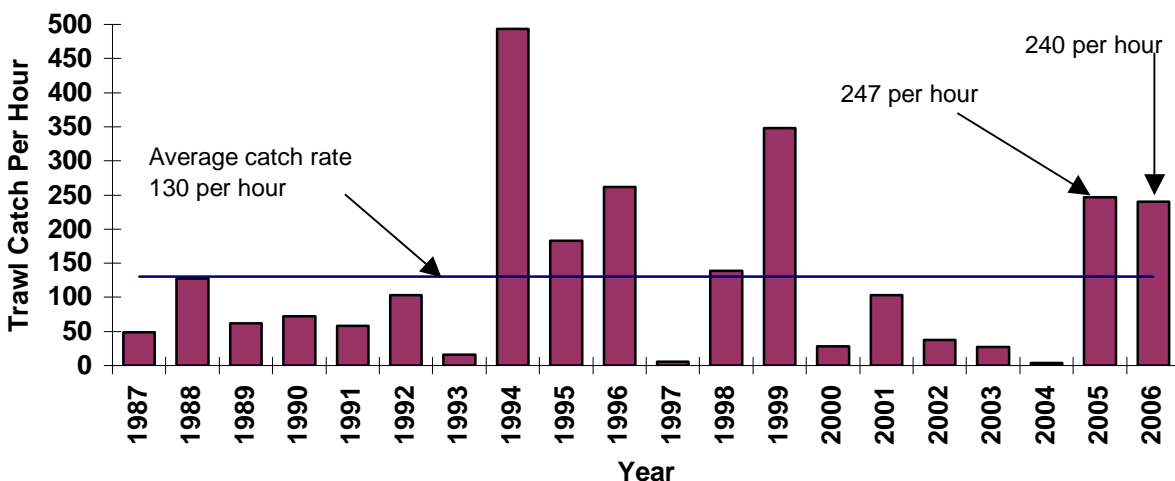
This update is the second in a series of reports the Minnesota Department of Natural Resources (MDNR) is sending to Leech Lake area resorts, businesses, and others interested in DNR activities on Leech Lake. The goal of these messages is to keep you up to date with our findings and our current activities on the lake. As always, please contact our office if you have any questions or comments.

Leech Lake Trawling

In the last update we reported that our annual seining had started and we were collecting young walleye at all of our standard stations. This past week marked the end of our trawling assessment. A trawl is a large purse-like net that is pulled behind a boat (see photo). The Walker Fisheries Office samples with a trawl at three different locations on Leech Lake. Trawling is our primary method for determining the abundance of young walleye in Leech Lake. Consistent with our 2006 seine catch, we sampled young walleye at every location. Our catch rate for young-of-the-year walleye during the trawling assessment was 240 per hour, almost identical to last year! These fish continue to grow at a fast pace, with young walleye sampled on August 22 averaging 5.9" in length.



Leech Lake Young-of-the-Year Walleye



In addition to the young-of-the-year walleye, we also sampled a lot of yearling walleye. These fish too continue to grow at a fast clip, averaging 11.9" in length early last week. If they continue to grow as expected, anglers should start keeping them sometime next spring. Trawl catch rates of young-of-the-year and yearling walleye, coupled with their excellent growth rates, bodes very well for the walleye fishing on Leech Lake in the coming years. We will continue to monitor the growth of young walleye with fall test netting and night electrofishing.

Tullibee Summerkill on Leech Lake



With the high temperatures that burned through the region in July, water temperatures skyrocketed, including on Leech Lake. Surface temperatures reached the low 80s and deeper portions of the lake heated up as well. One fish that fares poorly in such extreme conditions is the northern cisco, or tullibee. With spineless fins and a body with high fat content, ciscoes are great forage for northern pike, muskellunge, and walleye. A deepwater, plankton-eating fish from the salmonid (trout) family, ciscoes need clean and cold waters to survive.

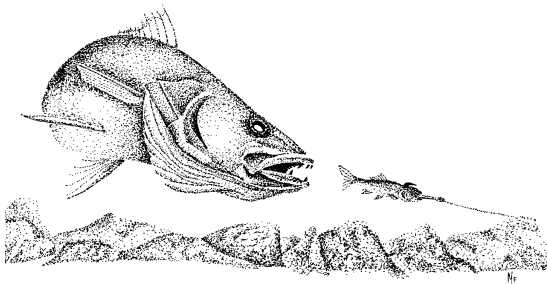
When water temperatures reach 68 degrees, these fish become stressed; temperatures in the mid-70s and cisco can experience die-offs. Many lakes develop what is called a thermocline, or a separation of warm (surface) and cool (bottom) water. The cool temperatures below the thermocline can act as a refuge for ciscoes, provided oxygen is present. This is the case in Walker, Agency, and Kabekona Bays. The main body of Leech Lake does not develop a thermocline as the water is constantly mixing through wind action, which means warm water from surface to bottom. While occasional cisco die-offs are part of the natural fish cycle in this part of the state, global warming and decreased water quality can shorten the time between summer kills. Peter Jacobson, a DNR fisheries researcher from the Detroit Lakes office, is starting a study on water quality requirements of cisco that could facilitate use of the fish as an indicator species for land and water quality changes.

To read more about ciscoes, check out:

http://www.dnr.state.mn.us/fwt/back_issues/december99/cisco.html

Of Interest

We have received a lot of help this year from area residents in sampling Leech Lake. These activities included checking nets in the Steamboat River, a night survey of the Kabekona River, diving for the crayfish study, stocking walleye fry, and seining and trawling for our standard assessment surveys. We will continue to use volunteers to sample Leech Lake throughout September during our fall test netting and night electrofishing for young-of-the-year walleye. We have enjoyed working with all of you and sharing what we do. Thanks for your help and interest in Leech Lake!



"The charm of fishing is the pursuit of what is elusive but obtainable, a perpetual series of occasions for hope" - John Buchan

If you have questions or comments, please contact:

Pat Rivers (pat.rivers@dnr.state.mn.us)

or

Harlan Fierstine (harlan.fierstine@dnr.state.mn.us)