

Leech Lake

ASSOCIATION



The Voice of Leech Lake

Our Mission: To be good stewards of Leech Lake and its environs, recognizing the vulnerability of the lake, and the need for citizens -- both individually and collectively -- to assume responsibility for its care.

Letter from the President,

By the time you read this I can only hope that this long and cold winter has passed into memory (*or maybe not as picture below shows*). Your Leech Lake Association Board is anxious to get to work and that work is already underway. Board Member Jeff Brockberg has been working with the Sheriff's Department, the Leech Lake Tribe, and contractor Ryan Bruns to dredge both ends of the Roosevelt Canal for the third time in the last four years. This time we are hoping for a more long-term fix.



Photo Take by Chuck Allen
April 2018

This summer Leech Lake Association volunteers will continue to collect Leech Lake water samples which RMB Environmental Labs will test for clarity, chemistry, and algae abundance. This study of Leech Lake water began in 2017 and will continue over the next several years to determine the long term effect of zebra mussels and other AIS on the lake and its sports fishery. Two of our board members have also undergone training as AIS Trackers (see article) and will be scouring the area for the presence of invasive invaders of all types.

The DNR has recently notified us that the walleye slot limits may be loosened, possibly going into effect as early as 2019. A public comment will be held beforehand, but a likely possibility is a four-fish walleye limit, with one allowed over 20 inches. A ten-fish northern pike limit for this part of the state has already been approved.

Here's wishing all of you a safe and enjoyable summer.

Robert Gisvold, President

The problem has been that ice and wave action continually push sand and rock into the Traders Bay entrance, beyond where our equipment can reach. This year, with good ice, we can get the equipment onto the ice itself and dredge that part of the entrance we haven't been able to access during recent years of warm weather and poor ice conditions. We believe this will make dredging unnecessary for the next two or three years. The First National Bank and others have donated to these dredging operations in the past, and we urge all who use the canal or depend on it for your customers to continue to do so. Your tax-free donation should be mailed to the Leech Lake Association, PO Box 1613, Walker, MN 56483.

IN THIS ISSUE

From the President 1
 Leech Lake Water Testing2
 DNR Fisheries Report 3-6
 Leech Lake in Antiquity 7-8
 US Army Corps Eng..... 8-11
 Readers Ask? 12-13
 Starry Stonewart 13
 Website/NEW Facebook!.....14
 Ads/Board of Directors.....15
 Thank You Sponsors.....16

UPCOMING EVENTS

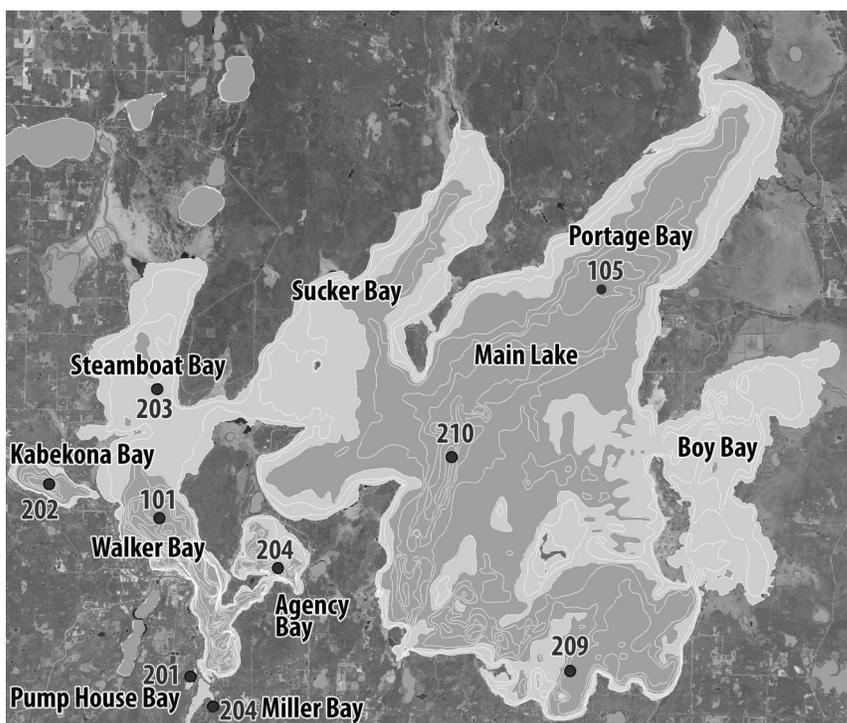
- May 12th**
Walleye/Northern/Bass Fishing Season Opener
- June 2-3**
Leech Lake Walleye Tournament
- June 21-23**
Moondance Jammin Country
- July 4**
Fireworks – City Park
- July 19-21**
26th Moondance Jam
- August 2**
Leech Lake Association Annual Meeting & Picnic
- August 11-13**
Leech Lake Regatta
- August 16-18**
Cajun Fest, Northern Lights Casino
- September 7-9**
Muskies Inc. Int'l Tournament
- September 8**
Ethnic Fest
- September 15**
Walker North Country Marathon

LEECH LAKE WATER TESTING CONTINUES

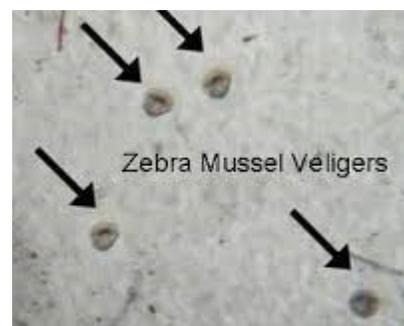
After zebra mussel veligers (young) were discovered in Leech Lake in 2016, the Leech Lake Association hired RMB Laboratories out of Detroit Lakes to do a continuing study of Leech Lake water quality and algae abundance to determine the long term effects of zebra mussels on the lake and its all important sports fishery. We believed that it was important to begin testing in 2017 to establish some baseline data before these unwanted invaders became numerous.

Some of the effects of zebra mussels on a lake we already know. The water becomes clearer. Clearer water favors sight feeders (like bass) over walleyes, for example. A larger concern is what effect zebra mussels and spiny water fleas (not yet found in Leech Lake) will have on the bottom of the food chain. Zebra mussels strain the water, competing for food which hatching fry need to survive. This is why we have asked RMB Labs to also test for the kinds and abundance of algae present in various parts of the lake, and how their numbers may change over time, potentially affecting future year classes.

This summer, Leech Lake Association volunteers will continue to collect water samples monthly from the main lake north of Stony Point, Agency Bay, Walker Bay and Kabekona Bay. Minnesota Pollution Control Agency volunteers also do Secchi Disk (water clarity) monitoring on Pump House Bay, Miller Bay, Whipholt and Steamboat Bay. (see map) All of this data is shared with the DNR and MPCA statewide databases to help make decisions that affect Leech Lake. The



2017 TEST AREA MAP



samples are then delivered to Detroit Lakes for analysis by RMB Laboratories, who has been a leader in the field of water chemistry testing for the past 20 years. In addition to their testing of water chemistry and algae abundance, the DNR will continue to do its routine zooplankton sampling twice during the summer.



ZOOPLANKTON SAMPLING

We can also report that no additional zebra mussel veligers or adults were discovered by divers or during DNR zooplankton sampling during 2017.

DEPARTMENT OF NATURAL RESOURCES

MN DNR Fisheries Management Actions and Surveys on Leech Lake: 2017

Young-of-Year Walleye Growth and Abundance

- July Seining: The average length (2.7 in) was below the long-term average of 3.3 inches and the number sampled per acre (74) was above the long-term average of 70.
- August Trawling: The average length (4.4 in) was below the long-term average of 5.3 inches and the number sampled per hour (773), a historical high, was above the long-term average of 182.
- September Electrofishing: The average length (5.8 in) was below the long-term average of 6.0 inches. Walleye recruitment is generally higher when mean September length exceeds 6.0 inches. The number sampled per hour (132) was similar to the long-term average of 103.

Walleye Recruitment

- Year class strength index values are determined from gill net catch of ages 1-3 and predicted for age-0 from gill net and trawl catch data (Figure 1). Incomplete values for 2015 (1.23) and 2016 (1.63) cohorts exceed the management plan objective threshold (0.66) as does the 2017 predicted year class (2.06).

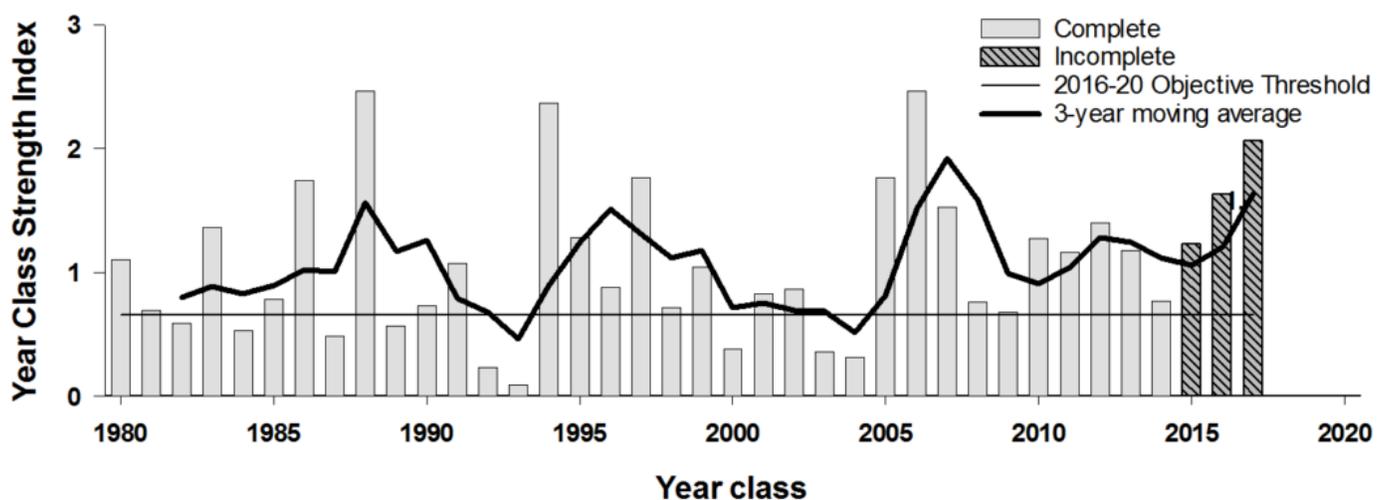


Figure 1. Year class strength index of Walleye in Leech Lake, 1980-2017. Year class fully recruited to the fishery and incomplete years included. The horizontal line represents the 2016-20 proposed management plan threshold based on the 25th quartile.

(DNR Report continued on page 4)

(DNR Report continued from page 3)

Adult Gamefish Abundance

Walleye gill net catch rate of 10.1 fish/net is up from the previous year and just above the management objectives (Figure 2). Lengths of Walleye sampled ranged from 6 to 27 inches, and demonstrated a balanced size distribution with a strong 2016 year class in the lake. Seventy-eight percent of the sampled Walleye were outside of the 20-26” Protected Slot Limit and available for harvest (Figure 3).

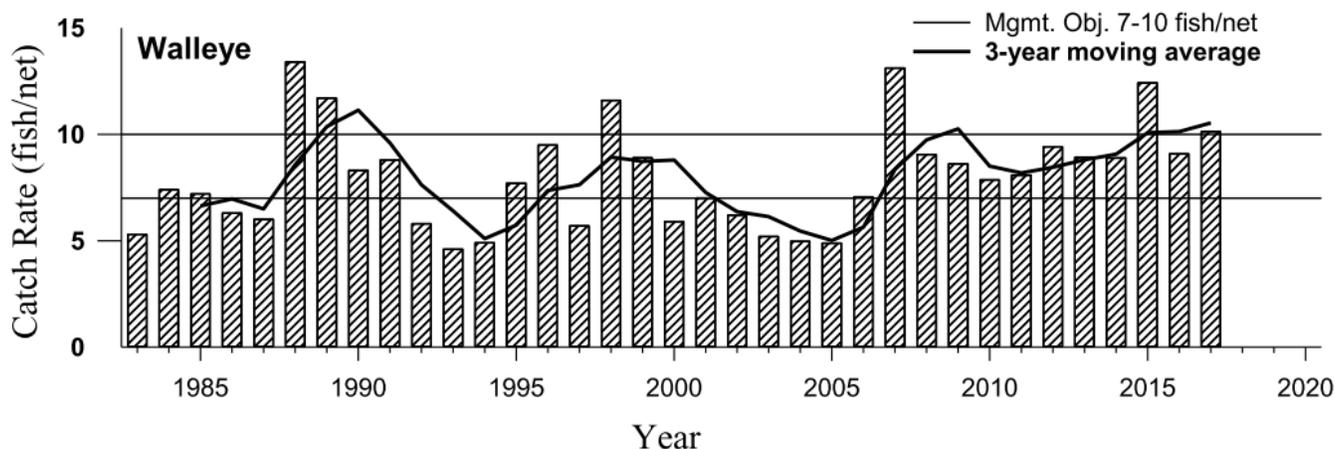


Figure 2. Gill net catch rates (fish/net) of Walleye in Leech Lake, 1983-2017. Horizontal lines represent the 2016-2020 Management Plan Objective Range. The darker line represents the 3-year moving average.

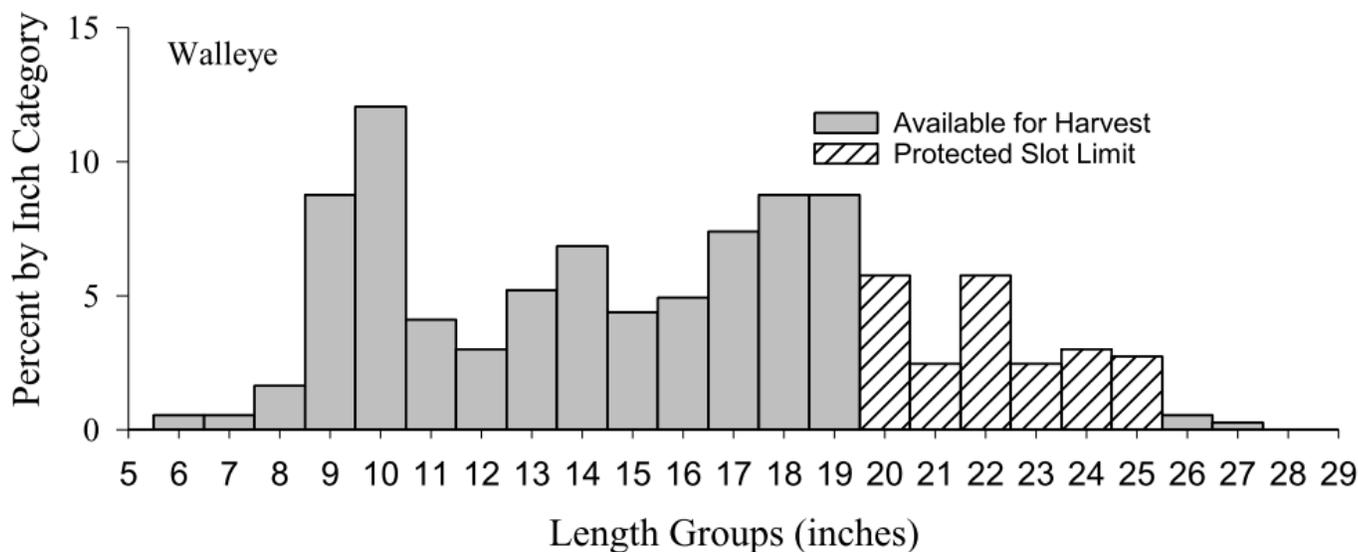
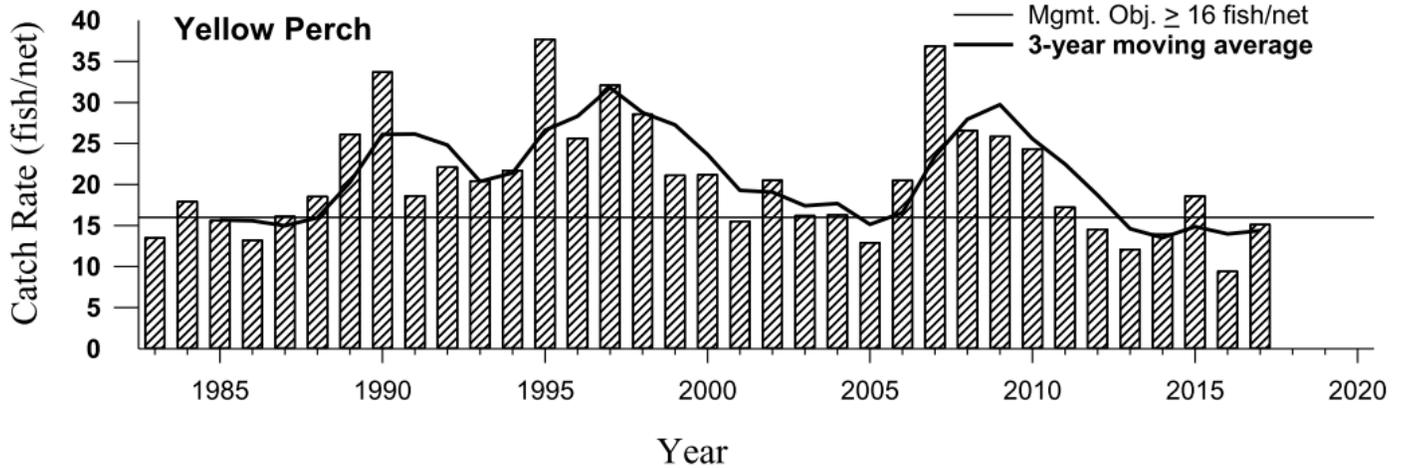


Figure 3. Length-frequency distribution of Walleye sampled with gillnets in Leech Lake, 2017.

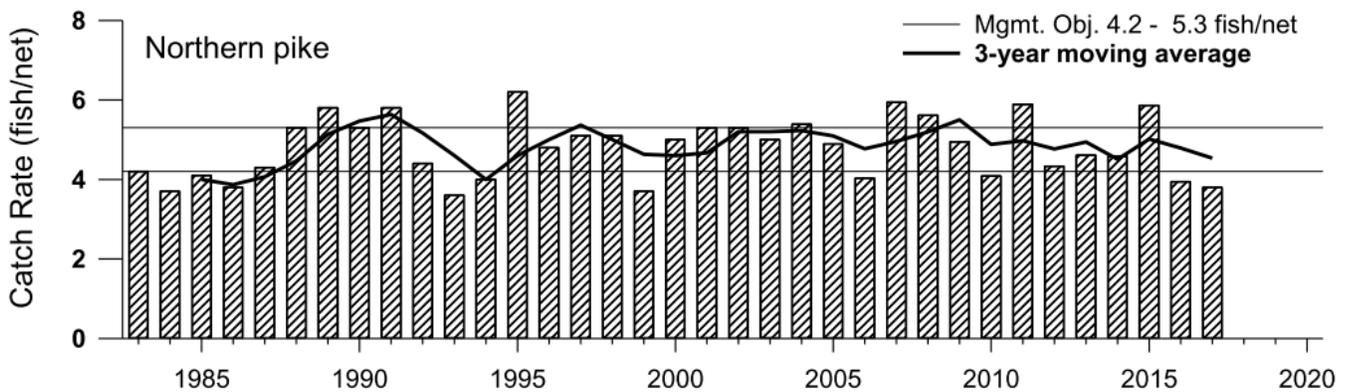
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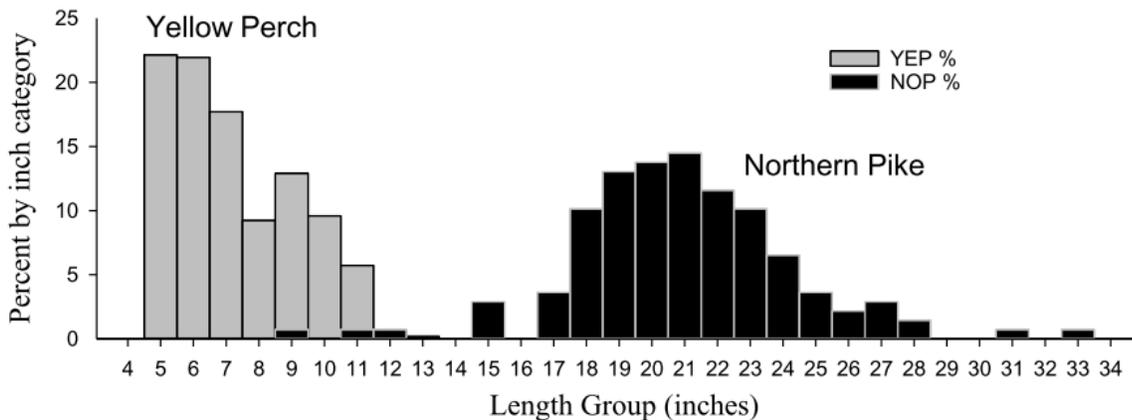
- **Yellow Perch** abundance (15.1 fish/net) remains below the management plan objective of at least 16 perch per net but showed an increase from 2016. Perch up to 13" long were sampled.



- **Northern Pike** catch rate (3.8 fish/net) was below average (4.8 fish/net), pike up to 33 inches were sampled.



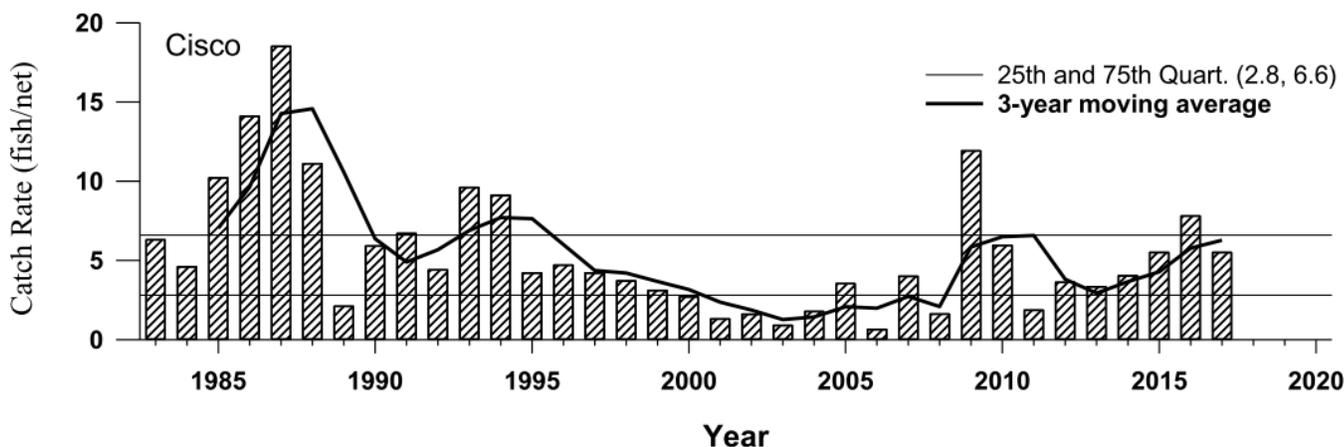
- **Yellow Perch and Northern Pike** length frequency distribution with the percent of fish captured in each one inch length group. Total number of Yellow Perch captured was 543 and total number of Northern Pike captured was 138.



(DNR Report continued on page 6)

(DNR Report continued from page 5)

- **Cisco (Tullibee)** catch rate (5.5 fish/net) was just above the long term average of 5.4 fish/net, this should continue to provide predation relief to the Yellow Perch population.



Zooplankton

- In 2016, Zebra mussel veligers (larval stage) were found in two separate zooplankton samples on two different sampling days. No veligers were found in 2017 samples. In early October 2017 a boat that had been moored in Walker Bay during the summer of 2017 and 2016 was found with juvenile zebra mussels.
- Lakeshore owners are asked to inspect their docks and lifts for adult zebra mussels when removed during fall and to contact the Walker Area Fisheries office if they suspect they have found one.

Creel Survey

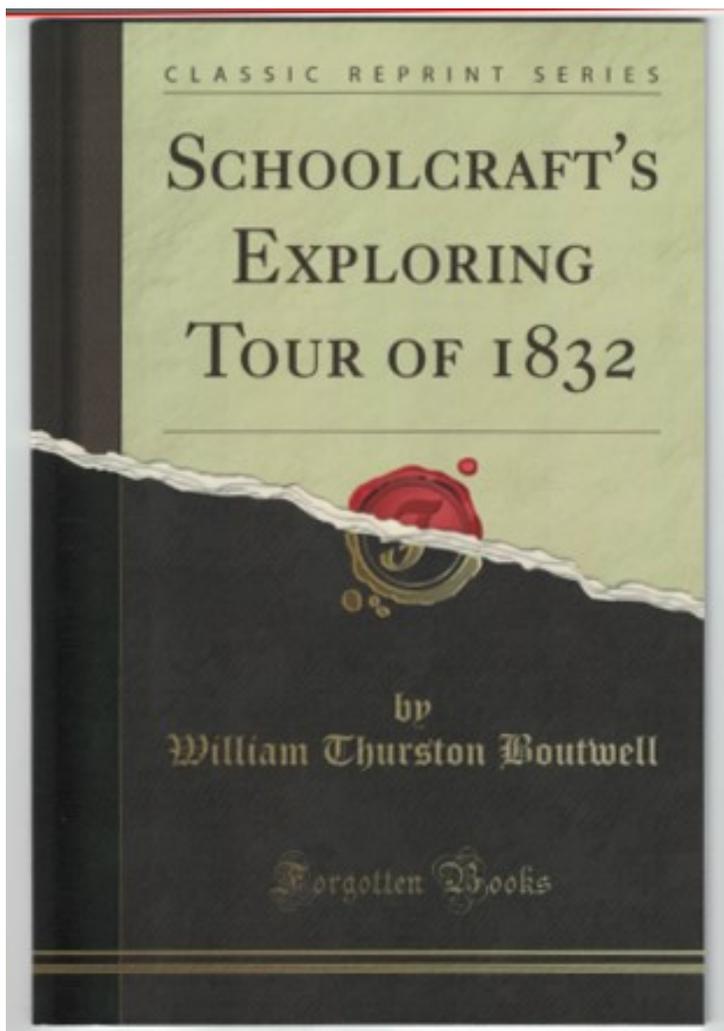
- The winter 2016-17 and summer 2017 creel surveys were postponed due to budget issues.
- Winter: 2015-16 fishing pressure was slightly lower than the 2014-15 winter season (647,802 angler-hours) at 568,340 angler-hours due to ice conditions. Harvest of primary species was similarly reduced.
- Summer: 2016 fishing pressure was approximately 700,000 angler-hours and is similar to the two previous creel surveys (2011, 2014).
- The next anticipated creel survey is scheduled for the summer of 2020 and winter of 2020-2021.

Please refer questions or comments to:

Carl Pedersen, Large Lake Specialist, Walker Area Fisheries, Carl.Pedersen@state.mn.us (218) 547-1683
 Doug Schultz, Area Supervisor, Walker Area Fisheries, Doug.W.Schultz@state.mn.us (218) 547-1683

LEECH LAKE IN ANTIQUITY

Reverend William Boutwell accompanied Henry Schoolcraft on his 1832 journey in search of the source of the Mississippi River. Boutwell assisted Schoolcraft in coming up with a name for the lake (Lake Itasca) and also kept a detailed diary of their journey. The diary is very interesting for what it says about Leech Lake, where the Ojibwe and Sioux Indians were still at war, but also about the travails and hardships of the journey. We will include excerpts from his diary in this and future issues. Boutwell must have liked what he saw at Leech Lake because he returned a year later with his bride to take up residence as a missionary to the Indians.



July 8, 1832. Evening

A man just arrived from Leech Lake, who informs us of the return of the Pillagers from their war excursion. They met a war party of the Sioux, and both commenced the work

of death. The Ojibwas lost one man and killed three Sioux, whose scalps they brought home with rejoicing. The same person also informs us that a party of Sioux came to the trading post at Pembina, where they scalped a child and fled. The Ojibwas pursued, overtook, and revenged themselves, by killing four of the party. Oh, how long ere these tribes shall learn war no more! It is now "an eye for an eye, and a tooth for a tooth."

July 16. Red Cedar Lake

At 10AM we took leave of our Indian friends here, and in a southeast course proceeded to Leech Lake, passing a number of islands on our way, on which red cedar is found, from which the lake (now Cass) takes its name. We made two short portages, and came to small lakes which we traversed, passing through their outlets, till we reached a large stream, which bore us to Leech Lake, than which nothing can be more irregular in shape. We reached the Indian village at ten in the evening, a distance of 45 or fifty miles.

July 17

At daybreak my slumbers were broken by the discharge of muskets and the yell of Indians, who had collected to give us a morning salute. On going to the door of the tent, I was not a little surprised to find a field of corn and potatoes at our heads, which was not discovered last evening amid the darkness. Early this morning the principle chief sent his mishiniue (waiting man) requesting Mr. Schoolcraft to come and breakfast with him. ...After breakfast, Mr. J. accompanied us to the chief's quarters to give us an introduction. It is a building, perhaps twenty feet by twenty-five, made of logs, and which, I am informed, was presented to him by the traders. As we entered, the old chief, barelegged and barefoot, sat with much dignity upon a cassette. A blanket and cloth about the loins covered his otherwise naked body, which was painted black. The old man rose and gave us his hand as we were introduced, bidding us to take a seat at his right, on his bed. As I cast my eyes around upon this savage group, for once I wished that I possessed the painter's skill. The old chief had again resumed his seat upon the large wooden trunk, and as if to sit a little more like a white man than an Indian, had thrown one leg across the other knee. His warriors were all feathered, painted, and equipped for service (war). Many of them wore the insignia of courage, a strip of pole-cat skin round the head and heels, the bushy tail of the animal so attached to the latter as to drag on the ground. The crown of the head was ornamented with standing feathers, indicating the number of enemies the individual had killed, on one of which I counted no less than twelve. Their look was full of wildness, such as I never saw before, combining the fierceness of the tiger with the boldness of the lion.

(Leech Lake in Antiquity continued on page 8)

(Leech Lake in Antiquity continued from page 7)

One side of the his room was hung with an English and an American flag, medals, war-clubs, lances, tomahawks, arrows, and other implements of death. All seemed to whisper, this is the dwelling of the strong man armed. The subject of vaccination was now presented to the chief, with which he was pleased, and ordered his people to assemble for the purpose. I stood by the doctor and kept the minutes, while he performed the business.

Editor's Note: Reverend Boutwell must have already been thinking that Leech Lake was the place to return and establish his mission. He writes the following:

July 17, Continued:

This (Leech Lake) band is considered the largest, and perhaps the most warlike in the whole Ojibwa nation. It numbers 706, exclusive of a small band, probably 100, on Bear Island, one of the numerous islands in this lake; but the reason of their not being numbered with the Leech Lake band the old chief did not give. This lake abounds with fish of a fine quality. Wild rice is also gathered in its bays in considerable quantities. Fish and rice here are the principal means of subsistence, though the Indians, to some extent, cultivate the land. This band have eight places where they cultivate the ground and pass some part of the spring and summer. The number, location, and means of subsistence gives this place (Leech Lake) advantages to any I have yet seen, if a missionary could live among such savage men. It is situated in the neighborhood (as it would be termed in this country) of Upper Red Cedar or Cassiina band, the Winnipeg band, which are each about 45 or 50 miles distant; the Red Lake band about three days march distant, and (the) Sandy Lake (band) about the same. It is central in relation to these neighboring bands, with each of which they have frequent intercourse at all seasons of the year.

LEECH LAKE BOARD MEMBERS TRAINED AS AIS DETECTORS

The DNR and other professionals do not have the time or manpower to monitor the entire state for new Aquatic Invasive Species (AIS) infestations. To assist in this effort, and provide additional sets of eyes on the ground., the University of Minnesota Extension Service in 2017 started its AIS Detectors Program to train volunteers in the identification of AIS, both plants and animals. The trainees also are taught the proper procedure for documenting and reporting suspected AIS observations. In 2017, the first year of the program, approximately 125 Detectors were trained. The training consisted of 8 hours of online training and a full day workshop taught by professors from the Minnesota AIS Research Center. Participants were required to take and pass a test following both online and hands-on training.

Detectors are asked to volunteer at least 25 hours each year on some AIS activity. The Leech Lake Board of Directors has two members, Pat Mortale and Bill Schultz, that have undergone the training and are active in the Detectors program. The volunteered activities can take many forms. Detectors interact with the public to help them learn about AIS or help identify suspected AIS observations. DNR or professional AIS researchers may ask for help in monitoring known AIS populations or looking for new invasions.



The Leech Lake Board is involved in several of these activities. The Board is sponsoring a new program to monitor the water quality of Leech Lake. Board members are periodically sampling water in different parts of Leech Lake. The samples are used to measure water clarity and chemistry. This information will help assess the impact of zebra mussels on our lake. Another example of Detector activity is monitoring the Leech Lake area for non-native phragmites. Native phragmites are tall reeds commonly

seen in wetlands and along shallow lakeshore. Invasive phragmites have been found in Minnesota but the extent of the invasion is unknown. Professors at the Minnesota AIS Research Center started a program to evaluate where non-native phragmites occur and if they are widespread. The non-native species are very aggressive and can displace the native species. Non-native phragmites are of particular concern in our area because if they gain a foothold wild rice beds may be harmed. The Minnesota AIS Research Center program is relying heavily on volunteers to look for this invasive plant. If a local population is spotted early, irradiation is possible. A number of hours were spent during 2017 searching the Leech Lake area but fortunately no outbreaks were found. This activity will be continued in 2018.



PHRAGMITES

Native phragmites are tall reeds commonly seen in wetlands and along shallow lakeshore. Invasive phragmites have been found in Minnesota but the extent of the invasion is unknown. Professors at the Minnesota AIS Research Center started a program to evaluate where non-native phragmites occur and if they are widespread. The non-native species are very aggressive and can displace the native species. Non-native phragmites are of particular concern in our area because if they gain a foothold wild rice beds may be harmed. The Minnesota AIS Research Center program is relying heavily on volunteers to look for this invasive plant. If a local population is spotted early, irradiation is possible. A number of hours were spent during 2017 searching the Leech Lake area but fortunately no outbreaks were found. This activity will be continued in 2018.



US Army Corps of Engineers

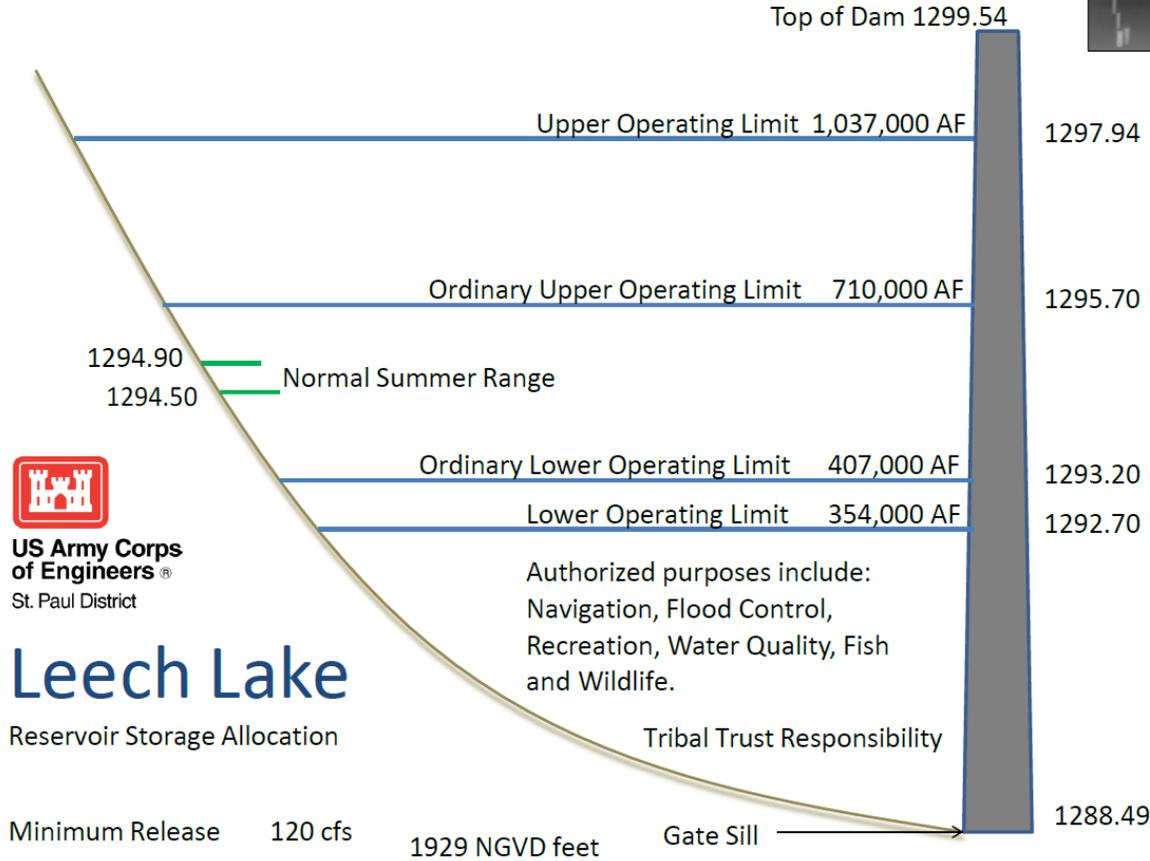
US ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT, LEECH LAKE

All elevations are referenced in 1929 NGVD.

On March 31st, 2018, the water elevation (level) on Leech Lake is 1294.44 feet. The current discharge from the dam is 280 cubic feet per second (CFS).



REVIEW OF LEECH LAKE CONGREGATIONALLY APPROVED WATER CONTROL PLAN



Leech Lake

Reservoir Storage Allocation

Minimum Release 120 cfs

1929 NGVD feet

Gate Sill

THE YEAR IN REVIEW

Typically during winter months Leech Lake is drawn down to make room for spring runoff of water occurring from snow melt in addition to normal expected rain. However that has not been the case during the winter of 2018.

In early summer of 2017; an area of NW Minnesota, including Leech Lake, was classified as “Moderate Drought” by the US Drought Monitor that contributed to low lake levels in July-August-September that most folks have not witnessed for decades leaving many looking for “more information” relating to Leech Lake. This newsletter will serve to provide some of that information.

Let’s quickly refresh our memory regarding “Climate Variability” from the National Weather Service (NWS) Climate Prediction Center (CPC). During winter, El Niño episodes feature a strong jet stream and storm track across the southern part of the United States, and less storminess and milder-than-average conditions across the North. La Niña episodes feature a very wave-like jet stream flow over the United States and Canada, with colder and stormier than average conditions across the North, and warmer and less stormy conditions across the South.

(US Army Corps of Engineers continued on page 10)

(US Army Corps of Engineers continued from page 9)

During fall of 2017 the National Weather Service (NWS) Climate Prediction Center (CPC) stated that a La Niña weather pattern was likely to develop for winter 2018 in our area. Remember ~ La Niña generally is predicted to provide above normal precipitation to our area during our Northern winters. Here's what happened:

Leech Lake Snapshot:

<u>Month:</u>	<u>Leech Lake</u> <u>LL EL</u>	<u>(Precipitation)</u>		<u>Evap</u>
		<u>Normal</u>	<u>Actual</u>	
2017				
May (30 th)	94.45	2.71"	1.70"	3.2"
June (30 th)	94.33	3.87"	3.22"	5.0"
July (31 st)	94.15	4.40"	2.93"	5.4"
Aug (31 st)	94.01	3.76"	3.61"	4.7"
Sep (30 th)	94.22	2.82"	5.64"	3.6"
Oct (31 st)	94.33	2.50"	1.64"	2.5"
* 11/9/2017 – LL Outflow was increased from 120cfs to 280cfs to prevent freeze-up of the dam.				
Nov (30 th)	94.24	1.19"	0.75"	2.2"
Dec (31 st)	94.31	0.71"	0.87"	0.0"
2018				
Jan (31 st)	94.32	0.76"	0.47"	0.0"
Feb (28 th)	94.40	0.50"	1.25"	0.0"
Mar (31 st)	94.40	1.06"	0.88"	0.0"
Total:		24.28"	22.96"	26.6"

* Notice above how Leech Lake was able to “bounce” from Precipitation events as Evaporation subsided even when dam outflow was increased.

The Climate Prediction Center ENSO Alert System Status (issued on 9/14/2017): La Nina.

(La Nina episodes feature colder and stormier than average conditions across the North, and warmer and less stormy conditions across the South).

(CPC), tilts toward slightly above normal conditions across north Central Minnesota: “A transition from La Niña to ENSO-neutral is most likely (~55% chance) during the March-May season, with neutral conditions likely to continue into the second half of the year.

Snow surveys are done by the US Army Corps of Engineers to keep track of moisture conditions throughout the watershed. On 01-March the Leech Lake Watershed had about 2 - 3 inches of moisture in the snow so far this winter. That compares to 3 – 4 inches or more during a normal winter at the end of February. Currently there is plenty of moisture for runoff to bounce Leech Lake into the desirable summer range this spring because we did not conduct a drawdown of Leech Lake during the winter.

SEE THE LEECH HYDROGRAPH (next page) FROM MAR 2017 TO CURRENT:

Operation Summary Correlating to the above Leech Lake Water Level Hydrograph:

** Note the difference in daily fluctuations in summer months from wind and waves compared to winter months when the lake is frozen. Wind also increases evaporation.

* Mar 2017: Winter drawdown concluded at EL 1294.05 (normal drawdown = 1293.80).

* Apr 2017: Leech Lake rising from snow melt moisture runoff.

* May 2017: Leech Lake rises to lower end of desirable summer range as planned.

* Jun - Sep 2017: Leech Lake recedes to 1293.9 due to Moderate Drought effects.

* Oct - Dec 2017: Leech Lake rises due to late fall rain and elimination of evaporation.

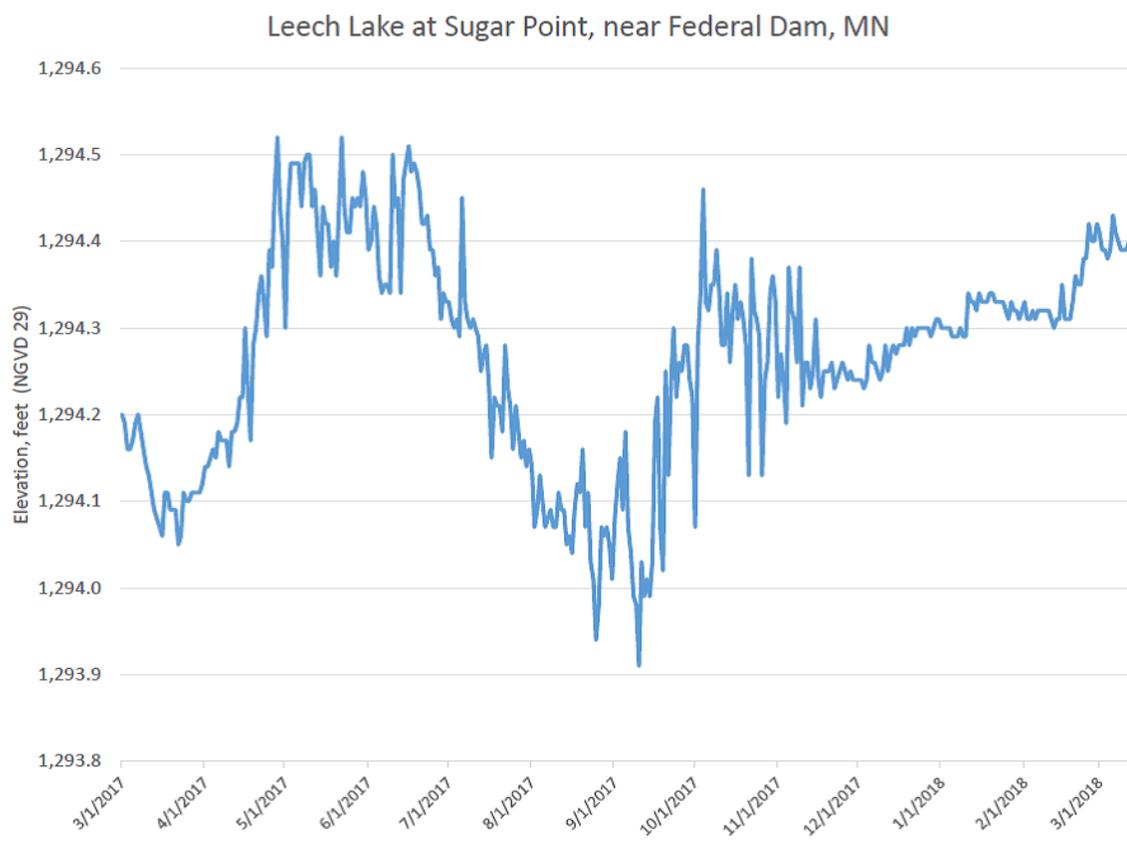
* Jan – Mar 2018: No drawdown occurring; waiting to see how much precipitation occurs.

LOOKING FORWARD

The 90-day precipitation outlook for Mar-May, 2018, provided by the National Weather Service (NWS) Climate Prediction Center

(US Army Corps of Engineers continued on page 11)

(US Army Corps of Engineers continued from page 10)



Frost. Ground frost is in abundance across the watershed. Typically deeper frost levels cause more runoff to occur.

Ground Moisture Conditions. We expect that ground moisture conditions are adequate for the Leech Lake Watershed but wetland conditions could be receptive to capture and hold a significant portion of snow melt runoff due to the Moderate Drought effects from 2017.

Did La Niña provide colder and snowier than normal conditions this winter as generally predicted?

- Normal precipitation Dec-Mar: 3.03”
- * Actual Precipitation Dec-Mar: 3.47”

At time of writing this article; precipitation is slightly above normal and La Niña seemed to have delivered on the cold.

Runoff. Typically we estimate that 33% of moisture throughout the watershed will runoff into connected waters that will reach Leech Lake. Water storage volume of Leech Lake at EL 1294.70 is about 583,700 acre feet. This equates to needing about 2” of moisture throughout the watershed with uniform runoff to raise Leech Lake to 1294.70. Then we add normal precipitation for April: 1.57”.

Did we make the correct decision in December to delay drawing down Leech Lake this winter? So far it looks as though we have. However spring is yet to play out and we run the risk of Leech Lake becoming stubbornly high if La Niña or ENSO-neutral decide to provide that generally expected “extra punch” of precipitation. But because of the 2017 drought effects we have decided to capture the current moisture content and continue to wait before increasing outflow for a drawdown. As of 3/31/2018 we have plenty of moisture to bounce Leech Lake into the middle of the “desirable summer range”.

LEECH LAKE DAM

Leech Lake Dam is located on the North East corner of Portage Bay and forms the Leech Lake River. The Leech flows into the Mississippi south of US HWY 2 downstream of the MN DNR Mud/Goose Wildlife Management Area. The Corps of Engineers provides recreation facilities such as boat ramps, campgrounds, picnic areas, trails and other services within the grounds at Leech Lake Dam. **Check us out and click on “recreation” at www.mvp.usace.army.mil**



MORE INFORMATION

Please visit these web sites:

<http://www.mvp-wc.usace.army.mil>

<http://rivergages.mvr.usace.army.mil/WaterControl/shefdata2.cfm?sid=LEEM5&d=7&dt=E>

https://waterdata.usgs.gov/mn/nwis/uv/?site_no=05205900&PARAMeter_cd=00065,00060

For questions or if you would like to comment regarding how lake levels are affecting you please email:

tim.v.rennecke@usace.army.mil



READERS ASK: RESPONSE TO LLA QUESTIONS AUGUST 2017-2018

Why no Conservation Officer in Walker Station?

It has been some months since we had a Conservation Officer assigned to the Walker Station. Leech Lake is the third largest lake in the state and a premier walleye destination. It also has slot limits and other special regulations. Who is to enforce these rules while the Walker Station remains vacant? The DNR indicates that Leech Lake is one of the priority lakes in the state to manage, so why can't it find "temporary enforcement" until the position is filled? And even then, can one person provide adequate enforcement on a lake with at least six public accesses, and multiple private ones? How can we be confident that regulations are being followed to protect the lake and its great fishery? Our hunting and fishing licenses are designed to pay for this protection.

"The Walker station has been vacant since January 2017 until present. During this time there have been a total of 15 CO's who have worked or are currently working the Walker station.

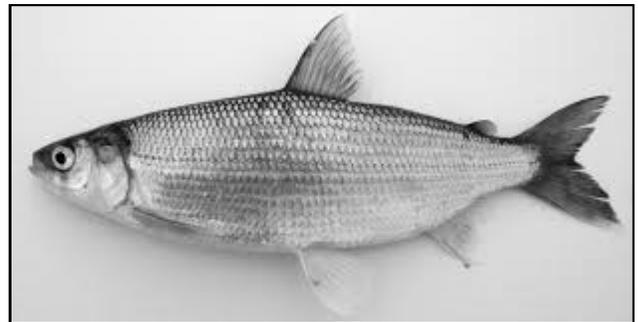
Several hundred law enforcement contacts have been issued tickets and warnings during his time period. Five officers are stationed within 45 minutes or less for general patrols and to respond to complaints in progress. The Walker Station is scheduled to be re-filled this year (2018).

Walker is 1 of 28 priority stations to be filled out of the next CO academy in 2018.

Conservation Officer Work Crews are and have been assigned to Leech Lake during Eel Pout, Fishing Opener, Memorial Day, and the 4th of July"

Why aren't tullibees given greater protection?

Tullibee's are considered an important forage fish on the lake. Yet, starting in mid-February, you see crowds of people off Stony point catching these fish to take home and smoke. The limit within Leech Lake Reservation borders is 50 a day. Can the lake support that? I assume that if you are angling outside the reservation borders, there is no limit at all. I read all the time about concerns over the tullibee population. Are regulations keeping up with these concerns?



"Cisco (Tullibee) are a moderately-lived species in Leech Lake, much like Yellow Perch, where we see very few fish older than age-10 in our surveys. The current cisco regulation of a 50 fish bag limit within the Leech Lake Reservation is already more conservative than the existing statewide regulation of no limit. More conservative statewide regulations have been discussed internally, and it boils down to cisco populations always being one summerkill away from a population reset (i.e. lose most of the adult fish in the system). The purpose of a more restrictive regulation in this case would be to spread harvest out across anglers/years; the latter requires fish to survive. Summerkill events can and would negate any potential benefits that might be gained by further reducing cisco bag limits, hence the reason for no statewide or local (Leech Lake) change to date. Statewide regulation changes are being considered for whitefish and cisco. Changes, if they occur, would move statewide regulations to be consistent with lower possession limits on Leech Lake Reservation Waters.

Regarding cisco population concerns across the state, habitat quality, and specifically water quality, is a big driver of how frequently a summerkill event occurs because summerkills are the biggest limiting factor for cisco populations, not angler harvest. The focus of conservation efforts have been on preserving or improving water quality at the watershed scale to maintain cisco populations in the future because of their role in the food web. This is particularly important in light of climate change, which increases the likelihood for summerkill events to occur; high-quality water will buffer to some extent the frequency and/or severity of these in the future."

(Readers Ask: Response to LLA Questions August 2017-2018 continued on page 13)

(Readers Ask: Response to LLA Questions August 2017-2018 continued from page 12)

Don't Perch bag limits need to be reduced?

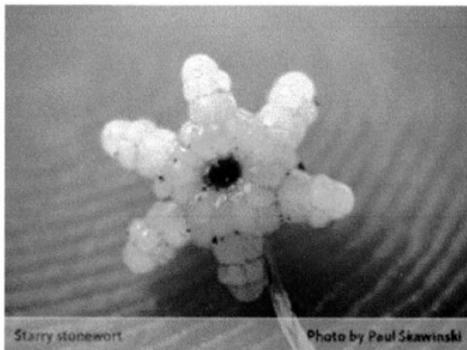
Like tullibees, perch are considered to be one of the primary forage fish on Leech Lake. Yet, with the increased fishing pressure on perch during the fall and ice fishing season, it seems that the safe harvest level on perch recommended by the Leech Lake Advisory Group is being exceeded every year. At the same time, the lake's perch population is already at an all time low. Shouldn't bag limits be reduced to sustain decent perch fishing while maintaining an adequate forage base for walleyes and other gamefish? Don't perch regulations need updating?



“The Leech Lake Input Group discussed a 50% reduction in panfish bag limits on Leech Lake (sunfish, crappie, perch) from current statewide limits. It was decided at the 2018 Input Group meeting to hold off on any current local panfish proposals and wait to see how statewide momentum to address panfish regulations develops. To date, the data suggest previous walleye management activities, particularly stocking, were big drivers of declines in yellow perch. As total walleye fry densities were artificially inflated because of stocking, the strength of perch year classes produced the same year declined with no measurable gain in walleye recruitment. The suppressed perch year classes are the ones currently working their way through the adult size range. The MNDNR will be going through the regulation modification process in 2018. The regulation being proposed would be a change from the current 20 to 26 inch slot limit to a possession limit of one fish over 20 inches while retaining the 4 fish bag limit. The goal of the regulation would be to reduce the number of large fish in the lake while still retaining enough spawning fish to produce strong year classes. If successful the regulation will also benefit the perch population. Comments on the proposal are welcome and public meetings will be held in the fall concerning any regulation changes.”

STARRY STONEWART: ANOTHER AIS INVADER

Starry Stonewort was discovered in Lake Koronis in 2015. Since then it has spread to a number of other lakes, including Cass, Turtle, Upper Red and Lake Winnebigoishish in the northern part of the state. It is a large, algal species originally from Europe, belonging to the family of Chara, also called muskgrass. In appearance it looks like a rooted plant but is not. It's a green algae with giant cells (see illustrations) which float on the surface and can form a mat that boats cannot pass through. This can be a problem because the infestations are found first in boat access areas, which can be expected since the invader arrives on contaminated boats. Control or removal of the offending mat is difficult and expensive. It is still unknown how big a problem Starry Stonewort will become. But it is one more reason to make sure your boat and trailer are free of vegetation when leaving or arriving at a new lake.



Appearance of the star-shaped bulbil of starry stonewort, under a microscope

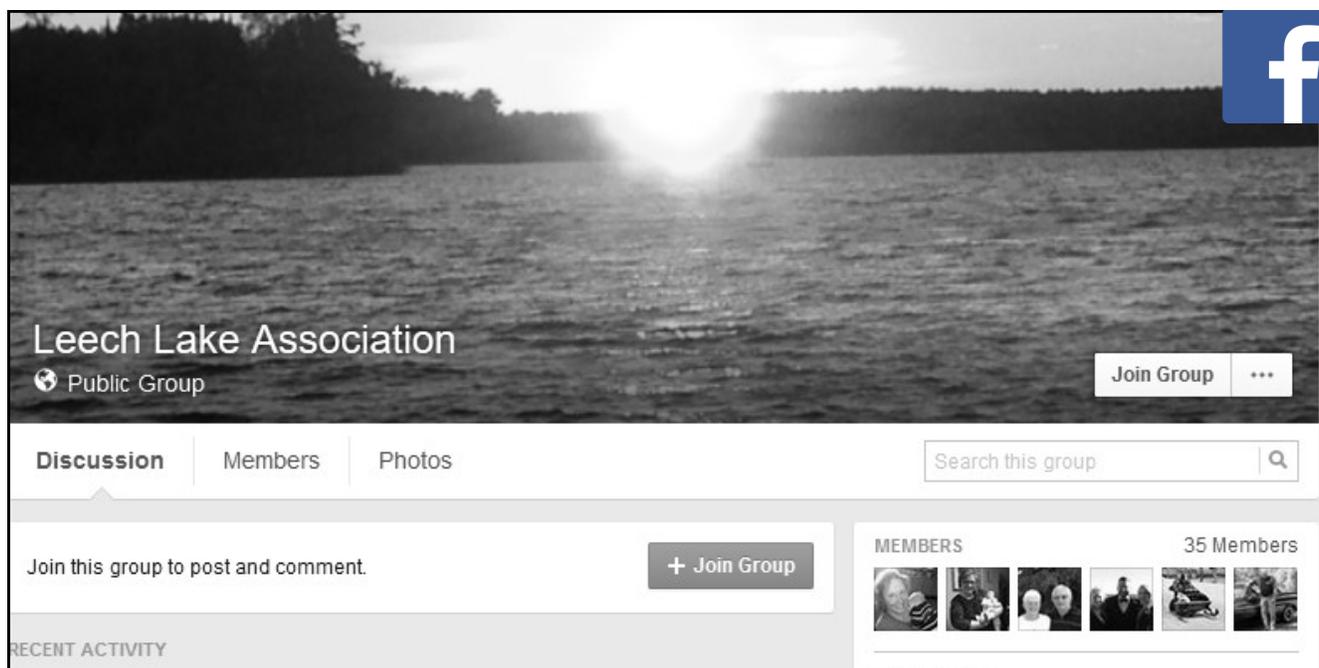


“Grass-like” appearance of starry stonewort; it has whorls of 4 to 6 long branchlets — leak-like structures — coming off of thin stems; the tiny white star-shaped bulbils are barely visible in this picture.



We are so pleased to offer you this enhanced website where we are able to share our mission, committee reports, area calendar of events, current news, membership information, our history, photo's, area maps, links, meeting minutes, feedback and contact information. In the future we will be adding fishing reports and other valuable area information.

As part of the Association's efforts to communicate to our members we have also created a Facebook site. For those of you using Facebook you can go to <https://www.facebook.com/groups/LeechLakeAssociation/> and request to join. As soon as you are approved you will have full access to the site. We look forward to seeing you there!





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Leech Lake

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A special welcome to all our new members, and to all of you who have continued to support us over the years as the walleye fishery has recovered.



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