

Big Sugar Bush Notes

May 2018 Volume 28 Number 1



Photo Taken by Ben Mattson 11-23-17

Events & Reminders

*Big Sugar Bush Annual Meeting June 9 at the former native cafe adjacent to the town hall, 9:00 am rolls & coffee, 10:00 am meeting.

*The Big Sugar Bush Boat Parade Will be 2:00 p.m. Wed. July 4. Meet in boat access bay.

*There will be no lake shore clean-up assignments. Chuck Becker encourages all to pick up any debris you see in the water or on the shore.

*Becker County Soil and Water will do a 50% cost share on shoreline restoration. Call Peter at BCSW if you are interested in further information.

*Reminder: No Wake Zone in both the large and small channels!!

It was an unusual Ice-on-Year

Most years there is one date to indicate when the lake freezes over. That was not the case on Big Sugar Bush this year as after freezing over, it reopened due to unusual weather circumstances. Warm temperatures and strong winds caused a portion of the lake to continue to reopen or remain open. It initially froze over as early as Nov.10, then reopened, refroze and finally Dec. 14, was the official date reported for ice to remain over the lake for the winter.

This occurred across the state which created a bad year for ice accidents. There were five fatalities in Dec. in MN, more than the last two years combined. There were ATV incidents on Little Cormorant and Big Floyd Lake. Divers were called on to retrieve numerous vehicles that had gone through the ice in area lakes. Fortunately, individuals were able to get out safely. In the early part of the winter, especially, ice depth varied greatly from one part of the lake to another.

2018 Ice Off Date Apr. 30, 2018



Monitoring Water Clarity

One of the easiest ways to detect a change in water quality is to watch water clarity. When you notice a change, so will the fish and wildlife. The water quality has been monitored on Big Sugar Bush Lakes since the 1990's.

It's up to everyone to:

- *Prevent & control water pollution
- *Conserve natural beauty, open space & conserve shore cover
- *Protect fish spawning areas, aquatic life, bird & wildlife habitat
- *Control the location of buildings.



Celebrating 25 Years

May 29, 1994 was the day of the dedication of the donation of Big Sugar Bush land to the Department of Natural Resource from 34 Big Sugar Bush Lake Shore owners. The above sign recognizes those individuals that contributed the money to purchase 17.8 acres which includes the island and adjacent peninsula land. Dean McBride and Bob Bachman were instrumental in initiating this purchase to protect this area from development and keeping it natural forever.

Winter at Big Sugar Bush



Photos by Larry Michelson



Photo by Larry Michelson



Photo by Kim Grandbois

Aquatic Invaders Summit III

Chuck Becker and Larry Michelson attended this event on February 28 and March 1 at the Earle Brown Heritage Center in Brooklyn Center. This event was coordinated and hosted by the Minnesota Lakes & Rivers Advocates (MLR). Your BSB Lake Association is a member of this organization and we encourage our individual members to join this organization. Their web address is: www.MNLakesAndRivers.org

This year's Summit was hosted by WCCO Newsman Don Shelby and focused on AIS programs and innovations across the state. The presentations were chosen to provide actual boots on the ground applied science that will help prevent the spread of Aquatic Invasive Species in Minnesota and new strategies for mitigating the AIS already here. The summit was divided into several different sessions. Chuck and Larry split up and were able to cover most of the sessions.

Following are key points from some of the summit sessions.

Climate Change and AIS

- Science, not opinions, indicates a 92% chance of certainty that increase in CO2 is altering the Earth's atmosphere
- Warming of planet, warming of waters, will increase the voracity and spread of AIS
- Ice on/off is changing
- Walleye spawning is changing (narrowing)
- The warming of our waters allows AIS to adapt but also hinders fish from adapting

Assessing the Spread of AIS in Minnesota

- Zebra Mussels: 125 lakes
- Eurasian Milfoil: 304 lakes
- Starry Stonewort: first identified in MN in 2015
- Spiny Water Fleas: 30-40 lakes
- No known means of eradication
- Drying for 6+ hours is effective
- 40-60% decrease in zooplankton
- Yellow perch growth rates declined significantly
- All total, 550 lakes in Minnesota are infected with some type of AIS
- Lake specific info should be online in next few months
- Humans, not animals, spread AIS
- No evidence that waterfowl or other animals spread AIS

The following treatments have had success:

- Earth Tec Q2
- Zequanox
- Niclosamide
- Potassium Chloride (potash)
- Research on lake wide eDNA

- Technology allows you to find exactly what's in your lake
- Focus on common carp:
 - Biocontrol with high mortality in short time
 - Discovery of a couple of carp specific viruses that stand out
 - Koi Herpes Virus Disease
 - Koi Sleepy Disease
 - Australia plans to unleash carp herpes virus this year as part of their National Carp Control Plan
 - Minnesota Veterinary Center will continue testing in the lab
- The best treatment is prevention. As more people are being made aware of how AIS is spread there are declines in the number of the violations of the transportation of AIS.
- Decline from 17% of all boats checked to single digits in the last year
- Examples of ways to promote prevention
 - CD3 – Clean, Drain, Dry
 - Use of billboards, handouts and signage
 - Providing washing stations

Fishing as Related to AIS

- Different variations of fish develop based on heredity affected by food supply climate and predation
 - A 2-foot female Walleye produces 250,000 eggs annually
 - 1-foot female Walleye produces 60,000 eggs annually
 - The smaller the female, the smaller the eggs
- Crayfish eat zebra mussels and small mouth bass eat the crayfish
- Sunfish and small mouth bass will survive in mussel-infected lakes, while northerns, walleyes and cisco will not
- Warming waters/less oxygen leave a fish gasping for air. Thus smaller walleyes and more and larger bass. Bass adapt, walleyes do not.
- Approximately 4.4% of the world's oceans have protected areas where no fishing is allowed: CZ (conservation zones). Could this be used in fresh water lakes? Ontario is trying it in some lakes where they limit fishing and the use of live baits.

Creating a Lake Foundation

- Opportunity is now (BSB is exploring)
- Target a conservation opportunity
- Measure impact beyond acres protected
- Expand focus to the watershed
- Conservation easements are binding and include use restrictions
- Sustainable Shoreline Incentive Act
- Focus on preventing runoff and improving habitat
- Protecting water quality protects the value of your property

Thank you to Becker County COLA for paying our registration fees to attend this summit.

The Value of Lake Associations

By Jeff Forester Executive Dir. of Minnesota Lakes and Rivers Advocates

I have read repeatedly the myth that Lake Associations are working to “privatize” or limit access to the public waters. At first I thought to let it go. But at the DNR Roundtable this myth emerged as a theme.

I am writing to set the record straight. Lake Associations have no hidden agenda to privatize or reduce access of the public waters. The idea is categorically untrue in both spirit and fact. Every lake association in Minnesota, and there are over 500 of them, works to protect the lake resource for the benefit of all. According to a Concordia College study last summer of Lake Associations, they spend about \$6.2 million of their own dollars for lake improvements and protection, including almost \$400,000 spent on fish stocking. They commit 1.25 million hours of volunteer time taking workshops on lake ecology, MAISRC’s Starry Trek, and AIS Detector program. Some of the best and largest datasets are due to lake associations, many of whom have been doing secci disc, waterfowl counts and water chemistry analysis for many decades.

They fund storm warning systems for the lake, put out navigational buoys to keep visitors safe, support lake-based curriculum in local schools, volunteer at boat ramps to educate boaters about Aquatic Invasive Species BMPs. They buy Conservation Easements to help protect water quality. Some have put in campsite/shore lunch sites with fire rings, privy and picnic tables for visitors. They pick up garbage after ice fishing season (there are knuckleheads in every crowd), and work with local resort owners and chambers of commerce to promote tourism on the lake. They partner with watershed district staff to promote

shoreline restoration and septic system compliance. Many Lake Association leaders were deeply engaged in efforts to update the minimum shoreland standards under Gov. Pawlenty. They bring in speakers to their annual meetings to talk about the importance of aquatic plants, shoreline buffers, woody debris and storm water runoff control in an effort to educate those members that don’t fully appreciate that what they do on the land impacts the water.

There is a spirit of altruism behind much of their work, but it is an altruism based in self-interest. These people love the lake. They have invested both financially and emotionally in it. Most have been at any given lake place an average of 37 years, and it is where the core memories of their families are based. They are not, by and large, wealthy, with an average household income of \$58,000 a year. Many forego vacations to distant places and go to the lake instead. Eighty six percent do not plan to sell their lake places and want to leave them for the next generation to enjoy.

They are anglers. According to a phone survey conducted in 2016 for Minnesota lakes and Rivers Advocates by Striezeck Research, about 62% of lake home and cabin owners buy a fishing license each year. In addition, they sell an average of four fishing licenses per property to friends and family that come up to the lake on vacation. With about 220,000 lake homes and cabins in Minnesota that means this group of people is responsible for about half the licenses sold in Minnesota each year.

So, no, Lake Associations have no plot to shut the public off the public waters. They are working to protect a resource that is critically important to them personally, to their communities, to the State, and to you.

How to Remove Skunk Smell

1 qt. hydrogen peroxide
¼ c. baking soda
1 teaspoon liquid hand soap
(Not detergent)
Follow with tap water rinse

(Gail Mohlenkamp verifies it was successful on Moe to remove skunk smell)

Any Signs of holes being dug in Your Yard?

You could have a skunk visiting at night. Holes in your yard result from their search for grubs. They are nocturnal, active mainly at night. Their diet includes mice, frogs, crayfish, nuts, fruit, scraps of garbage, corn, and meat from animals that have died. Winter is hard on them. Temperatures can be life threatening. Skunks eat as much as they can find in the fall. Sometimes, fat is the only source of energy a skunk can rely on to survive the winter.

When temperatures drop and snow flies, skunks head underground. Several skunks curl up together to share body heat inside the winter den. Usually several females are guarded by one male. They go into torpor (a kind of slowing down) in the winter. Torpor is different from

deep hibernation. The skunks body temp. drops and metabolism slows down for a few hours or days. Less of the skunks' fat is needed to make energy.

When the weather is mild, they remain awake in their dens and go out for a few hours to look for food. They can lose more than half their body weight over the winter. They mate in Feb. and Mar., then go their separate ways. The female will look for a new den that is safe and dark with food and water close by it.

She will have 4-6 kits. A mother skunk will not allow male skunks near her kits. They are born blind and helpless, barely an ounce. At about four weeks, the kits eyes open. The mother will take them out at about six weeks.

When in danger the skunk will hiss, grunt and stamp its feet. When all warnings fail, the striped skunk turns its back to the predator, keeping its tail raised, the skunk looks its enemy in the eye, aims and fires. They release their musk up to twenty feet away. Above is a recipe to help if your pet should get sprayed

DNR Does Fish Survey on Big Sugar Bush

The DNR conducted a survey of near shore fish species on July 17, 2017. Sampling sites were evenly spaced around the lake and each was sampled by backpack electrofishing used to sample 3 stations, a 15-foot seine was used at 5 stations, and site conditions prevented the use of seines at 2 sites due to deep water, abundant vegetation and soft sediments. Near shore sampling captured 13 species of fish including high proportions of three species that are intolerant of excessive shoreline disturbance and /or poor water quality (Banded Killifish, Blackchin Shiner, and Iowa Darter). The near shore fish survey data is combined with gill net and trap net data from June 2017 survey to describe the fish community and provide a fish-based Index of Biotic Integrity score based on expectations for similar lakes. The preliminary score for Big Sugar Bush Lake is well above an impairment threshold for aquatic life use developed for similar lakes.

—*Jacquelyn Bacigalupi, Mn DNR*

Worth Noting...

If you are on Facebook, please like us and let your families know we

have a Facebook page. We have lots of great photographers on BSB. Send your photos and BSB updates to marykohlhepp@gmail.com or post to Facebook.

*If you would like a copy of the BSB Directory, please email Nancy Olson for a copy. Also, send any change of address, phone number or email to her.

Big Sugar Bush Lake Association Board Members

President: Chuck Becker 2015-2018

VP: Ken Mattson 2016-2019

Treasurer: Kay Lommen 2017-2020

Secretary: Kent Anderson 2016-2019

Steve Odegaard 2015-2018

Larry Michelson 2015-2018

Mary Kohlhepp 2016-2019

Bob Bachman 2017-2020

Johanna Christenson 2017-2020

Webmaster: Ross Collins

Web content: Nancy Nornes Olson

Newsletter editor: Fran Mattson

Big Sugar Bush Website:

bigsugarbush.net

Facebook page: Big Sugar Bush Lake Association

Submissions for fall 2018 newsletter are due Aug. 1. Email stories and photos to:
fnkmattson@gmail.com