*Focus on Aitkin Area*

# *Fisheries*

A NEWSLETTER OF THE MINNESOTA DNR AITKIN AREA FISHERIES OFFICE MAY, 2016

# Greetings from Aitkin

by Rick Bruesewitz

Greetings, friends of Aitkin Lakes and Rivers! My name is Rick Bruesewitz and I am the Aitkin Area Fisheries Supervisor for the DNR. Along with the rest of the fisheries staff, and staff from other DNR Divisions, we are stationed at the DNR Headquarters south of the City of Aitkin on Highway 169.

The objective for our office is to provide assistance in the DNR mission to "work with citizens to conserve and manage the state's natural resources, to provide outdoor recreation opportunities, and to provide for commercial uses of natural resources in a way that creates a sustainable quality of life."

As such, every year our fisheries office conducts annual surveys on lakes and streams, stocks various species of fish in area lakes and streams, manages about a dozen aquatic management areas, conducts habitat inventory and improvement projects, develops fisheries management plans, conducts environmental review of public and private proposals, harvests several thousand pounds of northern pike from Rice Lake National Wildlife refuge for distribution and stocking all over Minnesota, develops and implements special regulations to improve fisheries, meets with lake associations and other groups to distribute fisheries information and coordinate on special projects, and a variety of other fish related tasks.

This newsletter is to help inform you of our current activities and observations in the area. We intend to publish twice a year, which will be in spring near the fishing opener and in fall before ice angling. I hope you find this newsletter enjoyable and informative enough to stimulate you to ask us some good questions.

Have a great and safe openwater season!

This and all future issues will be posted on the Aitkin Fisheries website at http://www.dnr.state.mn.us/areas/fisheries/aitkin/index.html

I look forward to your feedback and suggested topics for future issues; you can contact our office by email at aitkin.fisheries@state.mn.us.

## *Tiny Tidbit*

*While not very noticeable to anglers, freshwater sponges are common on the harder substrates of lakes. In the winter they form what are called "gemmules" - basically these are the tiny resting stages of this animal, which allows them to survive the harsh temperatures of winter. Freshwater sponges are not very tolerant of pollution.*

Bigmouth Buffalo

### Did you know that...

Nighttime bowfishing from a boat is now legal in the late winter and early spring? This year, from February 29 thru April 29, archers could take rough fish from a boat south of Highway 210 on lakes or on the Mississippi, St. Croix, or Minnesota Rivers. This is becoming more popular in our area where archers have opportunities to take bigmouth buffalo (above). This is also often the source of calls we receive about those "strange lights on the lake at night".

# Focus on Big Sandy Lake

by Rick Bruesewitz

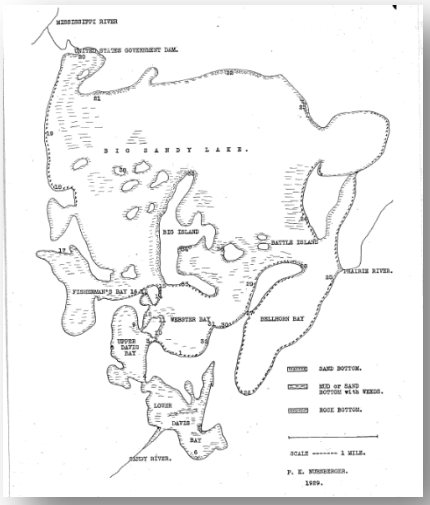

By the time you read this the 2016 Governor's Fishing Opener on Big Sandy Lake will be part of history. This was the third time the GFO was held in Aitkin County.

The first two were on Hill Lake, near Hill City in 1974 and 1990. This year, as Area Fisheries Supervisor, I provided background information to media on some of the specifics of the lake (walleye regulation, fish species, habitat, etc). While doing so I had a great chance to reflect on the work we have done, as well as the work we are now doing, and future ideas for the fishery of the lake.

Big Sandy has been a central part of the DNR fisheries for almost 100 years. Our first records of fish stocking date to 1917. In the 1950s – 1970s we had an egg take station that was operated at a number of locations on the Sandy River.

*Walleye egg take trap on Sandy River near outlet of Flowage Lake, circa 1970s.*

The very first fisheries assessment work that I am aware of occurred in the summer of 1927, by what looks like a student at the University of Minnesota. Mrs. Patience Kidd Nurnberger conducted a diet study of fish she seined throughout the summer and throughout the lake. This work was hiding in my library until I ran across it this winter while digging for a different report. Mrs. Nurnberger also drew a map of Big Sandy in 1929 that was used until the DNR mapping crew first surveyed the lake in 1956. Included in the report were map and as several photographs; some of which are included here. Interestingly, yellow perch were the most common species she saw in her sein catches. This is still true today. The abundant perch are a key species in this as well as many other lakes – especially those lakes with walleye. Good populations of perch often go hand in hand with good walleye fisheries.




*Mrs. Nurnberger's map of Big Sandy Lake. She later added some depth soundings to this map.*

*US Army Corps of Engineers Dam, at outlet of Big Sandy Lake near Libby. Note the "fish ladder" just right of the stairs. While this type of fish passage may have worked for salmon, it would not work for most fish in Big Sandy Lake. The only time fish can swim back up into Big Sandy is when the Mississippi River and Big Sandy are about the same elevation. Most recently this occured during the flood of 2012.*

*Presumably Mrs. Patience Kidd Nurnberberger with an assistant seining Big Sandy Lake in 1927.*



*Creel clerk Jesse Hidde with a real nice walleye observed in spring assessment on Big Sandy.*

Here's a timeline for work we have done or will be doing this year on Big Sandy.

- April – Walleye trap net and electrofishing assessment.
- Mid-Late May – Short term gill netting and electrofishing to look for fin clips from earlier work.
- May 14 thru October 16 – Creel survey.
- July 11-15 – Standard assessment with gill nets and trap nets.
- Mid-August – Cold water habitat evaluation in Bill Horn Bay (temperature and dissolved oxygen monitoring)
- Late September – Special gill net only walleye assessment.
- October – Electrofishing assessment of juvenile walleye.

Preliminary results for this year's spring assessment are looking pretty decent. There were more fish than we had seen in the two similar spawning assessments in 2001 and 2009.

We trapped or electrofishing almost 3,000 individual walleyes on Big Sandy Lake and the Sandy River, each of which we fin clipped and released. Most of these fish measured over 14 inches, with the largest measuring over 29 inches!

We will be back on the water again in May to set short term gill nets (set for less than an hour to release the fish unharmed) to look for those fin clips. With all of that information we can estimate the total number of walleyes in the lake, and when combined with the creel survey information, it allow us to judge the intensity of the fishery.

Finally, the September walleye assessment will help us estimate the maturity rates for walleye. Because the standard assessment is in July, we can't tell what will be mature in the following spring. A fall assessment can.

In the mean time…whether you are chasing walleye, crappie, pike, perch or giant bluegills, I wish you all well.

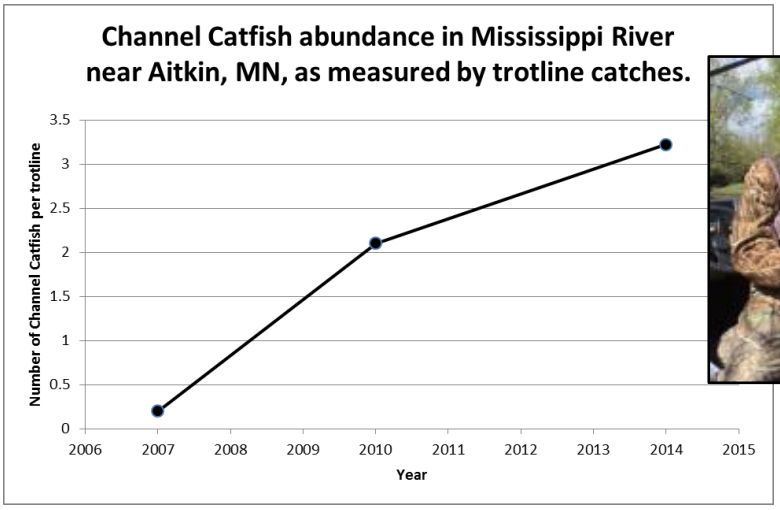
## "GRUMPY" TECH TIPS

By Kris Nissen

Hi, my name is Kris Nissen, I have been the fisheries technician at Aitkin for ten years. One of my job responsibilities is keeping boats and survey equipment working and well maintained.

Sometimes I get a little grumpy when my coworkers and summer interns are hard on our equipment or it just breaks down. I have been known to introduce myself to new interns and temporary workers as the "Grumpy Technician". Here are a few tips to keep your boat, motor, and trailer in good order. If you follow a few of these tips you might prevent a "grumpy" moment on the water.

- Use fresh, high grade fuel in your motor. Good quality fuel additives and stabilizer can help keep gas fresh. This is the single biggest thing you can do to avoid motor trouble.
- Change your lower unit oil every year. If it is milky or burnt, you should get the problem addressed professionally.
- Keep your boat battery charged. Don't just "assume" it is good.
- Don't chew up your prop. Be very careful if you power load your boat. Drive slowly and tilt your motor in shallow water.
- Make sure your bilge pump works. Sooner or later you will need it. If your boat has a livewell, make sure the hoses are good and soundly connected. All it takes is one broken livewell hose or fitting for your boat to take on water, fast!
- Inspect your navigation lights. Our conservation officers have heard more excuses than you can imagine, and boating safety is one of their top priorities – as it should be everyone's.
- Keep your trailer in good repair. Check the tires and service the wheel bearings. Make sure the trailer lights are working. Corrosion of a faulty grounding wire is often the problem. I use white vinegar to clean up electrical connections. Inspect the winch and tie down straps to keep your boat on your trailer, and the safety chains too – just in case.
- Learn to back a trailer. The time to brush up your backing skills is not on opening day at a busy access. I have taught many interns how to back up a trailer in our parking lot or at boat ramps on quiet days.
- Properly winterize your boat when the boating season is done, so it is ready for the next year.


# Channel Catfish… the new fishery In Aitkin Area

by Rick Bruesewitz

The DNR first started hearing about catfish in the Mississippi River in the Aitkin area in the late 1990s. In 2007, DNR Fisheries embarked on a full survey of the Mississippi River from the headwaters to the St. Anthony Falls. Our office's responsibility was to survey the fish and habitat from the Aitkin/Itasca County line to the Aitkin/Crow Wing County line – about 110 river miles.

The last time the Miss' was surveyed was back in 1988. While that fisheries assessment found a myriad of different fish species, it did not find any channel catfish above the Brainerd Dam.

In any event, when we surveyed the river in 2007, we added trot lines as a tool to sample catfish – if there were any at all. With twenty trot lines (each with about two dozen hooks), we sampled four catfish. These fish were all about 20 inches long and were estimated to be ages 4 and 5. Fast forward to 2010. We conducted basically the same trotline survey again. This time we caught 21 catfish with 10 trotlines, and the fish ranged from 14 to 25 inches long. We repeated this survey again in 2014 using 18 trotlines and caught 58 catfish that ranged from 16 to 27 inches long. In addition to the trotlines, we also used angling to sample smaller specimens, which ranged in length from 9 to 24 inches.

These fish are growing in abundance and size, and it is obvious that they are having extremely good reproduction in the river. In recent years anglers have started to take advantage of this "new species" and have had excellent success. Even I have found it hard not to partake in this great fishery and have had a number of excellent fish fries the past few summers. The action is often pretty fast and furious, which makes it great for kids, too. So next time you have an urge to go fishing don't forget about the river.

# Coarse Woody Habitat –

## more than just dead trees and branches.

by Rick Bruesewitz

One issue that has come up in recent years is that of coarse woody habitat. This is fish habitat created by trees and branches that have fallen into the water. Most often this is adjacent the shoreline, although in some instances water logged trees also submerge well offshore. Lack of this habitat can be a factor limiting growth and reproduction of fish in some waters. Research has shown that waters with a lot of coarse woody habitat usually have better panfish and bass growth rates than do waters with "cleaned up" shorelines. Think of this habitat as fast food restaurants/hotels for fish.

We riparian landowners have been "cleaning up" our shores for many many decades. Often when trees die along the shore, they are no longer left to fall, but are harvested for their wood in order to keep things looking nice and neat. Interestingly, once wood is submerged the decaying process is slowed way down…basically, the organisms that break down the wood fibers work best in an oxygen rich environment. So when a tree is submerged, instead of it being completely gone in a decade or so – just like the slash in the woods after a big cut – they last for another 100-300 years. WOW! Right? So that means that if we've been cleaning up our shore areas for about 100 years, then we are currently not replacing what was once there. Not to mention all the snags that we've pulled out of the substrate near our shorelines, just to make things look nice and tidy. This means that certain fish that we like are no longer going to have their preferred or even required habitat, which means there won't be as many of that species in the lake.

One fish that is closely linked to coarse woody habitat in some lakes is the yellow perch.

*Bass and bluegill using course woody habitat that was added to Clear Lake in 2013 as part of a lake association project.*

Perch are a perfect food for us, northern pike, and walleye, and are extremely important in many waters to keeping a fish community the way we like it. Perch **need** a place to drape their eggs in order to keep them in well oxygenated water off the bottom of the lake. In a study in Wisconsin, coarse woody habitat was removed from one half of lake and then the lake was partitioned with a curtain. The population in the side that was removed plummeted, while the side with good woody habitat remained healthy. This is just one aspect of this habitat that benefits fish.

Fallen trees that have wood above and below the waterline also host a myriad of creatures that are always enjoyable to observe. I know that at this time of the year every day I get to enjoy seeing wood ducks and mallards resting on one particular tree near my house. One day it had a pretty wood duck drake as well as three painted turtles that were basking in the warm sun. Pretty cool if you ask me! In any event, when that tree along your shore does die, rather than getting rid of it, just allow it to fall naturally into the lake. If it falls in a bad area (near dock or swimming area etc.) just move it out of your way rather than removing from the lake. The water creatures say, "Thank you!"

*Perch eggs on course woody habitat in Big Sandy Lake.*

*Submerged tree used by juvenile bluegill at Farm Island Lake.*

*Home sweet home for two species of snails, and a couple caddis flies in their gravel houses. You can see the direction of travel by the snails as they eat the "periphyton" (flne algae) growing on the submerged log. Farm Island (Underwater photography by Tom Jones-MNDNR)*

*Excellent coarse woody habitat at Glacier Lake.*