

Focus on Aitkin Area **Fisheries**

A NEWSLETTER OF THE MINNESOTA DNR AITKIN AREA FISHERIES OFFICE

JUNE 2020

Aitkin Trout! By Rick Bruesewitz



Opportunities for an alternative recreation opportunity exists in several lakes and a couple streams in Aitkin County. Trout fishing! Historically, the Aitkin Area has had three lakes that we managed for stream trout (Taylor Lake near Hill City, Blue Lake near Aitkin, and Loon Lake in Savanna Portage State Park). At these waters, anglers can catch a variety of trout species (Rainbow Trout at all three lakes, Brook Trout at Taylor Lake, and Brown Trout at Loon Lake). Recently added to the mix is Long Lake near Glen. Splake (a cross between a Brook Trout and Lake Trout) were recently stocked into Long Lake. This is a new fishery and will be stocked experimentally for several years with the hopes of creating a new fishery in the area. In addition to the lakes, we have two streams with viable brook trout fisheries.



Morrison Brook near Hill City and Two River Springs southeast of Jacobson.

The DNR will soon have a new look to their website with more details on trout fishing and our managed waters. Watch for it!

This and all future issues will be posted on the Aitkin Fisheries website at: DNR FISHERIES LINK. 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.



Did you know...that freshwater mussels are filter feeders and their young are hitchhikers?

These mostly sessile creatures are common in the beds of most lakes, rivers and streams in Minnesota. A unique behavior that allows for wide ranging geographical movement of this creature that has no legs and only one foot, is that as larvae (called "glochidia") they attach themselves to the gills of fish, to essentially "hitch" a ride to a new area. This behavior can be greatly affected by water control structures that do not allow fish to pass. Sometimes mussels are extirpated from an area simply because their ride got hung up in that "dam" traffic!



By Kris Nissen

Hi, my name is Kris Nissen. I have been the fisheries technician at Aitkin for a long time..... A big part of my job is keeping gear and equipment working safely and properly. We use trailers frequently to haul boats and gear. It is important to keep the trailer safely attached to the tow vehicle. If you are towing a trailer it is your responsibility to make sure you are doing it in a safe manner. The vital link between the tow vehicle and the trailer is the couple apparatus that locks onto the trailer ball. Make sure that the trailer coupler is adjusted snuggly so the trailer can't come loose. The trailer ball and coupler may slowly wear and the fit will become loose requiring an adjustment on the coupler.



- 1. Make sure you have the correct size trailer ball for the coupler. It should be stamped into the coupler.
- Test fit the trailer ball into the coupler and close the latch. This is easier to do if you remove the trailer ball from the tow vehicle.
- 3. Adjust the spring loaded nut on the underside of the coupler if needed until the coupler holds the trailer ball snuggly, but still moves when the latch is closed.





I sure hope these tips help keep you safely connected! Kris

More about the Quality Bluegill Initiative

(I clipped this note from our website but thought it would be good for all of you to see it. – Rick)

"Anglers can weigh in on whether to keep fewer bluegills from some Minnesota lakes.



The initiative is as a way to protect and improve the sizes of one of the state's most prized and frequently caught fish. DNR area fisheries staff worked with local anglers and angling groups to identify lakes where bluegill size could be improved by lowering bag limits. Under this proposal, some lakes would have a bag limit of five bluegills and others a limit of 10. Reduced bag limits have worked on other Minnesota lakes in past years to maintain big bluegills under increasing fishing pressure. In some cases, the number of big bluegills in those lakes increased.

The statewide limit is 20 bluegills per angler. Bluegills are also known as sunfish.

The DNR has posted a list of proposed lakes designated for changes, as well as how people can provide input at <u>https://www.dnr.state.mn.us/fish/sunfish/index.html</u>. People can provide input now into this fall. The DNR will post informational signs at water accesses on lakes included in the proposal."

Lakes in the Aitkin Area we have proposed for 10 fish bag limits:

Clear, Dam, Gun, Horseshoe, Minnewawa, Rat, Vanduse, and Waukenabo.

The survey above allows you to comment in general and to offer comments specific to an individual lake.

Big Sandy Acoustic Telemetry study

This is a letter I sent to the Big Sandy Lake Association this spring (*note I did try to clarify the part about spawning and dam encounter*) – Rick

"Greetings, Big Sandy Lakers!

4/17/2020

I'm sure we are all a bit shocked at what has transpired this spring with respect to the coronavirus, and I sure hope you all are safe and well at your homes. While things are a bit delayed due to this current situation, I do have some exciting news on a large-scale project that we (DNR and USACE, and likely Iowa State University) will be undertaking in the next several years. Before I get to the details of the "what", let me first try to explain the "why".

The main issue I have heard so much about over the last many decades that I've been in the Aitkin office is the issue with the Walleyes not growing on Big Sandy. There is no doubt that growth rates are relatively slow, however that shouldn't mean a near absence of large fish. It should only take them a bit longer to get there. Many lakes in NE Minnesota also have slow growth, but many also have larger fish in the population. When I first became the

area manager, one of the first orders of business for me was to try and figure out what was going on. The result of this was the implementation of the slot limit for Walleye. I do believe the regulation has been effective in a number of ways (especially with improving reproduction), but it hasn't resulted in the increases in quality sized fish like we expected.

One of the things we learned from the creel survey we conducted a few years back was that exploitation (the proportion of the population angler's harvest) could not completely explain the very high total mortality that we had been seeing on Walleye between ages 3 and 6. In other words, fish were still Red = primary (general movement in and out of lake and trib Pink = more detailed look at use of tributaries Blue = extent of range of tributary use Orange = within lake use and natural mortality.



the dam, they are able to grow older than the fish in the lake. These lake spawning fish that swam past the dam would then never be seen in our assessments, or on your stringers in the lake. While we know this happens to some extent, recent research by Dr. Michael Weber and his students at Iowa State University have estimated this "escapement" in some lowa reservoirs to be similar to angler exploitation, in some cases. A doubling of angler mortality due to escapement would certainly explain why there are so few large fish in

disappearing even though anglers were not harvesting them and it is not likely that large predators were eating them simply because there really are not that many large Pike or Walleye in this system.



So, where does that leave us? Well, there could be two more explanations. One is that as they mature they migrate out of the lake and into the river systems of the Sandy, Prairie, and Tamarack Rivers. There is no doubt that fish do move into these systems. However, these are also the rivers that tend to get too warm in the summer and become very low in oxygen not too long after heavy summer rain events. When we conducted our studies in 2016, we marked fish that we had handled during spawning assessments, clipping different spines for fish in the lake vs the Sandy River. What we

the lake.

With this in mind, I proposed a large-scale project to look at movement and escapement of Walleyes in the system and DNR and the ACE entered into an agreement to just that. Later this summer we will be deploying underwater acoustical receivers that will be used to detect special sonic tags that we will implant in Walleyes. There will be receivers all over the lake, up the tributaries, as well as just above and below the dam. This will give us a very good idea of just how much escapement happens throughout the year. In the following springs, we will also be tagging several thousand Walleyes with standard numbered tags that will add to our knowledge of the extent to which they are caught by anglers throughout the system. At the same time, we will also be conducting a creel survey (likely two years), standard net assessments, recapture assessments to estimate total population size, temperature and dissolved oxygen profiles, habitat assessments in the tributaries, and dam flow observations. These results would then be used to alter harvest regulations, guide dam management, and guide the construction, operation, and timing of fish passage structures and/or barriers to reduce or optimize fish escapement.

found was that by early June the fish that had been in the river had returned

to the lake where we recaptured them. This tells me that while fish move into the rivers, they do eventually return to the lake. We also learned that

the sizes and ages of the Walleyes spawning in the Sandy River were much

larger and older than the fish we observed in the lake, however, the number

So why are the river fish bigger and older than the lake fish? This brings me

to the second explanation of why there are so few larger walleyes in the

system. When Walleyes spawn, they tend to return to the same area they

wander the shorelines looking for suitable habitat as well as other spawners.

Those that spawn their first time in the upstream portions of the rivers would

return to spawning areas in the lake. Because the river spawning areas are far from the dam, those that spawn in the rivers would not be likely to swim near

the dam. However, those that are searching for spawning areas near the lake

have a fair chance of swimming near the dam. Every time they do so, there is

a risk that they would swim though the dam. If they do, they cannot return to

the lake because flows from the dam are too high for them to swim against.

Because the fish that spawn in the rivers would not be as likely to swim past

then return to the rivers in subsequent years, while those in the lake likely

had spawned in the previous seasons. If it is their first time, they likely

of these larger fish is just a small fraction of the total population.

In the meantime, I'd sure like to hear about your fishing this past winter and want to wish you all a pleasant opener with no giant rain events this summer!

Take care,

Rick Bruesewitz DNR Fisheries – Aitkin Rick.bruesewitz@state.mn.us"

Fish Stocking in the Aitkin Area:

Aitkin staff stocking Muskellunge fingerlings into Cedar Lake last fall. These fish came from rearing ponds at the DNR hatchery at Hinckley.



By Greg Berg

 \mathbf{S} tocking fish in lakes and streams is a tool

and strategy used to increase, maintain or introduce fish populations and is a technique that has been used since the earliest days of fish management. It is essentially the core management tool that formed the basis of fisheries management more than 100 years ago. At that time, little was known about the positive or negative effects that stocking could have on fisheries and overall lake health. For many, it was just assumed that if you put more fish into a lake you would eventually get more fish out. It did not take long to learn that it didn't always work out that way and over the decades we have learned that there are a multitude of biological and environmental factors that influence survival of stocked fish. There have been many studies and comprehensive fisheries models built to analyze and guide our current stocking strategies so that we stock our state's waters effectively and efficiently.

Some of the earliest stockings in Aitkin County occurred sporadically in the early 1910's. More consistent fish stocking began in the 1950s and continue to the present time. These fish were stocked in a large number of Aitkin area lakes and included a number of different species including: Black Crappie, Bluegill, Pumpkinseed, Northern Pike, Largemouth Bass, Smallmouth Bass, Yellow Perch, Walleye and Brook, Brown, Rainbow, Splake, and Lake Trout.

Species	Life Stage	2015	2016	2017	2018	2019
Walleye	Fry	5,230,500	4,601,500	3,625,500	3,013,500	3,602,500
-	Fingerling	78,860	98,601	76,039	95,797	121,638
	Yearling	14,318	206	-	822	31
	Adult	103	394	1,866	-	-
Muskellunge	Fingerling	709	405	405	405	2,721
Yellow Perch	Adult	-	1,880	295	508	1,056
Rainbow						
Trout	Fingerling	5,625	6,614	5,006	6,021	5,002
	Yearling	6,912	9,506	8,140	7,417	7,755
	Adult	213	255	356	50	175
Brook Trout	Yearling	1,985	2,200	2,200	3,200	3,060
Brown Trout	Yearling	200	200	200	200	200
Splake	Fingerling	-	-	-	10,000	-
-	Yearling	-	-	-	-	2,000

Currently we are stocking Walleye, Muskie, Rainbow Trout, Brook Trout, Brown Trout and Splake. A small amount of Yellow Perch are also stocked when they are available.

Based on strategies outlined in our Fisheries Lake Management Plans, fish are stocked at a variety of different sizes including: fry (recently hatched), fingerlings (4-6 months old), yearlings (1yr) and adults/brood (2 yr +). In general, Walleyes are stocked as fry and fingerlings, but some lakes have plans for yearlings and adults when they are available. Generally if fry work, that is the way to go because they are cheaper to produce than fingerlings and often result in much stronger year classes. In many trout lakes yearlings are stocked as "catchables" when they are about 9-11 inches long; however, there are some lakes that are stocked with fingerlings too where they are known to survive and grow. It has also become commonplace to stock broodstock trout, which are larger adult fish that the hatchery no longer needs for production. The only fry that we stock are Walleye and they come almost exclusively from the Brainerd hatchery. The Brainerd staff collect eggs from a spawning run

on the Pine River near Jenkins, MN. They are then moved in coolers to the hatchery, where they are put in jars with circulating water for about three weeks until they hatch. Once they hatch, the Brainerd staff notify each area and schedule days for each to go pick them up. We then

transport them in large clear plastic jugs containing up to about

100,000 fry. The fry jugs are then kept cool and in the shade when being transported to the lake. Once at the lake, and before being released, the jugs are typically taken out to deeper water to avoid predation from panfish that would be more likely to happen in nearshore areas. A few notable fry stocked lakes are Farm Island, Hill, and Round (01-0137) Lakes.

just after they hatch

There are two ways that we acquire Walleye fingerlings for stocking in Aitkin county waters. They will either come from DNR operated hatcheries and ponds (funded by license sales), or else they will be purchased from private fish growing companies through a state. Fingerlings have a little bit different production backstory. Every year a proportion of the fry that are not stocked into lakes are stocked into shallow ponds, mostly in southwest and central MN. They are then allowed to grow all summer and then in Fall they are captured in trap nets by the local area Fisheries staff and then are distributed to other areas for stocking in lakes that need fingerlings.

This is the same process that is used by private fish hatcheries to produce the fingerlings that we purchase. DNR fisheries is legislatively mandated to purchase a certain amount of fingerlings from the private sector each year and this is what the revenue from the Walleye Stamp is used for. In recent years, most of the fingerling stocking that occurred in the Aitkin area are purchased from private growers. They will load them on their trucks, have them inspected by DNR staff in their respective area, and then transport them up to Aitkin. We then inspect their loads, collect genetic samples on waters north of Hwy 210, and finally we meet them at the lakes that need to be stocked. Each tank(s) is loaded with the appropriate amount of fish based on the specific management plan for each of the lakes. Typically, the fish we buy are grown in ponds from western Minnesota, which is an area of the state known for its productivity. Fingerlings can vary greatly in size, but we typically stock fish that are 15 to 35 per pound and about 5-8 inches in length. Last fall the state paid \$20.50 per pound for fingerlings. As an example, in that same year (2019), the Aitkin fisheries area stocked about 5,000 pounds of fingerlings that cost just over \$100,000. Some notable fingerling stocked lakes are Esquagamah, Dam and Waukenabo Lakes.We also spend a fair bit of time stocking trout into our four different stream trout lakes (Blue, Taylor, Loon and Long), and one designated trout stream (Two River Springs). Blue lake is stocked with Rainbow Trout, Taylor Lake is stocked with Rainbow Trout and Brook Trout and Loon Lake is stocked with Rainbow Trout and Brown Trout. The upper pools of our designated trout stream (Two River Springs) are stocked with Brook Trout. All of the trout we stock are raised in one of the four MN DNR cold-water hatcheries. The closest cold-water hatchery to Aitkin is the Spire Valley hatchery located a few miles north of Outing. The other three cold water hatcheries are located in Southeast Minnesota.

That pretty much sums up a stocking cycle for the Aitkin area. Unfortunately, due the Covid19 pandemic DNR Walleye and

Muskellunge egg take operations were cancelled statewide for 2020, so it is uncertain yet how many fish will be stocked in Aitkin County or anywhere in the state this year. No Walleye fry were stocked this spring, which is a first for many decades. There may be a limited supply of fish from private growers and some yearling Walleyes available in the fall, but that is yet to be determined. Trout hatcheries, however, were allowed to operate at a near normal level, so we were able get our allotments of trout stocked in Aitkin Area waters. A few extra Brook Trout were stocked in Taylor Lake simply because one of the lakes in another area could not be accessed safely while still maintaining Covid-19 protocols.



Limnology Basics: Aquatic Vegetation a vital part of a

By John Kempe



To many people, when they see aquatic vegetation in a lake they think of it as a "weed" and a nuisance. However, aquatic plants play an important role in Minnesota lakes – from providing food, habitat and oxygen for aquatic organisms, to stabilizing shorelines and sediment, to helping water clarity by absorbing runoff and nutrients; it's easy to see why a healthy lake often has a diverse plant community. Minnesota has approximately 150 species of aquatic plants and algae. Available light is a necessity for aquatic plants, and they are in general more likely to be found in muddy or soft sediments than they are in sand or gravel. Aquatic plants are often divided into four groups – Emergent, Floating-leaf, Submerged and Algae (Figure 1). Let's take a closer look at these groups and the functions they provide to the ecosystem.



Emergent vegetation

Emergent plants are often located near the water's edge and are rooted in the lake bottom with their leaves and stems extending out of the water. Emergent plants absorb nutrients before algae can utilize them and stabilize the bottom sediments of a lake helping improve water quality and clarity. Common emergent plants found in Aitkin County include bulrush, cattails and wild rice. Bulrush are found in shallow waters up to about 8 feet deep and provide excellent fish habitat for spawning Northern Pike and Yellow Perch along with being a food source for ducks, geese and swans. Cattails are found in shallow shoreline areas of lakes and help protect shorelines from wave erosion. They



A wild rice bed in an Aitkin County Lake in September. This emergent vegetation will offer excellent spawning habitat to Northern Pike and Yellow Perch in the coming spring.

are a primary food source for muskrats and are an extremely versatile wild edible plant - select parts of the plant are available for harvest during every season of the year! Wild rice is located in soft, mucky sediment, and their leaves float on the surface during late spring/early summer, but by early July they emerge from the water and grow stalks from 3 to 10 feet tall by the time they mature. Wild rice is a magnet for waterfowl and red-winged blackbirds and is an important social and cultural component for Native American tribes and rural Minnesota communities. Fun fact – wild rice has a higher protein content than most cereal grains and contributes at least \$2 million to that state's economy each year! Other less common emergent plants include sedges, arrowhead, spike rush, pickerelweed, cane and many others less conspicuous plants.

Floating-leaf vegetation

Floating leaf plants are typically rooted in the lake bottom, however their leaves and flowers float on the water surface. They are typically found in protected areas where wave action is not very strong. Duckweed is one of the smallest vascular plants, typically



Here are some of the most common representatives of floating leaf vegetation at Hammal Lake: Yellow pond lily and white water lLily mixed in with water shield (aka "snot weed" – called that due to slimy clear protective covering on the underside of floating leaf).

consisting of a leaf of cluster of leaves with small roots that hang down into the water. It is commonly

mistaken for algae, due to the thick green like blanket it often forms on the water surface. A close examination shows duckweed is not interconnected, unlike filamentous algae. Duckweed provides food for waterfowl and marsh birds, however if it gets too thick, it may shade out larger submerged plants. Water lilies are a common floating-leaf plant. They provide shade for various fish species, food for waterfowl via seeds, and are often planted in water gardens for their beauty. While it may be tempting to remove them for a decorative plant, it is usually best left alone since removing it may allow less desirable plants to move in.

Submerged vegetation

Submerged plants have stems and leaves that grow entirely underwater and are found from near shore to the deepest part of the lake light can penetrate known



Nice examples of submerged vegetation at Clear Lake, with various pondweeds and wild celery (the brownish blade like plant in foreground), along with a Bluegill making use of this excellent habitat.

as the "littoral zone". They are one of the most diverse categories of aquatic plants and include pondweeds, coontail, Canada waterweed, watermilfoil and wild celery. Submerged vegetation often provides for exceptional fish habitat. Fishermen will often refer to a patch of "cabbage", which is a term used for a thick broad-leafed pondweed bed, and will often provide good fishing. Depending on the species, submerged plants can form dense stands or surface mats, be sporadic throughout a given area, or form a type of vegetative mat or carpet near the bottom of the lake. Due to their diversity, they perform a variety of lake functions, to include but not limited to – providing food and cover for fish and invertebrates (Figure 2), producing oxygen, and improving water clarity. In some instances, those species that produce dense surface mats like coontail, watermilfoil, and Canada waterweed can also be a bit of a nuisance for those recreating on surface waters, which is why the DNR is a bit more liberal when developing rules for the management of submerged vegetation than they are for emergent vegetation.

Algae

While not a vascular plant, algae is common in all lakes and has no true roots, stems or leaves and is what gives the lake water a green tinge. They range in size from tiny, one-celled to medium sized colonies of green and bluegreen algaes, to large, multi-celled organisms. Small planktonic algae provide food for certain small aquatic animals and young fish in open water, while the much larger *Chara* or "muskgrass" stabilizes bottom sediments and supports insect and other small aquatic animals, as well as waterfowl.

Chara is an advanced form of algae and is often mistaken for a vascular plant. It is identified by a strong musky/skunky odor when crushed and a gritty feeling texture due to mineral deposits on the surface. In native



The arrow points to Chara, which is mixed in a bed of the grass like vascular plant known as Slender Milfoil at Clear Lake near Glen.

Muskellunge waters like Leech and Cass Lakes, Chara is the preferred spawning habitat for this trophy species.

Green algae is the most commonly seen of the planktonic algae. It drifts in the open water and is a food source for microscopic creatures called zooplankton, which in turn feed many species of fish. Green algae also accounts for a significant amount of the oxygen production in lakes and oceans. Too much green algae though can then limit light penetration and can inhibit production of vascular plants, and when they die they drift to the bottom where microbes break them down and in so doing can use up oxygen that is needed for other organisms.

Diatoms, a lesser-known yet major group of algae. They are found almost anywhere there is water) on the planet (oceans, lakes, rivers, wetlands and generate about 20 to 50 percent of the oxygen produced on the planet each year! They are also commonly used to monitor past and present environmental conditions, and are used in studies involving water quality. One really cool thing about diatoms is there cell structure, with cell walls composed of silica. Their diversity of shapes are truly quite amazing. Do a browser search on "diatom shape" to see what I mean.

Blue-green algae are actually types of photosynthetic bacteria called Cyanobacteria that are normally present

in



This was an isolated blue-green algae bloom at Dogfish Lake several years ago. It exhibited the classic "spilled paint" look. Be sure to keep your kids and pets from this water.

many lakes. Blue-green algae thrives in warm, nutrient rich water and when conditions are right, they can grow quickly, causing a "bloom". When these blooms occur they often looked like a can of spilled paint, or maybe even like a bunch of tiny grass clippings floating in the water. These blooms can be a sign of deteriorating water quality, and can often be a precursor to a lake changing from a clearwater to a more turbid state. Most often in our area, blue-green blooms are usually isolated to one part of a lake and are often due to the perfect environmental conditions with high nutrients and warm weather. One thing to note is that when some species of blue-green algae bloom they can produce "cyanotoxins" that can be harmful and even deadly to mammals. Be sure not to let your pets or kids into water like that. Most often though, they are just a bit stinky. Regularly we hear from

people that think sewage was dumped, whereas it's usually just a blue-green algae bloom. More information on blue-green algae can be found on the MN Pollution Control Agency website

(<u>https://www.pca.state.mn.us/water/blue-green-algae-and-harmful-algal-blooms</u>).

Algae lookalike...Pollen is often mistaken for algae, due to their similar appearance. A closer examination will often help with identification, as pollen will typically float on the surface, be a bit more yellow in color, and does not become filamentous or stick together, whereas blue-green algae will have a sticky, slimier texture and green algae is usually mixed throughout the upper water column. When we look at a sample under the microscope, we can tell it's not algae simply because there is no nucleus and no chloroplasts within the cell structure.

Aquatic Plant Management

The DNR's aquatic plant management program's purpose is to balance native plant conservation with the desires and rights of riparian residents to recreate and access the public waters. If you are This is a micro-photograph of pine pollen from a sample that was brought into our office by a concerned citizen. We are more than happy to examine your samples if you have a concern or are just curious.

thinking of removing aquatic plants, here are some, but not all activities that require a permit: destruction of any emergent vegetation, removed submerged vegetation in an area larger than 2,500 square feet, applying chemical pesticides and herbicides, removing bogs, and transplanting aquatic plants into public water. More information can be found by clicking on the DNR website (<u>https://www.dnr.state.mn.us/apm/index.html</u>).

Invasive aquatic plants

Unfortunately, we have all been familiarized with the acronym AIS in recent years. AIS include non-native plants that can potentially create recreational nuisances to lakes and reduce native plant diversity. The DNR's goal of invasive plant management is to minimize harmful effects caused by invasive plants while also protecting the natural resources and their use in the State. Commonly managed invasive aquatic plants include: Eurasian watermilfoil, curly-leaf pondweed, purple loosestrife, starry stonewort and flowering rush. Information on obtaining a permit for AIS control or to report a new sighting can be found by clicking on the DNR website (Https://www.dnr.state.mn.us/invasives/iapm.html).

A note from Rick:

I am very happy to introduce our new Fisheries Specialist, John Kempe. John just started with us in Aitkin in early March, but he has been with the DNR since April 2019. John grew up on a dairy farm in Wadena County, a little over an hour west of Aitkin. He's an Air Force veteran and received a master's degree in Aquatic Biology from Bemidji State University, after studying population dynamics of Northern Pike. He is extremely excited to get to work to to help manage all of the amazing rivers and lakes located throughout Aitkin County. John will be helping out with some of the high-tech fish telemetry work we'll be doing on Big Sandy.







 ${\sf D}$ id you know the Minnesota DNR manages approximately 4,500 lakes and 16,000 miles of fishable rivers and streams? Here at the Aitkin Fisheries Office we manage more than 150 lakes, many of them popular fishing destinations such as Big Sandy, Farm Island, Cedar, and Minnewawa, along with 110 miles of the Mississippi River and hundreds of miles of other warm water rivers and streams.

Fishing is one of the few outdoor recreational activities that can be enjoyed at almost any age regardless of skill, experience or disability. Not

only does fishing connect people to the outdoors, it can have social benefits as well. Physical exercise, relaxation, stress relief, and bonding with family members and friends are a few of the social benefits.

As Minnesotans, we have a unique opportunity to get outdoors and enjoy aquatic habitats. Unfortunately, not everyone has the exposure or ability to do so. We help to provide that opportunity locally through our outreach events.

Youth programs

- After School Elementary Programs -0 our fisheries staff visit the Aitkin County Elementary schools and provide 30-minute presentations/activities to groups of students ranging in age from Kindergarten – 3^{rd} grade.
- Kids Ice-Fishing Event 0 - Aitkin County 5th graders get to spend a day out on the ice with multiple agencies in our area. The students are split into small groups and rotate through stations such as, ice safety, aquatic food chain tag, and of course, ice fishing! This is a two-day event for our office - one for the McGregor and Hill City students near McGregor and the other near Aitkin for the Rippleside students.
- 0 Kindergarten Day – our office sets up a fish mount booth at Rippleside Elementary school for 100+ kindergartners. We are there to share fish education materials and answer questions as well.
- <u>4th Grade DNR Day</u> All 4 divisions of the Aitkin 0 DNR Office participate in this event. Our fisheries staff provide a variety of hands-on activities, such as, knot tying, casting, and identifying fish mounts, along with fish education learning.







Newsletter - visit our website: https://www.dnr.state.mn.us/areas/fisheries/aitkin/ind ex.html or become a member of our email distribution

> newsletter. Send member requests to: aitkin.fisheries@state.mn.us

o Warriors on Water - * new in 2019* a veteran's fishing event held at Sandy Lake Recreation Area/Libby Dam. Thanks to a vision by Alisha Hallam, our Aitkin Fisheries office established a committee dedicated to honoring our local veterans by providing a free guided fishing event. More than 30

> local vets took to the water for a relaxing day of fishing. Many of our local businesses donated food, monetary donations, and grab bag items to add to the excitement of the day. It was such a hit; we decided to make it an annual event

o Rivers and Lakes Fair – I think it's "fair" to say our DNR Fisheries booth is one of the main attractions at the Rivers and Lakes Fair. Located outside, the fish tank and turtle tub draw the attention of children and adults alike. Of course, we have staff on hand to answer questions and share important fish education as well.

Here at the Aitkin Fisheries Office we value the importance of educational programs that will promote fishing recreation and the protection of our aquatic habitats. It is our hope that, through the teaching of science and the activity of fishing, we can collectively plant the seed of conservation in our youth and ultimately benefit from their understanding of our natural resources. If you are interested in more information on our outreach programs, please don't hesitate to reach out to me via email at Kristi.kunz@state.mn.us.



