

News Reel

Waterville Area Fisheries Newsletter

Spring 2020

ABOVE: The eyespot of a Bowfin. The eyespot is located near the tail and may confuse potential predators. Bowfin are native fish and are often mistaken for invasive snakehead. See story on page 3.

Soup's Take

Fry or Fingerling? Part 2 of a 3 part series

In the last Newsreel issue we took up the topic of Walleye fry versus fingerlings. If you missed that issue Part 1 can be found at: <https://www.mndnr.gov/areas/fisheries/waterville/newsletter.html>

We established when a lake is highly productive, winterkills, or is reclaimed Walleye fry stocking can result in great success, and for low cost. So, what about when a lake is more stable, less productive, and with a more complex fish community? It is these situations that can lead to consideration of stocking fingerlings, or even not stocking Walleye at all. Ok, I might have made some of you cringe at that last comment. Walleye are the state fish after all; however, Walleye are not suited for all lakes and we must accept that reality up front!

The fact is, Walleye fry are small at the time of stocking and fry have a long and dangerous road to travel in order to recruit into the population anglers target (typically around 1 lb. or 14 inches, about 2 to 3 years of age in southern MN). This road to recruitment includes the need to survive the stocking process, find adequate food, seek cover from predators, find and secure a proper mix of cover and feeding habitat, and to be

in proper condition by fall to survive winter in Minnesota. It is these complex dynamics that interact to dictate if fry stockings are effective or if stocking larger fingerlings may be advantageous.

Walleye fry initially require microscopic zooplankton as food. In most southern lakes with high nutrients and low water clarity zooplankton abundance is often high in spring. This is critical for Walleye fry coming from the hatchery that need to find food right away. Conversely, in lakes with low nutrients and high water clarity the zooplankton may not be abundant. This lack of food at the critical time of stocking can limit survival of Walleye fry. Another issue with clearer lakes (even if only seasonally) is these lakes often support abundant panfish. Not only can there be inadequate food for Walleye fry, but also the Walleye themselves can quickly become food for other fish species, or compete for similar food resources. For example, high crappie abundance can really hinder Walleye fry, as can high Bluegill and bass abundance. Walleye fry can struggle to get through the gauntlet of predation and competition during the first year of life. These conditions are where stocking fingerling Walleye may be suitable. *(continued on page 2)*

Spring stockings

Spring means stocking and Waterville staff will be busy stocking Walleye and Northern Pike fry into many lakes. Check the lists below to see if your favorite lake is being stocked this spring.

Walleye

- Bass
- Cannon
- Cedar
- Circle
- Crystal
- Elysian
- Fox
- French
- German
- Gorman
- Loon (BE Co.)
- Lower Sakatah
- Lura
- Madison
- Roberds
- Sabre
- Shields
- Tetonka
- Upper Sakatah
- Volney
- West Jefferson

Northern Pike

- Bass
- Clear (Le Sueur County)
- Clear (Waseca County)
- Duck
- Emily
- Fountain
- Reeds
- Rice
- St. Olaf
- White

Right: A net containing fingerling Walleyes ready to be stocked into a Waterville Area Lake. Fingerling stockings are an option for lakes where fry stocking has been unsuccessful. See story on page 1 and 2 for more information on stocking Walleye fingerlings.



Fingerlings *(continued from Page 1)*

Walleye fingerlings stocked in Minnesota are mostly raised in natural, shallow, and highly productive lakes and ponds scattered throughout the state (rearing ponds). These rearing ponds provide the perfect conditions for high fry survival, plentiful food, and fast growth. From stocking Walleye fry in May to the time of harvesting in September and October Walleye have achieved 4 to 7 inches in length or greater. Thus, using a natural pond to boost survival of fry to fingerling size, and then stocking them into a lake, can eliminate part of the hard road a young Walleye fry must travel relative to being stocked directly into a lake.

So why don't we just stock fingerlings everywhere? These larger fish are much less available and take a lot more effort, so there is much higher cost. We also stock fingerlings in much lower numbers in general. When

fingerlings are used we can expect lower overall population numbers, relative to fry stocking potential.

There is also the issue of availability. To produce Walleye fingerlings requires clean natural ponds. Historically, the best rearing ponds have been available following heavy winters. Winterkills clean out rearing ponds of all fish and essentially reset them. The reset is the trigger to produce a lot of Walleye fingerlings. With climate change we are having fewer winterkills than in the past, so we don't always have the clean rearing pond capacity to produce large numbers of fingerlings. Lower capacity makes these larger fingerlings a limited commodity, or at least inconsistently available. The DNR has used means to mimic winterkill such as reclaiming ponds, but that also increases the cost to the point it is impractical.

The bottom line is fingerlings are a good option in certain lakes, but where to use them is largely determined by environmental conditions of an individual lake. Given fingerlings are more costly and less available the decision to stock fingerlings must be made with a great deal of consideration of all the history and facts of an individual lake.

In the next issue I will show an example from the Waterville Area and walk through a tool we use to aid in making the decision between stocking fry or fingerlings. The example will help clarify the nuts and bolts behind decision-making.

Be safe, and remember, a fishing rod is about 6 feet long, meaning it is the perfect tool to accommodate social distancing! Get out fishing!

-Craig Soupir, Area Fisheries Supervisor

Survey says...

It's going to be a big year for surveys. The biggest, of course, will be the 2020 Federal Census. But, Waterville staff will be busy with our own surveys. Fisheries workers perform a variety of surveys. Let's take a look at some of them.

Standard Survey

Standard surveys are conducted on most of our area lakes and are standardized across the state. Standardization means crews in Waterville use the same nets as crews in Bemidji. The number of nets is also standardized by lake size - big lakes get more nets. Timing of surveys is also standardized, meaning a lake is surveyed at roughly the same date each time.

Standard surveys target the entire fish community using a variety of gears including

Survey Season

Preparations are being made for the upcoming summer survey season. Standard fish community surveys will be conducted at:

- French
- Shields
- Roberds
- Tetonka
- Lura
- Rays
- U. Sakatah
- L. Sakatah
- Cannon
- Sabre
- Wells

gill nets, trap nets and electrofishing. During standard surveys fish are counted, measured, weighed, and have ageing structures removed. Standard survey results help us track trends in fish numbers but do not tell us exact numbers of fish. Results are published on Lake Finder.

Targeted Survey

Targeted surveys focus on a certain fish species or a certain time of year. The most common targeted surveys are electrofishing for bass in the spring or young Walleye in the fall. We also conduct targeted surveys for Bluegills in the spring.

Ice-out Survey

Ice-out surveys are completed in early spring to check for winterkill on lakes suspected to have low oxygen levels over the previous winter. If no fish are found appropriate species are stocked according to the lake management plan.

IBI Survey

IBI means Index of Biotic Integrity. These surveys are conducted near the shoreline and target small fish or young fish. We use seines and backpack electrofishing during IBI surveys. IBI surveys measure the health of a lake using the fish found in its waters.

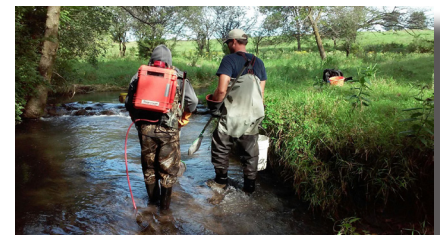
Score the Shore Survey

A score the shore survey is completed in conjunction with IBI surveys and measures

the quality of shoreline habitat at a lake. Survey crews circle the lake recording habitat scores and taking pictures of the shoreline. Scores are compared statewide and are used to detect lakes where habitat improvements are needed.

Stream Survey

Stream surveys are usually conducted on trout streams but are also done on warm-water streams. The most common gear is backpack electrofishing. Waterville staff typically conduct one or two stream surveys each year.



Waterville staff sample Rice Creek.

Creel Survey

Creel surveys are used to measure angler effort, catch, harvest, and demographics. Creel surveys are conducted by a creel clerk who counts boats, measures fish, and asks anglers questions on the water. Creel surveys are very important tools but are also very expensive.

All these surveys contribute to how we manage area lakes.

Informed Communication

Working for the citizens of Minnesota can be very rewarding. For those of us who work as a public servant, improving the way of life for those you work for is the ultimate goal. Identifying public goals while maintaining the integrity of natural resource management can be a difficult. Varying opinions on managing natural resources is common as people have a wide range of views regarding the what's and why's of natural resource management.

DNR Mission Statement

The mission of the Minnesota Department of Natural Resources (DNR) is to work with Minnesotans 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.

The statement itself encompasses a wide range of scope but the first sentence is telling in its outline of working with Minnesotans. The key here is that the Minnesota DNR must work with its constituents to fulfill the mission of the Department.



Volunteers sample bass.

Be Informed

Often, when DNR staff engage the public we hear the same response: "That makes so much more sense after you explained it". We want people to completely understand the reasons we make the decisions we make. There are many resources available to assist with this including: offices with staff throughout the state, the DNR website, the Fishing Regulations Handbook, public meetings, and news releases. Bottom line, we all work together to make great fisheries resources and we want you to accurately pass your knowledge on to others.

Public Input

The DNR also holds public meetings to gauge public support for projects that may improve the outdoor experience for our constituents. Go to these meetings and reach out to those in the Department that can answer your questions or concerns. Employees within the DNR will also speak on topics that any group or club is interested in. Make contacts with those involved with areas of natural resource management you are interested in and ask them to speak to your group on topics of concern.

The Minnesota DNR webpage <https://www.mndnr.gov> has a wide range of topics that can answer questions you may have. The About DNR tab on the far right has a host of information and contacts for finding information that may be valuable to you.

Volunteers

Lastly please volunteer and partner with the Department this will give you a unique perspective and allow you to get a better understanding to the what's and the why's of DNR work. Call your local area office about volunteer opportunities or use the Minnesota DNR webpage.

-Andrew Scholten, hatchery manager

Waterville Volunteer Options

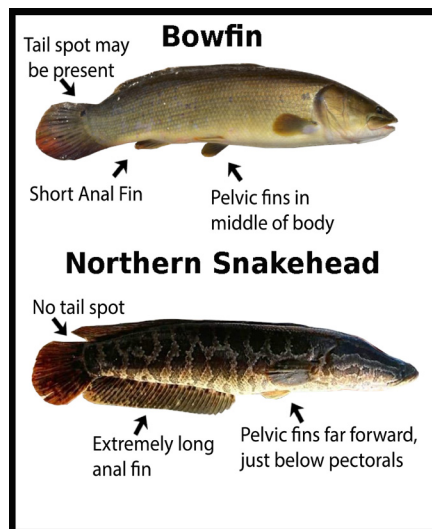
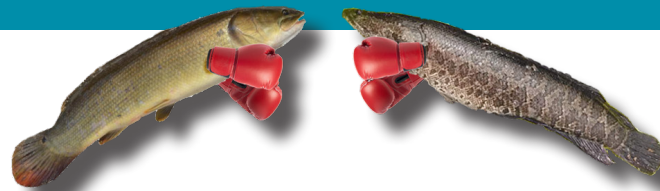
- Spring Bluegill surveys
- Spring Northern Pike collection
- Standard summer surveys
- IBI surveys
- Summer hatchery work
- Night bass electrofishing (spring)
- Night Walleye electrofishing (fall)

Bowfin vs. Snakehead

Ring ring, ring ring, "DNR Fisheries this is Tyler." "Yes, hello, I was out fishing today and caught a snakehead would you like to take a look at it?" "Yes I would, could you bring it over to the office?"

This is a conversation that happens often over the course of a summer at the Waterville DNR Fisheries office. Every case, so far, was a case of mistaken identity of a fish that is native to this area, and most of the Eastern United States - the Bowfin. Let's compare the two types of fish and look at easy ways to tell them apart.

Though there are many differences, these fish have some similarities. Both Bowfin (or dogfish) and snakeheads like to inhabit marshy, well vegetated habitat where they can hide to ambush their prey. Both fish are capable of breathing air when oxygen levels in the water are low. The snakehead uses a special-



Tips for Bowfin and snakehead identification.

ized organ called the suprabranchial organ in order to "breathe" air. Bowfin are able

to gulp air at the surface and hold it in their gas bladder, which acts like a lung. The sound a Bowfin makes while gulping air sounds similar to a dog's bark. This is where the other common name, Dogfish, comes from.

The ability to breathe air also gives the snakehead the ability to move over land a short distance when they are young. This is one of the reasons the snakehead is feared as an invasive species.

Feel free to use this article to help identify your catch. If you still have any doubt which species you caught, give us a call and we will gladly take a look. We never know when it could be "The One".

-Tyler Fellows, fisheries specialist

WATERVILLE AREA FEATURES:

LAKE TETONKA, LeSueur County

Lake Tetonka covers over 1,300 acres on the west side of Waterville and is popular with boaters and anglers. Two public boat ramps and a number of private resorts provide access. Lake Tetonka is also connected to Upper Sakatah Lake via the Cannon River.

Fish Community

Lake Tetonka offers a diverse array of game fish including Walleye, Northern Pike, Bluegill, Yellow Perch, and Black Crappies. The lake also hosts small populations of Smallmouth Bass, White Bass, and Channel Catfish.

Walleye

The Walleye population in Lake Tetonka is maintained through stocking efforts and the DNR fish hatchery is located on the south side of the lake in Antl Bay. However, excellent natural reproduction has been documented in recent years, something ice anglers took advantage of this past winter.

Lake Tetonka is home to a genetic strain of Walleye found only in southern portions of Minnesota. This southern strain is the current subject of DNR research and appears better suited for the warm, turbid waters of

the region than northern Walleye.

Surveys

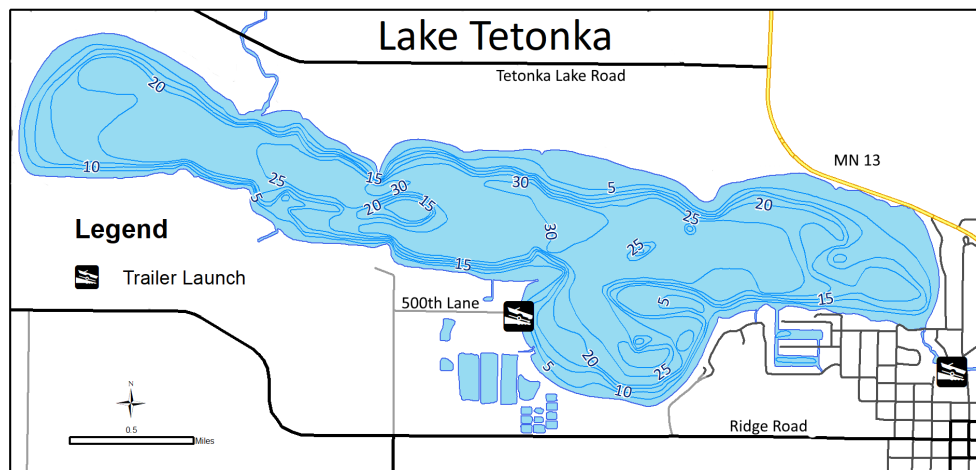
Lake Tetonka will be the focus of a number of surveys in 2020 (see page 2 for survey details). An ongoing creel survey will assess angler catch and pressure. A survey targeting Bluegills will be conducted in the spring as part of the Quality Bluegill Initiative. A

the waters of the Lagoons, located on the southeast side of the lake, warm quickly and attract numbers of Bluegills and crappies. The Lagoons area offers a pier and a park-like setting with easy shore access.

At the base of the city water tower (you can't miss it) is a boat access and shore fishing option along the Cannon River.

Anglers will find Bluegills and Large-mouth Bass along this stretch for most of the season. Other fish such as Northern Pike and Walleye can also be caught here.

A fishing pier is also located on the hatchery grounds and is connected to the public boat access by a foot trail. Fishing the shoreline of Lake Tetonka on hatchery grounds



standard fish community survey will be done this summer along with an IBI survey and Score-the-Shore assessments.

Electrofishing for bass will occur in the spring and electrofishing for Walleye will occur in the fall.

Shore Fishing

Lake Tetonka offers some excellent shore fishing opportunities. In the early spring

is allowed but fishing is not allowed in the hatchery ponds.

Information

For more information on Lake Tetonka call the Waterville Area Fisheries office or visit LakeFinder on the web at: <https://www.mndnr.gov/lakefind/index.html>

New Trout Opportunity

Anglers in southern Minnesota will have a new opportunity to catch Rainbow Trout this spring. Hatchery-raised Rainbow Trout will be stocked into the portion of Wolf Creek within Austin's Todd Park.

Todd Park, which is located in the northeast portion of Austin, has nearly 1 mile of stream access. Anglers will find Wolf Creek easy to walk and clear of obstacles such as brush or trees. Some of the best habitat

will be located downstream of the large artesian spring, although water temperatures should be ideal for trout throughout the stream in April and much of May.



Waterville staff will stock 300 Rainbow Trout in time for the trout opener which

falls on April 18th, 2020. An additional 300 Rainbow trout will be stocked two weeks after the opener. Stocked Rainbow Trout usually run about 10 to 12 inches in size.

A trout stamp is required for anglers over 16 to possess trout.

This new opportunity is the result of a collaboration among the DNR, Mower County Soil and Water Conservation District, and the City of Austin.

To submit topic ideas contact Brandon Eder at brandon.eder@state.mn.us or call 507-497-1823.

WATERVILLE AREA FISHERIES
50317 Fish Hatchery Road Waterville, MN 56096

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