Field Notes

From the Hinckley Area Fisheries Office

Fisheries management news from the Chisago, Isanti, Kanabec, and Pine County area, Summer 2022

Fisheries “busy season” in full swing

It’s hard to believe “meterological” summer is already half over. This year it seemed that wintery weather extended well into spring, and spring happened all at once, complete with wind, rain, and other “crazy” Minnesota weather. Ice out was delayed on many lakes. This led to some challenges for DNR Fisheries areas that collect and spawn walleye and muskie eggs. One area even had its spawn station docks taken out by ice. By the time the eggs got to hatcheries, hatching was delayed by about 2 weeks from the usual time. Despite this, our area was able to get all the walleye fry we needed to stock lakes and rearing ponds.

A small lake sturgeon seen during the Pokegama Lake survey

From ice out until September, Hinckley Fisheries staff are out on lakes and streams conducting various types of surveys. Spring started with trap netting for northern pike on North and South Center Lakes as part of a routine evaluation of special regulations. Then we did a muskie netting assessment on Island Lake, with nets set while there was still ice in the north bay. The month of May continued with trap netting for crappie and bluegill (part of our regular surveys) and night electrofishing for largemouth bass.

Our regular lake survey schedule for 2022 includes the following lakes: **Cross (week of 6/20), Fannie (week of 6/27), Skogman (week of 7/4), Pokegama (week of 7/11), South Lindstrom (week of 7/18), Chisago (week of 7/25), Big Pine (week of 8/1), Pine (South Pine) (week of 8/8), Spectacle (week of 8/14), Knife (week of 9/12).**

We saw some big catfish in Pokegama Lake. This one measured over 30 inches.

A fish survey on Stanton Lake will be of special interest. The lake, located in the town of Willow River, drained after the dam washed out in 2016. A “rock arch rapids” completed in 2021 restored the lake level and now allows fish passage and connection with the Kettle River. We will find out which species have found their way into the lake and determine if any fish stocking would help to restore the recreational fishery.

Our lake and stream survey program has been a vital part of our work for over 50 years. The information we gather helps us to determine how best to manage lakes. Additionally, researchers can pull lake survey data from a statewide database to investigate broader questions about fish populations in Minnesota.

Enhancing fishing opportunities in St. Croix State Park

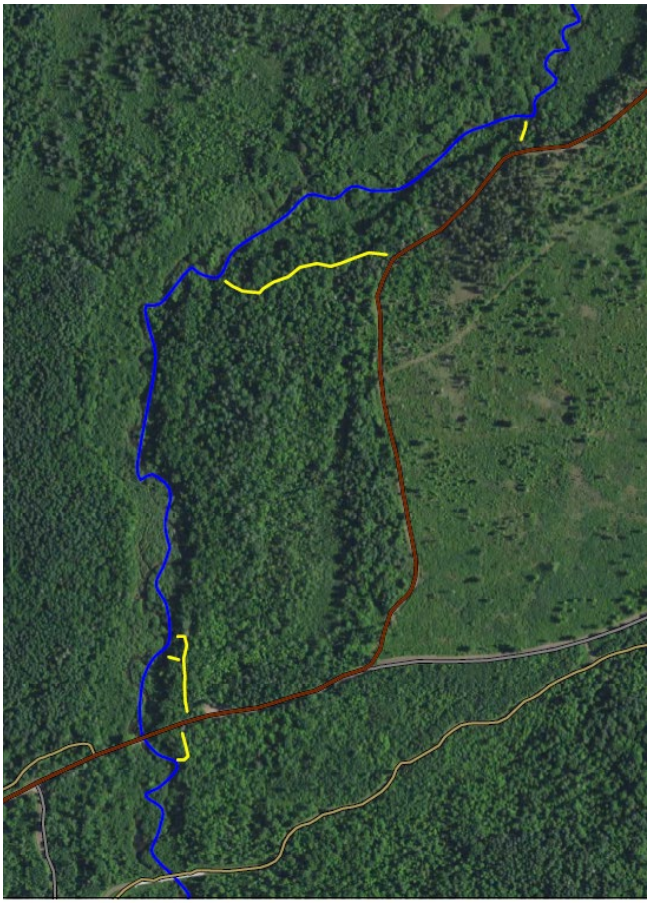
At nearly 34,000 acres, St. Croix State Park is the largest state park in Minnesota. Located east of Hinckley, the park offers access to two rivers: the St. Croix and the Kettle. Ten other streams flow through the park; three of these, Hay Creek, Little Hay Creek, and Crooked Creek, are designated trout streams.

Fishing is a popular activity among park visitors. Anglers can fish for a variety of species in the rivers, including smallmouth bass, walleye, northern pike, catfish, suckers, and lake sturgeon. Crooked Creek is stocked with rainbow and brown trout annually in the spring. Hay Creek has a natural brook trout population and is considered the best trout stream in Pine County. However, the banks of Hay Creek have thick growth of brush in many places, making access and fishing difficult.

Hinckley fisheries staff have been working with park managers Rick Dunkley and Josh Zaudtke to identify areas to develop access trails and clear streamside brush along Hay Creek. What was needed was a crew that was available and willing to do the work. That's where the Challenge Incarceration Program (CIP) came in. Based at the Minnesota Correctional Facility- Willow River, CIP allows non- violent offenders to participate in a rigorous "boot camp" style program to develop life skills through educational, vocational, and restorative justice opportunities. Work crews perform a variety of tasks for community service. On May 18, a crew came to the park and cleared brush to create new trails off the park road and the Matthew Lourey State Trail. The men were very hard-working; in less than 5 hours they had created 5 new trails and access points along Hay Creek. Follow up work will be done in late summer or fall to create even more brush-free areas along the stream. These trails will need to be maintained periodically as brush grows back.

Signs have been posted to mark the new trails; maps are available in the park office.

This map shows the new access trails, marked in yellow. The Hay Creek parking area is near the trails in the lower part of the map. To get to Hay Creek, drive 2 miles west of the park office on Head of the Rapids Road.



For more information on fishing in St. Croix State Park, stop by the park office or call 320-280-7880. Email address is: stcroix.statepark@state.mn.us

Healthy shorelines, healthy lakes

This column will be a regular feature in Field Notes. In it we will discuss shoreline ecology and provide tips on making your shoreline fish and wildlife friendly.

Edge habitat is recognized in the ecology field as the most productive, diverse habitat. In the case of shorelines, we are talking about the transition area from the uplands, which may be wooded or prairie, to a fringe of wetland plants (grasses, wildflowers, willows), to the shallows, which may contain emergent and submergent vegetation as well as algae growing on rocks. Fallen trees add to the structure and cover. All of this provides shelter and food for fish, frogs, turtles, waterfowl, herons, songbirds, and various mammals. The shallows are a production area for insects and other invertebrates, which are the base of the lake's food chain. Shoreline buffers and vegetated corridors allow for the movement of amphibians and mammals from the water to upland sites. Shoreline is habitat.

Humans have relied on Minnesota's lakes for thousands of years. Native peoples, including the Ojibwe and Dakota, have hunted, fished, and gathered food plants in and around lakes for sustenance for generations. More recently, Minnesotans have come to appreciate lakes for recreation: fishing, boating, and swimming. The family lake cabin is a tradition for many.

In the last eighty years, lakeshores in Minnesota have changed considerably as people built more and more lake cabins and homes. The nature of shoreline development has been changing. Rustic seasonal cabins are being added on to or replaced with larger luxury cabins or year-round homes. The amount and nature of landscaping being done on lakeshore lots has been changing as well. These changes have raised some concerns about removal of fish and wildlife habitat, and about effects on water quality.

Research into the effects of lakeshore development on lake ecosystems began to emerge in the late 20th century. The Minnesota DNR Section of Fisheries has one research unit with several staff devoted to habitat research. The DNR Division of Ecological and Water Resources conducts extensive survey and research work related to in-lake habitat and aquatic plants. The Wisconsin DNR has done research as well. Here are some of the findings:

- Largemouth bass and crappie show a strong preference for undeveloped vs. developed shoreline for nest site selection.
- Increased development, indicated by number of docks/km of shoreline, is associated with loss of vegetative cover (overall 15% loss in sample of 100 north central MN lakes)
- The number of green frogs per shoreline mile decreases as the number of homes per mile increases
- There are significantly less fallen trees in water along developed shorelines compared to undeveloped shorelines.
- Developed lots have less tree canopy and shrub cover than undeveloped lots. This can affect songbird numbers, especially for uncommon species.
- Mowed lakeshore lawns with no shoreline buffer increase the amount of runoff into the lake compared with lots that maintain a buffer zone.

The effects of lakeshore development are cumulative; that is, they add up around the entire lake. But there are ways that lakeshore property owners can minimize these effects and/or restore shoreline areas. In future issues we will discuss shoreline habitat components in detail and why they matter.

Grindstone River dam removal update

Background: The DNR proposes to remove the dam on the Grindstone River in Hinckley and restore connectivity to the river channel. This would result in the permanent removal of the 26.6-acre Grindstone Reservoir, which is a public water basin. The removal is proposed because the dam is in poor condition, it presents a safety hazard, and it is a barrier to passage of fish and other aquatic wildlife on the river. The dam also does not allow for natural sediment transport and natural stream features or habitat diversity.

The DNR will prepare an environmental impact statement (EIS) for the proposed Grindstone Dam Removal Project (the Project). The EIS will evaluate the Project and several project alternatives, and address their potential environmental effects. The EIS scoping documents provide information about the topics that are proposed to be included in the State EIS for the proposed project.

A Final Scoping Decision Document (FSDD) was approved on December 7, 2020. The FSDD describes the final scope of the Grindstone EIS. Work continues on preparation of the draft EIS, which is anticipated to be complete this year. Once complete, a 30-day public review and comment period will occur, which will include a public meeting.

The final EIS is anticipated to be complete next year, which will include response to substantive comments. Adequacy determination is anticipated to be next spring.

The EIS will discuss the environmental impacts of the proposed project (dam removal) and project alternatives on groundwater and private wells, plant communities, wildlife, fish, sensitive ecological resources, invasive species, sediment and contaminants, wetlands, hydrologic function, and surrounding karst geology. The EIS will also provide recommended mitigation and/or monitoring.

Finalization of project design and permitting also still need to occur before any dirt, rock or concrete is moved.

What is it? This fish was caught last winter in an area lake. It is known as a *xanthic* sunfish. Xanthic fish have a rare natural genetic mutation where all other pigments are replaced with a golden color.

Have an interesting fish photo to share? Email us!

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