



Native Fish Conservation Progress Report

As required by Minnesota Session Law 2023, Chapter 60, Article 4, Sec. 104

July 31, 2023

Report to the Minnesota Legislature

Minnesota Department of Natural Resources
500 Lafayette Road
Saint Paul, Minnesota 55155-4037
651-259-5042
bob.meier@state.mn.us
mndnr.gov

Pursuant to Minnesota Statutes, Section 3.197, the estimated cost to produce this report is approximately \$16,000.00. This includes staff time for drafting and reviewing the report.

Upon request, this material will be made available in an alternative format such as large print, Braille or audio recording.

The 2023 Minnesota Legislature directed the Department of Natural Resources to submit recommendations for statutory and rule changes to provide necessary protection and conservation measures and research needs for native fish currently designated as rough fish.

(a) By August 1, 2023, the commissioner of natural resources must submit a written update on the progress of identifying necessary protection and conservation measures for native fish currently defined as rough fish under Minnesota Statutes, section 97A.015, subdivision 43, including buffalo, sucker, sheepshead, bowfin, gar, goldeye, and bullhead to the chairs and ranking minority members of the house of representatives and senate committees and divisions with jurisdiction over environment and natural resources.

(b) By December 15, 2023, the commissioner of natural resources must submit a written report with recommendations for statutory and rule changes to provide necessary protection and conservation measures and research needs for native fish currently designated as rough fish to the chairs and ranking minority members of the house of representatives and senate committees and divisions with jurisdiction over environment and natural resources. The report must include recommendations for amending Minnesota Statutes to separately classify fish that are native to Minnesota and that are currently designated as rough fish and invasive fish that are currently designated as rough fish. For the purposes of this paragraph, native fish include but are not limited to bowfin (*Amia calva*), bigmouth buffalo (*Ictiobus cyprinellus*), smallmouth buffalo (*Ictiobus bubalus*), burbot (*Lota lota*), longnose gar (*Lepisosteus osseus*), shortnose gar (*Lepisosteus platostomus*), goldeye (*Hiodon alosoides*), mooneye (*Hiodon tergisus*), and white sucker (*Catostomus commersonii*). Invasive fish include but are not limited to bighead carp (*Hypophthalmichthys nobilis*), grass carp (*Ctenopharyngodon idella*), and silver carp (*Hypophthalmichthys molitrix*).

This report fulfills the requirement outlined in (a).

Update on Native Fish Conservation

Department of Natural Resources staff have identified preliminary protection and conservation measures for native rough fish. One of the greatest needs is additional data about these species. With decades of work focused on Minnesota gamefish, such as walleye, trout, muskie, and bass, less attention has been given to freshwater drum, buffalo, redhorse, suckers, and bullheads. The information below is a summary of actions taken since the Fall of 2022.

DNR Native Rough Fish Technical Team

- In the Fall of 2022, DNR identified a technical team of Division of Fish and Wildlife staff with expertise in nongame fishes.
- The technical team identified the following approaches for native rough fish management.
 - Identified available data pertinent to native rough fish populations.
 - Developed management strategies in the absence of data.
 - Reviewed available trend data for inland lakes, Lake Pepin, and Mississippi River pools.
 - Identified native rough fish populations that may be declining.
 - Completed a native rough fish life history summary for the stakeholder work group.

Native Rough Fish Stakeholder Work Group

- DNR established a stakeholder work group that has met four times since April 2023.
- The work group includes the following representatives:
 - Commercial fishing operators (2)
 - Friends of the SNAs (1)
 - Bowfishers (3)
 - Roughfish.com (1)
 - Asian Community Rough Fish Anglers (2)
 - The Nature Conservancy (1)
 - Izaak Walton League of America, Minnesota Division (3)
 - Minnesota Conservation Federation (1)
- DNR hired a consulting firm to lead and coordinate the work group process.
- Three DNR staff from the technical team, noted above, are also on the work group and provide context and feedback as requested.
- The group will meet again in mid-August to finalize recommendations to the DNR about native rough fish management needs, concerns, and strategies.

Native Rough Fish Questionnaire

- With input from the Native Rough Fish Stakeholder Work Group, DNR staff developed a questionnaire to obtain public input on native rough fish management that included the following topics:
 - Individual interest in rough fish management.
 - How rough fish are utilized.
 - Thoughts on various potential daily and possession limits.
 - Rough fish outreach and educational approaches.
 - Perceptions on the importance of native rough fish.

Native Rough Fish Research

- Additional native rough fish information will help inform management needs and options.
- Researchers are investigating regional genetic markers for river redhorse species identification and population viability.
- Additional funding opportunities to expand native rough fish research are being pursued.
- A thorough review of available gar data is underway. Staff are collecting additional gar population information.

- In conjunction with the technical team, fish population trends have been analyzed.
 - Numerous native rough fish species are in a potential state of decline in certain water bodies (e.g., Mississippi River shortnose gar in Pool 8, smallmouth buffalo in Pool 4).
 - Some native rough fish species appear to be increasing in population density.
- The DNR's Red River fisheries specialist continues an external research partnership with the University of Nebraska–Lincoln and the Department of Fisheries and Oceans-Canada.
 - A project funded through UN-L for additional Red River study of Freshwater Drum, Bigmouth Buffalo, and Lake Sturgeon movement and habitat use is starting this summer.
 - Manuscripts are being developed addressing Freshwater Drum population dynamics and Bigmouth Buffalo seasonal movements and habitat use.
- Bowfin are a native rough fish species with a strong potential to be vulnerable.
 - Bowfin research will start in the spring of 2024.

Ecosystem Restoration

- Ecosystem restoration is a critical non-regulatory action that help native rough fish populations.
- More than \$54 million in projects are underway in the Red River Basin, with multiple state funding sources leveraging federal and local funding.
- Ecosystem restoration includes dam removals, fish passage improvements, and stream habitat restorations.
- On average, 41% of fish species found below a barrier are absent above the barrier – making reconnection an important conservation strategy for many native fish species.

Native Fish Staffing

- A native fish biologist position that will accelerate native fish research, outreach and education, and regulations development is in the hiring process.

Looking Ahead

Between August and December 2023, Division of Fish and Wildlife staff will obtain recommendations from the native rough fish stakeholder work group and public input from the native rough fish questionnaire. The recommendations and public input, in combination with available population data, will be included in a broader agency discussion about which native rough fish species are most likely in need of protections. A report will be prepared by December 15 with the DNR's recommended research and regulatory needs to conserve and protect native rough fish populations.