Report on the Progress of Management Plan Implementation for the

Green Sturgeon

(*Acipenser medirostris*)

2026

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For copies of the recovery document, or for additional information on species at risk, including Committee on the Status of Endangered Wildlife in Canada (COSEWIC) status report, and other related documents, please visit the Species at Risk Public Registry.

Cover photo: Green Sturgeon by Daniel W. Gotshall.

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Preface

The *Species at Risk Act* (S.C. 2002, c.29) (SARA) requires the competent minister(s) to monitor and report on the implementation of recovery documents (that is, recovery strategies, action plans, and management plans) for species at risk. These reports must describe the progress made towards the species' recovery or conservation[1].

The Minister of Fisheries is the competent minister for aquatic species at risk. The minister responsible for the Parks Canada Agency is the competent minister for aquatic species at risk that are found in their jurisdiction. Fisheries and Oceans Canada (DFO) and Parks Canada (PC) have jointly prepared this progress report.

Reporting on the progress toward implementing recovery documents includes reporting on the collective efforts of the competent minister(s), provincial and territorial governments, and all other parties involved in carrying out actions that contribute to the species' recovery or conservation.

As stated in the preamble to SARA, success in the recovery and conservation of species at risk depends on the commitment and cooperation of many contributors, and will not be achieved by DFO, PC, or any other jurisdiction, alone. All Canadians are invited to join in supporting and implementing the recovery documents, for the benefit of the species and Canadian society as a whole.

Acknowledgements

The progress report was prepared by Shayla Sopracolle-Tate, Christopher Chan, and Madeline Cashion, regional recovery planners within DFO. The progress toward species recovery described in this report would not have been achieved without the partnerships and contributions of many individuals and organizations, including the Government of British Columbia.

[1] "Recovery" applies to species listed under SARA as threatened, endangered or extirpated, which require a recovery strategy and one or more action plan(s). "Conservation" applies to species listed under SARA as special concern, which require a management plan.

Executive summary

This report summarizes the progress made by DFO, PC and their partners towards implementing the management plan for the Green Sturgeon between 2017 and 2021. For more information on the contents of this document, please contact the Species at Risk Program (dfo.ncrsara-leprcn.mpo@dfo-mpo.gc.ca).

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1 Green Sturgeon (*Acipenser medirostris*)

SPECIAL CONCERN

Credit: Joel Sartore/National Geographic Photo Ark.

Fisheries and Oceans Canada (DFO) and its partners have made progress towards the implementation of the conservation measures identified in the Management Plan for the Green Sturgeon (*Acipenser medirostris*) in Canada, through the actions undertaken between March 2017 and December 2021, to support the conservation of the Green Sturgeon. The management plan provides detailed information on the species, its threats, its needs, management objectives, and conservation measures.

This progress report is part of a series of documents for this species that should be taken into consideration together, including the management plan. Refer to the Green Sturgeon species profile on the Species at Risk Public Registry for more information and related documents.

1.1 Progress towards meeting the management objective for the Green Sturgeon

Management objectives establish, to the extent possible, the conditions that are necessary for the conservation of the species. The management objective for the Green Sturgeon is to:

- maintain their distribution and abundance at existing levels or higher in Canadian Pacific waters by limiting threats to the species within Canadian waters

Three broad strategies were identified in the management plan to meet the management objective for the Green Sturgeon. During the reporting period, conservation actions were undertaken by DFO and its partners under all 3 broad strategies. Some key achievements are described below.

Broad strategy 1: management

- DFO continues to implement commercial fisheries management measures under the *Fisheries Act* to reduce bycatch mortality by prohibiting their retention and minimizing harm.
- DFO continues to implement recreational fisheries management measures prohibiting the retention of Green Sturgeon in freshwater and tidal waters (DFO 2021).

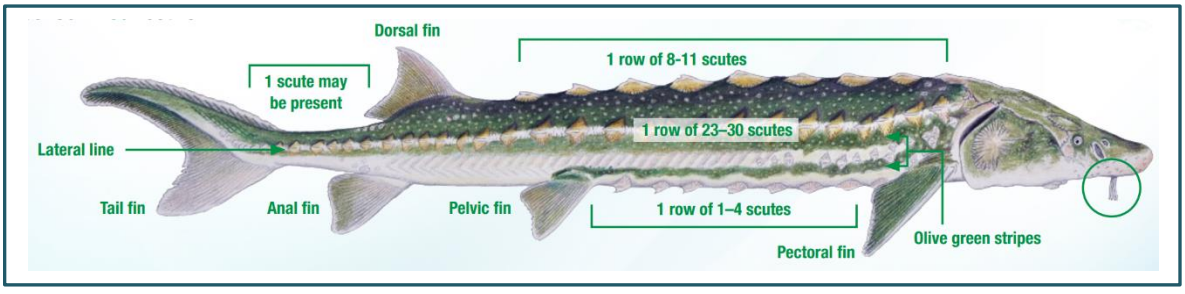
- The Government of British Columbia (BC) also prohibits the retention of Green Sturgeon throughout BC nontidal areas, where they have delegated authority for management of Green Sturgeon (summarized in: Government of BC 2025).

Broad strategy 2: research and monitoring

- The Novel Applied eDNA Metabarcoding Reference Sequence (NAMERS) resource published a complete genome and high quality reference DNA sequence library for the freshwater fishes of BC (Westfall et al. 2024). This work mapped the entire genome of Green Sturgeon and will be an important tool to support continued identification and distribution research using eDNA.
- The Government of BC deployed and maintained a 30+ unit receiver array in the lower Fraser (up to Yale area), Pitt, and Harrison rivers during the reporting period. This telemetry array, like similar arrays deployed over the past 10 years in smaller tributaries and lakes, primarily monitors coastal cutthroat trout, smallmouth bass, and other freshwater species (Lawerence pers. comm. 2024). However, these arrays provide opportunities to observe occurrence and seasonal abundance of tagged Green Sturgeon in the study areas.

Broad strategy 3: outreach and communication

- In 2020, DFO published and promoted the "Sturgeon Identification Guide: Sturgeon Found in British Columbia Waters." The guide includes information on Green Sturgeon status, management measures, and distribution, as well as diagrams to help readers distinguish between White Sturgeon and Green Sturgeon.
- Conservation needs of Green Sturgeon are considered within Integrated Fisheries Management Plans that may intercept the species.



Credit: From Sturgeon Identification Guide: Sturgeon Found in British Columbia Waters (DFO 2020); originally Paul Vesci/COSEWIC Status Report on the Green Sturgeon *Acipenser medirostris* in Canada 2004, Eddy and Underhill 1978.

Achievement of the management objective is evaluated using performance indicators. Table 1 provides an overview of the status of performance indicators as of the end of the reporting period. Performance indicators that were partially met or not met are discussed in the "Knowledge gaps and future priorities" section below.

Table 1: Status of performance indicators for Green Sturgeon for the period 2017 to 2021.

Performance Indicator	Status[2]	Description of progress
Maintain or enhance fisheries management measures to reduce bycatch mortality in Canadian Pacific waters as required by 2019	Met, ongoing	Fisheries management measures that reduce bycatch mortality are in place, and have been maintained throughout the reporting period including under the *Fisheries Act* and via BC's *Wildlife Act* (summarized in the BC Freshwater Fishing Regulations Synopsis).
Complete Green Sturgeon population monitoring to determine interception trends in commercial and recreational fisheries by 2019	Not met	There has been limited population monitoring for Green Sturgeon (Grant pers. comm. 2024). No interception trends in commercial and recreational fisheries have been analyzed to date.
Complete scientific research on the biology, ecology, stock structure and threats to determine: the species range, areas of aggregation and seasonal occurrence, and population structure by including tissue sampling in observer programs for genetic analysis by 2019	Partially met, underway	Genomic mapping and high-quality reference DNA sequence library for the freshwater fishes of BC (including Green Sturgeon) was completed during the reporting period using the NAMERS resource (Westfall et al. 2024). More tissue sampling by observers may be required to support research on the biology, ecology, stock structure, and threats to Green Sturgeon in Canada.

[2] **Met**: the performance indicator has been met and no further action is required
Met, ongoing: the performance indicator has been met, but efforts will continue until such time the population is considered to be recovered
Not met: the performance indicator has not been met, and little to no progress has been made
Partially met, underway: the performance indicator has not been met, but there has been moderate to significant progress made

Performance Indicator	Status[2]	Description of progress
Identify habitat and dietary requirements by 2019	Not met	There has been limited data collected on Green Sturgeon habitat and dietary requirements in Canada (Grant pers. comm. 2024). There are no known spawning populations of Green Sturgeon in Canada, but in the United States, there have been studies on Green Sturgeon habitat in spawning rivers and estuaries (National Oceanographic and Atmospheric Administration [NOAA] 2022). Green Sturgeon diet data has also been collected in the United States (NOAA 2018).
Expand receiver arrays to better track tagged fish in Canadian waters by 2019	Partially met, underway	The Government of BC deployed and maintained a 30+ unit receiver array in the lower Fraser (up to Yale area), Pitt, and Harrison Rivers from 2013 to 2023. Various other telemetry arrays have been deployed over the past 10 years in smaller tributaries and lakes for monitoring coastal cutthroat trout, smallmouth bass, and other freshwater species (Lawerence pers. comm. 2024). While these tracking efforts may contribute to detections data for Green Sturgeon in part of their range, more arrays specifically targeting their preferred habitats would advance progress toward meeting this indicator.
Complete identification guide and accompanying outreach program (to distinguish Green Sturgeon from White Sturgeon) to provide species specific information to fishers, regulatory agencies, First Nations, and the public by 2019	Met	In 2020, DFO published and promoted the “Sturgeon Identification Guide: Sturgeon Found in British Columbia Waters” (DFO 2020). This guide includes information on Green Sturgeon status, management measures, and distribution, as well as diagrams to help readers distinguish between White Sturgeon and Green Sturgeon.

Performance Indicator	Status[2]	Description of progress
Include Green Sturgeon management measures in Integrated Fisheries Management Plans and License Conditions by 2019	Met, ongoing	Conservation needs of Green Sturgeon are considered within Integrated Fisheries Management Plans (IFMPs) that may intercept the species; these considerations have been included in License Conditions for the associated fisheries.

1.2 Key knowledge gaps and future priorities for the Green Sturgeon

There has been no systematic monitoring of Green Sturgeon in Canada during this reporting period (2017 to 2021). While some performance indicators have been met, the status of the management objective is unknown. Further work is required to support the management of Green Sturgeon. Priority next steps include, but are not limited to:

- developing and implementing a populating monitoring program to determine interception rates by commercial and recreation fisheries
- expanding efforts to collect Green Sturgeon tissue samples and deploy receiver arrays for tagged fish
- continuing and improving transboundary collaborations with United States and First Nations partners to work toward completing activities laid out in the Management Plan

2 Concluding statement

During the reporting period, progress was made toward implementing the conservation measures identified in the management plan for the Green Sturgeon.

DFO remains committed to the conservation of all aquatic species at risk. The work that has been initiated and completed to date has built a strong foundation for the continued management of the Green Sturgeon. DFO, PC, and their partners will continue to work towards the achievement of the management objectives for Green Sturgeon, and welcome the participation of additional partners.

3 References

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