

Report on the Progress of Management Plan
Implementation for the
**Shorthead Sculpin (*Cottus*
confusus)**



2026

Species at Risk Act
Management Plan Report Series

Canada

Recommended citation:

Fisheries and Oceans Canada. 2026. Report on the Progress of Management Plan Implementation for the Shorthead Sculpin (*Cottus confusus*) in Canada for the Period 2019 to 2023. *Species at Risk Act* Management Plan Report Series. Fisheries and Oceans Canada, Ottawa. ii + 4 pp.

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: Shorthead Sculpin by Roger Tabor, United States Fish and Wildlife Service.

Également disponible en français sous le titre : « Rapport sur les progrès de la mise en œuvre du plan de gestion du chabot à tête courte (*Cottus confusus*) au Canada pour la période de 2019 à 2023 »

© His Majesty the King in Right of Canada, represented by the Minister of Fisheries, 2026. All rights reserved.

ISBN 978-0-660-97964-9

Catalogue no. En3-5/102-1-2026E-PDF

Content (excluding the illustrations) may be used without permission with appropriate credit to the source.

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 conservation¹.

The Minister of Fisheries is the competent minister for aquatic species at risk. Fisheries and Oceans Canada (DFO) has 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, or any other jurisdiction, alone. All Canadians are invited to join in supporting and implementing the recovery document, for the benefit of the species and Canadian society as a whole.

Acknowledgements

This progress report was prepared by Alaina Dowling, with input from Carrie Kwok, Oliver Barker and Daniella LoScerbo, from DFO. The progress toward species conservation described in this report would not have been achieved without the partnerships and contributions of many individuals and organizations.

Executive summary

This report summarizes the progress made by DFO and its partners towards implementing the management plan for the Shorthead Sculpin between 2019 and 2023. For or more information on the contents of this document, please contact the Species at Risk Program (dfn.ncrsara-leprcn.mpo@dfn-mpo.gc.ca).

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.

Table of contents

Preface.....	i
Acknowledgements	i
Executive summary	i
Table of contents	ii
1 Shorthead Sculpin (<i>Cottus confusus</i>).....	1
1.1 Progress towards meeting the management objective for the Shorthead Sculpin.....	1
1.2 Key knowledge gaps and future priorities for the Shorthead Sculpin	3
2 Concluding statement	3
3 References.....	4

1 Shorthead Sculpin (*Cottus confusus*)

SPECIAL CONCERN

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 Shorthead Sculpin \(*Cottus confusus*\) in Canada](#)” (DFO 2019), through the actions undertaken between August 2019 and December 2023, to support the conservation of the Shorthead Sculpin. The management plan provides detailed information on the species, its threats, its needs, management objectives, and conservation measures.



Credit: Roger Tabor, United States Fish and Wildlife Service

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 Shorthead Sculpin 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 Shorthead Sculpin

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

- maintain self-sustaining populations of Shorthead Sculpin through their distribution in the Columbia River, Kootenay/Slocan River, and Kettle River systems to ensure the species’ long-term viability in the wild

Four broad strategies were identified in the management plan to meet the management objective for the Shorthead Sculpin. During the reporting period, conservation actions were undertaken by DFO and its partners under two broad strategies. Some key achievements are described below.

Broad strategy 1: inventory and monitoring

- Shorthead Sculpin were identified for the first time in Slocan Lake near the outflow to the Slocan River and in Springer Creek near its mouth at Slocan Lake. The identification event occurred in September 2021 and was made by Living Lakes Canada in support of the “Slocan Lake Foreshore Integrated Management Planning – 2021” report (Wood Canada Ltd. 2022).

- DFO has developed environmental DNA (eDNA) metabarcoding² methods to detect freshwater species at risk, including sculpins (*Cottus* species) (Abbott pers. comm. 2024).

Broad strategy 2: research

- No action was taken on this broad strategy during the reporting period.

Broad strategy 3: management and coordination

- The “[Foreshore Development Guide – Slocan Lake](#)” identified fisheries and aquatic vegetation zones of sensitivity at the south end of Slocan Lake where Shorthead Sculpin were found. These sensitive habitats are recommended for protection from development (McPherson et al. 2022). The 2022 Village of Slocan Official Community Plan includes policies that support these recommendations (Village of Slocan 2022).

Broad strategy 4: stewardship and outreach

- No action was taken on this broad strategy during the reporting period.

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 Shorthead Sculpin for the period 2019 to 2023.

Performance indicator	Status ³
Observe a stable or positive trend in Shorthead Sculpin’s British Columbia (BC) population abundance by 2022, taking into account natural variation	Not met
Observe a preservation or expansion of Shorthead Sculpin’s BC distribution by 2022, taking into account natural variation	Partially met, underway

² eDNA is genetic material shed by organisms into their environment, such as water. eDNA metabarcoding is a method that analyzes this genetic material in environmental samples to detect and identify many species at once.

³ **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

1.2 Key knowledge gaps and future priorities for the Shorthead Sculpin

There has been no research or systematic monitoring of Shorthead Sculpin during this reporting period (2019 to 2023). Performance indicators have not been met and status of the management objective is unknown. Further work is required to support the management of Shorthead Sculpin. Priority next steps include, but are not limited to:

- developing and implementing a population monitoring plan to provide an indication of the progress towards achieving the management objective
- increasing the understanding of threats to Shorthead Sculpin, including monitoring water quality parameters and examining the relationship between water conditions and Shorthead Sculpin habitats and populations
- conducting research to address information gaps on species needs (life history, behaviour and habitat) that inhibit conservation of Shorthead Sculpin
- promoting best management practices for land and water use through increased cooperation among landowners, stewardship groups and other interested parties to minimize impacts of riparian development, water withdrawals, and other land and water use activities on Shorthead Sculpin

2 Concluding statement

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

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 Shorthead Sculpin. DFO and its partners will continue to work towards the achievement of the management objectives for Shorthead Sculpin, and welcome the participation of additional partners.

3 References

- Abbott, C., pers. comm. 2024. Meeting correspondence with DFO Species at Risk Freshwater Team. October 2024. Research Scientist, Fisheries and Oceans Canada, Government of Canada, Nanaimo, British Columbia.
- DFO. 2019. Management Plan for the Shorthead Sculpin (*Cottus confusus*) in Canada. Species at Risk Act Management Plan Series. Fisheries and Oceans Canada, Ottawa. iii + 22 pp.
- McPherson, S., J. Schleppe, C. Lawrence, and L. Porto. 2022. [Foreshore Development Guide – Slocan Lake](#). Prepared for Living Lakes Canada. Original template prepared by: Lotic Environmental Ltd. and Ecoscape Environmental Consultants Ltd. Updated for Slocan Lake by Wood Environment & Infrastructure. Canada, Nelson, BC. iii + 16 pp + 27 app.
- Village of Slocan. 2022. Official Community Plan Bylaw No. 700. Slocan, British Columbia.
- Wood Canada Ltd. 2022. Slocan Lake Foreshore Integrated Management Planning - 2021. Report Prepared for Living Lakes Canada, Nelson, BC. 46 pp. + 7 App.