Meeting People's Needs – Targets 9–13

Managing ocean fisheries (Target 10)

Globally and in Canada, direct exploitation of wildlife is the second largest direct driver of biodiversity loss[99] or degradation. Commercial fisheries represent by far the largest harvest of Canadian wildlife with a total volume of 805,000 tonnes of fish in 2021.[100] Additionally, bycatch and entanglement of marine wildlife in Canadian fisheries is a primary driver of species decline. Despite a strong legal and policy framework for fisheries management, Canada's fisheries have been marred by serial depletions of stocks, with population abundance of fish species decreasing by 30% on average between 1970 and 2018.[101] Achieving the KMGBF goals for the use of wild marine species (Targets 5, 9, 10) and the recovery of those at risk of extinction (Target 4) through the implementation of Canada's 2030 Nature Strategy will require a holistic and modern approach to management of our ocean resources.

As outlined in Canada's 2030 Nature Strategy, Canada must expand and accelerate the development of a systematic implementation of an ecosystem approach to fisheries management that is supported by sound science and policy implementation. An improved fishery catch monitoring and observer system across all regions will be fundamental to this goal.

Additionally, Canada's aquaculture sector has seen significant growth, with production volume tripling over the last three decades. However, over 70% of the current aquaculture output is from finfish aquaculture,[102] which carries significant risks for wild species and their habitat. To meet Target 10 of the KMGBF and ensure that areas under aquaculture are managed sustainably, Canada should support the transition to more sustainable forms of aquaculture that support both thriving coastal communities and healthy ecosystems.

Finally, implementation of the Whalesafe Fishing Gear Strategy is a critical step that Canada can take to address the impact of our fisheries on non-target species such as marine mammals and sea turtles.

99 Ray, J. et al., "The biodiversity crisis in Canada: failures and challenges of federal and sub-national strategic and legal frameworks." 2021. https://www.facetsjournal.com/doi/10.1139/facets-2020-0075

100 Government of Canada, "Landings." https://www.dfo-mpo.gc.ca/stats/commercial/land-debarq-eng.htm

101 Government of Canada, "Canadian species index." https://www.canada.ca/en/environment-climate-change/services/environmental-indicators/canadian-species-index.html

102 https://www.dfo-mpo.gc.ca/stats/aqua/aqua-prod-eng.htm

Photo: Mark Timberlake

Implementing an ecosystem approach to fisheries management

In 2011, Canada committed to implementing an ecosystem approach to fisheries management (EAFM) under the Aichi targets. While EAFM has long been a departmental direction for DFO, implementation has been opportunistic and inconsistent rather than comprehensive, which is why Canada ultimately failed to meet its target by the 2020 deadline.[103] In 2022, the adoption of the KMGBF renewed Canada's commitment to a number of targets which explicitly include the adoption of an ecosystem approach to fisheries management.

Last year, DFO began developing a national implementation plan for EAFM. This national implementation plan will guide DFO's future decision making on fisheries management, the ocean ecosystem, and the livelihoods that depend on it. If applied consistently and effectively, this approach will incorporate critical ecosystem variables, such as climate and predator-prey dynamics, into Canada's fisheries science and stock assessments, leading to well informed decisions and adaptive management.

It is critical that the necessary resources be put in place to ensure DFO can effectively implement

EAFM across fisheries and regions. Specifically, the Green Budget Coalition is recommending funding to support three key areas of work: 1) develop full ecosystem assessments for each region - a key EAFM necessity as identified by the DFO EAFM expert working group,[104] 2) develop regional data and code repositories to support consistent and efficient EAFM implementation at the regional scale (e.g., Duplisea et al.),[105] and 3) ensure sufficient capacity to incorporate ecosystem variables into single-stock science and management processes.

Recommended Investment: $40 million over five years [DFO]

Contacts

Christina Callegari – christina.callegari@ecologyaction.ca
Kilian Stehfest – kstehfest@davidsuzuki.org

---

103 Biodivcanada, "Canada Target 9". https://www.biodivcanada.ca/national-biodiversity-strategy-and-action-plan/2020-biodiversity-goals-and-targets-for-canada/canada-target-9

104 Pepin, P. et al. "Fisheries and Oceans Canada's Ecosystem Approach to Fisheries Management Working Group: Case Study Synthesis and Lessons Learned." 2023. https://publications.gc.ca/collections/collection_2023/mpo-dfo/Fs97-6-3553-eng.pdf

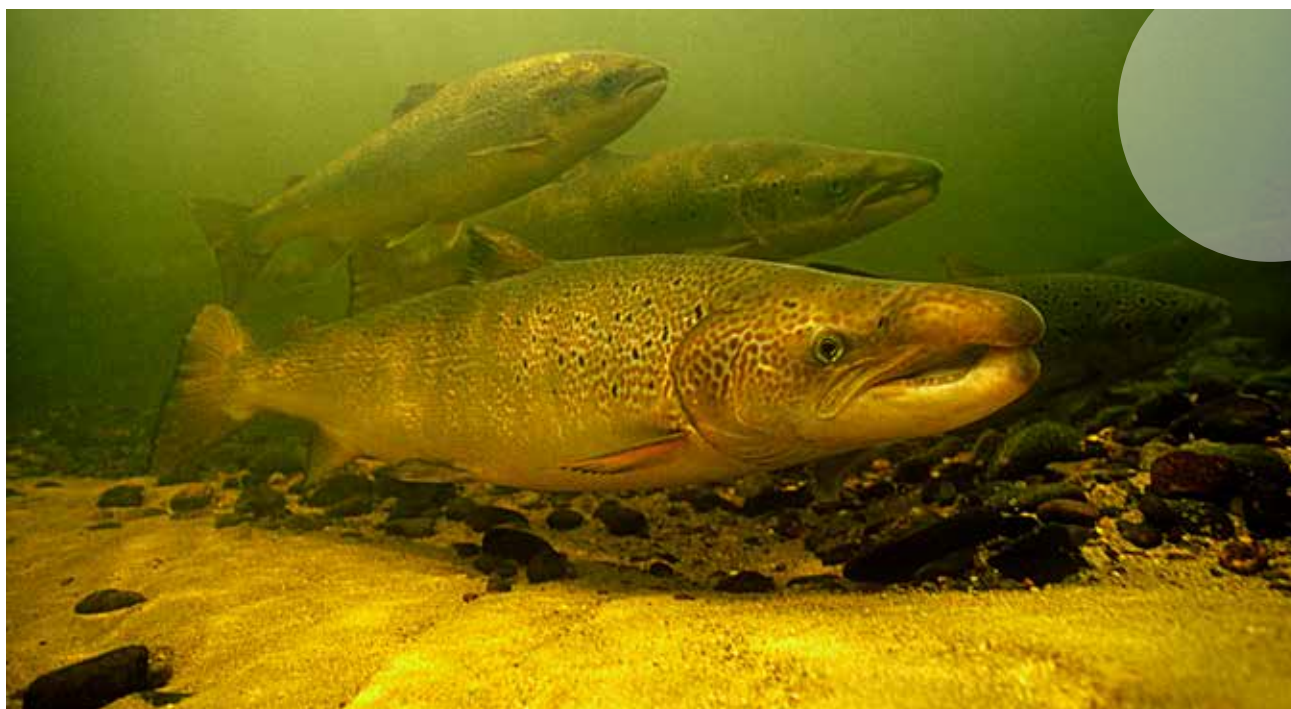105 Duplisea, D. E. et al. gslea: "Gulf of St Lawrence ecosystem approach data matrix R-package." R package version 0.1. https://github.com/duplisea/gslea

Photo: W. Van Ryckevorsel