

**CANADIAN
AQUATIC RESOURCES SECTION**

Of the American Fisheries Society



**SECTION DES RESSOURCES AQUATIQUES
CANADIENNES**

De l' American Fisheries Society

Brief Submitted to the Standing Committee on Fisheries and Oceans: Review of the Fisheries Act and Fisheries Protection Policy

The Canadian Aquatic Resources Section (CARS) of the American Fisheries Society is pleased to submit a set of considerations to the Standing Committee on Fisheries and Oceans (FOPO) on the review of the federal *Fisheries Act* and Fisheries Protection Policy (FPP). These considerations focus on the science, management, and legislative aspects of the *Fisheries Act* and the importance of healthy aquatic ecosystems, fish habitat, habitat protection and connectivity, and the need for a well-trained and resourced federal staff.

We are writing this letter on behalf of over 200 Canadian fisheries professionals and scientists who are members of the Canadian Aquatic Resources Section (CARS). CARS is an association of Canadian members of the American Fisheries Society (AFS) who share concerns about fisheries and aquatic science in Canada. The American Fisheries Society (AFS) has a membership of over 8,000 members. The Society is the world's oldest and largest organization dedicated to strengthening the fisheries profession, advancing fisheries science, and conserving fisheries resources. As such, we offer the following considerations:

- The scientific evidence for the importance of habitat as a fundamental basis for fisheries is irrefutable. The importance of habitat should be explicitly stated in Section 35 of the *Fisheries Act* and elsewhere as appropriate.
- Restore the prohibition against the harmful alteration, disruption, or destruction (HADD) of fish habitat as the case law established around HADD provides strong protection for fish habitat
- Improve the clarity of the HADD prohibition by:
 - Maintaining the addition of 'activities' to 'works and undertakings'
 - Including a clear definition of alteration
 - Considering exemptions for positive alterations (e.g., restoration projects)
- If the term 'Serious Harm' is maintained, a definition of what is considered serious is required. This must be supported by practical and rational means of delineating serious and non-serious harm.
- An overarching goal of net gain in fish habitat should be established.

- Given the diversity of fishes, habitats and fisheries in Canada, there is no scientific or management justification to only focus on CRA fisheries. CRA fisheries are dependent on all elements of the ecosystem; therefore, habitat and all fishes need to be considered. This is the foundation of ecosystem-based management, which is well recognized in the scientific and management literature and practice in Canada and internationally.
- Synthesis papers that have identified key scientific and management principles for aquatic and fisheries management (e.g., Lapointe et al. 2014)¹ should be used by DFO as a type of litmus test to evaluate further policy and program development. Similarly, many of the Canadian Science Advisory Secretariat (CSAS) reports developed by DFO after 2012 provide a strong scientific basis for policy development.
- Many of these CSAS reports describe the enormous scientific complexity surrounding implementation of the current *Fisheries Act* and Fisheries Protection Program. For instance, measuring fisheries productivity and particularly how changes to habitat or fish that support a fishery affect productivity is incredibly data-intensive and complex (Kenchington et al. 2012; de Kerckhove et al. 2013). This places undue strain on both proponents and regulator. Management should be refocused on simpler and tractable measures of fish habitat.²
- Several beneficial changes were made to Section 20; however, protection of aquatic connectivity and provisions for fish passage have never been sufficiently addressed by DFO. Further attention is needed to ensure that fish passage is provided, not only at dams, but at water crossings (e.g., culverts), levees, and other barriers to fish movement.
- Fisheries and Oceans Canada should work to develop more fully as a learning-based organization. Society needs to improve how it manages and offsets potential impacts to fishes, fish habitat, and fisheries. This can be accomplished, in part, by developing and implementing formal adaptive management approaches as a major component of DFO's operations.
- Management is not possible without monitoring. This includes monitoring the resource (fishes and fish habitat), as well as monitoring compliance with the *Fisheries Act* and the effectiveness of offsets. DFO should lead development of monitoring programs in partnership with provinces, territories, First Nations, and non-governmental organizations.

¹ Lapointe, N.W.R., S.J. Cooke, J.G. Imhof, D. Boisclair, J.M. Casselman, R.A. Curry, O.E. Langer, R.L. McLaughlin, C.K. Minns, J.R. Post, M. Power, J.B. Rasmussen, J.D. Reynolds, J.S. Richardson, W.M. Tonn. 2013. ***Principles for ensuring healthy and productive freshwater ecosystems that support sustainable fisheries***. *Environmental Reviews*, 1 DOI: [10.1139/er-2013-0038](https://doi.org/10.1139/er-2013-0038)

² Kenchington, E., D. E. Duplisea, J. M. R. Curtis, J. C. Rice, A. Bundy, M. Koen-Alonso, and S. E. Doka. 2012. Identification of species and habitats that support commercial, recreational or Aboriginal fisheries in Canada. Fisheries and Oceans Canada, Canadian Science Advisory Secretariat Research Document 2012/110, Ottawa
de Kerckhove, D. T., C. K. Minns, and B. J. Shuter. 2013. The length of environmental review in Canada under the Fisheries Act. *Canadian Journal of Fisheries and Aquatic Sciences* 70:517–521

- Greater investments in ecosystem science are required to understand the cumulative and synergistic effects of multiple stressors on aquatic environments. Sub-lethal effects on fishes can harm fisheries productivity by reducing growth and limiting reproduction.
- Fisheries and Oceans Canada's staff capacity has been severely eroded over the last decade. This includes management biologists, engineers, technicians, policy staff, enforcement and scientists. A re-investment needs to be made.
 - For instance, prior to 2012, Ontario had nine DFO habitat management offices. By 2013, there was only one office remaining, in Burlington.
 - Environmental laws and policies are only effective if they are fully implemented and enforced.
- High turnover in DFO's staff has reduced DFO's capability to effectively manage fish habitat. This can be improved via mentoring, site visits, and accreditation processes.
 - Alberta and BC have registered Professional Biologists designations, similar to those offered by AFS. Legislation requiring accreditation to propose and authorize avoidance, mitigation and offsetting practices would help improve practices across Canada.
- The Canadian Aquatic Resources Section of AFS sees potential merit in the self-assessment approach, but only if all proposed works, undertakings, and activities are registered and audited for efficiency, effectiveness, and outcomes. This would require development of a public registry, permitting system, auditing process, and monitoring program.
- Mechanisms are required both to track the cumulative effects of small projects that, individually, pose a low risk to fishes and fish habitat, and to offset them. A failure to offset such projects will lead to a slow net loss of fish habitat and fisheries productivity in Canada (Rice et al. 2015)³. Potential mechanisms for offsetting small, low-risk projects include fees in lieu of offsets and habitat banks.

Thank you for the opportunity to provide input to the Standing Committee. On behalf of CARS and our executive, I would be happy to discuss any of our points with members of the Standing Committee, DFO staff or Standing Committee analysts to help clarify our points and concerns. We do believe that some of the changes made to the *Fisheries Act* and the new FPP since 2012 have been positive, but we do believe that we have lost some protections and that the current science and practice can be used to improve the ability of DFO to better protect and where possible restore fisheries, fishes, fish habitat, and aquatic ecosystems.

Sincerely,



Mark Poesch, President, CARS-AFS

³ Rice, J., M.J. Bradford, K.D. Clarke, M.A. Koops, R. Wysoki, and R.G. Randall. 2015. The Science Framework for Implementing the Fisheries Protection Provisions of Canada's Fisheries Act. *Fisheries*: 40(6): 268-275.