

Terms of Reference

National Peer Review of a Biological Risk Assessment Framework on Aquatic Invasive Species

November 28, 2006, Ottawa, Ontario

Chairperson: Marten Koops

Background

Many of the science issues facing Fisheries and Oceans Canada (DFO) are associated with significant knowledge gaps and uncertainties. This, however, does not relieve the department of the need to make decisions on these issues. Under these conditions, decisions must balance the risks and uncertainties while ensuring the sustainability of Canada's aquatic ecosystems. Risk assessment is the process of estimating the risk presented by a hazard, in either qualitative or quantitative terms, to aquatic ecosystems, fisheries resources, fish habitat, and aquaculture that DFO is mandated to manage and protect. DFO currently faces hazards from aquatic invasive species (AIS), climate change, and fish habitat alteration, with the potential for any or all of these hazards to impact species at risk (SAR), biodiversity, aquaculture, or fisheries resources. AIS are now considered one of the lead threats to native biodiversity (Sala *et al.* 2000, Dextrase and Mandrak 2006).

The *National Code on Introductions and Transfers of Aquatic Organisms* identifies risk assessment as central to the process of assessing proposals to move aquatic organisms. The *Canadian Action Plan to Address the Threat of Aquatic Invasive Species* identifies risk assessment as one of the implementation strategies to deal with the threat of AIS. By forming the Centre of Expertise for Aquatic Risk Assessment (CEARA), DFO has taken the first steps toward developing the necessary expertise in risk assessment across the country, building on expertise developed in Burlington at the Great Lakes Laboratory for Fisheries and Aquatic Sciences. To this end, one of the mandates and objectives of CEARA was to develop a scientifically defensible national framework for conducting biological risk assessments of aquatic invasive species. This work was initiated at a National Risk Assessment Methods workshop held June 21-23, 2006 in Burlington. Participants at this workshop were educated on various risk assessment guidelines used by various agencies. They also critically evaluated these guidelines which provided input towards the development of a draft of a DFO national framework for conducting biological risk assessments of aquatic invasive species. This peer review meeting is a direct follow-up from the June Workshop.

Objectives

The objective for this meeting is:

1. to peer review the national framework for conducting biological risk

assessments of aquatic invasive species.

The meeting will generate a Proceedings report summarizing the discussion and decisions of the participants. This will be published as part of the Canadian Science Advisory Secretariat (CSAS) Proceedings Series. The finalized national framework for conducting biological risk assessments of aquatic invasive species will be documented via the CSAS Science Advisory Report Series. Research documents may also be produced.

Location and Date

Courtyard Marriott, Ottawa, Ontario, November 28 (8:30-4:30).

Participants

Participants (approx. 30) will include the CEARA Directorate and individuals (from within and outside DFO Science) with relevant expertise in assessing the biological risk of aquatic invasive species.

Timetable

- June 21-23, 2006 – National Risk Assessment Methods Workshop (Burlington)
- September, 2006 – Draft proceedings from National Risk Assessment Methods Workshop sent to participants for review
- October, 2006 – Finalize proceedings from National Risk Assessment Methods Workshop, submit to CSAS
- June – November, 2006 – develop the draft (working paper) of the national framework for conducting biological risk assessments of aquatic invasive species based on the results of the June workshop.
- November, 2006 – peer review of the national framework
- February 2007 – circulate draft proceedings to participants for review
- March 2007 - finalize workshop proceedings, submit to CSAS
- March 2007 – finalize the Science Advisory Report describing the national framework for conducting biological risk assessments of aquatic invasive species, submit to CSAS

References Cited

Dextrase, A. and N.E. Mandrak. 2006. Impacts of invasive alien species on freshwater fauna at risk in Canada. *Biological Invasions*. 8:13-24.

Sala, O. and 18 others. 2000. Biodiversity-global diversity scenarios for the year 2100. *Science*. 287: 1770-1774.