

Terms of Reference

National Workshop

Development of criteria to identify Ecologically and Biologically Significant Species

September 6-8, 2006
Chairperson: Jake Rice

Background

Fisheries and Oceans (DFO) has many tools for protecting species, and adheres to federal policies and practices of good risk management and application of precaution. Identifying Ecologically and Biologically Significant Species (EBSSs) is not the DFO general strategy for protecting all species that have some ecological significance. Rather, it is a tool for calling attention to species that may have particularly high ecological or biological significance, to facilitate provision of a greater-than-usual degree of risk aversion in management of activities that could impact those species.

EBSSs represent one of the four components of setting Ecosystem Objectives for Large Ocean Management Areas (LOMAs), with Ecologically and Biologically Significant Areas (EBSAs), depleted species and degraded areas. As it was the case for the identification of EBSAs, consistent standards are needed to guide the selection of species for which protection should be enhanced, while allowing sustainable activities to be pursued where appropriate. The objective of this workshop will be to identify the criteria for designating a species as Biologically / Ecologically Significant.

Strategy and Working Papers

The members of the steering Committee agreed to follow a similar approach than the one used for EBSAs. The adopted approach for this workshop is then as follows:

- Teams of 2-4 experts from multiple regions (where possible) would be formed to author working papers;
- The working papers would be short (a target of 3-5 pages);
- The review of the working papers could lead to the acceptance or not of individual criteria, or to their aggregation with other criteria into final criteria.
- According to that approach, nine candidate criteria for species and five for community properties above the species level were identified. For each candidate criterion, one or two individuals were identified who will assemble the team of authors for the corresponding working paper.

These were:

Species Level:

Forage Species – Kim Hyatt
Structure-forming Species – Glen Jamieson
Keystone Predator Species – Mariano Koen-Alonzo
Invasive Species – Central & Arctic participants
Rarity – Kent Smedbol
Energy Sequestering Species – Mark Hanson

Toxic Algae (or Toxic species more generally) – Michael Scarratt
Nutrient-importing Species – Kim Hyatt
Culturally important/iconic species – Marty Bergman and Becky Sjare

Community Level

Size composition of the community – Kees Zwanenburg & Jake Rice
Cumulative frequency of abundance of species - Kees Zwanenburg & Jake Rice
Relative proportionality of higher trophic levels to lower ones – Claude Savenkoff and Quebec experts
Relative proportionality of benthic / pelagic / demersal species - Alida Bundy and Philippe Archambault
Resilience – Glen Jamieson

Each lead author was encouraged to recruit additional co-authors from across the Science Sector, with multiple-authored working papers desirable in all cases. The more diversity of experience that is reconciled and integrated in the Working Papers, the more useful will be the products.

The papers will be reviewed quickly for general soundness of reasoning within the context of the working paper, and for success at concisely representing the state of thinking in the field. Once all the working papers have been reviewed individually, the meeting will focus on the question of “Given these candidate criteria for designating that a species (or community property) is biologically or ecologically significant, which criteria should actually be used in the process of identifying specific or community properties as part of setting the conservation objectives in the LOMA / Integrated Management process”.

As it was the case with the EBSA criteria, it is acknowledged that all species have a role in ecosystem structure and function. The goal is to identify species which, where their abundance to be perturbed substantially, impacts would spread far more widely through the system, and/or recovery would take far longer, than it would be the case for most other species in the system.

The CSAS Advisory Report produced on the EBSA criteria (http://www.dfo-mpo.gc.ca/csas/Csas/status/2004/ESR2004_006_E.pdf) is part of the background documentation that will be used in this workshop.

Products

A Science Advisory Report will be produced to document the criteria for designating EBSS. The report will be produced soon in the fall but key conclusions on the criteria will be available at the end of the meeting in order to be sure that this information will be available for further steps of the LOMA process that will be ongoing in the fall.

Participation

Participation from various DFO sectors and from all LOMA teams is expected.