

Assessment Framework for Northern Shrimp (*Pandalus borealis*) off Labrador and the northeastern coast of Newfoundland

The Fluvarium
Nagle's Place
St. John's, Newfoundland and Labrador
28-30 May 2007

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TERMS OF REFERENCE

Background

Northern shrimp have been harvested off Labrador since the late 1970's and off the northeastern coast of Newfoundland since the late 1980's. Stock harvest advice is provided through the Regional Advisory Process (RAP). The most recent stock assessment was summarized in a series of Traffic Light Performance Indicator Reports. The Traffic Light approach was introduced by Caddy (1996) and adapted for shrimp by Koeller *et al.* (2000). However, critics felt that a weighting scheme for assessment indices and the determination of overall stock status required further development. Therefore, this meeting is being convened to review indices used in the current assessment, develop a weighting scheme for each, and determine objective means of evaluating overall stock status.

Objectives

The following objectives will guide meeting activities:

- *Review the current indices used in the assessment of shrimp off Labrador and the northeastern coast of Newfoundland.*

This review is expected to improve variables, possibly eliminating some while adding others, thereby enhancing application of the Traffic Light approach.

- *Explore means of weighting each variable used in the performance report.*

Not all variables have equal importance. For instance, trends in long term fishery independent biomass and recruitment indices are critical to overall status and could merit a higher score relative to trends in fishery dependent indices which are less reliable as stock indicators.

- *Develop an objective means of determining an overall stock status "score".*

The goal is to maximize objectivity in the assessment process; therefore, the meeting must strive to determine an objective scoring of overall stock status that can easily be interpreted for fishery management.

Additionally, the performance report must provide:

- A short term prediction of trends in future stock size; and
- A precautionary approach to northern shrimp management, with clear limit reference points.

Products

- CSAS Proceedings summarizing meeting discussions.
- CSAS Science Advisory Report outlining the agreed Traffic Light framework for assessment of Northern Shrimp (*Pandalus borealis*) off Labrador and the northeastern coast of Newfoundland
- CSAS Research Documents

Participation

- DFO Science, Newfoundland and Labrador and other Regions
- DFO Fisheries and Aquaculture Management, Newfoundland and Labrador Region
- Industry
- Fish, Food and Allied Workers Union
- External Reviewers
- Provincial Department of Fisheries and Aquaculture

References

Caddy, J.F. 1996. A checklist for fisheries resource management issues seen from the perspective of the FAO Code of Conduct for Responsible Fisheries. FAO Fish. Circ., 917, 22p.

Koeller, P., L. Savard, D.G. Parsons and C. Fu. 2000. A precautionary approach to assessment and management of shrimp stocks in the Northwest Atlantic. J. Northw. Atl. Fish. Sci. Vol. 27: 235-246.