

2011/3/SSGSUE04 A Symposium on “Gadoid fisheries: the ecology and management of rebuilding” will be held late June 2013, at St. Andrews, Canada, with Edward Trippel (Canada) and Fritz Köster, Denmark, as Conveners.

Support: ICES and NAFO

Supporting Information

Priority: ICES is concerned with the resource status of its major fisheries and most ICES member countries finance monitoring programmes and research projects to observe and predict the effects of fishery exploitation and the effectiveness of management and recovery plans in their regions. In addition, all of the countries represented by NAFO have a clear interest in the possible consequences of fishery exploitation on stock status, fish community composition and the marine ecosystem.

Gadoids remain one of the key groups of demersal fishes in the North Atlantic. Recently, marked improvements in population sizes have occurred in a number of gadoid stocks spanning their geographic distributions. These include cod of the Northeast Arctic and Baltic Sea and haddock of Georges Bank and southwestern Nova Scotia. Many other stocks, however, remain at depleted levels (i.e., Northwest Atlantic cod stocks).

Given the commercial value of this group of fishes, a Symposium bringing together international scientists to present empirical data and theories to explain the varied recovery rates of gadoid stocks spanning the Atlantic and the efficacy of recovery actions is highly warranted. ICES and NAFO are the most appropriate entities to provide support for such a symposium. With respect to ICES, the proposal should have a high priority.

Scientific justification: The recovery and non-recovery pattern observed among gadoid stocks across the Atlantic provides an opportunity to gain a better understanding of the important factors and conditions driving population re-building. To what degree do relaxed fishing pressure, changing environmental conditions, and altered fish community structure influence stock recovery? Changes in ecosystem structure and productivity can affect the species dynamics of previously gadoid-dominated systems and thereby change the resiliency of depleted stocks. Cod stocks in the Northwest Atlantic have remained at very low levels for the past 20 years, whereas some of the European Union stocks have witnessed marked improvements.

Given that a Symposium dedicated to the biology, ecology and management of gadoids in the North Atlantic has not been held for over 20 years it is timely that these issues be raised in an international scientific forum. Although collectively known as gadoids - cod, haddock, pollock and hake differ significantly in key biological attributes that may influence stock management advice through implementation of suitable fishery reference points, harvest levels, closed areas and seasons, and fishing gear.

The aim of this Symposium is to (i) address the historical dynamics and current status of gadoid stocks, (ii) present new scientific findings on the biology and ecology of these species that can be used to improve fisheries management, (iii) link biological changes to environmental changes that can be used to forecast changes in species distribution and productivity related to climate change, (iv) present and appraise the effectiveness of recovery actions, and (v) discuss and recommend appropriate management strategies and re-opening criteria for recently rebuilt stocks.

Scientific justification (continued):	<p>Presentations are encouraged on biological (e.g., physiology, genetics, growth, reproduction, survival), ecological (e.g., distribution, abundance, behaviour, predator-prey interactions), and bio-physical (e.g., transport, climate forcing, coupled models) processes as well as among-gadoid species comparisons and fishery management strategies that aid in stock rebuilding and sustainable resource use.</p> <p>NOTE: Not since the early 1990s has there been international symposia dedicated to the biology and ecology of Atlantic cod (St. John's, Canada and Reykjavik, Iceland). In 2006, a Wakefield sponsored symposium on the resiliency of gadoid stocks to fishing and climate change was held in Anchorage, Alaska, with the program heavily focused on North Pacific gadoids (Pacific cod and walleye pollock). In 2009, an ICES symposium on rebuilding depleted fish stocks - biology, ecology, social science and management strategies was held in Rostock addressing mechanisms of fish stock recovery and how to best implement stock recovery plans. Outcomes of both symposia and previous relevant workshops will be considered in planning the suggested symposium, e.g. by inviting conveners of these symposia into the steering/organising committee.</p>
Resource requirements	<p>There will be significant resource requirements, most of which will be met by the imposition of a Conference Fee. ICES is asked to cover the publication of a special issue of the ICES Journal of Marine Science.</p>
Participants:	<p>This Symposium will attract a diverse community of biologists and scientists from ICES and NAFO, as well as those from other organizations and countries concerned by the effects of exploitation on sustainable fisheries in the oceans. The venue in Canada favours a strong participation of North American countries which largely are continuing to experience poor gadoid resources - some of which are designated as 'threatened' or 'endangered' by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), though it is anticipated that the participant base will be broad and comprised of a number of ICES and NAFO countries with significant gadoid resources (e.g., EU, Scandinavia, Russia) as well as scientists studying North Pacific gadoids. A mix of scientists having different experiences with gadoid resiliency and ecosystem-based knowledge will be desirable. Representatives of fishermen's associations and other NGOs will also be encouraged to attend. Also noteworthy, is that a newly constructed aquarium will be considered as a possible venue, along with opportunities to tour the new Department of Fisheries and Oceans research facility in St. Andrews, New Brunswick on the Bay of Fundy.</p>
Secretariat facilities:	<p>The Secretariat will be involved, as usual, in general professional and secretariat support, and the Secretariat, as usual, should provide direct assistance during the Symposium.</p>
Financial:	<p>A financial support from ICES of ca. 15,000 euros is needed. This amount will be dedicated to fund travel and subsistence of keynote speakers and other ICES conveners that may be selected, and to support early career scientists. In addition, the attendance of one or two Secretariat staff at the Symposium, and the presence of the General Secretary/President will place a financial burden on the Secretariat. Fisheries and Oceans Canada will also provide financial support.</p>
Linkages to advisory committees:	<p>ACOM will be asked for input on the symposium program and should be represented in the Steering/Organising Committee.</p>
Linkages to other committees or groups:	<p>SCICOM will be asked for input on the symposium program and should be represented in the Steering/Organising Committee, and more specifically interactions with SGBYC, SGFIAC, SGRF, WGCFCIFIS, WGEIM, WGEVO, WGFE, WGMG and WGPBI will be established.</p>

Linkages to other organizations:	The Symposium has relevance for PICES, FAO, WWF and other programmes related with EU (e.g., COST Actions) and many institutions representing marine councils and commercial fishery organizations. Linkages within Canada include DFO's Ecosystem Approach to Management (EAM) and the NSERC Canadian Capture Fisheries Research Network.
Publication of proceedings	The conveners plan to use the ICES Journal of Marine Science for the proceedings. The volume is expected to exceed 200 pages.
