# Journal of Northwest Atlantic Fishery Science



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Scientific publications by ICNAF and NAFO have been in existence since ICNAF began in 1949 with the ICNAF Special Publication series dealing with proceedings of scientific symposia. The ICNAF Research Bulletin was started in 1964 to provide a means of publishing results of scientific research relevant to ICNAF. The ICNAF Research Bulletin was terminated in September 1979 after the issue of Number 14. The first volume of the NAFO Journal of Northwest Atlantic Fishery Science was published in December 1980, after NAFO came into force replacing ICNAF in 1979.

The Northwest Atlantic fisheries have a rich history, and a great deal of research has been sponsored and encouraged by NAFO and its predecessor ICNAF. NAFO has been a leader amongst international organizations in the application of science to fishery management and in the regulation of fisheries in areas beyond national jurisdiction. In accordance with its mandate to disseminate information on fisheries research to the scientific community, the Scientific Council of NAFO publishes the *Journal of Northwest Atlantic Fishery Science*, which contains peer-reviewed primary papers, and *NAFO Scientific Council Studies*, which contains unrefereed papers of topical interest and importance to the Scientific Council. Lists of these and other NAFO publications are given on the back of this issue.

## **Editorial Policy**

The Journal provides an international forum for the primary publication of original research papers, with emphasis on environmental, biological, economic and social science aspects of fisheries and their interactions with marine habitats and ecosystems. While the Journal is intended to be regional in scope, papers of general applicability, and methodological and review papers, irrespective of region, are considered. Space is available for notes and letters to the editor to facilitate scientific discussion of published papers. Both practical and theoretical papers are eligible. All papers are peer-reviewed to determine their suitability for primary publication. Associate Editors arrange for the peer-reviews and ensure that the papers accepted for publication meet the high standards required for the Journal. Manuscripts approved for publication are accepted with the understanding that they are not copyrighted, published or submitted elsewhere except in abstract form. There are no page charges.

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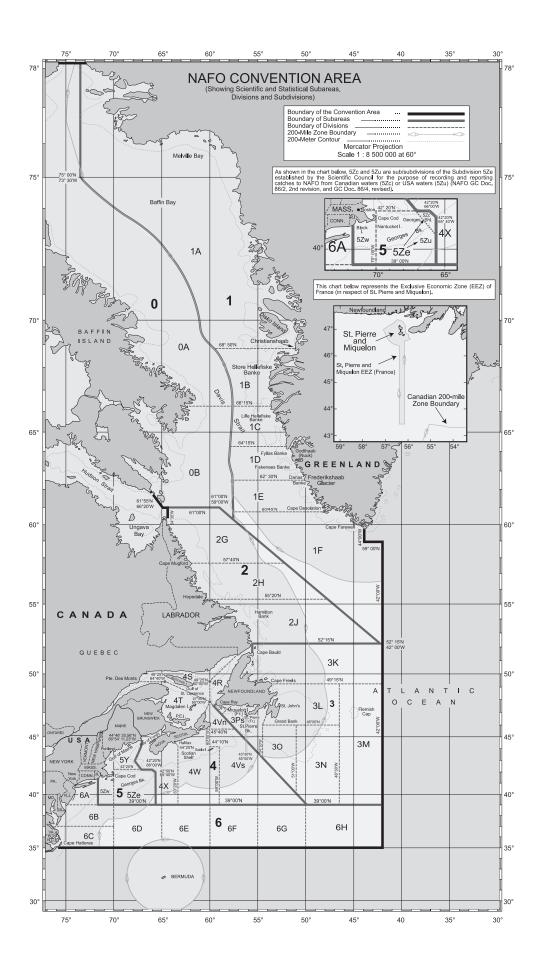
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# **Foreword**

The Scientific Council of NAFO publishes the Journal of Northwest Atlantic Fisheries Science, containing peer reviewed primary literature detailing original research of relevance to fisheries science and management in the northwest Atlantic Ocean. Articles are published electronically under a Creative Commons 2.5 license and are freely available at http://journal.nafo.int. NAFO Scientific Council has resolved to produce annual bound print volumes, and these represent a compilation of the web based articles published throughout the year. Additionally, the journal supports the use of digital object identifiers (doi) for electronic media and encourages others to support this initiative.

As always, this issue covers a range of topics representing ongoing research in the northwest Atlantic, including the population biology of American plaice, the groundfish assemblage of the Flemish Cap, selectivity of shellfish gears and long-term trends in the zooplankton community of the US continental shelf.

I would like to extend my thanks to all the authors who submitted works during 2013, to the Associate Editors who make the administration of the journal such a pleasure, to the various reviewers who give up their time and to Alexis Pacey, publications manager at the NAFO Secretariat, for all her assistance.

I hope you find this volume of JNAFS enjoyable and informative.

December 2013 Neil Campbell
General Editor,

Journal of Northwest Atlantic Fishery Science

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