Journal of Northwest Atlantic Fishery Science



Volume 7, No. 2
December 1987

Journal of Northwest Atlantic Fishery Science

Background Information

The extension of fisheries jurisdiction by states bordering the Northwest Atlantic Ocean (west of 42° W and north of 35° N) resulted in the negotiation of a new convention on multilateral cooperation in the area with regard to fisheries. Consequently, the Northwest Atlantic Fisheries Organization (NAFO) was established on 1 January 1979 to replace the International Commission for the Northwest Atlantic Fisheries (ICNAF) which originated in 1950. The Scientific Council of NAFO, in assuming responsibility to provide a forum for consultation and cooperation on fishery science in the Northwest Atlantic, considered the establishment of a primary fisheries journal to be an essential part of its function if its mandate was to be successfully met. The first volume of the Journal was published in December 1980.

Aims and Scope

The Journal provides an international forum for the primary publication of original research papers on fishery science in the Northwest Atlantic, dealing with the environmental, biological, ecological and fishery aspects of the living marine resources and ecosystems. While the Journal is intended to be regional in scope, papers of general applicability and methodology, irrespective of region, may also be considered. Both practical and theoretical papers are eligible for consideration, as are review articles of particular relevance to the work of ICNAF and NAFO. Space for "Letters to the Editor" will be provided when necessary, to facilitiate scientific discussion of published papers concerning controversial aspects. All papers are peer-reviewed to determine their suitability for primary publication. Manuscripts approved for publication are accepted with the understanding that their contents are unpublished and are not being submitted elsewhere for publication. The Editorial Board consists of experts in the fields of biological oceanography, vertebrate fisheries biology, invertebrate fisheries biology and biomathematics, who arrange for the peer-reviews and ensure that the papers, upon publication, meet the high standards required for a primary scientific journal.

Editorial Services

Editorial Board

- W. G. Doubleday, Resource Services Directorate, Ottawa, Ontario, Canada (Associate Editor, Biomathematics)
- E. P. Ennis, Northwest Atlantic Fisheries Centre, St. John's, Newfoundland, Canada (Associate Editor, Invertebrate Fisheries Biology)
- M. D. Grosslein, Northeast Fisheries Center, Woods Hole, Massachusetts, USA (Associate Editor, Vertebrate Fisheries Biology)
- R. G. Halliday, Marine Fish Division, Bedford Institute of Oceanography, Dartmouth, Nova Scotia, Canada (Associate Editor, Vertebrate Fisheries Biology)
- J. M. Colebrook, Institute of Marine Environmental Research, Plymouth, UK (Associate Editor, Biological Oceanography)

Technical Editor

 V. M. Hodder, Assistant Executive Secretary, NAFO, Dartmouth, Nova Scotia, Canada (to 31 October 1987)

Manuscripts

Authors with manuscripts on subjects within the scope of the Journal are encouraged to submit them for consideration. A sheet at the back of each issue contains information for authors on the preparation and submission of manuscripts.

There are no page charges.

Journal of Northwest Atlantic Fishery Science



Volume 7, No. 2
December 1987

Contents

TEMPLEMAN, Wilfred. Length-weight Relationships, Morphometric Characteristics and Thorniness of Thorny Skate (<i>Raja radiata</i>) from the Northwest Atlantic	89
MAZHIRINA, G. P., and A. A. FILIN. Gonad Development and Spawning of <i>Notoscopelus krøyeri</i> in the Northwest Atlantic, with Observations on Other Biological Characteristics	99
POTTER, David C., and R. Gregory LOUGH. Vertical Distribution and Sampling Variability of Larval and Juvenile Sand Lance (<i>Ammodytes</i> sp.) on Nantucket Shoals and Georges Bank.	107
MOHN, R. K., G. ROBERT, and D. L. RODDICK. Research Sampling and Survey Design for Sea Scallops (<i>Placopecten magellanicus</i>) on Georges Bank	117
HURLEY, G. V., M. J. TREMBLAY, and C. COUTURIER. Age Estimation of Sea Scallop Larvae (Placopecten magellanicus) from Daily Growth Lines on Shells	123
NAIDU, K. S. Efficiency of Meat Recovery from Iceland Scallops (<i>Chlamys islandica</i>) and Sea Scallops (<i>Placopecten magellanicus</i>) in the Canadian Offshore Fishery	131
GAVARIS, S., and S. J. SMITH. Effect of Allocation and Stratification Strategies on Precision of Survey Abundance Estimates for Atlantic Cod (<i>Gadus morhua</i>) on the Eastern Scotian Shelf	137
OVERHOLTZ, William J. Factors Relating to the Reproductive Biology of Georges Bank Haddock (Melanogrammus aeglefinus) in 1977–83	145
TEMPLEMAN, Wilfred. Differences in Sexual Maturity and Related Characteristics Between Populations of Thorny Skate (<i>Raja radiata</i>) in the Northwest Atlantic	155
NOTICES	169

