

## INTRODUCTION TO SAW-42 ASSESSMENT REPORT

The Northeast Stock Assessment Workshop (SAW) process has three parts: preparation of stock assessments by the SAW Working Groups and/or by ASMFC Technical Committees / Assessment Committees; peer review of the assessments by a panel of outside experts who judge the adequacy of the assessment as a basis for providing scientific advice to managers; and a presentation of the results and reports to the Regions managers.

Starting with SAW-39 (June 2004), the process was revised in two fundamental ways. First, the Stock Assessment Review Committee (SARC) is now a smaller panel with panelists provided by the University of Miami's Independent System for Peer Review (Center of Independent Experts, CIE). Second, the SARC no longer provides management advice. Instead, Council and Commission teams (e.g., Plan Development Teams, Monitoring and Technical Committees) formulate management advice, given that an assessment has been accepted by the SARC.

Reports that are produced following the SAW/SARC-41 meeting include: An *Assessment Summary Report* - a brief summary of the assessment results in a format useful to managers; this *Assessment Report* - a detailed account of the assessments for each stock; and the SARC panelist report - a summary of the panel's recommendations as well as appendices consisting of a report from each panelist. SAW/SARC assessment reports are available online at <http://www.nefsc.noaa.gov/nefsc/publication/s/series/crdlist.htm>. The CIE review reports

and assessment reports can be found at <http://www.nefsc.noaa.gov/nefsc/saw/>.

The 42<sup>nd</sup> SARC was convened in Woods Hole at the Northeast Fisheries Science Center, November 28 – December 4, 2005 to review three assessments (silver hake, Atlantic mackerel, *Illex* squid) and a multispecies predator-prey model known as MSVPA-X. The reviews were based on detailed reports produced by the SAW Northern Demersal, Coastal/Pelagic and Invertebrate Working Groups for silver hake, Atlantic mackerel, *Illex* squid assessment, and the ASMFC Multispecies Assessment Subcommittee and ASMFC Stock Assessment Committee for the MSVPA-X model.

This Introduction contains a brief summary of the SARC comments, a list of SARC panelists, meeting agenda, list of working group meetings and a list of attendees (Tables 1 – 4). Maps of the Atlantic coast of the USA are also provided (Figures 1 -3).

The SARC accepted part of the silver hake assessment. Three approaches were used in the assessment to estimate fishing mortality (F) and stock biomass. Two of these approaches were new and were designed to derive lower bounds for biomass and upper bounds for F: (1) a comparison of catches in the NEFSC survey with those in a Supplemental Finfish survey; and (2) a method based on the assumption that landings must be less than stock biomass. The third approach was the existing method which uses standard biomass and exploitation indices derived from NEFSC fall bottom trawl survey data and

commercial landings. The results of the two new approaches were not accepted by the SARC because the approaches depended on key assumptions that were not well supported. Thus, the assessment was based on the existing method which was used for determining stock status. The SARC concluded that although the silver hake assessment was able to evaluate stock status, more work should be done to evaluate the appropriateness of the existing threshold criteria.

The SARC accepted the Atlantic mackerel stock assessment, and indicated that the assessment was scientifically-sound and provided a credible basis for developing management advice. It was noted that estimates of fishing mortality and biomass from the new mackerel assessment model (ASAP) model had a retrospective pattern, raising concerns about whether these quantities were estimated well. The SARC felt that a suitable description was provided regarding the transition from an earlier assessment model to the ASAP model, but that more details and documentation should have been provided in the mackerel assessment report.

The *Illex* squid assessment was not able to estimate fishing mortality rate, stock biomass, or to determine stock status. The SARC indicated that the available data on *Illex* were not adequate to estimate these quantities; nevertheless, significant advances in modeling had taken place. The SARC advocated finding a new approach for evaluating overfishing, and deemed the existing criteria inappropriate for this short-lived species.

With respect to the MSVPA-X model, the reviewers concluded that all of the Terms of Reference were met; however, they stressed that it would not be appropriate to use the

present model as a basis for quantitative fishery management advice about menhaden or its predators. Rather, they felt that the MSVPA-X model was a valuable tool for understanding predator-prey dynamics and for exploring “what if” scenarios.

Due to its large size, this Assessment Report consists of two volumes. The first volume has the Working Group reports for the three stock assessments. The second volume has the MSVPA-X report. Members of the Working Groups are listed in Table 3. Sections of the Working Group reports that were not completed successfully, based on the opinion of the independent review panel (CIE), have been omitted by the SAW Chairman. The CIE report can be found at: (<http://www.nefsc.noaa.gov/nefsc/saw/>). In those places where text has been omitted, a note has been inserted informing the reader of this. The CIE’s decision to accept or reject assessment results was based on scientific criteria such as the quality of the input data that were available, quality of the data analysis and modeling, and whether the conclusions of the Working Group held up during the independent peer review SARC meeting. The CIE panel also considered whether the results were strong enough to serve as a basis for developing fishery management measures and advice.

Table 1. 42nd Stock Assessment Review Committee Panel.

42nd Northeast Regional Stock Assessment Workshop (SAW 42)  
**Stock Assessment Review Committee (SARC) Meeting**

November 28 – December 4, 2005

**SARC Chairman:**

**Dr. Andrew Payne**  
**Centre for Environment, Fisheries and**  
**Aquaculture Science, Lowestoft,**  
**Suffolk NR33 0HT, UK (CIE)**

**SARC Panelists:**

**Dr. John Casey**  
**Centre for Environment, Fisheries and**  
**Aquaculture Science, Lowestoft,**  
**Suffolk NR33 0HT, UK (CIE)**

**Dr. Vivian Haist**  
**Consultant, 1262 Marina Way, Nanoose Bay,**  
**British Columbia, Canada (CIE)**

**Dr. Yan Jiao**  
**Department of Fisheries and Wildlife Sciences**  
**Virginia Polytechnic Institute & State University**  
**Blacksburg, VA, USA 24061 (CIE)**

Table 2. Agenda, 42nd Stock Assessment Review Committee Meeting.

42nd Northeast Regional Stock Assessment Workshop (SAW 42)  
**Stock Assessment Review Committee (SARC) Meeting**

Stephen H. Clark Conference Room – Northeast Fisheries Science Center  
 Woods Hole, Massachusetts

November 28 – December 4, 2005

**AGENDA**

TOPIC	PRESENTER	SARC LEADER	RAPPORTEUR
<b>Monday, 28 Nov. (1:00 – 5:00 PM).....</b>			
Opening			
Welcome	<b>James Weinberg</b> , SAW Chairman		
Introduction	<b>Andrew Payne</b> , SARC Chairman		
Agenda			
Conduct of Meeting			
Silver Hake (A)	<b>Larry Jacobson</b>	<b>John Casey</b>	<b>Laurel Col</b>
SARC Discussion	<b>Andrew Payne</b>		
<b>Tuesday, 29 Nov. (8:30 AM – 12:00).....</b>			
Mackerel (B)	<b>William Overholtz</b>	<b>Vivian Haist</b>	<b>Chris Legault</b>
SARC Discussion	<b>Andrew Payne</b>		
<b>Tuesday, 29 Nov. (1:15 – 5:00 PM).....</b>			
<i>Illex</i> squid (C)	<b>Lisa Hendrickson</b>	<b>Yan Jiao</b>	<b>Rich Seagraves</b>
SARC Discussion	<b>Andrew Payne</b>		

**Wednesday, 30 Nov. (8:30 AM – 12:00) .....**

MSVPA-X Model (D)

**Matthew Cieri**  
**Lance Garrison TBA Patrick Kilduff**

SARC Discussion

**Andrew Payne**

**Wednesday, 30 Nov. (1:15 PM – 5:00) .....**

Revisit Assessments and Model, as needed.

**Thursday, 1 Dec. (8:30 AM – ) .....**

Revisit Assessments and Model, if needed.

SARC Report writing (closed)

**Friday, 2 Dec. (8:30 AM – ) – 4 Dec. ....**

SARC Report writing. (closed)

Table 3. 42nd Stock Assessment Workshop, list of working groups and meetings.

<u>Assessment Group</u>	<u>Chair</u>	<u>Species</u>	<u>Meeting Date/Place</u>
SAW Invertebrate Working Group	Larry Jacobson, NMFS NEFSC	<b><i>Illex squid</i></b>	Oct. 3-4,2005 Woods Hole
L. Hendrickson, NEFSC	R. Seagraves, MAFMC		
Dvora Hart, NEFSC	Teresa Johnson , Rutgers U.		
Eric Powell, Rutgers U.	Glenn Goodwin, Seafreeze, Ltd.		
Jim Ruhle, MAFMC, F/V Daina R	Phil Ruhle, NEFMC, F/V Sea Breeze		
Lynne Purchase, Imperial College, Lond			
SAW Northern Demersal, Coastal/Pelagic and Invertebrate Working Group	Ralph Mayo, NMFS NEFSC	<b><i>Illex squid, Atlantic mackerel, Silver hake</i></b>	Oct. 24-28, 2005 Woods Hole
J. Burnett, NEFSC	E. Powell, Rutgers University		
S. Cadrin, NEFSC/SMAST	P. Rago, NEFSC		
L. Col, NEFSC	M. Radlinski, U. MA (SMAST)		
D. Farnham, Industry Advisor	J. Ruhle, Industry Advisor		
F. Gregoire, Dept. of Fisheries and Oceans, Canada	R. Seagraves, MAFMC		
D. Hanselman, AFSC	M. Terceiro, NEFSC		
D. Hart, NEFSC	M.B. Tooley, ECPH		
L. Hendrickson, NEFSC	J. Weinberg, NEFSC		
L. Jacobson, NEFSC	A. Westwood, NEFSC		
K. Lang, NEFSC	S. Wigley, NEFSC		
C. Legault, NEFSC	B. Overholtz, NEFSC		
P. Nitschke, NEFSC	V. Wespestad, Industry Consultant		
M. Ortiz, SEFSC			

The MSVPA-X Multispecies Assessment Subcommittee presented its work to the ASMFC Stock Assessment Committee on September 28, 2005. Membership:

**MSVPA-X Multispecies Assessment Subcommittee**

Matt Cieri – Subcommittee Chair, Maine Department of Marine Resources

Lance Garrison – Garrison Environmental Analysis and Research

Robert Latour – Virginia Institute of Marine Science

Behzad Mahmoudi – Florida Fish and Wildlife Conservation Commission

Brandon Muffley – New Jersey Department of Environmental Protection

Alexei Sharov – Maryland Department of Natural Resources

Doug Vaughan – National Marine Fisheries Service, Center for Coastal Fisheries and Habitat Research

**ASMFC Stock Assessment Committee members present:**

John Carmichael – Committee Chair, South Atlantic Fisheries Management Council

Matt Cieri – Subcommittee Chair, Maine Department of Marine Resources

Doug Grout – New Hampshire Department of Fish and Game

Kim McKown – New York Department of Environmental Conservation

Brandon Muffley – New Jersey Department of Environmental Protection

Mike Murphy – Florida Fish and Wildlife Conservation Commission

Des Kahn – Delaware Department of Natural Resources

Alexei Sharov – Maryland Department of Natural Resources

Doug Vaughan - National Marine Fisheries Service, Center for Coastal Fisheries and Habitat Research

Table 4. 42nd SAW/SARC, List of Attendees

Hassan Moustahfid, NEFSC  
Michelle Traver, NEFSC  
Loretta O'Brian, NEFSC  
Laurel Col, NEFSC  
Teresa Johnson, Rutgers U.  
Gary Shepherd, NEFSC  
Stacy Rowe, NEFSC  
Sandy Sutherland, NEFSC  
Susan Wigley, NEFSC  
Chad Demerest, NEFMC  
Jeff Kaelin, WFCNC  
Jim Ruhle, MAFMC  
Rich Seagraves, MAFMC  
Paul Nitschke, NEFSC  
Mary Radlinski, SMAST  
Ralph Mayo, NEFSC  
Mary Beth Tooley, ECPA  
Matt Cieri, ME DMR  
Chris Legault, NEFSC  
Lisa Hendrickson, NEFSC  
Devora Hart, NEFSC  
Michael Fogarty, NEFSC  
Patric Kilduff, ASMFC  
J. Cox, Atl. Pel. Seafood  
Peter Moore, Am. Pel. Assoc, NORPEL



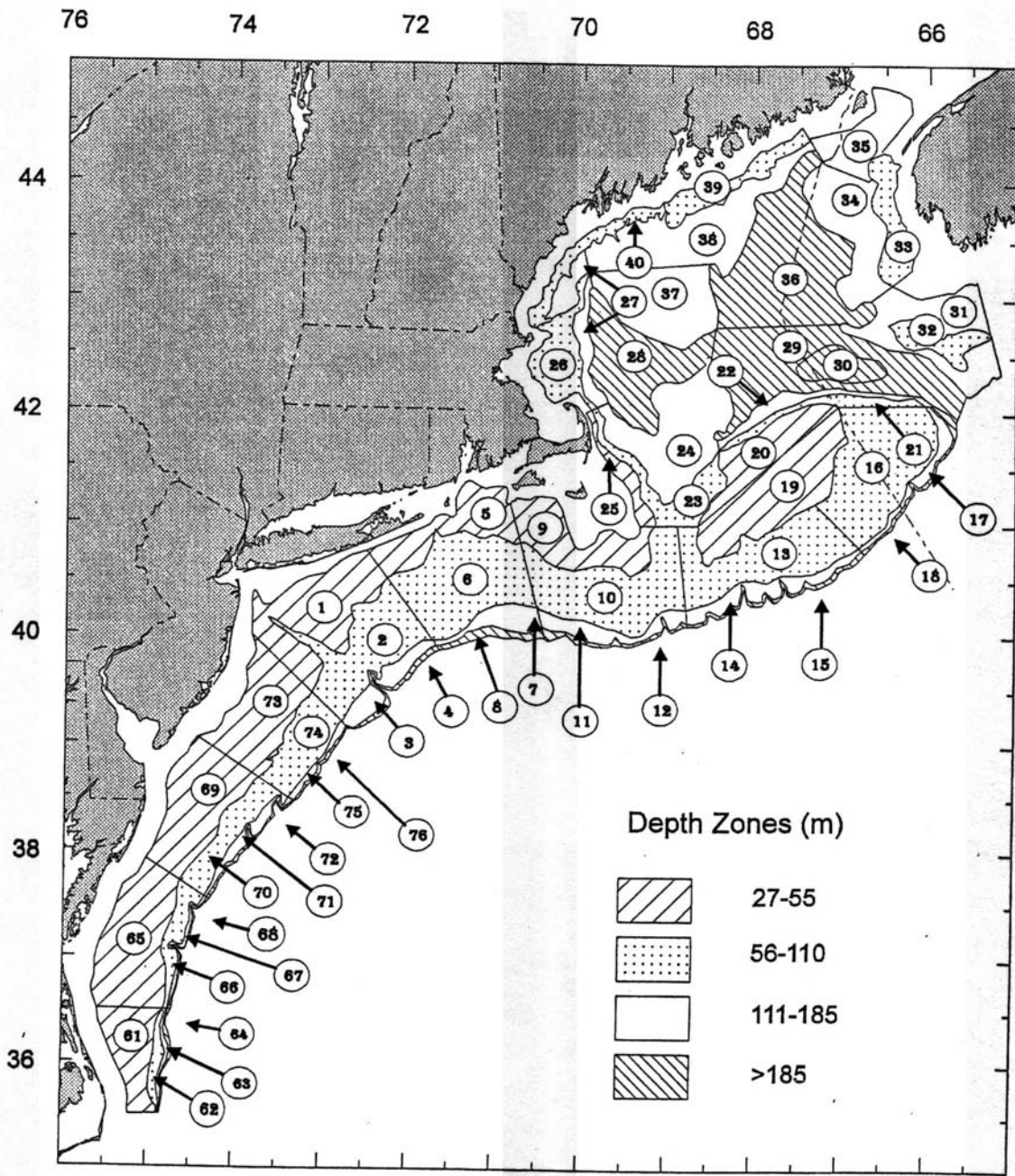


Figure 1. Offshore depth strata sampled during Northeast Fisheries Science Center bottom trawl research surveys.

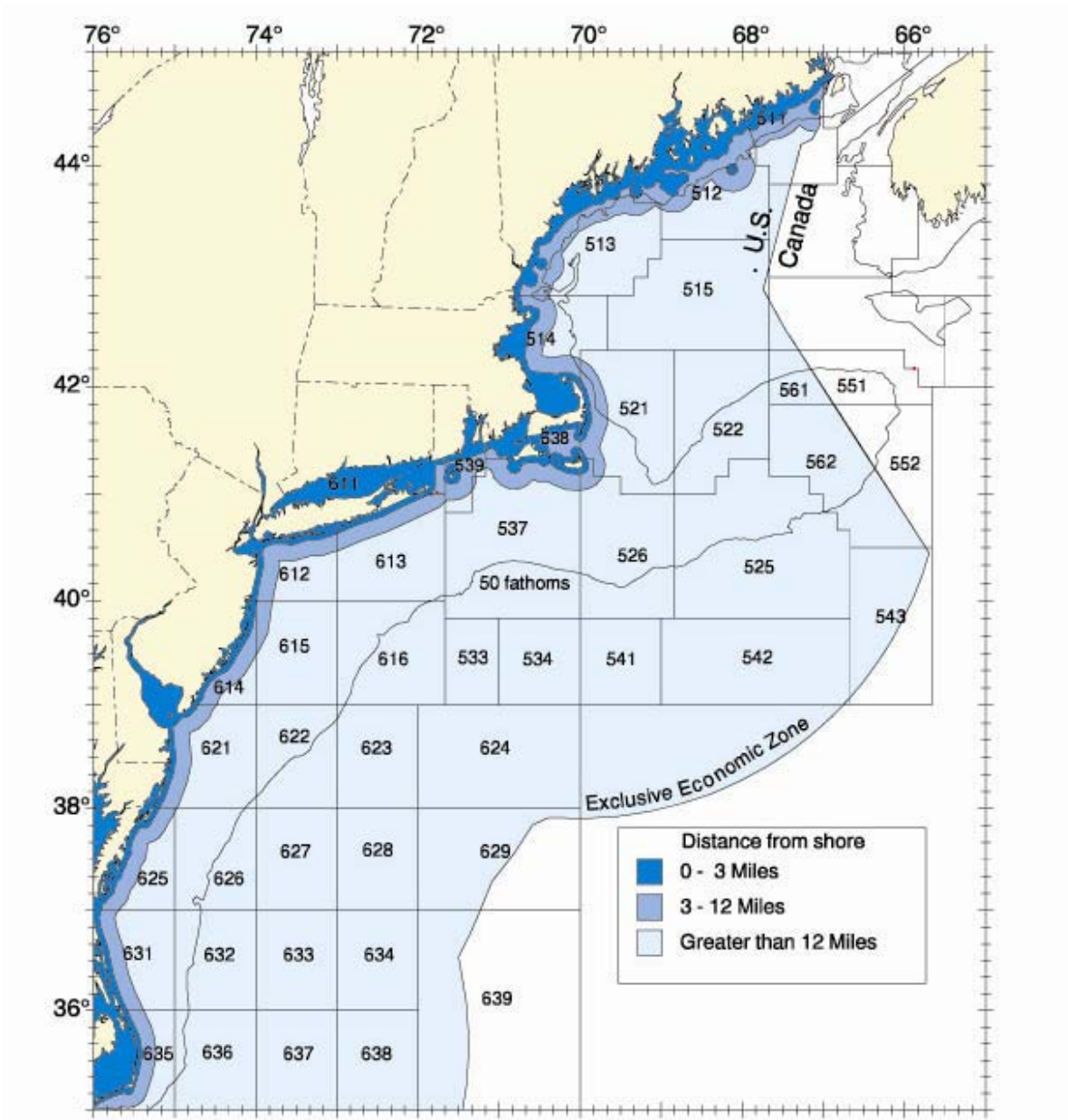


Figure 2. Statistical areas used for reporting commercial catches.

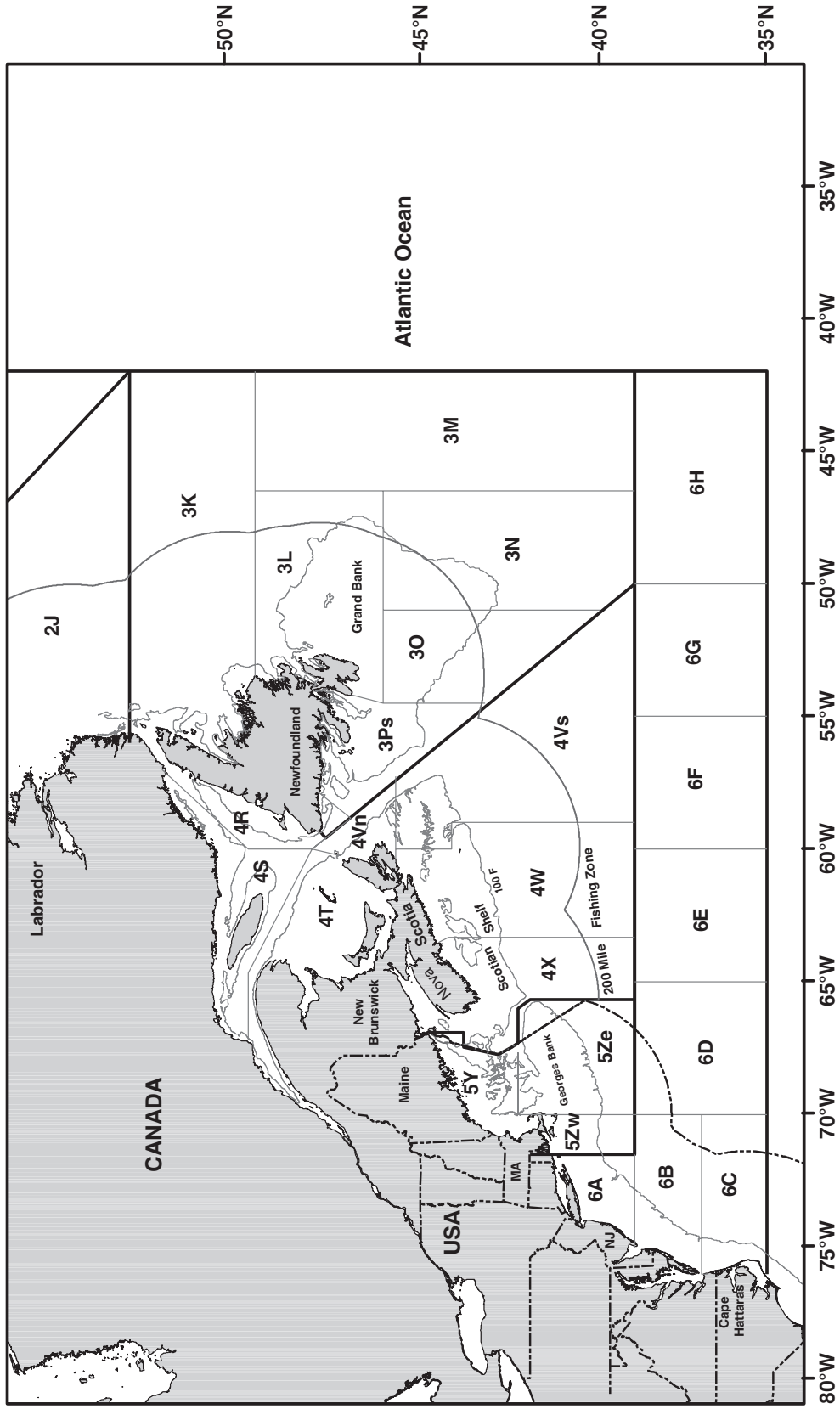


Figure 3. Catch reporting areas of the Northwest Atlantic Fisheries Organization (NAFO) for Subareas 3-6.