

## INTRODUCTION TO SAW-43 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, after an assessment has been accepted by the SARC.

Reports that are produced following SAW/SARC meetings 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 reviewer's opinions and 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/series/crdlist.htm>. The CIE review reports

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

The 43rd SARC was convened in Woods Hole at the Northeast Fisheries Science Center, June 6 - 12, 2006 to review four assessments (ocean quahog *Arctica islandica*, spiny dogfish *Squalus acanthias*, black sea bass *Centropristis striata*, and deep sea red crab *Chaceon quinque-dens*). The ocean quahog assessment (A.) has been withdrawn because it did not include all available data and a formula used in the assessment was used incorrectly. The decision by the NEFSC to withdraw the ocean quahog assessment was made before the SARC-43 reviews were available, and this decision was approved by the Northeast Region Coordinating Council (NRCC). CIE reviews for SARC43 were based on detailed reports produced by the SAW Southern Demersal and Invertebrate Working Groups.

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 and Canada are also provided (Figures 1 - 4).

### **Outcome of Stock Assessment Review Meeting:**

(The ocean quahog assessment (A.) has been withdrawn.)

The large quantity of results on spiny dogfish (B.) made parts of that assessment difficult for the SARC to evaluate. The SARC felt that the very high 2006 survey

estimate probably overestimates the current stock size, and that stock projections based on it were probably overly optimistic. Major concerns of the SARC about the spiny dogfish stock included: the long term reduction in female biomass, a significant imbalance in the sex ratio, and low recent recruitment. The SARC felt that  $F_{\text{threshold}}$  needed to be interpreted with care because the value of this metric is sensitive to the selectivity pattern, which has shifted in recent years. The SARC felt that  $B_{\text{threshold}}$  was adequate, but that there was substantial uncertainty regarding  $B_{\text{target}}$ . While the SARC agreed that the 2005 biomass point estimate was slightly above  $B_{\text{threshold}}$ , it cautioned against over interpreting that result because of the uncertainty in the biomass estimate.

The black sea bass assessment (C.) provided updated commercial and recreational landings, with a breakdown by gear type, as well as temporal trends in abundance and size-structure based on NEFSC surveys. The SARC noted inconsistencies in the methods of characterizing survey indices and their uncertainty. Because confidence intervals were large, the SARC questioned whether the trends represented stock status. The SARC felt that the tagging program made a substantial contribution to understanding migration. The SARC rejected estimates of fishing mortality from the tagging studies, did not feel that the biological reference points were technically sound, and did not feel that the assessment provided an adequate basis to evaluate stock status.

The SARC felt that the deep sea red crab assessment (D.) provided adequate estimates of biomass and fishing mortality rate, but that the MSY biomass reference point established in the 1970s was not reliable.

Therefore, current stock status could not be evaluated.

Sections of the Working Group reports that were not completed successfully, based on the opinion of the independent CIE review panel, have been omitted from this report (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 by the SAW Chairman 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 technically sufficient to serve as a basis for developing fishery management measures and advice.

Table 1. 43rd Stock Assessment Review Committee Panel.

43rd Northeast Regional Stock Assessment Workshop (SAW 43)  
**Stock Assessment Review Committee (SARC) Meeting**

June 6 – 12, 2006  
Woods Hole MA

**SARC Chairman (CIE):**

**Dr. Robin Cook**  
**FRS Marine Laboratory**  
**PO Box 101**  
**375 Victoria Rd.**  
**Aberdeen AB11 9DB**  
**United Kingdom**

**SARC Panelists (CIE):**

**Dr. Mark Maunder**  
**Inter-American Tropical Tuna Commission**  
**8604 La Jolla Shores Drive**  
**La Jolla, CA, 92037-1508, USA**

**Dr. Michael Armstrong**  
**The Centre for Environment, Fisheries and Aquaculture Science**  
**Pakefield Road**  
**Lowestoft**  
**Suffolk NR33 0HT United Kingdom**

Table 2. Agenda, 43rd Stock Assessment Review Committee Meeting.

43rd Northeast Regional Stock Assessment Workshop (SAW 43)  
**Stock Assessment Review Committee (SARC) Meeting**

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

June 6 – 12, 2006

**AGENDA (Revised 6/5/06)**

TOPIC	PRESENTER	SARC LEADER	RAPPORTEUR
<b>Tuesday, 6 June (9:00 – 12:15 PM).....</b>			
Opening			
Welcome	<b>James Weinberg</b> , SAW Chairman		
Introduction	<b>Robin Cook</b> , SARC Chairman		
Agenda			
Conduct of Meeting			
Ocean quahog (A)	<b>L. Jacobson/R. Russell</b>	<b>Mark Maunder</b>	<b>Laurel Col</b>
SARC Discussion	<b>Robin Cook</b>		
<b>Tuesday, 6 June (1:30 – 5:00 PM).....</b>			
Spiny dogfish (B)	<b>Paul Rago</b>	<b>Mark Maunder</b>	<b>Kathy Sosebee</b>
SARC Discussion	<b>Robin Cook</b>		
<b>Wednesday, 7 June (8:30 AM -12:00).....</b>			
Black sea bass (C)	<b>Gary Shepherd</b>	<b>Michael Armstrong</b>	<b>Michelle Traver</b>
SARC Discussion	<b>Robin Cook</b>		

**Wednesday, 7 June (1:15 – 5:00 PM) .....**

Revisit Assessments (A – C), as needed.

**Thursday, 8 June (8:30 AM – 12:00 ) .....**

Deep sea red crab (D)                      **Rick Wahle   Michael Armstrong   Toni Chute**

SARC Discussion                              **Robin Cook**

**Thursday, 8 June (1:15 – 5:00 PM) .....**

Revisit Assessments (D, and A – C), as needed.

**Friday, 9 June (8:30 AM – ) .....**

Revisit Assessments, if needed.

SARC Report writing (closed)

**Friday, 9 June (1:00 PM – ) – 12 June .....**

SARC Report writing. (closed)

Table 3. 43rd 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 Southern Demersal Working Group	Mark Terceiro, NMFS NEFSC	Spiny Dogfish	May 10-12, 2006 Woods Hole
Jim Armstrong	Mid-Atlantic Fishery Management Council		
Greg DiDomenico	GSSA		
Eric Powell	Rutgers		
Paul Rago	NMFS NEFSC		
Kelly Register	East Carolina University		
Roger Rulifson	East Carolina University		
Katherine Sosebee	NMFS NEFSC		
Mark Terceiro (chair)	NMFS NEFSC		
Victor Vecchio	NY DEC		
Jim Weinberg	NMFS NEFSC		
SAW Southern Demersal Working Group	Mark Terceiro, NMFS NEFSC	Black Sea Bass	May 8-9, 2006 Woods Hole
Mark Terceiro (Chair)	NEFSC	Toni Kerns	ASMFC
Victor Vecchio	NY DEC	(not present but contributed text concerning management history)	
Paul Nitschke	NEFSC		
Paul Caruso	MA DMF		
Katherine Sosebee	NEFSC		
Gary Shepherd	NEFSC		
Jessica Coakley	MAFMC		
Joshua Moser	NEFSC		
Christopher Legault	NEFSC		
Laurel Col	NEFSC		
Brian Murphy	RI DEM		

Invertebrate Working Group

Mark Terceiro, NMFS NEFSC

Deep Sea Red Crab

March 20-21, 2006

April 27-28, 2006

Woods Hole

Richard Allen	Red Crab Harvesters Association
Andy Applegate	NEFMC
Charlene Bergeron	Bigelow Laboratory for Ocean Sciences
Yong Chen	University of Maine, Orono
Toni Chute	NMFS NEFSC
Peter Cooke	F/V Frank H. Wetmore
Bob Glenn	Mass. DMF
Neal Goff	F/V Frank H. Wetmore
Larry Jacobson	NMFS NEFSC
Peter Lawsing	F/V Frank H. Wetmore
Bruce Medeiros	Benthic Fishing
Barbara Rountree	NMFS NEFSC
Mike Ruccio	NMFS NERO
Fred Serchuk	NMFS NEFSC
Jim Stone	F/V Krystal James
Shelly Tallack	GMRI
Mark Terceiro	NMFS NEFSC (Chair)
Richard Wahle	Bigelow Laboratory for Ocean Sciences (Assessment Lead)
Jon Williams	Benthic Fishing

Table 4. 43rd SAW/SARC, List of Attendees

K. Sosebee	NEFSC
J. Quiroz	IFOP Chile
J. Womack	Wallace and Assoc.
T. Hoff	MAFMC
P. Nitschke	NEFSC
C. Pickett	NEFSC
D. Wallace	Wallace and Assoc.
C. Keith	NEFSC
S. Rowe	NEFSC
E. Dolan	NOAA/NERO
T. Curtis	NOAA/NERO
J. Coakley	MAFMC
T. Kerns	ASMFC
J. Fletcher	UNFA
G. DiDomenico	Industry
L. Col	NEFSC
B. Rountree	NEFSC
R. Mayo	NEFSC
M. Terceiro	NEFSC
M. Palmer	NEFSC
L. Jacobson	NEFSC
R. Russell	Maine DMR



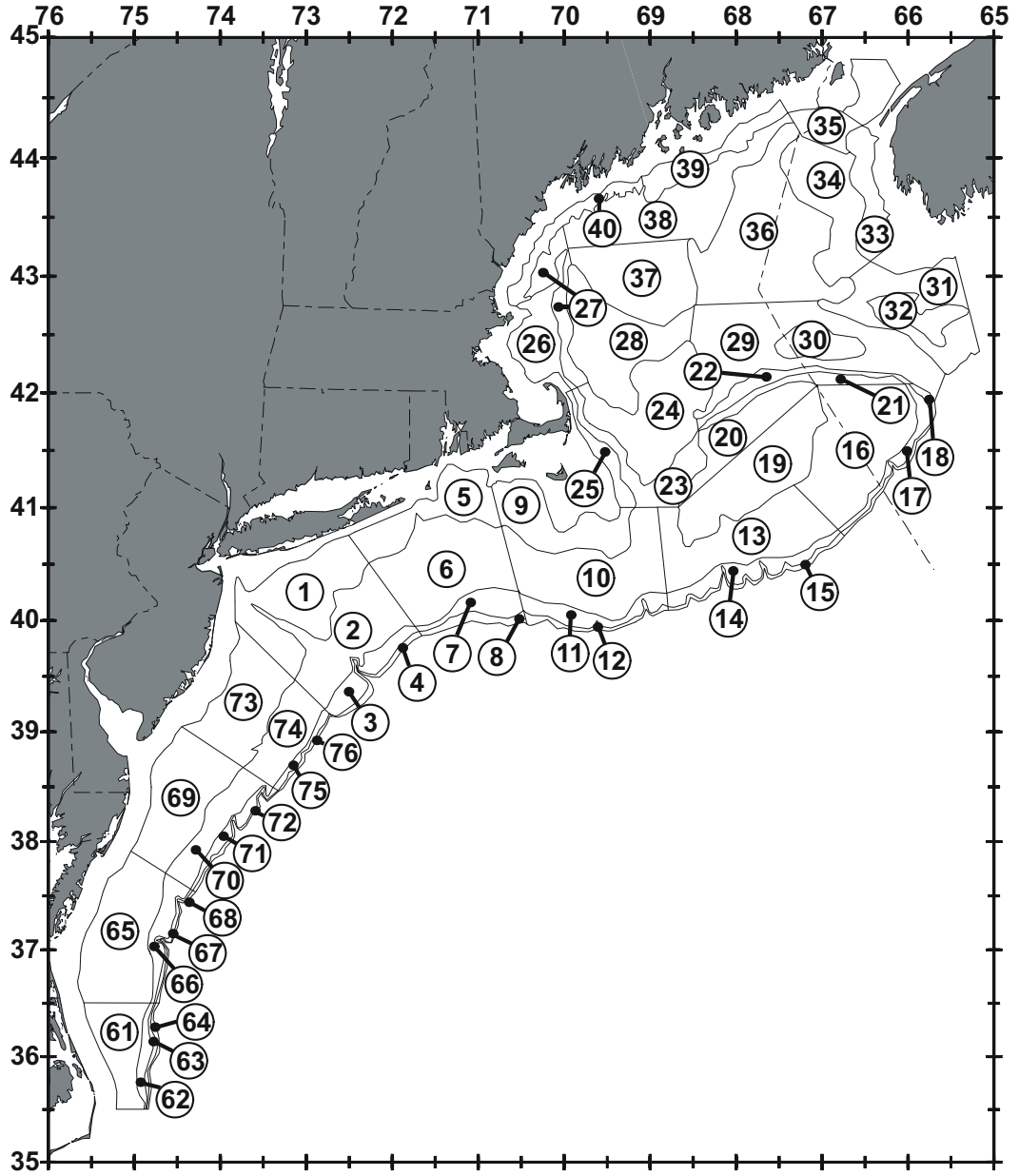


Figure 1. Offshore depth strata sampled during Northeast Fisheries Science Center bottom trawl research surveys.

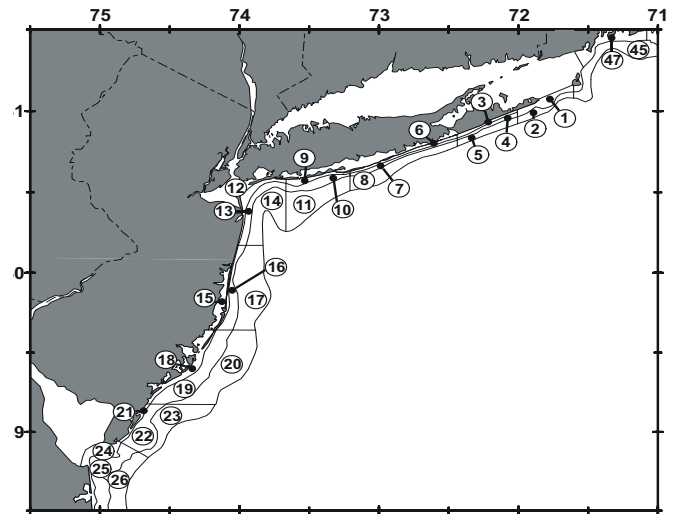
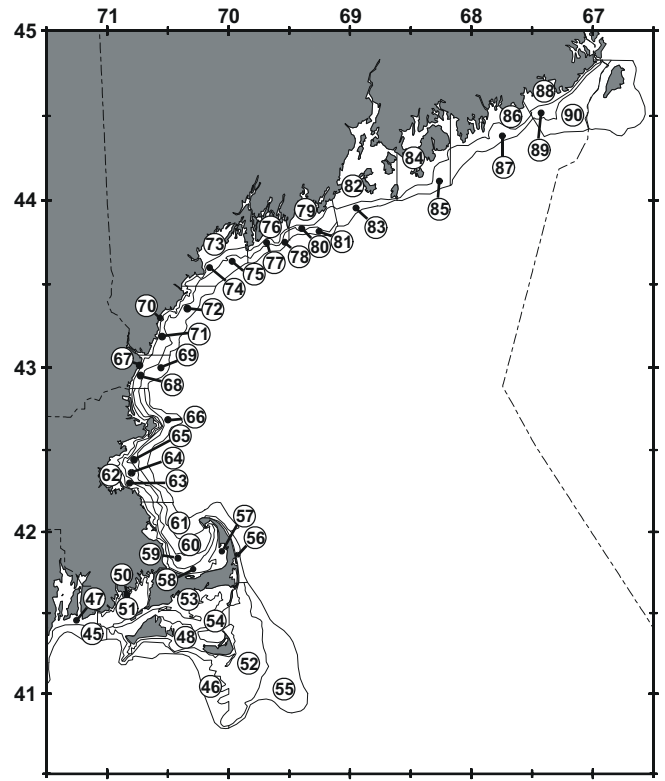
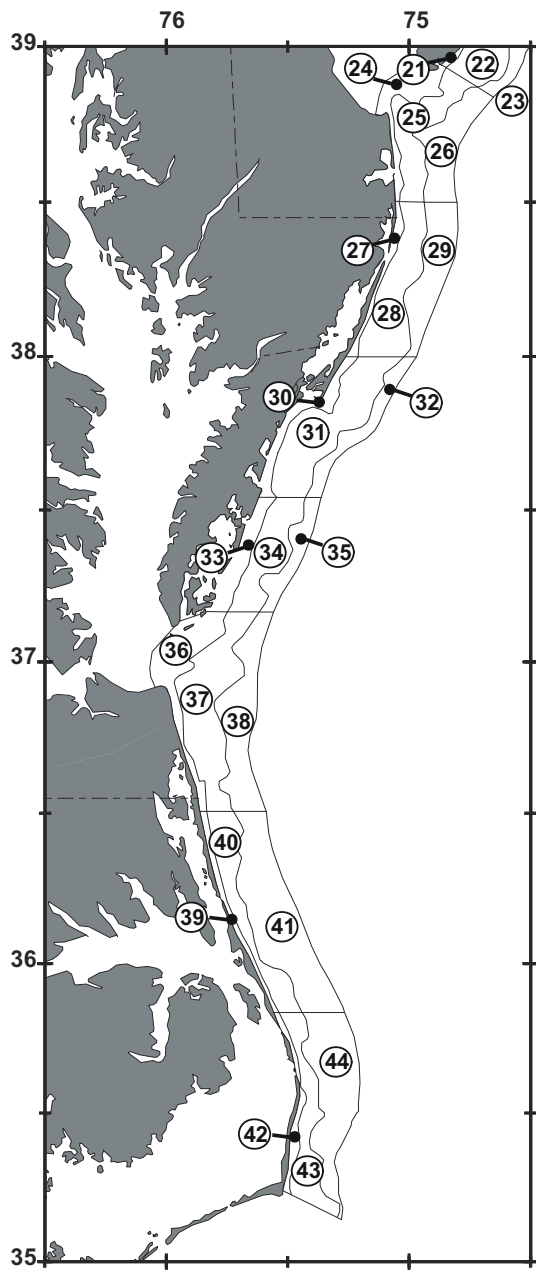


Figure 2. Inshore depth strata sampled during research surveys.

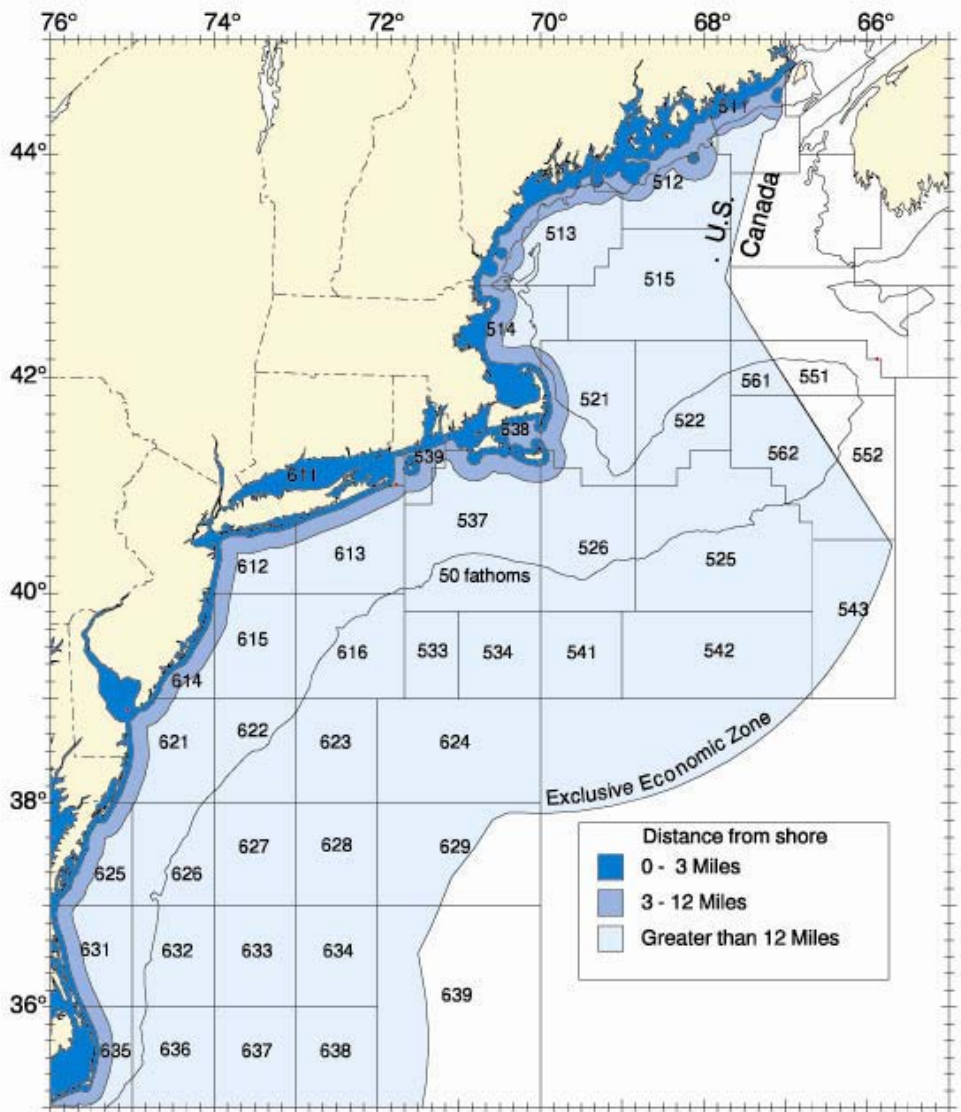


Figure 3. Statistical areas used for reporting commercial catches.

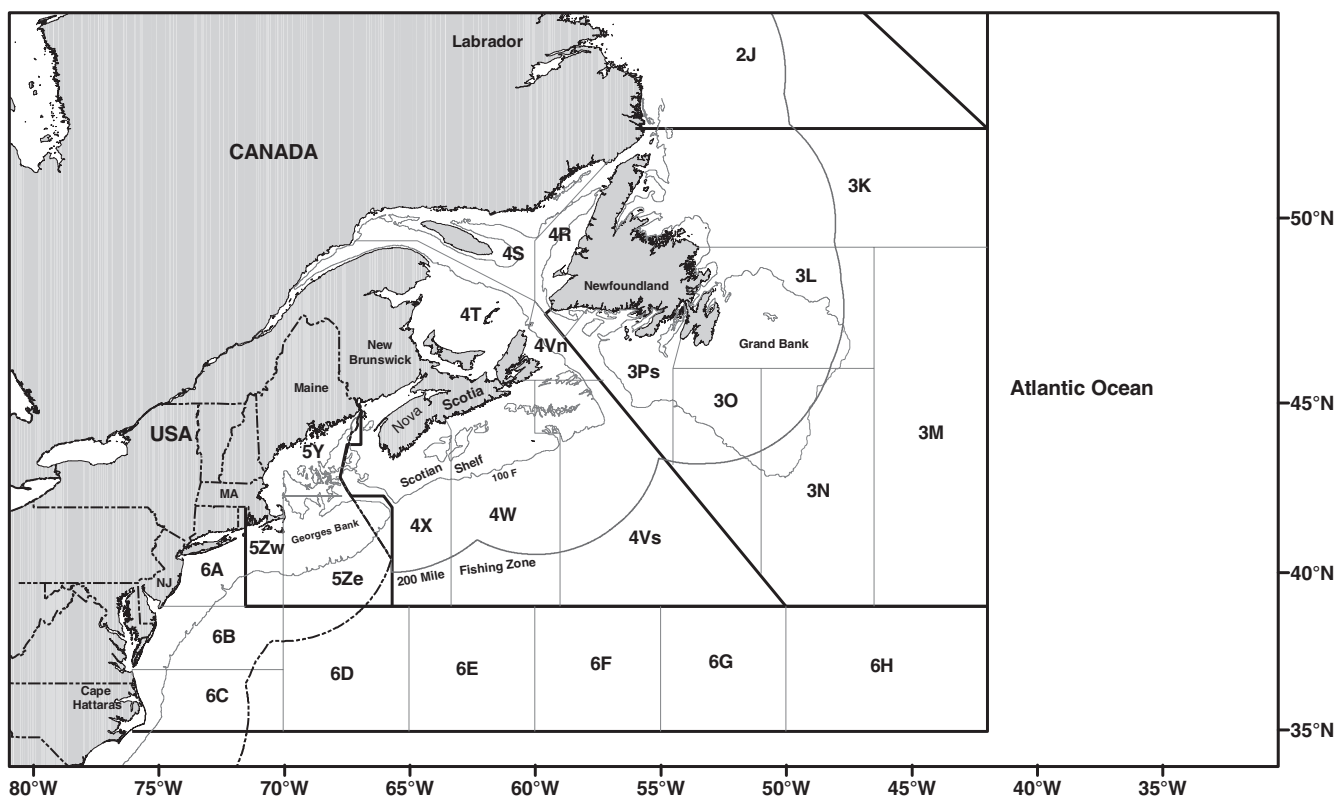


Figure 4. Catch reporting areas of the Northwest Atlantic Fisheries Organization (NAFO) for Subareas 3-6.