Foreword

The Northeast Regional 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 Region's fishery management bodies.
Starting with SAW-39 (June 2004), the process was revised in two fundamental ways. First, the Stock Assessment Review Committee (SARC) became smaller panel with panelists provided by the Independent System for Peer Review (Center of Independent Experts, CIE). Second, the SARC provides little management advice. Instead, Council and Commission teams (e.g., Plan Development Teams, Monitoring and Technical Committees, Science and Statistical Committee) formulate management advice, after an assessment has been accepted by the SARC. Starting with SAW-45 (June 2007) the SARC chairs were from external agencies, but not from the CIE. Starting with SAW-48 (June 2009), SARC chairs are from the Fishery Management Council's Science and Statistics Committee (SSC), and not from the CIE. Also at this time, some assessment Terms of Reference were revised to provide additional science support to the SSCs, as the SSC's are required to make annual ABC recommendations to the fishery management councils.

Reports that are produced following SAW/SARC meetings include: An *Assessment Summary Report* - a summary of the assessment results in a format useful to managers; an *Assessment Report* – a detailed account of the assessments for each stock; and the SARC panelist reports – a summary of the reviewer's opinions and recommendations as well as individual reports from each panelist. SAW/SARC assessment reports are available online at

http://www.nefsc.noaa.gov/nefsc/publications/series/crdlist.htm. The CIE review reports and assessment reports can be found at *http://www.nefsc.noaa.gov/nefsc/saw/*".
The 54th SARC was convened in Woods Hole at the Northeast Fisheries Science Center, June 5 -9, 2012 to review benchmark stock assessments of: Atlantic herring (*Clupea harengus*) and Southern New England Mid-Atlantic yellowtail flounder (*Pleuronectes ferrugineus*). CIE reviews for SARC54 were based on detailed reports produced by NEFSC Assessment Working Groups. This Introduction contains a brief summary of the SARC comments, a list of SARC panelists, the meeting agenda, and a list of attendees (Tables 1 – 3). Maps of the Atlantic coast of the USA and Canada are also provided (Figures 1 - 5).

Outcome of Stock Assessment Review Meeting:

Based on the Review Panel reports (at http://www.nefsc.noaa.gov/nefsc/saw/ under the heading "SARC 54 Panelist Reports"), the SARC review panel drew the following conclusions. For **Atlantic herring**, the Panel accepted the new ASAP assessment model. A feature of this new model is the 50% increase in natural mortality rate (M) during 1996-2011. This new M estimate is consistent with data on consumption of herring by predators and it largely resolves the retrospective pattern which has been a prominent feature of previous assessment models. The biological reference points were derived assuming that the 50% increase in M due to herring

consumption will continue over the next 3 – 5 years. This assumption about the future is a source of uncertainty. The new biomass reference points (B_{TARGET} and MSY) are much lower than those from the previous assessment. A source of uncertainty in the stock projections is the size of the 2009 age-1 recruitment, which has been estimated to be almost twice as large as the next largest recruitment (1994). The 2009 age-1 fish contribute to the recent increase in stock biomass, and are a significant component of projected yield to the fishery in the future. It will be important to monitor the size of this year-class. Overall, the Panel concluded that the Atlantic herring stock is not overfished and that overfishing is not occurring.

For **Southern New England Mid-Atlantic yellowtail flounder** the Panel accepted a new stock assessment model (ASAP). There was a significant revision of most of the assessment's data sets. The new model assumed a higher natural mortality rate (M). There has been a marked decline in recruitment since 1990. Two stock–recruitment scenarios were developed which account for this decline, and the two scenarios lead to very different conclusions about biomass stock status. A "recent recruitment" scenario assumes that incoming year-classes since 1990 have been weak, perhaps due to a reduction in stock productivity, and not related to SSB. Alternatively, a "two-stanza" scenario assumes that recruitment over the entire time series is a function of spawning stock biomass (SSB) and that below about 4300 mt SSB average recruitment is very low. While neither scenario could be ruled out, the Panel concluded that the evidence was 60:40 in favor of the "recent recruitment" scenario (i.e., productivity change). Overall, the fishing mortality (F_{MSY}) reference point is relatively certain, and overfishing is likely not occurring. However, the reference points associated with biomass ($B_{MSY,}$ MSY) are uncertain due to the productivity change issue and require further exploration. There is considerable uncertainty as to whether or not the stock is overfished. Under the "recent recruitment" scenario the stock would not be considered overfished and it would be considered rebuilt to a new, much lower biomass target. In contrast, under the "two-stanza" scenario the stock would still be considered overfished.

CIE review reports can be found at *http://www.nefsc.noaa.gov/nefsc/saw/* under the heading "SARC 54 Panelist Reports".

Table 1. 54th Stock Assessment Review Committee Panel.

SARC Chairman (NEFMC SSC):

Mr. Robert O'Boyle
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Bedford, Nova Scotia, Canada, B4A 2E5
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SARC Panelists (CIE):

Dr. Chris Francis
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Dr. Norm Hall
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Email: N.Hall@murdoch.edu.au

Dr. Neil Klaer
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Table 2. Agenda, 54th Stock Assessment Review Committee Meeting.

54th Northeast Regional Stock Assessment Workshop (SAW 54)
Stock Assessment Review Committee (SARC) Meeting

June 5-9, 2012

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

AGENDA* (version: 4 June 2012)

TOPIC	PRESENTER(S)	SARC LEADER	RAPPORTEUR

Tuesday, June 5

1 – 1:30 PM
Welcome — **James Weinberg**, SAW Chair
Introduction — **Robert O'Boyle**, SARC Chair
Agenda
Conduct of Meeting

1:30 – 3:30	Assessment Presentation (A. Herring) **Jon Deroba, others**	**TBD**	**Toni Chute**
3:30 – 3:45	Break		
3:45 – 6	Assessment Presentation (A. Herring) **Jon Deroba, others**	**TBD**	**Toni Chute**

Wednesday, June 6

9 – 11:45	SARC Discussion w/ presenters (A. Herring) **Robert O'Boyle**, SARC Chair		**Toni Chute**
11:45 – 1	Lunch		
1:00 – 3:15	Assessment Presentation (B. SNE YT) **Larry Alade**	**TBD**	**Jessica Blaylock**
3:15 – 3:30	Break		
3:30 – 5:30	SARC Discussion w/ presenters (B. SNE YT) **Robert O'Boyle**, SARC Chair		**Jessica Blaylock (Mike Palmer)**
7	social event --Coonamessett Inn, 311 Gifford St., Falmouth		

Thursday, June 7

9 - 11	Revisit w/ presenters (A. herring) **Robert O'Boyle**, SARC Chair	**T. Chute**
11 – 11:15	Break	
11:15 – 12:30	Revisit w/ presenters (B. SNE YT) **Robert O'Boyle**, SARC Chair	**J. Blaylock**
12:30 – 1:45	Lunch	
1:45 – 2:15	(cont.) Revisit w/ presenters (B. SNE YT) **Robert O'Boyle**, SARC Chair	**J. Blaylock**
2:15 -2:30	Break	
2:30 – 5:30	Review/edit Assessment Summary Report (A. herring) **Robert O'Boyle**, SARC Chair	**T. Chute**

Friday, June 8

9 - 12	Review/edit Assessment Summary Report (B. SNE YT) **Robert O'Boyle**, SARC Chair	**J. Blaylock**
12 – 1:15	**Lunch**	
1:15 – 5	SARC Report writing. (closed meeting)	

Saturday, June 9

9:00 - 3 PM (cont.) SARC Report writing. (closed meeting)

*All times are approximate, and may be changed at the discretion of the SARC chair. The meeting is open to the public, except where noted.

Table 3. 54th SAW/SARC, List of Attendees

Name	Affiliation	Email
James Weinberg	NEFSC	James.weinberg@noaa.gov
Paul Rago	NEFSC	Paul.Rago@noaa.gov
Tom Nies	NEFMC	tnies@nefmc.org
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Jud Crawford	PEW CT	jcrawford@pewtrusts.org
Steve Cadrin	SMAST/SSC	scadrin@umassd.edu
Liz Brooks	NEFSC	Liz.brooks@noaa.gov
Mike Palmer	NEFSC	Michael.palmer@noaa.gov
Rachel Neild	NEFMC	RNeild@nefmc.org
Laurel Col	NEFSC	laurel.col@noaa.gov
Kayla Copeland	NEFSC	Kayla.copeland@noaa.gov
Gary Shepherd	NEFSC	gary.shepherd@noaa.gov
Chris Legault	NEFSC	chris.legault@noaa.gov
Brian Smith	NEFSC	brian.smith@noaa.gov
Jessica Blaylock	NEFSC	Jessica.blaylock@noaa.gov
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Jason Link	NEFSC	Jason.link@noaa.gov
Toni Chute	NMFS	Toni.chute@noaa.gov
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Katie Burchard	NEFSC	katie.burchard@noaa.gov
John Hoey	NEFSC	John.hoey@noaa.gov
Dave McElroy	NEFSC	Dave.mcelroy@noaa.gov
Lori Steele	NEFMC	lsteele@nefmc.org

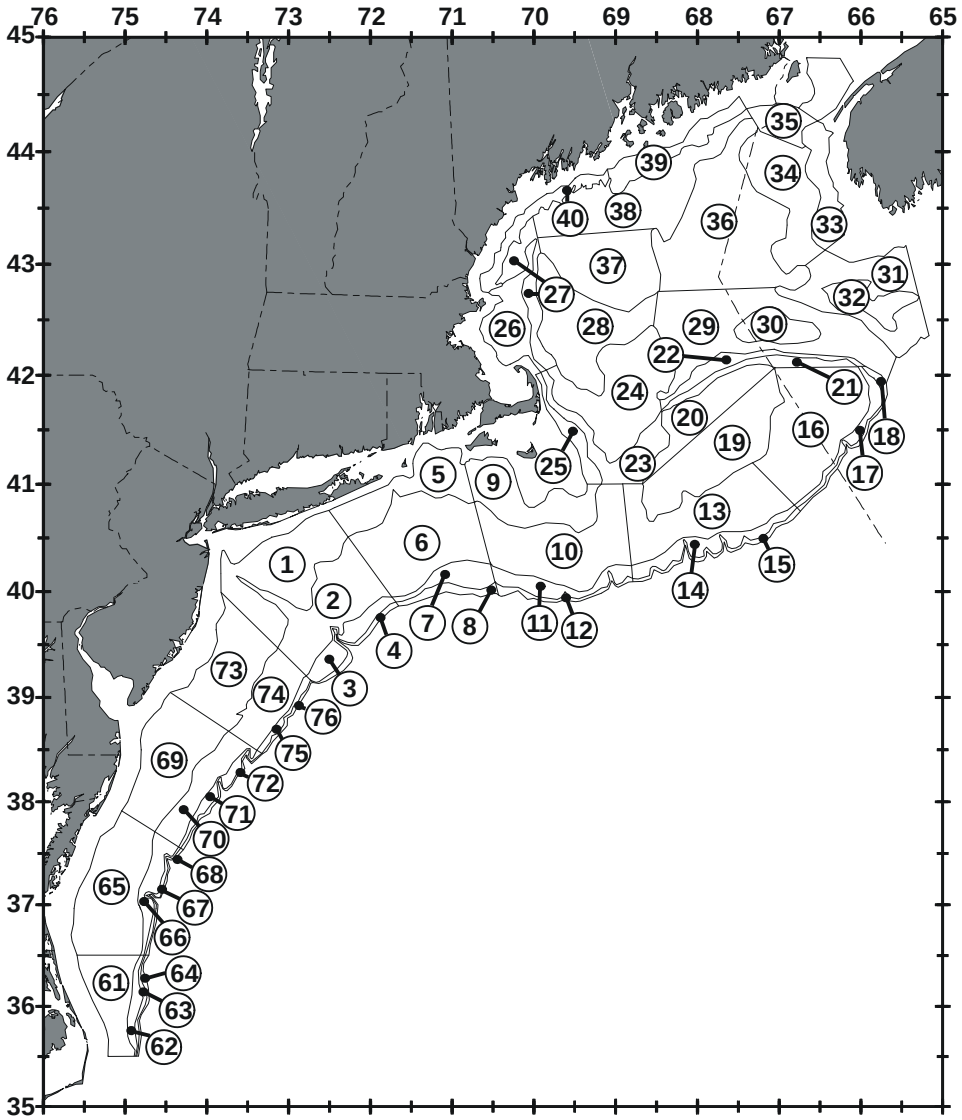

Figure 1. Offshore depth strata that have been sampled during Northeast Fisheries Science Center bottom trawl research surveys. Some of these may not be sampled presently.

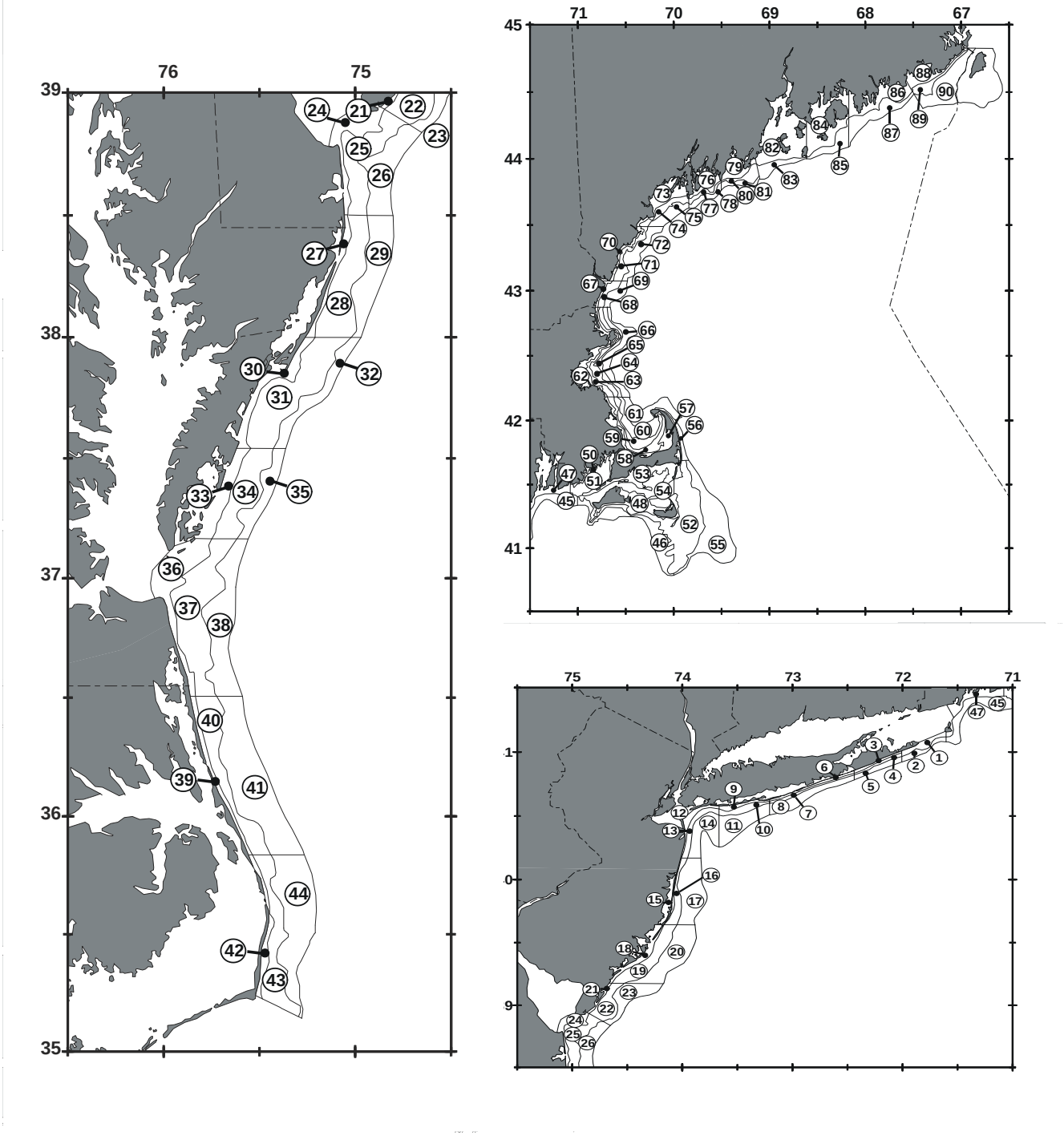

Figure 2. Inshore depth strata that have been sampled during Northeast Fisheries Science Center bottom trawl research surveys. Some of these may not be sampled presently.

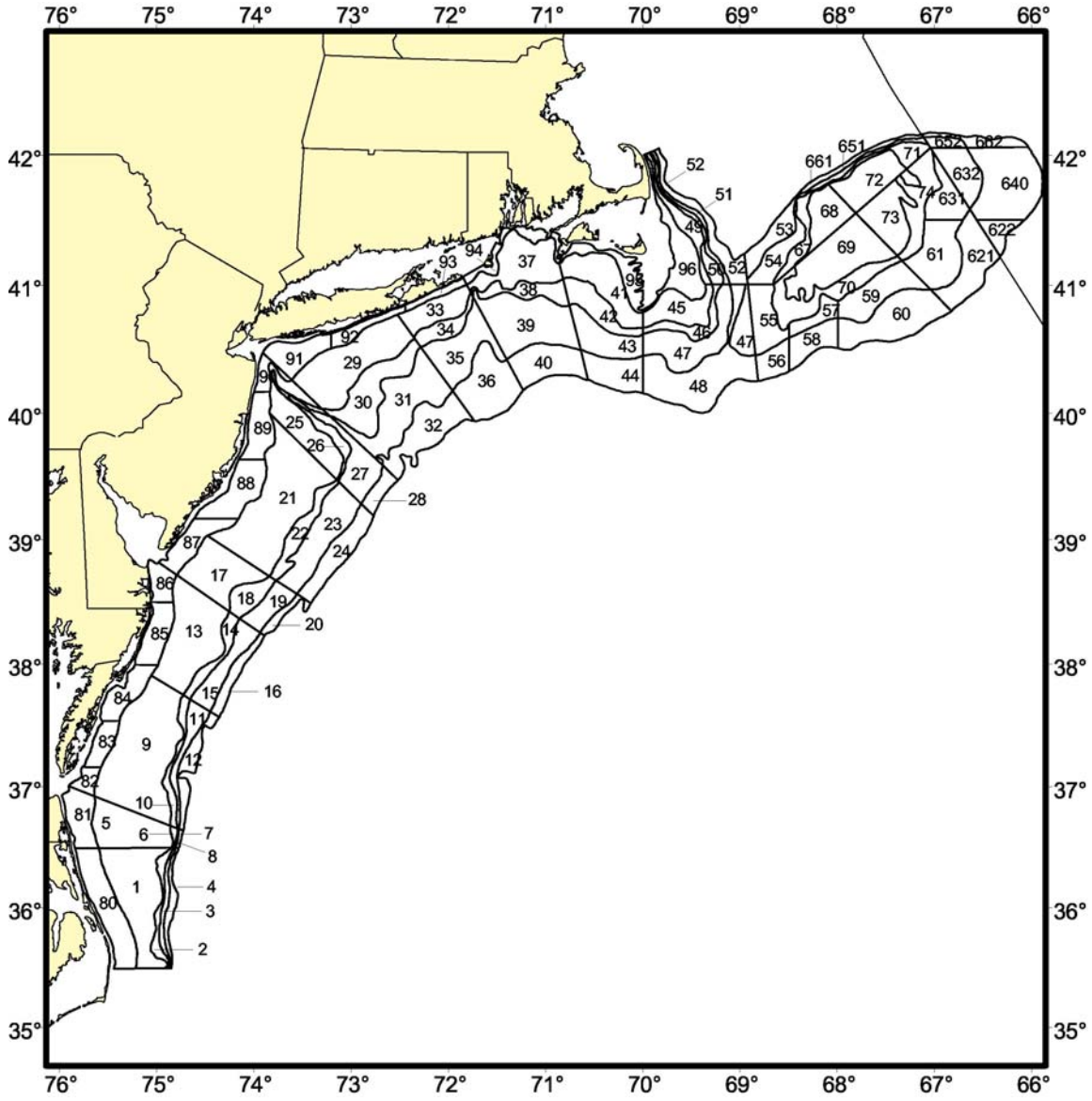

Figure 3. Depth strata sampled during Northeast Fisheries Science Center clam dredge research surveys.

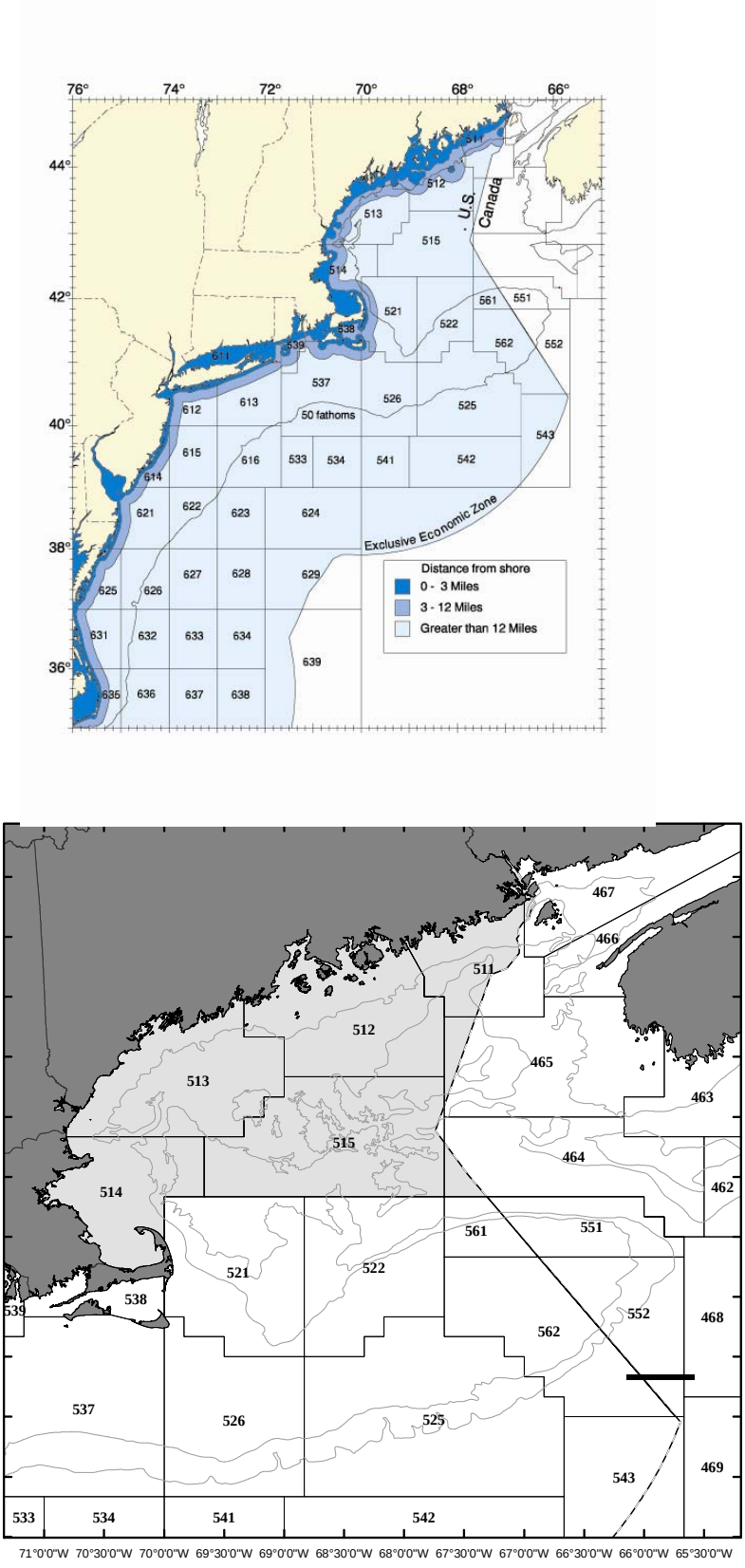

Figure 4. Statistical areas used for reporting commercial catches.

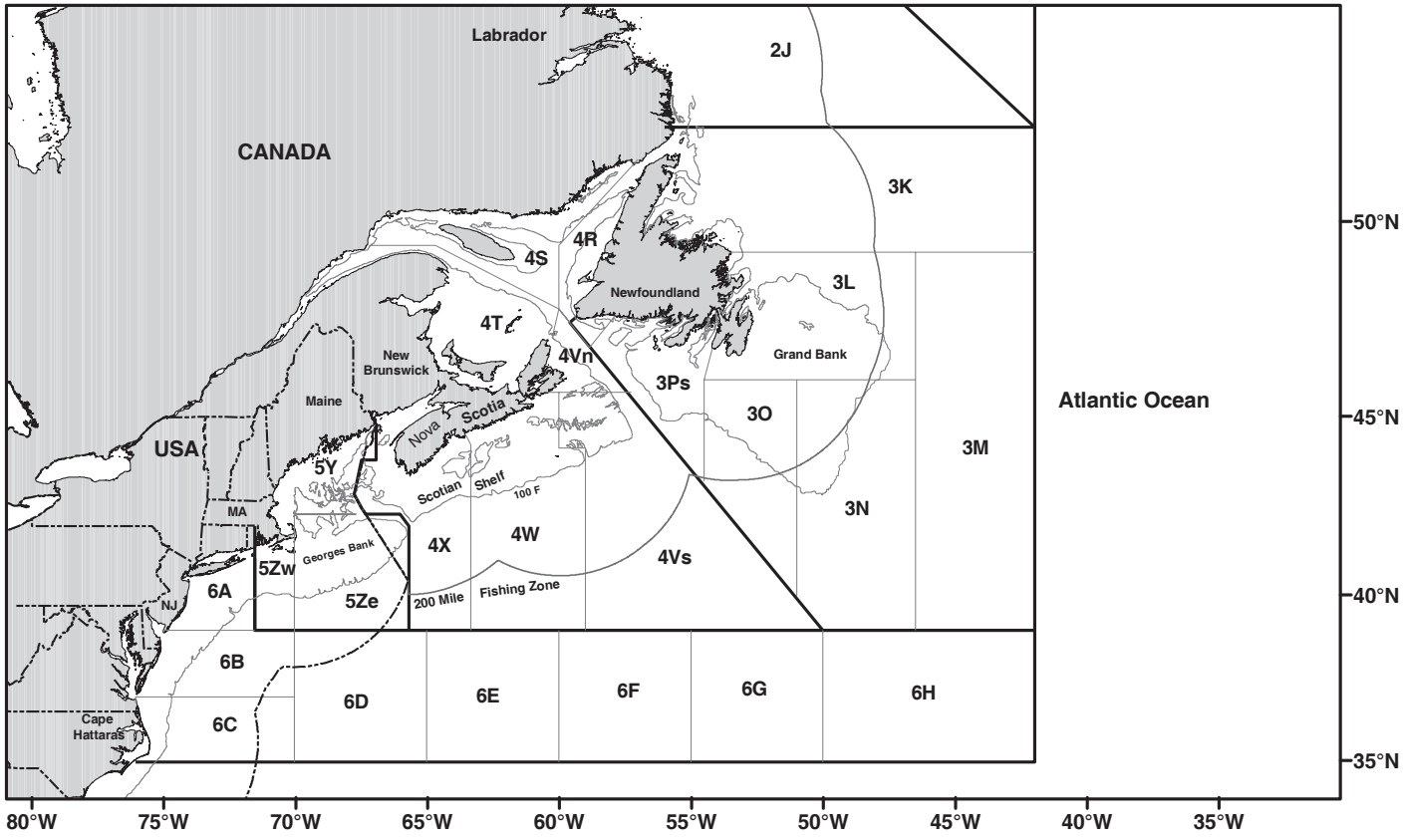

Figure 5. Catch reporting areas of the Northwest Atlantic Fisheries Organization (NAFO) for Subareas 3-6.