

**Assessment Oversight Panel
Multispecies Groundfish Updates
Northeast Fisheries Science Center
November 22, 2011
10:00 am to 4:00 pm**

DRAFT Agenda

- 1000-1015 Welcome and Introductions
- 1015-1030 Objectives and Process
- 1030 -1200 Presentations and Discussion of Individual Assessment Plans
- 1200- 1300 Lunch
- 1300 – 1400 Presentations (cont.)
- 1400 – 1430 Review/finalize plans for each stock
- 1500 – 1600 Planning for Integrated Peer Review Feb 13-17, 2012

STOCKS TO BE UPDATED:

- A. GB cod
- B. GB haddock
- C. GOM haddock
- D. GOM/CC yellowtail flounder
- E. SNE yellowtail flounder
- F. American Plaice
- G. Witch flounder
- H. Redfish
- I. White hake
- J. Northern windowpane flounder,
- K. Southern windowpane flounder,
- L. Ocean pout,
- M. Wolffish,
- N. Halibut

NOT INCLUDED: Pollock, GOM winter, GB winter, SNE winter, GByt, GOM cod

SPECIAL NOTE: White hake will be a problem and may need to go Research Track

Generic Terms of Reference for the Groundfish Updates

TERMS OF REFERENCE FROM ACL PLAN

1. Update all fishery-dependent data (landings, discards, catch-at-age, etc.) and all fishery-independent data (research survey information) used as inputs in the baseline model or in the last operational assessment.
2. Estimate fishing mortality and stock size for the current year, and update estimates of these parameters in previous years, if these have been revised.
3. Identify and quantify data and model uncertainty that can be considered for setting Acceptable Biological Catch limits.
4. If appropriate, update the values of biological reference points (BRPs). *NOTE: This will be appropriate for index assessments but NOT analytical assessments.*
5. Evaluate stock status with respect to updated status determination criteria.
6. Perform short-term projections; compare results to rebuilding schedules.
7. Comment on whether assessment diagnostics—or the availability of new types of assessment input data—indicate that a new assessment approach is warranted (i.e., referral to the research track).
8. Should the baseline model fail when applied in the operational assessment, provide guidance on how stock status might be evaluated. Should an alternative assessment approach not be readily available, provide guidance on the type of scientific and management advice that can be.

A. Proposed Update for Georges Bank Atlantic Cod Assessment

Lead Scientist: Loretta O'Brien

Team members: ?

Last Assessment: Garm III 2008

Catch

- US commercial landings: update 2007, add 2008-2010, from AA tables by market category
- US commercial discards: update 2007, add 2008-2010, SBRM approach by gear type (large mesh otter trawl, small mesh otter trawl, scallop dredge, and gillnet)
- US recreational landings: update 2008-2010; discards not estimated
- CA commercial discards: add 2008-2010
- CA commercial landings : add 2008-2010

Surveys

- NEFSC spring survey: add 2009-2011, convert 2009-2011 from Bigelow to Albatross units using cod length-based calibration defined in TRAC process
- NEFSC fall survey: add 2008-2010, convert 2009-2010 from Bigelow to Albatross units using cod length-based calibration defined in TRAC process
- DFO survey: add 2008-2011

Biology: Update maturity at age; no changes from GARM III for natural mortality, or timing of spawning

Reference Points: No changes from GARM III values ($F_{40\%}=0.25$, $SSB_{msy}=148,084$ mt, $MSY=31,159$ mt)

Assessment: Virtual Population Analysis using ages 1-10+, years 1978-2010, surveys split (1994/1995), standard diagnostics of residuals and retrospective analysis

Sensitivity Analyses:

- Impact of changes in 2007 catch data on GARM III assessment
 - Impact of strata change in SBRM discard estimate: GB strata estimate (GARM III) vs. EGB and WGB strata

Projections: assume catch in 2011, project 1) F_{2010} , 2) $F_{msy}=F_{40\%}$, and 3) $F_{rebuild}$ for years 2012-2014. Rebuild year = 2026

Fallback: (if update assessment does not work, consider sequentially as needed):

- AIM if no VPA works
- Expand survey biomass to population biomass using assumed q if AIM fails

B. Proposed Update for Georges Bank Haddock

Lead Scientists: Liz Brooks

Team members: (data from Lou Van Eeckhaute, Canadian scientist for EGB haddock assessment in TRAC)

Last Assessment: Garm III 2008

Catch

- US Commercial Landings: Update 2007, Add 2008-2010, from AA tables by market
- US Commercial Discards: Update 2007, Add 2008-2010, SBRM approach by gear/half year (large mesh otter trawl, small mesh otter trawl, ling gear, scallop dredge; for consistency with TRAC, estimates will be estimated for EGB and WGB separately)
- US Recreational Landings and Discards: N/A
- Foreign Landings and Discards: N/A

Surveys

- NEFSC spring survey: add 2009-2011, convert 2009-2011 from Bigelow to Albatross units using haddock length-based calibration defined in TRAC process
- NEFSC fall survey: add 2008-2010, convert 2009-2010 from Bigelow to Albatross units using haddock length-based calibration defined in TRAC process
- CAN spring survey: add 2009-2011

Biology: No changes from GARM III values for natural mortality, maturity at age, or timing of spawning

Reference Points: No changes from GARM III values ($F_{msy}=0.35$, $SSB_{msy}=153,329$ mt, $MSY=33,604$ mt)

Assessment: Virtual Population Analysis using ages 1-9+, years 1931-2010, surveys are not split (no retro in GARM III assessment), standard diagnostics of residuals and retrospective analysis

Sensitivity Analyses

- None planned

Projections: assume catch in 2011, project 1) F_{msy} , 2) $75\%F_{msy}$; it is not anticipated that rebuilding projections will be needed

Fallbacks (if update assessment does not work, considered sequentially as needed):

- Split the VPA survey time series between 1994/1995 if strong retrospective pattern in update
- AIM if no VPA works
- Expand survey biomass to population biomass using assumed q if AIM fails

C. Proposed Update for Gulf of Maine haddock

Lead Scientists: Mike Palmer

Team members: Liz Brooks

Last Assessment: Garm III 2008

Catch

- US Commercial Landings: Update 2007, Add 2008-2010, from AA tables by market
- US Commercial Discards: Update 2007, Add 2008-2010, SBRM approach by gear type (large mesh otter trawl, small mesh otter trawl, gillnet, longline)
 - Drop paired midwater trawl and midwater trawl as they were incorrectly estimated in previous assessment and contribute a very minor fraction of overall discards (<6%).
- US Recreational Landings. Discards will be estimated, but not included (no DAA).
- Foreign Landings and Discards: N/A

Surveys

- NEFSC spring survey: add 2009-2011, convert 2009-2011 from Bigelow to Albatross units using haddock length-based calibration defined in TRAC process.
- NEFSC fall survey: add 2008-2010, convert 2009-2010 from Bigelow to Albatross units using haddock length-based calibration defined in TRAC process.

Biology: No changes from GARM III values for natural mortality, maturity at age, timing of spawning.

Reference Points: No changes from GARM III values ($F_{msy}=0.43$, $SSB_{msy}=5,900$ mt, $MSY=1,360$ mt)

Assessment: Virtual Population Analysis using ages 1-9+, years 1977-2010, surveys are not split (no retro in GARM III assessment), standard diagnostics of residuals and retrospective analysis

Sensitivity Analyses

- Impact of changes in 2007 catch data on GARM III assessment.

Projections: assume catch in 2011, project 1) F_{msy} , 2) $75\%F_{msy}$, and 3) Frebuild for years 2012-2014

Fallbacks (if update assessment does not work, considered sequentially as needed):

- Split the VPA survey time series between 1994/1995 if strong retrospective pattern in update
- AIM if no VPA works

Expand survey biomass to population biomass using assumed q if AIM fails

D. Proposed Update for Cape Cod-Gulf of Maine Yellowtail Flounder

Lead Scientists: Chris Legault

Team members: Larry Alade

Last Assessment: Garm III 2008

Catch

- US Commercial Landings: Update 2007, Add 2008-2010, from AA tables by market
- US Commercial Discards: Update 2007, Add 2008-2010, SBRM approach by gear type (large mesh otter trawl, small mesh otter trawl, scallop dredge, and gillnet)
- US Recreational Landings and Discards: N/A
- Foreign Landings and Discards: N/A

Surveys

- NEFSC spring survey: add 2009-2011, convert 2009-2011 from Bigelow to Albatross units using yellowtail flounder length-based calibration defined in TRAC process, drop strata that Bigelow cannot sample (inshore)
- NEFSC fall survey: add 2008-2010, convert 2009-2010 from Bigelow to Albatross units using yellowtail flounder length-based calibration defined in TRAC process, drop strata that Bigelow cannot sample (inshore)
- MADMF spring survey: add 2008-2010
- MADMF fall survey: add 2008-2010
- ME/NH spring survey: add 2008-2010 (if available)
- ME/NH fall survey: add 2008-2010 (if available)

Biology: No changes from GARM III values for natural mortality, maturity at age, or timing of spawning

Reference Points: No changes from GARM III values ($F_{msy}=0.24$, $SSB_{msy}=7,790$ mt, $MSY=1,720$ mt)

Assessment: Virtual Population Analysis using ages 1-6+, years 1985-2010, surveys are not split (no retro in GARM III assessment), standard diagnostics of residuals and retrospective analysis

Sensitivity Analyses

- Impact of changes in 2007 catch data on GARM III assessment
- Impact of changes in strata used (drop inshore that Bigelow cannot survey) on GARM III assessment

Projections: assume catch in 2011, project 1) F_{msy} , 2) $75\%F_{msy}$, and 3) Frebuild for years 2012-2014

Fallbacks (if update assessment does not work, considered sequentially as needed):

- Split the VPA survey time series between 1994/1995 if strong retrospective pattern in update
- AIM if no VPA works
- Expand survey biomass to population biomass using assumed q if AIM fail

E. Proposed Update for Southern New England Yellowtail Flounder

Lead Scientists: Larry Alade

Team members: Chris Legault

Last Assessment: Garm III 2008

Catch

- US Commercial Landings: Revise 2007, Add 2008-2010, from AA tables by market
- US Commercial Discards: Revise 2007, Add 2008-2010, SBRM approach by gear type (large mesh otter trawl, small mesh otter trawl, and Scallop Dredge)
- US Recreational Landings and Discards: N/A
- Foreign Landings and Discards: N/A

Surveys

- NEFSC spring survey: add 2009-2011, convert 2009-2011 from Bigelow to Albatross units using yellowtail flounder length-based calibration defined in TRAC process.
- NEFSC fall survey: add 2008-2010, convert 2009-2010 from Bigelow to Albatross units using yellowtail flounder length-based calibration defined in TRAC process.

Biology:

- No changes from GARM III values for natural mortality, maturity at age, or timing of spawning

Assessment

- Virtual Population Analysis using ages 1-6+, years 1973-2010, surveys are not split (no retro in GARM III assessment), standard diagnostics of residuals and retrospective analysis

Sensitivity Analyses

- Impact of changes in 2007 catch data on GARM III assessment

Reference Points:

- Use default GARM III values ($F_{msy}=0.254$, $SSB_{msy}=27,400$ mt, $MSY=6,100$ mt)

Projections:

- Assume catch in 2011, project 1) F_{msy} , 2) $75\%F_{msy}$, and 3) Frebuild for years 2012-2014

Fallbacks (if update assessment does not work, considered sequentially as needed):

- Split the VPA survey time series between 1994/1995 if strong retrospective pattern in update (Similar to GB YT formulation)
- If neither age-based model works, explore AIM
- Expand survey biomass to population biomass using assumed q if AIM fails

F. Proposed Update for Gulf of Maine-Georges Bank American Plaice Assessment

Lead Scientist: Loretta O'Brien

Team members: ?

Last Assessment: Garm III 2008

Catch

- US commercial landings: update 2007, add 2008-2010, from AA tables by market
- US commercial discards: update 2007, add 2008-2010, SBRM approach by gear type (large mesh otter trawl, Northern shrimp trawl)
- CA commercial landings : add 2008-2010

Surveys

- NEFSC spring survey: add 2009-2011, convert 2009-2011 from Bigelow to Albatross units using American plaice mean weight and mean number per tow calibration coefficients. Length conversion coefficients not available.
- NEFSC fall survey: add 2008-2010, convert 2009-2010 from Bigelow to Albatross units using American plaice mean weight and mean number per tow calibration coefficients. Length conversion coefficients not available.
- MADMF spring survey: add 2008-2011
- MADMF autumn survey: add 2008-2010

Biology: Update maturity at age; no changes from GARM III for natural mortality, or timing of spawning

Reference Points: No changes from GARM III values ($F_{MSY} \sim F_{40\%} = 0.19$, $SSB_{MSY} = 22,243$ mt, $MSY = 4,059$ mt)

Assessment: Virtual Population Analysis using ages 1-11+, years 1978-2010 (surveys not split), standard diagnostics of residuals and retrospective analysis. Retrospective bias will be adjusted in projections by applying a 7-year Mohn's age-specific rho estimate. Stock status will be determined by scalar rho adjustment for SSB and F.

Sensitivity Analyses:

- Impact of changes in 2007 catch data on GARM III assessment
- Impact of including small mesh otter trawl gear in SBRM discard estimate
- Impact of age-specific vs. scalar rho adjustment for projections and stock status

Projections: assume catch in 2011, project 1) F_{2010} / SSC quota, 2) $F_{msy} = F_{40\%}$, and 3) $F_{rebuild}$ for years 2012-2014

Fallback: (if update assessment does not work, considered sequentially as needed):

- Split survey series (1994/1995); made retrospective bias worse in GARM III
- AIM if no VPA works
- Expand survey biomass to population biomass using assumed q if AIM fails

G. Proposed Update for WITCH FLOUNDER

Lead Scientists: Susan Wigley

Team members: TBA

Last Assessment: GARM III 2008

Catch

- US Commercial Landings: Update 2007, Add 2008-2010, from AA tables
- US Commercial Discards: Update 2007, Add 2008-2010, SBRM approach by gear type (large mesh otter trawl, small mesh otter trawl, and shrimp trawl (negligible gillnet))
- US Recreational Landings and Discards: N/A
- Foreign Landings and Discards: N/A

Surveys

- NEFSC spring survey: add 2009-2011, convert 2009-2011 from Bigelow to Albatross units using witch flounder calibration (length-based conversion factors not yet established)
- NEFSC fall survey: add 2008-2010, convert 2009-2010 from Bigelow to Albatross units using witch flounder calibration (length-based conversion factors not yet established)

Not used in VPA as tuning indices, ancillary information only

- MADMF spring survey: add 2008-2010; 2011 if available
- MADMF fall survey: add 2008-2010
- ME/NH spring survey: add 2008-2011 (if available)
- ME/NH fall survey: add 2008-2010 (if available)
- ASMFC shrimp survey: add 2008 – 2010; 2011 if available

Biology: No changes from GARM III values for natural mortality, maturity at age (*update if time allows*), or timing of spawning

Reference Points: No changes from GARM III values ($F_{msy}=0.23$, $SSB_{msy}=25,248$ mt, $MSY=4,375$ mt)

Assessment: Virtual Population Analysis using ages 3 to 11+, years 1982-2010, surveys are split between 1994 and 1995 (due to retro in GARM III assessment), standard diagnostics of residuals and retrospective analysis

Sensitivity Analyses

- Impact of changes in 2007 catch data on GARM III assessment

Projections: assume catch in 2011, project 1) F_{msy} , 2) $75\%F_{msy}$, and 3) Frebuild for years 2012-2017

Fallbacks (if update assessment does not work, considered sequentially as needed):

- VPA survey time series without split between 1994/1995 if no strong retrospective pattern in update
- AIM if no VPA works

- Expand survey biomass to population biomass using assumed q if AIM fails

H. Proposed Update for Gulf of Maine-Georges Bank Acadian Redfish

Lead Scientists: Tim Miller

Team members:

Last Assessment: Garm III 2008

Catch

- US Commercial Landings: Update 2007, Add 2008-2010, by market
- US Commercial Discards: Update 2007, Add 2008-2010, SBRM approach by gear type (large mesh otter trawl, small mesh otter trawl, scallop dredge, and gillnet)
- US Recreational Landings and Discards: N/A
- Foreign Landings and Discards: N/A

Surveys

- NEFSC spring survey: add 2009-2011, convert 2009-2011 from Bigelow to Albatross units using redfish length-based calibration
- NEFSC fall survey: add 2008-2010, convert 2009-2010 from Bigelow to Albatross units using redfish length-based calibration

Biology: No changes from GARM III values for natural mortality, maturity at age, or timing of spawning

Reference Points: No changes from GARM III values ($F_{msy}=0.04$, $SSB_{msy}=271,000$ mt, $MSY=10,140$ mt)

Assessment: ASAP using ages 1-9+, years 1913-2010, standard diagnostics of residuals and retrospective analysis (retro in GARM III assessment)

Sensitivity Analyses

- Impact of changes in 2007 catch data on GARM III assessment

Projections: adjust current NAA for any retrospective pattern. Assume catch in 2011, project 1) $F(50\%SPR)$ and 2) current $F/catch$ for years 2012-2014

Fallbacks (if update assessment does not work, considered sequentially as needed. Failed assessment model is unlikely):

- AIM if ASAP works
- Expand survey biomass to population biomass using assumed q if AIM fails

I. Proposed Update for Georges Bank/Gulf of Maine White Hake

Lead Scientists: Katherine Sosebee

Team members: Michele Traver

Last Assessment: Garm III 2008

Catch – Option 1

- US Commercial Landings: Update 2007, Add 2008-2010, from AA tables by market
- US Commercial Discards: Update 2007, Add 2008-2010, SBRM approach by gear type (large mesh otter trawl, small mesh otter trawl, scallop dredge, and gillnet)
- Add landings and discards and use the red/white hake survey split method to assign species
- US Recreational Landings and Discards: N/A
- Foreign Landings and Discards: N/A

Catch – Option 2 (Preferred)

- US Commercial Landings: Update 2007, Add 2008-2010, from AA tables by market
- US Commercial Discards: Update 2007, Add 2008-2010, SBRM approach by gear type (large mesh otter trawl, small mesh otter trawl, scallop dredge, and gillnet)
- Use nominal landings and discards
- US Recreational Landings and Discards: N/A
- Foreign Landings and Discards: N/A

Surveys

- NEFSC spring survey: Rerun 1968-2008 dropping strata that Bigelow cannot sample (01330), add 2009-2011, convert 2009-2011 from Bigelow to Albatross units using white hake constant calibration defined in Calibration process.
- NEFSC fall survey: Rerun 1963-2007 dropping strata that Bigelow cannot sample (01330), add 2008-2010, convert 2009-2010 from Bigelow to Albatross units using white hake constant calibration defined in Calibration process.

Biology: No changes from GARM III values for natural mortality, maturity at age, or timing of spawning

Assessment (Option 1): Age-Structured Production Model using ages 1-9+, total catch years 1963-2010, CAA 1989-2010, survey CAA 1982-2001(3), surveys are not split (no retro in GARM III assessment), standard diagnostics of residuals and retrospective analysis

Assessment (Option 2): Age-Structured Assessment Program using ages 1-9+, total catch years 1963-2010, CAA 1989-2010, survey CAA 1982-2001(3), surveys are not split (no retro in GARM III assessment), low cv on q, standard diagnostics of residuals and retrospective analysis

Sensitivity Analyses

- Impact of changes in 2007 catch data on GARM III assessment
- Impact of changes in strata used (drop 01330 that Bigelow cannot survey) on GARM III assessment
- If Catch Option 2, impact of changes from 1963-2007 catch data on GARM III assessment

Reference Points: If catch and assessment option (1) No changes from GARM III values ($F_{msy}=0.125$, $SSB_{msy}=56,300$ mt, $MSY=5,800$ mt). If catch option (2), re-estimate all reference points.

Projections: assume catch in 2011, project 1) F_{msy} , 2) $75\%F_{msy}$, and 3) Frebuild for years 2012-2014

Fallbacks (if update assessment does not work, considered sequentially as needed):

- Split the ASPM /ASAP survey time series between 1994/1995 if strong retrospective pattern in update
- AIM (60+cm biomass) if no ASPM/ASAP works
- Expand survey biomass to population biomass using assumed q if AIM fail

J. Proposed Update for GOM-GB windowpane flounder

Lead Scientist: Lisa Hendrickson

Team members: N/A

Last Assessment: GARM III 2008 (AIM assessment model)

Important assessment considerations: No possession regulation since May 2010

Catch (1975-2010)

- US Commercial Landings: Update 2007, Add 2008-2010, from AA tables
- US Commercial Discards: Update 2007, Add 2008-2010, SBRM approach by gear type (large mesh bottom trawl, small mesh bottom trawl, and scallop dredge/trawl)
- US Recreational Landings and Discards: N/A
- Foreign Landings and Discards: N/A

Surveys (1975-2010)

- NEFSC fall survey: add 2008-2010, convert 2009-2010 from Bigelow to Albatross units using windowpane flounder numbers and mean weight calibration factors in Miller et al. (2010), drop strata that Bigelow cannot sample inshore

Biology: Biological data not required in assessment model

Reference Points: Fmsy proxy = 0.50 from GARM III will require updating in AIM because of strata set change (drop inshore strata that Bigelow cannot survey)

Assessment: (AIM, An Index-based Model) 1975-2010 relative biomass indices from NEFSC fall BT surveys and catches

Sensitivity Analyses:

- Impact of changes in strata sets used (drop inshore strata that Bigelow cannot survey) on GARM III assessment using data through 2008

Projections: assume catch in 2011, and using AIM, project catch and biomass indices for 2012-2014 based on: 1) Fstatus quo, 2) FMSY and 3) 75%FMSY (NOTE: rebuilding goal is by 2017)

Fallbacks (if update assessment does not work):

- Expand NEFSC fall survey biomass to population biomass using assumed q

K. Proposed Update for SNE-MAB windowpane flounder

Lead Scientist: Lisa Hendrickson

Team members: N/A

Last Assessment: GARM III 2008 (AIM assessment model)

Important assessment considerations: No possession regulation since May 2010

Catch (1975-2010)

- US Commercial Landings: Update 2007, Add 2008-2010, from AA tables
- US Commercial Discards: Update 2007, Add 2008-2010, SBRM approach by gear type (large mesh bottom trawl, small mesh bottom trawl, and scallop dredge/trawl)
- US Recreational Landings and Discards: N/A
- Foreign Landings and Discards: N/A

Surveys (1975-2010)

- NEFSC fall survey: add 2008-2010, convert 2009-2010 from Bigelow to Albatross units using windowpane flounder numbers and mean weight calibration factors in Miller et al. (2010), drop strata that Bigelow cannot sample inshore

Biology: Biological data not required in assessment model

Reference Points: Fmsy proxy = 1.47 from GARM III will require updating in AIM because of strata set change (drop inshore strata that Bigelow cannot survey)

Assessment: (AIM, An Index-based Model) 1975-2010 relative biomass indices from NEFSC fall BT surveys and catches

Sensitivity Analyses:

- Impact of changes in strata sets used (drop inshore strata that Bigelow cannot survey) on GARM III assessment using data through 2008

Projections: assume catch in 2011, and using AIM, project catch and biomass indices for 2012-2014 based on: 1) Fstatus quo, 2) FMSY and 3) 75%FMSY (NOTE: rebuilding goal is by 2014)

Fallbacks (if update assessment does not work):

- Expand NEFSC fall survey biomass to population biomass using assumed q

L. Proposed Update for OCEAN POUT

Lead Scientists: Susan Wigley

Team members: TBA

Last Assessment: GARM III 2008

Catch

- US Commercial Landings: Update 2007, Add 2008-2010, from AA tables
- US Commercial Discards: Update 2007, Add 2008-2010, SBRM approach by gear type (large mesh otter trawl, small mesh otter trawl, scallop dredge, and gillnet)
- US Recreational Landings and Discards: N/A
- Foreign Landings and Discards: N/A

Surveys

- NEFSC spring survey: add 2009-2011, convert 2009-2011 from Bigelow to Albatross units using ocean pout calibration (length-based conversion factors not yet established)
- NEFSC fall survey: N/A

Ancillary information for relative trends in abundance and biomass

- MADMF spring survey: add 2008-2010; 2011 if available

Biology: No changes from GARM III values for natural mortality, maturity at age

Reference Points: No changes from GARM III values ($F_{msy}=0.76$, $B_{msy}=4.94$ kg/tow, $MSY=3,754$ mt)

Assessment: Index using catch, survey indices and exploitations ratios; years 1968 -2011

Sensitivity Analyses

- Impact of changes in 2007 catch data on GARM III assessment

Projections: N/A

Fallbacks (if update assessment does not work, considered sequentially as needed):

- Expand survey biomass to population biomass using assumed q if AIM fails

M. Proposed Update for Atlantic Wolffish

Lead Scientists: Chad Keith

Team members: Paul Nitschke

Last Assessment: Northeast Data Poor Stocks Working Group 2008

Catch

- US Commercial Landings: Update 2007, Add 2008-2010, from AA tables
- US Commercial Discards: Update 2007, Add 2008-2010, SBRM approach by gear type (all assessed – major groups: otter trawl, gillnet, and longline)
 - no landings after May 2010 (discards only)
- US Recreational Landings and Discards – no landings after May 2010 (discards only)
- Foreign Landings and Discards: N/A

Surveys

- No conversion factors (Albatross to Bigelow) were recommended for Atlantic wolffish as sample sizes in the calibration experiment were very low – what does this mean for wolffish?
- NEFSC spring survey: add 2008-2010,
- NEFSC fall survey: add 2008-2010,
- MADMF spring survey: add 2008-2010
- MADMF fall survey: add 2008-2010
- ME/NH spring survey: add 2008-2010 (if available)
- ME/NH fall survey: add 2008-2010 (if available)

Biology:

Looking into feasibility of fitting a von bertlanffy or gompertz growth function with newly read wolffish ages (Grace Thorton FBP). Grace was able to work on aging this species over the last two years – 310 ages for spring and fall BTS dating back to 1991 through 2011. The previous study, Nelson and Ross 1992, used data ranging from 1983 to 1989.

We have also have been collecting wolffish maturity data during the Spring and Fall BTS since 2009. R McBride indicated that there are 64 maturity samples for Atlantic wolffish on histology slides to analyze. The hope would be to narrow the range of BRP estimates that was provided to the DPSWG review panel and to the NEFMC. That panel was given a range of estimates because the maturity schedule of wolffish is uncertain in the GOM. NEFSC survey maturity ogive indicated a L50 size approximately 40 cm, Canadian data 65 cm (Div 3NOPS), and 75cm from Atlantic wolffish maturity data in Iceland.

Assessment: Statistical Catch at Length (SCALE) – we used 3 SCALE model runs in the 2008 assessment due to uncertainty in commercial fishing selective patterns and because the DPSWG suggested that $F_{50\%}$ may be a better proxy for F_{MSY} . A range of BRPs were presented to the DPSWG Review Panel as there is also uncertainty describing size at maturity for the US Gulf of Maine region. The DPSWG Review Panel found that $F_{40\%}$ is reasonable and F_{MSY} proxy < 0.35

is most probable. These determinations narrowed the BRPs to SCALE model run 2 which estimated the commercial selectivity around 70cm and a F_{MSY} proxy at $F_{40\%}$.

Catch length frequency data will be limited in 2010 to mostly observer lengths collected in the field as landings were not permitted after May 2010. The port sampling length frequencies were the major component in the SCALE model.

We will likely create the range BRPs as in the DPSWG 2008 assessment unless we have an indication from the newly collected maturity data.

Range of Reference Points from SCALE model Run 2 ($F_{40\%}$ and Slope 0.15) – Review Panel preferred model:

BRP	40 cm	65 cm	75 cm
Fmsy	0.319	0.233	0.185
SSBmsy	2202	1961	1747
MSY	311	295	278

Projections: were not recommended by the DPSWG Review Panel 2008.

Fallbacks (if update assessment does not work, considered sequentially as needed):

- DCAC – Depletion Corrected Average Catch model – During the 2008 Data Poor Stocks Working Group Meeting the panel believed that values derived from the DCAC model corresponded adequately with the SCALE model results.

N. Proposed Update for Atlantic halibut

Lead Scientists: Jessica Blaylock

Team members: to be determined?

Last Assessment: Garm III 2008

Catch

- US Commercial Landings: Update 2007, Add 2008-2010, from AA tables aggregated across gear types
- US Commercial Discards: Update 2007, Add 2008-2010, SBRM approach, aggregated across gear types (otter trawl and gillnet gears), then apply the 1999-2010 average discard ratio? (not sure, would have to update 1999-2006 discards too then...)
- US Recreational Landings and Discards: N/A
- Foreign Landings and Discards: Update 2007 Canadian landings (Division 5Zc), Add 2008-2010; Canadian discards not available.

Surveys

- NEFSC spring survey: not used
- NEFSC fall survey: add 2008-2010, no available calibration coefficient for conversion from Bigelow to Albatross

Biology: No changes from GARM III values for natural mortality, maturity at age, or timing of spawning

Reference Points: No changes from GARM III values ($F_{msy}=0.073$, $SSB_{msy}=49,000$ mt, $\frac{1}{2} SSB_{msy}=24,000$ mt, $MSY=3,500$ mt)

Assessment: Replacement Yield Model using total catch for 1893-2010, assume linear increase in catch from 1800-1892, tune to NEFSC fall survey, standard diagnostics (retro not considered in GARM III assessment)

Sensitivity Analyses

- Impact of changes in 2007 catch data on GARM III assessment

Projections: assume catch in 2011, project 1) Frebuild for years 2012-2014

Fallbacks (if update assessment does not work, considered sequentially as needed):

- Expand NEFSC fall weight per tow survey estimates to swept-area biomass estimates, use the 5-year average biomass index compared to B_{msy} proxy reference points for status determination (as was done prior to GARM III)