



Scientific and Statistical Committee Report

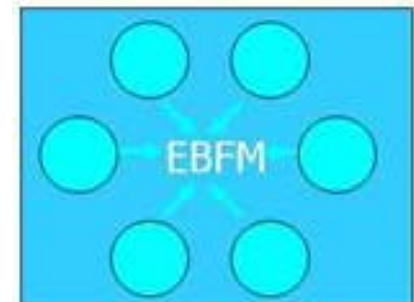
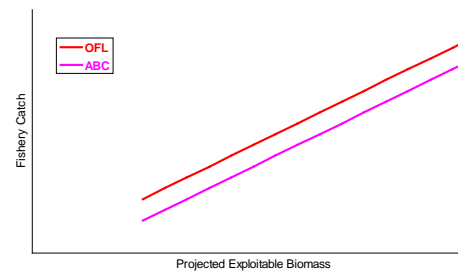
Steve Cadrin, SSC Chair

November 16, 2010

SSC Agenda



- Tuesday November 2
 - SSC Business
 - Council research prioritizations
 - Catch recommendations for Gulf of Maine winter flounder and Georges Bank yellowtail flounder
- Wednesday, November 3
 - Ecosystem-Based Fishery Management white paper
 - Review of ABC control rules



SSC Business



- National SSC meeting, Oct 19-21 Charleston
- Northeast coordination meeting, Dec 6-7
Woods Hole
- SAW52 terms of reference (winter flounder)
- Habitat methods peer review
- SSC appointments for 2011-2013
- SSC calendar for 2011

Gulf of Maine Winter Flounder

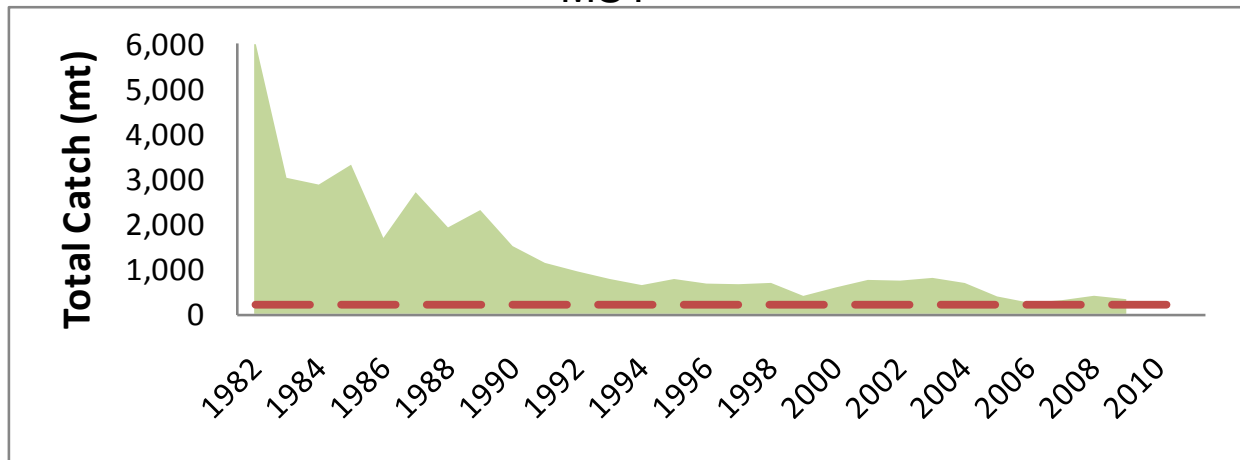


- In 2008, GARM III attempted to assess Gulf of Maine winter flounder but none of the alternative assessment models was accepted by the review panel.
- Panelists concluded that “...it is highly likely that biomass is below B_{MSY} , and that there is a substantial probability that it is below $\frac{1}{2} B_{MSY}$.”
- In 2009, the SSC recommended ABC based on 75% of the most recent three-year average catch (238 mt).
- In June 2010, the Council approved a motion to ask the SSC to examine any recent fisheries independent and fisheries dependent data collected since GARM III for Gulf of Maine winter flounder and to evaluate whether this new information would affect their current ABC recommendation for Gulf of Maine winter flounder.

Gulf of Maine Winter Flounder



- Conflicting signals persist in updated information which continue to confound attempts to assess the stock.
- The PDT developed an alternative approach to deriving ABC that is consistent with the ABC control rule for groundfish and is based on survey data that have been used to assess Gulf of Maine winter flounder.
- Area-swept survey estimates of exploitable biomass suggest that the current ABC (238 mt) represents a more conservative exploitation rate than $75\%F_{MSY}$.



Gulf of Maine Winter Flounder



- The PDT provided further analysis of area-swept biomass and its uncertainty as well as alternative catches associated with a range of exploitation rates.
- Results suggest that catches of 350 to 450 tons are unlikely to exceed the overfishing threshold and appear to have been sustainable in the past.
- However, it is not possible to evaluate the effect of such catches on stock size trends or status with respect to the minimum stock size threshold, and concerns remain that SSB may be substantially lower than SSB_{MSY} , and increases in catch could compromise stock status or rebuilding.
- Without information to evaluate the risks of jeopardizing stock status, the SSC cannot recommend a revised ABC at this time.

Gulf of Maine Winter Flounder

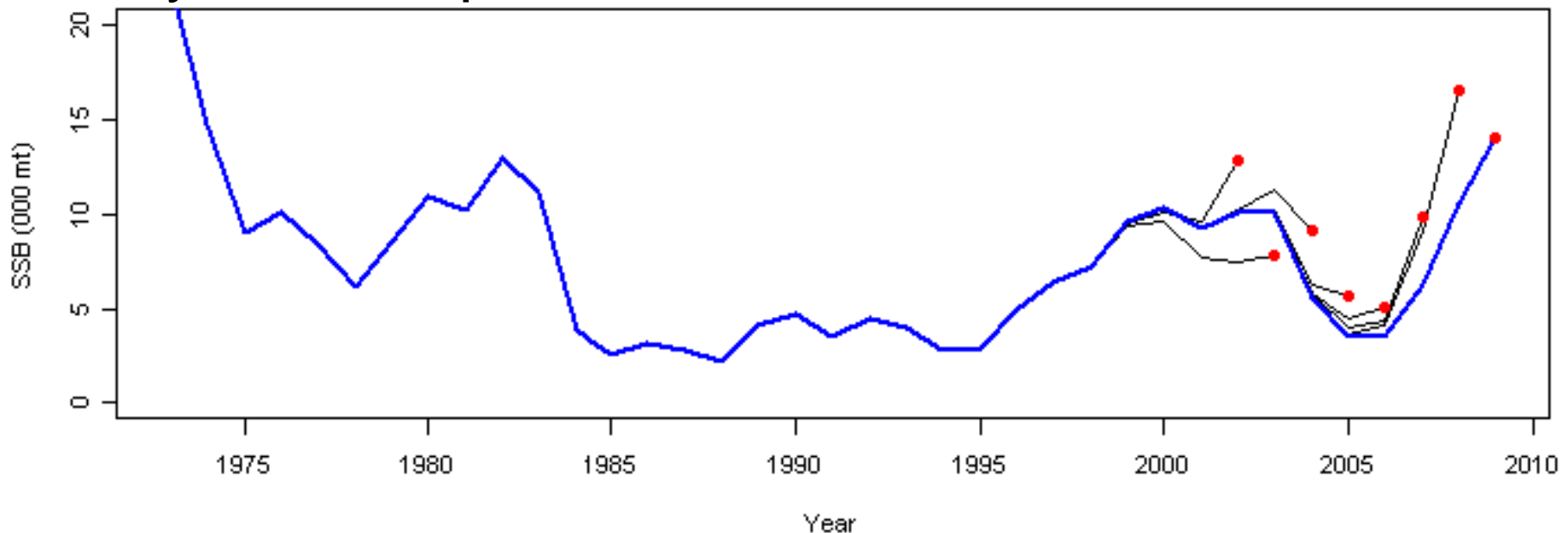


- A benchmark assessment is scheduled for spring 2011 to evaluate stock status and provide a basis for revised recommendations on ABC.
- The SSC provided technical feedback to the Northeast Fisheries Science Center suggesting that area-swept biomass estimates be considered as a term of reference for the benchmark assessment.
- **The SSC recommends that the ABC of Gulf of Maine winter flounder remain at 238 mt until information from the new benchmark assessment is available.**

Georges Bank Yellowtail



- Georges Bank yellowtail flounder was assessed by the TRAC in July 2010.
- The 2010 TRAC assessment has a retrospective inconsistency in which recent estimates of stock size were revised downward approximately 40% when the analysis was updated with new data.



Georges Bank Yellowtail



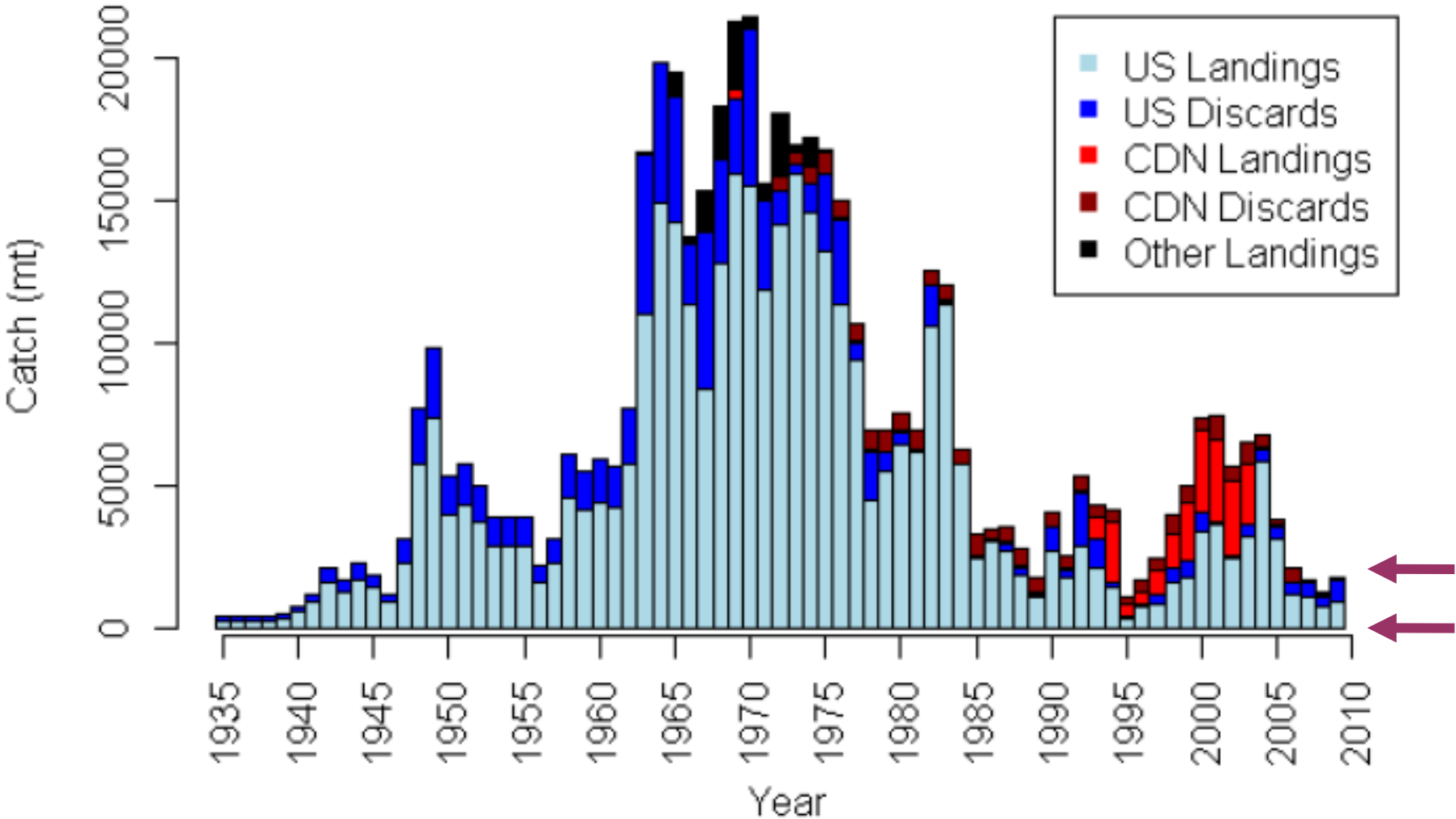
- The Transboundary Management Guidance Committee concluded that the most appropriate Catch for the combined Canadian and USA fishery for Georges Bank yellowtail for the 2011 fishing year is 1,900 mt, which is expected to allow rebuilding in the short-term and a low risk of overfishing, even if the retrospective inconsistency persists.
- Although there are uncertainties in the stock assessment and stock projections, the SSC concluded that these are insufficient to modify catch advice based on rebuilding scenarios.
- Concerns about recent recruitment affect both the short-term projections and the rebuilding target (B_{MSY}), so alternative assumptions of future recruitment would require re-estimation of B_{MSY} .
- The Council is now considering an additional rebuilding strategy and requested an associated ABC recommendation.

Georges Bank Yellowtail



- The SSC recommends that ABC for Georges Bank yellowtail in 2011 depends on the Council's desired rebuilding objectives:
 - The current rebuilding strategy (rebuild by 2014 with a 75% probability of) requires that $ABC=0$ mt;
 - rebuilding by 2016 with a 50% probability of success requires that $ABC=1,998$ mt;
 - rebuilding by 2016 with a 60% probability of success requires that $ABC=1,486$ mt; and
 - rebuilding by 2016 with a 75% probability of success requires that $ABC=590$ mt.
 - **rebuilding by 2019 with a 60% probability of success (the additional rebuilding strategy) requires that $ABC=2,584$ mt in 2011 and $ABC=2,784$ in 2012.**
 - The rebuilding target, B_{MSY} , should be reconsidered by the next benchmark assessment to account for lower recruitment in the last 30 years.

Georges Bank Yellowtail



Research Priorities

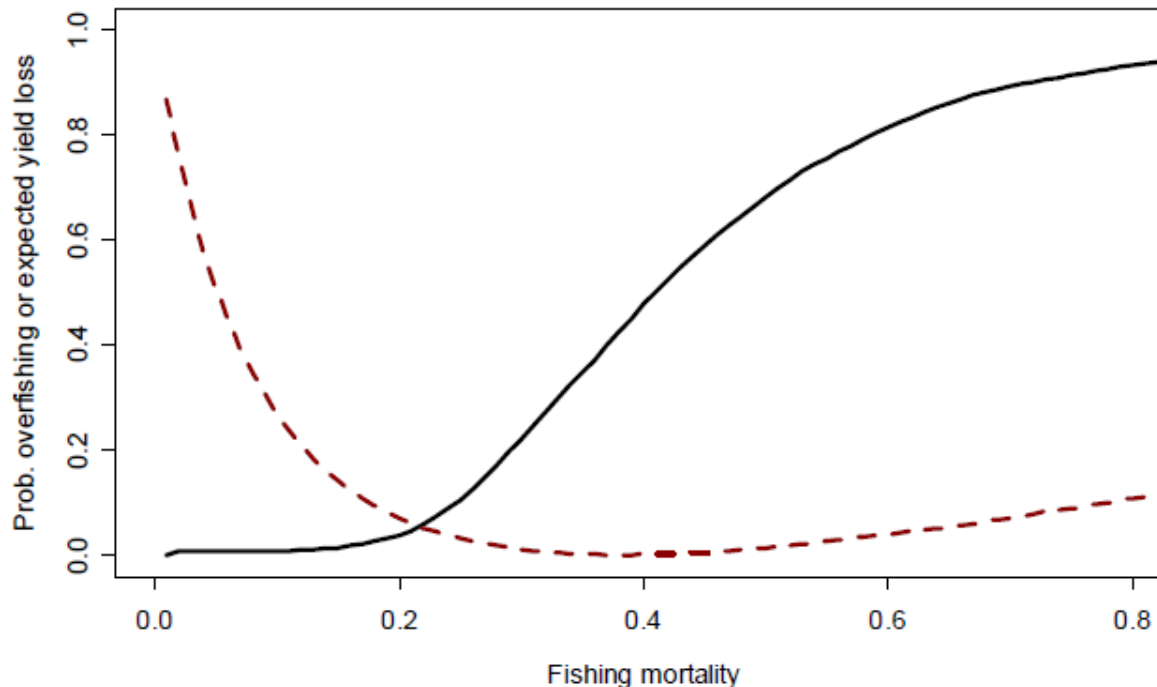
Recommendations were derived from information provided by Committees, PDT's, and SSC.

1. Incorporate risk assessment in the ACL/AM setting process
2. Design Ecosystem Based Fishery Management plans
3. Evaluate effectiveness of groundfish regulations
4. Determine how to use assessments with retrospective patterns
5. Develop reliable indices of abundance for red crab, pollock, herring, mackerel, wolfish and cusk.
6. Quantify discards, discard mortality and incidental mortality
7. Research on stock structure and biological rates
8. Identify and evaluate methods to reduce habitat impacts
9. Evaluate the cost and benefits of generating social and economic data streams.

ABC Control Rules



- Terms of reference:
 1. Review ABC control rules for deriving ABC respect to their expected performance for avoiding overfishing.
 2. Identify the information needed to develop ABC control rules that account for scientific uncertainty in OFL and the Council's desired risk tolerance.



2011 SSC Schedule

- New SSC membership and elections
- Mid-February
 - ABC recommendations for small-mesh groundfish
 - Risk evaluation
 - Ecosystem-Based Fishery Management
 - Report to Council in April
- Summer
 - ABC recommendations for groundfish (SAW52 winter flounder stocks, TRAC)
 - ABC recommendations for skates
 - Risk evaluation
 - Report to Council in September
- Autumn – Annual calendar, research recommendations, National SSC meeting, etc.

Ecosystem-Based Fishery Management

- Presentation by Bob O'Boyle and Mike Fogarty

