

**U.S./Canada Transboundary Steering Committee Meeting
Teleconference
April 19, 2013**

U.S. Participants

John Bullard, NMFS, Steering Committee Co-chair
Jennifer Anderson, NMFS, Integration Committee Co-chair
Rip Cunningham, NEFMC Chairman, TMGC Co-chair
Dave Gouveia, NMFS, SAR Working Group Co-chair
Sarah Heil, NMFS, TMGC
Tom Nies, TMGC, NEFMC Executive Director
Jackie O'dell, Northeast Seafood Coalition, Public Participant
Fred Serchuk, NEFSC, TRAC
Mary Beth Tooley, NEFMC, TMGC

Canadian Participants

Faith Scattolon, DFO, Steering Committee Co-chair
Ross Claytor, DFO, TRAC
Mark Craig, DFO, Integration Committee Co-chair
Claude d'Entremont, GOMAC Co-chair
Roger Stirling, GOMAC Co-chair
Michael O'Connor, TMGC Co-chair
Verna Docherty, DFO, TMGC
Maxine Westhead, SAR Working Group Co-chair
Kirsten Clark, TRAC Co-Chair
Rhea King, DFO, Policy
Terry Higgins, DFO, Integration Committee
Gerard Peters, DFO, Resource Management

Opening Remarks

Ms. Scattolon opened the meeting on a personal note, expressing the Canadian delegation's deepest sympathies for all those in Boston affected by the Boston Marathon bombings. Ms. Scattolon indicated that the teleconference was a pilot meeting for the Steering Committee, as a videoconference is the usual format for the spring meeting.

Mr. Bullard thanked everyone for their participation on the call and expressed his appreciation for the hard work and preparation that goes into these meetings.

Regarding Georges Bank Yellowtail Flounder, Mr. Bullard provided a brief review of how the quota setting process had proceeded after TMGC made its recommendation for the 2013 catch. He noted that last fall the New England Fishery Management Council (Council) voted for a 2013 quota of 1,150 mt. Mr. Bullard strongly signaled to the Council that NMFS did not think the 1,150 mt was approvable based on the 2012 TRAC assessment. NMFS believes that the 2012 TRAC assessment is the best available science

but the Council's Science and Statistical Committee (SSC) recommended a quota of 1,150 mt as a backstop measure only and no directed fishery for Yellowtail in 2013. The SSC noted that this recommendation was qualitative and not based on the 2012 assessment.

The Council did not adopt management measures that would prevent a directed fishery; even if they had, a quota of 1,150 mt does not appear to be consistent with the best scientific information available. In the event that 1,150 mt is not approved, NMFS proposed an emergency action to implement a 2013 U.S./Canada quota of 500 mt, consistent with the 2012 TRAC assessment. The public comment period on this proposal ended on Monday, April 15th and final quotas for Yellowtail, Cod, and Haddock were published on May 1, 2013 (a summary of the quotas and other regulations can be found at: <http://www.nero.noaa.gov/nr/2013/April/13mulfw48fw50phl.pdf>).

This year NMFS received reports of possible discrepancies in the reporting of Eastern and Western Georges Bank Cod catches. U.S. vessels can fish in Eastern and Western portions of Georges Bank on the same fishing trip. Beginning in 2010, Cod and Haddock caught on trips taken in the Eastern area were apportioned between Eastern and Western Georges Bank using information reported by the vessels as part of their trip reports. Prior to 2010, all Cod and Haddock caught on trips that fished in the Eastern and Western areas were attributed to the Eastern U.S. quota for these stocks.

The Groundfish Plan Development Team (PDT) (a group of staff from the Council, NMFS Regional Office and Science Center) completed an analysis of the reporting issue. The PDT determined that no definitive conclusion could be made regarding changes in reporting behavior between Eastern and Western Georges Bank. The PDT found that changes in fishing behavior were most likely the cause of changes in the landings pattern, but could not attribute these changes to a specific motivation. Despite this finding, NMFS is implementing administrative fixes that would modify the way catches of Cod and Haddock are monitored. The public comment period on this issue ended on April 9th and the decision was published on May 1, 2013 (a summary of the quota monitoring regulations can be found at: <http://www.nero.noaa.gov/nr/2013/April/13mulfw48fw50phl.pdf>).

Ms. Scattolon indicated that Canada will await publication of the Yellowtail Flounder quota, and would appreciate updates on the misreporting investigation and any updates on administrative fixes and offered Canadian expertise in this regard.

Ms. Scattolon advised that as of January 2013, Fisheries and Oceans Canada received a new Deputy Minister, Matthew King, and that he would be reaching out to his NOAA colleagues in the near future. She further advised that Tana Worcester (Canadian TRAC co-chair) was on leave and that Kirsten Clark would fill her position as TRAC co-chair, but Mr. Claytor would present the Cod benchmark update. Further, Ms. Westhead would be the Canadian lead for the Species at Risk Working Group, as Marci Penney would not return from her leave until May.

Species at Risk (SAR) Working Group

Mr. Gouveia and Ms. Westhead provided a brief update of the SAR Working Group. Although the Working Group had not met since the last Steering Committee meeting, issues had been discussed on several occasions and a meeting will be planned in the coming months.

Transboundary Resources Assessment Committee (TRAC) Report

Outcome of the Eastern Georges Bank Cod Benchmark Assessment

Mr. Claytor presented an update on the outcome of the Eastern Georges Bank Cod Benchmark Assessment. The Draft conclusions will be finalized with Loretta O'Brien in May. At the April meeting, three models were considered: virtual population analysis (VPA) 0.8 and VPA 0.2 and an age-structured assessment program (ASAP) model with natural mortality (M) of 0.2. While the VPA 0.8 assumed a higher level of M for older (age 6+) Cod, since 1994, it did provide better survey residual diagnostics. The TRAC did not come to consensus on one model, but agreed to use the VPA 0.8 model for catch advice, as well as using the ASAP 0.2 model in a consequence analysis. The consequence analysis will be run, whereby the projected catch at Fref from the VPA 0.8 model will be compared to similar projections from the ASAP model to determine the consequences to expected biomass if the opposite model was correct. This analysis will be presented at the June TRAC meeting.

Issues to be aware of when using the VPA 0.8 model:

- Non-stationarity (i.e., distribution is changing over time) in the system is accepted.
- Tagging analysis on age 4+ Cod (greater than 50 cm) supports an M higher than 0.2, during 1984-1987 and 2003-2006.
- While it was accepted that M plays a role in the non-stationarity of the system, TRAC did not reach a consensus that all the non-stationarity was in M.
- The possibilities hypothesized include confounding effects from (M - emigration), (q - selectivity), and unreported catch.

Before the next benchmark, it is necessary that DFO and the Science Center work together to develop a common assessment framework or set of common assessment frameworks where assessment model hypotheses could be tested in a common environment. This framework environment may be current models or some other combination of assessment modeling environments. If both labs put priority on development of this common assessment framework environment before the next benchmark meeting, the consequences of the various alternative hypotheses could be examined and a preferred assessment model for providing the most robust advice could be identified.

There was discussion regarding whether TRAC had recalculated biological reference points so that the information could be used to consider a future revision to Fref, however, Mr. Claytor advised that changing Fref was not within TRAC's purview, and that the consequence analysis performed in June would provide a framework for any proposed change to Fref. Ms. Scattolon clarified that the analysis would be run by TRAC to consider other F scenarios, and that TMGC would be required to consider these additional scenarios in developing its annual guidance. It may be necessary to consider negotiating a new Fref (which would require a re-negotiation of quotas and harvest levels) in the new Terms of Reference for the next TMGC meeting (see discussion under the Benchmark Model Assessments and the Understanding).

Criteria for Initiation and Modification of Benchmark Model Assessments

TRAC will run various projection scenarios to determine the impact of using different F values for the Eastern GB Cod. For setting reference points in the TRAC system, Fref is a negotiated value and is currently set at 0.18. Traditionally M in a stock assessment has been assumed to be constant over years and ages. When M increases within an assessment, as has occurred in a number of Canadian Cod stocks, the U.S. Gulf of Maine Cod stock, and the U.S. Atlantic Herring stock, the question arises concerning how to change the fishing mortality rate target (Ftarget). Yield per recruit considerations lead to an increase in the Ftarget, while maximum sustainable yield considerations lead to a decrease in the Ftarget.

At the Cod benchmark meeting, the following conclusions were reached:

- The two models indicate different strategies for developing reference points. There was concern regarding the impact of an increase in M on how reference points and advice would be provided. For example, the Fref=0.18 is inconsistent with model derived reference points from the VPA M = 0.8 model.
- If variables were changing, it would be dangerous to use F40%, but for the M=0.2 model (ASAP model), the current Fref was appropriate.
- Management should be informed of the consequences of the decisions made about the mortality target used as the basis for catch advice. The consequences could be expressed as projections several years into the future using various levels of F (e.g., 0.18, 0.125 and 0.11,) or, by developing a rationale for lowering Fref to facilitate biomass rebuilding (the assessment leads should pick the most meaningful values).
- Uncertainty and the consequences of reference points need to be analyzed.
- The consequence analysis would consist of estimating the projected catch at Fref as if each model were correct and examining the consequences to expected biomass as if the opposite model were correct.

It was suggested that TMGC consider results from TRAC and potentially negotiate the reference points prior to setting the quotas. The outcome of analysis and consequences and further discussion and could possibly be a topic of discussion for 2014. The Terms of Reference for the next TMGC meeting already includes criteria discussion, so the benchmark work would just be part of the TRAC recommendations. Benchmarks are triggered by substantive changes to data (such as stock sizes, structure, and surveys). Additionally, every five years, data should be evaluated as to whether a new benchmark is required.

Transboundary Management Guidance Committee (TMGC) Report

Mr. Cunningham and Mr. O'Connor presented the report on the TMGC Intercessional meeting held in February 2013.

Quota Trades

As part of the quota trading discussion, the TMGC developed a set of quota trading guidelines that included trading objectives and several guiding principles. The trading discussion considered trades made before a fishing season begins and in-season, multi-year, and differential fishing year trades. The TMGC also considered potential implementation issues and biological impacts associated with trading.

TMGC members recognized a number of management decisions remain unresolved. There was agreement to move forward with a pilot program and to form a working group consisting of TMGC and Integration Committee members to work out the final details necessary to execute a trade. Ms. Scattolon and Mr. Bullard agreed with this approach and supported the formation of a working group to flush out the remaining trading issues. Ms. Scattolon requested that members of the TMGC and Integration Committee begin work on the technical aspects of a pilot trading process for their respective jurisdiction in anticipation of a secretarially approved quota trading process. She noted that ongoing work on the technical details of a trade did not preclude further adjustment to the trading principles identified by the TMGC.

Multi-Year Assessments

TRAC had drafted a document two years ago which suggested a move to multi-year assessments and projections in order to address administrative pressures to reduce science costs and address efficiencies. Although science in Canada and the U.S. did substantial work on a retrospective piece, identifying how well the models would have performed at providing multi-year projections in the past, the discussions at TMGC focused more on the disadvantages of multi-year assessments. Considering that Cod and Yellowtail Flounder catches are often below quota, the high level of uncertainty created by skipping an assessment by even one year was thought to be unacceptable. There was also concern that any money saved with these new efficiencies would not be redirected towards issues under the purview of the Canada/U.S. Understanding. TMGC concurred that Cod and Yellowtail Flounder were too critical to not have an annual assessment, but would perhaps consider Haddock as a candidate to skip in 2014 once TRAC had a better handle on the magnitude of incoming year classes and a better estimate of partial recruitment.

Ms. Scattolon asked that TRAC and TMGC consider whether the money saved in not doing the 2014 Haddock assessment could be redirected towards doing the additional work required for Cod and Yellowtail Flounder.

Alternative Management Strategies

Since the performance of assessment updates and the resulting catch advice has been criticized in recent years, as TMGC often receives two model formulations on which to set their guidance for Cod, the TMGC discussed alternatives to the strictly F-based harvest strategy currently employed by the TMGC. The three options for alternative strategies discussed for both Cod and Yellowtail Flounder, based on Canadian models, were: management strategy based evaluations; model based assessments with survey indices used in interim based years; and an index based approach. TMGC agreed to develop an index-based strategy with an exploitation rate based on the survey biomass for the short term and run it in parallel with current models. There would be specific targets depending on the health of the stock in question. TMGC could not reach agreement on whether they could potentially consider a harvest strategy with the requirement that fishing mortality would be reduced when stock conditions are poor so they recommended to the Steering Committee that they add this to the Terms of Reference for TRAC in June 2014. Given the difficulties in agreeing on mortality rates, biomass will likely be based

on natural mortality, and the two science labs would need a common framework structure prior to exploring this issue further.

The Steering Committee recommended that TRAC possibly add biomass reference points to their Terms of Reference for 2014. The TMGC was asked to discuss the index based strategy at the September TMGC meeting, and circulate the draft document well in advance of TMGC's fall meeting.

TMGC agreed to develop a Spawning Stock Biomass metric. Terms of reference would need to be developed for TRAC and a TMGC working group to establish virtual management alternatives for all three stocks using an RV survey index approach for the next three years. Harvest control rules may work better for some species than for others.

Update on TMGC Discussion of the Understanding

The U.S. had raised the issue of conducting a review of the U.S./Canada Transboundary Understanding at the TMGC Intercessional meeting. U.S. TMGC members felt that since the Understanding had been in place for 10 years it was due for a review as a way of strengthening the agreement and its relationships. The U.S. requested that a new term of reference for conducting a review of the Understanding be added to the September 2013 TMGC agenda. The proposed review of the Understanding would include:

1. An evaluation of the administrative functions of the TMGC;
2. A review of the appropriateness of the current harvest strategy and reference points; and
3. An analysis of the resource survey distribution calculation.

Mr. Bullard and Ms. Scattolon agreed in principle for a review. Ms. Scattolon noted that the informality of the Understanding has functioned well to date for both parties and requested that the TOR for the review be developed and circulated in advance of the TMGC's fall meeting. She noted that internal Fisheries and Oceans approvals may be required before commencing a review of the Understanding. Mr. Bullard indicated that the review could be constructive, especially since it has been under greater scrutiny in the U.S. as stocks turn downward and economic pain grows.

TRAC will perform sensitivity analyses by using different F values (both greater and lesser than the current Fref) to calculate catches and this may help inform a future TMGC discussion on Fref. The new Fref value could be discussed as part of the review of the Understanding or as a stand-alone issue.

There was concern that the sensitivity analyses performed by the TRAC will give a range of catches but will not modify the current negotiated Fref and harvest strategy and whether the TRAC would give a firm catch recommendation based on the sensitivity runs or would be expected to disregard the new catch values and use the existing Fref for catch advice.

A change in harvest strategy would likely not happen this year, and there might not be time to revise the Fref value between June and September. TRAC will need to conduct a discussion at its June meeting. It is possible that TRAC will need to consider the risk of exceeding Fref for the upcoming year.

The Steering Committee would expect the TMGC to provide advice on the risk of exceeding Fref and the risk of exceeding the harvest strategies. Should Canada and the U.S. come to the consensus that a heightened risk to the stocks exists, the Committee would need to take that risk into consideration when agreeing to 2014 catch levels.

The Steering Committee would expect the TMGC, in the future, to very clearly identify risks with the harvest strategy associated with the new model.

Closing Remarks

Ms. Scattolon thanked everyone for participating and noted that the teleconference format had worked well and was a cost effective approach. The next Steering Committee meeting would be held on September 12, 2013, in Halifax, NS and it was agreed to hold the next TMGC meeting on September 10th and 11th in Halifax. Action items prior to the next meeting include: TMGC's work on the pilot for quota trades and the potential for a review of the Understanding; TRAC's work, based on Mr. Claytor's presentation; Ms. Scattolon's and Mr. Bullard's review of the principles for TMGC's upcoming work plan; and the circulation of the draft TOR for the review of the Understanding for the Steering Committee Co-chairs.