

# ATLANTIC MACKEREL ADVISORY COMMITTEE

## Record of Discussion

March 28, 2019

Marriott Harbourfront, Halifax, NS

On March 28, 2019, the Atlantic Mackerel Advisory Committee (AMAC) met to discuss the TAC levels and other key management issues for this fishery. Participants included representatives of the mackerel industry, including harvesters and processors, fishing associations, aboriginal partners, Provinces, Environmental Non-Government Organizations and officials from Fisheries and Oceans Canada. A supplementary AMAC meeting for Indigenous groups was held on March 29, 2019 but, no record of discussion was prepared.

Key points from the AMAC meeting are summarized below in this Record of Discussion.

### Science

Science provided results of the March 2019 stock assessment for Atlantic Mackerel to support discussions on a 2019 TAC level. Preliminary landings in 2017 and 2018 were 9,430 t and 10,499t.

The stock remains within the Critical Zone (with biomass at 77% of the Limit Reference Point). Although estimated stock biomass increased slightly from the last assessment in 2017 (59% of the Limit Reference Point), this is attributed to a single year class (spawned in 2015) that represented 75% of landings in 2018. Recruitment in 2017 and 2018 appears to be at all-time lows. Preliminary analyses suggest that mackerel recruitment and condition are negatively influenced by warming temperatures and reduced availability of prey.

Preliminary analyses on otolith stable isotopes as well as a synthesis of tagging data suggest that a large proportion of Northern contingent (i.e., Canadian-spawned ) mackerel are caught in US fisheries. These removals are now accounted for in the Canadian assessment. The 2017 American assessment of the entire Northwestern Atlantic stock determined that Atlantic Mackerel were overfished and overfishing was occurring.

The 2019 assessment provided advice on the short-term probability of stock growth and of the stock biomass being above the Limit Reference Point, over a range of harvest scenarios, through 2021. The probability of stock growth from 2019 to 2021 ranged from 77.5% at a commercial TAC of 0t, to 49% at a TAC of 10,000t. The probability of the stock biomass being above the Limit Reference Point in 2021 ranged from 68% at a commercial TAC of 0t, and 48% at a TAC of 10,000t.

- Committee members expressed interest in more information about where catch sampling occurs, including a breakdown by region. More information will be available in publications forthcoming from the 2019 stock assessment.

- In addition, there was a question on a whether or not there is a mechanism for processors to provide packing data based on weight to science. The Barry Group indicated that it could provide science with data for the last 4-5 years.
- Concerns were raised about the impact of predating seals on fish stocks, including Atlantic mackerel. The chair indicated that the Minister is aware of this issue and it would be raised again during briefings on TAC.

### *Results of Genetic Testing of Mackerel in Canadian Waters*

Preliminary genetic analyses of mackerel caught in Northeast Newfoundland, the Gulf of St. Lawrence, and Europe suggest that nearly all genotyped adult mackerel caught in Northeast Newfoundland have a Northwest Atlantic genetic signature. This concords with information from previous tagging studies.

### *New Science Projects*

Genetic studies are ongoing, with additional samples from 3L collected in 2018, and more samples to be collected in 2019. A program for increased catch sampling has yet to be completed. In addition, further additional samples are being sought from Greenland and possibly Iceland. If available, updated results will be discussed at the next Rebuilding Plan Working Group meeting in late 2019.

Collaborative work with NOAA researchers on otolith microchemistry, to distinguish Canadian-spawned fish in US catches, is ongoing.

It is not possible to develop additional studies to look for new spawning areas around St. Pierre Bank, or recruitment studies, this year due to time and staff constraints. The additional, ongoing genetic and otolith studies will inform future understanding of mackerel stock structure and captures in the US fishery.

### *Brief Overview of MSE*

Science quickly reviewed an update on the Management Strategy Evaluation (MSE) being conducted in the Rebuilding Plan Working Group. The MSE framework was peer-reviewed at the 2019 stock assessment, and the models and results have since been updated. The scientific peer review also resulted in suggestions to add trade-offs to management objectives, so an additional objective concerning catch rates has been added. These steps would provide an improved basis to select Management Procedures to attain specific objectives (including rebuilding) for the stock under key uncertainties, including changes in natural mortality, recruitment and the quantity of unaccounted-for mortalities in the future. Results against the new objective will be presented at the next Rebuilding plan Working Group meeting in Fall 2019.

## **Discussion on Management Measures for the 2019 season / Recommendations from the Rebuilding Plan Working Group**

The Committee discussed a list of possible management measures and options that were developed by the Rebuilding Plan Working Group for Atlantic Mackerel. The purpose of the discussion was to consult on possible management measures for the 2019 fishery and beyond. Key points are summarized below.

### **Improvements in monitoring of Commercial or Bait Fisheries**

The Chair indicated that previously announced measures for improvements in catch monitoring will continue:

- Introduction of 25 per cent dockside monitoring and 100 per cent hail-in of all commercial landings in the Gulf Region (2017).
- 100 per cent hail-in (2017) in Quebec Region.
- The introduction of 25 per cent dockside monitoring as well as increased frequency of reporting in the Maritimes Region fisheries (2018).

### **Elogs**

- The department informed that introduction of a small scale Elogs pilot project in the Quebec Region is starting for the 2019 season.
- A committee member indicated the need for more departmental pressure put on moving E-logs further in all regions to support better reporting of fishing activity.

### **Recreational Fishery – AFRs Amendment**

- The recreational fishery for Atlantic mackerel is currently unlicensed, there is no mechanism for catch reporting, and there are no catch limits. Because this activity is practiced throughout Eastern Canada by many people including tourists, at wharf or aboard chartered vessels and almost commercially at some locations, the actual Atlantic mackerel catch statistics are unknown. This has been flagged as a concern for several years in science advisory documents.
- The Department has been working on regulatory amendment to the *Atlantic Fishery Regulations* that would establish a yearly close time from January 1 to March 31 and will also set a daily quota of 20 fish for recreational purposes. The Regulatory process is ongoing with implementation expected in 2020.
- There was support from Committee members for the introduction of some controls as noted in the proposed amendment.

### **Bait fishery (Hail in / Hail out):**

- Introduction of mandatory reporting, where concerns related to reporting of all fish removed using a bait licence was discussed as an important measure to reduce unaccounted for mortalities.

- A requirement for mandatory hail in for all harvesters that will include bait by trip was also discussed and will be considered for implementation in additional fleets and areas going forward.
- It was agreed that the Department should implement measures to ensure more thorough reporting of bait and there was agreement to consider introduction of daily bait limits where possible in 2019.
- There were discussions around 2,000lb bait limit and some participants recommended lower to 1,000lbs or 500lbs. There was support for a 2,000lb daily limit and agreement to continue discussions on the possible implementation of reductions in these levels in future years.
- Regional managers will work with fleets to see if a daily hail can be implemented in respective regions in 2019 or a timeline on when this measure could be implemented.
- Mandatory hail out was discussed as a useful tool for C&P whereby fishers would indicate the purpose of the trip for commercial or personal use before leaving dockside.
- Mandatory Hail out is in place in Maritimes. There is a project to develop an Integrated Voice Recognition system in the Gulf Region to facilitate hail out. Quebec is examining implementation in that region.
- NL has a mandatory bait logbook. There is a small mackerel bait fishery between August 15 to December 31 and fishers can only fish for mackerel as bait if there is a fishery open that requires bait. During the time when mackerel arrive there are very few fisheries are open.
- Increased enforcement of mandatory logbook reporting was also raised. The department will explore this issue further.

### **Spawning Closure/ Season Adjustment**

- There was no agreement on any timing restrictions for the fishery, however, it will be an action item for more discussion by the rebuilding group going forward.
- The opening day for the Gulf based fishery will remain June 1 in line with current regulations. Noted, that Maritimes had already opens on April 1, 2019 for a small spring fishery.

### **Gillnet Mesh Size**

- The introduction of a reduced maximum mesh size and introduction of a minimum mesh size in the gillnet fishery to protect both juvenile fish and large spawners was discussed.
- Based on consultation with AMAC the department would look at initiating the following measures:
  - Maximum 3 inch in 2020, transition to  $2^{7/8}$  inch 2021 (2 year transition)
  - Start implementation of a minimum  $2^{5/8}$  in 2019.  $2^{3/4}$  inch in 2020 or 2021.
- There was comment from some committee members that  $2^{5/8}$  is to large for a min size.

- It was indicated that there is a need to check with Regions on availability of net if there is a change in mesh size. However, it should be ok with 2 year transition to ensure that net size will be available.
- There was a question to science on whether the change in mesh size could be targeting the 2015 year class. Science indicated that it is difficult to measure and there could be a small effect.

#### **Reduction in number of gillnets or length:**

- It was recommended that the fleets will work towards a 20 per cent reduction in the length of nets fished, bringing most harvesters down from a 600 fathoms limit to 480 fathoms of gear. Discussion on implementing this in 2020.
- Committee members were generally supportive, but would go back to their respective fleets to consult further.

#### **Minimum fish size:**

- Science recalculated a new length at maturity (L50) in the 2019 stock assessment. Setting the minimum catch size to L50 allows 50 per cent of the fish to spawn at least once before being targeted by the fishery. The minimum fish size (of 263mm), would increase to 268mm (L50) in 2019. There was support for increasing the L50 from representatives from in NL, Quebec and PEI with concern expressed by representatives from Nova Scotia and Southwest NB
- There was discussion in the group as to whether L50 is high enough for a stock in the critical range. An increase to 300mm which would increase number of mature fish and positively impact the SSB and protect juveniles was discussed. There was not full support from committee members.
- An option of increasing minimum size by 9mm a year to reach 300mm was proposed with no broad support.
- Concern were expressed that the increase in minimum size will hamper trapnet fishery.

#### **Reduction in bait fishery**

- The concept of initiating any reductions in fishing activity for the bait fishery was put on hold to be kept on the table for discussion at the next RPWG.

#### **Total Allowable Catch:**

In putting forth recommendation regarding TAC, there were a number of concerns raised by stakeholders. It was acknowledged by the committee that a better understanding and measurement of unaccounted for mortalities are important for the stock assessment. Stakeholders indicated that they would like to see the department continue with measures to improve catch monitoring so that all fish taken out of the water could be accounted for by Science.

Newfoundland and Labrador industry put for a recommendation of 24,000t and indicated that their recommendation is based on the amount of fish industry sees on the water which is viewed as higher than indicated in the science advice. There was concern raised that 4R did not have access last year when the fish showed up on the west coast as the full TAC was already taken. Fish showed up in 3K which led to a closure of the commercial fishery. There was also a request for additional science on the northeast coast to NL to better understand where fish caught in this location were spawned. The NL provincial government supports the recommendations put forward by industry.

There was general consensus from Nova Scotia harvesters to keep the TAC at a status quo of 10,000t with the inclusion of other management measures that would protect the stock.

Gulf based fleets recommendations ranged between 9,000t and 10,000t. It was put forward by some committee members that a small reduction in fishing mortality could benefit the stock in conjunction with a combination of other management measures. The PEI government supported a TAC of 9,000t.

Quebec industry and government put forth a recommendation of 9,000t. Committee members indicated that this would leave enough TAC for the Quebec Region, while still allowing NL to have an opportunity to fish.

Several NGOs indicated that the current science is the best available information on the status of the stock, and therefore, the science advice should be applied to management decisions. There was an emphasis on significant reductions in TAC to support growth in the biomass.

Overall, there was no consensus on a two- year management plan. Committee members recommended a TAC for one year only given the critical status of the stock and the ongoing work on new management measures and improvements to catch monitoring.

### **U.S. Co-management / Co-science**

Joint management and Joint Science with the U.S. was discussed. It was recognized that some co-ordination with the U.S. would be useful. Members remain concerned that any TAC reductions on the Canadian side would only lead to more fish availability in the U.S.

There was general interest from committee members in joint science, however, concerns were raised around the Table regarding co-management. The Chair indicated that there would be further consultation with the AMAC committee before moving forward on any joint management of this fishery.