

NATIONAL MARINE FISHERIES SERVICE (NMFS) REPORT ON THE NORTH PACIFIC ALBACORE MANAGEMENT STRATEGY EVALUATION

The International Scientific Committee for Tuna and Tuna-like Species (ISC) hosted the 4th North Pacific Albacore Management Strategy Evaluation (MSE) Workshop March 5-7, 2019, in Yokohama, Japan. Participants represented Canada, Japan, Taiwan, the United States, and the Western and Central Pacific Fisheries Commission. Representatives from the United States included Doug Fricke (on behalf of the Council), Adam Baske (International Pole and Line Foundation), Rob McAdam (McAdam's Fish LLC), Valerie Post (NMFS Pacific Islands Regional Office), and Celia Barroso (NMFS West Coast Region). Dr. Desiree Tommasi and Dr. Steve Teo from the NMFS Southwest Fisheries Science Center presented materials and led discussions in their capacity as members of the ISC's Albacore Working Group.

Dr. Desiree Tommasi and Dr. Steve Teo presented an overview of the MSE process, including progress at previous workshops, and the results of the MSE (see [Agenda Item J.2.b, Supplemental Attachment 4](#) for a summary of results). This NMFS report references some of the terminology and results in that attachment. The discussion on the first day of the Workshop focused on the results, assumptions, and limitations of the model.

Workshop outcomes

The remainder of the meeting focused on the next steps in this MSE process, including additional analyses. Participants were not ready to make management decisions at this workshop. This report summarizes some of the broad outcomes and a few key recommendations from the Workshop.

The participants did recommend that the ISC Albacore Working Group remove some harvest control rules and harvest strategies from further consideration, as well as testing additional harvest control rules, and incorporating additional assumptions to account for uncertainty in the fishery. Participants recommended focusing on Harvest Strategy 3 (i.e., removing Harvest Strategies 1¹ and 2² from further consideration) and removing the target reference point of F(30) from further consideration. Because the first round of the MSE only tested the same management strategy for all fleets, participants also recommended evaluating different management strategies (e.g., total allowable catch, total allowable effort for surface fleets as compared to other fleets, including longline). It was noted that while surface fleets target albacore 100% of the time, the other fleets may either switch target species or incidentally catch North Pacific albacore. The current simulation assumed a total allowable effort for all fleets or a total allowable catch for all fleets. Participants recommended that the next round of the MSE simulate total allowable effort for surface fleets and a total allowable catch for all other fleets.

¹ See Figure 1 of Agenda Item J.2.b, Supplemental Attachment 4 for a depiction of Harvest Strategies 1 and 3.

² Harvest Strategy 2 is based on the Inter-American Tropical Tuna Commission interim harvest control rule for tropical tunas (see [IATTC Resolution C-16-02](#)). The limit reference point is approximately 7.7% of unfished spawning stock biomass.

Participants also agreed on a recommendation to the ISC to test a scenario in which there is no management of the fishery until a threshold reference point is breached (i.e., the status of the stock is above the threshold reference point, which could be above or below the target reference point). Some of the impetus for this recommendation was in response to the model simulation for the initial MSE, which forced the fishery to fish at the target reference point level (i.e., if the fishing intensity is stronger than the target, then the fishing intensity is brought down to the target reference point level). This assumed that there are management controls in place to keep the fishing intensity at or below the target reference point level. After hearing concerns that a fishery may be unnecessarily constrained if the biomass is at a healthy levels, participants agreed on a recommendation to the ISC to test a scenario in which the fishery can perform as it has done historically (i.e., oscillate around an average fishing intensity---see Figure 2 in Agenda Item J.2.b, Supplemental Attachment 4) and not be forced reduce fishing intensity if it periodically exceeds the target reference point level.

Participants also agreed on a recommendation to test reduced levels of fishing when the limit reference point is breached. Because the current model simulates zero fishing when biomass is below the limit reference point and such a scenario is undesirable, the participants were interested in testing scenarios in which fishing were very reduced, in addition to zero fishing.

Participants also discussed appropriate risk levels for the limit and threshold reference points. In general, it was agreed that there should be a very low risk of breaching a limit reference point (i.e., 90% probability that the biomass is above the limit reference point) when testing low reference points such as 7.7% and 14% unfished spawning stock biomass. Whereas, a limit reference point of 20% unfished spawning stock biomass could have a less conservative risk level associated (i.e., 80% probability the biomass is above the reference point).

The workshop concluded with a discussion on the upcoming work plan. The next round of the MSE is anticipated to be completed in 2020. The exact timing will depend in part on the ISC's Albacore Working Group's need to complete other work tasks (e.g. a benchmark stock assessment). The ISC's Albacore Working Group will prepare a report on the outcomes of the Workshop that will be made available at a later date.