INTER-AMERICAN TROPICAL TUNA COMMISSION

87TH MEETING

Lima (Peru)
14-18 July 2014

PROPOSAL IATTC-87 J-1

SUBMITTED BY THE UNITED STATES

EVALUATION OF CANDIDATE TARGET AND LIMIT REFERENCE POINTS AND DECISION FRAMEWORK FOR NORTH PACIFIC ALBACORE

EXPLANATORY MEMORANDUM

The United States is proposing Resolution C-14-xx that begins the process of applying the precautionary approach to North Pacific albacore. The resolution directs the IATTC scientific staff, in coordination with the Albacore Working Group (ALBWG) of the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean, to evaluate several candidate target and limit reference points and harvest control rules within the framework of a management strategy evaluation (MSE). The U.S. proposal also intends to commit the Commission to meaningful communication with the Western and Central Pacific Fisheries Commission that would eventually lead to a single management regime for North Pacific albacore.

Rationale:

MSE involves assessing the consequences of a range of management strategies or options and presenting the results in a way that presents the tradeoffs in performance across a range of management objectives. The United States sees the need to enhance the dialogue between scientists and the Commission for advancing the application of harvest control rules incorporating limit and target reference points for North Pacific albacore and that an MSE can lead to that objective.

The Inter-American Tropical Tuna Commission (IATTC) gathered in Lima Peru, on the occasion of its 87th Meeting:

Affirming that Article 7.5.3 of the FAO Code of Conduct for Responsible Fisheries that regional fisheries management organizations determine stock specific target and limit reference points and the actions to be taken if the points are exceeded or, *inter alia*, on the basis of the precautionary approach;

Being mindful of Article IV of the Antigua Convention regarding the application of the precautionary approach as described in the relevant provisions of the FAO Code of Conduct as well as the 1995 United Nations Fish Stocks Agreement, for the conservation, management and sustainable use of fish stocks covered by this Convention.

Recognizing the variety of opinions on appropriate target reference points referring to the level of fishing mortality or level of biomass which permit a long-term sustainable exploitation of the stocks, with the best possible catch; and on appropriate limit reference points referring to maximum values of fishing mortality or minimum values of the biomass, which must not be exceeded,

Acknowledging that precautionary decision rules will need to be developed for North Pacific albacore

fisheries in the Convention Area to ensure that management objectives are met, including those derived from adopted target and limit reference points;

Observing that the stock assessment of North Pacific albacore from the Albacore Working Group (ALBWG) of the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC) indicates that the stock is not being overfished nor is it in an overfished state;

Taking into account that the IATTC scientific staff has initiated a discussion on the application of potential harvest control rules (HCRs) incorporating limit and target reference points and their evaluation within a framework of management strategy evaluation (MSE) process,

Acknowledging that continuing dialog between scientists and managers is necessary to define appropriate HCRs and reference points for North Pacific albacore and given that consensus regarding the most appropriate structure and assumptions associated with MSE simulations is key to attaining acceptance of optimal reference points and HCRs suggested by the completed MSE,

The IATTC therefore resolves that:

1. For the entire North Pacific albacore stock, as identified in the latest ISC stock assessment, the Director shall direct the IATTC scientific staff to work with the ISC Albacore Working Group (ALBWG) in assessing a range of fishing mortality (*F*) based target reference points and spawning biomass (SB) based limit reference points within the framework of the MSE process. The range of reference points to be evaluated will be based on advice from the ALBWG, taking into account the fisheries exploiting them and various sources of uncertainty. The range of reference points to be evaluated will be drawn from the list shown below.

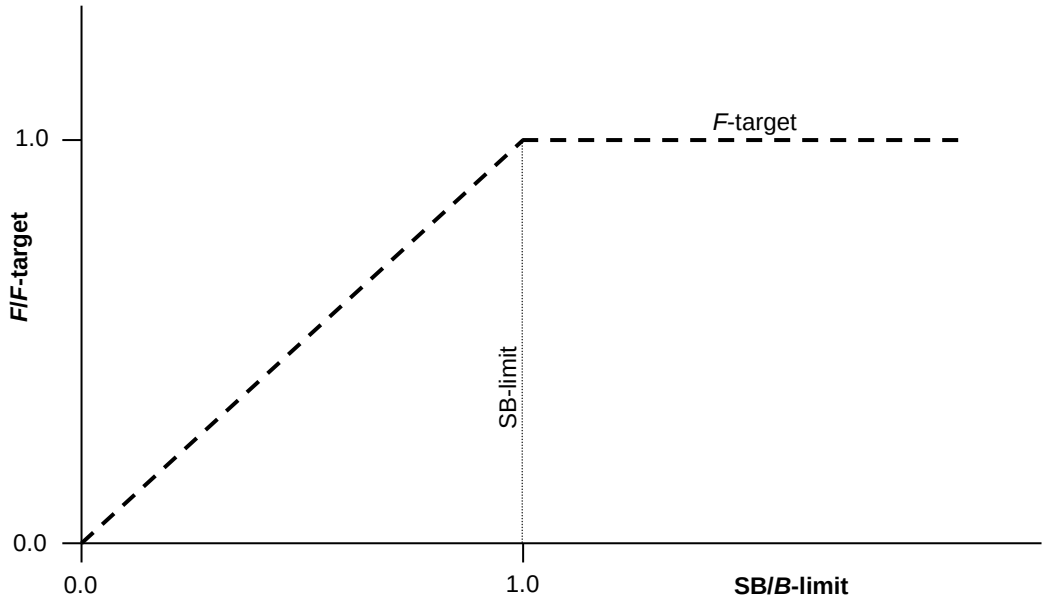
Target Reference Points	Limit Reference Points
F-target: $F_{10\%}$	SB-limit: $SB_{0.5R0}$, where $h = 0.75$[1]
F-target: $F_{20\%}$	SB-limit: $SB_{0.5R0}$, where $h = 0.75$
F-target: $F_{20\%}$	SB-limit: 14% of unfished SB
F-target: $F_{30\%}$	SB-limit: 20% of unfished SB
F-target: $F_{40\%}$	SB-limit: 20% of unfished SB
F-target: $F_{SSB\text{-}ATHL}$	SB-limit: 20% of unfished SB

2. In addition, as part of the MSE, the Director shall direct the IATTC scientific staff to work with the ISC ALBWG to evaluate combinations of target and limit reference points above and the following two potential HCRs based on total allowable catch (TAC) and total allowable effort (TAE) controls. Under TAC management: i) if $SB_{curr} \geq$ SB-limit, TAC for the subsequent three years set to correspond to *F*-target at B_{curr}; if $SB_{curr} <$ SB-limit, TAC for the subsequent three years set to correspond to (*F*-target*SB_{curr})/SB-limit at B_{curr}. Under TAE management: if $SB_{curr} \geq$ SB-limit, TAE for the subsequent three years set to correspond to *F*-target; if $SB_{curr} <$ SB-limit, TAE for the subsequent three years set to correspond to (*F*-target*SB_{curr})/SB-limit. (See following illustration.) The Director and IATTC scientific staff are invited to consider and evaluate additional candidate HCRs, or variations of these candidate HCRs, including sets of reference points in addition to those identified in paragraph 1, particularly HCRs and reference points with the potential to perform well with respect to the performance criteria listed in paragraph

3. Each of the alternative management strategies shall be evaluated with respect to performance criteria including but not limited to:

   a. Success in achieving *F*-target: proximity of *F* to *F*-target and degree of variation in proximity

[1] R_0 refers to the recruitment under unexploited conditions; $S0.5r0$: spawning biomass corresponding to that which produces a 50% reduction in recruitment as calculated in a Beverton-Holt spawner-recruit model with steepness (h) of 0.75 See SAC-05-14 for background.



b. Success in avoiding overfished state: Frequency of, or probability of, breaching *B*-limit

c. Success in maintaining relatively high biomass (e.g., to avoid adverse ecosystem effects): average SB and inter-annual variation in SB

d. Stability in management regime: inter-annual variability in TAC or TAE

e. Yields: average annual catches, by fishery

f. Stability of yields: inter-annual variability in catches, by fishery

g. Catch success: catch per unit of effort, by fishery

h. Fishing opportunities: average annual fishing effort, by fishery

4. The Director and IATTC scientific staff shall work with the ALBWG in designing and vetting the MSE prior to running the simulations, including, to the extent deemed appropriate by the IATTC scientific staff and the ALBWG, taking advantage of the ALBWG's stock assessment model as the basis for developing the operating model. The Director and IATTC scientific staff shall encourage the ALBWG and its members to contribute to the development of the operating model, contribute to the refinement of the MSE, and review the results of the MSE prior to finalization.

5. The IATTC scientific staff shall present the results of the MSE at the 2015 Scientific Advisory Committee meeting. If applicable, the staff should endeavor to recommend reference points in their provision of advice on the status of North Pacific albacore and on recommendations for management measures.

6. The Commission shall continue efforts to promote compatibility between the conservation and management measures adopted by the IATTC and the WCPFC in their goals and effectiveness with respect to North Pacific albacore.

7. The Director shall communicate this Resolution to the WCPFC Secretariat.