The Highly Migratory Species Management Team (HMSMT) discussed recommendations the Council might consider making to the U.S. delegations attending the upcoming meeting of the Inter-American Tropical Tuna Commission (IATTC) in July 2011 and the Western and Central Pacific Fishery Commission (WCPFC) Northern Committee meeting in September 2011.

**North Pacific Albacore Tuna**

The HMSMT notes that results from the stock assessment for North Pacific albacore will be unavailable until after the June 2011 Council meeting. Absent the results, we offer the following guidance to the Council to manage the North Pacific albacore stock without placing the U.S. fleet at a disadvantage. The HMSMT offers interim guidance for U.S. delegations to Regional Fishery Management Organizations (RFMOs) and recommends that the HMSMT and Highly Migratory Species Advisory Subpanel (HMSAS) be tasked to develop a proactive management framework.

**Current Status**

The last International Scientific Committee (ISC) for Tuna and Tuna-like Species in the North Pacific Ocean stock assessment, conducted in 2006, indicated that albacore spawning stock biomass was high relative to estimated levels throughout the assessment time period, and fishing mortality for albacore was high compared to most generally accepted biological reference points (BRPs). For management purposes, the HMSMT supports the Northern Committee’s proposed three-year assessment cycle. Another HMSMT recommendation is to update the life history parameters used in the stock assessment, such as maturity, age, and growth. The HMSMT supports conducting life history studies to address this need throughout the North Pacific Ocean.

The HMSMT believes it is critical for RFMOs to agree on target management levels based on fishing mortality and spawning stock biomass. However, for albacore, there is a limited basis for quantifying stock status relative to BRPs. The HMSMT reviewed the suite of BRPs that have been considered by international bodies and notes that the only reference point that has been selected at the international level is \( F_{SSB-ATHL} \), the average fishing mortality rate associated with the ten historically lowest estimates of spawning stock biomass. Because \( F_{SSB-ATHL} \) is an interim reference point that is not precautionary, RFMOs have recognized the need to agree on more robust BRPs and have assigned working groups to recommend the most appropriate BRPs; however, this analysis has not been completed. The HMSMT recommends defining reference points for management and utilizing simulation analyses of potential BRPs, as appropriate.

The HMSMT notes that Amendment 2 to the HMS FMP will provide the Council with the option to adopt alternatives to standard MSY-based reference points. If an RFMO with management authority over HMS FMP stocks identifies reference points for any HMS FMP-managed stock, the Council could recommend the use of those reference points.
Potential Response to New Stock Assessment Results

The Council is in a largely reactive position for recommending management measures in response to new stock assessment results and the HMSMT proposes interim guidance until the Council has an opportunity to review the stock assessment results. In addition, the HMSMT recommends pursuing a more long-term management strategy.

For the interim, the HMSMT developed possible management recommendations based on hypothetical stock assessment results. If the assessment results are similar to the 2006 stock assessment results, the HMSMT recommends that current management measures (i.e., IATTC Resolution C-05-02; CMM-2005-03) be maintained and clarified, for instance by defining metrics for “current effort,” and compliance with data reporting should be promoted. The IATTC resolution could be improved by requiring data reporting requirements on effort as well as catch by gear type.

If the assessment results indicate that biomass is declining and approaching the spawning stock biomass level associated with the interim BRP (FSSB-ATHL), the HMSMT recommends that international management measures be implemented to reduce fishing mortality. The degree of reduction in fishing mortality and the length of time to reduce that mortality would depend upon proximity to the reference point. The HMSMT notes that the Laurs and Powers report (2009) included tables of potential management measures with pros and cons that the HMSMT considered. Given the short time frame before the IATTC and Northern Committee meetings and the complexity involved, catch limit and time-area approaches do not seem feasible at this time. Therefore, if fishing mortality reductions are necessary, the HMSMT recommends commensurate reductions in fishing effort in proportion to the relative impacts of fishing nations on the stock.

To develop a more proactive international management framework, the HMSMT also suggests that the Council request the HMSMT and HMSAS to conduct a comprehensive cost benefit analysis of different management options. Such an analysis would include, among other things, comparison of catch, effort, and capacity limit management options and evaluation of the relationships between the albacore and other west coast fisheries. This analysis would draw from the Laurs and Powers (2009) and Lisa Wise Consulting (2011) reports and other relevant resources. If the Council chooses to move forward with this analysis, the HMSMT could develop a work plan in collaboration with the HMSAS and other interested stakeholders for Council consideration at an upcoming meeting.

In summary, the HMSMT recommends that the Council consider the following recommendations for albacore to the U.S. Delegations to the IATTC and Northern Committee:

1. Support management measures that address the relative impacts of all international fisheries participants without disadvantaging the U.S. fleet;
2. Support the Northern Committee’s proposed three year stock assessment cycle;
3. Promote research to update the life history parameters such as maturity, and age and growth in the stock assessment, efforts which will require additional sampling and data collection;
4. Define reference points for international management and utilize simulation analyses of potential BRPs, as appropriate;
5. Give weight to management measures for which monitoring, compliance, and enforcement are effective;
6. If the stock assessment results are similar to the 2006 stock assessment results, the HMSMT recommends that current management measures be maintained and clarified, and compliance with data reporting requirements should be promoted; and
7. If the assessment results indicate that biomass is declining and approaching the spawning stock biomass level associated with the interim BRP \( F_{SSB-ATHL} \), the HMSMT suggests a recommendation that international management measures be implemented to reduce fishing mortality via fishing effort reductions.
8. In addition, the Council could consider tasking the HMSMT and HMSAS to conduct a comprehensive cost benefit analysis of different management options to support development of a proactive management framework.

Additional Recommendations to the U.S. Delegation to the IATTC

Pacific Bluefin Tuna
The HMSMT supports the adoption of biological reference points and effective conservation measures for bluefin tuna in the IATTC. Currently, no biological reference points are agreed upon for bluefin tuna; however, with respect to all potential reference points examined by the ISC, the fishing mortality rate appears to exceed that which would support maximum sustainable yield. The HMSMT recommends that management measures for Pacific bluefin tuna are adopted at the 2011 IATTC meeting following the advice of the IATTC scientific staff to limit commercial catch to the average annual catch from 1994-2007; however, the HMSMT does not support adopting the effort limitation in the recreational fishery. It is the HMSMT’s understanding that the IATTC scientific staff included this provision to prevent a shift in effort to the recreational fishery and subsequent sale of recreationally caught fish; however, the State of California, where the majority of West Coast recreational bluefin catch occurs, already has a law in place to prohibit the sale of all recreationally caught fish so no effort shift is anticipated.

Yellowfin and Bigeye Tuna
The HMSMT recommends that the non-binding recommendations agreed to at last year’s IATTC meeting (Recommendation C-10-01 on tropical tuna measures, Recommendation C-10-02 on seabird mitigation measures, and Recommendation C-10-03 on prohibiting fishing around data buoys), be reopened for adoption as binding resolutions at this year’s meeting. The HMSMT believes that the provisions in the tropical tuna measure, which include time and area closures in the purse seine fishery and bigeye catch limits in the longline fishery, should be maintained at a minimum when adopted as formal resolutions, given that 2011 IATTC stock assessment results for the yellowfin and bigeye tuna stocks in the EPO are slightly more pessimistic than in 2010 assessments.

Compliance and Data Collection Measures
With respect to U.S. proposals for conservation measures that are likely to be discussed at the upcoming IATTC meeting, the HMSMT recommends that the Council support proposals that would increase compliance with IATTC management measures; for example, the proposal to clarify and improve Illegal, Unreported, and Unregulated (IUU) vessel listing procedures. The HMSMT also recommends that the U.S. delegation advocate for more comprehensive data reporting and collection by members of the IATTC. In particular, the HMSMT supports the adoption of a proposal that would require five percent observer coverage in longline fisheries.
In summary, the HMSMT suggests that the Council consider the following recommendations to the U.S. Delegation to the IATTC:

1. Support the adoption of biological reference points and effective conservation measures for Pacific bluefin tuna, as identified above;
2. Support the adoption of management measures in the commercial fisheries for Pacific bluefin tuna;
3. Do not support the adoption of management measures in the recreational fisheries for Pacific bluefin tuna;
4. Support reopening the non-binding recommendations for tropical tunas agreed to at last year’s IATTC meeting for adoption as binding resolutions at this year’s meeting, Recommendation C-10-01 on tropical tuna measures, Recommendation C-10-02 on seabird mitigation measures, and Recommendation C-10-03 on prohibiting fishing around data buoys;
5. Support proposals that would increase compliance with IATTC management measures; and
6. Advocate for more comprehensive data reporting and collection by members of the IATTC.

PFMC
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