

NATIONAL MARINE FISHERIES SERVICE (NMFS) REPORT
ON THE INTERNATIONAL MANAGEMENT OF HIGHLY MIGRATORY SPECIES (HMS)

Management Strategy Evaluation (MSE) Listening Session Review

NMFS West Coast Region (WCR) and the Southwest Fisheries Science Center (SWFSC) hosted a listening session regarding MSE on April 18, 2018, and invited stakeholders to participate in person (in either Long Beach or La Jolla, California), or remotely via webinar. Gerard DiNardo and Desiree Tomassi of the SWFSC provided an overview of the MSE process and ongoing MSE activities by the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC). Participants included fishing industry representatives, state and federal fisheries managers, fishery management council staff, scientists, and non-governmental organizations. During discussions, NMFS WCR and SWFSC identified certain concepts for management objectives to incorporate into a future MSE on Pacific bluefin tuna. A summary of the report, including some of these concepts, is available as Agenda Item G.2, Supplemental Attachment 4.

ISC-Sponsored Pacific Bluefin Tuna MSE Workshop

The ISC sponsored a Pacific bluefin tuna MSE workshop in Yokohama, Japan, May 30-31, 2018. NMFS WCR and Pacific Islands Regional Office sent Celia Barroso and Valerie Post, respectively, to represent U.S. positions at this workshop. Dr. Gerard DiNardo, SWFSC, will provide the Council with an overview of the workshop and potential next steps during the June 2018 meeting.

Inter-American Tropical Tuna Commission (IATTC)-Related Meeting Outcomes

Bycatch Working Group (BYC WG)

The BYC WG, co-chaired by Yonat Swimmer (USA) and Manuel Correia (Venezuela), met on May 9 and 10, 2018. NMFS WCR staff and Alexis Gutierrez of NMFS Office of Protected Resources represented the United States. This meeting included several scientific presentations on seabird bycatch mitigation from the Agreement on the Conservation of Albatrosses and Petrels, leatherback bycatch updates and mitigation from the Inter-American Convention on the Conservation of Sea Turtles, post-release mortality of sharks caught by longline vessels by Melanie Hutchinson of NMFS Pacific Islands Fisheries Science Center (PIFSC), manta and devil ray life history and bycatch from the IATTC scientific staff, and electronic monitoring from the Nature Conservancy and John Wang from PIFSC. These presentations are posted at the bottom left of the [9th SAC Meeting website](#) for the May 2017 SAC and WG meetings. A recurring theme that crossed all of these topics was the lack of information on bycatch in longline fisheries. However, some countries continue to suggest that the quantity of data is not as important as quality, and that improving the data collected and reported should be a first priority. Ultimately, the BYC WG made recommendations to increase observer coverage on longline vessels, implement a suite of techniques for sea turtle bycatch mitigation, and improve seabird mitigation measures. The SAC reviewed these recommendations from the BYC WG the following week, and only endorsed some recommendations and with modifications. Notably, the SAC did not endorse the suite of sea turtle mitigation measures or the increased observer coverage. However, the BYC WG recommendations stand-alone and can be referenced. Some countries may choose to use the recommendations of the BYC WG or SAC to justify positions on related matters at the 93rd IATTC meeting. The United

States intends to use the BYC WG recommendations to support a sea turtle bycatch mitigation proposal, as elaborated on below.

Fish-Aggregating Device (FAD) Working Group

The FAD Working Group convened on May 11 and 12, 2018, in La Jolla, California. NMFS WCR staff represented the United States at this meeting. Meeting participants discussed data collection improvements and definitions of FAD terms as they relate to IATTC Resolutions. The IATTC staff and International Seafood Sustainability Foundation presented FAD research, such as non-entangling FAD projects. The presentations are available on the [9th SAC Meeting website](#). The FAD Working Group developed a list of recommendations that were endorsed by the members of the Scientific Advisory Committee and will be reviewed by the IATTC at the 93rd IATTC meeting. As of June 1, 2018, the recommendations are not yet posted on this website. The next FAD Working Group will be held on August 22 and 23, 2018, more information will be available on the [IATTC website](#).

Fleet Capacity Working Group

The Fleet Capacity Working Group convened on May 13, 2018, in La Jolla, California. NMFS WCR staff represented the United States at this meeting. The IATTC Executive Director, Dr. Compean, provided an overview on the status of purse seine fleet capacity trends in the eastern Pacific Ocean (see [CAP-19-01](#)). Dr. Dale Squires of the SWFSC gave an overview of an EU-funded project to review alternative options for reducing capacity in the tuna purse seine fleet. The World Wildlife Fund provided an update on ongoing projects with the World Bank. The bulk of the meeting was spent discussing the work of Northern Economics to evaluate the economic impacts of reducing capacity in the tuna purse seine fleet. Although several delegations reiterated their requests for increased purse seine fleet capacity, the United States expressed its view that, given the current stock status of bigeye and yellowfin tuna in the eastern Pacific Ocean (EPO), increases in capacity are not appropriate at this time. In the end, the Working Group participation did not allow for a quorum and; therefore, the Working Group was unable to make any formal recommendations to the IATTC. These discussions will resume at the next Fleet Capacity Working Group on August 23, 2018, more information will be available on the [IATTC website](#).

Scientific Advisory Committee (SAC) to the IATTC

The 9th Meeting of the SAC to the IATTC was held May 14 through 18, 2018, in La Jolla, California. NMFS SWFSC represented the United States at this meeting along with NMFS WCR. IATTC scientific staff presented recent stock assessments and indicator results for tunas and sharks in the EPO. This information is available on the [9th SAC Meeting website](#).

A main topic of discussion was the 2017 IATTC stock assessment update for bigeye tuna in the EPO. The results indicate that recent fishing mortality (F) is above the level corresponding to maximum sustainable yield (MSY) (i.e., considered overfishing by the IATTC). On the other hand, spawning biomass is slightly above the MSY level (i.e., not overfished according to the IATTC). This is a substantial change from the previous updated assessment, which estimated F rates below the level corresponding to MSY. Because of large uncertainties in the model, IATTC staff are concerned that the stock assessment results produced by the model are not a reliable indicator of stock status. Thus, IATTC staff conducted both an indicator analysis and an investigation of change in the F multiplier for bigeye tuna. The results showed that bigeye tuna has been under

increasing fishing pressure from purse seine sets associated with floating objects, such as FADs. IATTC staff would like more time to continue working on a new spatially-structured stock assessment model for bigeye tuna, with the goal of presenting this information in 2020.

Although the 2017 stock assessment for yellowfin tuna in the EPO is more optimistic than for bigeye tuna, the recent F is slightly above the MSY level (i.e., considered overfishing by the IATTC). The spawning biomass, in contrast, is above the MSY level (i.e., not overfished according to the IATTC).

NMFS will review these updated assessments to determine whether they constitute the best scientific information available (BSIA). If that is the case, NMFS will use the information from these assessments to prepare status determinations for these stocks, according to the status determination criteria in the HMS FMP. NMFS West Coast Region will keep the Council and its advisory subcommittees updated on this effort, so the BSIA on stock status can be considered during scoping for biennial management measures for HMS at the September Council meeting.

The IATTC Staff Recommendations to the IATTC are available online ([SAC-09-15-REV2](#)). The delegations present at the SAC adopted a separate list of recommendations which is not yet available online. The IATTC Staff and SAC recommendations will be reviewed by the IATTC at the 93rd IATTC meeting. Recommendations relevant to U.S. priorities are included in the sections below.

U.S. Priorities for the 93rd IATTC Meeting

Pacific Bluefin Tuna

The IATTC is expected to renegotiate terms of a Pacific bluefin tuna resolution for 2019, and possibly beyond. It is expected that there will be two components to the resolution: (1) long-term management (e.g., rebuilding targets), and (2) catch limits. As reported during the September 2017 Council meeting (see [Supplemental NMFS Report 2, Agenda Item J.3.a](#)), the IATTC-Western and Central Pacific Fisheries Commission (WCPFC) Northern Committee (NC) Joint Working Group (Joint Working Group) meeting agreed to a second rebuilding target of 20% unfished spawning stock biomass by 2034 with a 60% probability. The WCPFC subsequently adopted this rebuilding target at its 14th meeting in December 2017 (see the [WCPFC's Pacific bluefin tuna Harvest Strategy](#)), and NMFS expects that the IATTC will do the same. When developing catch limits, the U.S. considers the following:

- The Pacific bluefin tuna stock continues to be depleted.
- The 2018 stock assessment (see the [Executive Summary](#)) indicates that the rebuilding targets recommended by the Joint Working Group are expected to be met with high probabilities.
- The IATTC scientific staff indicated the current management measures for Pacific bluefin tuna are adequate.
- The IATTC scientific staff also noted that increases in catch are possible under the harvest strategy prepared by the Joint Working Group, and that any changes in catch should consider the desired rebuilding rate and distribution of catch between small (less than 30 kilograms) and large (greater than or equal to 30 kilograms) fish.

- Consistent with the harvest strategy prepared by the Joint Working Group, the WCPFC adopted provisions allowing for an increase in catch should the probability of reaching the initial rebuilding target be high.

In addition to recommendations related to a new Pacific bluefin tuna resolution, NMFS is also seeking suggestions on how to implement catch limits domestically to avoid exceeding limits (e.g., in 2017, exceedance of catch limits triggered the need to implement strict trip limits in 2018).

Tropical Tunas

The IATTC adopted a resolution for the management of tropical tunas from 2018 to 2020 at its 92nd IATTC Meeting in 2017 ([C-17-02](#)). However, as mentioned in the recap of the 9th SAC Meeting, recent stock assessment updates for bigeye and yellowfin tuna in the EPO indicate additional conservation measures are needed. IATTC staff recommended maintaining the current measures on tropical tuna, and establishing additional limits on the number of large purse seine sets associated with floating objects or free-schools of tuna (i.e., unassociated sets) for 2019 and 2020. The United States is wary of EPO-wide set limits, as this type of management could create a race-to-fish scenario as it did last year with the EPO-wide total allowable catch limits. If there is an overall limit on sets, boats may fish early and often before the limit is reached. The United States requested that IATTC staff analyze alternative conservation measures for tropical tunas. Such measures may include quarterly set limits (which would need to take seasonality of fishing into consideration), as well as country-specific limits (which would raise the issue of allocations, likely requiring more than one annual meeting's discussion to reach agreement).

Sea Turtles

In light of the progress made at the 92nd IATTC Meeting (2017) on the U.S. sea turtle bycatch mitigation proposal, and with the support of the BYC WG, the United States will likely present a proposal at the 93rd IATTC meeting with a suite of mitigation options. Sea turtle-related discussions at the BYC WG centered around the importance of habitat and inter-nesting areas for leatherbacks, and the use of circle hooks and finfish bait on longline vessels to reduce interactions with leatherbacks and loggerheads. The inter-nesting sites are in exclusive economic zones of only a few countries, and are therefore only relevant to them. The gear specifications (circle hooks, fish bait) are currently used in U.S. fisheries, as they have proven to be effective.¹ There are concerns that circle hooks increase shark bycatch; therefore some countries are reluctant to require circle hooks. However, while some studies show that shark catch increases with the use of circle hooks, other studies show conflicting results, and the available meta-analyses can mask species-level and area-specific findings. Additionally, numerous studies demonstrate that circle hook use results in higher survivability of sharks post-release. The United States intends to present a proposal that contains a menu of options for countries to choose from (e.g., circle hooks, finfish bait, setting below 100 meters, and seasonal closures adjacent to inter-nesting hot spots).

Observer Safety

The United States intends to present proposals on observer safety for both the 37th Agreement on International Dolphin Conservation Program (AIDCP) Meeting and the 93rd IATTC Meeting. These proposals will be similar to those proposed in 2017 (see [AIDCP proposal](#) and [IATTC](#)

¹ Swimmer Y, Gutierrez A, Bigelow K, Barceló C, Schroeder B, Keene K, Shattenkirk K and Foster DG (2017) Sea Turtle Bycatch Mitigation in U.S. Longline Fisheries. *Front. Mar. Sci.* 4:260. doi: 10.3389/fmars.2017.00260

[proposal](#)), which were intended to improve observer safety standards by (1) requiring observers be provided safety equipment (e.g., Personal Locator Beacons and communication devices), and (2) ensuring vessels and observer programs have an emergency action plan. Some delegations, such as China, Mexico, and Japan, have opposed the proposals due to the costs of purchasing observer safety equipment. For 2018, the United States intends to separate the requirements for observer safety equipment and an emergency action plan into two proposals, with the goal of making progress on the action plan if the proposal for safety equipment is again opposed because of costs.

International Meetings in 2018

Below is a list of the 2018 international meetings related to Pacific HMS that the United States will participate in. In particular, please note that the 93rd IATTC Meeting will be held later than usual. Consequently, the General Advisory Committee meeting will be held after the June Council meeting.

IATTC-related Meetings²

U.S. Scientific Advisory Subcommittee	June 27	La Jolla, CA
U.S. General Advisory Committee	June 28	La Jolla, CA
Public meeting on FAD Definitions in Tuna-Regional Fishery Management Organizations (RFMOs)	June 29	La Jolla, CA
Agreement on the International Dolphin Conservation Program	August 16-17	Mission Bay, CA
93 rd Annual IATTC Meeting	August 20-24, 27-30	Mission Bay, CA
MSE Workshop	August 25-26	Mission Bay, CA
Joint IATTC-Northern Committee Working Group*	September 4-7	Fukuoka, Japan

WCPFC-related Meetings³

Scientific Committee	August 8-16	Busan, Korea
Catch Documentation Scheme Technical Meeting	September 3	Fukuoka, Japan
Northern Committee*	September 4-7	Fukuoka, Japan
Technical & Compliance Committee	Sept. 26-Oct. 2	Majuro, Marshall Islands
U.S. Permanent Advisory Committee	TBD	Honolulu, HI
Annual Meeting	TBD	TBD

*These two meetings will occur concurrently.

² For more information on future meetings, visit: <https://www.iattc.org/MeetingsENG.htm>

³ For more information on future meetings, visit: <https://www.wcpfc.int/meetings>