



# OPRT

## NEWSLETTER INTERNATIONAL

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**FEB. 2023 No. 82**

FOR CONSERVATION AND SUSTAINABLE USE OF TUNAS

## OPRT Seminar on the management strategy evaluation for Atlantic bluefin tuna

The OPRT held a seminar on the management strategy evaluation for Atlantic bluefin tuna from February 6 to 10, 2023. Due to COVID-19, it was held through the posting of information on the OPRT website, as well as questions and answers by email. Below is a summary of the information.

In recent years, the way of setting TACs has been changing from TACs set by managers based on the advice of scientists to TACs automatically calculated by inputting specified data. This new approach is called a management procedure (MP) and the process of introducing an MP, while considering various uncertainties, is called a management strategy evaluation (MSE).

Atlantic bluefin tuna is a species that has been managed by the International Commission for the Conservation of Atlantic Tunas (ICCAT) for many years. In the early 2000s, illegal fishing on this species became a serious problem. This problem coupled with the worsening stock status led to a proposal to list this species in CITES Appendix I, which would prohibit its international trade, at CITES COP15 in 2010. As such, this species has been attracting the attention of the media.

ICCAT has been making efforts for many years to establish an MP for this species through an MSE. ICCAT finalized the MP at its 2022 annual meeting by which the total allowable catch (TAC) was calculated.

The Commission for the Conservation of

Southern Bluefin Tuna (CCSBT) already introduced an MP for southern bluefin tuna and ICCAT also adopted an MP for north Atlantic albacore to calculate a TAC. Atlantic bluefin tuna has two distinct stocks (east and west), and the MP considers the mixing of these stocks, which makes it more complicated than that for southern bluefin tuna or north Atlantic albacore.

In the past, TACs for Atlantic bluefin tuna were set ignoring scientific advice, which resulted in the stock's decline. Its stock assessment has a large degree of uncertainty and the mixing ratios between the eastern stock and western stock vary depending on where fishing occurs. Because of these characteristics, the establishment of the MP required a long time.

Extensive discussion on the Atlantic bluefin tuna MSE started in 2018 and continued until October 2022. There were 18 meetings attended by scientists and 12 meetings attended by both scientists and managers. During that process, the number of candidate MPs was reduced from the initial 9 to 2 (BR and FO). As to important parameters of the MP: (i) the probability of the stock being in the safety zone in 30 years (PGK) was to be 60%, 65%, or 70%; (ii) the probability of the stock falling below the limit beyond which the stock is in danger (LD) was to be no greater than 15%; and (iii) the management cycle was to be either 2 or 3 years. These options were brought to the annual meeting in November 2022 for a

final decision.

At the annual meeting in November 2022, there was a conflict of views between people on the eastern side (the TAC will increase whatever CMP and parameters are chosen) and people on the western side (the TAC will not increase under certain combinations of MP and parameters). The meeting finally agreed to BR with PGK60%, LD15% and a 3-year management cycle. Under this setting, the TAC for the eastern area increased from 36,000 t to 40,570 t and that for the western area remained at 2,726 t.

The main reasons for the agreement on the Atlantic bluefin tuna MP could be:

(1) TAC-setting through an MP tends to be more conservative than one through traditional stock assessment. However, the TAC, particularly for the east, was likely to increase even under the MP.

(2) Due to uncertainties, scientists advised that if the Commission could not agree to the MP, the TAC should remain the same for the east and west. There are several lessons learnt from this MSE process. These are:

(1) There is no coherent usage of technical terms related to the MSE, preventing people from understanding the MSE, which is inherently difficult to understand. Technical terms should be more standardized so that non-scientists can understand them.

(2) The fact that an MP is a more robust management system is not persuasive enough for the people involved to approve the MP. When the TAC is likely to increase, there is a good chance of introducing an MP.

(3) Discussion can be smoother if there are reasons for moving from a normal stock assessment to an MP (e.g., it is not possible to set a TAC based on a stock assessment).

(4) The MSE takes time. In the case of the Atlantic bluefin tuna MSE, the target date of the MSE completion as of 2013 was 2017, but it was actually finished in 2022. The main reasons for this delay could be:

(a) In the MSE, simulation is conducted using different candidate MPs (CMPs) and parameters. The simulation results are used to narrow down the number of CMPs. Since the combination of a CMP and parameters dictates the TAC level, managers want to see as many simulation results as possible.

(b) In relation to (a) above, more time than anticipated by scientists is needed for managers to make decisions.

(5) While technical work on the MSE should be done by scientists, scientists should explain their ongoing work to managers as early as possible to keep managers conscious of what is going on. Capacity-building to provide an illustration of the simulation should be conducted.

(6) Many performance statistics were presented as a result of the simulation. The most important statistic for fishermen is the initial TAC level and this should be clearly presented.

(7) Theoretically, if people do not like the results, the process should start from the beginning since it is not clear how decisions on parameters and others will affect the TAC level. As this is not practically possible, however, it is recommended to develop a program which can instantly show the results when changing parameters.

### **Prospect for 2023 meetings of regional fisheries management organizations**

Many meetings of regional fisheries management organizations (RFMOs) were held in a hybrid style (both in-person and online) last year as the

COVID-19 pandemic was subsiding. If it further subsides and restrictions on foreign travel imposed by RFMO Members are lifted this year, more in-person meetings are likely to be held. It should be noted, however, that, based on the experience in the last two years, holding technical meetings online does not cause so much trouble and thus some of the technical meetings will be probably held online. Here are the prospects for this year's RFMO meetings.

## 1. WCPFC

WCPFC will comprehensively review the conservation and management measures (CMM) for tropical tunas this year, particularly on an effort limit for purse seiners on the high seas and how to allocate it as well as a bigeye catch limit and how to allocate it. For this purpose, WCPFC established a 2023 work plan, which states that: (i) the Chair will circulate a paper describing points subject to amendment by the end of February; (ii) Members will give feedback to the Chair on the paper by the end of March; (iii) the Chair will compile and circulate comments submitted by the end of April; and (iv) a workshop will be held in June and October to discuss the CMM on tropical tunas. The October workshop will also discuss the necessity to hold additional workshops as well as a contingency plan in case the annual meeting (Cook Islands from December 4 to 8, 2023) cannot agree to it.

There is concern about the stock status of North Pacific striped marlin. Discussion took place at the 2022 annual meeting, which produced no conclusion, and this will be discussed at this year's annual meeting again. FFA Members advocated the need to introduce stringent measures such as prohibition of retention of this species on board

fishing vessels, considering the stock status. They are likely to say this again this year. A focus would be how to promote the conservation of this species while minimizing the negative impacts of measures on the catch of target species as this species is basically a bycatch species.

Some discussion took place on labor standards of crew on board fishing vessels at the 2022 annual meeting, which confirmed the continuation of the discussion. The United States expressed its desire at the meeting to establish a binding measure to address this issue at the 2023 annual meeting. The discussion is likely to happen through working group meetings before going to the annual meeting.

## 2. ICCAT

ICCAT agreed to the new management procedure (MP) for Atlantic bluefin tuna last year and adopted the annual total allowable catch (TAC) for the next three years calculated by the MP as well as allocations. The remaining point for Atlantic bluefin tuna is an exceptional circumstances protocol, which is the last piece of the MP.

As to tropical tunas, the annual meeting last year could not agree to an increase in the TAC of bigeye tuna and a new allocation method. To agree on these issues at the annual meeting this year (Egypt from November 13 to 20), preparatory discussion will take place at two intersessional meetings in March and June. It is not clear if agreement can be reached as there is still a large difference of views among Members.

ICCAT plans to establish an MP for swordfish this year and will hold at least two intersessional meetings to enable this. At the annual meeting last year, the TAC and allocations for north Atlantic

swordfish were extended for one year. The TAC for south Atlantic swordfish was reduced from 14,000 t to 10,000 t while maintaining the allocations on the condition that Members will have to pay back a portion if the total catch exceeds 10,000 t. If a new MP is established, which will calculate a new TAC, it is likely to be lower than the TAC calculated through a normal stock assessment as the MP takes more uncertainties into account. In that case, allocations will have to be adjusted.

The current TAC for north Atlantic albacore will be valid till the end of 2023. The MP will calculate a new TAC for 2024 and thereafter. If the TAC is changed, allocations will have to be adjusted. As the number of Members involved in this fishery is small, not so much difficulty is envisaged.

A new stock assessment will be conducted for north Atlantic blue shark this year, which will be the basis for reviewing the TAC. If the TAC is changed, allocations will have to be adjusted.

A working group meeting will be held in May to discuss labor standards for crew on board fishing vessels. Discussion at the meeting will clarify what the United States, which is taking the initiative in this work, expects to see as the final outcome.

### 3. IOTC

Last year, IOTC discussed the strengthening of measures for yellowfin tuna but could not agree to it. Instead, IOTC decided to hold two special sessions to discuss regulations on fish aggregating devices (FADs) and conservation measures for yellowfin tuna so that the annual meeting (Mauritius from May 8 to 12) can agree to them. The EU proposed strengthening the regulations on FADs at the annual meeting last year, but coastal

Members opposed it saying that the proposal would not be enough. Members are expected to take more realistic approaches at the annual meeting this year. IOTC is experiencing an abnormal situation for yellowfin tuna as six Members lodged an objection to the current measures adopted in 2021. To avoid this, any agreement must consider the positions of these Members. Since some of the objecting Members oppose any regulation on the development of their own fisheries, an agreement that is not followed by objections may be difficult to achieve.

### 4. IATTC

IATTC adopted, in 2021, conservation measures for tropical tunas that are valid until the end of 2024. The measures are supposed to be reviewed every year, taking into account a new stock assessment (bigeye in 2023), changes in purse seine fishing capacity and the scientific advice of the Secretariat scientific staff. This review will be conducted at the annual meeting (from August 7 to 11).

### 5. CCSBT

At last year's annual meeting, the MP recommended that the TAC for southern bluefin tuna be increased by 3,000 t for 2024 and thereafter. The meeting could not endorse this recommendation, however, as NZ opposed this because there had been little progress to address the issues of stereoscopic cameras and the Japanese market. As a result, the meeting decided to defer the discussion to the 2023 annual meeting (Busan from October 9 to 12). Accordingly, the allocations for 2024 and thereafter will also be discussed at the annual meeting this year.