Cover Sheet to accompany new proposals
(proposal submitted by Japan)

Title of the Proposed Draft Recommendation/Resolution: *Draft Recommendation by ICCAT amending Recommendation 22-08 on the monitoring of bluefin tuna farming*

Title of currently in force recommendation(s) or resolution(s) addressing the same or related issues: *Recommendation by ICCAT amending the Recommendation 21-08 establishing a multi-annual management plan for bluefin tuna in the eastern Atlantic and the Mediterranean* (Rec. 22-08)

1. Does it create new **reporting obligation(s)** for CPCs?

    Yes   No ☒

    Brief description of new reporting obligation(s):

2. Does it require additional input or **work by the SCRS**?

    Yes ☒   No

    Is this work already included in the current SCRS workplan?

    Yes   No ☒

    Brief description of new scientific work required (i.e. stock assessment, analysis, external consultant):

    The SCRS shall review the development and accuracy of software that incorporates Artificial Intelligence (AI) used for the analysis of the stereo video camera footage and advise the Commission in 2027.

3. Does it involve the creation of a **new working group or intersessional process**?

    Yes   No ☒

4. Does it require a new **programme or additional activities to be managed by the Secretariat**?

    Yes   No ☒

    Brief description of new Secretariat work required:

5. What is the proposed timeframe for implementation, and are there different specific timeframes for certain CPCs, fisheries, regions, etc.:

    Starting from 2028, the determination of the number and weight of caged bluefin shall be done automatically by using software that incorporates Artificial Intelligence (AI), and the sampling intensity shall be 100%.

    The Commission shall, at its 2027 annual meeting, decide if the new provision enters into force as scheduled. To support this decision, the SCRS shall review the development of such software and its accuracy and advise the Commission in 2027.

6. Is there any other relevant information regarding the resource and workload implications of the proposal:

Although the sampling intensity will increase from 20% to 100%, AI-based analysis is expected to make this possible with less burden than current manual analysis, without human bias.

Draft Recommendation by ICCAT amending
Recommendation 22-08 on the monitoring of bluefin tuna farming
(proposal submitted by Japan)

1.   Explanatory note

ICCAT has introduced a number of management measures for the farming activities of eastern bluefin tuna, particularly for monitoring the caging. The purpose of those management measures is to accurately determine the amount of fish removed from the sea.

i) Growth rate monitoring

Based on Recommendation 22-08 para 26, farming and importing CPCs shall cooperate in monitoring the growth rates of farmed bluefin tuna to ensure that the growth rates derived from the eBCDs are coherent with the growth rate published by the SCRS in 2022. However, the documents submitted by Japan to the 2023 and 2024 Panel 2 intersessional meetings found discrepancies between the 2022 growth rate table and the growth rates derived from the eBCDs. The SCRS, at its 2024 meeting, reviewed the documents and recognized such discrepancies, but was not able to update the growth rate tables, as envisioned in para 25, due to the lack of new available scientific information. As such, the 2022 growth rate table needs to be updated as soon as new scientific information becomes available.

ii) Caging monitoring by stereoscopic camera

The number and weight of bluefin tuna being caged are manually analyzed using the stereoscopic video footage. Considering the administrative burden of video footage analysis, the sampling intensity is currently set at 20% of the number of fish being caged. Sampling errors and human bias can lead to uncertainty in the determination of the amount of caged fish. In recent years, the development of Artificial Intelligence (AI) has made it possible to perform video analysis more accurately, quickly, and with less burden. In 2024, the SCRS made the following recommendations to the Commission.

"18.2.5 Bluefin tuna

   - The Committee reiterates its request that 100% of the stereo video camera footage be provided to Committee rather than a 20% sample. Recent advances in Artificial Intelligence technology allow for rapid and objective reading of the video footage. Having access to 100% of the footage would allow the Committee to evaluate whether the subsample provides a sufficiently reliable estimate of the size composition and number of fish."

This proposal is to introduce AI-based analysis for monitoring caging activities starting in 2028. This will incentivize farming CPCs to experiment AI, while giving sufficient time to adopt the new technology, and enhance the learning of AI. Video footage analysis will be by 100% rather than 20% sampling. AI-based analysis is expected to make this possible with less burden than current manual analysis. Video footage will be provided to SCRS on request with confidentiality to help SCRS further consider effective sampling. Given that video analysis using AI should have sufficient accuracy, the Commission will determine in 2029 whether this provision will take effect as scheduled, based on SCRS advice on the status of AI development and its accuracy.

2.   Proposed amendment on *Recommendation by ICCAT amending the Recommendation 21-08 establishing a multi-annual management plan for bluefin tuna in the eastern Atlantic and the Mediterranean* **(Rec. 22-08)**

Growth rates

25.   Based on new available scientific information, including where relevant the result of the trials on Artificial Intelligence referred to in paragraph 166, the SCRS should consider reviewing and updating the growth table published in 2022, as soon as possible and present those results at the latest to the 2024 2027 annual meeting of the Commission.

Analysis of the stereoscopic video footage by the farm CPC competent authority

169. The farm CPC competent authority shall determine the number and weight of bluefin tuna being caged, by analyzing the video footage of each caging operation provided by the farm operator. To carry out this analysis, the authorities shall follow the procedures set out in point 1 of **Annex 9**.

169bis. Starting from 2028, the determination of the number and weight of caged fish in paragraph 169 shall be done automatically by using software that incorporates Artificial Intelligence (AI), and the sampling intensity stipulated in **Annex 9**, paragraph 1. i., shall be 100%. Copies of the video footage shall be provided by the farm CPC competent authority to the SCRS upon request. The SCRS shall keep the confidentiality of commercial activities.

169ter. The Commission shall, at its 2027 annual meeting, decide if paragraph 169bis enters into force as scheduled. To support this decision, the SCRS shall review the development of such software and its accuracy and advise the Commission in 2027.