INTERNATIONAL COMMISSION FOR THE CONSERVATION OF ATLANTIC TUNAS

COMMISSION INTERNATIONALE POUR LA CONSERVATION DES THONIDES DE L'ATLANTIQUE

COMISION INTERNACIONAL PARA LA CONSERVACION DEL ATUN ATLANTICO

REPORT OF THE STANDING COMMITTEE ON RESEARCH AND STATISTICS (SCRS)

(Hybrid/ Madrid (Spain) – 21 - 25 September 2026)

September 2026

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Report of the Standing Committee on Research and Statistics (SCRS)

(Hybrid/ Madrid (Spain), 21-25 September 2026)

1. General remarks by the SCRS Chair and the Executive Secretary

The Chair of the Standing Committee on Research and Statistics (SCRS), Dr Craig Brown (The Chair), and the Executive Secretary (Mr Camille Jean Pierre Manel) opened the meeting and welcomed participants attending the meeting.

General remarks by the SCRS Chair, Dr Craig Brown

The Chair expressed appreciation for the extensive work accomplished throughout the year by the SCRS and its Species Groups, with support from the Secretariat, including stock assessments for shortfin mako, South Atlantic swordfish, Mediterranean swordfish and South Atlantic albacore. The Committee paid tribute to Mr Papa Kebe, expressing its profound gratitude for his many contributions and years of service to the Secretariat and the wider ICCAT community, and extended its sincere condolences to his family.

The Chair highlighted progress in management strategy evaluation (MSE), including developments for South Atlantic albacore, North and South Atlantic blue sharks and tropical tunas, a status check for bluefin tuna, and the completion of work on a new North Atlantic albacore MSE. This included testing candidate management procedures (CMPs) that the Albacore Species Group proposed submitting to the Commission for consideration in November 2026. He also introduced a new application developed by the Secretariat to track Commission requests and update their status, following a resolution adopted at the 2025 Commission meeting, which was expected to facilitate the handling of recurring annual requests.

The Chair emphasized the Committee's responsibility to provide scientifically sound advice for ICCAT management and the importance of maintaining scientific integrity and communicating findings clearly in the Annual Report. Reflecting on his four-year tenure, which would end in December 2026, he thanked the Secretariat, Vice-Chair and SCRS Officers for their support and noted that the election of the next SCRS Chair would take place during the meeting.

The Chair stressed the need to use limited plenary time efficiently and expressed confidence in the Committee's ability to finalize the Annual Report. The meeting would follow the established report structure and timetable, with Groups presenting within assigned time blocks. Lengthy debates and drafting disagreements would be referred to informal groups, and documents requiring extensive revisions would be revisited later in Plenary. The Committee agreed to proceed to the agenda and meeting arrangements, aiming to complete the initial items before the first break, and noted that further discussion might be needed on how Species Group recommendations should be preserved and reflected in the report.

General remarks by the ICCAT Executive Secretary, Mr Camille Jean Pierre Manel

The Executive Secretary, Mr Camille Jean Pierre Manel, addressed the meeting and congratulated all the scientists who have worked closely with the Secretariat, as well as to all the staff, for their remarkable commitment throughout the intersession.

He paid tribute to those who contributed to the progress of ICCAT science and who recently passed away, including the late Papa Kebe, an ICCAT Secretariat staff member from 1985 to 2009. He noted that Papa Kebe pioneered the statistical databases and contributed significantly to ICCAT science.

The Executive Secretary also commended the SCRS Chair for his leadership and collaboration with the Secretariat during his two consecutive mandates, which end this year.

Finally, the Executive Secretary renewed the Secretariat's engagement and availability to continue improving its contribution to the work of the SCRS.

2. Adoption of Agenda and arrangements for the meeting

The Agenda was approved with a few changes and is provided in **Appendix 1**. Full assessments were carried out this year on North Atlantic shortfin mako (SMA), South Atlantic and Mediterranean swordfish (SWO), and South Atlantic albacore tuna (ALB). Additionally, intersessional meetings were held for the Subcommittee on Statistics, the Subcommittee on Ecosystems and Bycatch (SC-ECO), the Working Group on Stock Assessment Methods (WGSAM), the Tropical Tunas and the Bluefin Tuna Species Groups, and the Ad hoc working Group on Coordination of Tagging Information. Additionally, there was a meeting of the Standing Working Group on Dialogue between Fisheries Scientists and Managers (SWGSM), as several Commission Panel intersessional meetings that covered specifically MSE related matters (Panels 1, 2 and 4).

The following scientists served as rapporteurs of the various species sections (agenda item 9) of the 2026 SCRS Report.

YFT -	Yellowfin tuna	M. Lauretta
BET -	Bigeye tuna	S. Wright, M. Lauretta, R. Sant'Ana, D. Angueko
SKJ -	Skipjack tuna	D. Angueko (East), R. Sant'Ana (West)
ALB –	Albacore	H. Arrizabalaga (North Atlantic), B. Mourato (South Atlantic), J. Ortiz de Urbina (Med)
BFT -	Bluefin tuna general	C. Brown (Coord.), J. Walter (West), T. Rouyer (East)
BIL -	Billfishes	K. Ramírez
SWO -	Swordfish	K. Gillespie (Coord. and North), L. G. Cardoso (South), G. Tserpes (Med)
SMT -	Small tunas	C. N'Guessan
SMA -	Shortfin mako	R. Forselledo
BSH -	Blue shark	R. Forselledo
POR -	Porbeagle	R. Forselledo
SBF -	Southern bluefin	
WGSAM		F. Zhang

The following served as Co-convenors:

Ecosystems and bycatch	A. Domingo and E. Andonegi
Statistics	P. Lino

The Secretariat served as rapporteur for all Agenda items.

3. Introduction of Contracting Party delegations

The Executive Secretary introduced the 37 Contracting Parties present at the 2026 meeting both online and in person: Algeria, Angola, Belize, Brazil, Canada, China (P.R.), Costa Rica, Côte d'Ivoire, Curaçao, Egypt, El Salvador, European Union (EU), Gabon, The Gambia, Ghana, Guatemala, Guinea (Rep.), Japan, Korea (Rep.), Mauritania, Mexico, Morocco, Namibia, Nicaragua, Norway, Panama, Russian Federation, São Tomé e Príncipe, Senegal, Sierra Leone, South Africa, Tunisia, Türkiye, United Kingdom, United States, Uruguay, and Venezuela. The List of Participants at the Species Groups Meetings and the Plenary Sessions is attached as **Appendix 2**.

4. Introduction and admission of observers

Representatives from one Cooperating non-Contracting Parties, Entities, or Fishing Entities (Chinese Taipei), three inter-governmental organizations (ATLAFCO/COMHAFAT, International Whaling Commission (IWC) and Sargasso Sea Commission) and 16 non-governmental organizations (ANATÚN, Birdlife International (BI), *Centre d'Observation Méditerranéen du Thon Rouge* (COMTR), German Foundation for Marine Conservation (DSM) (*Deutsche Stiftung Meeresschutz*), Europêche, Fishery Improvement Plan (FIP), Global Fishing Watch, International Seafood Sustainability Foundation (ISSF), International Whaling Commission (IWC), Marine Stewardship Council (MSC), Pew Charitable Trusts (PEW), PRO WILDLIFE, The Billfish Foundation (TBF), The Ocean Foundation, Shark Project, The Shark Trust, and Worldwide Fund for Nature (WWF) were admitted as observers and welcomed to the 2026 SCRS Meeting (see **Appendix 2**).

5. Admission of scientific documents and presentations

As of 19 September 2026, a total of 216 scientific papers and 111 scientific presentations had been submitted at the different SCRS meetings. The List of SCRS Papers and Presentations is attached as **Appendix 3**.

Besides the scientific documents and presentations, there are 12 reports of intersessional meetings, two reports of two Subcommittee meetings and one report of one Working Group meeting, as well as various documents by the Secretariat.

6. Report of ICCAT Secretariat activities on statistics and science

The Secretariat summarized its activities, data reported, publications, website updates, and other information contained in the 2026 Secretariat Report on Research and Statistics related to fisheries and biological data submitted for 2025, which included revisions to historical data. The report covers the Secretariat activities from 3 September 2025 to 31 August 2026. The SCRS Reporting Period for data and formal updates covers the period from 1 October 2025 to 31 August 2026.

During this period, the Secretariat managed extensive data, information technology (IT), and meeting support, addressing persistent issues with data quality and Task 2 gaps while advancing Integrated Online Management System (IOMS) integration, publishing major outputs, and supporting 40 meetings and 75 research contracts. Progress included the development of new modules, IT upgrades, and international collaborations, although modernization delays and workload pressures persisted.

The Secretariat also presented the JCAP-3 funded activities and emphasized the importance of capacity building within the ICCAT community. The Fisheries Agency of Japan confirmed its intention to continue funding the programme in 2027.

Discussions

The Committee discussed the first year of mandatory submission of standard statistical and tagging official ICCAT forms through the Form Manager of the IOMS. The Secretariat's report described improvements in communication, submission management, and data quality, while identifying remaining technical challenges and gaps in reporting completeness, particularly for Task 2 data.

Several CPCs indicated that statistical information submitted by email within the established deadline (including the 48h tolerance period) was recorded as late in the reporting tables. The Secretariat clarified that 2026 was the first year in which the IOMS Form Manager served as the exclusive channel for submitting statistical information and that the tables reflected submission dates recorded through the Form Manager. Some CPCs had initially submitted their statistical information by email within the established deadline and, following notification by the Secretariat, subsequently resubmitted it through the IOMS Form Manager. The Secretariat indicated that these circumstances would be noted as a clarification on the information to be provided to the Commission on the status of statistical reporting.

The Committee emphasized the need to distinguish submission timeliness from data completeness and usability. Suggested improvements included reducing duplicate reporting, strengthening reminder emails and automated notifications, and improving integration between data submission and compliance monitoring. The Committee acknowledged that some reporting elements remained necessary for compliance verification pending further integration of the relevant modules.

Questions were raised regarding reporting obligations when a Flag CPC had no fishing activity during the reporting year. The Secretariat clarified that the absence of fishing activity should be explicitly reported in the relevant form. For ST02, CPCs may submit the form without catch data and indicate in the notes that no fishing activity occurred during the reporting year.

The Committee discussed how the Secretariat could help identify data gaps and provide clearer assessments of complete reporting. In response to comments from the Committee, the Secretariat indicated that it would seek to present graphical summaries of dataset completeness, including comparisons of Task 2 data coverage with Task 1 nominal catches. The Committee also considered the value of broader summaries of trends in catches, effort, and fishing capacity, while noting that information on recent trends had deliberately been removed from the Species Executive Summaries. The Secretariat indicated that it would endeavor to expand the graphics already provided.

Further technical consideration was needed to improve completeness metrics, clarify reporting obligations, and better align reporting tools with compliance monitoring and scientific data management. The Committee encouraged continued discussion outside Plenary to develop concrete proposals for consideration later in the meeting or inclusion in future work.

7. Review of national fisheries and research programmes

The Annual Reports made available electronically included the information as submitted by CPCs which could be reviewed and validated by the Secretariat by 15 September 2026. Further updates may be required for the Commission, as some information may be pending validation or correction.

As of the deadline of 15 September 2026, a total of 41 Annual Reports from the Contracting Parties, and non-Contracting Cooperating Parties, Entities and Fishing Entities have been submitted. As of 23 September 2026, the Secretariat has received 47 Annual Reports, therefore 12 are still missing.

8. Reports of Intersessional SCRS meetings

In 2023, the Committee agreed that the individual Intersessional Meeting summaries (previously contained within section 8 of the SCRS Report) should no longer be included in the annual SCRS Report. Any specific notes about any particular Intersessional Meeting made by the Committee, would be included below this section and a footnote added to the table below.

This table shows all Detailed Reports of the Intersessional meetings held in 2026 (including links). These Reports have been posted in the ICCAT Col. Vol. Sci. Pap., Vol. 83 and in the ICCAT meetings webpage.

Item No.	*Detailed Report*
8.1	Ad Hoc Working Group on Coordination of Tagging Information
8.2	Intersessional Meeting of the Subcommittee on Statistics
8.3	First Intersessional Meeting of the Bluefin Tuna Species Group
8.4	Swordfish Data Preparatory Meeting
8.5	Albacore Data Preparatory Meeting
8.6	Intersessional Meeting of the Tropical Tunas Species Group (including MSE)
8.7	Meeting of the Standing Working Group on Dialogue between Fisheries Scientists and Managers (SWGSM)*
8.8	Meeting of the Subcommittee on Ecosystems and Bycatch
8.9	Meeting of the Working Group on Stock Assessment Meeting (WGSAM)
8.10	North Atlantic Shortfin Mako Stock Assessment Meeting (including BSH MSE)
8.11	Albacore Stock Assessment Meeting
8.12	Second Intersessional Meeting of the Bluefin Tuna Species Group
8.13	Swordfish Stock Assessment Meeting

* This report will be published during 2026 in the ICCAT Biennial Report (Period 2026-2027, Part I).

Bluefin tuna Species Group Intersessional meetings

The Committee thanked the Bluefin Tuna Species Group for its work, while expressing concern about the workload of Group members. The bluefin tuna Rapporteurs explained that, although MSE had been expected to reduce the annual workload, this reduction had not yet materialized.

The Committee discussed the "status check," noting that estimated fishing mortality appeared to be below $F_{0.1}$, but that evaluating biomass status relative to the objectives of the management procedure (PGK) remained difficult because biomass-related reference points cannot be estimated reliably. The discussion highlighted stock mixing, uncertainty in historical catches in the Mediterranean (inflated period, 1998-2007), and other data limitations that constrain biomass-based evaluations for both eastern and western bluefin tuna. The rapporteurs indicated that addressing these issues would require, consideration of alternative modelling approaches and independent biomass information. The Committee also noted recent indications of declines in eastern area indices and emphasized that their implications will be examined during the scheduled MP review and associated intersessional work.

Albacore Species Group Intersessional Meeting

For Mediterranean albacore, the Committee acknowledged the Group's efforts but expressed concern about the continuing difficulty of obtaining a conclusive stock assessment. It asked whether planned research and analytical developments offered a clear route towards resolving the principal uncertainties. The Rapporteur indicated that alternative approaches were being explored, although substantial constraints remained. The Committee supported continued efforts to improve the information base, including the recovery of historical data and broader geographical coverage across the Mediterranean.

The Committee also discussed whether the Mediterranean Albacore Executive Summary adequately conveyed the near-term management implications, particularly given the approaching expiry of the existing measure. It recognized the value of clearer management advice while emphasizing that the timing of a future assessment should depend on resolving data and analytical limitations. No new stock-status conclusion or major change to the scientific advice was agreed during this discussion.

Swordfish Species Group Intersessional meetings

The Swordfish Species Group presented the 2026 assessments and management advice for Mediterranean and South Atlantic swordfish (Anon., 2026l).

Mediterranean Swordfish

The Committee reviewed the new Mediterranean swordfish assessment, which indicated a high probability that the stock remained overfished and a substantial probability that overfishing was occurring. It noted that changes from the previous assessment reflected updated catch, length composition, and abundance index data, together with the transition from a biomass-dynamic model to an age-structured framework. The Committee discussed uncertainties associated with unreported discards, possible changes in stock productivity, and limited data coverage, particularly outside the central and western Mediterranean. It was noted that the Species Group was aware of these data limitations.

The Committee considered the biomass trajectory since adoption of the rebuilding plan and requested a clearer explanation of stock status and projected recovery in relation to the plan's objectives and target year. It discussed whether the projections indicated that the rebuilding objective could be achieved before the target year and emphasized that the outlook should explain the implications of current catch or Total Allowable Catch (TAC) levels for rebuilding. Although views differed on the extent of narrative interpretation needed alongside the Kobe matrix, the Committee noted the importance of explicitly reporting progress against the rebuilding plan.

South Atlantic Swordfish

The Committee reviewed the new South Atlantic swordfish assessment (Anon., 2026l), which estimated the stock to be in the green quadrant of the Kobe plot, in contrast to the previous assessment. It noted that this change reflected updated catch, length composition, and abundance index data, revised biological information from the Swordfish Year Programme (SWOYP) and other studies, and the transition to an age-structured framework with updated natural mortality assumptions. In response to questions about whether the revised growth curve reflected biological changes or improved information, it was clarified that the curve was based on sampling that was more representative of the stock's distribution.

The Committee discussed limitations of the projections, including incomplete accounting for unreported dead discards, post-release mortality, and some management arrangements.

The Committee questioned whether references to quota carryovers and possible transfers between the North and South Atlantic were sufficiently clear and supported by the analyses and applicable management provisions. Clarification was sought from the Secretariat, and the relevant wording was left open pending further checking and drafting. The Committee also considered strengthening the text encouraging continued submission of information on trapline gear.

Meeting of the Working Group on Stock Assessment Meeting (WGSAM)

The Committee received the report of the Working Group on Stock Assessment Methods (WGSAM), covering the proposed review framework for bycatch and discard estimation methodologies, development of the BYET, coordination and capacity building in management strategy evaluation (MSE), and updates to the stock assessment software catalogue. The presentation also outlined recommendations and the proposed 2027 workplan, including further methodological development and technical training workshops.

The Committee discussed the proposed checklist for reviewing bycatch and discard estimation methodologies, emphasizing that suitability depends on the available data and the characteristics of the species and fishery. The Committee proposed incorporating fishery characteristics more explicitly and highlighted the need for diagnostics and validation, particularly for datasets containing large numbers of zero observations. While a list of previously approved methodologies could be useful, approval would not establish that a method was appropriate or correctly applied to another dataset or fleet.

Review should therefore be a joint effort:

- WGSAM would evaluate statistical methodology;
- Species Groups would assess the data and make the final decision on the estimates, and both would contribute to reviewing diagnostics and validation.

The Committee emphasized that methodological review should provide constructive feedback and opportunities for revision. The WGSAM Chair clarified that the process was intended to identify necessary methodological improvements rather than reject papers, and that Species Groups could determine whether referral to WGSAM was needed. The draft checklist would continue to be tested by Species Groups and refined jointly with WGSAM, drawing on experience from its application and feedback from CPC scientists.

The Committee supported technical capacity building for scientists and managers, including assistance in interpreting MSE results and communicating their implications to management bodies. It emphasized the importance of experienced instructors and sought clarification on the number of places available in the planned MSE workshop. It also supported retaining intermediate-level MSE workshops for future consideration. WGSAM's role in MSE would focus on cross-cutting technical issues, novel approaches and best-practice recommendations, rather than routinely reviewing every ICCAT MSE. Stronger participation and coordination across Species Groups were encouraged.

The Committee reviewed plans to evaluate the outcomes of the 2026 Bycatch estimation tool (BYET) and advanced technical MSE workshops, incorporate additional model-based estimators into the BYET Shiny application, and conduct further BYET and advanced technical MSE training in 2027. It also noted proposals for intermediate-level MSE workshops in subsequent years and further consideration of a workshop on non-stationary population dynamics under climate change. Species Groups were encouraged to use the online reporting dashboards to identify gaps in bycatch and other scientific data ahead of assessments and prioritize training and support for the CPCs concerned.

North Atlantic Shortfin Mako Stock Assessment Meeting (including BSH MSE)

The Committee discussed whether uncertainties concerning age at maturity, other life-history parameters, and catch information were sufficiently reflected in the Executive Summary. It noted that alternative biological assumptions had been explored through multiple scenarios and modelling platforms, with selected configurations retained for advice on the basis of diagnostic performance.

9. Report of the Meeting of the Subcommittee on Ecosystems and Bycatch

The Co-convenors of the Subcommittee on Ecosystems and Bycatch summarized the key activities of the Subcommittee in the last year as well as its workplan, and its recommendations.

Pertaining to Ecosystems

The Committee received a presentation on the ecosystem component of the Subcommittee on Ecosystems and Bycatch, covering EcoCard indicators, candidate ecoregions, ecosystem modelling, climate-related effects on stocks and management procedures (MPs), as well as the ecological implications of mesopelagic fisheries.

The Committee emphasized the growing importance of climate-related analyses and the need for a clearer roadmap to coordinate this work across species and ecosystems. It also asked how requests for socioeconomic analyses could be addressed. The Co-convenors explained that available information was largely limited to broad World Bank datasets and that further analyses would depend on access to suitable, standardized, and comparable data.

The Committee asked how the Subcommittee on Ecosystems and Bycatch would address scientific work related to the Agreement on Biodiversity Beyond National Jurisdiction (BBNJ). The Co-convenors noted that they were monitoring developments and considering potential scientific demands, but that no specific work had yet been requested in this regard.

Pertaining to Bycatch

The presentation on the bycatch component covered progress in assessing fisheries impacts on marine megafauna, evaluating mitigation measures and gear modifications, developing bycatch estimation tools, as well as improving data collection and reporting. It also outlined the proposed bycatch research and data collection programme, collaboration with other tuna RFMOs, electronic monitoring, and the Subcommittee's workplan and recommendations.

The Committee discussed how the bycatch work should connect to broader fisheries management, especially whether management objectives for target species should explicitly take account of associated bycatch species caught in the same fisheries. The Committee noted concern that progress on target stocks has outpaced progress on some bycatch species and discussed whether more integrated objectives could help address conservation and rebuilding needs. The Committee also discussed whether this issue had already been sufficiently considered within the Subcommittee's work and whether it was appropriate to raise it at this stage without prior technical analysis or a clearer mandate. The Committee further discussed observer coverage and the need for adequate data to support robust bycatch analysis and advice.

The Committee did not reach agreement on whether integrated management objectives linking target and bycatch species should be advanced immediately through this Subcommittee's work or whether the matter should first be clarified further, including in light of existing Commission guidance and the roles of other Species Groups and MSE processes. The Committee also left open how far such integration should extend across multiple bycatch species within a fishery.

The Committee decided in practice to move the matter out of the immediate bycatch discussion and continue work through further drafting and intersessional coordination among the relevant SCRS Species Groups. The Committee indicated that any possible recommendation or workplan language should be developed further outside the floor discussion and revisited later if agreement could be reached.

The Report of the 2026 Meeting of the Subcommittee on Ecosystems and Bycatch is provided here.

10. Report of the Meetings of the Subcommittee on Statistics

The Subcommittee on Statistics presented an overview of statistical reporting, updated derived datasets, and persistent data deficiencies, highlighting gaps in catch-and-effort information and the need to improve reporting resolution and consistency. The presentation also summarized agreed revisions to reporting forms, progress with the IOMS and data-access tools, proposals concerning Mediterranean sampling areas, and outcomes of intersessional work on data standards, protection, and reporting gaps.

The Subcommittee on Statistics discussed major shortcomings in statistical reporting, with particular emphasis on persistent gaps in size data and other required datasets, and stressed the implications of those gaps for stock assessment and related scientific work. The Committee agreed that any recommendation to the Commission should reflect important data gaps across multiple stocks and fisheries rather than single out only one fishery.

The Committee confirmed a number of practical arrangements related to statistical reporting, including the distinction between required and optional form fields and the continued use of IOMS as the sole reporting platform. It acknowledged difficulties encountered during the first full reporting cycle under IOMS and emphasized the need for timely feedback to the Secretariat and for regular review and updating of statistical correspondents.

The Committee discussed the trapline reporting form (ST13), noting that the form was already operational on a voluntary basis and that current work concerned improvements based on experience with its use. It agreed that the ad hoc group should complete its work in time for consideration at the next Commission meeting, with the objective of making an updated version available with the statistical forms for the 2027 reporting year.

The Committee also addressed the proposed Mediterranean sampling areas. Rather than making a final decision, it noted that the Secretariat would continue to analyze the implications of using FAO/GFCM spatial definitions instead of the proposed ICCAT split, including the extent of any loss of historical data compatibility.

The Committee discussed the treatment of carryover estimates and other estimated values used in scientific work. A proposal to limit such estimates to data preparatory use and exclude them from final annual statistical tables was discussed, but the text was not finalized and required further clarification before adoption.

In considering the response on alternative data-collection approaches for smaller vessels where observers cannot be deployed, the Committee clarified that this issue should be kept separate from work on discard estimation methodologies. It agreed that references to discard methodology should be removed from that specific response, while the methodology itself would be reflected elsewhere in the Committee's work.

The Report of the 2026 Meeting of the Subcommittee on Statistics is provided here.

11. Discussions at the Intersessional Meetings of the Commission relevant to the SCRS

11.1 Intersessional Meetings of Panel 1

The First intersessional of the Panel 1 meeting was held online on 30 March 2026, to discuss the progress and future works related to the Tropical Tunas Multi-Stock Management Strategy Evaluation (MSE) and the development of the scientific components of an Exceptional Circumstances Protocol (ECP) for the western skipjack.

For western skipjack, progress was presented on the development of an ECP, outlining key principles and indicators that could trigger management review or alternative actions outside the adopted Management Procedure (MP). Feedback from the Panel highlighted the need to define monitoring strategies, data requirements, and operational procedures, ensuring the protocol remains flexible and practical. A request was made for the SCRS to explicitly evaluate the potential inclusion of climate-related impacts within the ECP principles and evaluation process. The SCRS Chair acknowledged the technical complexity of developing ECPs and noted that discussions would continue during future intersessional work.

Regarding Multi-Stock MSE-bigeye, yellowfin, and eastern skipjack—updates were detailed on operating models (OMs) and Candidate Management Procedures (CMPs), including model-based, indicator-based, and quasi-constant catch approaches. The framework evaluates trade-offs between stock status, catch stability, and management responsiveness under various productivity scenarios. Discussions clarified that although simulations account for species and fishery interactions, management will continue to operate with separate Total Allocated Catches (TACs) for each stock. The SCRS Chair explained that the MSE framework incorporates choke stock considerations during evaluation within the MSE while continuing to produce stock-specific management advice.

The Panel provided specific comments and requests regarding testing scenarios, management parameters, and operational communication:

- **Management Objectives & Risk Levels:** The SCRS was asked to evaluate probabilities of maintaining stocks in the Kobe green quadrant beyond the standard 50% threshold to include 55%, 60%, and 65%. The Panel also requested evaluating $0.4B_{MSY}$ as a Limit Reference Point (LRP), an additional 10% risk level within safety objectives, scenarios allowing TACs up to 110–120% of MSY under specific stock conditions, and modified harvest control rules (HCRs) permitting limited TAC increases when biomass exceeds B_{MSY}.
- **Stability Provisions & Gear Allocations:** The SCRS was requested to test alternative TAC variation limits (10%, 15%, and 20%) and to explore allocation scenarios among fishing gears within the MSE to better address selectivity issues affecting juvenile bigeye and yellowfin.
- **Robustness & Fleet Dynamics:** Technical requests were raised regarding catch per unit effort (CPUE) index selection and the development of robustness tests to evaluate the impacts of spatio-temporal fish aggregating devices (FAD) closures on fleet catchability and stock dynamics.
- **Communication and Accessibility:** Concerns were expressed regarding the high technical complexity and mathematical formulation of MSE documents. The SCRS was requested to present future MSE outputs in a more accessible format, explicitly translating technical results into practical management implications to facilitate decision-making within the Panel.

The SCRS technical team noted that while they will evaluate as many requested parameter combinations and robustness scenarios as feasible before the Second Intersessional Meeting of Panel 1 (5-7 May 2026), computational constraints may prevent fully testing every combination within the available timeframe.

The Second Intersessional Meeting of Panel 1 focused primarily on discussions surrounding a new tropical tuna management measure.

Multi-Stock MSE Technical Updates & Roadmap Revisions: The SCRS Chair presented an update on the tropical tunas multi-stock MSE, informing the Panel of significant technical difficulties encountered during testing. Specifically, Candidate Management Procudures (CMPs) produced unexpected model behaviors, leading the Tropical Tunas Species Group to recommend reconditioning the Operating Models (OMs) to the 2025 Atlantic Bigeye Tuna Stock Assessment (Anon., 2025) rather than the 2021 Bigeye Tuna Stock Assessment (Anon., 2021). The SCRS Chair noted that incorporating these updated trends and revised natural mortality assumptions would require substantially more time, necessitating proposed changes to the adopted MSE Roadmap that will be considered by the full SCRS in September 2026 and by the Commission in November 2026. The SCRS Chair was asked to prepare a technical paper outlining the impacts of these proposed MSE adjustments, including cost implications.

During discussions on setting a yellowfin tuna TAC, the SCRS Chair provided critical scientific clarifications regarding stock projections and management probabilities:

- **TAC Projections & Kobe Green Zone Probabilities:** Responding to Panel queries on catch overruns, the SCRS Chair clarified that recent actual catches (averaging approximately 141,000 t) exceed the adopted 110,000 t TAC, which logically reduces the probability of achieving management objectives. In response to a request from the Panel, the SCRS Chair presented a refined probability table (based on existing 2024 stock assessment projections) showing that a TAC of 125,000 t corresponds to a 55% probability, and a TAC of 129,000 t corresponds to approximately a 50% probability, of maintaining the stock in the Kobe green zone by 2034. The SCRS Chair stressed that these intermediate figures have not been reviewed or endorsed by the SCRS and rest on specific assumptions embedded in the 2024 projections.
- **Impact of Juvenile Catches on MSY:** A request was raised for the SCRS to examine the effect of reducing juvenile yellowfin catches across all gear types on maximum sustainable yield (MSY) at percentage reductions of 5%, 10%, 15%, and 20%.
- **FAD Closures & Selectivity Dynamics:** When queried on the possible impacts of shortened FAD closure periods, the SCRS Chair presented relevant scientific context, noting that existing measures have not been sufficient to keep catch levels at the adopted TAC. The SCRS Chair explained the difficulty in isolating FAD closure impacts but stated that any change in size selectivity would feed directly into stock productivity projections.

Capacity Reporting and Fleet Parameters: The Panel evaluated submitted fishing and capacity management plans, noting structural inconsistencies in how vessel capacity tables were being completed across delegations. To address this, the Panel agreed to request that the SCRS calculate best catch rate estimates for tropical tunas to assist in revising and standardizing the capacity reporting format.

11.2 Intersessional Meeting of Panel 2

Bluefin Tuna Management Strategy Evaluation (BFT MSE)

The SCRS Chair presented an update on the MSE roadmap and work plan for Atlantic bluefin tuna, which call for the SCRS's focus in 2026 to include conducting a stock status assessment ("status check"), integrating recent scientific findings (such as Close-Kin Mark-Recapture (CKMR), acoustic tagging data, and larval surveys), reconditioning Operating Models (OMs), and reviewing Candidate Management Procedures (CMPs). The SCRS Chair emphasized that newly available data on mixing, movement, and stock abundance indicate that original MSE assumptions need refinement to optimize management procedure (MP) performance.

Panel 2 held extensive discussions on these plans, with several CPCs emphasizing the need for stability, a step-by-step approach, and maintaining manager oversight of the MSE process. Panel 2 members requested the SCRS to:

- Assess the impact of adopting a Total Allowable Catch (TAC) 20% higher than the level recommended by the current MP.

- Evaluate the impact of uncounted recreational catches on stock management and determine the potential occurrence of exceptional circumstances.

- Utilize the latest mixing and movement data to assess bluefin tuna distribution across the Atlantic to inform advice on sustainable yields based on total biomass availability per management area.

- Consider the feasibility of incorporating genetics-based information (such as CKMR) into the MSE framework, and assist the Commission in understanding the underlying concepts, pros, and cons to build confidence in scientific outputs.

North Atlantic Albacore (ALB-N) MSE

The SCRS Chair provided an update on the development of a new MSE framework for North Atlantic albacore, updated with data from the 2023 albacore stock assessment (Anon., 2023) and exploring both model-based and empirical candidate MPs. Panel 2 members requested the SCRS to continue reviewing and testing the current MP alongside alternative CMPs, presenting recommendations that could include maintaining the current MP, proposing amendments, or adopting a new MP.

When evaluating potential amendments or new CMPs, Panel 2 members asked the SCRS to explore:

- Safety limit options (e.g., 5–15% maximum probability of breaching B_{LIM}) and smaller interannual stability limits (e.g., +/- 10-15%).

- Excluding Harvest Control Rules (HCRs) in model-based CMPs with biomass thresholds below B_{MSY}.

- Testing MP robustness against climate change impacts and full TAC utilization scenarios.

- Limiting the recommended CMP options (presenting no more than six for empirical types) for review at a planned one-day online intersessional meeting.

Monitoring, growth ratios, and Commission requests

Panel 2 reviewed recommendations from the SCRS regarding bluefin tuna growth rates and farm monitoring. The SCRS reaffirmed that an upper 75% confidence interval (87.5th percentile) serves as an appropriate compliance benchmark for growth rates, and recommended advancing toward stereoscopic cameras and artificial intelligence (AI) video analysis for automated size measurements during initial transfers. Additionally, Panel 2 reviewed and endorsed streamlined Commission requests directed to the SCRS to optimize the scientific Committee's workload.

11.3 Intersessional Meeting of Panel 4

The intersessional of the Panel 4 meeting was held online between 7-8 July 2026, included updates and discussions related to the current status of the experimental use of traplines, North swordfish Management Procedure and Atlantic blue shark Management Strategy Evaluation, as well as of future related works.

The SCRS Chair presented document (PA4-11) summarizing early results from the experimental use of traplines for SWO and highlighted the possible implications of trapline use for scientific advice, notably potential biases in catch rates, selectivity and species composition. CPCs will continue data collection until 2028, with annual review of new results, to support a formal SCRS response to the Commission in 2028, as foreseen in Rec. 25-09.

The SCRS Chair presented a document (PA4-12) describing the additional robustness testing requested by the Commission (Rec. 24-10 and Rec. 25-10) for the adopted North Atlantic swordfish management procedure (MP), which covered climate change effects and minimum size limits.

Following the presentation, Panel 4 provided feedback, in particular on the minimum size limit (MSL) questions raised by the SCRS:

- On the simulated impacts of eliminating the MSL: this will be the first priority, as it is the most straightforward analysis.

- On the impacts of adjusting the MSL: the SWO Species Group will be consulted regarding the potential to evaluate a range of alternative MSLs.

- On whether the adopted MP is robust to the elimination or adjustment of the MSL: yes, this evaluation should be undertaken.

- On whether the analyses should assume changing fleet behaviour (i.e. a change in size selectivity such that fleets no longer avoid small fish): yes; the SCRS will need to consider how that new size selectivity is determined.

- On other alternative scenarios: none were identified.

- On the metric for success (e.g. higher MSY, reduced juvenile mortality, higher reproductive output): the SWO Species Group will be consulted, but these can likely simply be reported for the MSL-elimination approach; for use as criteria to determine the best alternative MSL, no prioritization was provided.

Additional feedback from Panel 4:

- The SCRS was requested to evaluate the impact of trapline use on the North Atlantic swordfish MP.

- The climate change robustness testing was discussed, with no request to modify the planned approach.

- The results will be considered by the ICCAT Swordfish Species Group in July and September 2026.

The SCRS Vice-chair presented a progress report to Panel 4 on the development of the Atlantic blue shark (BSH) MSE, including the response to the concern raised by the Commission in 2025 on the potential blue shark– shortfin mako shark (SMA) interaction, and the immediate priorities.

Following the presentation, Panel 4 provided feedback and raised points for further consideration by the SCRS. The main issues discussed were:

- Parallel development of the two BSH MSEs - the SCRS shall discuss how the North and South Atlantic BSH MSEs will be developed in parallel, and its possible implications for the overall timeline.

- Potential differences in the BSH–SMA relationship between the North and South Atlantic - the SCRS indicated that a similar analysis is planned for the North Atlantic.

- Consideration of the bycatch mortality of other species within the BSH MSE - the SCRS shall discuss, and provide feedback on, whether and how a BSH management procedure could potentially affect the bycatch of other species (e.g., SMA).

11.4 Meeting of the Electronic Monitoring Systems Working Group (EMS WG)

The Meeting of the Working Group on Electronic Monitoring Systems (EMS WG) was held on 1 June 2026, and included discussions on the use of EMS in small-scale fisheries and on the coordination with the SCRS and the Subcommittee on Statistics (SC-STATS) Technical Subgroup on Electronic Monitoring (EM).

The SCRS had previously identified developing scientific advice for EMS on smaller vessels and additional gears as the next step. This was discussed at the Meeting of the EMS WG in June for anticipated inclusion in potential recommendation(s) for consideration at the 2026 ICCAT Annual Meeting. To prepare for this, the SC-STATS Technical Subgroup on EM held an online meeting on 3 September 2026 to evaluate the state of current knowledge within the SCRS and develop an initial plan.

The Technical Subgroup on EM presented its report at the 2026 Meeting of SC-STATS, where the Subcommittee was also informed of relevant Commission requests to be considered at the 2026 Annual Meeting of ICCAT.

11.5 19th Meeting of the Working Group on Integrated Monitoring Measures (IMM)

The 19th intersessional meeting of the Working Group on Integrated Monitoring Measures (IMM) was held on 1-5 June 2026, but no relevant matters were discussed to the SCRS.

11.6 Meeting of the Standing Working Group on Dialogue between Fisheries Scientists and Managers (SWGSM)

The Intersessional Meeting of the Standing Working Group on Dialogue between Fisheries Scientists and Managers (SWGSM) was held online on 27 April 2026.

Revised ICCAT Plan of Action on Climate Change

The SCRS Chair provided an overview of progress in integrating climate considerations into scientific advice across various SCRS Species Groups (including tropical tunas, albacore, bluefin tuna, northern swordfish, billfish, and ecosystems/bycatch). He outlined three complementary scientific approaches: using qualitative indicators, explicitly integrating climate factors into stock assessments where feasible, and applying climate-adapted Management Strategy Evaluation (MSE) through robustness testing. A presentation by an invited expert demonstrated how climate resilience can be evaluated as a measurable attribute of Management Procedures (MPs) using pragmatic robustness tests, an approach that is already being applied for the SKJ-W and SWO-N MSEs.

Participants supported integrating climate considerations into MSEs while recognizing human resource constraints and the need to avoid overburdening scientific capacity. Discussions emphasized the importance of prioritizing research on stocks most relevant to management, challenging the stationarity assumption, and distinguishing fishing impacts from climate change impacts.

Regarding the "climate-related questions with implications for management" which the SCRS was tasked with developing in the *Revised ICCAT Plan of Action on Climate Change* (adopted by the Commission in 2024), the SCRS Chair outlined three key scientific themes: biological productivity, spatial distribution of stocks, and reconciling climate and management timescales. Associated management implications include potential resource allocation/access shifts, assessment accuracy under non-stationary parameters, MP/harvest control rule (HCR) robustness, and the utility of dynamic reference points. Delegations supported this interpretation and agreed on the need to identify a limited number of targeted, prioritized issues focused on stock assessment reliability and MP robustness. The SCRS Chair proposed establishing a work plan to progressively set these scientific priorities for Commission management purposes.

SCRS Science Strategic Plan

The SCRS Chair reviewed the status of the draft SCRS Science Strategic Plan, noting that while work was paused in 2026 due to past limitations in engagement and alignment with budget planning, relaunching the initiative remains an important objective. He indicated plans to submit a flexible proposal to the 2026 SCRS Plenary to further develop the strategic plan by directly linking research priorities to funding requirements.

Participants expressed broad support for a structured strategic plan featuring clear prioritization across short-, medium-, and long-term horizons with detailed performance indicators. However, delegations stressed that the plan must remain pragmatic, realistic, and strictly aligned with available capabilities and allocated budgets.

General outcomes

It was emphasized that the SWGSM is now the primary forum for reviewing cross-cutting issues, particularly those relating to climate change, interfacing between the Commission and the SCRS. While no formal recommendations were adopted, the meeting established common consensus on gradually increasing the integration of climate considerations into scientific advice, prioritizing key climate issues with management implications, and aligning strategic scientific goals with SCRS resources and financial capabilities.

11.7 Meetings of the Virtual Working Group on a Sustainable Financial Position for ICCAT (VWG-SF)

The First Meeting of the Virtual Working Group on a Sustainable Financial Position for ICCAT (VWG-SF) and the Second Meeting of the VWG-SF were held online on 31 March 2026 and on 15 June 2026, respectively. The most relevant discussions to the SCRS were related to the Meeting Participation Fund (MPF), specifically addressing the recent use of the MPF, division during the year and between SCRS and Commission meetings, and the estimated funding needs for 2027.

Key discussions and outcomes relevant to the SCRS include:

- **Fund allocation & scientific value:** The Group affirmed that support for scientific participation is a vital investment in ICCAT's core functioning rather than a simple administrative expense, acknowledging that much of ICCAT's scientific work relies heavily on direct contributions from CPCs. The Group recognized that the current practice of dividing MPF funds by semester functions well, and agreed that setting rigid percentage allocations between SCRS and Commission meetings is unnecessary due to annual variations in participation needs. The SCRS Chair emphasized that while informal online meetings occur regularly, in-person and hybrid meetings remain essential for progress during complex processes.

- **Participation selection & filtering procedures:** The Group held extensive discussions on replacing the current "filtering" system with a combination of objective prerequisites and transparent prioritization criteria. The SCRS Chair clarified that current evaluations assess the relevance and expected contribution of a participant's in-person attendance to specific meeting goals, rather than judging individual scientific capability. The Group agreed to develop amendments to the MPF Rules of Procedure before the 2026 Annual Meeting to transition toward clear prerequisites (e.g., eligible CPC, scientific profile, active role in delegation) and pre-established prioritization criteria (e.g., submission of scientific papers/presentations, relevant expertise, letters of motivation, or participation in working groups). It was also proposed that any required prioritization be conducted by a small panel rather than solely by the SCRS Chair or Rapporteurs - a shift welcomed by the SCRS Chair to better facilitate the inclusion of early-career scientists holding relevant roles.

- **Reimbursement rules & administration:** The Group discussed proposed rule changes to improve ticket-purchasing efficiency and prevent steep price increases. Members emphasized the need to clearly distinguish administrative delays from cases of *force majeure* (such as visa refusals or flight cancellations) so that CPCs are not penalized for circumstances beyond their control.

- **Funded delegates & financial scenarios:** The Group reviewed cost projections across four funding scenarios. Members expressed general consensus that Scenario 2 (prioritizing funding for a second delegate at the Annual Meeting of the Commission) represents the most feasible short-term step. Expanding support to a second delegate at the SCRS Plenary (Scenario 3) remains a desired medium-term objective for some CPCs, though constrained by current budgetary limits.

- **Long-term funding sustainability:** Recognizing that reliance on voluntary contributions and accumulated balances from the COVID period lacks stability, the Group supported a medium-term orientation toward more predictable funding through ICCAT's regular budget, complemented by voluntary contributions.

Additionally, during discussions on the Terms of Reference for the Third Performance Review of ICCAT, the Group emphasized the importance of ensuring that the review panel possesses appropriate scientific expertise in line with the work of the SCRS.

12. Executive Summaries on species

The Committee reiterated that in order to achieve a more rigorous understanding of these Executive Summaries from a scientific point of view, the previous Executive Summaries should be consulted, as well as the corresponding detailed reports which are published in the Collective Volume of Scientific Papers.

The Committee also pointed out that the texts and tables of these Summaries generally reflect the information available in ICCAT immediately prior to the SCRS plenary sessions, since they were prepared during the meetings of the Species Groups. Therefore, the catches reported to ICCAT during or after the SCRS meeting cannot be included in these Summaries.

12.1 YFT - Atlantic yellowfin tuna (Thunnus albacares)

Introduction

A stock assessment was conducted for yellowfin tuna in 2024 (Anon., 2024k), using data through 2022, applying an age structured model, Stock Synthesis. Management advice (Kobe Matrices) was developed using constant catch projections at 0 t, and 100,000 to 150,000 t. The uncertainty was characterized by using the 80% confidence intervals from 4,000 Monte Carlo iterations on the most influential fixed parameters, natural mortality (M) and steepness (*h*). A summary of the stock status is provided below (**Table 1**). The Kobe Phase Plot and uncertainty of current status estimates is summarized in **Figure 1**. **Table 2** provides estimated catches and discards by gear, for the period 2016-2025, while **Figure 2** shows the historical catch series by major gear. **Table 3** provides estimated probabilities (%) that both the fishing mortality will be below F_{MSY} and spawning stock biomass will be above SSB_{MSY} in future years under different constant catch scenarios.

Table 1. Atlantic yellowfin tuna summary table.

Indicator		***Stock Status***
Maximum Sustainable Yield (MSY)[1]	121,661 t (107,485 t - 188,456 t)[3]	2022
TAC (2025)	110,000 t	
Current (2025) Yield[2]	109,526 t	
Relative Spawning Biomass (SSB_{2022}/SSB_{MSY})[1]	1.37 (0.91-2.15)[3]	
Relative Fishing Mortality (F_{2022}/F_{MSY})[1]	0.89 (0.40-1.46)[3]	
Stock Status	Overfished: NO (19% probability of being overfished)[4] Overfishing: NO (42% probability of overfishing)[4]	
Management measures in effect	Rec. 24-01[5] TAC (2026) 110,000 t	

[1] Median of 4,000 Monte Carlo iterations of the Stock Synthesis base case.
[2] Provisional and subject to revision as of 18 September 2026.
[3] Median and 80% confidence intervals are shown.
[4] As estimated from the Kobe plot probability in each quadrant.
[5] Rec. 24-01 only entered in force in June 2025, but other previous Recommendations (Rec. 22-01 and Rec. 17-01) also applied to YFT stock.

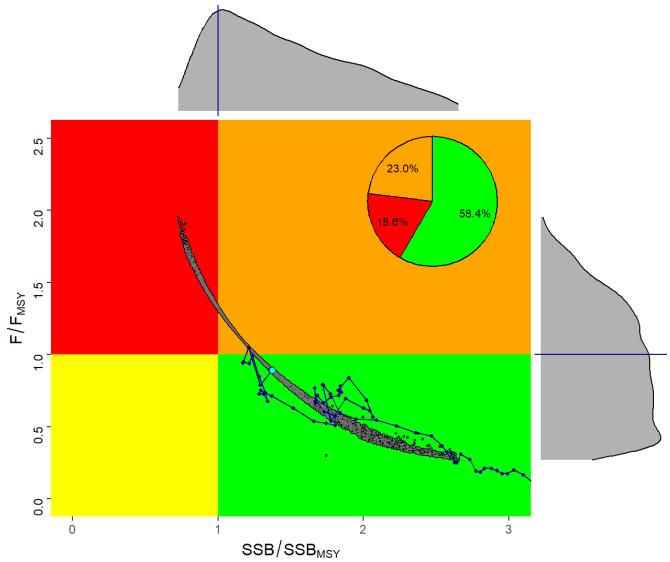


Figure 1. Kobe plot for the Atlantic yellowfin tuna stock status in 2022, estimated during the 2024 yellowfin stock assessment (Anon., 2024k). Grey dots are the 4,000 Stock Synthesis model runs; the blue circle is the median of these runs and marginal histograms represent the distribution of either SSB/SSB_{MSY} or F/F_{MSY}. The black line indicates the stock status trajectory starting in 1958. The inserted pie indicates the probability of the stock being within each Kobe colour quadrant. The probability distributions shown in each axis represent uncertainty around current B/B_{MSY} and F/F_{MSY}.

Table 2. Estimated catches and discards of Atlantic yellowfin tuna by gear, for the period 2016-2025.

				2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
TOTAL	A+M			150337	136921	135968	136284	153932	122371	149107	140515	138976	109526
Landings			Bait boat	11100	8710	8016	7676	7180	6463	8566	6514	5332	3667
			Longline	18012	16348	16301	17714	16128	13556	16797	26445	24060	19941
			Other surf.	19562	23044	19409	16815	20504	19077	24590	19541	20977	19184
			Purse seine	100133	87885	91200	93061	108958	82225	97637	86520	88224	65951
Landings(FP)			Bait boat	0	0	0	0	0	0	5	6	5	
			Purse seine	1528	867	991	992	1116	1005	1459	1458	322	733
Discards			Bait boat	0	0	0	0	0	0	0	0	0	0
			Longline	3	4	11	10	25	27	27	29	34	25
			Other surf.	0	0	0	0	0	0	0	0	0	0
			Purse seine	0	63	40	17	20	19	25	2	23	24
Landings		CP	Angola	3	3	4	1	2	8	15	5	9	5
			Barbados	324	270	248	121	173	213	202	237	188	209
			Belize	5660	6170	8743	10107	9341	8197	10118	9647	13613	11070
			Brazil	16682	18362	16381	12907	13183	13664	15716	18894	17729	14803
			Cabo Verde	6990	2837	5584	3699	6259	2043	974	329	1210	882
			Canada	19	193	15	108	75	110	198	175	160	185
			China PR	468	578	359	321	461	140	529	2444	2747	2669
			Costa Rica	139	183	114	74	117	150	54	52	115	43
			Curaçao	8012	6661	7615	7773	9081	7729	3122	1250	0	
			Côte d'Ivoire	315	952	116	2649	4460	2117	3336	2914	2637	2264
			EU-España	19625	12665	10908	14756	19618	10202	11363	11522	13665	11605
			EU-France	26488	26178	25069	18609	17089	13262	17240	14043	15959	9189
			EU-Italy	0	0	0	0	0	0	0	0	0	
			EU-Portugal	127	137	638	256	129	22	134	479	1423	654
			El Salvador	8573	6228	5496	3893	8813	6135	6239	4176	7027	3929
			Gabon	1	3	0	0	0	0	0	0	0	
			Gambia	0	0	0	0	1	0	0	0	0	
			Ghana	20218	20398	24346	26243	26435	21264	29550	22159	25452	22437
			Great Britain	0	0	0	0	0	0	0	0	0	
			Grenada	1607	1257	1391	818	784	369	1036	2208	1163	1407
			Guatemala	2720	3718	2539	2957	2594	1856	4237	2550	0	
			Guinea Ecuatorial	6	0	8	10	8	7	4	1	4	3
			Guinée Rep	0	0	0	0	0	322	1327	913	378	575
			Japan	3376	3123	3093	4050	2656	3065	4192	5865	5654	3954
			Korea Rep	368	411	455	507	579	373	481	732	555	339
			Liberia	76	88	2	6	1731	1740	3	5	2	8
			Maroc	115	113	108	228	344	493	640	845	969	1780
			Mauritania	0	0	0	0	0	0	0	0	0	
			Mexico	1279	1241	1028	760	817	880	606	590	481	414
			Namibia	53	53	424	82	327	256	356	156	98	124
			Nigeria	0	0	0	0	0	0	0	0	0	39
			Panama	6168	6694	6175	8245	10376	9650	11960	8555	1422	1969
			S Tomé e Príncipe	301	266	14	17	13	15	24	24	90	76
			Senegal	6850	3988	5060	8195	8177	8228	9407	17027	15164	8078
			South Africa	706	387	389	551	700	398	1018	1746	1013	1473
			St Vincent and Grenadines	461	772	373	105	226	86	193	5	96	104
			Trinidad and Tobago	1057	890	1214	982	973	1244	1080	1169	1041	1238
			UK-Bermuda	9	25	32	50	52	74	61	36	49	62
			UK-British Virgin Islands	0	0	0	0	0	6	5	0	0	2
			UK-Sta Helena	181	221	199	310	87	79	67	104	105	129
			UK-Turks and Caicos	0	0	0	0	0	0	0	0	0	
			USA	4104	4444	2720	2625	3648	3948	7739	3081	3032	3477
			Venezuela	4227	5115	2791	2107	1952	1979	3174	3488	2867	1166
		NCC	Chinese Taipei	942	776	945	736	870	468	669	873	760	364
			Guyana	183	181	3	43	116	164	108	0	0	36
			Suriname	0	0	0	0	0	0	0	310	1297	1243
		NCO	Dominica	179	145	110	179	307	199	228	245	246	576
			Jamaica	0	0	0	0	0	0	0	0	0	
			Saint Kitts and Nevis	5	29	13	16	6	11	11	9	11	10
			Sta Lucia	191	232	199	172	190	156	174	156	162	154
Landings(FP)		CP	Cabo Verde	178	55	73	60	70	0	0	0	0	
			Curaçao	0	0	0	0	0	67	0	0	0	
			EU-España	571	440	285	366	276	260	312	242	150	371
			EU-France	352	162	296	293	291	388	990	761	176	362
			El Salvador	60	90	78	83	0	202	83	401	0	
			Guatemala	0	0	0	0	0	27	26	46	0	
			Panama	0	0	0	0	0	62	53	14	0	
		NCO	Mixed flags (EU tropical)	367	121	259	191	480	0	0	0	0	
Discards		CP	Canada	0	0	0	0	0	0	0	0	3	2
			EU-France	0	63	40	17	20	19	25	2	23	24
			EU-Portugal	0	0	0	1	0	0	0	0	1	0
			Japan	0	0	6	5	7	9	7	13	17	5
			Korea Rep	0	0	0	0	0	0	0	0	0	0
			Mexico	3	3	5	3	4	5	3	4	2	6
			UK-Bermuda	0	0	0	0	0	0	0	0	0	**0**
			UK-Sta Helena	0	0	0	0	0	0	0	0	0	
			USA	0	0	0	0	14	13	17	13	12	12

Outlook

In summary, 2022 stock biomass was estimated to be about 37% above B_{MSY} (not overfished) and fishing mortality rates were about 11% below F_{MSY} (no overfishing). Projections conducted in 2024 considered a number of constant catch scenarios. In most cases, catches less than 125,000 t led to, or maintained, a healthy stock status through 2034.

Management recommendation

The results of the Stock Synthesis base model were summarized to produce estimated probabilities of achieving the Convention objectives ($SSB \geq B_{MSY}$, $F \leq F_{MSY}$) for a given level of constant catch, for each year up to 2034 (**Table 3**). The Committee reiterated concern that catch levels, averaging about 141,000 t over the last 5 years (2018–2022), are expected to result in overfishing and lead to an overfished status if they continue. While the Committee recognized that the yellowfin tuna catches declined substantially in 2025 (**Table 2**), they continue to be concerned that existing conservation and management measures appear to be insufficient to limit harvest. The Committee recommended that the Commission establish a mechanism to ensure that the catches of YFT do not exceed any adopted TAC. Increases in the proportion of juvenile fish in the yellowfin tuna catches have had consequences for the total production of yellowfin tuna fisheries, i.e. reduced yield at MSY (see Additional supporting information, **Figure 5**). Should the Commission wish to increase long-term sustainable yield, the Committee continues to recommend that effective measures be found to limit catches associated with floating objects (FOBs) and other fishing mortality of small yellowfin tuna.

Table 3. Kobe II matrices giving the probability that: a) $F \leq F_{MSY}$; b) $SSB \geq SSB_{MSY}$; and c) joint probability of $F \leq F_{MSY}$ and $SSB \geq SSB_{MSY}$, for given years, for various constant catch levels based on model results. Note that for the YFT the biomass (B) refers to spawning stock biomass (SSB).

a) Probability that $F \leq F_{MSY}$

Catch	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
0kt	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
100kt	92%	91%	90%	89%	89%	89%	88%	88%	88%	88%
105kt	90%	89%	87%	86%	85%	85%	84%	83%	83%	82%
110kt	88%	86%	84%	82%	81%	80%	79%	77%	76%	75%
115kt	86%	83%	81%	79%	76%	74%	72%	70%	68%	67%
120kt	83%	80%	77%	74%	71%	67%	65%	63%	62%	61%
125kt	81%	77%	73%	69%	65%	62%	60%	58%	56%	55%
130kt	78%	74%	68%	64%	60%	57%	55%	53%	51%	49%
135kt	75%	70%	64%	60%	56%	53%	50%	48%	46%	44%
140kt	71%	66%	61%	56%	51%	48%	45%	44%	42%	41%
145kt	68%	63%	57%	52%	48%	44%	42%	41%	39%	38%
150kt	65%	60%	54%	48%	44%	42%	39%	38%	36%	35%
155kt	62%	56%	51%	45%	42%	39%	37%	35%	34%	33%
160kt	60%	54%	47%	43%	39%	36%	34%	33%	31%	30%

b) Probability that $SSB \geq SSB_{MSY}$

Catch	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
0kt	93%	94%	97%	99%	100%	100%	100%	100%	100%	100%
100kt	90%	87%	86%	85%	85%	85%	85%	85%	84%	84%
105kt	89%	87%	85%	84%	83%	82%	81%	81%	80%	80%
110kt	89%	86%	84%	82%	81%	79%	78%	76%	75%	74%
115kt	89%	86%	83%	81%	78%	76%	74%	72%	69%	67%
120kt	89%	85%	82%	78%	75%	72%	69%	66%	64%	62%
125kt	89%	85%	81%	76%	72%	68%	64%	61%	59%	57%
130kt	89%	84%	80%	74%	70%	64%	60%	57%	54%	52%
135kt	88%	84%	78%	72%	66%	60%	56%	53%	50%	48%
140kt	88%	84%	77%	70%	63%	57%	53%	49%	46%	44%
145kt	88%	83%	76%	68%	59%	54%	49%	45%	43%	41%
150kt	88%	82%	74%	66%	56%	50%	46%	43%	40%	38%
155kt	87%	82%	73%	63%	54%	47%	43%	40%	38%	36%
160kt	87%	81%	72%	61%	51%	44%	41%	37%	35%	34%

c) Probability that $F \leq F_{MSY}$ and $SSB \geq SSB_{MSY}$

Catch	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
0kt	93%	94%	97%	99%	100%	100%	100%	100%	100%	100%
100kt	90%	87%	86%	85%	85%	85%	85%	85%	84%	84%
105kt	89%	87%	85%	84%	83%	82%	81%	81%	80%	80%
110kt	88%	86%	84%	82%	80%	79%	78%	76%	75%	74%
115kt	86%	83%	81%	79%	76%	74%	72%	70%	68%	66%
120kt	83%	80%	77%	74%	71%	67%	65%	63%	62%	61%
125kt	81%	77%	73%	69%	65%	62%	60%	58%	56%	55%
130kt	78%	74%	68%	64%	60%	57%	55%	53%	51%	49%
135kt	75%	70%	64%	60%	56%	53%	50%	48%	46%	44%
140kt	71%	66%	61%	56%	51%	48%	45%	44%	42%	41%
145kt	68%	63%	57%	52%	48%	44%	42%	41%	39%	38%
150kt	65%	60%	54%	48%	44%	42%	39%	38%	36%	35%
155kt	62%	56%	51%	45%	42%	39%	37%	35%	34%	33%
160kt	60%	54%	47%	43%	39%	36%	34%	33%	31%	30%

Additional supporting information

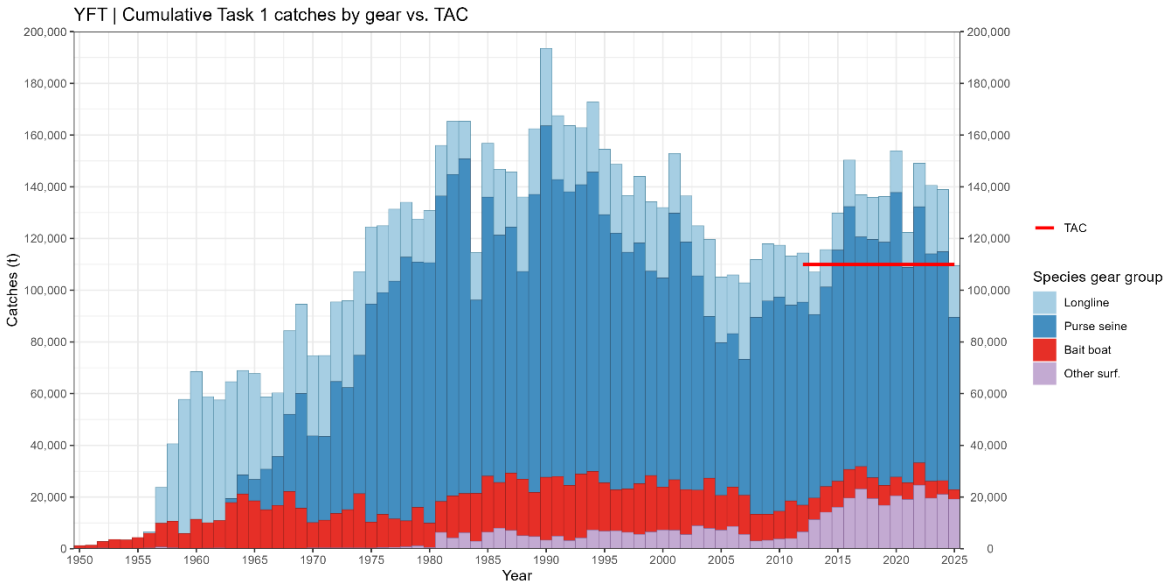


Figure 2. Yellowfin tuna Atlantic (YFT-A stock) total reported and estimated catches (landings and dead discards, t) by year and major gear. Data as of 18 September 2026.

Numerous changes have occurred in the yellowfin fisheries over time. Associated changes in the impact (i.e. overall fishing mortality) of the fleets are apparent (**Figure 3**), including the decreased impact of the longline fisheries since the 1960s, the concurrent increase of early PS fisheries, the transition from PS-free school towards FOB associated fishing beginning, around 1990, and the recent increase by a new Brazilian "vessel associated-school" handline fishery operating in the western Atlantic. These handline catches increased nearly nine-fold from 1,570 t in 2012 to about 14,000 t in 2023 (**Table 2**).

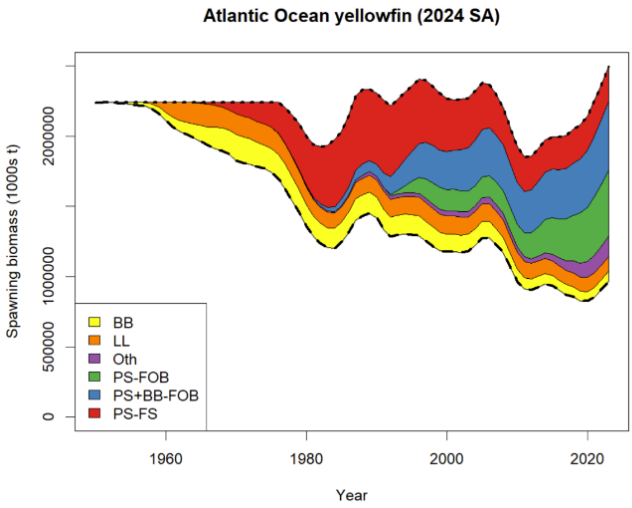


Figure 3. Impact plots represent the relative impact of each gear on the spawning biomass of the stock. Coloured areas represent model predicted increases in spawning biomass when catches of each gear are eliminated from the historical catches. The estimated unfished spawning biomass (dotted line) varies with recruitment deviations. The historical SSB trajectory, estimated by the stock assessment model, is indicated with a dashed line. The code PS FOB represents the purse seine fisheries operating on FOB/FADs. The code PS+BB-FOB reflects that these purse seine fleets have operated in association with baitboats (BB) in the past. The PS-FS refers to the purse seine operations on free school banks.

Ages up to 18 years have been observed in the western Atlantic and the Ascension Islands using annual otolith increment counts which were validated using ^{14}C bomb radiocarbon and/or oxytetracycline (OTC). Tagging studies of yellowfin in the Pacific and Indian Oceans suggest that natural mortality is age-specific, and higher for juveniles than for adults. Age-specific natural mortality (MAA) estimates were updated in 2024 based on new research. The maximum age assumption remains as in the previous assessment, 18 years of age.

Three indices of abundance were used in stock assessment model runs to develop management advice (**Figure 4**), the joint-CPC tropical Atlantic (region 2) longline index (1979-2022), the acoustic echosounder buoy index associated with FOBs (2010-2022), and the purse seine free school index (1993-2022). Indices

that reference adult biomass (the joint-LL and the purse seine free school index) have disparate trends. The joint-LL suggests the biomass of adult yellowfin tuna has remained generally stable or increased since 2019 while the purse seine free school index suggests a decline. The acoustic buoy index references juvenile yellowfin abundance in the eastern Atlantic and suggests a modest increase since 2012.

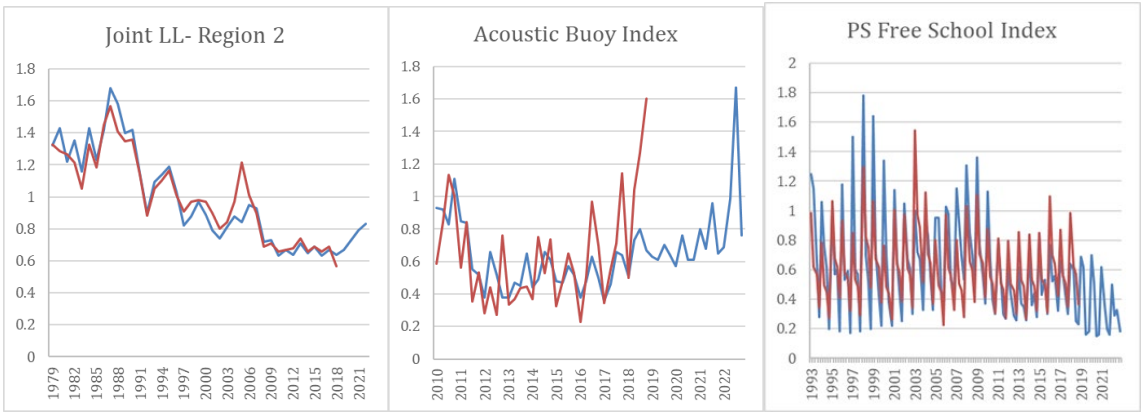


Figure 4. Standardized indices of Atlantic yellowfin tuna relative abundance fit within Stock Synthesis; the joint-CPC tropical Atlantic (region 2) longline index (1979-2022), the acoustic echosounder buoy index associated with FOBs (2010-2022) and the purse seine free school index (1993-2022). The red lines show the index used in the 2019 assessment, and the blue line shows the updated index provided for the 2024 assessment. Note: PS Free School index was estimated on a quarterly basis while the others are annual.

The proportion of the yellowfin tuna catches which are estimated to be juvenile fish has been increasing since the 1970s. This increasing proportion has had impacts on the estimated MSY for the stock (**Figure 5**).

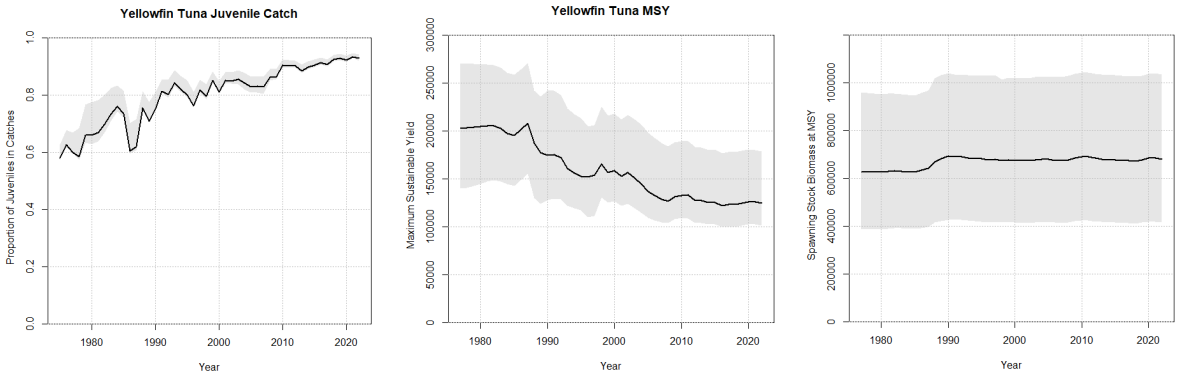


Figure 5. Estimated proportion (in numbers) of juveniles (ages 0, 1, and 2) in catches of yellowfin tuna over time (left plot) compared to the time-dynamic estimates of MSY (center plot), and dynamic spawning stock biomass at MSY (right plot). Shade area represents the 80% confidence intervals of the uncertainty grid assessment model.

12.2 BET - Atlantic bigeye tuna (Thunnus obesus)

Introduction

A stock assessment was conducted for bigeye tuna in 2025 using fisheries data through 2023 (Anon., 2025j). Key uncertainties were explored using an uncertainty grid, including natural mortality, steepness, and the selection of an index to represent the abundance of juveniles. The results from 18 uncertainty grid models were weighted by their probability and combined to estimate the current stock status and develop management advice (Kobe II Strategy Matrix (K2SM)). The resulting stock status is provided below (**Table 1**). The Kobe Phase Plot and uncertainty of current status estimates is summarized in **Figure 1**. The estimated catches and discards by gear, for the period 2016-2025 are shown in **Table 2**, while **Figure 2** shows the historical catch series by major gear. The estimated annual probability (%) that the fishing mortality will be below F_{MSY} and the spawning stock biomass will be above SSB_{MSY} in future years under different constant catch scenarios is summarized in **Table 3**.

Table 1. Atlantic bigeye tuna summary table.

Indicator		***Stock Status***
Maximum Sustainable Yield (MSY)[1]	86,030 t (79,702 t - 114,311 t)[3]	2023
TAC (2025)	73,011 t	
Current (2025) Yield[2]	51,042 t	
Relative Spawning Biomass (SSB_{2023}/SSB_{MSY})[1]	1.23 (0.81-1.85)[3]	
Relative Fishing Mortality (F_{2023}/F_{MSY})[1]	0.59 (0.36-0.98)[3]	
Stock Status	Overfished: NO (26.2% probability of being overfished)[4] Overfishing: NO (9.1% probability of overfishing)[4]	
Management measure in effect	Rec. 24-01[5] TAC (2025) 73,011 t	

[1] Combined result of 18 stock synthesis model runs using data from 1950-2023.
[2] Provisional and subject to revision as of 18 September 2026.
[3] Point estimate, 80% bias corrected confidence intervals are shown.
[4] As estimated from the Kobe plot probability in each quadrant.
[5] Rec. 24-01 only entered in force in June 2025, but other previous Recommendations (Rec. 21-01, Rec. 22-01 and Rec. 23-01) also applied to the BET stock.

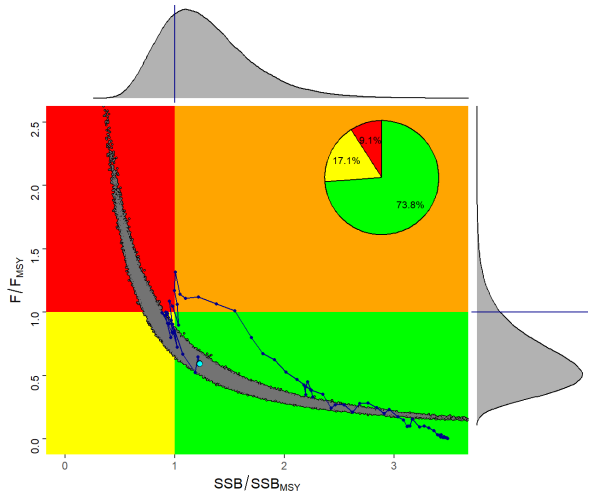


Figure 1. Kobe plot for the Atlantic bigeye tuna stock status in 2023, estimated during the 2025 stock assessment. The line indicates the stock status trajectory starting in 1950. The inserted pie chart indicates the probability of the stock being within each Kobe colour quadrant.

Table 2. Estimated catches and discards of Atlantic bigeye tuna by gear, for the period 2016-2025.

				2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
TOTAL	A+M			79216	78258	72680	74907	57557	47210	68138	59158	52781	51042
Landings			Bait boat	6710	8366	7932	7341	6848	6141	7969	4672	4485	4934
			Longline	36369	35195	32067	33890	27290	20996	32759	34989	33787	28425
			Other surf.	6473	7217	4617	6054	5495	5339	5167	5583	3674	5355
			Purse seine	28624	26838	27361	26930	17026	14058	21175	13106	10613	11635
Landings(FP)			Bait boat	0	0	0	0	0	0	6	6	4	
			Purse seine	1038	602	673	666	868	646	1028	780	199	668
Discards			Bait boat	0	0	0	0	0	0	0	0	0	0
			Longline	1	1	28	16	28	27	32	22	17	12
			Other surf.	0	0	0	0	0	0	0	0	0	0
			Purse seine	0	38	2	10	3	1	2	1	1	12
Landings		CP	Angola	1	3	1	0	0	0	0	0	0	2
			Barbados	19	16	29	14	20	25	24	28	14	21
			Belize	1764	1961	2135	2307	991	600	1002	1190	1547	1526
			Brazil	7660	7258	5096	6249	6284	6499	7341	6364	3648	4955
			Cabo Verde	1680	1107	1418	880	576	171	2	5	5	7
			Canada	171	214	237	193	104	253	330	379	239	294
			China PR	5852	5514	4823	5718	3614	1638	3249	5415	5133	4623
			Costa Rica	1	4	4	1	1	6	1	1	2	1
			Curaçao	3598	2844	3530	2787	1519	1701	824	143	0	
			Côte d'Ivoire	544	1239	384	2334	141	59	386	64	567	693
			EU-España	11469	11544	8400	9117	6067	6598	6424	5920	5258	4549
			EU-France	4772	4039	4055	5118	2104	1809	3678	2103	1171	1723
			EU-Ireland	0	0	0	0	0	0	0	0	0	
			EU-Italy	0	0	7	0	7	0	0	0	0	
			EU-Portugal	2187	3146	4405	3146	3069	3106	3123	2787	2535	3041
			El Salvador	1450	1826	2634	2464	1518	1492	1479	1196	1542	1226
			Gambia	0	0	0	0	0	0	0	0	0	
			Ghana	5194	3838	3636	2917	3160	2221	3672	2371	2345	2628
			Great Britain	0	0	0	0	0	0	0	0	0	
			Grenada	23	33	27	19	11	0	1	11	3	5
			Guatemala	1103	1602	1488	1623	906	768	855	596	0	
			Guinea Ecuatorial	4	11	7	8	6	6	5	1	4	3
			Guinée Rep	0	0	0	0	0	0	5	101	97	109
			Japan	10365	10994	9854	9327	8973	8679	12274	12254	12887	10096
			Korea Rep	562	432	623	540	587	674	763	724	728	756
			Liberia	27	98	1	3	222	29	0	3	0	5
			Maroc	350	410	500	850	1033	1239	1363	1431	1503	1136
			Mauritania	1	0	0	0	0	0	0	0	0	
			Mexico	2	3	3	3	3	3	4	3	2	1
			Namibia	359	141	109	79	568	1185	2070	664	207	984
			Nigeria	0	0	0	0	0	0	0	0	0	508
			Panama	2337	1664	2067	3052	1648	1107	1328	1330	827	714
			S Tomé e Príncipe	421	393	79	81	46	90	149	150	141	13
			Senegal	1500	2978	2870	2272	2772	856	6242	1174	582	1610
			South Africa	121	257	282	432	357	380	464	619	572	530
			St Vincent and Grenadines	622	889	428	504	220	136	568	1	0	0
			Trinidad and Tobago	37	25	17	13	10	9	10	14	13	20
			UK-Bermuda	0	0	0	0	1	2	1	1	1	1
			UK-Sta Helena	77	70	45	4	0	0	1	1	0	7
			USA	568	836	921	829	801	968	1210	937	614	981
			Venezuela	179	322	167	28	81	129	39	39	12	7
		NCC	Chinese Taipei	13115	11845	11630	11288	9226	4093	8181	10274	10144	7362
			Guyana	25	34	53	2	4	1	0	0	0	
			Suriname	0	0	0	0	0	0	0	52	214	205
		NCO	Dominica	0	0	0	0	0	0	0	0	0	
			Saint Kitts and Nevis	4	1	0	0	1	0	0	0	0	
			Sta Lucia	10	25	13	13	9	3	3	2	3	8
Landings(FP)		CP	Cabo Verde	121	39	53	42	54	0	0	0	0	
			Curaçao	0	0	0	0	0	57	0	0	0	
			EU-España	398	323	216	265	200	224	299	230	94	446
			EU-France	233	108	213	201	233	289	689	349	108	222
			El Salvador	0	0	0	0	0	0	21	201	0	
			Guatemala	0	0	0	0	0	23	13	5	0	
			Panama	0	0	0	0	0	53	12	1	0	
		NCO	Mixed flags (EU tropical)	286	132	191	158	381	0	0	0	0	
Discards		CP	Canada	0	0	0	0	0	3	2	0	2	1
			EU-España	0	0	0	0	0	0	0	0	0	0
			EU-France	0	38	2	10	3	1	2	1	2	12
			EU-Portugal	1	1	1	1	1	1	1	1	1	1
			Japan	0	0	26	15	18	17	25	14	12	6
			Korea Rep	0	0	0	0	0	0	0	0	0	0
			Mexico	0	0	0	0	0	0	0	0	0	**0**
			UK-Bermuda	0	0	0	0	0	0	0	0	0	**0**
			USA	0	0	0	0	9	6	5	6	2	5

Outlook

The results from 18 uncertainty grid models were weighted by their probability and combined to estimate the current stock status and develop management advice (K2SM). The median estimate of the relative spawning biomass (SSB_{2023}/SSB_{MSY}) was 1.23, indicating that the stock was not overfished in 2023. The median estimate of the relative fishing mortality (F_{2023}/F_{MSY}) was 0.59, indicating that overfishing was not occurring in 2023. The median MSY was estimated at 86,030 t, which was above the 2024 yield. The probability of the stock being in each quadrant of the Kobe plot in 2023 is provided in **Figure 1**. The corresponding probabilities are 73.8% in the green quadrant, 17.1% in the yellow quadrant, and 9.1% in the red quadrant. Kobe II Strategy Matrices were developed to estimate the probability of achieving the Convention objectives ($SSB \geq SSB_{MSY}$, $F \leq F_{MSY}$) at levels of constant catch from 50,000-100,000 t, for each year up to 2038. The projections assumed that recent (2021-2023) fleet catchability, selectivity and the relative catch between fleets, would continue and recruitment would follow the estimated spawner-recruitment relationship.

Management recommendations

Recommendation by ICCAT replacing Recommendation 22-01 on a multi-annual conservation and management programme for tropical tunas (Rec. 24-01) para 3 set the TAC for bigeye tuna at 73,011 t in 2025 with a provision that subsequent TACs will be set based on the results of the 2025 stock assessment. For example, the TAC would continue at 73,011 t in 2026 and 2027 if the stock assessment conducted in 2025 indicated that the probability of the stock being in the green quadrant in 2034 was at least 65% and could be increased if the probability was at least 70%. According to the K2SM, a future constant catch of 73,011 t has a high probability (91%) of maintaining the stock in the green quadrant of the Kobe plot by 2034 (**Table 3**). Changes in the proportion of small fishes in the harvests have had a consequence for the total production of bigeye tuna fisheries, i.e. changes in yield at MSY (see Additional supporting information) (**Figure 3**). Notwithstanding this, the Committee noted that fishing mortality has decreased in recent years and that F at age 1 has decreased by the greatest proportion (*Report for Biennial Period, 2024-25, Part II, Vol. 2* item 19.30).

Table 3. Kobe II matrices giving the probability that: a) $F \leq F_{MSY}$; b) $SSB \geq SSB_{MSY}$; and c) and the joint probability of $F \leq F_{MSY}$ and $SSB \geq SSB_{MSY}$, for given years, and for various constant catch levels based on model results.

a) Probability that $F \leq F_{MSY}$

Probability F<=F$_{MSY}$													
Catch (t)	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
50000	98%	99%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
52500	97%	98%	99%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%
55000	97%	98%	98%	99%	99%	100%	100%	100%	100%	100%	100%	100%	100%
57500	95%	97%	97%	98%	99%	99%	100%	100%	100%	100%	100%	100%	100%
60000	94%	96%	97%	97%	98%	99%	99%	99%	100%	100%	100%	100%	100%
62500	93%	94%	95%	96%	97%	98%	98%	99%	99%	99%	100%	100%	100%
65000	92%	93%	94%	95%	96%	97%	97%	98%	98%	99%	99%	99%	99%
67500	90%	91%	92%	93%	94%	95%	96%	96%	97%	97%	98%	98%	99%
70000	88%	89%	91%	92%	92%	93%	94%	95%	95%	96%	96%	97%	97%
72500	86%	88%	89%	89%	90%	91%	91%	92%	93%	93%	94%	94%	95%
73011	86%	87%	88%	89%	90%	90%	91%	91%	92%	93%	93%	94%	94%
75000	84%	86%	86%	87%	87%	88%	88%	89%	89%	90%	90%	91%	91%
77500	82%	83%	84%	84%	84%	85%	85%	85%	86%	86%	86%	87%	87%
80000	80%	81%	81%	81%	81%	81%	81%	81%	81%	81%	81%	81%	81%
82500	78%	78%	78%	78%	78%	77%	77%	77%	76%	76%	76%	75%	75%
85000	75%	75%	75%	74%	74%	73%	72%	72%	71%	70%	70%	69%	69%
87500	73%	73%	72%	71%	70%	69%	68%	67%	66%	65%	64%	63%	62%
90000	71%	70%	69%	67%	66%	64%	63%	62%	60%	59%	58%	57%	56%
92500	68%	67%	65%	64%	62%	60%	58%	57%	55%	54%	53%	51%	50%
95000	66%	64%	62%	60%	58%	56%	54%	52%	50%	49%	47%	46%	46%
97500	63%	61%	59%	56%	54%	51%	49%	47%	46%	44%	43%	43%	42%
100000	61%	58%	56%	53%	50%	47%	45%	43%	42%	40%	40%	40%	39%

b) Probability that $SSB \geq SSB_{MSY}$

Probability SSB>=SSB$_{MSY}$													
Catch (t)	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
50000	86%	91%	94%	97%	98%	99%	100%	100%	100%	100%	100%	100%	100%
52500	86%	90%	94%	96%	98%	99%	100%	100%	100%	100%	100%	100%	100%
55000	85%	90%	93%	96%	97%	99%	99%	100%	100%	100%	100%	100%	100%
57500	85%	89%	92%	95%	97%	98%	99%	99%	100%	100%	100%	100%	100%
60000	85%	88%	91%	94%	96%	97%	98%	99%	99%	100%	100%	100%	100%
62500	84%	88%	90%	93%	95%	96%	97%	98%	99%	99%	99%	100%	100%
65000	84%	87%	89%	92%	94%	95%	96%	97%	98%	98%	99%	99%	99%
67500	83%	86%	89%	90%	92%	94%	95%	96%	97%	97%	98%	98%	99%
70000	83%	85%	87%	89%	91%	92%	93%	94%	95%	96%	96%	97%	97%
72500	83%	85%	86%	87%	89%	90%	91%	92%	92%	93%	94%	95%	95%
73011	83%	85%	86%	87%	88%	89%	90%	91%	92%	93%	93%	94%	95%
75000	83%	84%	85%	86%	87%	88%	88%	89%	89%	90%	91%	92%	92%
77500	82%	83%	84%	84%	85%	85%	85%	86%	86%	87%	87%	88%	88%
80000	82%	83%	83%	83%	83%	83%	83%	83%	83%	83%	83%	83%	83%
82500	82%	82%	82%	81%	81%	80%	80%	80%	79%	79%	78%	78%	78%
85000	81%	81%	80%	79%	79%	78%	77%	76%	75%	74%	73%	73%	72%
87500	81%	81%	79%	78%	76%	75%	73%	72%	71%	70%	68%	67%	66%
90000	81%	80%	78%	76%	74%	72%	70%	68%	66%	65%	63%	62%	60%
92500	80%	79%	77%	74%	71%	69%	67%	64%	62%	60%	58%	56%	55%
95000	80%	78%	75%	72%	69%	66%	63%	60%	58%	56%	54%	52%	51%
97500	80%	77%	74%	70%	67%	63%	60%	57%	54%	52%	50%	49%	48%
100000	79%	77%	73%	68%	64%	60%	56%	53%	50%	48%	47%	46%	45%

c) Probability that $F \leq F_{MSY}$ and $SSB \geq SSB_{MSY}$

Probability F<=F$_{MSY}$ and SSB>=SSB$_{MSY}$													
Catch (t)	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
50000	86%	91%	94%	97%	98%	99%	100%	100%	100%	100%	100%	100%	100%
52500	86%	90%	94%	96%	98%	99%	100%	100%	100%	100%	100%	100%	100%
55000	85%	90%	93%	96%	97%	99%	99%	100%	100%	100%	100%	100%	100%
57500	85%	89%	92%	95%	97%	98%	99%	99%	100%	100%	100%	100%	100%
60000	84%	88%	91%	94%	96%	97%	98%	99%	99%	100%	100%	100%	100%
62500	84%	88%	91%	93%	95%	96%	97%	98%	99%	99%	99%	100%	100%
65000	84%	87%	90%	92%	94%	95%	96%	97%	98%	98%	99%	99%	99%
67500	83%	86%	89%	90%	92%	93%	95%	96%	96%	97%	98%	98%	98%
70000	83%	85%	87%	89%	90%	92%	93%	94%	94%	95%	96%	96%	97%
72500	83%	85%	86%	87%	88%	89%	90%	91%	92%	93%	93%	94%	94%
73011	83%	84%	86%	87%	88%	89%	90%	90%	91%	92%	92%	93%	94%
75000	82%	83%	84%	85%	86%	87%	87%	88%	88%	89%	90%	90%	91%
77500	81%	82%	83%	83%	83%	84%	84%	85%	85%	85%	85%	86%	86%
80000	79%	80%	80%	80%	80%	81%	81%	81%	81%	81%	81%	81%	81%
82500	77%	78%	78%	77%	77%	77%	77%	76%	76%	76%	75%	75%	75%
85000	76%	75%	75%	74%	74%	73%	72%	71%	71%	70%	70%	69%	68%
87500	73%	72%	72%	71%	70%	69%	68%	67%	65%	64%	64%	62%	62%
90000	71%	70%	69%	67%	66%	64%	63%	61%	60%	59%	58%	57%	55%
92500	68%	67%	66%	64%	62%	60%	58%	56%	55%	54%	52%	51%	50%
95000	66%	64%	62%	60%	58%	56%	54%	52%	50%	48%	47%	46%	45%
97500	63%	61%	59%	56%	54%	51%	49%	47%	46%	44%	43%	42%	42%
100000	60%	59%	56%	53%	50%	47%	45%	43%	41%	40%	40%	39%	39%

Additional supporting information

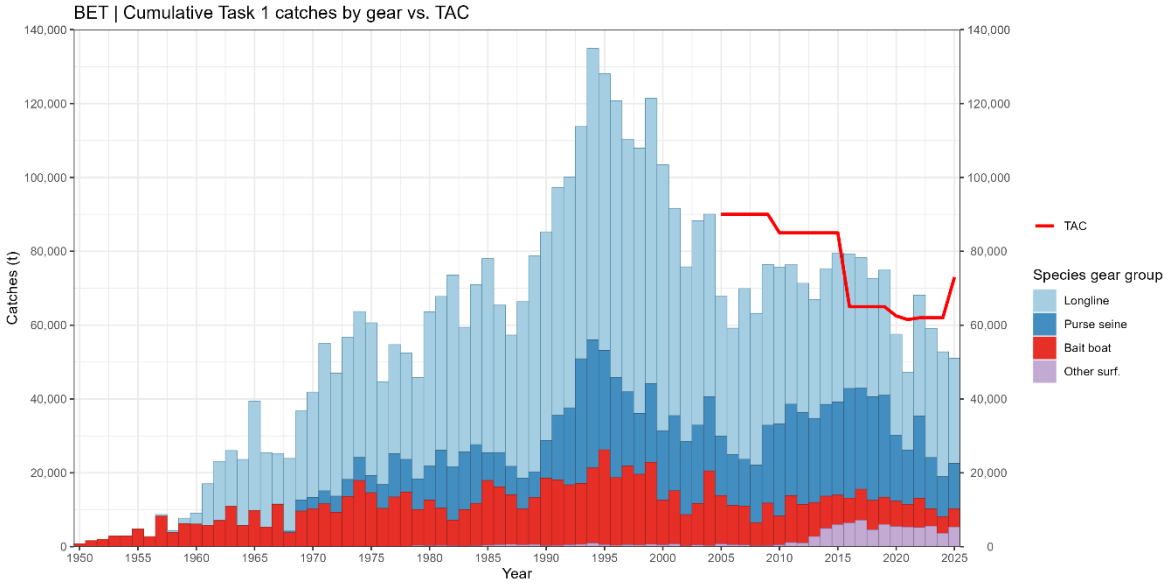


Figure 2. Bigeye tuna Atlantic (BET-A stock) total reported and estimated catches (landings and dead discards, t) by year and major gear. Data as of 18 September 2026.

The Committee noted that two important sources of uncertainty highlighted in the advice from the 2021 BET stock assessment (Anon., 2021a) (i.e. the development of joint longline index and the assumptions regarding natural mortality) were specifically addressed during the 2025 assessment. The Committee agreed that the development of the joint longline index and the assumptions regarding natural mortality in the 2025 assessment were improved.

The Committee also noted the improvement in stock status compared to the 2021 assessment and sought to understand whether this was due to changes in modelling assumptions or the data collected since the last assessment. Noting that the 2021 assessment provided an estimate of stock status for 2019 (based on data available at that time), the Committee used the 2025 assessment to look back to see whether our view of stock status back in 2019 had changed (**Table 4**).

Table 4. Summary of the Atlantic bigeye stock status estimated at the 2021 stock assessment and the estimate from the 2025 stock assessment. LB: lower bound, UB: upper bound of estimate.

Stock assessment and year reference	*Stock Status*					
	SSB/SSB_{MSY}			*F/F_{MSY}*		
	Median	*LB*	*UB*	*Median*	*LB*	*UB*
2021 SA - 2019	0.94	0.71	1.37	1.00	0.63	1.35
2025 SA - 2019	0.97	0.63	1.50	0.91	0.54	1.53
2025 SA - 2023	1.23	0.81	1.86	0.59	0.36	0.98

The estimated stock status in 2019 was similar between the 2025 and 2021 stock assessments, suggesting the changing model assumptions did not substantially affect our historic view of the stock status. Therefore, the Committee concluded the improved stocks status estimated in the 2025 stock assessment results from recovery of the stock.

The Committee also noted that the patterns in the MSY-based reference points were similar to those from the 2021 assessment (**Figure 3**).

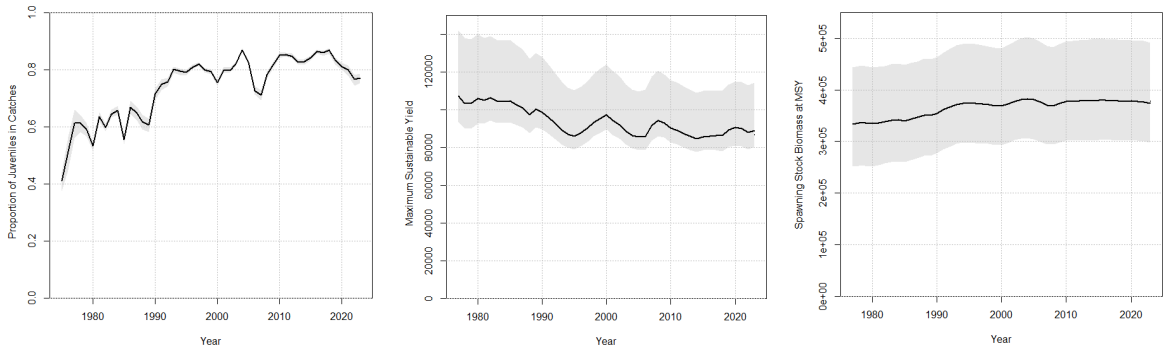


Figure 3. Estimated proportion (in numbers) of juveniles (ages 0, 1 and 2) in catches of bigeye tuna over time (left plot) compared to the time-dynamic estimates of MSY (center plot), and dynamics spawning stock biomass at MSY (right plot). Shade area represents the 80% confidence intervals of the uncertainty grid assessment model.

12.3 SKJ - Skipjack (Katsuwonus pelamis)

Introduction

The last stock assessment for eastern and western Atlantic skipjack was conducted in 2022. For a complete and detailed description of the assessment, the state of knowledge and status of the eastern and western Atlantic skipjack tuna stocks, readers should consult the Report of the 2022 Skipjack Tuna Data Preparatory Meeting (Anon., 2022c) and the Report of the 2022 Skipjack Stock Assessment Meeting (Anon., 2022d). A summary of both stock status is provided below (**Tables 1a** and **1b**). The Kobe Phase Plots and uncertainty of current status estimates are summarized in **Figure 1**. **Table 2** provides estimated catches and discards by gear, for the period 2016-2025, while **Figure 2** (SKJ-E) and **Figure 3** (SKJ-W) show the historical catch series by major gear. **Table 3** provides estimated probabilities (%) that the fishing mortality will be below F_{MSY} and spawning stock biomass will be above SSB_{MSY} in future years under different constant catch scenarios.

Table 1a. Eastern Atlantic skipjack summary table.

Indicator		***Stock Status***
Maximum Sustainable Yield (MSY)	216,617 t (172,735 – 284,658 t)[1]	2020
TAC (2025)	None	
Current (2025) Yield	237,859 t[2]	
Relative Biomass (B_{2020}/B_{MSY})	1.60 (0.50 – 5.79)[3]	
Relative Fishing Mortality (F_{2020}/F_{MSY})	0.63 (0.18 – 2.35)[3]	
Stock Status		
	Overfished: NO (18% probability of being overfished) Overfishing: NO (21% probability of overfishing)	
Management measure in effect	Rec. 24-01[4]	

[1] Median and 95% confidence interval estimated from the joint uncertainty grid.
[2] Provisional and subject to revision.
[3] Median and 95% confidence interval based on 90,000 iterations of the multivariate lognormal (MVLN) approximation for Stock Synthesis and 90,000 Markov chain Monte Carlo (MCMC) iterations for JABBA.
[4] Rec. 24-01 only entered in force in June 2025, but other previous Recommendation (Rec. 23-01, Rec. 22-01 and Rec. 21-01) included several measures that impacted fishing for the eastern stock (e.g. temporal closure on fishing for schools associated with FADs, limits to the number of FADs, changes in FAD design, etc.).

Table 1b. Western Atlantic skipjack summary table.

Indicator		***Stock Status***
Maximum Sustainable Yield (MSY)	35,277 t (28,444 – 46,340 t)[1]	2020
TAC (2025)	None[5]	
Current (2025) Yield	23,005 t[2]	
Relative Biomass (SSB_{2020}/B_{MSY})	1.60 (0.90 – 2.87)[3]	
Relative Fishing Mortality (F_{2020}/F_{MSY})	0.41 (0.19 – 0.89)[3]	
Stock Status		
	Overfished: NO (9% probability of being overfished) Overfishing: NO (3% probability of overfishing)	
Management measure in effect	Rec. 25-02, Rec. 24-01[4]	
Managed according to a Management Procedure: TAC for the period 2026-2028 of 30,844 t (Rec. 25-02)		

[1] Median and 95% confidence interval estimated from the joint uncertainty grid.
[2] Provisional and subject to revision.
[3] Median and 95% confidence interval based on 90,000 iterations of the multivariate lognormal (MVLN) approximation for Stock Synthesis.
[4] Rec. 24-01 only entered in force in June 2025, but other previous Recommendations (Rec. 23-01, Rec. 22-01 and Rec. 21-01) also applied to the western stock. No fleets were targeting western skipjack using fish aggregating devices (FADs), so the impact of those Recommendations on the western stock and fisheries was likely to be minimal.
[5] There was no TAC established for SKJ-W before 2026.

Table 2. Estimated catches and discards of Atlantic skipjack by area, gear and flag, for the period 2016-2025.

				2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
TOTAL				253744	262509	301845	271130	237254	232201	289442	247809	202025	260864
	ATE			231388	238496	278568	250999	218301	211941	267811	218082	178817	237859
	ATW			22355	24013	23277	20131	18953	20260	21631	29727	23208	23005
Landings	ATE		Bait boat	28875	25776	33437	24415	15677	16664	16194	11239	6097	9144
			Longline	540	498	113	350	366	97	360	2166	183	189
			Other surf.	2623	4698	5087	5432	5784	9814	10020	9850	20105	16570
			Purse seine	187690	200670	232001	211525	189742	177116	233280	189561	150650	207306
	ATW		Bait boat	16810	14648	14926	15410	14593	15573	11687	18752	15431	13647
			Longline	824	311	342	429	215	423	1218	3596	2657	3492
			Other surf.	1534	5703	4799	2397	2434	2515	7237	5678	4608	5090
			Purse seine	3105	3293	3180	1881	1684	1746	1489	1702	511	776
Landings(FP)	ATE		Bait boat	0	0	0	0	0	0	39	40	24	
			Purse seine	11661	6761	7874	9069	6710	8211	7811	5220	1748	4561
	ATW			82	59	29	15	26	0	0	0	0	
Discards	ATE		Bait boat	0	0	0	0	0	0	0	0	0	0
			Longline	0	0	0	0	0	0	1	0	0	0
			Other surf.	0	0	0	0	0	4	0	0	0	0
			Purse seine	0	94	56	208	22	35	106	6	10	88
	ATW		Longline	0	0	0	0	0	0	0	0	0	0
			Purse seine	0	0	0	0	0	3	0	0	0	
Landings	ATE	CP	Angola	7	1	3	0	10	14	0	0	0	3
			Belize	7730	9958	20748	17063	19180	18044	29134	23274	28728	36706
			Brazil	0	0	0	0	0	1008	4948	2550	1257	1394
			Cabo Verde	10925	7823	7852	5785	6068	1281	1250	715	993	652
			China PR	0	0	0	0	0	0	1	0	3	1
			Curaçao	22180	20660	24539	17360	10841	12398	3953	181	0	
			Côte d'Ivoire	675	1534	22	3241	990	1311	2266	335	1914	2654
			EU-Cyprus	0	0	0	0	0	0	3	3	3	3
			EU-España	52110	57458	52912	48378	31804	37865	33569	30550	15563	16742
			EU-France	19342	16574	23112	20438	12800	16178	21217	16452	3891	8665
			EU-Germany	0	2	0	0	0	0	0	0	0	
			EU-Ireland	0	7	0	0	0	0	0	0	0	
			EU-Italy	47	57	91	131	402	69	176	229	91	
			EU-Lithuania	0	6	0	0	0	0	0	0	0	
			EU-Malta	0	0	5	2	0	6	5	5	5	0
			EU-Netherlands	0	5	1	0	0	0	0	61	27	5
			EU-Portugal	708	1785	7480	2799	1033	6640	4026	4345	2654	6839
			Egypt	0	0	0	0	0	0	0	0	0	6
			El Salvador	14502	12981	15672	13103	14806	6446	10633	6585	7844	11047
			Gabon	0	0	0	0	0	0	2	0	0	
			Gambia	0	0	0	0	29	0	0	0	0	
			Ghana	54723	57496	68147	62855	63193	49477	76499	56486	65259	79369
			Guatemala	7386	9800	8648	7626	6503	5873	6839	5472	0	
			Guinea Ecuatorial	1	0	1	1	1	1	1	1	0	0
			Guinée Rep	0	0	0	0	0	888	5133	2429	869	3699
			Japan	1	1	3	5	2	3	3	3	10	4
			Korea Rep	1	0	0	1	1	1	1	0	1	0
			Liberia	21	19	29	21	6770	489	0	8	1	1
			Maroc	258	750	3585	1258	3171	5503	4189	7683	15835	10758
			Namibia	1	1	0	0	1	11	19	12	3	
			Nigeria	6	2	0	0	0	0	0	0	0	1
			Panama	11510	8815	9089	10926	10626	10554	13192	12286	6593	9519
			Russian Federation	1	110	178	25	6	0	0	2	0	
			S Tomé e Príncipe	380	346	35	36	40	87	120	12	134	157
			Senegal	17082	25431	28476	30633	23286	29537	42671	42710	24924	44552
			South Africa	2	1	2	2	1	1	2	5	2	2
			St Vincent and Grenadines	0	8	0	0	0	0	0	0	0	
			Türkiye	0	0	0	0	0	0	0	418	425	425
			UK-Sta Helena	127	9	7	28	1	2	1	0	1	3
		NCC	Chinese Taipei	2	2	3	4	4	4	3	2	5	3
	ATW	CP	Barbados	1	2	1	1	0	0	1	1	1	
			Belize	164	0	0	0	0	0	0	0	0	39
			Brazil	18231	20068	19687	17925	17432	18788	20544	28885	22438	22553
			Cabo Verde	0	0	94	0	88	0	0	0	0	
			China PR	0	0	0	0	0	0	42	0	8	28
			Costa Rica	0	0	0	0	0	0	0	0	0	
			Curaçao	100	123	157	35	30	0	151	0	0	
			EU-España	641	223	109	192	124	78	147	0	0	**0**
			EU-France	25	224	282	23	2	210	10	15	25	9
			El Salvador	30	81	25	0	70	0	37	0	0	96
			Ghana	160	411	1234	700	318	209	252	139	326	45
			Grenada	17	17	18	30	10	13	12	44	9	17
			Guatemala	11	86	54	44	7	91	0	0	0	
			Japan	0	0	0	0	0	0	0	1	0	0
			Korea Rep	0	0	0	0	0	0	0	0	0	0
			Mexico	10	6	6	4	4	3	3	4	3	2
			Panama	185	0	0	22	40	0	31	0	0	
			St Vincent and Grenadines	0	78	36	35	29	0	0	4	35	45
			Trinidad and Tobago	0	0	0	0	0	0	0	0	0	0
			UK-Bermuda	0	0	0	0	0	0	0	0	0	0
			UK-British Virgin Islands	0	0	0	0	0	0	0	0	0	0
			USA	179	199	78	46	68	65	103	75	37	57
			Venezuela	2335	2240	1296	940	636	696	215	457	108	31
		NCC	Chinese Taipei	17	34	32	27	19	19	8	8	15	14
		NCO	Dominica	27	21	11	10	4	0	0	0	118	3
			Jamaica	0	1	5	4	2	0	0	0	1	
			Saint Kitts and Nevis	1	0	0	0	0	0	0	0	0	
			Sta Lucia	138	142	122	78	44	83	73	94	84	67
Landings(FP)	ATE	CP	Cabo Verde	1046	327	512	355	410	0	0	0	0	
			Curaçao	0	0	0	0	0	447	0	0	0	
			EU-España	3658	2788	1943	2396	1809	2035	2163	1541	1177	3338
			EU-France	1920	893	2169	1616	1681	2206	3355	1679	595	1224
			El Salvador	2447	1640	1375	3626	0	2928	1223	1664	0	
			Guatemala	0	0	0	0	0	180	496	287	0	
			Panama	0	0	0	0	0	415	613	88	0	
		NCO	Mixed flags (EU tropical)	2589	1113	1874	1077	2810	0	0	0	0	
	ATW	CP	Cabo Verde	2	0	9	0	9	0	0	0	0	
			EU-España	67	35	7	13	9	0	0	0	0	
			El Salvador	5	10	0	0	0	0	0	0	0	
		NCO	Mixed flags (EU tropical)	8	14	13	2	8	0	0	0	0	
Discards	ATE	CP	EU-España	0	0	0	0	0	0	1	0	0	0
			EU-France	0	94	56	208	22	35	106	6	10	88
			EU-Portugal	0	0	0	0	0	0	0	0	0	
			Korea Rep	0	0	0	0	0	0	0	0	0	0
			Russian Federation	0	0	0	0	0	4	0	0	0	0
	ATW		EU-France	0	0	0	0	0	3	0	0	0	**0**
			Mexico	0	0	0	0	0	0	0	0	0	**0**
			UK-Bermuda	0	0	0	0	0	0	0	0	0	**0**

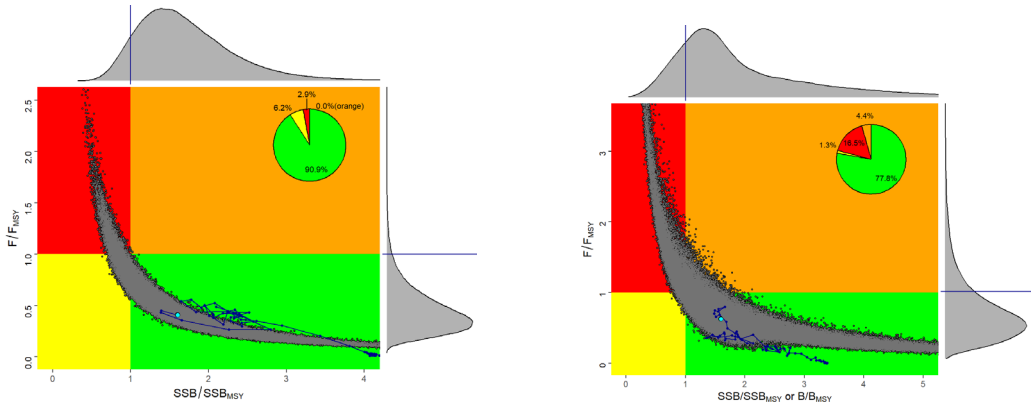


Figure 1. Kobe plots for the western (left) and eastern (right) Atlantic skipjack stock status in 2020, estimated during the 2022 stock assessment. The upper graph represents the smoothed frequency distribution of SSB_{2020}/SSB_{MSY} or B_{2020}/B_{MSY} estimates for 2020, while the right graph represents the smoothed frequency distribution of F_{2020}/F_{MSY} estimates for 2020.The inserted pie charts indicate the probability of the stock being within each Kobe colour quadrant. The line indicates the stock status trajectory starting in 1952 for western and eastern stocks.

Outlook

Eastern Atlantic

The combined results of the assessment, based on the median of the entire uncertainty grid, showed that in 2020 the East Atlantic skipjack tuna stock was in healthy condition. The median MSY was estimated as 216,617 t from the uncertainty grid of the deterministic runs. The results indicated a stock status of not overfished (18% probability of being overfished), with no overfishing (21% probability of overfishing) (**Table 1a**). However, there is large uncertainty in biomass estimates reflected in the long tails of the biomass distribution relative to B_{MSY} (95% CI of 0.5 to 5.79 B/B_{MSY}). This large range of uncertainty in stock status estimates has implications on the estimated probabilities for each constant catch scenario in the projections that have been used to develop management advice.

Western Atlantic

The combined results of the assessment, based on the median of the entire uncertainty grid, showed that in 2020 the West Atlantic skipjack tuna stock was in healthy condition. The median MSY was estimated as 35,277 t from the uncertainty grid of the deterministic runs. The results indicated a stock status of not overfished (9% probability of being overfished), with no overfishing (3% probability of overfishing) (**Table 1b**).

In 2025, the Commission adopted an MP tested under MSE. Based on the MSE analysis, the adopted MP is expected to maintain the stock in the green quadrant of the Kobe matrix with 60% probability over the medium-term (4-10 years). The TAC for the period 2026-2028 is set at 30,844 t (Rec. 25-02).

Management recommendation

Eastern Atlantic

The stock status of eastern Atlantic skipjack tuna in 2020 was estimated with a high probability (78%) to be in a healthy condition (green quadrant of the Kobe plot), with that stock not overfished or subjected to overfishing. According to the Kobe II Strategy Matrix (K2SM), a future constant catch using the median MSY of 216,617 t will have about 55% probability of maintaining the stock in the green quadrant of the Kobe plot through 2028. Assuming a constant catch at MSY[1], the probability of the stock biomass being below 20% of B_{MSY} in 2028 was about 17%, and the probability of stock biomass being below 10% in 2028 was about 14%.

[1] Projections were conducted with the MSY estimated for each model of the uncertainty grid.

Moreover, catches in 2022, 2023, and 2025 (**Table 2**) have been higher than the MSY estimated in the last stock assessment. Given the Commission's MSE workplan to develop multi-stock MP for tropical tunas, the Committee recommends that the Commission consider implementing interim management measures aiming at maintaining the stock at sustainable levels until the next stock assessment. The Commission should also be aware that fishing effort for skipjack also impacts other species that are caught in combination with skipjack particularly in the purse seine floating object (FOB) fisheries (particularly juveniles of yellowfin and bigeye tuna).

Western Atlantic

Catch advice for 2026-2028 was generated by a management procedure (MP) adopted in 2025 (*Recommendation by ICCAT replacing Recommendation 24-04 on a candidate management procedure for western Atlantic skipjack tuna* (Rec. 25-02)). The index used to inform the MP is a Combined Index which integrates the annual abundance indices provided by Brazil, United States of America and Venezuela. While the western skipjack exceptional circumstances protocol is yet to be adopted by the Commission, the index was updated in 2026 (with data to 2025) to support the interim evaluation of exceptional circumstances (see response 19.15).

Table 3. Kobe II matrices giving the probability that: a) $F \leq F_{MSY}$; b) $B \geq B_{MSY}$; and c) the joint probability of $F \leq F_{MSY}$ and $B \geq B_{MSY}$, in a given year for a given catch level (thousand t). B refers to total biomass for the eastern SKJ stock.

Eastern Atlantic

a) Probability that $F \leq F_{MSY}$

TAC (kt)	2023	2024	2025	2026	2027	2028
100	91%	92%	93%	93%	93%	94%
110	90%	92%	92%	93%	93%	93%
120	89%	91%	92%	92%	93%	93%
130	88%	90%	91%	92%	92%	92%
140	87%	89%	90%	91%	91%	92%
150	85%	87%	88%	89%	90%	90%
160	84%	85%	86%	87%	88%	88%
170	82%	84%	84%	85%	85%	86%
180	81%	81%	82%	82%	82%	82%
190	79%	79%	79%	78%	77%	76%
200	77%	76%	75%	73%	71%	70%
210	75%	73%	71%	68%	65%	63%
220	73%	70%	67%	63%	59%	57%
230	71%	67%	62%	57%	53%	50%
240	69%	63%	57%	51%	46%	42%
250	67%	60%	52%	45%	39%	35%
260	65%	56%	47%	38%	32%	27%
270	63%	52%	42%	33%	26%	20%
280	60%	48%	36%	27%	20%	14%
290	58%	44%	31%	21%	14%	10%
300	56%	40%	26%	16%	10%	7%

b) Probability that $B \geq B_{MSY}$

TAC (kt)	2023	2024	2025	2026	2027	2028
100	82%	88%	91%	92%	93%	93%
110	82%	88%	90%	92%	92%	93%
120	82%	87%	90%	91%	92%	92%
130	82%	87%	89%	91%	92%	92%
140	81%	86%	88%	90%	91%	91%
150	81%	85%	87%	89%	90%	90%
160	81%	84%	86%	87%	88%	89%
170	80%	83%	84%	85%	86%	87%
180	80%	81%	82%	82%	82%	83%
190	79%	80%	80%	79%	78%	77%
200	79%	78%	77%	74%	72%	70%
210	78%	76%	73%	70%	66%	63%
220	77%	74%	69%	64%	60%	58%
230	77%	72%	65%	59%	55%	52%
240	76%	69%	61%	54%	49%	45%
250	75%	66%	57%	49%	43%	37%
260	74%	63%	53%	44%	36%	29%
270	73%	61%	48%	38%	29%	19%
280	72%	57%	44%	32%	20%	12%
290	71%	54%	39%	24%	12%	9%
300	70%	51%	34%	17%	9%	7%

c) Probability that $F \leq F_{MSY}$ and $B \geq B_{MSY}$

TAC (kt)	2023	2024	2025	2026	2027	2028
100	82%	88%	91%	92%	93%	93%
110	82%	88%	90%	92%	92%	93%
120	81%	87%	90%	91%	92%	92%
130	81%	86%	89%	90%	91%	92%
140	81%	85%	88%	89%	90%	91%
150	80%	84%	86%	88%	89%	90%
160	79%	83%	84%	86%	87%	88%
170	79%	81%	83%	84%	84%	85%
180	78%	79%	80%	80%	81%	81%
190	77%	77%	77%	77%	76%	75%
200	76%	75%	74%	72%	70%	68%
210	75%	72%	70%	67%	63%	61%
220	73%	70%	65%	61%	57%	55%
230	71%	66%	60%	55%	51%	48%
240	69%	63%	55%	49%	45%	41%
250	67%	59%	50%	43%	38%	33%
260	65%	54%	45%	37%	31%	25%
270	62%	50%	40%	32%	24%	17%
280	60%	46%	34%	26%	17%	10%
290	58%	41%	30%	19%	10%	8%
300	55%	38%	25%	13%	7%	6%

Additional supporting information

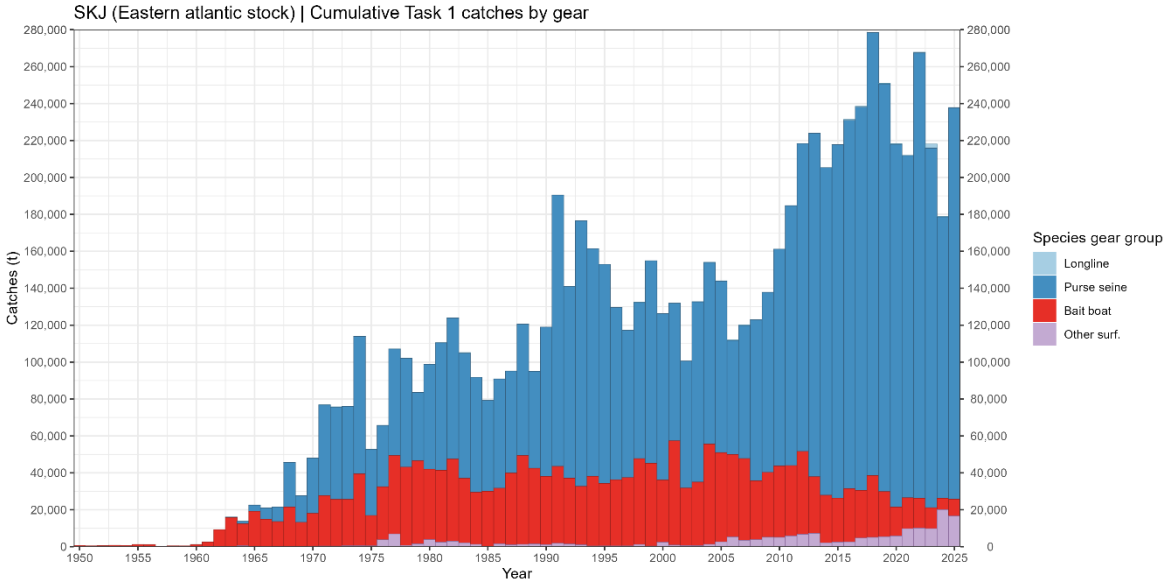


Figure 2. Skipjack East Atlantic (SKJ-E stock) total reported and estimated catches (landings and dead discards, t) by year and major gear. Data as of 18 September 2026.

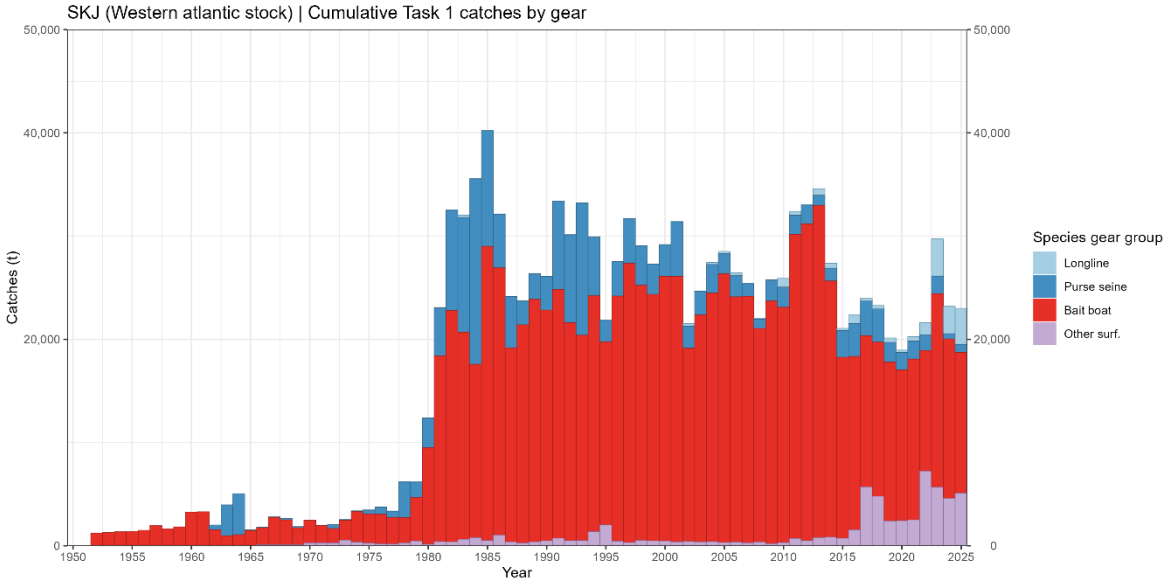


Figure 3. Skipjack West Atlantic (SKJ-W stock) total reported and estimated catches (landings and dead discards, t) by year and major gear. Data as of 18 September 2026.

*12.4 ALB-AT-Atl. Albacore (*Thunnus alalunga*)*

Introduction

For the North Atlantic stock, a model-based Management Procedure (MP) is in place since 2021 (*Recommendation by ICCAT on conservation and management measures, including a Management Procedure and Exceptional Circumstances Protocol, for North Atlantic albacore* (Rec. 21-04)). A stock assessment was conducted for North Atlantic albacore tuna in 2023 using data through 1930-2021, applying both a stock synthesis (SS3) and a production model (Anon., 2023a). Both models provided similar results, and the Committee agreed to use the SS3 model to characterize stock status as well as to verify that catch projections are consistent with the catch advice provided by the MP. For the South Atlantic stock, a production model and SS3 were evaluated in 2026, and the Committee agreed to retain the SS3 model as the primary model for stock status estimation, projections, and management advice. A summary of the stock status is provided below (**Tables 1a and 1b**). The Kobe Phase Plot (**Figure 1**) illustrates the evolution of stock status and the uncertainty around the current stock status for both stocks. **Table 2** provides estimated catches (landings and discards) by gear, for the period 2016-2025 for both stocks, while **Figure 2** and **Figure 3** show the historical catch series by major gear for the North and South Atlantic stocks, respectively.

Table 1a. North Atlantic albacore summary.

Indicator		***Stock Status***
Maximum Sustainable Yield (MSY)	41,995 t (38,860-45,130)[1]	2021
TAC (2025)	47,251 t	
Current (2025) Yield	28,471 t[2]	
Relative Spawning Biomass (SSB_{2021}/SSB_{MSY})	2.19 (1.21 - 4.01)[1]	
Relative Fishing Mortality (F_{2021}/F_{MSY})	0.45 (0.29 - 0.71)[1]	
Stock Status	Overfished: NO (0.4% probability of being overfished)[3] Overfishing: NO (<1% probability of overfishing)[3]	
Management measures in effect	Rec. 98-08, Rec. 21-04 and Rec. 23-05	
Recommended TAC for the period 2024-2026, as estimated following the MP adopted in Rec. 21-04	47,251 t	

[1] Reference case model results (mean and 95% confidence intervals based on catch data from 1930-2021).
[2] Provisional and subject to revision as of 18 September 2026.
[3] As estimated from the Kobe plot probability in each quadrant.

Table 1b. South Atlantic albacore summary table.

Indicator		***Stock Status***
Maximum Sustainable Yield (MSY)	24,333 t (23,190 - 25,476)[1]	2024
TAC (2025)	28,000 t	
Current (2025) Yield	21,034 t[2]	
Relative Spawning Biomass (SSB_{2024}/SSB_{MSY})	0.95 (0.57 - 1.62)[1]	
Relative Fishing Mortality (F_{2024}/F_{MSY})	0.90 (0.62 - 1.31)[1]	
Stock Status	Overfished: YES (56.8% probability of being overfished)[3]	
	Overfishing: NO (29.1% probability of overfishing)[3]	
Management measure in effect	Rec. 22-06	
	TAC (2026) 28,000 t	

[1] Median and 95% confidence interval (CI) of the reference/base case model.
[2] Provisional and subject to revision as of 18 September 2026.
[3] As estimated from the Kobe plot probability in each quadrant.

Table 2. Estimated catches (landings and discards, t) of North and South Atlantic albacore tuna by gear, for the period 2016-2025.

				2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
TOTAL				44783	42299	46831	50400	49358	56323	55106	49765	44741	49505
	ATN			30400	28475	29786	34922	31274	31355	31601	28115	24390	28471
	ATS			14383	13825	17045	15478	18084	24968	23505	21651	20351	21034
Landings	ATN		Bait boat	14455	12196	11330	12662	11855	11696	11069	12008	8140	11620
			Longline	5448	5025	4567	4758	5714	4834	4371	4438	4155	3002
			Other surf.	95	139	62	179	116	115	288	170	182	305
			Purse seine	50	38	39	65	21	30	1	1	1	0
			Trawl	6299	6611	8820	10816	7577	8309	9713	5914	7426	7190
			Troll	3753	4165	4807	6292	5938	6250	6134	5536	4479	6343
	ATS		Bait boat	2949	1846	3228	2852	4297	4434	7014	3349	4722	5828
			Longline	11243	11674	13715	12473	13747	20509	16254	18106	15510	15116
			Other surf.	108	114	84	113	17	0	198	116	97	71
			Purse seine	83	190	19	3	11	21	36	69	20	12
			Troll	0	0	0	0	0	0	0	0	0	
Discards	ATN		Longline	300	302	160	151	53	121	0	35	0	0
			Other surf.	0	0	0	0	0	0	0	0	0	0
			Trawl	0	0	0	0	0	0	25	13	8	10
			Troll	0	0	0	0	0	0	0	0	0	0
	ATS		Longline	0	0	0	37	11	4	2	11	1	8
			Purse seine	0	0	0	0	0	0	0	0	0	0
Landings	ATN	CP	Barbados	38	32	15	7	10	13	12	14	4	13
			Belize	399	448	385	216	326	201	212	381	323	356
			Brazil	0	0	52	148	83	14	0	41	19	9
			Canada	20	17	26	31	12	40	27	25	19	46
			China PR	103	124	124	129	208	291	240	191	279	271
			Costa Rica	5	11	5	1	1	2	1	1	1	0
			Curaçao	0	0	12	0	0	0	0	0	0	
			Côte d'Ivoire	151	549	0	76	14	30	0	27	109	128
			EU-España	17077	13964	15691	16536	16205	17408	16870	17293	12462	17794
			EU-France	4229	4191	5824	7881	4753	5397	6362	2889	3538	2967
			EU-Ireland	2337	2492	3102	3213	2938	2879	3374	3035	4003	4356
			EU-Portugal	1111	2527	498	2493	1596	501	281	223	94	25
			Great Britain	0	0	0	0	77	165	121	110	5	95
			Grenada	50	62	37	23	22	6	3	11	2	10
			Japan	297	366	196	334	260	225	248	216	196	266
			Korea Rep	13	8	27	48	116	115	124	106	128	212
			Liberia	12	90	3	0	0	0	0	2	0	1
			Maroc	20	20	20	25	29	40	60	90	120	150
			Mexico	2	0	7	0	1	1	0	0	0	0
			Nigeria	0	0	0	0	0	0	0	0	0	8
			Panama	200	0	196	185	176	183	181	171	0	**0**
			Senegal	0	0	0	4	0	0	0	0	0	
			St Vincent and Grenadines	291	297	173	180	252	202	0	0	0	0
			Trinidad and Tobago	71	48	33	22	16	27	22	12	10	15
			UK-Bermuda	1	0	0	1	2	4	5	2	4	2
			USA	250	238	103	221	328	296	311	180	227	189
			Venezuela	287	301	165	221	246	299	317	213	180	87
		NCC	Chinese Taipei	3134	2385	2926	2770	3549	2896	2806	2782	2446	1153
			Guyana	0	0	3	1	0	0	0	0	0	
			Suriname	0	0	0	0	0	0	0	50	213	302
		NCO	Dominica	1	1	0	2	0	0	0	0	0	
			Saint Kitts and Nevis	0	0	0	0	0	0	0	0	0	
			Sta Lucia	2	1	0	1	0	0	0	2	0	5
	ATS	CP	Angola	0	0	0	0	0	0	2	0	3	
			Belize	123	219	311	158	162	31	15	0	1	4
			Brazil	658	497	343	854	534	502	543	524	605	579
			China PR	94	185	116	132	184	10	31	91	116	97
			Curaçao	14	10	0	0	0	0	18	0	0	
			Côte d'Ivoire	0	0	6	19	45	47	20	17	50	63
			EU-España	195	347	303	186	30	37	32	30	24	160
			EU-France	64	78	16	3	10	21	16	3	19	12
			EU-Portugal	9	9	11	3	2	3	3	2	5	6
			Guatemala	3	1	0	0	0	0	0	0	0	
			Guinea Ecuatorial	0	0	1	0	0	0	0	0	0	
			Japan	1096	1189	2985	1506	900	1645	1835	1541	2297	1082
			Korea Rep	48	86	167	170	131	131	153	88	167	189
			Namibia	994	214	888	260	2166	8165	6319	5773	274	1977
			Panama	5	13	1	13	31	17	12	5	0	**0**
			Senegal	0	0	0	24	0	0	0	0	0	
			South Africa	2065	1785	2572	2455	4026	3823	5587	2670	4882	6279
			St Vincent and Grenadines	107	101	98	31	0	14	23	0	0	
			Trinidad and Tobago	0	0	0	0	0	0	0	0	0	
			USA	0	0	0	0	0	0	0	0	0	
		NCC	Chinese Taipei	8907	9090	9227	9626	9851	10519	8894	10895	11905	10553
			Suriname	0	0	0	0	0	0	0	0	0	27
Discards	ATN	CP	Canada	0	0	0	0	0	0	0	0	0	0
			EU-France	0	0	0	0	0	0	25	13	8	10
			EU-Portugal	0	0	0	0	0	0	0	0	0	
			Japan	0	0	0	0	1	0	0	0	0	0
			Korea Rep	0	0	0	0	0	0	0	0	0	**0**
			Panama	0	0	0	0	0	0	0	18	0	
			UK-Bermuda	0	0	0	0	0	0	0	0	0	0
			Venezuela	300	302	160	151	52	121	0	17	0	
	ATS		Côte d'Ivoire	0	0	0	0	0	0	0	0	0	
			EU-España	0	0	0	0	0	0	0	0	0	0
			EU-France	0	0	0	0	0	0	0	0	0	0
			Japan	0	0	0	37	11	4	2	3	1	4
			Korea Rep	0	0	0	0	0	0	0	7	0	3

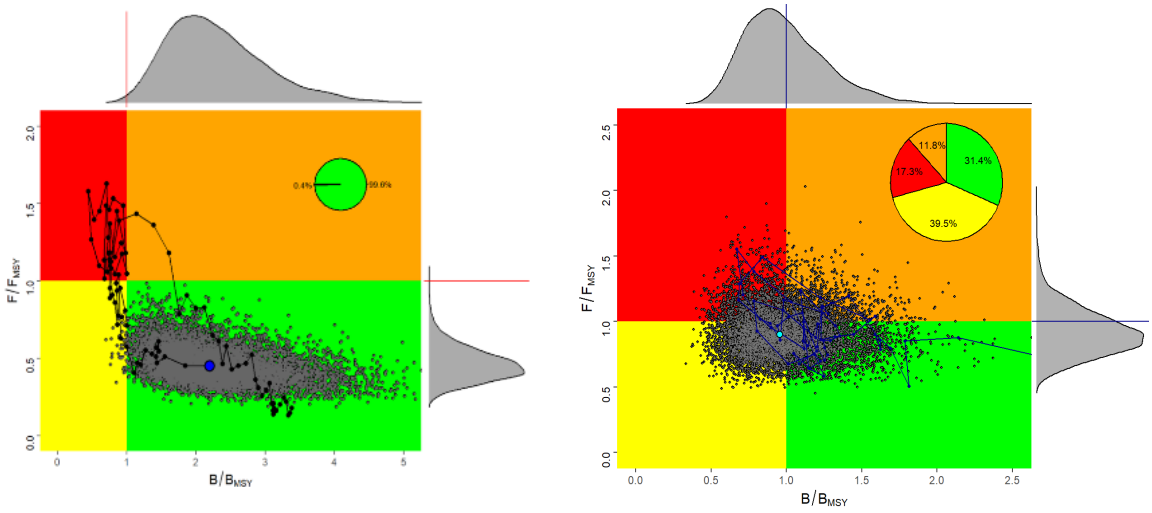


Figure 1. Kobe plot for the North (left) and South (right) Atlantic albacore tuna stock status in 2021 and 2024, respectively. The North Atlantic plot shows the stock status trajectory from 1930 to 2021, and the South Atlantic from 1958 to 2024, as estimated during the 2023 stock assessment (Anon., 2023a) and the 2026 stock assessment (Anon., 2026j), respectively. The line, in both plots, indicates the stock status trajectory starting in 1930 and 1958, respectively. The inserted pie chart indicates the probability of the stock being within each Kobe colour quadrant.

Outlook

North Atlantic

Abundance indices for the North stock showed an overall increasing trend during the last decades. Although highly uncertain, the 2021 spawning stock biomass was estimated to be well above SSB_{MSY} (not overfished), with fishing mortality well below F_{MSY} (no overfishing). The stock is in the green quadrant of the Kobe plot with 99.6% probability. The current high biomass supports catches above MSY in the short term, including at levels of the current total allowable catch (TAC) of 47,251 t.

South Atlantic

The 2026 Stock Assessment (Anon., 2026j) represents a substantial update from the 2020 Stock Assessment (Anon., 2020a), incorporating updated fisheries and size-composition data and standardized abundance indices from the main fisheries exploiting the stock (**Figure 4**). The selected reference model estimated the stock in 2024 to be less than MSY reference points, with median SSB_{2024}/SSB_{MSY} = 0.95 (0.57–1.62) and F_{2024}/F_{MSY} = 0.90 (0.62–1.31). The Kobe plot showed that there was a 31.4% probability to the green quadrant and a 39.5% probability to the yellow quadrant, indicating considerably greater uncertainty in stock status than in the 2020 stock assessment.

The change in stock perception relative to 2020 reflects both the updated biological information and the transition to an age-structured assessment framework. The SS3 assessment indicated lower stock productivity.

Management recommendation

North Atlantic

Rec. 21-04 outlines the adopted MP for the northern stock, which was chosen to achieve the management objective of maintaining the stock in the green area of the Kobe plot with at least 60% probability while maximizing long-term yield.

In the 2023 North Atlantic albacore stock assessment (Anon., 2023a), the Committee noted that the relative abundance of North Atlantic albacore has continued to increase over the last two decades and the stock was estimated to be in the green area of the Kobe plot with a greater than 99% probability.

In 2026 the Committee ran the adopted MP which resulted in a TAC of 50,000 t for 2027-2029. The Committee also updated the MSE framework and provided alternative candidate MPs (see item 19.9). The TACs for 2027-2029 obtained by applying the alternative MPs ranged from 42,000 to 50,000 t.

No exceptional circumstances (ECs) were detected that prevent the application of the adopted MP (see 19.8).

South Atlantic

In 2022, the Commission adopted a total allowable catch (TAC) of 28,000 t for the South Atlantic albacore stock for the period 2023–2026, as established under *Recommendation by ICCAT on the southern Atlantic albacore catch limits for the period 2023-2026* (Rec. 22-06). The Committee noted that, based on the available data, reported catches have remained consistently below 28,000 t since 2004 (**Table 2**).

Stochastic projections based on the selected SS3 model were conducted through 2039 using the multivariate lognormal (MVLN) approach (**Table 3**).

As noted in the outlook section, the revised stock assessment model in 2026 indicated lower stock productivity and a slower spawning-biomass response to reductions in fishing mortality. That resulted in more pessimistic projection results relative to previous stock assessments.

Table 3. Estimated probabilities of the South Atlantic albacore stock being below F_{MSY} (overfishing not occurring), above SSB_{MSY} (not overfished), and above SSB_{MSY} and below F_{MSY} (green zone) in a given year for a given catch level.

a) Probability that $F \leq F_{MSY}$

Probability $F<=F_{MSY}$													
TAC (t)	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
16000	96%	98%	98%	99%	99%	100%	100%	100%	100%	100%	100%	100%	100%
18000	90%	92%	93%	95%	96%	97%	98%	98%	99%	99%	99%	100%	100%
20000	79%	81%	82%	84%	86%	88%	89%	91%	92%	93%	94%	95%	96%
20500	75%	77%	79%	81%	82%	84%	86%	87%	89%	90%	91%	92%	93%
21000	72%	74%	75%	77%	78%	80%	82%	83%	84%	86%	87%	88%	89%
21500	68%	70%	71%	72%	74%	75%	77%	78%	80%	81%	82%	83%	85%
22000	64%	66%	67%	68%	70%	71%	72%	73%	74%	75%	77%	78%	79%
22500	61%	62%	63%	64%	65%	66%	67%	68%	69%	70%	71%	72%	73%
23000	57%	57%	58%	59%	60%	60%	61%	62%	63%	64%	64%	65%	66%
23500	53%	53%	54%	55%	55%	55%	56%	56%	57%	57%	58%	59%	59%
24000	49%	49%	49%	50%	50%	50%	51%	51%	51%	51%	51%	52%	52%
24500	45%	45%	45%	45%	45%	45%	45%	45%	45%	45%	45%	45%	45%
25000	41%	41%	41%	41%	41%	40%	40%	40%	40%	40%	40%	40%	40%
25500	38%	38%	37%	37%	36%	36%	36%	36%	36%	35%	36%	36%	36%
26000	35%	34%	34%	33%	33%	32%	32%	32%	31%	31%	32%	32%	33%
27000	28%	28%	27%	27%	26%	26%	25%	25%	25%	26%	27%	28%	29%
28000	23%	23%	22%	21%	21%	20%	20%	21%	22%	23%	28%	28%	31%

b) Probability that $SSB \geq SSB_{MSY}$

Probability $SSB>=SSB_{MSY}$													
TAC (t)	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
16000	58%	71%	80%	86%	89%	92%	95%	97%	98%	99%	99%	100%	100%
18000	55%	64%	72%	77%	81%	84%	87%	90%	92%	94%	96%	97%	98%
20000	51%	58%	64%	68%	70%	73%	75%	78%	81%	84%	86%	88%	89%
20500	50%	57%	62%	65%	68%	70%	72%	75%	77%	80%	82%	84%	86%
21000	49%	55%	59%	63%	65%	67%	69%	71%	74%	76%	78%	79%	81%
21500	48%	54%	57%	60%	62%	64%	66%	68%	70%	71%	73%	75%	77%
22000	48%	52%	55%	58%	59%	60%	62%	64%	66%	67%	69%	70%	71%
22500	47%	50%	53%	55%	56%	57%	59%	60%	62%	63%	64%	65%	66%
23000	46%	49%	51%	53%	54%	54%	55%	56%	57%	58%	59%	60%	61%
23500	45%	47%	49%	50%	51%	51%	52%	53%	53%	54%	55%	55%	56%
24000	45%	46%	47%	47%	48%	48%	48%	49%	49%	49%	50%	50%	50%
24500	44%	45%	45%	45%	45%	45%	45%	45%	45%	45%	45%	45%	45%
25000	43%	43%	43%	43%	43%	42%	42%	42%	41%	41%	41%	41%	41%
25500	42%	42%	41%	41%	40%	40%	39%	38%	38%	37%	37%	36%	36%
26000	41%	41%	39%	39%	38%	37%	36%	35%	34%	34%	33%	33%	32%
27000	40%	38%	36%	34%	33%	32%	31%	30%	29%	28%	27%	27%	26%
28000	39%	35%	32%	30%	29%	27%	26%	25%	24%	24%	24%	25%	26%

c) Probability that $F \leq F_{MSY}$ and $SSB \geq SSB_{MSY}$

Probability $F<=F_{MSY}$ and $SSB>=SSB_{MSY}$													
TAC (t)	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
16000	58%	71%	80%	86%	89%	92%	95%	97%	98%	99%	99%	100%	100%
18000	54%	64%	71%	77%	80%	84%	87%	90%	92%	94%	96%	97%	97%
20000	49%	57%	62%	66%	69%	71%	74%	77%	80%	83%	85%	87%	88%
20500	48%	54%	59%	63%	66%	68%	71%	73%	76%	78%	80%	83%	84%
21000	46%	52%	57%	60%	62%	64%	67%	69%	72%	74%	76%	78%	79%
21500	45%	50%	54%	57%	59%	61%	63%	65%	67%	69%	71%	73%	74%
22000	43%	47%	51%	53%	55%	57%	59%	61%	63%	64%	66%	67%	69%
22500	41%	45%	48%	50%	52%	53%	55%	56%	58%	59%	61%	62%	63%
23000	39%	42%	45%	46%	48%	49%	50%	52%	53%	54%	55%	56%	57%
23500	37%	40%	42%	43%	44%	45%	46%	47%	48%	49%	51%	51%	52%
24000	35%	37%	39%	40%	41%	42%	42%	43%	44%	45%	46%	46%	47%
24500	33%	34%	36%	37%	37%	38%	39%	39%	40%	41%	42%	43%	44%
25000	31%	32%	33%	33%	34%	35%	35%	36%	37%	38%	39%	38%	36%
25500	29%	30%	30%	30%	31%	31%	32%	33%	34%	35%	33%	31%	30%
26000	27%	28%	28%	28%	28%	29%	29%	30%	31%	29%	27%	26%	25%
27000	23%	23%	23%	23%	23%	23%	24%	25%	23%	21%	20%	19%	18%
28000	19%	19%	19%	19%	19%	19%	20%	19%	18%	15%	18%	15%	14%

Additional supporting information

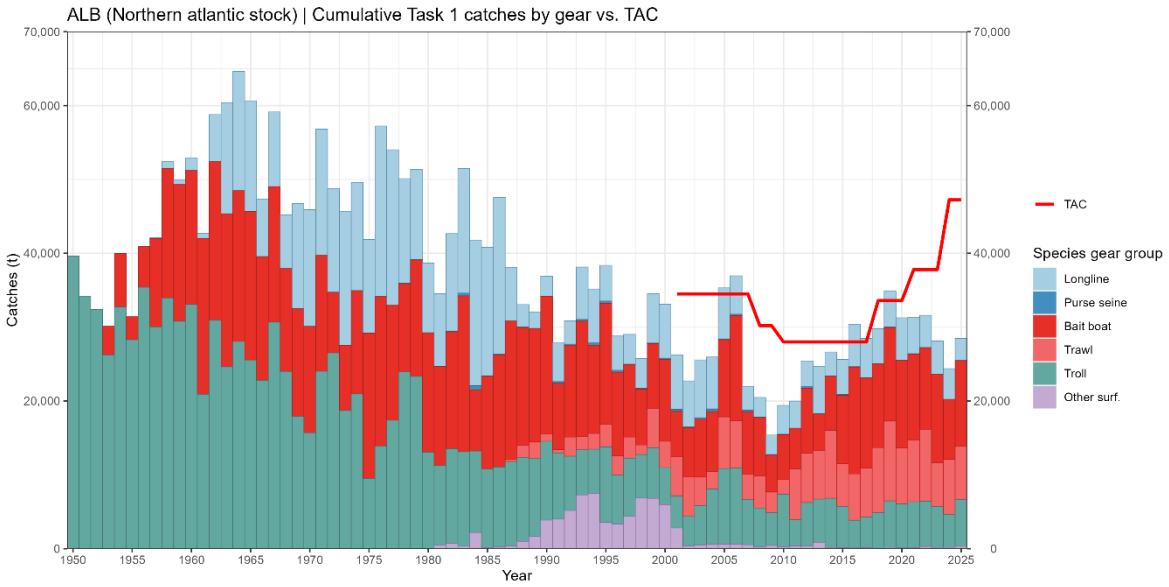


Figure 2. Albacore northern Atlantic stock total reported and estimated catches (landings and dead discards, t) by year and major gear. Data as of 18 September 2026.

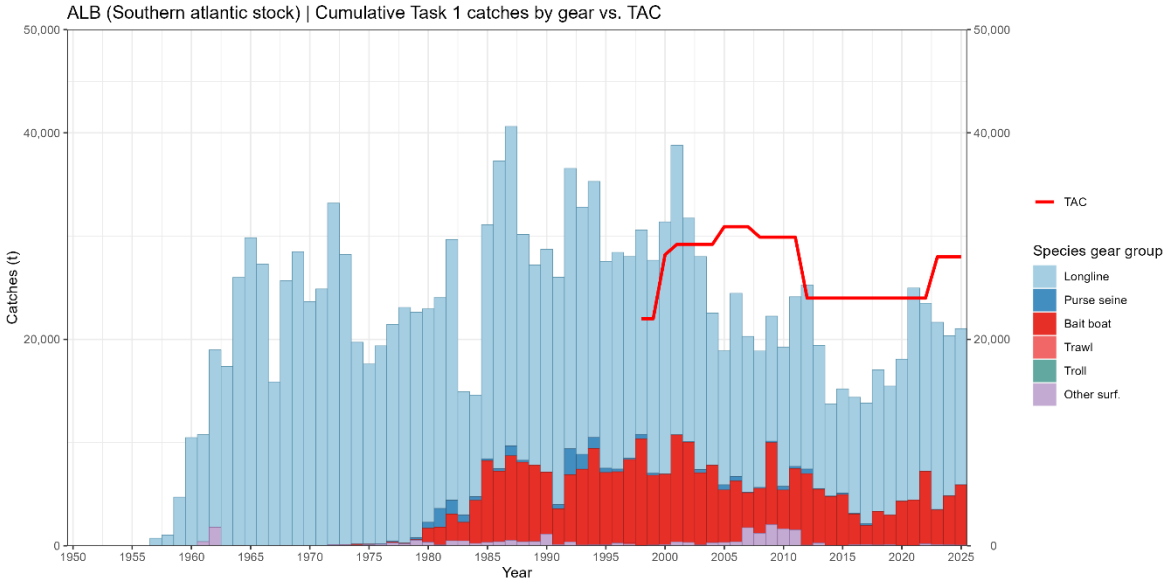


Figure 3. Albacore southern Atlantic stock total reported and estimated catches (landings and dead discards, t) by year and major gear. Data as of 18 September 2026.

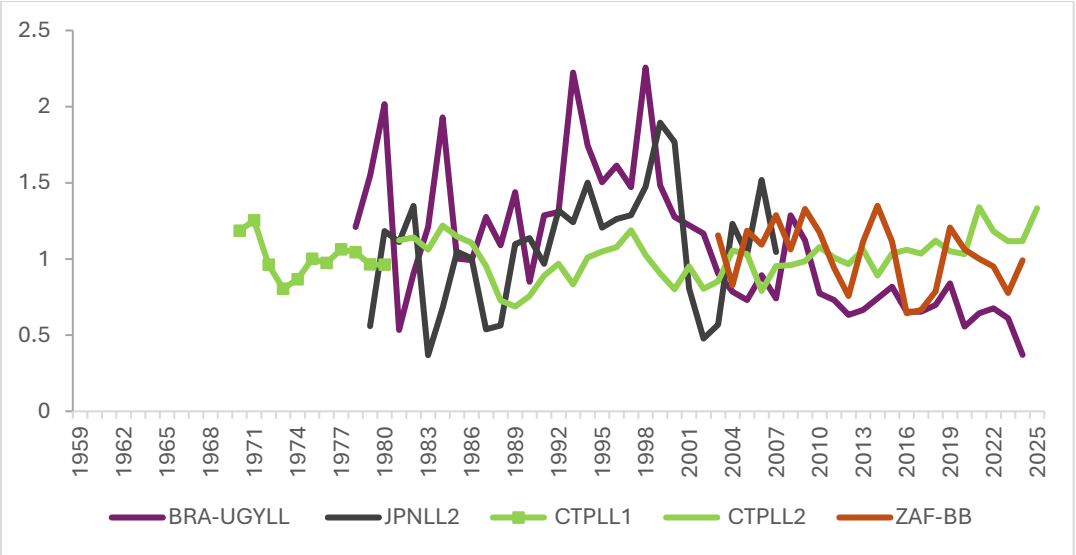


Figure 4. Standardized longline catch per unit effort (CPUE) indices for South Atlantic albacore used in the 2026 stock assessment (Anon., 2026j).

*12.5 ALB-MD-Med. Albacore (*Thunnus alalunga*)*

Introduction

The current status of the Mediterranean albacore stock is based on the stock assessment (Anon., 2024f) carried out in 2024, which was conducted using catch and catch per unit effort (CPUE) data up to 2022. Two scenarios, defined based on the treatment of the available larval abundance index, were analyzed using a Bayesian state space surplus production model (JABBA) (Anon., 2021b, Anon., 2024f). A summary of the stock status is reported in **Table 1**. The Kobe Phase Plots for both scenarios are summarized in **Figure 1**. **Table 2** provides estimated catches (landings and discards, t) available in Task 1 nominal catches for the period 2016-2025, while **Figure 2** shows the historical catch series by major gear.

Table 1. Mediterranean albacore summary table.

Indicator		***Stock Status***
Maximum Sustainable Yield (MSY)	Scenario 1: 3,564 t (2,584 t - 4,663 t) Scenario 2: 4,174 t (2,831 t - 7,936 t)[1]	2022
TAC (2025)	2,500 t	
Current (2025) Yield	2,423 t[2]	
Relative Biomass (B_{2022}/B_{MSY})	Scenario 1: 0.58 (0.31-1.10) Scenario 2: 1.44 (0.59-2.64)[1]	
Relative Fishing Mortality (F_{2022}/F_{MSY})	Scenario 1: 1.22 (0.66-2.10)[1] Scenario 2: 0.42 (0.13-1.17)[1]	
Stock Status	Overfished: Scenario 1 – YES; Scenario 2 - NO Overfishing: Scenario 1 – YES; Scenario 2 - NO	
Management measures in effect	Rec. 22-05; Rec. 24-08: TAC for years 2025-2026: 2,500 t.	

[1] Median and 95% credibility intervals for the Bayesian surplus production model under the two alternative scenarios considered.
[2] Provisional and subject to revision as of 18 September 2026.

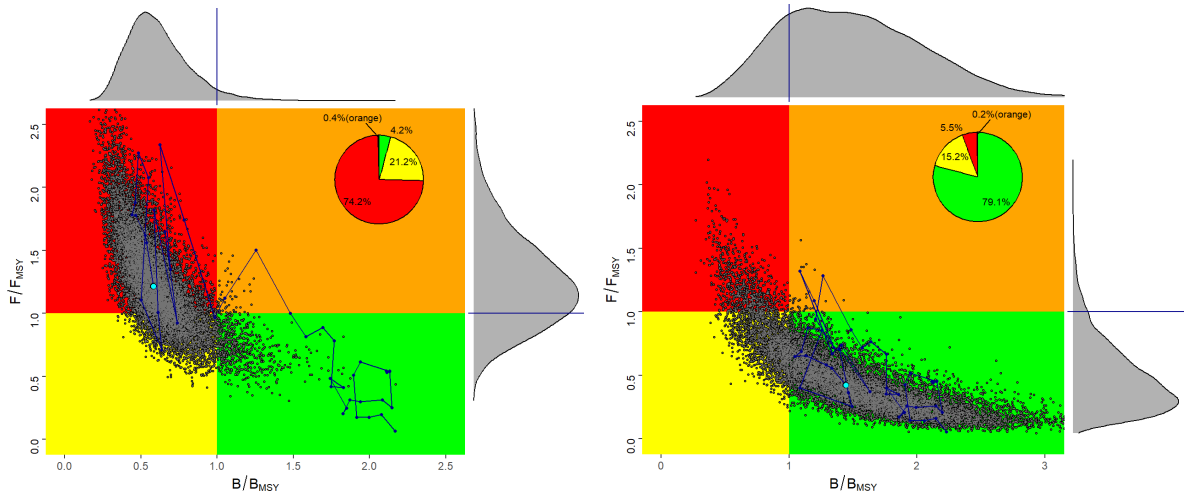


Figure 1. Mediterranean albacore stock status trajectories of B/B_{MSY} and F/F_{MSY} over time (1980-2022) with uncertainty around the current estimate (Kobe plots) for Bayesian surplus production model. The inserted pie indicates the probability of the stock being within each Kobe colour quadrant, for scenarios 1 (left) and 2 (right). The probability distributions shown in each axis represent uncertainty around current B/B_{MSY} and F/F_{MSY}.

Table 2. Estimated catches (landings and dead discards, t) of Mediterranean albacore tuna by area, gear, and flag for the period 2016-2025.

				2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
TOTAL	MED			4396	3176	2863	2762	2675	2895	2295	2421	2508	2423
Landings			Longline	4333	3087	2378	2656	2497	2798	2112	2261	2326	2081
			Other surf.	4	2	2	8	29	1	33	19	12	11
			Purse seine	34	82	481	30	66	72	110	129	138	235
			Trawl	9	3	2	2	5	13	1	0	0	
			Troll	0	2	1	67	62	5	1	1	7	1
Discards			Longline	16	0	0	0	16	5	39	11	24	95
Landings		CP	Algerie	0	0	0	0	0	0	0	0	40	
			EU-Croatia	7	2	2	1	1	0	0	0	0	0
			EU-Cyprus	542	568	624	714	632	513	448	346	301	302
			EU-España	51	206	71	68	67	133	98	134	100	104
			EU-France	0	0	0	15	15	24	36	13	9	2
			EU-Greece	1332	608	522	297	158	182	145	245	256	282
			EU-Italy	1490	1348	1044	1287	1423	1192	1154	1167	1296	1198
			EU-Malta	56	4	104	77	13	137	50	30	44	8
			Egypt	77	396	429	278	316	622	177	164	159	153
			Libya	800	0	30	21	19	17	20	150	110	
			Maroc	0	0	0	0	0	10	10	10	10	10
			Tunisie	0	0	0	0	0	0	0	0	8	17
			Türkiye	25	44	38	4	16	58	118	150	150	250
Discards			EU-Cyprus	16	0	0	0	16	5	37	8	23	95
			EU-España	0	0	0	0	0	0	2	3	0	0

Outlook

The Committee emphasized that the substantial uncertainties in the assessment, which resulted in two very different stock statuses, prevent the provision of a clear outlook for the stock at this time. The two alternative scenarios considered would support substantially different TAC values in the future and the Committee was unable to judge which one reflects the most appropriate scenario.

The two alternative scenarios considered in the assessment were projected to 2036 using the current TAC (2,500 t) and probabilities of $B \geq B_{MSY}$ were at or above 60% by the end of the projection period for both scenarios. While the Committee was unable to judge which one of the scenarios was the most appropriate it appears that the current TAC will recover the stock and achieve $B \geq B_{MSY}$ with a probability higher than 60% regardless of which is the most appropriate scenario.

Management recommendations

Before the Committee can provide robust management recommendations for the stock, further work is required to address key issues such as the treatment of the western Mediterranean larval index and the reliability of the available catch data. Uncertainty in total catch is of paramount importance in production models and, to the extent that the reported catches are inaccurate or incomplete, the ability of these models to reflect the stock dynamics accurately is undermined. Therefore, the Committee suggested re-evaluating the stock status only after addressing the main concerns expressed.

In the 2024 Mediterranean albacore assessment, the Committee emphasized that the notable uncertainties prevented providing specific TAC advice. However, the Committee noted that, in both scenarios analyzed, the TAC (2,500 t) at that time would allow to meet the management objectives (Rec. 24-08 para 1) to recover the stock above B_{MSY} with a probability higher than 60% by 2036.

Additional information

Two scenarios were considered: one with the larval index as a continuous series and one splitting the index into two time series (2001-2005/2012-2022).

The results from these two scenarios provided very different perceptions of the stock status. The two scenarios were projected to 2036 with current TAC (2,500 t), and probabilities of $B \geq B_{MSY}$ were at or above 60% by the end of the projection period for both scenarios.

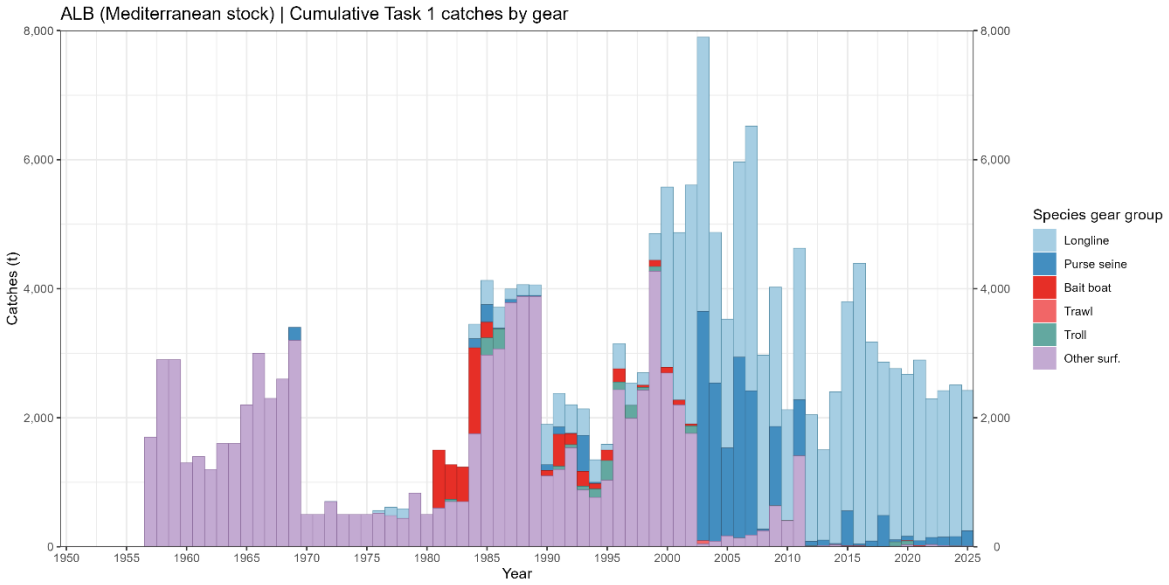


Figure 2. Albacore Mediterranean (ALB-M stock) total reported and estimated catches (landings and dead discards, t) by year and major gear. Data as of 18 September 2026.

*12.6 BFT-Bluefin tuna (*Thunnus thynnus*)*

Introduction

In 2022, the ICCAT Commission adopted a Management Procedure (MP) for both the western Atlantic and eastern Atlantic and Mediterranean management areas (*Recommendation by ICCAT establishing a management procedure for Atlantic bluefin tuna to be used for both the western Atlantic and eastern Atlantic and Mediterranean management areas* (Rec. 22-09)). The MP frees the assessment process from having to provide annual TAC advice and allows the stock assessment process to return to its traditional strengths which are to provide a determination of relative stock status. According to the adopted MP (*Recommendation by ICCAT amending the Recommendation 22-09 establishing a management procedure for Atlantic bluefin tuna to be used for both the western Atlantic and eastern Atlantic and Mediterranean management areas* (Rec. 23-07)), stock assessments will continue to be conducted but on a reduced frequency.

In 2026, the Committee provided updated stock status estimates based on fishing mortality in 2024 as a part of the MP review process. As in previous stock assessments the Committee employed $F_{0.1}$ as a reasonable proxy for F_{MSY} as fishing at $F_{0.1}$ would, over the longer term, allow the resource to fluctuate around the true, but unknown, value of $B_{0.1}$ regardless of the future recruitment level. Similar to previous assessments, the models were not able to provide reliable biomass-based benchmarks, due to known uncertainties.

Summaries of stock status and estimated catches and discards by gear for eastern Atlantic and Mediterranean Sea and western Atlantic are provided in **Tables 1** (a: East and b: West) and **2**, respectively, while historical catches for the eastern Atlantic and Mediterranean Sea and western Atlantic are shown in **Figures 1** and **2**, respectively.

Table 1a. Eastern Atlantic and Mediterranean Sea bluefin tuna summary table.

Indicator		***Stock Status***
Maximum Sustainable Yield (MSY)	Unknown	2024
TAC (2025)	40,570 t	
Current (2025) Yield	39,757 t[1]	
Relative Fishing Mortality ($F_{2024}/F_{0.1}$)	0.73 (0.31-0.98)[2]	
Stock Status	Overfishing: NO (1.8% probability of overfishing)[3]	
Management measures in effect	Rec. 25-04; Rec. 23-07	
Managed according to a Management Procedure: Recommended TAC for the period 2026-2028 of 48,403 t (Rec. 25-04)		

Table 1b. Western Atlantic bluefin tuna summary table.

Indicator		***Stock Status***
Maximum Sustainable Yield (MSY)	Unknown	2024
TAC (2025)	2,726 t	
Current (2025) Yield	2,442 t[1]	
Relative Fishing Mortality ($F_{2024}/F_{0.1}$)	0.69 (0.6-0.79)[2]	
Stock Status	Overfishing: NO (<1% probability of overfishing)[3]	
Management measures in effect	Rec. 25-05; Rec. 23-07 TAC for years 2026-2028: 3,081.6 t	

[1] As of 18 September 2026.
[2] Median and 95% confidence interval across the models.
[3] As in prior assessments, reference points to determine biomass status could not be reliably estimated.

Table 2. Estimated catches and discards of Atlantic bluefin tuna by stock and gear, for the period 2016-2025.

				2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
TOTAL				21314	25517	29853	33442	37255	37407	37800	42099	42391	42199
	ATE			5968	7216	8157	9044	10874	10308	10477	10994	11013	10813
	MED			13445	16451	19626	22092	24174	24789	24623	28541	28417	28943
	ATW			1901	1850	2069	2306	2208	2310	2700	2564	2961	2442
Landings	ATE		Baitboat	1085	1187	679	845	936	1031	1026	1036	1070	907
			Longline	1829	2208	2730	3128	3313	3249	3294	3632	3580	3288
			Other surf.	261	295	340	320	381	359	368	430	448	454
			Purse seine	42	49	11	56	190	147	107	111	333	80
			Sport (HL+RR)	35	109	132	92	156	267	245	237	273	175
			Traps	2716	3362	4258	4594	5889	5255	5434	5541	5302	5906
	MED		Baitboat	0	18	22	72	103	81	88	117	115	151
			Longline	1523	1184	1518	1485	1638	1657	1785	2030	2253	2330
			Other surf.	38	3	36	53	42	68	61	76	59	46
			Purse seine	11340	14493	17128	19515	21123	21987	21587	24950	24776	25393
			Sport (HL+RR)	308	472	616	611	865	740	717	875	841	701
			Traps	227	272	300	353	399	252	384	407	349	244
	ATW		Longline	562	559	706	675	576	653	913	888	955	977
			Other surf.	93	123	77	168	134	175	209	190	189	229
			Sport (HL+RR)	1204	1144	1263	1450	1482	1444	1521	1461	1783	1200
			Traps	10	13	3	4	4	4	0	0	0	
Discards	ATE		Longline	0	5	7	9	8	1	4	5	8	2
			Other surf.	0	0	0	0	0	0	0	0	0	1
			Sport (HL+RR)	0	0	0	0	0	0	0	2	0	
	MED		Longline	0	0	0	0	0	0	0	82	16	75
			Purse seine	9	10	6	4	5	4	2	3	7	4
			Sport (HL+RR)	0	0	0	0	0	0	0	0	1	0
	ATW		Longline	29	10	18	7	8	31	54	25	33	35
			Other surf.	3	1	2	2	4	3	3	1	1	2
			Sport (HL+RR)	0	0	0	0	0	0	0	0	0	
Landings	ATE	CP	China PR	54	64	79	89	101	101	72	116	113	85
			EU-Denmark	0	1	0	0	1	3	6	6	5	6
			EU-España	1986	2509	2489	2729	3289	2953	3301	3464	3297	3606
			EU-France	343	350	461	462	557	559	540	637	671	709
			EU-Ireland	32	16	17	6	16	16	20	19	17	26
			EU-Netherlands	2	0	0	0	0	0	0	1	0	
			EU-Portugal	327	429	450	475	592	614	583	634	640	564
			Great Britain	3	0	0	0	0	2	5	22	40	39
			Guinea Ecuatorial	0	0	7	0	0	0	0	0	0	
			Iceland	6	0	0	0	1	1	0	1	2	0
			Japan	1578	1905	2262	2514	2773	2779	2867	3083	2977	2749
			Korea Rep	161	181	208	232	247	242	252	274	268	258
			Maroc	1433	1703	2164	2476	3089	2884	2704	2611	2598	2667
			Norway	44	51	12	49	194	152	123	117	153	100
			Senegal	0	0	0	0	0	0	0	0	225	
		NCO	ICCAT (RMA)	0	0	0	1	6	2	2	2	2	2
	MED	CP	Albania	47	56	100	156	168	148	168	264	263	262
			Algerie	448	1038	1300	1437	1649	1650	1655	1995	2011	2043
			EU-Croatia	515	630	738	827	903	903	816	988	958	1015
			EU-Cyprus	59	110	133	151	153	169	168	189	184	196
			EU-España	1467	1688	2706	2660	2774	3228	2760	3243	3317	3009
			EU-France	3054	3661	4360	4919	5316	5289	5303	5963	5965	6320
			EU-Greece	218	235	267	313	354	327	424	367	397	358
			EU-Italy	2725	3196	3860	4286	4731	4699	4727	5136	5142	5303
			EU-Malta	212	261	308	338	387	382	387	428	428	444
			Egypt	99	124	181	263	122	327	67	0	5	514
			Libya	1368	1631	1792	2052	2228	2232	2223	2530	2474	2602
			Maroc	350	439	407	444	365	410	862	1053	1021	1060
			Syria	47	57	66	72	79	0	79	0	0	
			Tunisie	1486	1783	2102	2380	2653	2730	2659	2990	3002	2991
			Türkiye	1324	1515	1284	1771	2258	2266	2295	3282	3200	2722
		NCO	Gibraltar	14	16	15	17	20	22	25	28	25	25
			ICCAT (RMA)	1	1	0	0	0	0	1	0	0	0
			Palestine	2	2	2	2	10	2	2	1	0	**0**
	ATW	CP	Brazil	0	0	0	0	0	0	0	1	0	
			Canada	466	472	550	666	580	626	613	598	616	609
			EU-España	0	0	0	0	0	0	0	0	1	
			EU-Portugal	0	0	0	0	0	0	0	0	0	
			FR-St Pierre et Miquelon	0	0	0	0	0	0	0	0	0	1
			Grenada	0	0	0	0	0	0	0	0	0	
			Japan	345	346	406	406	407	410	657	610	702	683
			Mexico	55	34	80	39	28	63	60	39	16	10
			UK-Bermuda	0	0	0	0	1	1	0	1	0	0
			USA	1002	986	1013	1185	1178	1177	1311	1291	1593	1102
		NCO	Dominica	0	0	0	0	0	0	0	0	0	
Discards	ATE	CP	EU-Denmark	0	0	0	0	0	0	0	2	0	
			EU-Ireland	0	0	0	0	0	0	0	0	0	1
			Japan	0	5	7	9	8	1	4	5	8	2
	MED		EU-Croatia	4	5	6	4	5	4	2	3	11	2
			EU-Cyprus	0	0	0	0	0	0	0	5	3	4
			EU-España	0	0	0	0	0	0	0	77	10	70
			Libya	0	0	0	0	0	0	0	0	0	3
			Tunisie	5	5	0	0	0	0	0	0	0	
	ATW		Canada	8	1	4	3	5	5	6	4	8	12
			Japan	0	0	1	0	0	0	0	1	2	2
			Mexico	0	0	0	0	0	0	0	0	0	**0**
			USA	24	10	15	6	8	28	50	20	24	23

Outlook

The eastern Atlantic and Mediterranean Sea stock (BFT-E) and the western Atlantic stock (BFT-W) are both managed using a single MP tested under MSE to set separate TACs for the West and East areas. Based on the MSE analysis, the adopted MP (BR) is expected to maintain both stocks in the green quadrant of the Kobe matrix with 60% probability over the next 30 years. The status check conducted in 2026, using data to 2024, indicates that neither stock was undergoing overfishing in 2024 nor was overfishing occurring since the adoption of the MP through 2024.

Management recommendation

The Committee provided the results of the adopted MP in 2025. The adopted TAC for the eastern area for 2026-2028 was 48,403 t (Rec. 25-04). The adopted TAC for the western area for 2026-2028 was 20% higher than the TAC produced by BR. Rec. 25-05 states that "if the total catch in the western area exceeds 3,081.6 t in any year, it shall constitute an exceptional circumstance".

Additional supporting information

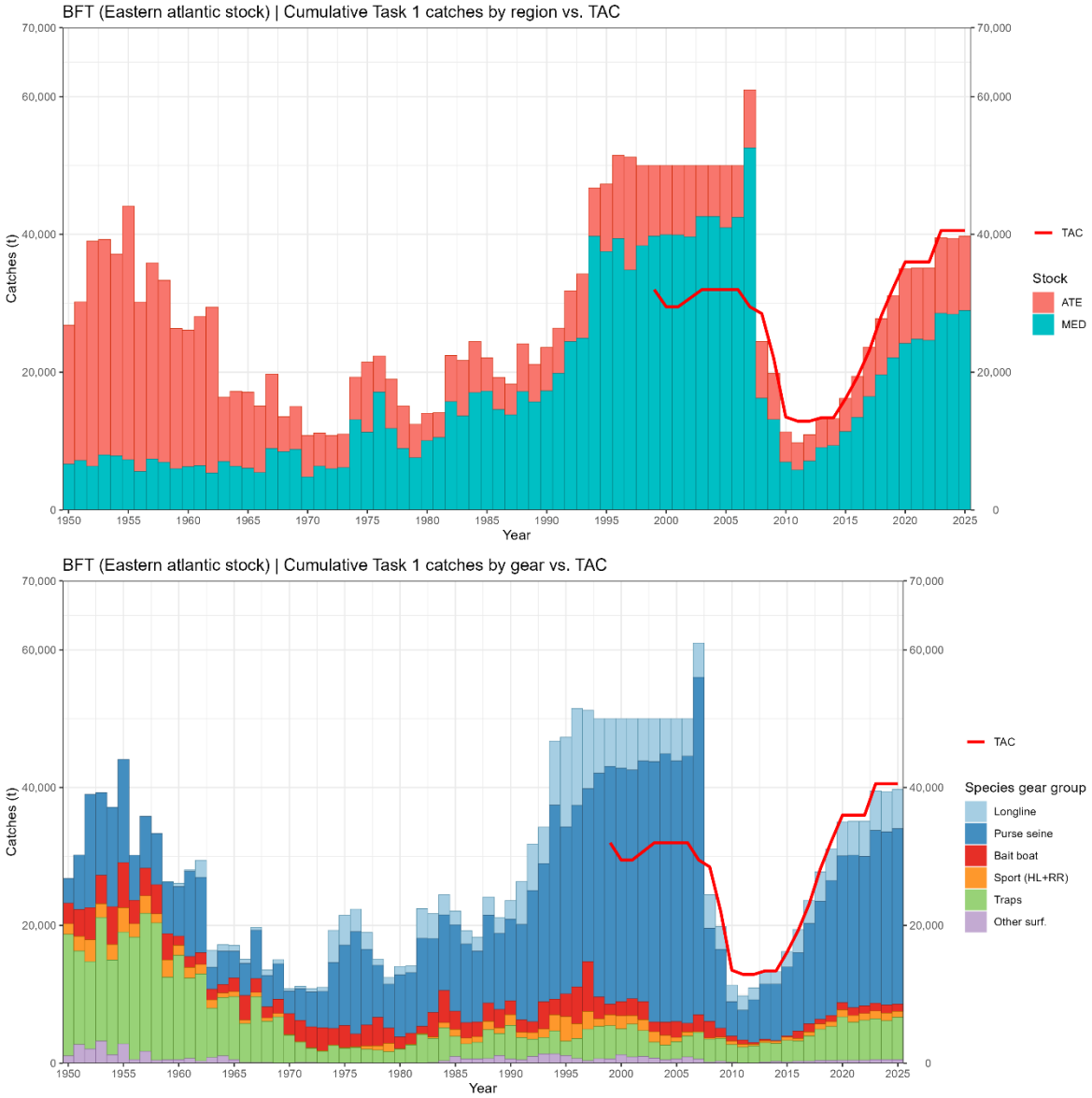


Figure 1. Reported catch for the East Atlantic and Mediterranean from Task 1 data from 1950 to 2025 split by main geographic areas (top panel) and by gears (bottom panel) together with unreported catch estimated by the Committee from 1998 to 2007 and TAC levels since 1998. Data as of 18 September 2026.

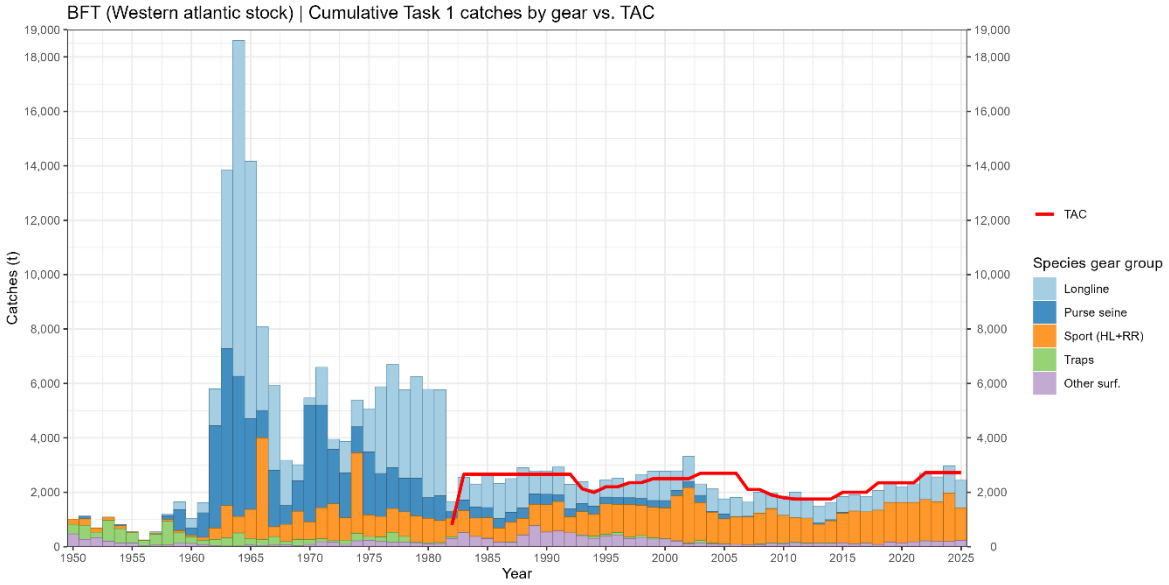
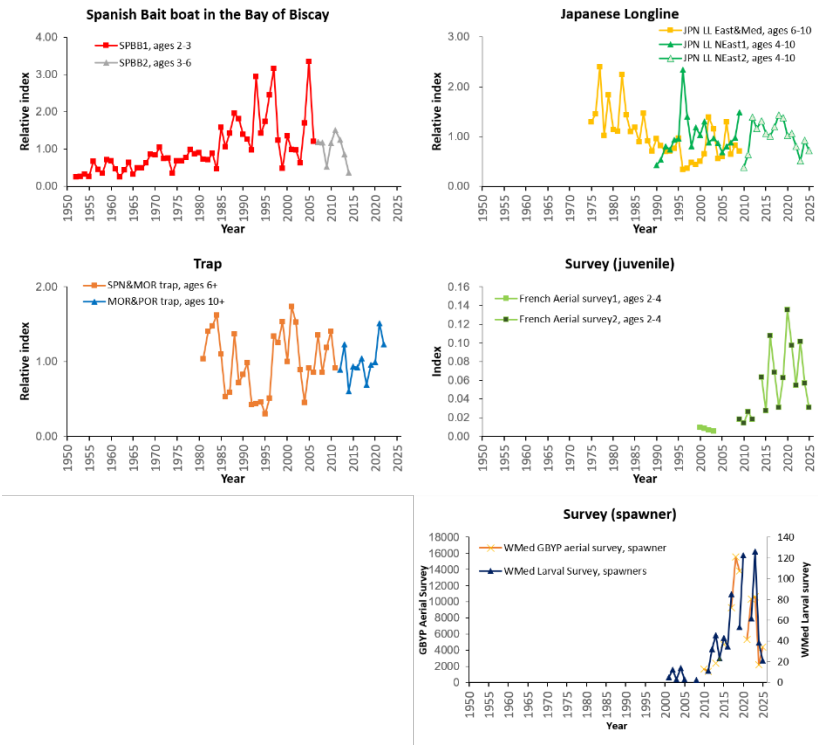


Figure 2. Historical catches of western bluefin tuna: (a) by gear type and (b) TACs agreed by the Commission (which are shown for comparison). Data as of 18 September 2026.

The Committee provides updated indices of relative abundance used for the status check and used for the management procedure (**Figure 3**). The Committee remains concerned that the indices remain impacted by unquantified environmental factors, changing availability of the fish and operational changes in fishing practices.

Both status checks for the BFT-E and BFT-W indicate that management actions including appropriate catch and size limits coupled with changes in fishing practices to focus on larger fish (**Figure 4**) have contributed substantially to current sustainable yields.

East Atlantic and Mediterranean



West Atlantic

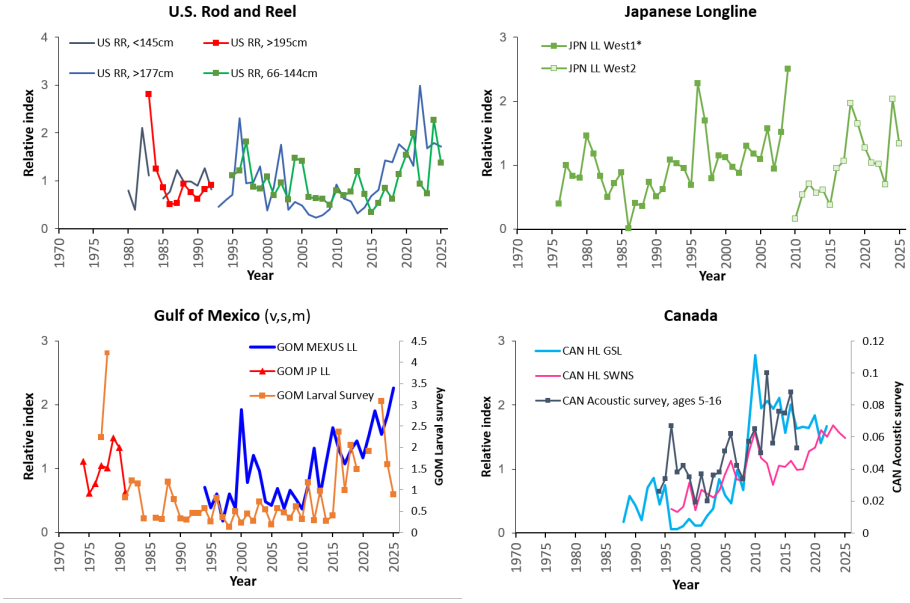


Figure 3. Plots of the updated fishery dependent and independent indicators used for the East Atlantic and Mediterranean bluefin tuna (top) and the West Atlantic (bottom) stocks. All fishery dependent indicators are standardized series and scaled to their averages. The Spanish BB series was split in two series to account for changes in selectivity patterns, and the latest series was calculated using French BB data due to the sale of the quota by the Spanish fleet. The Japanese longline CPUEs for the Northeast Atlantic and West Atlantic were split in 2009/2010 and the French aerial survey index was split in 2008/2009. The Moroccan-Portugal index data points between 2023 and 2025 reflected substantial changes in the fishing operations, hence the index data points for these years were not used. The 1986 low data point of the Japanese longline in the West Atlantic was removed in the Stock Synthesis models.

East Atlantic and Mediterranean

West Atlantic

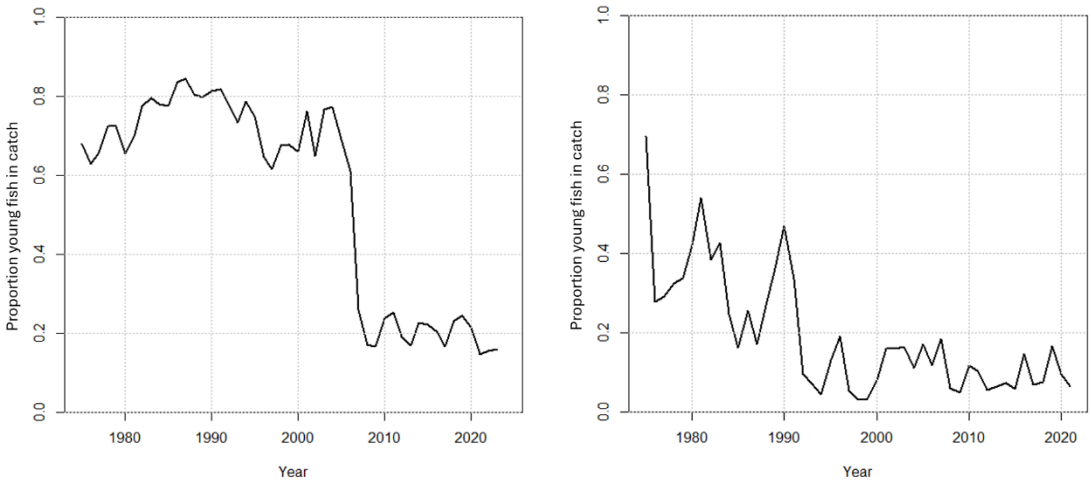


Figure 4. Estimated proportion (in numbers) of young fish (ages 0-3) in catches for the East Atlantic and Mediterranean bluefin tuna (left) and the West Atlantic (right) stocks.

12.7 SBF-Southern bluefin

The Commission for the Conservation of Southern Bluefin Tuna (CCSBT) is charged with assessing the status of southern bluefin tuna. Each year the SCRS reviews the CCSBT report in order to know the research on southern bluefin tuna and the stock assessments carried out. The reports are available from the CCSBT.

12.8 BUM-Blue marlin (Makaira nigricans)

Introduction

A stock assessment was conducted for blue marlin in 2024, through a process that included the Atlantic Blue Marlin Data Preparatory Meeting in March 2024 (Anon., 2024a) and the Blue Marlin Stock Assessment Meeting in June 2024 (Anon., 2024i). The last year of fishery data used in the stock assessment was 2022, applying a grid approach that incorporated both surplus production and age-structured models to reflect uncertainty in biological parameters. A summary of the stock status is provided in **Table 1**. The Kobe Plot of current status estimates are summarized in **Figure 1**. The estimated catches and discards by gear and also by CPC, for the period 2016-2025 are shown in **Table 2**, while **Figure 2** shows the historical catch series by major gear.

Table 1. Blue marlin summary table.

Indicator		***Stock Status***
Maximum Sustainable Yield (MSY)[1]	3,331 t (2,323 t - 4,659 t)[3]	2022
Landing limit 2025	1,670 t	
Current (2025) Yield[2]	1,618 t	
Relative Biomass (B_{2022}/B_{MSY}) if applicable	0.67 (0.30-1.35)[3]	
Relative Fishing Mortality (F_{2022}/F_{MSY})[1]	0.91 (0.40-1.64)[3]	
Stock Status	Overfished: YES (84% probability of being overfished)[4] Overfishing: NO (39% probability of overfishing)[4]	
Management measure in effect	Rec. 19-05, Landing limit 2025 of 1,670 t	

[1] Base case/combined model: model results based on catch data from year-year.
[2] Provisional and subject to revision as of 18 September 2026.
[3] Point estimate, 95% bias corrected confidence intervals are shown.
[4] As estimated from the Kobe plot probability in each quadrant.

Table 2. Estimated catches and discards of Atlantic blue marlin (*Makaira nigricans*) by gear, for the period 2016-2025.

				2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
TOTAL	A+M			2149	2743	2074	1985	2402	2547	2085	1930	1988	1618
Landings			Longline	1227	1570	1105	1234	1400	1225	925	973	859	534
			Other surf.	637	795	571	495	744	988	849	514	407	295
			Sport (HL+RR)	220	276	256	135	136	181	163	307	384	610
Landings(FP)			Other surf.	0	0	0	0	0	0	31	12	8	
Discards			Longline	53	74	45	56	59	46	37	39	245	175
			Other surf.	13	29	97	65	64	108	80	83	85	4
			Sport (HL+RR)	0	0	0	0	0	0	0	0	0	0
Landings		CP	Barbados	11	24	21	13	22	12	9	10	9	9
			Belize	13	1	6	0	2	0	0	0	9	
			Brazil	79	64	37	20	13	2	3	5	3	8
			Cabo Verde	0	0	0	0	0	2	0	0	0	
			Canada	0	0	0	0	0	0	0	0	0	0
			China PR	50	40	42	46	37	4	10	35	37	31
			Costa Rica	48	74	35	27	15	24	11	8	23	9
			Curaçao	0	44	2	20	15	2	6	1	0	
			Côte d'Ivoire	72	44	32	163	41	148	6	70	81	56
			EU-España	225	321	106	103	437	461	204	53	23	14
			EU-France	168	209	152	171	282	162	174	216	288	311
			EU-Ireland	0	0	0	0	0	0	0	0	0	0
			EU-Portugal	50	57	74	19	28	37	36	48	45	32
			El Salvador	0	15	0	0	1	0	0	0	0	
			Ghana	44	162	60	44	53	278	121	196	42	45
			Great Britain	0	0	0	0	0	0	0	0	0	
			Grenada	53	54	62	69	49	31	30	79	38	60
			Guatemala	0	23	23	0	15	0	0	0	0	
			Japan	296	430	287	357	293	284	317	386	366	167
			Korea Rep	27	26	26	13	27	13	11	13	16	15
			Liberia	127	65	24	18	21	119	31	55	66	51
			Maroc	7	82	64	46	27	46	39	37	41	39
			Mauritania	0	0	0	0	0	0	0	0	0	
			Mexico	66	60	68	51	39	43	29	44	35	27
			Namibia	32	57	84	53	51	70	8	99	11	2
			Nigeria	0	0	0	0	0	0	0	0	0	13
			Panama	0	21	21	0	14	12	0	0	0	
			S Tomé e Príncipe	10	13	86	88	34	109	75	76	29	24
			Senegal	82	39	25	21	358	73	332	38	51	53
			South Africa	0	0	0	0	0	0	0	0	0	0
			St Vincent and Grenadines	0	2	2	1	2	2	0	0	0	
			Trinidad and Tobago	19	0	0	0	0	1	0	0	0	0
			UK-Bermuda	2	1	2	1	1	1	1	1	1	2
			UK-Sta Helena	0	0	0	0	0	0	0	0	0	
			USA	19	13	20	17	17	22	22	23	18	17
			Venezuela	180	198	133	118	73	97	123	115	145	34
		NCC	Chinese Taipei	75	73	74	40	70	76	40	58	94	60
			Guyana	19	29	27	128	39	75	81	0	0	27
		NCO	Dominica	49	74	52	45	64	54	54	57	55	214
			Dominican Republic	170	183	176	87	58	72	72	67	71	70
			Jamaica	0	0	0	0	0	0	0	0	1	
			Saint Kitts and Nevis	2	8	12	0	2	5	4	4	4	4
			Sta Lucia	91	134	93	82	78	61	85	0	49	44
Landings(FP)		CP	EU-España	0	0	0	0	0	0	19	0	0	
			EU-France	0	0	0	0	0	0	12	12	8	
Discards			Belize	0	0	0	0	0	0	0	0	9	
			Canada	0	0	0	0	0	7	0	0	0	0
			Curaçao	0	4	0	0	1	0	0	0	0	
			EU-España	7	7	80	57	55	102	71	76	235	86
			EU-France	6	11	12	9	5	5	8	7	2	4
			EU-Portugal	1	1	1	1	1	1	1	1	1	0
			El Salvador	0	2	0	0	0	0	0	0	0	
			Guatemala	0	2	2	0	2	0	0	0	0	
			Japan	0	0	5	8	16	8	2	7	35	34
			Mexico	0	0	0	0	0	0	0	0	0	**0**
			Panama	0	2	2	0	2	0	0	0	0	
			UK-Bermuda	0	0	0	0	0	0	0	0	0	**0**
			USA	25	47	22	24	20	9	16	18	18	25
		NCC	Chinese Taipei	27	26	16	22	21	20	18	13	31	30

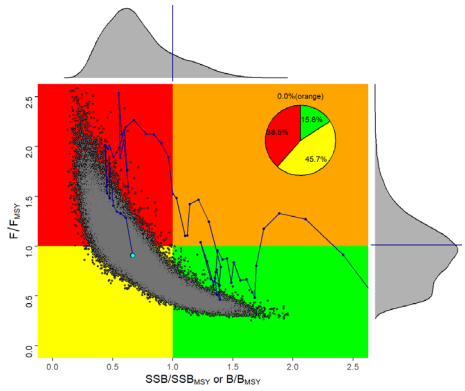


Figure 1. Kobe plot for the Atlantic blue marlin stock status in 2022, estimated during the 2024 stock assessment (Anon., 2024i). The line indicates the stock status trajectory starting in 1952. The inserted pie chart indicates the probability of the stock being within each Kobe colour quadrant. The probability distributions shown in each axis represent uncertainty around current B/B_{MSY} (SS3, SSB/SSB_{MSY}) and F/F_{MSY}.

Outlook

Projections resulting from the Bayesian Surplus Production and age-structured models indicated that constant catch scenarios equal to or less than 2,250 t resulted in a low probability (less than 5%) of stock biomass falling below too low levels (10% or 20% of B_{MSY}) by 2034. Higher catch scenarios showed increasing risk.

Management recommendation

The results of the final combined models were used to produce estimated probabilities of achieving the Convention objectives ($B \geq B_{MSY}$, $F \leq F_{MSY}$) for a given level of constant catch, for each year up to 2034 (**Table 3**). The Committee emphasizes that unaccounted uncertainties, mostly associated with the levels of landings and dead discards, continue to hamper the ability of the Committee to provide sound management advice. The results from the 2024 stock assessment models were used to support management advice under multiple constant catch scenarios, taking into account the uncertainties associated with landings and dead discards.

Given these uncertainties, the Committee reiterated its recommendation in 2024 that the Commission adopt catch limits based on total catch (i.e., landings plus dead discards) of 1,670 t or lower, rather than landings alone as in *Recommendation by ICCAT to establish rebuilding programs for blue marlin and white marlin/roundscale spearfish* (Rec. 19-05), and maintain these limits until the increasing biomass trend observed in the 2024 stock assessment is confirmed at the next blue marlin stock assessment. It is critical that CPCs report complete catch data, including both landings and dead discards, to ensure accurate assessments and effective management of the blue marlin stock.

Table 3. Kobe II matrices for Atlantic blue marlin giving the probability that $F \leq F_{MSY}$, $B \geq B_{MSY}$ and the joint probability of $F \leq F_{MSY}$ and $B \geq B_{MSY}$, between 2025 and 2034, with various constant catch levels (landing plus dead discards) based on Bayesian Surplus Production model and SS model base case model results.

a) Probability that $F \leq F_{MSY}$

Catch (t)	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1000	97%	98%	98%	99%	99%	99%	99%	99%	99%	99%
1250	93%	94%	95%	96%	96%	97%	97%	97%	98%	98%
1500	85%	87%	89%	90%	91%	92%	93%	94%	94%	95%
1750	74%	77%	80%	82%	84%	85%	86%	87%	88%	89%
2000	63%	66%	69%	71%	73%	75%	77%	78%	79%	80%
2250	52%	55%	58%	60%	62%	64%	66%	67%	69%	70%
2500	42%	45%	48%	50%	52%	53%	55%	56%	58%	59%
2750	35%	37%	39%	40%	42%	43%	44%	45%	46%	47%
3000	28%	30%	31%	32%	33%	34%	35%	36%	36%	37%
3250	23%	24%	24%	25%	26%	26%	27%	27%	27%	28%
3500	18%	19%	19%	19%	19%	20%	19%	20%	20%	20%

b) Probability that $B \geq B_{MSY}$

Catch (t)	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
0	35%	45%	56%	65%	72%	78%	83%	86%	89%	92%
1000	32%	39%	46%	53%	59%	64%	69%	73%	76%	79%
1250	31%	37%	44%	50%	55%	60%	65%	69%	72%	75%
1500	30%	36%	41%	47%	52%	56%	60%	64%	67%	70%
1750	29%	34%	39%	44%	48%	52%	56%	59%	62%	65%
2000	29%	33%	37%	40%	44%	47%	51%	54%	56%	59%
2250	28%	31%	35%	38%	41%	43%	46%	48%	51%	53%
2500	27%	30%	32%	35%	37%	39%	41%	43%	45%	46%
2750	27%	29%	30%	32%	34%	35%	37%	38%	39%	40%
3000	26%	27%	28%	29%	30%	31%	32%	33%	34%	34%
3250	25%	26%	27%	27%	27%	28%	28%	28%	29%	29%
3500	25%	25%	25%	24%	24%	24%	24%	24%	24%	24%

c) Probability that $F \leq F_{MSY}$ and $B \geq B_{MSY}$

Catch (t)	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
0	35%	45%	56%	65%	72%	78%	83%	86%	89%	92%
1000	32%	39%	46%	53%	59%	64%	69%	73%	76%	79%
1250	31%	37%	44%	50%	55%	60%	65%	69%	72%	75%
1500	30%	36%	41%	47%	52%	56%	60%	64%	67%	70%
1750	29%	34%	39%	44%	48%	52%	56%	59%	62%	65%
2000	29%	33%	37%	40%	44%	47%	51%	54%	56%	59%
2250	28%	31%	35%	38%	40%	43%	46%	48%	51%	53%
2500	27%	30%	32%	35%	37%	39%	41%	43%	44%	46%
2750	26%	28%	30%	31%	33%	34%	36%	37%	38%	39%
3000	24%	25%	26%	28%	29%	30%	30%	31%	32%	32%
3250	21%	22%	22%	23%	23%	24%	24%	25%	25%	25%
3500	17%	18%	18%	18%	18%	19%	18%	19%	19%	19%

Additional supporting information

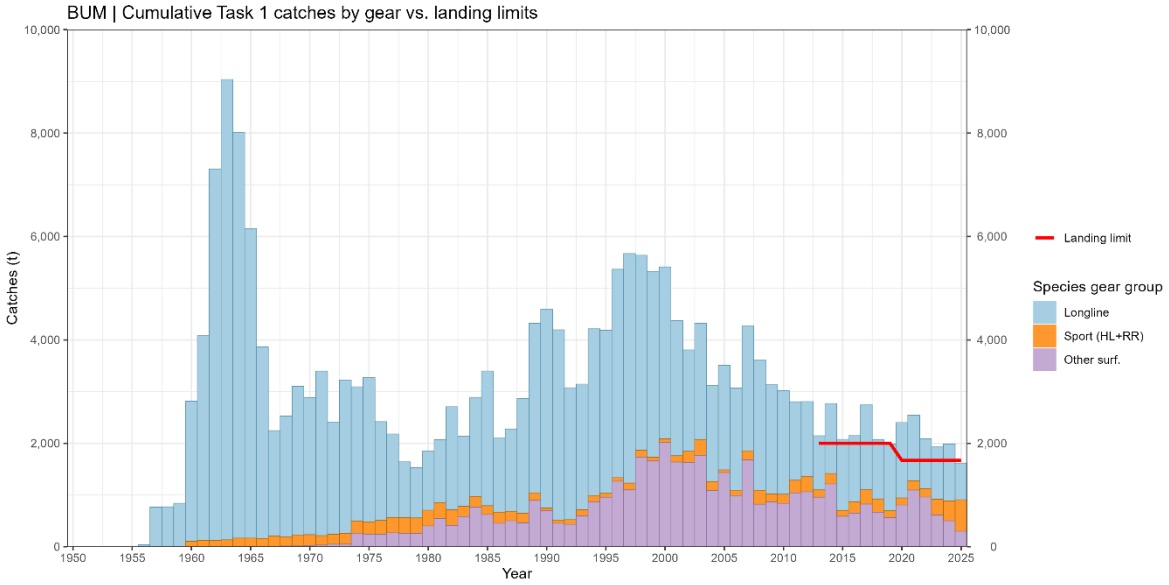


Figure 2. Blue marlin Atlantic (BUM-A stock) total reported and estimated catches (landings and dead discards, t) by year and major gear. Data as of 18 September 2026.

*12.9 WHM-White marlin (*Kajikia albida*)*

Introduction

The assessment of white marlin includes the combined assessment of white marlin (WHM) and roundscale spearfish (RSP). Because of difficulties in species identification, white marlin landings reported to ICCAT include roundscale spearfish and historical statistics of white marlin most likely comprise a mixture of the two species. A stock assessment was conducted for white marlin/roundscale spearfish in 2025, through a process that included the Atlantic White Marlin Data Preparatory Meeting in March 2025 (Anon., 2025b) and the Atlantic White Marlin Stock Assessment Meeting in July 2025 (Anon., 2025h). The last year of fishery data used in the assessment was 2023. The Committee agreed that it was not advisable to estimate stock projections for this stock assessment. Therefore, no projections scenarios were conducted, and no Kobe matrices were provided. A summary of the stock status is provided in **Table 1**. The Kobe Phase Plot and uncertainty of current status estimates is summarized in **Figure 1.** The estimated catches and discards by gear, for the period 2016-2025, are shown in **Table 2**, while **Figure 2** shows the historical catch series by major gear.

Table 1. White marlin/roundscale spearfish summary table.

Indicator		***Stock Status***
Maximum Sustainable Yield (MSY)[1]	1,497 t (1,160 t - 1,937 t)[3]	2023
Landing limit 2025	355 t	
Current (2025) Yield[2]	99 t	
Relative Biomass (B_{2023}/B_{MSY})	0.80 (0.394 – 1.611)[3]	
Relative Fishing Mortality (F_{2023}/F_{MSY})	0.191 (0.089 – 0.348)[3]	
Stock Status	Overfished: YES (73% probability of being overfished)[4] Overfishing: NO (<1% probability of overfishing)[4]	
Management measures in effect	Rec. 18-04 and Rec. 19-05 Landing limit 2025 of 355 t	

[1] Base case model results based on catch data from 1956-2023.
[2] Provisional and subject to revision as of 18 September 2026.
[3] Point estimate, 95% credibility intervals are shown.
[4] As estimated from the Kobe plot probability in each quadrant.

Table 2. Estimated catches and discards of white marlin/roundscale spearfish (*Kajikia albida, Tetrapturus georgii)* by gear, for the period 2016-2025.

				2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
TOTAL	A+M			484	508	305	319	253	181	229	184	144	99
Landings			Longline	440	451	233	223	204	137	181	123	84	69
			Other surf.	29	39	26	27	31	31	38	38	31	21
			Sport (HL+RR)	4	5	10	3	7	5	2	6	4	2
Discards			Longline	10	13	35	65	11	9	7	16	25	8
			Other surf.	0	0	0	0	0	0	0	0	0	0
Landings		CP	Barbados	14	17	22	12	14	10	10	8	7	8
			Brazil	67	47	62	76	46	0	41	17	1	4
			Cabo Verde	0	0	0	0	0	0	0	0	0	
			Canada	1	2	1	1	1	2	1	1	1	2
			China PR	0	3	2	3	2	2	2	2	2	0
			Curaçao	0	1	1	0	0	0	0	0	0	
			Côte d'Ivoire	1	1	1	0	0	0	1	1	0	
			EU-España	96	118	11	11	44	56	47	15	11	12
			EU-France	1	1	0	0	0	2	0	1	0	0
			EU-Ireland	0	0	0	0	0	0	0	0	0	0
			EU-Portugal	11	13	0	0	1	9	1	4	1	1
			El Salvador	0	3	0	0	0	0	0	0	0	
			Ghana	1	0	0	0	0	0	0	0	0	**0**
			Grenada	15	9	11	19	14	1	5	13	5	7
			Guatemala	0	0	0	0	0	0	0	0	0	
			Japan	9	10	6	11	7	8	3	9	3	1
			Korea Rep	0	0	0	0	1	0	0	0	0	
			Liberia	0	0	1	0	0	0	0	1	0	
			Maroc	0	0	1	0	0	0	0	0	0	
			Mauritania	0	0	0	0	0	0	0	0	0	
			Mexico	20	12	16	9	10	12	8	8	9	6
			Nigeria	0	0	0	0	0	0	0	0	0	0
			Panama	0	0	0	0	0	0	0	0	0	
			S Tomé e Príncipe	15	13	7	10	11	20	27	27	17	14
			Senegal	0	0	0	1	1	0	0	0	0	
			St Vincent and Grenadines	0	8	8	5	9	0	0	1	4	
			Trinidad and Tobago	20	30	27	26	28	0	18	0	2	9
			UK-Bermuda	0	0	0	0	0	0	0	0	0	0
			USA	1	2	3	2	6	2	2	1	2	1
			Venezuela	186	194	80	65	44	43	55	58	52	25
		NCC	Chinese Taipei	10	5	6	2	2	4	1	1	1	1
			Guyana	4	5	4	0	0	0	0	0	0	
		NCO	Jamaica	0	0	0	0	0	0	0	0	0	
			Sta Lucia	0	1	1	0	1	0	0	0	0	0
Discards		CP	Canada	0	0	0	0	0	3	1	1	1	1
			Curaçao	0	0	0	0	0	0	0	0	0	
			EU-España	0	0	0	0	0	0	0	0	2	1
			EU-France	0	0	0	0	0	0	0	0	0	**0**
			EU-Portugal	1	1	1	1	1	1	1	1	1	1
			El Salvador	0	0	0	0	0	0	0	0	0	
			Guatemala	0	0	0	0	0	0	0	0	0	
			Japan	0	0	2	1	1	0	0	1	1	0
			Mexico	0	0	0	0	0	0	0	0	0	0
			Panama	0	0	0	0	0	0	0	0	0	
			UK-Bermuda	0	0	0	0	0	0	0	0	0	**0**
			USA	3	5	2	2	1	1	1	1	1	3
			Venezuela	0	0	26	54	1	0	0	10	16	
		NCC	Chinese Taipei	2	2	1	3	3	1	1	0	1	2
		NCO	NEI (BIL)	4	6	3	4	3	2	3	3	3	

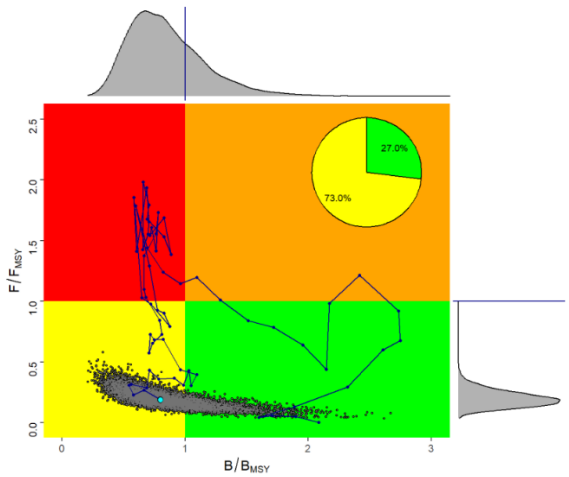


Figure 1. Kobe plot for the Atlantic white marlin/roundscale spearfish stock status in 2023, estimated during the 2025 stock assessment. The line indicates the stock status trajectory starting in 1956. The inserted pie chart indicates the probability of the stock being within each Kobe colour quadrant. The probability distributions shown in each axis represent uncertainty around current B/B_{MSY} and F/F_{MSY}.

Outlook

The Kobe plot for the base case[2] (**Figure 1**) shows a historical trajectory moving from the overfished and overfishing quadrant (red) in the 1970s toward the overfished but not overfishing quadrant (yellow) through the 1990s and early 2000s. The most recent estimate (2023) lies within the yellow quadrant, indicating that the stock remained below B_{MSY}, but was being fished at levels below F_{MSY}. The posterior distribution in the Kobe plot shows that 73% of the estimated biomass and fishing mortality combinations fall in the yellow quadrant, and 27% in the green quadrant, suggesting high probability that overfishing was not occurring but that the stock remained overfished.

The Committee also concluded that, given the uncertainty in stock recruitment dynamics in recent years, it was not advisable to estimate stock projections for this stock assessment. Therefore, no projections scenarios were conducted, and no Kobe matrices were provided.

The Committee noted that the relative biomass has not increased by much despite relative fishing mortality having declined considerably over that time period (**Figure 3**).

Management recommendation

The Committee noted that despite the recent reported catches have been below the 355 t landing limits established in the *Recommendation by ICCAT to establish rebuilding programs for blue marlin and white marlin/roundscale spearfish* (Rec. 19-05) para 2, the stock has shown limited signs of recovery. Concerns were raised by the Committee regarding the potential impact of unreported catches, including both dead and live discards, which introduce uncertainty into current catch estimates. In order to better assess the status of the stock and provide more robust management advice, it is essential that CPCs comply with the data reporting requirements (i.e. landings and estimates of discards, size data) and provide improved indices of abundance. Until this objective is reached, future white marlin/roundscale spearfish stock assessments will continue to be hampered by data uncertainties and will limit the ability of the Committee to provide robust management advice for this stock.

The Committee reiterated the importance that the Commission, at the very least, maintains the landing limit of 355 t as set in paragraph 2 of Rec. 19-05.

[2] The "base case" refers to the run coded Group 0_no_CTP_LL2 in the Report of the White Marlin Stock Assessment Meeting (Anon., 2025h) which was used for the summary of stock status.

The Committee concluded that the stock status of Atlantic white marlin/roundscale spearfish at the end of 2023 indicated that the biomass remained below B_{MSY} with a median B/B_{MSY} estimated at 0.80 (95% credible interval (CRI): 0.394 - 1.611), and a fishing mortality below F_{MSY} with median F/F_{MSY} at 0.191 (95% CRI: 0.089 - 0.348) (**Figure 1 and Table 1**).

Additional supporting information

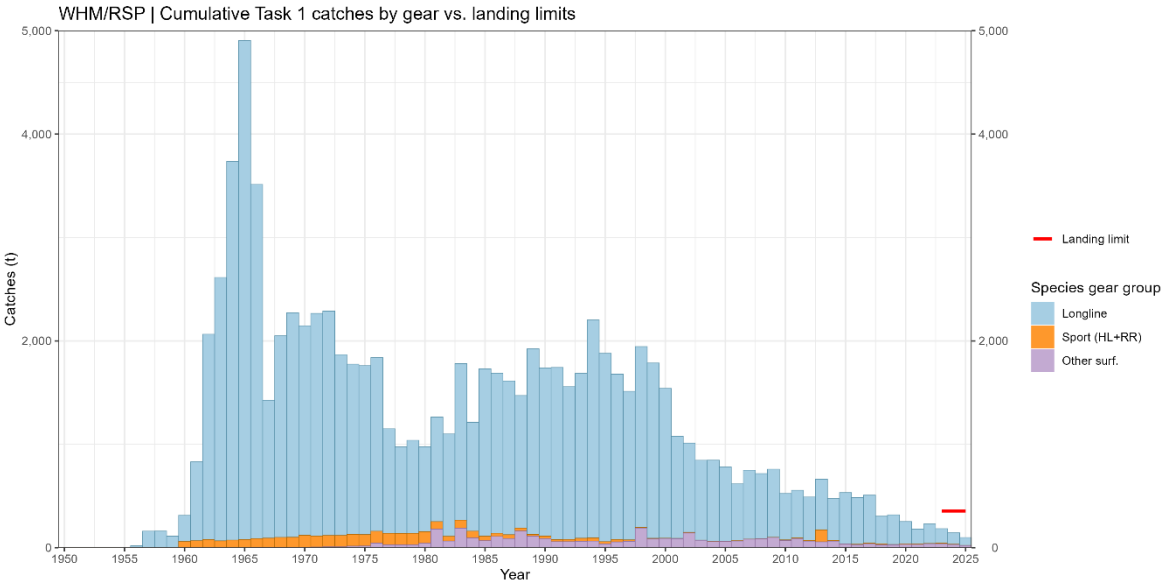


Figure 2. White marlin Atlantic (WHM-A stock) and roundscale spearfish total reported and estimated catches (landings and dead discards, t) by year and major gear. Data as of 18 September 2026.

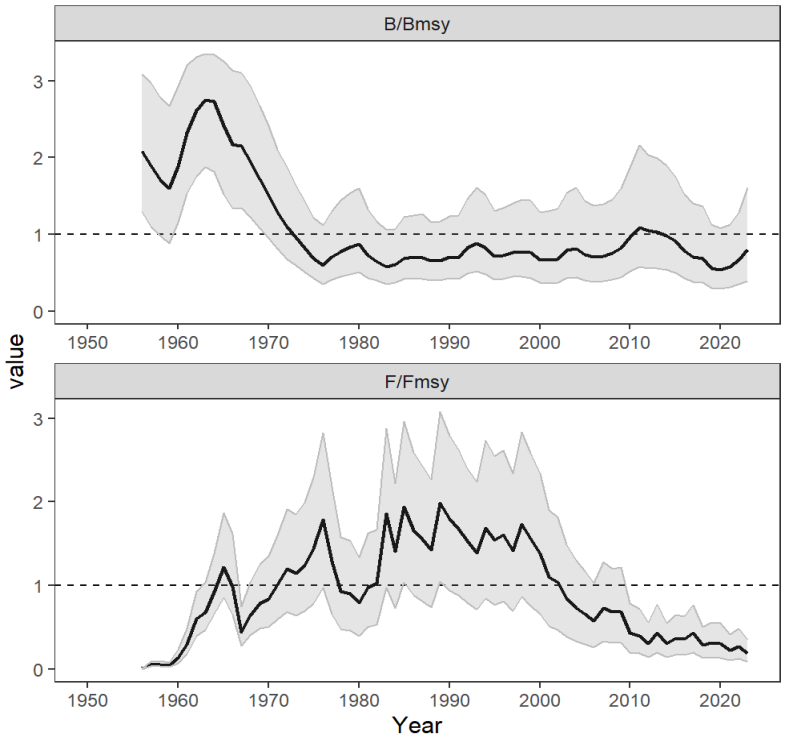


Figure 3. Trajectories of biomass relative to B_{MSY} (B/B_{MSY}) at the end of the years and fishing mortality relative to F_{MSY} (F/F_{MSY}) for the final base case model for the Atlantic white marlin, the shaded area indicates the 95% CRI bounds.

12.10 SFA-Sailfish (Istiophorus platypterus)

Introduction

The most recent stock assessments for East and West sailfish were conducted in the Atlantic Sailfish Data Preparatory and Stock Assessment Meeting (Anon., 2023b) held in June 2023 using catch data available to 2021, through a process that included a single meeting for the data preparatory and stock assessment. The previous East and West stock assessments were conducted in the Sailfish Stock Assessment Meeting (Anon., 2017a) held in June 2016.

For the East stock, a single assessment platform was used - Just Another Bayesian Biomass Assessment (JABBA), a Bayesian Surplus Production based model. For the western stock JABBA and Stock Synthesis (SS) models were used to determine stock status and to conduct projections to estimate the Kobe II Strategic Matrix (K2SM). However, post-meeting examination of SS results identified issues with the model solution that could not be addressed in time for the results to be presented here and included in the management advice. Therefore, the state of the stock for West Atlantic sailfish was based on the JABBA model runs. A summary of the stock status is provided below (**Table 1a and Table 1b**). The Kobe Phase Plots and uncertainty of current status estimates are summarized in **Figure 1**. The estimated catches and discards by gear, for the period 2016-2025 are shown in **Table 2**, while **Figure 2** shows the historical catch series by major gear.

Table 1a. West Atlantic sailfish summary table.

Indicator		***Stock Status***
Maximum Sustainable Yield (MSY)[1]	1,612 t (1,357 t - 1,968 t)[3]	2021
TAC (2025)	1,080 t[4]	
Current (2025) Yield[2]	1,143 t	
Relative Biomass (B_{2021}/B_{MSY})	0.96 (0.59-1.45)	
Relative Fishing Mortality (F_{2021}/F_{MSY})[1]	0.59 (0.36-0.95)	
Stock Status	Overfished: YES (59% probability of being overfished)[5] Overfishing: NO (2% probability of overfishing)[5]	
Management measures in effect	Rec. 16-11: Limit catches to the level of 67% of MSY	

Table 1b. East Atlantic sailfish summary table.

Indicator		***Stock Status***
Maximum Sustainable Yield (MSY)[1]	2,337 t (2,003 t - 2,833 t)[3]	2021
TAC (2025)	1,566 t[4]	
Current (2025) Yield[2]	1,757 t	
Relative Biomass (B_{2021}/B_{MSY})	1.83 (1.14-2.88)[3]	
Relative Fishing Mortality (F_{2021}/F_{MSY})	0.36 (0.21-0.59)[3]	
Stock Status	Overfished: NO (<1% probability of being overfished) [5] Overfishing: NO (<1% probability of overfishing) [5]	
Management measure in effect	Rec. 16-11: Limit catches to the level of 67% of MSY	

[1] Base case/combined model: model results based on catch.
[2] Provisional and subject to revision as of 18 September 2026.
[3] Point estimate, 95% credibility intervals are shown.
[4] Both landings and dead discards. SCRS updated this value based on the 2023 stock assessment to be 67% of MSY.
[5] As estimated from the Kobe plot probability in each quadrant.

Table 2. Estimated catches and discards of Atlantic sailfish (*Istiophorus platypterus*) by gear, for the period 2016-2025.

				2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
TOTAL				3161	3619	2917	3895	2611	2667	2279	2351	2518	2900
	ATE			1424	1651	962	2271	1219	1733	1183	1084	1243	1757
	ATW			1737	1967	1955	1625	1392	934	1096	1267	1275	1143
Landings	ATE		Longline	340	356	499	965	357	217	371	434	322	235
			Other surf.	1083	1191	453	1274	792	974	645	478	771	1402
			Sport (HL+RR)	0	94	1	2	50	537	71	144	131	115
	ATW		Longline	1648	1779	1778	1498	1344	772	983	1144	1152	1040
			Other surf.	67	169	163	115	42	122	91	110	110	84
			Sport (HL+RR)	15	13	6	6	2	38	19	10	10	8
Landings(FP)	ATE		Other surf.	0	0	0	0	0	0	79	5	3	
Discards			Longline	2	4	3	7	6	3	4	14	8	4
			Other surf.	0	5	6	23	14	2	13	9	8	0
	ATW		Longline	7	7	7	5	3	2	3	4	2	11
			Other surf.	0	0	0	0	0	0	0	0	0	0
Landings	ATE	CP	Angola	0	0	0	0	0	0	0	0	0	
			Belize	0	0	0	0	0	0	1	3	0	0
			Brazil	0	0	0	0	0	0	0	6	0	2
			Cabo Verde	0	0	0	0	0	1	0	0	0	
			China PR	2	4	2	11	25	1	4	169	26	73
			Curaçao	0	1	0	0	0	0	0	0	0	
			Côte d'Ivoire	38	405	35	959	404	336	60	85	195	170
			EU-España	225	236	278	325	108	107	286	88	148	67
			EU-France	8	12	8	33	8	2	11	4	5	
			EU-Portugal	30	27	123	66	51	13	30	14	16	12
			El Salvador	0	17	1	0	1	0	0	0	0	
			Gabon	0	5	0	0	2	1	0	1	0	
			Gambia	0	0	0	0	0	0	0	0	0	53
			Ghana	238	267	82	78	68	0	0	0	0	**0**
			Guatemala	0	0	0	0	0	0	0	0	0	
			Guinea Ecuatorial	0	0	0	2	3	5	3	28	12	14
			Japan	52	45	47	62	48	30	21	44	74	42
			Korea Rep	8	15	11	8	16	6	2	6	6	3
			Liberia	0	59	11	50	47	3	25	9	12	15
			Mauritania	0	0	0	0	0	0	0	0	0	
			Namibia	0	0	0	0	10	22	0	47	8	
			Panama	0	1	1	1	12	0	0	5	0	
			S Tomé e Príncipe	212	219	20	234	28	223	224	225	188	133
			Senegal	586	301	313	397	350	972	417	310	525	1150
			South Africa	0	0	0	0	0	0	0	0	0	1
			St Vincent and Grenadines	0	2	0	0	0	0	0	0	0	
		NCC	Chinese Taipei	23	26	21	16	17	6	2	14	9	16
	ATW	CP	Barbados	56	42	20	15	15	20	18	17	9	15
			Belize	11	19	62	104	42	0	0	0	96	163
			Brazil	59	39	43	17	28	24	11	9	8	8
			Canada	0	0	0	0	0	0	0	0	0	
			China PR	3	6	2	9	160	8	5	92	32	156
			Costa Rica	9	13	14	6	2	4	1	3	3	2
			Curaçao	0	0	0	0	0	0	0	0	0	
			Côte d'Ivoire	0	0	0	0	0	0	0	0	0	14
			EU-España	207	454	256	228	62	73	314	50	19	11
			EU-France	0	0	1	1	2	35	15	7	12	7
			EU-Portugal	0	1	37	9	3	0	1	2	0	0
			El Salvador	0	1	0	0	0	0	0	0	0	
			Grenada	137	165	150	111	97	61	58	177	90	183
			Japan	13	7	3	18	3	6	10	7	2	1
			Mexico	47	51	24	27	20	24	17	20	17	11
			Nigeria	0	0	0	0	0	0	0	0	0	1
			Panama	415	0	461	378	417	198	122	95	0	**0**
			St Vincent and Grenadines	85	8	10	5	19	0	0	0	0	
			Trinidad and Tobago	53	64	51	56	47	43	37	31	28	48
			USA	3	3	3	3	1	1	2	2	1	1
			Venezuela	597	1041	763	628	462	430	480	734	788	290
		NCC	Chinese Taipei	5	5	5	4	7	2	1	5	7	1
			Guyana	25	33	37	0	0	0	0	0	0	
			Suriname	0	0	0	0	0	0	0	12	159	219
		NCO	Dominica	3	3	2	1	2	2	2	1	1	
			Jamaica	0	0	0	1	0	0	0	0	0	
			Saint Kitts and Nevis	0	0	1	0	0	0	0	0	0	
			Sta Lucia	1	4	2	0	0	0	1	0	0	2
Landings(FP)	ATE	CP	EU-España	0	0	0	0	0	0	74	0	0	
			EU-France	0	0	0	0	0	0	5	5	3	
Discards			Curaçao	0	0	0	0	0	0	0	0	0	
			EU-España	0	0	5	21	13	2	12	9	9	0
			EU-France	0	3	1	2	1	0	1	0	0	
			EU-Portugal	0	1	1	1	1	0	0	0	1	0
			El Salvador	0	2	0	0	0	0	0	0	0	
			Guatemala	0	0	0	0	0	0	0	0	0	
			Japan	0	0	0	1	3	0	0	11	1	3
			Panama	0	0	0	0	0	0	0	0	0	
		NCC	Chinese Taipei	1	4	2	4	2	2	3	2	5	1
	ATW	CP	EU-España	0	0	0	0	0	0	0	0	0	**0**
			EU-France	0	0	0	0	0	0	0	0	0	**0**
			EU-Portugal	0	0	0	0	0	0	0	0	0	**0**
			El Salvador	0	0	0	0	0	0	0	0	0	
			Mexico	0	0	0	0	0	0	0	0	0	0
			USA	7	6	6	5	3	2	2	3	1	10
		NCC	Chinese Taipei	0	0	1	0	0	0	0	0	0	1

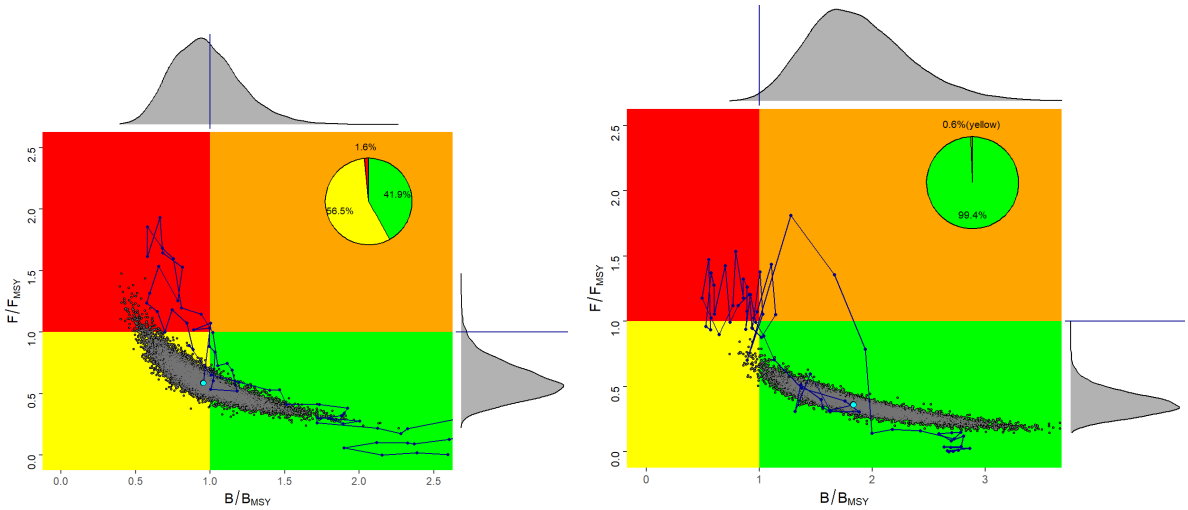


Figure 1. Kobe phase plot for the West (left panel) and East (right panel) Atlantic sailfish stock. Solid black dots and solid lines indicate the stock status trajectory, with the blue dot indicating the terminal year (2021), and grey dots are the interactions for the terminal year with the marginal distributions plotted in the lateral axis.

Outlook

Stochastic stock projections using the JABBA model were conducted for both stocks under various constant catch scenarios. For the East stock, projections included 11 scenarios constant catch scenarios (0; 1,000 t – 3,000 t with 250 t intervals; 2,337 t MSY level). For the West stock, the projections included 10 constant catch scenarios (0; 1,000 t - 2,000 t). The resulting K2SM provide the estimated probabilities of not experiencing overfishing ($F \leq F_{MSY}$), not being overfished ($B \geq B_{MSY}$), and jointly achieving both conditions (green quadrant) (**Table 3**).

Management recommendation

As in the 2016 stock assessment (Anon., 2017a), important sources of uncertainty still remain in the assessments of both the eastern and western stocks. Available abundance indices demonstrate conflicting trends for both stocks, and the Committee believes that reported catches, including dead discards, are significantly incomplete and unreported. These important sources of uncertainty should be taken into consideration by the Commission when adopting management measures. Nevertheless, it should be noted that there have been some improvements since the last stock assessment.

East Atlantic

The stock status of East sailfish indicates that the stock was not overfished and not experiencing overfishing. However, due to unquantified uncertainties, the Commission should consider managing catch levels that will keep the stock in the green quadrant of the Kobe phase plot with a high probability (**Table 3**). The Committee noted that the 2025 yield (1,757 t) exceeds the catch level of the Rec. 16-11 (limit catches to the level of 67% of MSY (1,566 t)).

Table 3. K2SM for the East Atlantic sailfish stock. Top: the probability that overfishing is not occurring ($F \leq F_{MSY}$); middle: the probability that the stock is not overfished ($B \geq B_{MSY}$); and bottom: the joint probability of being in the green quadrant of the Kobe plot (i.e., $F \leq F_{MSY}$ and $B \geq B_{MSY}$).

a) Probability that $F \leq F_{MSY}$

Catch (t)	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1000	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1250	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1500	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1750	100%	100%	100%	99%	99%	99%	99%	99%	99%	99%
2000	99%	99%	98%	98%	97%	97%	96%	95%	94%	94%
2250	98%	97%	95%	94%	92%	90%	88%	86%	84%	83%
2336	98%	96%	94%	91%	89%	87%	84%	82%	79%	77%
2500	97%	94%	90%	86%	83%	79%	75%	71%	68%	65%
2750	94%	88%	82%	75%	69%	64%	58%	52%	48%	44%
3000	90%	81%	72%	62%	54%	46%	40%	35%	30%	27%

b) Probability that $B \geq B_{MSY}$

Catch (t)	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
0	98%	99%	100%	100%	100%	100%	100%	100%	100%	100%
1000	98%	99%	99%	99%	99%	99%	99%	100%	100%	100%
1250	98%	99%	99%	99%	99%	99%	99%	99%	99%	99%
1500	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%
1750	98%	98%	97%	97%	97%	97%	96%	96%	95%	96%
2000	98%	97%	97%	96%	95%	94%	93%	92%	91%	91%
2250	98%	97%	95%	93%	92%	90%	88%	86%	84%	82%
2336	98%	97%	95%	92%	90%	88%	85%	83%	81%	78%
2500	98%	96%	94%	91%	87%	84%	80%	77%	73%	70%
2750	98%	96%	92%	87%	82%	76%	71%	65%	60%	55%
3000	98%	95%	89%	83%	75%	67%	60%	52%	46%	40%

c) Probability that $F \leq F_{MSY}$ and $B \geq B_{MSY}$

Catch (t)	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
0	98%	99%	100%	100%	100%	100%	100%	100%	100%	100%
1000	98%	99%	99%	99%	99%	99%	99%	100%	100%	100%
1250	98%	99%	99%	99%	99%	99%	99%	99%	99%	99%
1500	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%
1750	98%	98%	97%	97%	97%	97%	96%	96%	95%	96%
2000	98%	97%	96%	96%	95%	94%	93%	92%	91%	91%
2250	98%	96%	94%	93%	91%	89%	87%	85%	82%	81%
2336	98%	96%	93%	91%	88%	86%	83%	81%	78%	76%
2500	97%	93%	90%	86%	82%	78%	74%	71%	67%	64%
2750	94%	88%	82%	75%	69%	63%	58%	52%	48%	44%
3000	90%	81%	72%	62%	54%	46%	40%	35%	30%	27%

West Atlantic

The Committee believes that the reported catches are significantly underreported. Given the important uncertainties described above, the Committee recommends that the results provided in the K2SM be interpreted with extreme caution. Should the Commission choose to continue setting the catch level at 67% of MSY, using the 2021 estimate of MSY, that value would be 1,030 t (**Table 4**). The Committee noted that the 2025 yield (1,143 t) exceeds the catch level of Rec. 16-11 (limit catches to the level of 67% of MSY (1,080 t)).

Table 4. K2SM for the West Atlantic sailfish stock. Top: the probability that overfishing is not occurring ($F \leq F_{MSY}$); middle: the probability that the stock is not overfished ($B \geq B_{MSY}$); and bottom: the joint probability of being in the green quadrant of the Kobe plot (i.e., $F \leq F_{MSY}$ and $B \geq B_{MSY}$).

a) Probability that $F \leq F_{MSY}$

Probaility $F<=F_{MSY}$

Catch (t)	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1000	95%	96%	97%	97%	98%	98%	98%	99%	99%	99%
1250	86%	87%	88%	89%	89%	90%	90%	90%	91%	91%
1500	74%	73%	72%	71%	70%	70%	69%	68%	68%	68%
1600	68%	66%	65%	63%	61%	60%	59%	57%	56%	55%
1700	63%	59%	56%	53%	51%	50%	47%	45%	44%	43%
1750	59%	55%	52%	49%	47%	45%	42%	40%	38%	37%
1800	56%	52%	48%	45%	42%	40%	37%	35%	33%	31%
1900	50%	45%	41%	37%	34%	30%	28%	26%	24%	22%
2000	45%	39%	34%	30%	26%	23%	21%	19%	16%	15%

b) Probability that $B \geq B_{MSY}$

Probability $B>=B_{MSY}$

Catch (t)	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
0	68%	87%	95%	98%	99%	100%	100%	100%	100%	100%
1000	68%	75%	80%	84%	87%	89%	91%	92%	93%	94%
1250	68%	71%	74%	76%	78%	79%	81%	82%	83%	83%
1500	68%	67%	67%	66%	66%	66%	65%	65%	64%	64%
1600	68%	66%	64%	62%	61%	60%	58%	56%	55%	54%
1700	68%	64%	61%	58%	55%	53%	51%	48%	47%	45%
1750	68%	63%	60%	56%	53%	50%	47%	44%	43%	40%
1800	68%	62%	58%	53%	50%	47%	44%	40%	38%	36%
1900	68%	61%	55%	49%	45%	41%	36%	33%	30%	28%
2000	68%	59%	52%	45%	40%	35%	30%	27%	23%	21%

c) Probability that $F \leq F_{MSY}$ and $B \geq B_{MSY}$

Probability $F<=F_{MSY}$ and $B>=B_{MSY}$

Catch (t)	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
0	68%	87%	95%	98%	99%	100%	100%	100%	100%	100%
1000	68%	75%	80%	84%	87%	89%	91%	92%	93%	94%
1250	68%	71%	74%	76%	78%	79%	81%	82%	83%	83%
1500	67%	66%	66%	66%	65%	65%	65%	64%	63%	63%
1600	65%	63%	61%	60%	58%	57%	56%	54%	54%	53%
1700	61%	58%	55%	52%	50%	48%	46%	44%	43%	42%
1750	59%	55%	52%	48%	46%	44%	41%	39%	38%	36%
1800	56%	52%	48%	45%	42%	39%	37%	34%	32%	31%
1900	50%	45%	41%	36%	34%	30%	28%	26%	24%	22%
2000	45%	39%	33%	30%	26%	23%	21%	19%	16%	15%

Additional supporting information

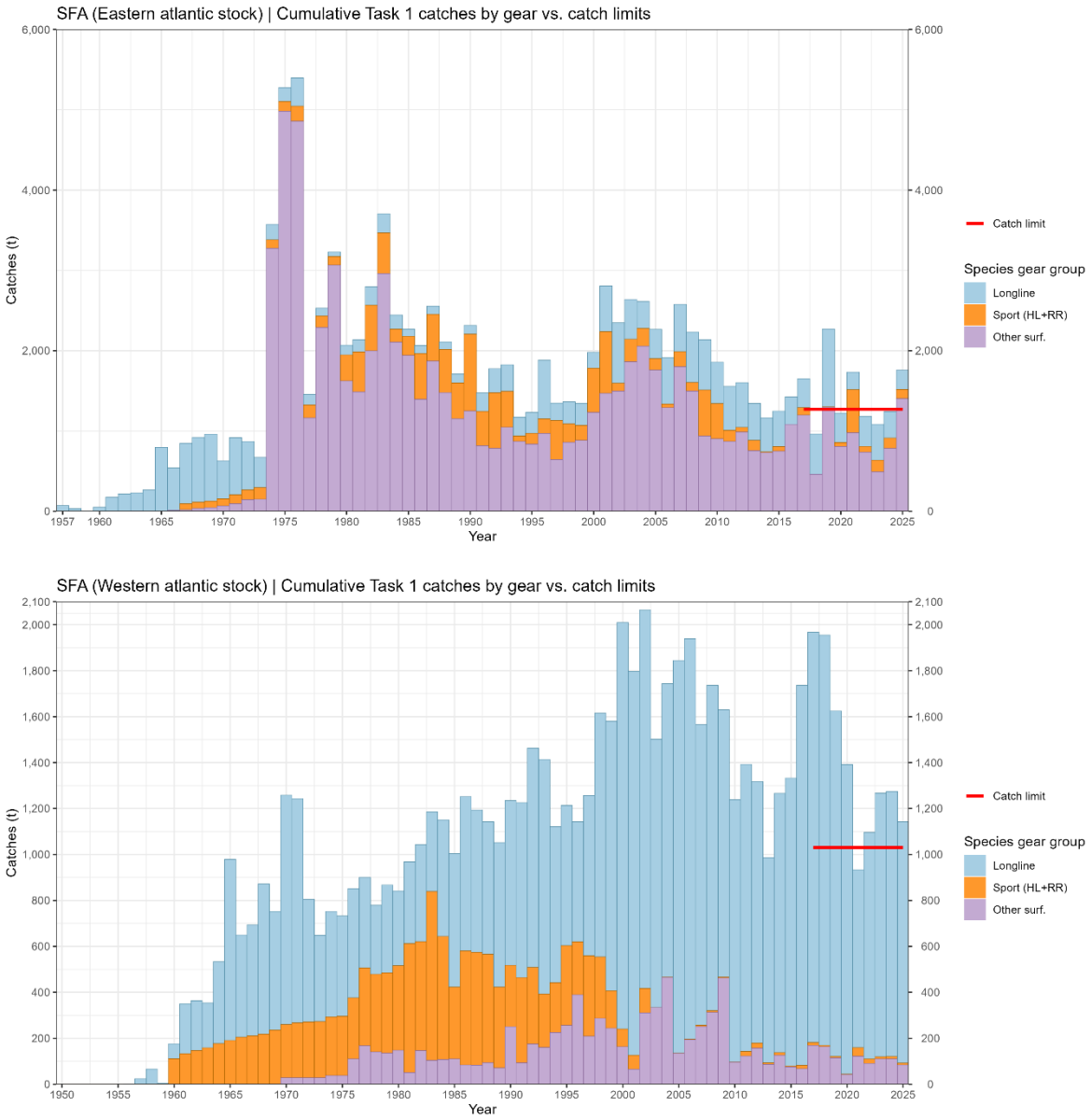


Figure 2. Sailfish eastern and western Atlantic stocks (SFA-E and SFA-W, respectively) total reported and estimated catches (landings and dead discards, t) by year and major gear. Data as of 18 September 2026.

*12.11 SWO-AT-Atl. Swordfish (*Xiphias gladius*)*

Introduction

The status of the North Atlantic swordfish stock was assessed in 2022, while the South Atlantic stock was assessed in 2026 by means of applying statistical modelling to the available data up to 2020 for the northern stock and up to 2024 for the southern stock. Complete information on the data availability and assessment can be found in the Reports of the 2022 and 2026 ICCAT Atlantic Swordfish Data Preparatory Sessions (Anon., 2022a, Anon., 2026d) and Reports of the 2022 and 2026 ICCAT Atlantic Swordfish Stock Assessment Meetings (Anon., 2022b, Anon., 2026l,), respectively. A summary of both stock status is provided below (**Tables 1a and 1b**). The Kobe Phase Plots and uncertainty of current status estimates are summarized in **Figure 1**. **Table 2** provides estimated catches and discards by gear, for the period 2016-2025, while **Figure 2** shows the historical catch series by major gear. **Table 3** provides estimated probabilities (%) that both the fishing mortality will be below F_{MSY} and spawning stock biomass will be above SSB_{MSY} in future years under different constant catch scenarios.

Table 1a. North Atlantic swordfish summary table.

Indicator		***Stock Status***
Maximum Sustainable Yield (MSY)	12,819 t (10,864 t - 15,289 t)[1]	2020
TAC (2025)	14,769 t	
Current (2025) Yield	10,577 t[2]	
Relative Biomass (B_{2020}/B_{MSY})	1.08 (0.71-1.33)[3]	
Relative Fishing Mortality (F_{2020}/F_{MSY})	0.80 (0.64-1.24)[3]	
Stock Status	Overfished: NO (37.1% probability of being overfished)[4] Overfishing: NO (14.7% probability of overfishing) [4]	
Management measure in effect	Rec. 25-10	
Managed according to a Management Procedure: Recommended TAC for the period 2025-2027 of 14,769 t		

[1] Median from base case JABBA and Stock Synthesis models; range corresponding to the lowest and highest 95% CIs from the two models.
[2] Provisional as of 16 September 2026 and subject to revision.
[3] Median and 95% quantiles from base case Stock Synthesis and JABBA models.
[4] As estimated from the Kobe plot probability in each quadrant.

Table 1b. South Atlantic swordfish summary table.

Indicator		***Stock Status***
Maximum Sustainable Yield (MSY)	11,666 t (10,902 t-12,526 t)[1]	2024
TAC (2025)	10,000 t	
Current (2025) Yield	9,065 t[2]	
Relative Biomass (B_{2024}/B_{MSY})	1.19 (0.90–1.57)[3]	
Relative Fishing Mortality (F_{2024}/F_{MSY})	0.69 (0.52–0.90)	
Stock Status	Overfished: NO (15.7% probability of being overfished) [4] Overfishing: NO (0.2% probability of overfishing) [4]	
Management measures in effect	Rec. 22-04	

[1] Median and 95% CIs from base case integrated age-structured model.
[2] Provisional as of 16 September 2026 and subject to revision.
[3] Median and 95% quantiles from base case integrated age-structured model.
[4] As estimated from the Kobe plot probability in each quadrant.

Table 2. Estimated catches and discards of Atlantic swordfish by stock, gear and country, for the period 2016-2025.

				2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
TOTAL				21166	20890	19464	20390	19432	19331	19081	20625	20121	19642
	ATN			10550	10346	9065	10288	10482	9827	10314	12252	10834	10577
	ATS			10616	10545	10399	10101	8950	9504	8766	8373	9287	9065
Landings	ATN		Longline	9917	9466	8488	9427	9830	9169	9745	11603	10094	9990
			Other surf.	483	684	386	515	506	517	459	537	620	462
	ATS		Longline	10461	10281	10323	9975	8814	9323	8622	8213	9118	8888
			Other surf.	148	145	36	65	66	47	52	43	105	46
Discards	ATN		Longline	150	195	191	345	145	139	108	111	100	124
			Other surf.	0	0	0	1	0	2	3	1	20	0
	ATS		Longline	7	118	38	60	69	133	92	117	64	131
			Other surf.	0	0	2	1	1	1	0	0	0	0
Landings	ATN	CP	Barbados	20	21	18	10	12	13	8	9	8	8
			Belize	3	59	145	117	111	121	70	77	68	27
			Brazil	0	0	0	0	0	0	0	0	0	59
			Cabo Verde	0	0	0	0	0	0	0	11	0	15
			Canada	1548	1188	782	995	1334	1377	1342	1923	1673	1910
			China PR	135	81	87	92	96	44	38	105	103	91
			Costa Rica	26	44	43	23	19	51	26	27	39	12
			Curaçao	0	0	0	0	0	0	0	0	0	
			Côte d'Ivoire	0	0	0	0	26	8	17	0	2	2
			EU-España	3916	3586	3186	3112	3587	3235	3717	4957	4593	4196
			EU-France	90	79	80	82	90	103	120	163	265	101
			EU-Germany	0	0	0	0	0	0	0	0	0	
			EU-Ireland	15	10	13	3	24	9	22	31	61	62
			EU-Portugal	1460	1871	1691	2392	2070	2165	1750	1967	1429	1431
			El Salvador	0	0	0	0	0	0	0	0	0	
			FR-St Pierre et Miquelon	0	0	0	0	0	0	78	0	0	
			Great Britain	0	0	0	0	0	0	0	0	0	1
			Grenada	29	36	36	22	15	4	7	16	7	10
			Guatemala	0	0	0	0	0	0	0	0	0	
			Iceland	0	0	0	0	0	0	0	0	0	
			Japan	379	456	325	355	406	311	431	448	432	272
			Korea Rep	9	19	9	9	14	13	17	20	18	12
			Liberia	18	95	3	7	7	8	0	1	3	3
			Maroc	900	900	950	950	936	955	1085	1145	887	1180
			Mexico	36	64	44	30	21	25	22	26	20	13
			Nigeria	0	0	0	0	0	0	0	0	0	81
			Norway	0	0	0	0	0	0	0	0	0	
			Senegal	146	112	89	121	33	6	0	54	17	23
			St Vincent and Grenadines	33	46	26	12	7	0	2	0	0	
			Trinidad and Tobago	13	36	3	6	8	6	6	1	4	1
			UK-Bermuda	2	1	2	2	6	5	3	4	4	1
			UK-British Virgin Islands	0	0	0	0	0	0	0	0	0	
			USA	1408	1294	1135	1449	1351	1142	1281	954	845	797
			Venezuela	60	62	38	37	17	15	19	32	39	8
		NCC	Chinese Taipei	148	78	162	115	144	66	145	170	198	135
			Guyana	6	10	5	2	5	3	0	0	0	
		NCO	Dominica	0	1	0	0	0	0	0	0	0	
			Saint Kitts and Nevis	0	0	2	0	1	0	0	0	0	
			Sta Lucia	0	1	0	0	0	0	0	0	0	**0**
	ATS	CP	Angola	0	13	0	0	0	45	135	22	32	5
			Belize	176	166	115	55	2	2	2	0	19	34
			Brazil	2938	2410	2798	2863	2110	2823	2197	1984	2377	2807
			China PR	222	302	355	211	89	37	188	109	128	141
			Curaçao	0	0	0	0	0	0	0	0	0	
			Côte d'Ivoire	58	41	57	123	19	14	24	4	65	15
			EU-España	4992	4656	4404	4224	4442	4470	3592	4092	4661	4366
			EU-France	0	0	4	0	0	0	0	0	0	0
			EU-Portugal	250	466	369	323	335	224	210	360	293	255
			El Salvador	0	0	0	0	0	0	0	0	0	
			Ghana	36	55	6	32	31	19	16	21	12	23
			Guatemala	0	0	0	0	0	0	0	0	0	
			Japan	637	915	640	647	552	478	622	422	496	216
			Korea Rep	19	11	18	9	15	6	6	5	10	9
			Namibia	466	600	881	811	789	623	1100	665	402	557
			Panama	0	0	0	0	0	0	0	0	0	
			S Tomé e Príncipe	77	65	10	12	4	14	11	11	9	6
			Senegal	90	112	65	116	38	0	0	0	0	
			South Africa	164	189	189	251	149	179	161	291	291	277
			St Vincent and Grenadines	5	9	4	15	9	32	76	0	0	
			USA	0	0	0	0	0	0	0	0	0	
		NCC	Chinese Taipei	478	416	446	346	296	406	335	269	428	222
Discards	ATN	CP	Canada	11	21	5	2	2	3	2	3	15	37
			EU-España	0	0	0	1	0	0	0	0	4	2
			EU-France	0	0	0	0	0	0	0	0	0	0
			EU-Portugal	45	46	39	41	32	42	42	38	51	28
			Japan	0	0	0	7	5	4	2	3	3	1
			Korea Rep	0	0	0	0	0	0	0	0	0	**0**
			Mexico	0	0	0	0	0	0	0	0	0	0
			UK-Bermuda	0	0	0	0	0	0	0	0	0	**0**
			USA	90	111	140	287	91	90	59	55	45	51
		NCC	Chinese Taipei	4	18	7	7	14	2	5	13	1	5
	ATS	CP	EU-España	0	0	1	1	1	1	0	0	27	10
			EU-France	0	0	1	0	0	0	0	0	0	**0**
			EU-Portugal	5	7	12	10	11	4	7	7	6	5
			Japan	0	0	0	0	0	2	0	0	0	0
			South Africa	0	0	0	0	0	0	0	0	0	9
		NCC	Chinese Taipei	2	111	26	49	57	126	85	110	30	107

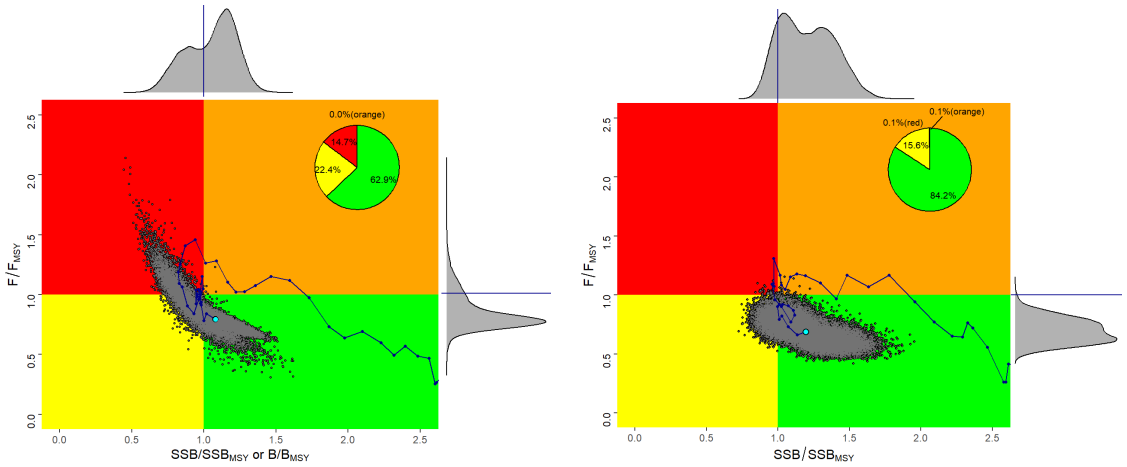


Figure 1. Kobe plots for the North (left) Atlantic swordfish stock status in 2020, estimated during the 2022 stock assessment and for the South Atlantic (right) stock status in 2024 estimated during the 2026 stock assessment. The inserted pie charts indicate the probability of the stock being within each Kobe colour quadrant. The probability distributions shown in each axis represent uncertainty around current B/B_{MSY} and F/F_{MSY}. The black line indicates the stock status trajectory starting in 1950.

Outlook

North Atlantic

The stock is managed using a management procedure tested under MSE. Based on the MSE analysis, the adopted MP is expected to maintain the stock in the green quadrant of the Kobe matrix with 60% probability over the next 30 years.

Since its use in the 2022 stock assessment model, the Combined Index values for recent years have increased. This coincides with many consecutive years of catches below the TAC.

South Atlantic

The 2026 stock assessment results indicated a substantial change in stock status compared to the previous assessment. While the 2022 assessment suggested a high probability that the stock was overfished and experiencing overfishing, the current assessment indicates a low probability of either condition and suggests that the stock is in the green Kobe quadrant. This change in stock status is partially attributed to improved biological knowledge generated through the Swordfish Year Programme (SWOYP) and CPC research, which provided updated estimates of growth, maturity, and natural mortality, as well as the transition from the biomass dynamic JABBA model to the integrated age-structured Stock Synthesis framework. It also coincided with many consecutive years of catches below the MSY. The incorporation of updated fishery data through 2024, revised life-history information, and age-dependent natural mortality assumptions has resulted in a more comprehensive representation of population dynamics and a stronger basis for future projections and management advice.

Projections were conducted for the SS3 final models under constant TAC scenarios of 8 to 15 thousand tons, as well as a zero-catch scenario. Projections were implemented in 2027 and catches for 2025 and 2026 were assumed to remain constant (8,802 t) at the average from the previous three years. Under 2025-2026 catch levels (8,802 t), the South Atlantic swordfish stock had a 100% probability of being in the green quadrant of the Kobe plot by 2043 (**Table 3**).

Management recommendation

North Atlantic

Catch advice for 2025-2027 was generated by a management procedure (MP) adopted in 2024. The index used to inform the MP uses catch and effort data from 7 major fishing fleets. Exceptional circumstances (EC) were evaluated in 2026. An EC was found related to high values in the combined index of abundance for years 2023 and 2024. The Committee determined that this particular EC does not preclude implementation

of MP advice nor is its implementation risky or inappropriate for the remainder of the current management cycle. The Committee has developed a work plan to further evaluate this EC and provide advice on future implementation of the MP.

South Atlantic

The current TAC of 10,000 t (*Recommendation by ICCAT replacing supplemental Recommendation 21-03 extending and amending Recommendation 17-03 for the conservation of South Atlantic swordfish* (Rec. 22-04)) will result in a 100% probability of being in the green quadrant in 2043 (**Table 3**). Catch levels up to 12,500 t will result in probabilities higher than 50% of the stock being in green quadrant in 2043. The Committee also recognized that the above advice did not fully account for removals associated with the mortality of unreported dead discards and post-release mortality of live discards. The Committee emphasized the importance of these uncertainties and recommended that the stock be closely monitored in the upcoming years to confirm its status.

Table 3. Kobe II matrices for South Atlantic swordfish stock giving the probabilities that: a) $F \leq F_{MSY}$ (overfishing not occurring); b) $B \geq B_{MSY}$ (stock not overfished) and c) joint probability that $B \geq B_{MSY}$ and $F \leq F_{MSY}$ (the "green zone").

a) Probability that $F \leq F_{MSY}$

Probability F<=F_{MSY}

TAC (t)	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
8000	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
8500	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
9000	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
9500	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
10000	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
10500	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
11000	99%	99%	99%	99%	98%	98%	98%	98%	98%	98%	97%	97%	97%	97%	97%	97%	97%
11250	98%	98%	98%	97%	97%	97%	96%	96%	96%	95%	95%	95%	94%	94%	94%	94%	93%
11500	97%	97%	96%	96%	95%	94%	94%	93%	92%	92%	91%	91%	90%	89%	89%	88%	88%
11750	96%	95%	94%	93%	92%	91%	90%	89%	88%	87%	86%	85%	84%	83%	82%	82%	81%
12000	94%	93%	92%	90%	89%	87%	85%	84%	82%	81%	80%	78%	77%	76%	74%	73%	72%
12250	92%	90%	88%	86%	84%	82%	80%	78%	76%	74%	72%	71%	69%	67%	66%	64%	63%
12500	89%	87%	84%	82%	79%	76%	74%	71%	69%	67%	65%	62%	60%	58%	57%	55%	53%
12750	86%	83%	80%	77%	74%	71%	68%	65%	62%	59%	56%	54%	51%	49%	47%	45%	43%
13000	82%	79%	75%	72%	68%	65%	61%	58%	54%	51%	48%	45%	42%	40%	37%	35%	33%
13500	74%	71%	66%	61%	57%	52%	48%	43%	39%	35%	32%	28%	25%	23%	20%	18%	17%
14000	66%	62%	57%	51%	45%	40%	34%	29%	25%	21%	18%	15%	13%	11%	10%	8%	8%
14500	59%	54%	48%	41%	34%	27%	22%	17%	14%	11%	9%	7%	6%	5%	4%	4%	4%
15000	52%	46%	38%	30%	23%	17%	13%	9%	7%	5%	4%	3%	3%	2%	2%	3%	3%

b) Probability that $B \geq B_{MSY}$

Probability SSB>=SSB_{MSY}

TAC (t)	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
8000	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
8500	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
9000	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
9500	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
10000	99%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
10500	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%
11000	99%	99%	99%	99%	98%	98%	98%	98%	98%	98%	97%	97%	97%	97%	97%	97%	97%
11250	99%	99%	98%	98%	98%	97%	97%	97%	96%	96%	96%	96%	95%	95%	95%	94%	94%
11500	99%	98%	98%	98%	97%	96%	96%	95%	95%	94%	94%	93%	92%	92%	91%	91%	90%
11750	99%	98%	98%	97%	96%	95%	94%	94%	93%	92%	91%	90%	89%	88%	87%	86%	86%
12000	98%	98%	97%	96%	95%	94%	93%	91%	90%	89%	87%	86%	85%	84%	82%	81%	80%
12250	98%	98%	97%	95%	94%	92%	91%	89%	87%	85%	83%	82%	80%	78%	76%	75%	73%
12500	98%	97%	96%	94%	92%	90%	88%	86%	84%	81%	79%	77%	74%	72%	70%	67%	65%
12750	98%	97%	95%	93%	91%	88%	85%	83%	80%	77%	74%	71%	68%	65%	62%	60%	57%
13000	98%	97%	95%	92%	89%	86%	83%	79%	76%	72%	68%	65%	61%	58%	55%	51%	49%
13500	98%	96%	93%	89%	85%	81%	76%	71%	66%	61%	56%	51%	47%	43%	39%	36%	32%
14000	97%	95%	91%	86%	80%	74%	68%	62%	55%	49%	43%	38%	33%	29%	25%	22%	19%
14500	97%	94%	88%	82%	75%	67%	60%	52%	44%	37%	31%	26%	21%	18%	15%	13%	11%
15000	97%	92%	86%	78%	69%	60%	50%	42%	33%	26%	21%	16%	13%	11%	9%	9%	8%

c) Probability that $F \leq F_{MSY}$ and $B \geq B_{MSY}$

Probability F<=F_{MSY} and SSB>=SSB_{MSY}

TAC (t)	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
8000	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
8500	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
9000	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
9500	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
10000	99%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
10500	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%
11000	99%	99%	98%	98%	98%	98%	98%	97%	97%	97%	97%	97%	97%	97%	97%	96%	96%
11250	98%	98%	98%	97%	97%	96%	96%	96%	95%	95%	95%	94%	94%	94%	93%	93%	93%
11500	97%	97%	96%	96%	95%	94%	93%	93%	92%	91%	91%	90%	90%	89%	89%	88%	88%
11750	96%	95%	94%	93%	92%	91%	90%	89%	88%	87%	86%	85%	84%	83%	82%	82%	81%
12000	94%	93%	92%	90%	88%	87%	85%	84%	82%	81%	80%	78%	77%	76%	74%	73%	72%
12250	92%	90%	88%	86%	84%	82%	80%	78%	76%	74%	72%	71%	69%	67%	66%	64%	63%
12500	89%	87%	84%	82%	79%	76%	74%	71%	69%	67%	65%	62%	60%	58%	57%	55%	53%
12750	86%	83%	80%	77%	74%	71%	68%	65%	62%	59%	56%	54%	51%	49%	47%	45%	43%
13000	82%	79%	75%	72%	68%	65%	61%	58%	54%	51%	48%	45%	42%	40%	37%	35%	33%
13500	74%	71%	66%	61%	57%	52%	48%	43%	39%	35%	32%	28%	25%	23%	20%	18%	17%
14000	66%	62%	57%	51%	45%	40%	34%	29%	25%	21%	18%	15%	13%	11%	10%	8%	8%
14500	59%	54%	48%	41%	34%	27%	22%	17%	14%	11%	9%	7%	6%	5%	4%	4%	4%
15000	52%	46%	38%	30%	23%	17%	13%	9%	7%	5%	4%	3%	3%	2%	2%	2%	3%

Additional supporting information

The Committee recognized that environmental variability and Climate Change are important factors affecting many aspects of swordfish population dynamics and the data used to assess stock status such as the indices of relative abundance. The Committee is working to address these themes through projects described in more detail in the workplan. Given the potential influence of observed environmental changes on the variability of abundance indices, the SCRS will attempt to integrate these variables into the construction of such indices.

The Committee noted the expanded use of trapline gear in the Mediterranean and Atlantic. Initial evidence suggests that catchability, selectivity, and bycatch differ for this gear, relative to typical longline gears. The Committee noted the importance of further research on this gear type and to track its use in ICCAT fisheries and encouraged CPCs to continue providing relevant data in accordance with *Recommendation by ICCAT on the experimental use of traplines* (Rec. 25-09).

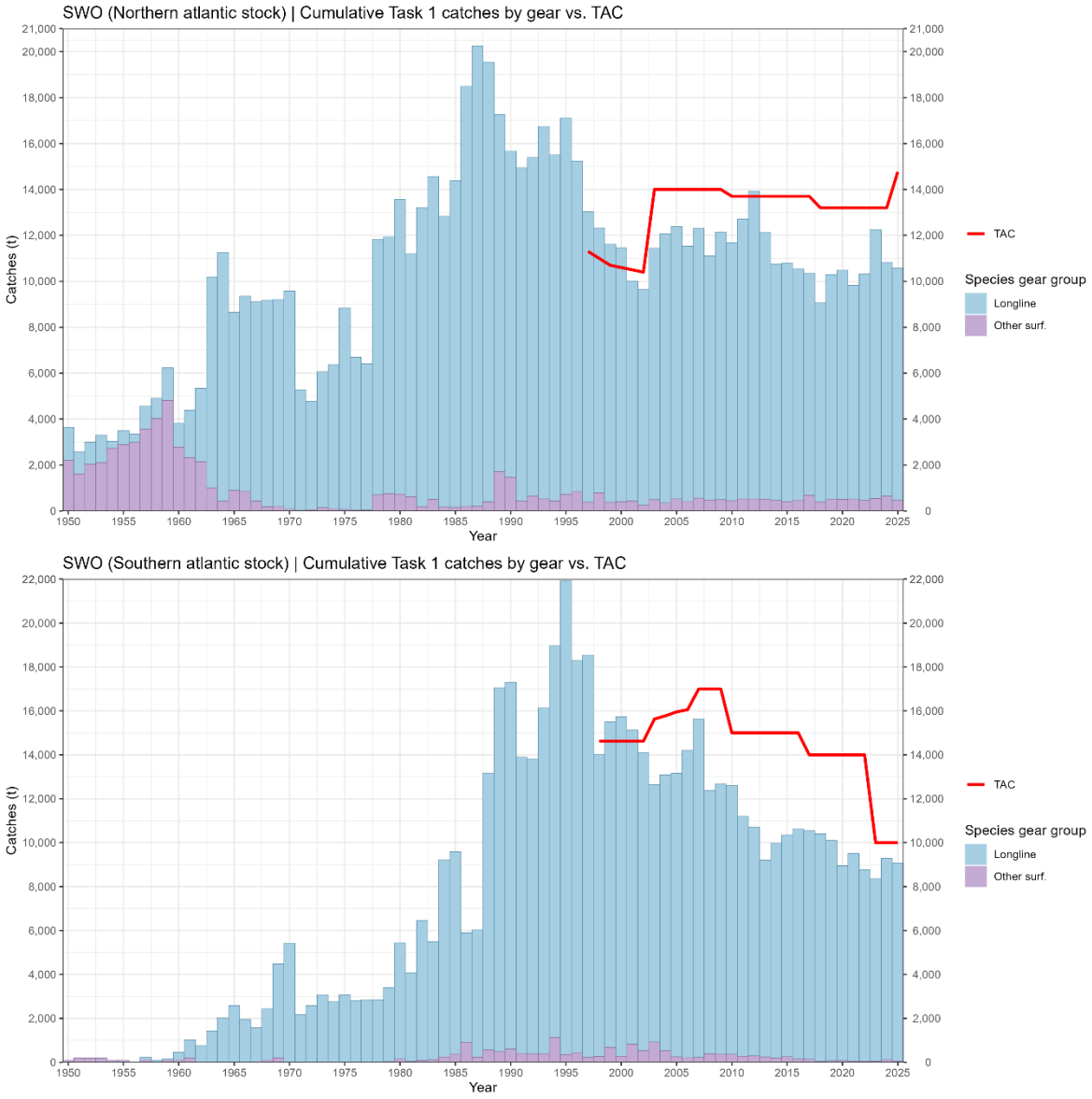


Figure 2. Swordfish North and South Atlantic stock (SWO-N and SWO-S, respectively in top and bottom figures) total reported and estimated catches (landings and dead discards, t) by year and major gear. Data as of 18 September 2026.

*12.12 SWO-MD-Med. Swordfish (*Xiphias gladius*)*

Introduction

The most recent assessment of the stock was conducted in 2026, making use of the available catch, effort and size information through 2024. Complete information on the data availability and assessment can be found in the Report of the 2026 ICCAT Swordfish Stock Assessment Meeting (Anon., 2026l). **Table 1** shows a summary of the stock status. The Kobe Phase Plot is illustrated in **Figure 1**. **Table 2** provides estimated catches and discards by gear, for the period 2016-2025, while **Figure 2** shows the historical catch series by major gear.

Table 1. Mediterranean swordfish summary table.

Indicator		*Stock Status*
Maximum Sustainable Yield (MSY)	12,225 t (11,702 t - 12,748 t)[1]	2024
TAC (2025)	9,015.81[2]	
Current (2025) Yield	7,110 t[3]	
Relative Biomass (SSB_{2024}/SSB_{MSY})	0.64 (0.34 - 1.18)[4]	
Relative Fishing Mortality (F_{2024}/F_{MSY})	1.11 (0.66 - 1.87)[4]	
Stock Status	Overfished: YES (92.4% probability of being overfished)[5] Overfishing: YES (65.9% probability of overfishing)[5]	
Management measures in effect	Rec. 03-04; Rec. 24-11 Catch limit (2026) 9,015.810 t	

[1] 95% confidence intervals from the final SS3 model.
[2] In addition, Egypt and Libya shall have catch limits of 125 t each.
[3] Provisional and subject to revision as of 16 September 2026.
[4] Median and 95% confidence intervals derived from the standard deviations estimated in SS3.
[5] As estimated from the Kobe plot probability in each quadrant.

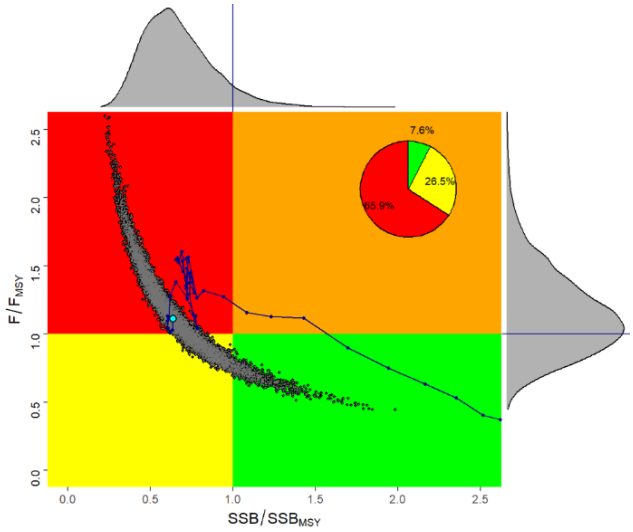


Figure 1. Kobe plot for the Mediterranean swordfish stock status trajectories in 2024, estimated during the 2026 stock assessment. The inserted pie chart indicates the probability of the stock being within each Kobe colour quadrant. The probability distributions shown in each axis represent uncertainty around current SSB/SSB_{MSY} and F/F_{MSY}. The black line indicates the stock status trajectory starting in 1982.

Table 2. Estimated catches (t) and discards of Mediterranean swordfish tuna by gear and flag for the period 2016-2025.

				2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
TOTAL	MED			12300	10390	8681	8176	7664	7512	7169	7546	8450	7110
Landings			Longline	10878	8345	6938	8041	7603	7258	6946	7364	8320	6936
			Other surf.	53	57	61	45	60	66	133	74	63	87
Discards			Longline	1369	1988	1682	89	0	188	90	109	68	86
			Other surf.	0	0	0	0	0	0	0	0	0	0
Landings		CP	Algerie	671	550	528	517	501	447	472	472	472	471
			EU-Croatia	25	20	28	33	23	25	39	40	40	36
			EU-Cyprus	53	50	45	24	30	56	36	57	61	56
			EU-España	1733	1487	1387	1460	1434	1372	1462	1340	1476	1493
			EU-France	179	113	86	71	110	96	66	69	81	70
			EU-Greece	761	392	350	745	657	686	371	444	501	199
			EU-Italy	3946	2987	1779	2473	2250	2016	2079	2322	3081	2072
			EU-Malta	410	330	308	407	361	391	380	360	374	325
			Egypt	0	0	4	0	4	12	26	73	100	134
			Libya	960	30	70	26	22	19	21	250	120	130
			Maroc	1110	1000	1013	982	951	924	891	896	896	896
			Tunisie	1007	1003	974	934	918	891	857	733	799	764
			Türkiye	77	441	427	414	402	390	379	382	381	379
Discards			Algerie	176	205	197	0	0	0	0	0	0	
			EU-Croatia	0	0	0	0	0	0	0	1	1	1
			EU-Cyprus	0	0	0	0	0	0	0	0	0	1
			EU-España	0	0	84	89	0	188	90	107	67	85
			EU-France	0	0	0	0	0	0	0	0	0	**0**
			EU-Italy	623	907	535	0	0	0	0	0	0	
			Maroc	285	350	355	0	0	0	0	0	0	**0**
			Tunisie	266	374	364	0	0	0	0	0	0	
			Türkiye	20	151	148	0	0	0	0	0	0	

Outlook

The assessment of Mediterranean swordfish indicated that the stock is overfished and current fishing mortality is above F_{MSY} by 11%. The stock has been in an overfished state since the middle-late 1980s because of the large catches in the 1980s and the selection pattern which captures many immature fish.

Management recommendations

Spawning stock biomass estimates in 2024 were about 35% lower than that corresponding to MSY, while fishing mortality was above F_{MSY}. According to the Commission objectives (achieving B_{MSY} with at least 60% probability), the stock requires rebuilding and relevant scenarios were simulated assuming different levels of TACs (**Table 3**). Current TAC levels (~9000 t) would lead to a 52% probability of stock rebuilding by 2031 and 60% by 2032.

Notably, recent catches from 2020-2025 (mean 7,575 t) have not resulted in improvements in SSB/SSB_{MSY}. However, projections indicate that an annual TAC of 7,500 t would result in rapid recovery of the stock by 2030. Apart from the fact that recent catch levels are most likely underestimated due to unreported discards, it should be noted that these projections were based on the assumption that future stock productivity (i.e. S/R relationship) would remain unchanged from the historical average. The relatively low recruitment levels observed over the last 15 years may indicate a decline in stock productivity, resulting in optimistic projections that should be interpreted with caution.

The Committee noted that since the establishment of minimum catching sizes, particularly after the recent size increase imposed through *Recommendation by ICCAT replacing the Recommendation 13-04 and establishing a multi-annual recovery plan for Mediterranean swordfish* (Rec. 16-05) the discard levels of undersized swordfish are increasing at least for certain fisheries and are largely dead. However, discards are not being reported for all fleets. Though an attempt has been made to statistically estimate discard levels and consider them in stock assessment models, the real volume of total discards is unknown due to this under-reporting. Such under-reporting leads to false estimates of the overall catch volume and consequently bias stock status estimates and projections of future stock size under different management measures.

Table 3. Kobe II matrices for the Mediterranean swordfish stock: a) F being below or equal to F_{MSY} (overfishing not occurring); b) SSB above or equal to SSB_{MSY} (not overfished) and; c) SSB above or equal to SSB_{MSY} and F below or equal to F_{MSY} (green zone) for a range of fixed total catches (0-12,000 t) over the projection horizon 2027-2039.

a) Probability that F≤F_{MSY}

Probability F<=F_{MSY}

TAC (t)	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
6000	96%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
6500	93%	97%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
7000	88%	94%	97%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%
7500	82%	89%	94%	97%	99%	100%	100%	100%	100%	100%	100%	100%	100%
8000	74%	82%	88%	93%	96%	98%	99%	100%	100%	100%	100%	100%	100%
8500	67%	74%	81%	86%	91%	95%	97%	98%	99%	100%	100%	100%	100%
9000	58%	66%	72%	77%	83%	87%	91%	94%	96%	97%	99%	99%	100%
9500	50%	56%	62%	67%	72%	76%	81%	84%	88%	91%	93%	95%	97%
10000	42%	47%	52%	56%	60%	64%	68%	71%	74%	77%	80%	83%	86%
10250	39%	43%	47%	51%	54%	58%	61%	64%	67%	69%	72%	74%	77%
10500	35%	39%	42%	45%	49%	51%	54%	56%	59%	61%	63%	65%	67%
10750	32%	35%	38%	40%	43%	45%	47%	49%	51%	53%	55%	56%	58%
11000	29%	31%	34%	36%	38%	39%	41%	43%	44%	45%	46%	48%	49%
11250	26%	28%	30%	32%	33%	34%	35%	37%	38%	39%	40%	40%	41%
11500	23%	25%	26%	28%	29%	30%	31%	32%	32%	33%	34%	34%	35%
11750	21%	22%	23%	24%	25%	26%	27%	27%	28%	29%	29%	30%	31%
12000	18%	20%	20%	21%	22%	23%	23%	24%	24%	25%	26%	28%	29%

b) Probability that SSB≥SSB_{MSY}

Probability SSB>=SSB_{MSY}

TAC (t)	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
0	42%	77%	97%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
6000	28%	44%	62%	77%	89%	96%	99%	100%	100%	100%	100%	100%	100%
6500	27%	41%	58%	72%	84%	93%	97%	99%	100%	100%	100%	100%	100%
7000	26%	39%	53%	67%	79%	88%	94%	97%	99%	100%	100%	100%	100%
7500	25%	36%	49%	62%	72%	82%	90%	95%	97%	99%	100%	100%	100%
8000	24%	34%	44%	56%	66%	75%	83%	89%	94%	97%	98%	99%	100%
8500	23%	32%	40%	50%	59%	67%	75%	82%	87%	92%	95%	97%	98%
9000	22%	29%	37%	44%	52%	60%	66%	73%	78%	83%	88%	92%	94%
9500	22%	27%	33%	39%	45%	51%	57%	63%	68%	72%	77%	81%	85%
10000	21%	25%	30%	34%	39%	43%	47%	52%	56%	60%	64%	68%	71%
10250	20%	24%	29%	32%	36%	39%	43%	46%	50%	53%	57%	60%	63%
10500	20%	24%	27%	30%	33%	36%	39%	42%	44%	47%	50%	52%	55%
10750	20%	23%	26%	28%	31%	33%	35%	37%	39%	41%	43%	45%	47%
11000	19%	22%	24%	26%	28%	30%	32%	33%	35%	36%	38%	39%	40%
11250	19%	21%	23%	25%	26%	28%	29%	30%	31%	32%	33%	34%	35%
11500	19%	20%	22%	23%	24%	25%	26%	27%	28%	29%	29%	30%	31%
11750	18%	19%	21%	22%	22%	23%	24%	24%	25%	26%	26%	27%	28%
12000	18%	19%	20%	20%	21%	21%	22%	22%	23%	23%	24%	25%	26%

c) Probability that F≤F_{MSY} and SSB≥SSB_{MSY}

Probability F<=F_{MSY} and SSB>=SSB_{MSY}

TAC (t)	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
0	42%	77%	92%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
6000	28%	44%	62%	77%	89%	96%	99%	100%	100%	100%	100%	100%	100%
6500	27%	41%	58%	72%	84%	93%	97%	99%	100%	100%	100%	100%	100%
7000	26%	39%	53%	67%	79%	88%	94%	97%	99%	100%	100%	100%	100%
7500	25%	36%	49%	62%	72%	82%	90%	95%	97%	99%	100%	100%	100%
8000	24%	34%	44%	56%	66%	75%	83%	89%	94%	97%	98%	99%	100%
8500	23%	32%	40%	50%	59%	67%	75%	82%	87%	92%	95%	97%	98%
9000	22%	29%	37%	44%	52%	60%	66%	73%	78%	83%	88%	92%	94%
9500	22%	27%	33%	39%	45%	51%	57%	63%	68%	72%	77%	81%	85%
10000	21%	25%	30%	34%	38%	43%	47%	51%	55%	60%	64%	68%	71%
10250	20%	24%	28%	32%	36%	39%	42%	46%	49%	53%	56%	60%	63%
10500	20%	23%	27%	30%	33%	35%	38%	40%	43%	46%	48%	51%	53%
10750	20%	22%	25%	28%	30%	32%	34%	36%	37%	39%	41%	43%	45%
11000	19%	21%	24%	25%	27%	28%	30%	31%	32%	33%	34%	34%	37%
11250	19%	20%	22%	23%	24%	25%	26%	27%	27%	28%	28%	29%	29%
11500	18%	19%	20%	21%	21%	22%	22%	23%	23%	23%	24%	24%	24%
11750	17%	18%	18%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%
12000	16%	16%	17%	17%	17%	17%	17%	17%	17%	16%	16%	16%	16%

Additional supporting information

The Committee noted the expanded use of trapline gear in the Mediterranean and Atlantic. Initial evidence suggests that catchability, selectivity, and bycatch differ for this gear, relative to typical longline gears. The Committee noted the importance of further research on this gear type and tracking its use in ICCAT fisheries and encouraged CPCs to continue providing relevant data in accordance with the *Recommendation by ICCAT on the experimental use of traplines* (Rec. 25-09).

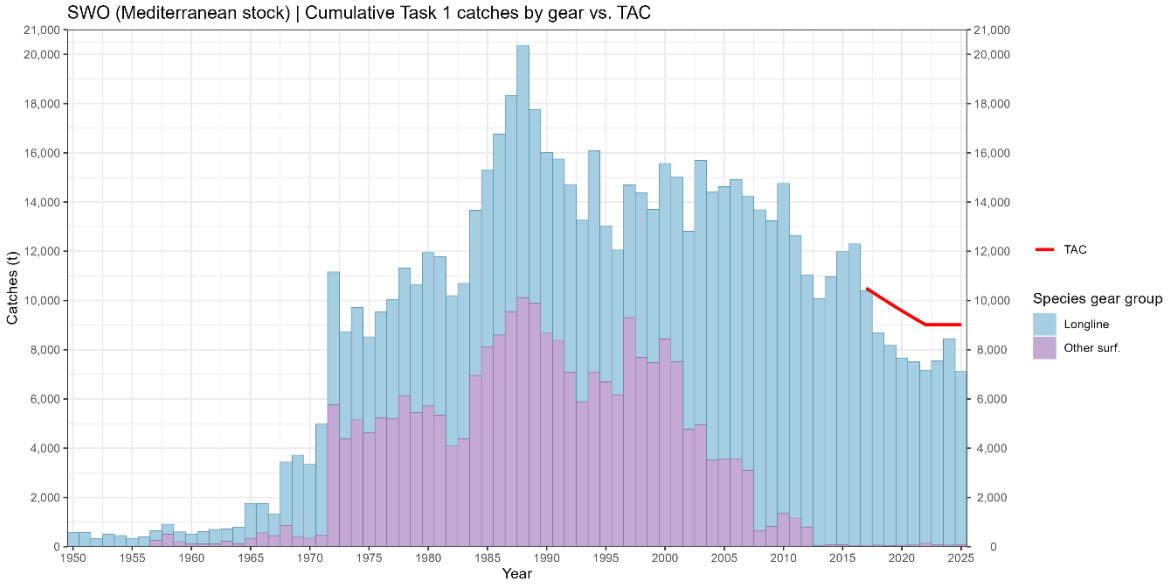


Figure 2. Swordfish Mediterranean stock (SWO-M) total reported and estimated catches (landings and dead discards, t) by year and major gear. Data as of 18 September 2026.

12.13 SMT-Small tunas

Introduction

The species under the Small Tunas Species Group include the following tuna and tuna-like species:

- BLF Blackfin tuna (*Thunnus atlanticus*)
- BLT Bullet tuna (*Auxis rochei*)
- BON Atlantic bonito (*Sarda sarda*)
- BOP Plain bonito (*Orcynopsis unicolor*)
- BRS Serra Spanish mackerel (*Scomberomorus brasiliensis*)
- CER Cero (*Scomberomorus regalis*)
- COM Narrow-barred Spanish mackerel (*Scomberomorus commerson*)
- FRI Frigate tuna (*Auxis thazard*)
- KGM King mackerel (*Scomberomorus cavalla*)
- LTA Little tunny (*Euthynnus alletteratus*)
- MAW West African Spanish mackerel (*Scomberomorus tritor*)
- SSM Atlantic Spanish mackerel (*Scomberomorus maculatus*)
- WAH Wahoo (*Acanthocybium solandri*)

Knowledge on the biology and fishery of small tunas is very fragmented. Furthermore, the quality of the knowledge varies according to the species concerned. This is due in large part to the fact that these species are often perceived to have little economic importance compared to other tunas and tuna-like species, and owing to the difficulties in conducting sampling of the landings from artisanal fisheries, which constitute a high proportion of the fisheries exploiting small tuna resources. The large industrial fleets often discard small tuna catches at sea or sell them on local markets mixed with other bycatches, especially in Africa. The amount caught is rarely reported in logbooks; however, the observer programme for purse seine fleets continue to provide estimates of catches of small tunas.

Small tuna species can reach high levels of catch and values in some years and have a very high relevance from a social and economic point of view, because they are important for many coastal communities in all areas and a main source of food. Their social and economic value is often not evident because of the underestimation of the total landing figures, due to the difficulties in data collection mentioned above. Several statistical problems are also caused by misidentification.

Ongoing scientific collaboration between ICCAT, Regional Fisheries Organizations (RFOs) and countries in the various regions remains essential to further advance understanding of the distribution, biology and fisheries of these species.

A summary of the stock information is provided below (**Table 1**). **Table 2** provides estimated catches of small tunas, for the period 2016-2025, while **Figure 1** shows the historical catch series by major gear.

Table 1. Small tunas summary table.

Indicator	***Species***												
	BLF	BLT	BON	BOP	BRS	CER	COM	FRI	KGM	LTA	MAW	SSM	WAH
Maximum Sustainable Yield (MSY)[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Current (2025) TAC	ICCAT has never set TAC nor catch limits to small tunas												
Current (2025) Yield[2]	4,816	5,357	52,368	106	963	0	24	17,551	6,309	24,279	5,046	9,784	3,232
Relative Biomass (SSB_{YEAR}/SSB_{MSY})	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Relative Fishing Mortality (F_{YEAR}/F_{MSY})	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Stock Status	See additional information section for the available information												
Management measures in effect	There are no ICCAT regulations in effect for small tunas. Several regional and national regulations are in place.												

[1] Not available.
[2] As of 17 September 2026.

Table 2. Estimated catches (t) of small tuna species by area, gear and flag for the period 2016-2025.

					2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
BLF	TOTAL	ATL			2017	1481	1635	1542	2712	2880	4856	7603	4072	4816
	Landings			All gears	2017	1481	1635	1542	2712	2880	4856	7603	4072	4816
	Discards				0	0	0	0	0	0	0	0	0	0
	Landings		CP	Brazil	228	192	392	410	820	1691	2273	5345	2608	3108
				Canada	0	0	0	0	0	0	0	0	0	
				Costa Rica	0	0	0	0	0	0	0	0	0	
				EU-France	14	14	6	28	15	17	30	35	90	33
				Grenada	0	0	0	94	73	0	36	108	43	86
				Mexico	5	4	4	3	3	2	3	3	1	0
				St Vincent and Grenadines	0	5	0	9	6	0	0	3	8	12
				Trinidad and Tobago	5	5	5	5	5	5	5	5	5	5
				UK-Bermuda	17	17	16	10	7	12	9	9	8	5
				UK-British Virgin Islands	0	0	0	0	0	0	1	0	0	
				USA	1265	946	1074	756	1628	1054	2403	2027	1232	1419
				Venezuela	294	146	120	74	61	26	22	8	5	31
			NCO	Dominica	34	34	17	24	8	0	0	0	0	49
				Jamaica	0	0	0	0	1	0	0	0	2	
				Saint Kitts and Nevis	0	0	0	0	0	0	0	0	0	
				Sta Lucia	156	119	0	127	84	74	75	60	70	67
	Discards		CP	EU-France	0	0	0	0	0	0	0	0	0	0
				Mexico	0	0	0	0	0	0	0	0	0	**0**
BLT	TOTAL				5720	3348	4083	3432	3530	3686	5021	4469	4693	5357
		ATL			467	232	228	215	184	211	43	126	1184	1080
		MED			5253	3116	3855	3218	3347	3475	4978	4343	3509	4277
	Landings	ATL		All gears	467	223	216	215	184	211	43	126	1183	1079
		MED			5253	3116	3855	3218	3347	3474	4978	4343	3508	4276
	Discards	ATL			0	9	12	0	0	0	0	0	1	1
		MED			0	0	0	0	0	1	0	0	1	1
	Landings	ATL	CP	Angola	0	0	0	0	0	3	2	0	1	2
				Brazil	131	34	72	0	0	0	0	0	0	
				Côte d'Ivoire	0	1	0	0	20	0	0	0	0	
				EU-España	0	5	5	0	1	0	0	0	0	0
				EU-Germany	0	121	14	0	0	0	0	3	0	
				EU-Lithuania	0	0	0	76	0	6	14	27	1069	1040
				EU-Netherlands	0	0	0	0	0	6	0	0	0	
				EU-Portugal	0	0	0	64	29	130	7	55	46	13
				Grenada	0	0	0	0	0	0	0	0	0	**0**
				Liberia	0	0	0	0	0	2	0	8	3	3
				Russian Federation	336	62	125	75	134	64	19	32	64	21
			NCO	Sta Lucia	0	0	0	0	0	0	0	0	0	
		MED	CP	Algerie	1592	231	799	905	732	1802	3229	2251	1939	1133
				EU-Croatia	15	25	37	27	15	17	54	51	21	20
				EU-España	1081	2170	774	1026	986	511	266	981	422	1641
				EU-France	0	0	0	0	0	0	1	0	0	0
				EU-Greece	207	181	294	513	262	139	273	309	155	303
				EU-Italy	1717	0	966	25	6	16	15	14	14	12
				EU-Malta	11	9	12	12	7	1	28	2	8	22
				Maroc	200	0	442	50	96	91	52	43	34	34
				Tunisie	23	26	136	67	91	139	147	162	112	49
				Türkiye	407	474	367	462	1070	737	809	482	803	1012
			NCO	Palestine	0	0	28	130	81	21	104	48	0	51
	Discards	ATL	CP	EU-France	0	9	12	0	0	0	0	0	1	1
		MED		EU-Croatia	0	0	0	0	0	1	0	0	1	1

BON	TOTAL				54872	22757	46584	29678	44621	28546	92232	39405	102521	52368
		ATL			10933	10959	11094	23933	17461	21818	36028	31960	49178	46365
		MED			43938	11798	35491	5745	27160	6728	56204	7445	53343	6003
	Landings	ATL		All gears	10933	10959	11094	23932	17460	21818	36024	31953	49174	46365
		MED			43938	11798	35491	5745	27160	6728	56204	7445	53343	6003
	Discards	ATL			0	0	0	2	0	0	5	7	4	0
		MED			0	0	0	0	0	0	0	0	0	0
	Landings	ATL	CP	Angola	7	2	0	2	8	5	2	1068	9	5
				Belize	2	0	10	0	0	0	0	0	0	
				Brazil	2	1	23	15	0	0	0	5	0	
				Côte d'Ivoire	6	3510	42	2725	1757	6244	687	590	1739	2100
				EU-Denmark	0	0	0	0	0	0	0	0	0	**0**
				EU-España	31	18	16	20	3	8	10	5	7	5
				EU-France	422	290	195	115	62	60	43	56	56	31
				EU-Germany	4	89	14	0	13	1	25	25	0	
				EU-Latvia	0	0	0	6604	518	522	1414	712	1309	2051
				EU-Lithuania	0	78	686	385	596	138	903	313	1652	821
				EU-Netherlands	124	79	39	91	71	82	141	72	1086	564
				EU-Portugal	570	368	257	382	168	248	148	757	504	173
				Gabon	0	0	0	0	0	0	0	3	0	2
				Gambia	0	0	0	0	0	0	724	732	715	716
				Great Britain	0	0	0	0	0	0	0	0	1	2
				Grenada	2	2	1	0	1	1	0	2	0	0
				Guinea Ecuatorial	32	0	3	4	5	6	4	35	33	20
				Guinée Rep	0	0	0	0	0	0	0	0	0	800
				Maroc	850	1417	4081	5679	5470	4516	10512	17888	19623	25845
				Mauritania	4951	1546	1801	1927	5008	5386	10843	5619	13081	9847
				Mexico	1188	1361	1440	1258	954	693	430	692	605	576
				Norway	0	0	0	0	2	1	0	0	0	
				Russian Federation	850	666	573	617	1281	908	6969	732	2032	2572
				S Tomé e Príncipe	207	211	2	0	0	0	0	0	0	
				Senegal	1581	1226	1696	3982	1380	2915	2975	2460	6573	5
				Trinidad and Tobago	16	16	16	16	16	16	16	16	16	16
				UK-British Virgin Islands	0	0	0	0	0	0	2	2	1	1
				USA	61	62	197	107	140	66	176	168	131	210
				Venezuela	0	0	0	0	0	0	0	0	0	5
			NCC	Chinese Taipei	20	12	0	0	0	0	0	0	0	0
			NCO	Dominica	7	1	0	2	6	0	0	0	0	
				Saint Kitts and Nevis	0	4	2	0	1	0	0	0	0	
				Sta Lucia	0	0	0	0	0	0	0	0	0	0
		MED	CP	Algerie	452	593	811	302	369	485	1216	841	825	590
				EU-Bulgaria	68	13	23	4	32	1	45	1	45	1
				EU-Croatia	20	22	28	42	31	24	13	22	19	24
				EU-España	358	314	321	483	330	253	1967	317	129	101
				EU-France	60	217	52	86	57	45	51	60	52	19
				EU-Greece	700	399	641	422	342	269	659	213	399	318
				EU-Italy	697	540	605	616	570	499	480	456	478	381
				EU-Malta	3	0	2	1	1	0	2	0	0	2
				Libya	780	82	75	71	65	45	35	100	85	73
				Maroc	50	46	28	60	8	13	11	2	21	7
				Tunisie	1290	1993	1986	2079	2612	2498	1832	3350	2012	3073
				Türkiye	39460	7578	30920	1578	22743	2595	49892	2083	49278	1413
	Discards	ATL		EU-France	0	0	0	0	0	0	0	2	1	0
				EU-Netherlands	0	0	0	0	0	0	5	5	3	
				Gabon	0	0	0	2	0	0	0	0	0	
			NCC	Chinese Taipei	0	0	0	0	0	0	0	0	0	**0**
		MED	CP	EU-Croatia	0	0	0	0	0	0	0	0	0	0
				EU-España	0	0	0	0	0	0	0	0	0	
				EU-France	0	0	0	0	0	0	0	0	0	0
BOP	TOTAL				805	560	126	171	105	220	146	246	311	106
		ATL			743	522	104	119	63	193	99	107	115	93
		MED			62	38	22	52	43	27	47	138	196	14
	Landings	ATL		All gears	743	522	104	119	63	193	99	107	115	93
		MED			62	38	22	52	43	27	47	138	196	14
		ATL	CP	EU-France	0	0	0	0	0	0	0	0	0	
				EU-Portugal	0	0	0	1	1	1	0	1	1	1
				Maroc	665	450	38	53	62	169	91	91	100	80
				Senegal	78	72	66	66	0	23	8	15	14	12
		MED		Algerie	2	1	0	1	0	0	4	5	11	8
				Maroc	33	3	8	6	35	11	1	0	100	1
				Tunisie	27	33	14	45	7	17	43	133	86	5
BRS	TOTAL	ATL			1221	1128	1108	1293	817	722	998	1087	1163	963
	Landings			All gears	1221	1128	1108	1293	817	722	998	1087	1163	963
			CP	Angola	0	4	2	1	1	0	3	0	1	1
				Brazil	1	1	1	135	0	0	3	5	0	
				EU-France	0	0	0	0	0	0	0	0	0	
				Grenada	0	0	0	0	0	0	0	0	0	
				Trinidad and Tobago	695	695	695	695	695	695	695	695	695	695
				Venezuela	98	92	97	174	44	15	4	77	191	91
			NCC	Chinese Taipei	29	29	0	0	0	0	0	0	0	
				Guyana	399	308	313	0	0	0	0	0	0	
				Suriname	0	0	0	288	78	12	293	310	276	176

CER	TOTAL				0	1	1	1	0	0	0	0	0	0
	Landings			All gears	0	1	1	1	0	0	0	0	0	0
			CP	Grenada	0	0	0	0	0	0	0	0	0	0
				St Vincent and Grenadines	0	0	0	0	0	0	0	0	0	0
			NCO	Dominica	0	0	0	0	0	0	0	0	0	
				Jamaica	0	0	0	0	0	0	0	0	0	
				Sta Lucia	0	0	0	1	0	0	0	0	0	0
COM	TOTAL	MED			1089	1183	1192	880	68	135	71	0	0	24
	Landings			All gears	1089	1183	1192	880	68	135	71	0	0	24
			CP	Egypt	895	1019	1017	696	0	0	0	0	0	
			NCO	Israel	45	42	42	42	0	0	0	0	0	
				Lebanon	67	52	69	59	0	0	0	0	0	
				Palestine	82	70	64	83	68	135	71	0	0	24
FRI	TOTAL	ATL			21814	15703	18038	18397	18119	20669	18543	14833	21769	17551
	Landings			All gears	13263	10431	11693	12267	13235	16482	13972	11516	21304	16786
	Landings(FP)				8551	5194	6285	6103	4881	4178	4557	3311	411	755
	Discards				0	78	60	27	3	9	14	7	54	10
	Landings		CP	Angola	1	0	0	0	0	0	1	1	0	3
				Belize	824	586	552	655	585	144	87	281	319	550
				Brazil	271	445	282	109	272	100	69	151	135	41
				Cabo Verde	2324	1795	4988	2236	2282	3649	1276	1302	1163	1229
				Curaçao	1124	1576	1414	750	1071	1263	249	163	0	
				Côte d'Ivoire	311	81	2	89	178	105	2	38	48	29
				EU-España	2537	1608	1033	1129	926	1275	1381	1310	827	518
				EU-France	410	773	715	637	296	319	726	319	173	521
				EU-Germany	0	0	0	0	0	2	8	8	0	
				EU-Latvia	528	0	0	3529	272	253	163	422	593	1039
				EU-Netherlands	90	45	233	13	6	0	8	88	259	69
				EU-Portugal	2	3	1	3	0	1	1	1	1	0
				El Salvador	0	0	44	0	960	0	0	0	283	351
				Gabon	0	0	0	4	0	0	0	0	0	
				Gambia	0	0	0	0	0	0	2254	1957	2013	1105
				Ghana	0	0	0	0	0	0	0	0	1959	2223
				Grenada	0	0	0	0	0	0	0	0	0	0
				Guatemala	71	63	311	249	155	178	0	0	0	
				Guinea Ecuatorial	0	0	1	3	2	2	1	505	169	225
				Liberia	0	0	0	12	0	1	0	0	0	
				Maroc	125	200	3	93	492	209	166	452	3307	1313
				Mauritania	996	311	362	394	1025	1005	2223	1018	2528	1923
				Panama	1356	1572	707	743	941	849	0	0	176	236
				Russian Federation	545	389	430	305	753	153	115	136	152	415
				S Tomé e Príncipe	536	467	297	482	521	546	461	471	471	389
				Senegal	1133	391	249	807	2498	6337	4774	2860	6728	4598
				UK-Bermuda	0	1	0	0	0	0	2	0	0	0
				Venezuela	70	115	67	26	0	92	6	34	0	9
			NCC	Chinese Taipei	8	11	0	0	0	0	0	0	0	
	Landings(FP)		CP	Cabo Verde	537	164	238	183	191	0	0	0	0	
				Curaçao	0	0	0	0	0	326	0	0	0	
				EU-España	1753	1351	1069	1192	900	1154	1522	93	46	4
				EU-France	1046	468	886	864	731	1301	1227	1572	365	751
				El Salvador	793	895	1113	1071	0	964	355	847	0	
				Guatemala	0	0	0	0	0	131	804	449	0	
				Panama	0	0	0	0	0	303	648	349	0	
			NCO	Mixed flags (EU tropical)	4422	2317	2979	2793	3060	0	0	0	0	
	Discards		CP	EU-France	0	78	60	26	3	9	13	6	54	10
				EU-Netherlands	0	0	0	0	0	0	1	1	0	
				Gabon	0	0	0	2	0	0	0	0	0	
KGM	TOTAL				11076	11386	11894	10088	14783	8889	8773	17730	6657	6309
	Landings			All gears	11076	11386	11894	10088	14783	8889	8773	17730	6657	6309
	Discards				0	0	0	0	0	0	0	0	0	**0**
	Landings		CP	Angola	0	0	1	1	0	3	2	10157	4	9
				Brazil	0	0	0	190	305	550	56	38	109	8
				Grenada	4	5	4	18	11	2	1	3	2	5
				Korea Rep	0	2	8	0	0	0	0	0	0	
				Mexico	3130	3233	3825	3231	2505	1821	1003	1776	1533	1438
				Namibia	0	0	0	0	0	0	30	30	20	26
				St Vincent and Grenadines	0	0	0	0	0	0	0	0	1	1
				Trinidad and Tobago	494	494	494	494	494	494	494	495	494	494
				UK-British Virgin Islands	0	0	0	0	0	1	4	1	2	1
				USA	6891	7325	7368	5910	10809	5618	6812	4990	4292	4019
				Venezuela	238	129	48	28	123	99	39	81	63	62
			NCC	Chinese Taipei	4	5	0	1	0	1	0	0	0	
				Guyana	314	192	143	1	0	0	0	0	0	
				Suriname	0	0	0	212	534	301	330	158	137	245
			NCO	Dominica	0	0	0	0	0	0	0	0	0	
				Jamaica	0	0	1	0	0	0	0	0	0	
				Saint Kitts and Nevis	0	0	0	0	1	0	0	0	0	
				Sta Lucia	0	0	0	0	0	0	1	1	0	0
	Discards		NCC	Chinese Taipei	0	0	0	0	0	0	0	0	0	

LTA	TOTAL				28885	29489	27222	25539	22342	18682	26842	24673	29582	24279
		ATL			19097	14342	19335	15796	14997	13388	17731	14605	20847	16240
		MED			9788	15147	7886	9743	7346	5293	9111	10068	8735	8038
	Landings	ATL		All gears	12248	10757	16006	11987	12028	11506	16115	12278	20350	15467
		MED			9788	15147	7886	9743	7346	5293	9110	10067	8733	8038
	Landings(FP)	ATL			6849	3478	3266	3740	2967	1848	1608	2312	419	763
	Discards				0	107	64	69	1	35	8	15	77	10
		MED			0	0	0	0	0	0	1	0	2	0
	Landings	ATL	CP	Angola	1	8	7	3	8	6	0	0	6	4
				Belize	0	0	0	0	0	0	0	0	1436	1758
				Brazil	0	0	34	0	113	38	1047	398	434	231
				Cabo Verde	218	113	105	59	82	135	51	23	135	55
				Curaçao	0	0	0	4	2	105	20	5	0	
				Côte d'Ivoire	111	1881	7583	2441	1815	1917	1293	742	1479	2037
				EU-España	477	185	148	89	10	11	255	330	327	212
				EU-France	73	359	268	263	156	492	962	471	324	381
				EU-Netherlands	0	0	0	0	0	0	0	0	0	
				EU-Portugal	7	32	35	43	3	6	23	43	10	24
				El Salvador	0	0	2	0	0	0	0	0	191	60
				Gabon	0	0	0	0	0	0	0	0	0	13
				Ghana	0	0	0	0	0	0	0	0	85	120
				Grenada	1	0	0	0	0	0	0	0	0	
				Guatemala	120	15	45	88	38	50	0	0	0	
				Guinea Ecuatorial	1	0	10	11	10	11	1	1	4	2
				Guinée Rep	0	0	0	0	0	0	631	907	1416	15
				Liberia	151	212	2	70	1	19	0	43	14	19
				Maroc	11	12	0	0	0	0	0	0	0	267
				Mauritania	2478	774	901	984	2558	2462	5548	2479	6241	4756
				Panama	0	0	0	0	2	10	0	0	130	221
				Russian Federation	547	433	698	478	1742	304	232	145	187	28
				S Tomé e Príncipe	122	249	209	87	6	71	35	37	37	31
				Senegal	4855	3841	3672	4757	3100	3718	791	3670	5542	1908
				St Vincent and Grenadines	0	15	0	27	33	0	0	0	5	5
				Trinidad and Tobago	0	0	0	0	0	0	0	0	0	
				UK-Bermuda	2	1	1	2	3	5	1	3	3	3
				UK-Sta Helena	0	0	0	0	0	0	0	0	0	0
				USA	3019	2577	2286	2580	2346	2146	5225	2982	2345	3313
				Venezuela	0	0	0	0	0	0	0	0	0	3
			NCC	Chinese Taipei	54	48	0	0	0	0	0	0	0	
			NCO	Dominica	1	1	1	1	0	0	0	0	0	
				Sta Lucia	0	1	0	1	0	0	0	0	0	0
		MED	CP	Algerie	268	444	298	242	233	195	792	312	372	672
				EU-Croatia	31	19	42	34	31	31	49	72	44	45
				EU-España	384	486	289	640	493	413	578	456	520	638
				EU-France	0	0	0	4	7	9	12	20	13	18
				EU-Greece	501	299	489	635	955	408	644	554	511	590
				EU-Italy	992	930	1032	1513	1204	803	767	1027	812	1104
				EU-Malta	1	6	6	7	3	2	6	5	3	8
				Egypt	0	0	1003	0	0	0	0	0	1121	697
				Libya	1100	48	80	65	55	30	25	280	240	182
				Maroc	3	0	0	0	0	0	0	0	0	
				Tunisie	6323	12434	4032	6152	4024	2940	5827	6551	4267	3247
				Türkiye	184	480	617	450	341	463	410	789	831	838
	Landings(FP)	ATL		Cabo Verde	458	128	146	132	109	0	0	0	0	
				Curaçao	0	0	0	0	0	426	0	0	0	
				EU-España	1885	1244	781	1102	831	329	752	717	311	541
				EU-France	732	296	470	493	273	510	399	382	108	222
				El Salvador	0	0	44	0	0	15	45	340	0	
				Guatemala	0	0	0	0	0	171	213	489	0	
				Panama	0	0	0	0	0	396	200	385	0	
			NCO	Mixed flags (EU tropical)	3774	1810	1825	2013	1753	0	0	0	0	
	Discards		CP	EU-France	0	107	64	69	1	35	8	15	77	10
				EU-Germany	0	0	0	0	0	0	0	0	0	
			NCC	Chinese Taipei	0	0	0	0	0	0	0	0	0	
		MED	CP	EU-Croatia	0	0	0	0	0	0	0	0	1	0
				EU-España	0	0	0	0	0	0	1	0	0	0
				EU-France	0	0	0	0	0	0	0	0	0	**0**
MAW	TOTAL	ATL			1489	1286	7091	1810	839	2823	1710	4523	5422	5046
	Landings			All gears	1489	1286	7091	1804	839	2823	1710	4523	5422	5046
	Discards				0	0	0	6	0	0	0	0	0	
	Landings		CP	Angola	1	2	1	0	1	2	0	3	1	
				Côte d'Ivoire	76	122	5827	601	305	392	312	186	639	1345
				Gabon	21	56	87	137	42	195	191	384	257	483
				Gambia	0	0	0	0	0	0	724	789	810	789
				Mauritania	524	164	191	79	206	2042	381	2693	3308	2127
				S Tomé e Príncipe	11	72	24	26	107	38	34	35	35	12
				Senegal	856	870	961	961	178	154	68	434	372	290
	Discards			Gabon	0	0	0	6	0	0	0	0	0	

SSM	TOTAL			8669	8332	4332	12654	16691	11763	11530	9573	7974	9784
	Landings		All gears	8669	8332	4332	12654	16691	11763	11530	9573	7974	9784
		CP	Angola	0	0	0	0	0	0	0	2	0	
			Belize	1	1	0	0	0	0	0	0	0	
			EU-France	16	6	4	0	0	0	0	0	0	
			EU-Portugal	1	0	0	0	0	0	0	0	0	
			Grenada	1	1	1	1	1	0	0	1	0	2
			Mexico	3820	3701	4321	3870	2968	2157	1535	2220	1971	1909
			South Africa	0	0	0	0	0	0	0	0	0	1
			UK-British Virgin Islands	0	0	0	0	0	0	0	0	0	0
			USA	4825	4611	6	8778	13722	9605	9994	7350	6002	7872
		NCC	Chinese Taipei	5	11	0	0	0	0	0	0	0	
		NCO	Dominica	0	0	0	0	0	0	0	0	0	
			Jamaica	0	0	0	4	0	0	0	0	0	
			Saint Kitts and Nevis	0	0	0	0	0	0	0	0	0	
			Sta Lucia	0	0	0	0	0	0	0	0	0	0
WAH	TOTAL			17320	6881	6590	4894	8542	3220	4393	4075	4689	3232
	Landings		All gears	17320	6866	6575	4887	8541	3219	4390	4071	4689	3229
	Landings(FP)			0	0	0	0	0	0	0	0	0	
	Discards			0	14	15	6	2	1	2	4	0	2
	Landings	CP	Angola	0	0	0	0	0	2	1	0	0	
			Barbados	11	10	7	9	7	5	11	12	16	13
			Belize	0	4	29	27	34	23	33	59	81	57
			Brazil	404	322	150	23	57	21	30	75	239	173
			Cabo Verde	490	228	298	293	196	151	117	44	173	109
			Canada	0	0	0	0	0	0	0	0	0	0
			Costa Rica	5	4	2	3	1	1	0	2	1	1
			Côte d'Ivoire	1	1	1	61	62	19	0	32	26	14
			EU-España	59	51	79	61	53	45	54	97	69	67
			EU-France	38	159	61	79	58	61	51	107	49	62
			EU-Portugal	0	0	0	0	3	0	0	3	3	2
			El Salvador	0	0	0	0	0	0	0	0	0	
			Great Britain	0	0	0	0	0	0	0	0	0	
			Grenada	0	0	0	32	18	15	16	48	23	26
			Guinea Ecuatorial	9	0	11	13	9	8	5	1	38	9
			Guinée Rep	0	0	0	0	0	0	0	0	0	24
			Korea Rep	0	2	6	6	14	12	9	13	17	12
			Liberia	0	0	0	0	0	1	0	0	0	
			Mauritania	13678	4271	4975	2707	7035	2026	603	2039	2698	1780
			Mexico	18	15	12	14	15	11	9	14	7	4
			Nigeria	0	0	0	0	0	0	0	0	0	0
			Panama	109	0	77	123	111	50	107	122	65	34
			S Tomé e Príncipe	70	172	109	157	8	102	60	61	61	45
			Senegal	7	0	0	0	0	23	89	55	1	48
			South Africa	0	0	0	0	0	0	0	0	0	
			St Vincent and Grenadines	11	126	82	27	30	0	16	5	19	18
			Trinidad and Tobago	10	8	7	6	6	5	7	8	7	10
			UK-Bermuda	95	92	68	82	60	67	76	68	52	58
			UK-British Virgin Islands	0	0	0	0	0	1	3	0	1	9
			UK-Sta Helena	15	16	9	5	5	6	5	13	9	7
			UK-Turks and Caicos	0	0	0	0	0	0	0	0	0	0
			USA	2060	1204	530	974	633	455	2959	1037	797	506
			Venezuela	64	51	45	46	40	31	56	85	90	17
		NCC	Guyana	0	1	0	0	0	0	0	0	0	
			Suriname	0	0	0	0	0	0	0	13	47	63
		NCO	Dominica	10	6	3	10	5	0	0	0	31	0
			Jamaica	0	0	0	0	0	0	0	0	0	
			Saint Kitts and Nevis	9	14	13	0	9	0	0	0	0	
			Sta Lucia	147	110	0	127	70	77	71	58	69	60
	Landings(FP)	CP	EU-España	0	0	0	0	0	0	0	0	0	
			EU-France	0	0	0	0	0	0	0	0	0	
	Discards			0	14	15	6	2	1	2	4	0	2
			EU-Portugal	0	0	0	0	0	0	0	0	0	0
			Mexico	0	0	0	0	0	0	0	0	0	**0**
			Panama	0	0	0	0	0	0	0	0	0	

Outlook

The standard fisheries indicators used to provide management advice to the Commission are not available for the small-tuna stocks/species due to the lack of required information to apply currently stock assessment frameworks adopted by SCRS. Please see the additional supporting information for the information available on the scientific literature on the status of some of the species/stocks under the Small Tunas Species Group.

Management recommendation

The provision of robust management advice by the SCRS relies on accurate reporting of Task 1 and 2 data and life history parameters. However, due to the nature of small tuna fisheries (i.e., multi-gear, multi-stocks, artisanal fisheries, etc.), information on fisheries data is difficult to collect, therefore proper monitoring programmes should be implemented by CPCs. Although the Committee has started actions aiming at applying a range of data-limited stock assessment models, their robustness still needs to be evaluated before they can be used to provide management advice to the Commission. Moreover, although the Committee recognizes that the use of data-limited models is important for small tunas as the first step for stock assessment, given the relevance of the catches of some of species and their economic importance for coastal States, more robust methods, such as those used for data rich species, should be applied in the near future, as more complete data become available.

Additional supporting information

Available information on the status of the stocks

In 2017, a Productivity and Susceptibility Analysis (PSA) was carried out for the small tuna caught by longline and purse seine fisheries in the Atlantic. Results showed that the top three stocks at risk in the Atlantic Ocean that should deserve most of the managers' attention were *E. alleteratus* (LTA), *A. solandri* (WAH) and *S. cavalla* (KGM).

In 2018, preliminary results on the implementation of data-limited approaches for small tunas using simulation testing were provided and improved in 2019, when different approaches for the stock assessment of Atlantic and Mediterranean small tunas were carried out. Catch-based assessment models (Depletion based stock reduction analysis - DBSRA - and Simple stock synthesis - SSS) and Length based models (Length-based spawning potential ratio - LBSPR and Length-based integrated mixed effects model - LIME) were applied for 10 and six stocks, respectively. Also, the integrated assessment LIME, which used catch and length data, was applied for six small tuna stocks. Only LTA in the Southeast and WAH in the North West would show signs of overfishing for most of the models applied, deserving special attention in the future (**Table 3**).

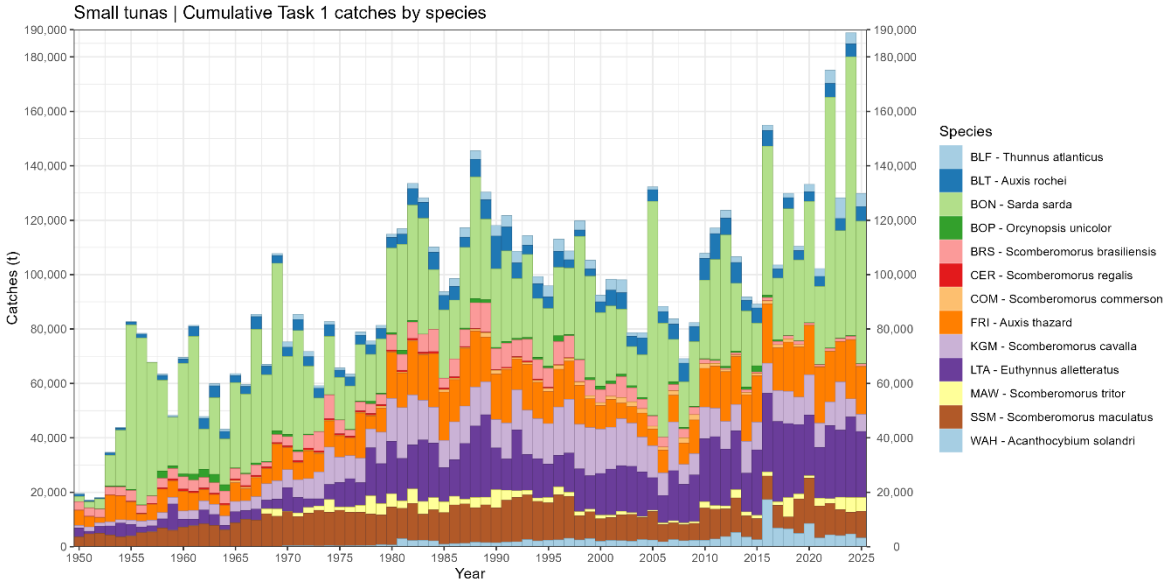


Figure 1. Small tunas (13 species) combined Atlantic and Mediterranean total reported and estimated catches (landings and dead discards, t) by year and major gear. Data as of 18 September 2026.

Table 3. Summary of the current state of knowledge on the current stock status for small tunas in the Atlantic Ocean and the Mediterranean. Results taken from Pons *et al.*, 2019a. Red indicates values below reference levels (overfished) and green above reference values (not overfished).

		Data limited assessments					
	Last year assessed	*Length based*			*Catch based*		*Catch+Length*
		LBSPR	*LIME*	*LBSPR*	*DBSRA*	*SSS*	*LIME*
		Pons *et al.* (2019a)		Baibbat *et al.* (2019)	Pons *et al.* (2019b)		
		SPR	SPR		B/B_{MSY}	B/B_{MSY}	B/B_{MSY}
LTA_SE	2014-2016	0.13	0.27	--	0.69	0.94	1.83
BON_NE	2014-2016	0.23	0.71	0.34	1.63	1.98	2.02
WAH_NW	2014-2016	0.37	0.29	--	1.02	1.34	0.86
WAH_NE	2014-2016	0.55	0.38	--	--	--	--
BON_Med	2014-2016	0.59	0.22	--	--	--	--
LTA_Med	2014-2016	0.66	0.62	--	1.88	2.33	1.08
LTA_NW	2014-2016	0.66	0.48	--	--	--	--
FRI_SE	2014-2016	0.79	0.53	--	1.79	2.65	1.10
FRI_NE	2014-2016	0.83	0.46	--	1.64	2.50	1.29
LTA_NE	2014-2016	0.90	1.00	--	--	--	--

A data-limited MSE was also performed as preliminary exercise for Northwest WAH. The MSE pointed out that MPs based on catch-based methods are the most acceptable with respect a variety of performance metrics, while simulations for the length-based and fishing effort control methods did not present as satisfactory results (**Table 4**). The results from this initial exercise must be interpreted with caution because of considerable uncertainty in the parametrization of the OM, which might strongly influence the performance of MPs.

Table 4. Summary of the Northwest Atlantic wahoo MSE results for selected MPs using the DLMtool package (Mourato *et al*., 2019). Colour cells coding is used to denote if the particular MP falls within acceptable performance metric indicators (green – acceptable and red – not satisfied). Probability of not overfishing (**PNOF**; $F<F_{MSY}$); probability of spawning biomass being higher than half of spawning biomass at maximum sustainable yield (**P50**; $SB>0.5\ SB_{MSY}$); probability of spawning biomass being higher than spawning biomass at maximum sustainable yield (**P100**; $SB>SB_{MSY}$); probability of average annual variability in yield being lower than 20% (**AAVY**; Prob. AAVY < 20%); probability of average yield being higher than half of reference yield (**LTY**; Prob. Yield > 0.5 Ref. yield). Acceptable management procedures were defined as those that supported **PNOF**>70%, **P50**>90%, **P100**>70%, **AAVY**>50% and **LTY**>50%.

Management Procedures	**PNOF**	**P50**	**P100**	**AAVY**	**LTY**
Length-based methods					
LBSPR	0.74	0.93	0.65	0.120	0.86
minlenLopt1	0.75	0.95	0.72	0.110	0.83
matlenlim	0.75	0.96	0.74	0.095	0.81
Catch-based methods					
AvC	0.70	0.95	0.76	0.630	0.78
CC1	0.71	0.95	0.76	0.640	0.76
SPMSY	0.81	0.98	0.86	0.110	0.43
DBSRA	0.61	0.98	0.81	0.450	0.74
Fishing effort control methods					
curE	0.75	0.93	0.66	0.130	0.85
curE75	0.87	0.97	0.78	0.150	0.80

12.14 BSH-Blue shark

A stock assessment for blue shark was conducted for both Atlantic stocks in 2023 using data through 2021 and applying two modeling approaches: Just Another Bayesian Biomass Assessment (JABBA), and integrated statistical assessment model (Stock Synthesis, SS3). The complete description of the stock assessment process and the development of management advice can be found in the 2023 Report of the Data Preparatory Meeting (Anon., 2023a) and the 2023 Report of the Stock Assessment Meeting (Anon., 2023b). A summary of both stock statuses is provided below (**Tables 1a** and **b**). The Kobe Phase Plot and uncertainty of current status estimates is summarized in **Figure 1**. **Table 2** provides estimated catches, by landings and discards by gear, for the period 2016-2025, while **Figure 2** (Atlantic) and **Figure 3** (Mediterranean) shows the historical catch series by major gear. **Table 3** provides estimated probabilities (%) that both the fishing mortality will be below F_{MSY} and spawning stock biomass will be above SSB_{MSY} in future years under different constant catch scenarios.

Table 1a. North Atlantic blue shark summary table.

Indicator		***Stock Status***
Maximum Sustainable Yield (MSY)[1]	32,689 t (30,403 t - 36,465 t)	2021
TAC (2025)	30,000 t	
Current (2025) Yield[2]	19,390 t	
Relative Biomass (B_{2021}/B_{MSY})[3]	1.00 (0.75 - 1.31)	
Relative Fishing Mortality (F_{2021}/F_{MSY})[3]	0.70 (0.50 - 0.93)	
Stock Status	Overfished: NO (50.1% probability of being overfished)[4,5]	
	Overfishing: NO (0.7% probability of overfishing)[4]	
Management measures in effect	Rec. 23-10, Rec. 04-10, Rec. 07-06	

[1] Geometric mean of both models, SS3 and JABBA, with a 95% confidence interval.
[2] Task 1 catch as of 19 September 2026.
[3] Combined results from both models, SS3 and JABBA. Median with a 95% confidence interval in brackets.
[4] As estimated from the Kobe plot probability in each quadrant.
[5] Based on the median point of the estimates.

Table 1b. South Atlantic blue shark summary table.

Indicator		***Stock Status***
Maximum Sustainable Yield (MSY)[1]	27,711 t (23,128 t - 47,758 t)	2021
TAC (2025)	27,711 t	
Current (2025) Yield[2]	23,251 t	
Relative Biomass (B_{2021}/B_{MSY})[3]	1.29 (0.89 - 1.81)	
Relative Fishing Mortality (F_{2021}/F_{MSY})[3]	1.03 (0.45 - 1.55)	
Stock Status	Overfished: NO (8.8% probability of being overfished)[4]	
	Overfishing: YES (54.5% probability of overfishing)[4]	
Management measures in effect	Rec. 23-11, Rec. 04-10, Rec. 07-06	

[1] Geometric mean of both models, SS3 and JABBA, with a 95% confidence interval.
[2] Task 1 catch as of 19 September 2026.
[3] Combined results from both models, SS3 and JABBA. Median with a 95% confidence interval in brackets.
[4] As estimated from the Kobe plot probability in each quadrant.

Table 2. Provides estimated catches, by landings and discards by gear, for the period 2016-2025.

				2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
TOTAL				70247	68672	68461	65794	54754	55107	53527	54558	49034	42696
	ATN			44093	40012	33986	27220	20969	21657	21853	23992	24048	19390
	ATS			25418	28557	34417	38510	33712	33392	31639	30520	24920	23251
	MED			737	103	58	64	73	59	36	47	65	56
Landings	ATN		Longline	42875	38831	32779	25994	19566	20180	20503	22684	22863	18517
			Other surf.	1123	1036	1087	1025	986	1087	673	727	604	464
	ATS		Longline	24643	27662	33561	37610	32630	32682	30039	29035	23619	21742
			Other surf.	634	668	754	558	603	495	1329	1202	592	593
	MED		Longline	735	90	54	51	71	53	34	40	52	40
			Other surf.	2	13	4	13	3	6	1	1	1	0
Discards	ATN		Longline	94	145	119	200	416	389	675	578	579	407
			Other surf.	0	0	0	0	0	0	1	2	1	1
	ATS		Longline	140	219	102	342	479	214	270	283	709	916
			Other surf.	0	7	0	0	0	0	0	0	0	0
	MED		Longline	0	0	0	0	0	0	0	6	13	15
			Other surf.	0	0	0	0	0	0	0	0	0	0
Landings	ATN	CP	Barbados	6	7	4	2	2	2	3	2	5	3
			Belize	6	201	317	369	301	349	311	567	482	181
			Brazil	0	0	0	0	0	0	0	0	0	37
			Cabo Verde	0	0	0	0	0	0	0	122	41	74
			Canada	0	0	0	0	0	0	0	0	0	
			China PR	27	2	6	18	65	2	13	9	9	29
			Costa Rica	2	0	0	0	0	0	0	1	2	
			Côte d'Ivoire	0	0	0	0	0	0	0	0	0	1
			EU-España	29019	27316	21685	16314	12325	13125	13057	14896	14856	12607
			EU-France	352	124	94	80	57	49	46	45	45	22
			EU-Ireland	0	0	0	0	0	0	0	0	0	
			EU-Netherlands	0	0	0	0	0	0	0	0	0	0
			EU-Portugal	7819	5664	5195	4507	3836	4300	4102	4026	4059	3038
			FR-St Pierre et Miquelon	0	0	0	0	0	0	153	0	0	
			Great Britain	17	11	6	3	3	4	5	4	6	2
			Japan	4217	4444	4111	3740	2130	1608	1818	1947	2040	1292
			Korea Rep	10	103	92	113	48	16	0	0	0	**0**
			Liberia	0	0	7	10	3	8	0	2	1	
			Maroc	1623	1475	1644	1524	1498	1636	1532	1644	1644	1644
			Mauritania	93	0	0	0	0	0	0	0	0	
			Mexico	0	0	0	0	0	0	0	0	0	**0**
			Panama	262	324	437	242	162	84	111	64	0	**0**
			Russian Federation	0	0	0	0	0	0	0	0	0	
			Senegal	17	19	15	14	14	14	0	0	0	
			St Vincent and Grenadines	119	0	0	0	2	0	0	0	0	
			Trinidad and Tobago	2	2	0	0	0	0	1	0	0	1
			UK-Bermuda	0	0	0	0	0	0	0	0	0	
			USA	31	24	19	17	8	10	1	7	2	1
			Venezuela	118	108	113	56	59	11	9	16	15	2
		NCC	Chinese Taipei	259	42	122	8	38	49	11	52	199	12
			Suriname	0	0	0	0	0	0	0	7	64	36
	ATS	CP	Angola	0	16	0	0	0	16	80	22	96	76
			Belize	167	200	222	165	15	21	0	0	0	190
			Brazil	1334	2177	3011	3784	3435	4629	3328	2122	2586	2565
			China PR	30	283	127	52	45	15	5	67	9	2
			Curaçao	0	0	0	0	0	0	0	0	0	
			Côte d'Ivoire	9	8	247	1202	8	0	15	15	102	44
			EU-Cyprus	0	0	0	0	0	0	0	0	0	1
			EU-España	10107	11486	13515	18497	14717	16778	14061	14388	11878	10129
			EU-France	0	0	0	0	0	0	0	0	0	**0**
			EU-Portugal	5609	6663	8015	6753	7350	5524	6092	5504	4834	5305
			El Salvador	0	0	0	0	0	0	0	0	0	
			Ghana	436	479	416	414	413	446	1287	1150	458	526
			Guatemala	0	0	0	0	0	0	0	0	0	
			Guinea Ecuatorial	6	0	0	0	0	0	0	1	0	0
			Japan	2127	3112	3495	2338	1795	1327	896	947	588	449
			Korea Rep	252	87	192	156	55	6	0	0	0	**0**
			Namibia	2775	1357	3290	3665	4120	3237	4694	4483	3277	2874
			Panama	0	0	0	0	15	0	1	1	0	**0**
			S Tomé e Principe	183	182	91	94	11	50	25	26	26	17
			Senegal	15	11	15	39	22	25	0	0	0	
			South Africa	356	418	403	292	52	181	100	51	61	63
			St Vincent and Grenadines	17	0	0	0	0	0	0	0	0	
		NCC	Chinese Taipei	1853	1852	1276	716	1179	922	785	1461	296	94
	MED	CP	Algerie	0	0	7	4	2	3	5	2	3	2
			EU-Cyprus	0	0	0	0	0	0	0	0	0	
			EU-España	59	40	19	18	34	14	8	5	3	6
			EU-France	7	0	2	2	2	2	1	1	1	1
			EU-Italy	18	59	17	33	26	33	13	16	19	16
			EU-Malta	3	4	2	2	2	1	3	1	2	1
			Libya	650	0	10	6	6	5	6	15	25	15
Discards	ATN		Canada	16	32	71	4	193	173	365	161	136	145
			EU-Denmark	0	0	0	0	0	0	0	0	0	
			EU-España	0	0	0	0	0	0	0	0	1	1
			EU-France	0	0	0	0	0	0	5	3	3	5
			EU-Portugal	7	7	7	7	6	7	6	7	5	5
			Japan	0	0	0	115	157	180	214	333	329	224
			Korea Rep	1	29	0	25	1	0	36	35	21	6
			Mexico	0	0	0	0	0	0	0	0	0	**0**
			Russian Federation	0	0	0	0	0	0	0	0	0	
			UK-Bermuda	0	0	0	0	0	0	0	0	0	**0**
			USA	43	42	11	20	24	25	36	19	14	5
		NCC	Chinese Taipei	27	34	31	30	36	4	14	23	72	18
	ATS	CP	Curaçao	0	2	0	0	0	0	0	0	0	
			EU-Cyprus	0	0	0	0	0	0	0	0	0	0
			EU-España	0	1	0	0	0	0	0	0	1	**0**
			EU-France	0	1	0	0	0	0	0	0	0	0
			EU-Portugal	1	2	3	2	2	1	2	1	1	1
			El Salvador	0	1	0	0	0	0	0	0	0	
			Guatemala	0	1	0	0	0	0	0	0	0	
			Japan	0	0	0	175	316	81	76	56	117	125
			Korea Rep	0	17	2	19	2	2	55	34	22	13
			Panama	0	1	0	0	0	0	0	0	0	
			South Africa	0	0	0	0	0	0	0	1	11	5
		NCC	Chinese Taipei	139	201	97	146	159	130	138	191	557	772
	MED	CP	EU-España	0	0	0	0	0	0	0	6	13	15
			EU-France	0	0	0	0	0	0	0	0	0	**0**

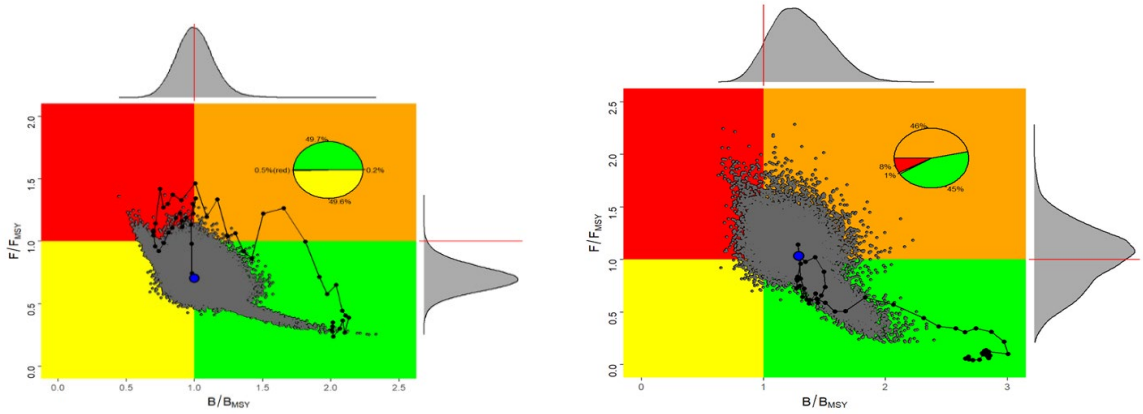


Figure 1. Kobe plot for the North (left) and South (right) Atlantic blue shark stock status in 2021, estimated during the stock assessment (Anon., 2023b). The lines indicate the stock status trajectory starting in 1971. The inserted pies charts indicate the probabilities of the stock being within each Kobe colour quadrant.

Outlook

The North Atlantic blue shark stock in 2021 was at the B_{MSY} level (not overfished) and fishing mortality was below F_{MSY} (no overfishing). The estimated MSY was 32,689 t (95% CI range of 30,403 t – 36,465 t). Projections indicated that future constant catches at or above 35,000 t would result in probabilities greater than 50% of fishing mortality being above F_{MSY} (**Table 3**). For constant catches at or below MSY there was a transition period in the projections (2025-2029) where, the stock's probability of being in the green quadrant declined and then will begin increasing (**Table 3**). This transition period may reflect the age structure and recent predicted average recruitment trends.

The South Atlantic blue shark stock in 2021 was above the B_{MSY} level (not overfished), but fishing mortality was above F_{MSY} (undergoing overfishing). The estimated MSY was 27,711 t (95% CI range of 23,128 t – 47,758 t). Projections indicated if average catch levels from 2019-2021 (about 35,000 t) were maintained, the stock was expected to rapidly decline in biomass, with a risk of falling below 20% of the estimated B_{MSY} reference level in a few years (**Table 3**).

Management recommendation

The results from the 2023 stock assessment showed that while the 2022 catches (22,057 t) for the North Atlantic stock would maintain the stock in the green quadrant of the Kobe plot with a high probability, the Committee noted that the TAC in the *Recommendation by ICCAT amending Recommendation 19-07 amending the Recommendation 16-12 on management measures for the conservation of the North Atlantic blue shark caught in association with ICCAT fisheries* (Rec. 21-10) (38,232 t) would have a very low probability (3%) of maintaining the stock in the same quadrant by 2033. Therefore, the Committee recommended that the Commission reduce the TAC to catch levels that will maintain the stock in the green quadrant of the Kobe plot with a high probability (see **Table 3**). The Commission established a TAC of 30,000 t for North Atlantic blue shark (Rec. 23-10).

The results from the stock assessment (Anon., 2023b) showed that the 2021 South Atlantic blue shark stock status was estimated not to be overfished but undergoing overfishing. Recent catches (2019-2021; 35,203 t mean catch) were above the highest catch scenario used in the Kobe II Strategy Matrix and were not sustainable in the long term. Constant catches of 32,500 t (the highest constant catch scenario in the Kobe matrix) only had a 28% probability of being in the green Kobe quadrant by 2033. The Committee indicated that catches of 27,711 t (the estimated 2021 MSY) or less would immediately stop overfishing and will keep the stock in the green quadrant of the Kobe plot with at least a 54% probability (**Table 3**). The Commission established a TAC of 27,711 t for the South Atlantic blue shark (*Recommendation by ICCAT to replace Recommendation 19-08 on management measures for the conservation of the South Atlantic blue shark caught in association with ICCAT fisheries* (Rec. 23-11)).

Table 3. Kobe II matrices for the North and South Atlantic blue shark stocks giving the probability that: a) F<F_{MSY}; b) B>B_{MSY}; and c) the joint probability of F<F_{MSY} and B>B_{MSY}, for given years, for various constant catch levels based on model results. The constant catch scenario of 32,689 t and 27,711 t corresponds to the estimated MSY for the North and South Atlantic, respectively.

North Atlantic

a) Probability that F<F_{MSY}

Catch (t)	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
20000	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
22500	99%	99%	99%	100%	100%	100%	100%	100%	100%	100%
25000	95%	96%	96%	97%	98%	98%	99%	99%	99%	100%
27500	87%	87%	88%	89%	90%	92%	93%	94%	95%	95%
30000	75%	74%	74%	75%	76%	77%	78%	79%	80%	81%
32500	62%	60%	59%	59%	59%	59%	59%	59%	59%	59%
32689	61%	59%	58%	57%	58%	58%	58%	58%	58%	57%
35000	50%	47%	44%	43%	41%	39%	38%	37%	36%	35%
37500	40%	35%	31%	27%	24%	21%	19%	17%	15%	14%
40000	31%	24%	19%	14%	11%	8%	7%	5%	4%	4%

b) Probability that B>B_{MSY}

Catch (t)	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
0	71%	83%	95%	100%	100%	100%	100%	100%	100%	100%
20000	59%	58%	62%	73%	84%	91%	95%	97%	98%	99%
22500	58%	56%	59%	68%	78%	85%	90%	93%	95%	97%
25000	56%	53%	55%	63%	71%	77%	82%	86%	88%	91%
27500	55%	51%	52%	58%	64%	69%	73%	76%	78%	81%
30000	54%	49%	50%	53%	58%	61%	63%	65%	67%	68%
32500	53%	48%	47%	49%	51%	53%	53%	54%	54%	54%
32689	53%	47%	46%	48%	50%	52%	53%	53%	53%	53%
35000	53%	46%	44%	43%	44%	43%	42%	41%	40%	38%
37500	52%	44%	40%	38%	35%	33%	30%	27%	24%	22%
40000	51%	42%	36%	32%	27%	22%	18%	15%	13%	10%

c) Probability that F<F_{MSY} and B>B_{MSY}

Catch (t)	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
0	71%	83%	95%	100%	100%	100%	100%	100%	100%	100%
20000	59%	58%	62%	73%	84%	91%	95%	97%	98%	99%
22500	58%	56%	59%	68%	78%	85%	90%	93%	95%	97%
25000	56%	53%	55%	63%	71%	77%	82%	86%	88%	91%
27500	55%	51%	52%	58%	64%	69%	73%	76%	78%	80%
30000	53%	49%	50%	53%	57%	60%	63%	65%	66%	67%
32500	51%	47%	46%	47%	49%	51%	51%	52%	52%	53%
32689	50%	46%	46%	47%	49%	50%	51%	51%	51%	51%
35000	46%	42%	40%	39%	38%	37%	36%	35%	34%	33%
37500	38%	33%	29%	26%	23%	21%	19%	17%	15%	14%
40000	30%	23%	18%	14%	11%	8%	7%	5%	4%	3%

South Atlantic

a) Probability that F<F_{MSY}

Catch (t)	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
15000	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
17500	98%	99%	99%	99%	99%	99%	100%	100%	100%	100%
20000	95%	96%	97%	97%	97%	97%	98%	98%	98%	98%
22500	89%	90%	91%	91%	91%	91%	91%	92%	92%	92%
25000	80%	81%	80%	80%	79%	79%	78%	78%	78%	77%
27500	70%	69%	68%	66%	65%	64%	62%	61%	60%	59%
27711	69%	68%	67%	65%	63%	62%	61%	60%	59%	58%
30000	58%	57%	54%	52%	50%	48%	47%	45%	44%	43%
32500	47%	45%	42%	40%	37%	36%	34%	33%	32%	32%

b) Probability that B>B_{MSY}

Catch (t)	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
0	93%	99%	100%	100%	100%	100%	100%	100%	100%	100%
15000	83%	89%	93%	95%	97%	98%	99%	99%	99%	99%
17500	81%	86%	90%	92%	94%	95%	96%	97%	97%	98%
20000	79%	83%	86%	88%	89%	90%	91%	92%	93%	94%
22500	77%	79%	81%	82%	82%	83%	84%	84%	85%	86%
25000	75%	75%	75%	75%	75%	74%	74%	74%	74%	73%
27500	72%	71%	69%	68%	66%	64%	63%	61%	60%	60%
27711	72%	70%	69%	67%	65%	63%	62%	61%	60%	58%
30000	70%	67%	63%	60%	57%	54%	52%	50%	48%	47%
32500	68%	62%	57%	52%	48%	45%	42%	40%	39%	38%

c) Probability that F<F_{MSY} and B>B_{MSY}

Catch (t)	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
0	93%	99%	100%	100%	100%	100%	100%	100%	100%	100%
15000	83%	89%	93%	95%	97%	98%	99%	99%	99%	99%
17500	81%	86%	90%	92%	94%	95%	96%	97%	97%	98%
20000	79%	83%	86%	88%	89%	90%	91%	92%	93%	94%
22500	77%	79%	81%	82%	82%	83%	84%	84%	85%	86%
25000	74%	75%	75%	75%	74%	74%	73%	73%	73%	72%
27500	68%	68%	67%	65%	63%	61%	59%	59%	54%	53%
27711	67%	67%	66%	63%	61%	60%	58%	56%	55%	54%
30000	58%	57%	54%	51%	49%	47%	44%	43%	41%	40%
32500	47%	45%	42%	39%	37%	34%	32%	31%	29%	28%

Additional supporting information

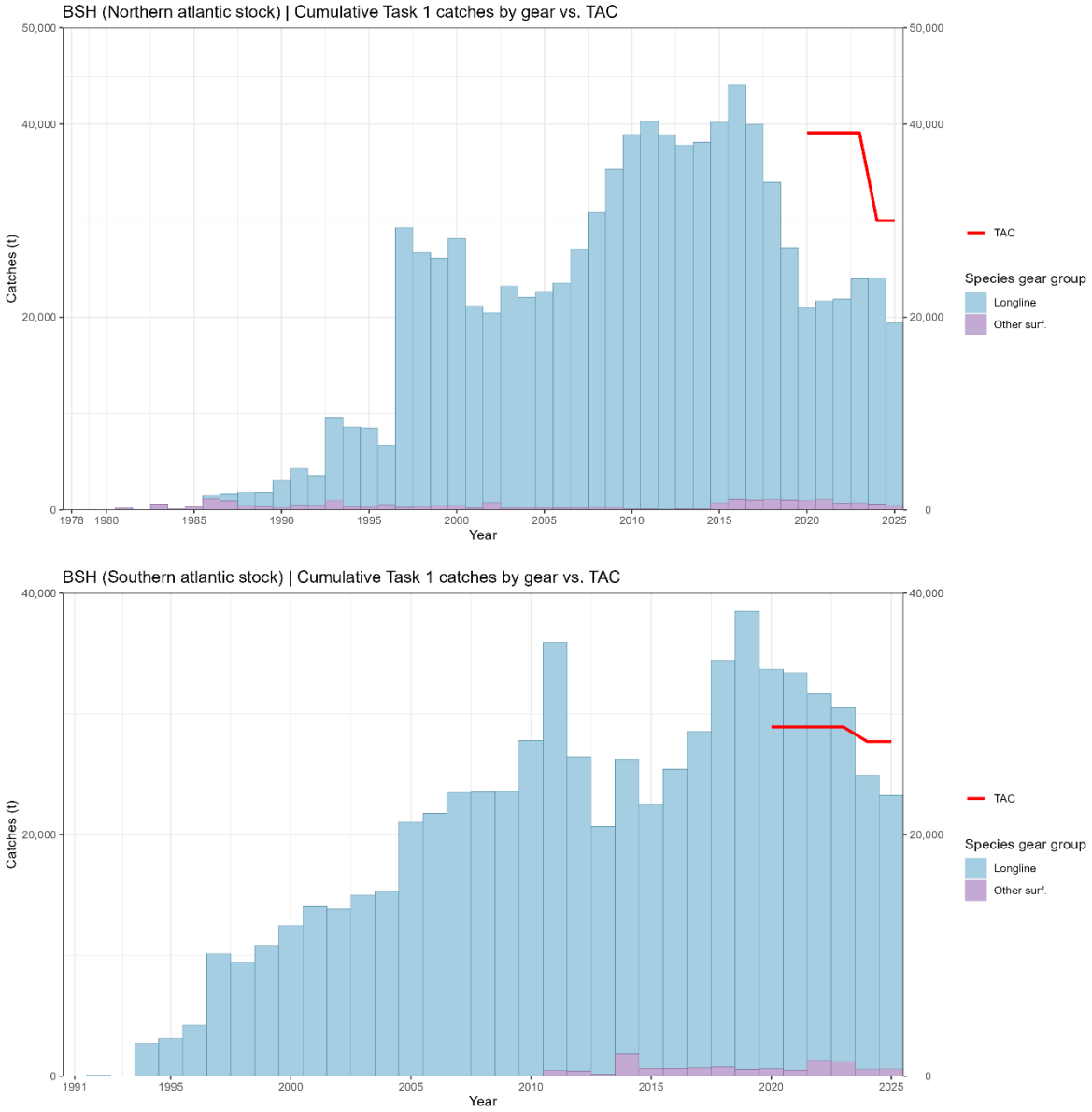


Figure 2. Blue shark North and South Atlantic stocks (BSH-N and BSH-S, respectively in top and bottom figures) total reported and estimated catches (landings and dead discards, t) by year and major gear. Data as of 18 September 2026.

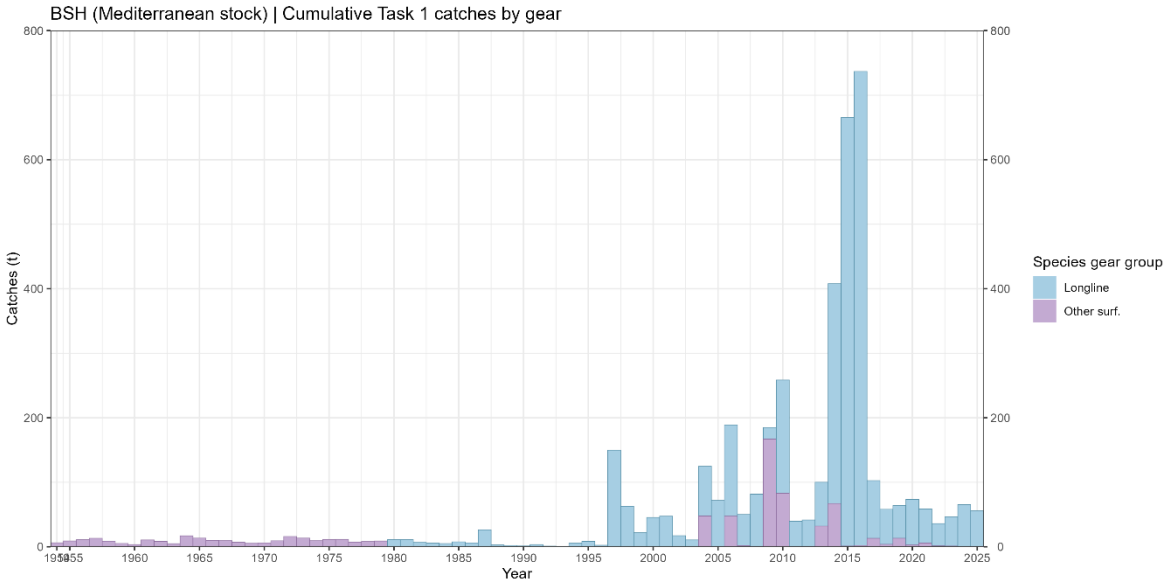


Figure 3. Blue shark Mediterranean stock (BSH-M) total reported and estimated catches (landings and dead discards, t) by year and major gear. Data as of 18 September 2026.

*12.15 SMA-Shortfin mako (*Isurus oxyrinchus*)*

Introduction

A stock assessment for South Atlantic shortfin mako was conducted in 2025 using data through 2023 (Anon., 2025a; Anon., 2025g), and for the North Atlantic in 2026 using data through 2024 (Anon., 2026i). The complete description of both stock assessment process and the development of management advice can be found in the above-cited meeting reports. A summary of both stock statuses is provided in **Tables 1a and 1b**. The Kobe Phase Plot and uncertainty of current-status estimates for the North and South stocks are summarized in **Figure 1**. **Table 2** provides estimated catches, landings, and discards by gear, for the period 2016-2025, while **Figure 2** (Atlantic) and **Figure 3** (Mediterranean) show the historical catch series by major gear. Kobe II strategy matrices (**Table 3**) provide estimated probabilities (%) for the North and South stocks that both the fishing mortality will be below F_{MSY} and spawning stock fecundity (SSF) will be above SSF_{MSY} in future years under different constant catch scenarios.

Table 1a. North Atlantic shortfin mako shark summary table.

Indicator		***Stock Status***
Maximum Sustainable Yield (MSY)	1,883 t (1,556 – 2,209 t)[1]	2024
TAC (2025)[2]	250 t	
Current (2025) Yield[3]	631 t	
Relative spawning stock fecundity (SSF_{2024}/SSF_{MSY})[4]	0.95 (0.54-1.29)	
Relative Fishing Mortality (F_{2024}/F_{MSY})[4]	0.72 (0.35-2.37)	
Stock Status	Overfished: YES (61.6% probability of being overfished) Overfishing: NO (19.6% probability of overfishing)	
Management measures in effect	Rec. 21-09, Rec. 04-10 and Rec. 07-06	

[1] Median and 95% CIs from integrated age-structured model.
[2] Refers to total fishing mortality established in Rec. 21-09 para 4a.
[3] Task 1 catch as of 18 September 2026.
[4] Range obtained from three production models and 1 integrated age-structured model. The combined time series were built based on the multivariate lognormal (MVLN) approach with 15,000 iterations for the age-structured model and 5,000 Markov Chain Monte Carlo (MCMC) for each of the production model, giving 50% of the overall weight to the one age-structured model and 50% to the three production model configurations.

Table 1b. South Atlantic shortfin mako shark summary table.

Indicator		***Stock Status***
Maximum Sustainable Yield (MSY)	1,648 t (1,519-1,795 t)	2023
TAC (2025)[1]	1,295 t	
Current (2025) Yield[2]	685 t	
Relative spawning stock fecundity (SSF_{2023}/SSF_{MSY})[3]	0.949 (0.763-1.179)	
Relative Fishing Mortality (F_{2023}/F_{MSY})[3]	1.052 (0.837-1.287)	
Stock Status	Overfished: YES (66.9% probability) Overfishing: YES (66.5% probability)	
Management measures in effect	Rec. 25-08, Rec. 04-10, Rec. 07-06	

[1] Refers to total retention allowance established in Rec. 22-11 para 3.
[2] Task 1 catch as of 18 September 2026.
[3] Equally weighted combined catch scenarios. The combined time series were built with 10,000 iterations based on the MVLN approach for each scenario.

Table 2. Estimated catches, landings and discards of Atlantic shortfin mako shark by gear, for the period 2016-2025.

				2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
TOTAL				6134	6412	5567	4840	4593	3442	3342	2078	1617	1315
	ATN			3368	3135	2407	1896	1735	1187	764	1077	876	631
	ATS			2765	3277	3160	2944	2858	2255	2577	1000	739	685
	MED			0	0	1	0	0	0	1	0	1	0
Landings	ATN		Longline	3119	2714	1998	1622	1625	521	18	6	4	1
			Other surf.	237	411	379	213	42	33	34	6	6	1
	ATS		Longline	2748	3110	3149	2926	2820	2234	2462	778	431	365
			Other surf.	13	162	7	8	29	9	3	0	0	0
	MED		Longline	0	0	0	0	0	0	0	0	0	0
			Other surf.	0	0	1	0	0	0	0	0	0	
Discards	ATN		Longline	12	9	28	61	66	633	713	1064	847	562
			Other surf.	0	1	1	1	2	0	0	1	20	66
	ATS		Longline	4	4	3	10	8	12	113	222	309	320
			Other surf.	1	1	1	1	0	0	0	0	0	0
	MED		Longline	0	0	0	0	0	0	1	0	1	0
Landings	ATN	CP	Barbados	3	3	0	0	0	0	0	0	0	
			Belize	1	9	12	2	0	3	0	0	0	
			Brazil	0	0	0	0	0	0	0	0	0	
			Cabo Verde	0	0	0	0	0	0	0	3	1	
			Canada	82	109	53	63	1	0	0	0	0	
			China PR	4	2	0	0	0	0	0	0	0	
			Costa Rica	1	0	1	0	0	0	0	0	0	
			Curaçao	0	0	0	0	0	0	0	0	0	
			EU-España	1574	1784	1165	866	870	0	0	0	0	**0**
			EU-France	2	1	0	1	0	1	1	0	0	0
			EU-Netherlands	0	0	0	0	0	0	0	0	0	
			EU-Portugal	264	276	272	289	342	202	1	0	1	0
			Great Britain	0	0	0	0	0	0	0	0	0	
			Guatemala	0	0	0	0	0	0	0	0	0	
			Japan	74	89	20	4	0	0	0	0	0	**0**
			Korea Rep	1	3	5	4	0	0	0	0	0	
			Liberia	0	0	0	0	10	0	0	0	0	
			Maroc	1050	450	594	501	382	299	0	0	0	**0**
			Mauritania	2	0	0	0	0	0	0	0	0	
			Mexico	3	5	2	2	2	2	3	2	1	1
			Panama	0	0	0	0	0	0	0	0	0	
			Russian Federation	0	0	0	0	0	0	0	0	0	
			Senegal	2	68	68	26	0	0	0	0	0	
			St Vincent and Grenadines	0	0	0	3	0	0	0	0	0	
			Trinidad and Tobago	1	2	2	1	1	1	1	0	0	0
			UK-Bermuda	0	0	0	0	0	0	0	0	0	
			USA	271	302	165	57	48	39	41	0	1	
			Venezuela	13	19	18	14	11	5	6	6	5	1
		NCC	Chinese Taipei	7	1	0	0	0	0	0	0	0	**0**
		NCO	Sta Lucia	0	0	0	0	0	1	0	0	0	
	ATS	CP	Angola	0	31	0	0	0	7	23	14	2	13
			Belize	14	34	15	7	2	1	0	0	0	
			Brazil	124	275	399	739	542	477	557	121	30	
			China PR	3	1	0	0	0	0	0	0	0	
			Curaçao	0	0	0	0	0	0	0	0	0	
			Côte d'Ivoire	13	161	4	8	14	9	1	0	0	
			EU-España	882	1049	1044	1090	799	650	657	0	0	**0**
			EU-Portugal	393	503	300	243	449	357	358	0	0	
			El Salvador	0	0	0	0	0	0	0	0	0	
			Guatemala	0	0	0	0	0	0	0	0	0	
			Japan	77	96	93	53	1	0	0	0	0	**0**
			Korea Rep	18	8	9	1	0	0	0	0	0	
			Namibia	799	684	980	634	945	637	789	545	254	261
			Panama	0	0	0	0	0	0	0	0	0	
			Senegal	6	39	4	7	0	0	0	0	0	
			South Africa	339	305	244	110	46	70	66	96	140	90
			UK-Sta Helena	0	0	0	0	0	0	0	0	0	
		NCC	Chinese Taipei	92	85	64	42	52	35	13	2	5	1
	MED	CP	EU-France	0	0	0	0	0	0	0	0	0	
			EU-Italy	0	0	1	0	0	0	0	0	0	
Discards	ATN		Canada	1	0	2	1	20	22	26	12	14	10
			China PR	0	0	0	20	2	1	5	4	6	21
			Curaçao	0	0	0	0	0	0	0	0	0	
			EU-España	0	0	0	0	0	585	588	936	714	453
			EU-France	0	0	0	0	0	0	0	1	0	0
			EU-Portugal	5	5	4	5	3	4	64	59	47	43
			El Salvador	0	0	0	0	0	0	0	0	0	
			Guatemala	0	0	0	0	0	0	0	0	0	
			Japan	0	0	0	30	28	15	9	11	18	11
			Korea Rep	0	0	0	0	0	0	0	0	0	
			Maroc	0	0	0	0	0	0	9	9	56	67
			Mexico	0	0	0	0	0	0	0	0	0	**0**
			Panama	0	0	0	0	0	0	0	0	0	
			Russian Federation	0	0	0	0	0	0	0	0	0	
			UK-Bermuda	0	0	0	0	0	0	0	0	0	**0**
			USA	6	4	2	1	3	4	10	29	9	19
		NCC	Chinese Taipei	1	0	22	5	12	1	2	6	2	3
	ATS	CP	Brazil	0	0	0	0	0	0	0	0	0	44
			China PR	0	0	0	0	1	1	4	3	0	
			Curaçao	0	0	0	0	0	0	0	0	0	
			EU-España	0	0	0	0	0	0	66	187	271	215
			EU-France	1	0	1	1	0	0	0	0	0	**0**
			EU-Portugal	1	1	1	1	1	1	28	24	22	23
			El Salvador	0	0	0	0	0	0	0	0	0	
			Guatemala	0	0	0	0	0	0	0	0	0	
			Japan	0	0	0	2	5	9	1	1	2	5
			Korea Rep	0	0	0	5	0	0	0	0	0	
			Panama	0	0	0	0	0	0	0	0	0	
			South Africa	0	0	0	0	0	0	0	0	0	17
		NCC	Chinese Taipei	3	3	2	2	2	2	13	7	14	16
	MED	CP	EU-España	0	0	0	0	0	0	1	0	1	

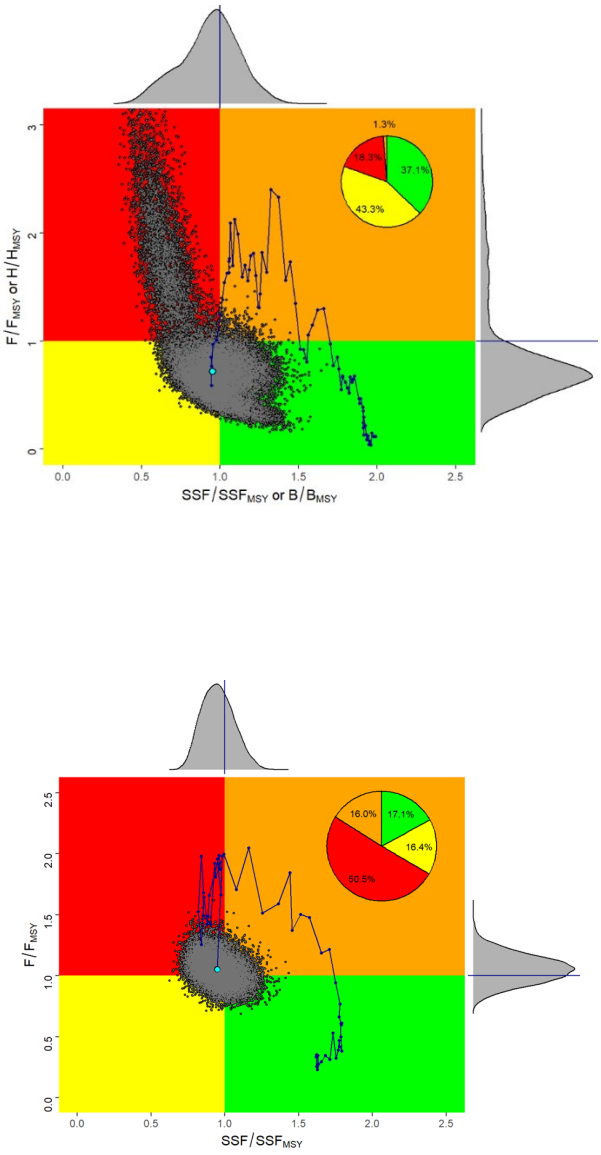


Figure 1. Kobe plot for the North (top) and South (bottom) Atlantic shortfin mako stock status in 2024 and 2023, estimated during the 2026 and 2025 stock assessments, respectively. The lines indicate the stock status trajectory starting in 1951 for the northern stock and 1971 for the southern stock. The inserted pie charts in the plots indicate the probability of the stock being within each Kobe colour quadrant. Grey dots are the interactions from each model for the terminal year with the marginal distributions plotted in the lateral axis.

Outlook

North Atlantic Stock

The 2026 stock assessment (Anon., 2026i) explored a broad range of uncertainty and, following diagnostic evaluation, retained JABBA models and one age-structured SS3 model to characterize current stock status (weighted according to the methods described in the detailed assessment). The 2026 stock assessment for North Atlantic shortfin mako (Anon., 2026i) indicates a change in stock status from the 2017 assessment (Anon., 2017c), which found a 90% combined probability of the stock being both overfished and subject to overfishing. The current assessment indicates that in 2024 the stock was overfished (SSF_{2024}/SSF_{MSY} = 0.95, 95% CI: 0.54–1.29) but not subject to overfishing (F_{2024}/F_{MSY} = 0.72, 95% CI: 0.35–2.37). **Figure 1** shows the probability of the stock falling in each Kobe plot quadrant in 2024 for the combined scenarios: red (overfished and subject to overfishing), 18.3%; green (neither overfished nor subject to overfishing), 37.1%; yellow (overfished but not subject to overfishing), 43.3%; and orange (not overfished but subject to overfishing), 1.3%.

This change was attributed to several factors, including: new estimates of biological information providing new growth and natural mortality estimates (ICCAT-funded age-validation study ongoing); very substantial reduction in catches since 2015 (**Figure 2**) and the incorporation of updated fishery data and indices through 2024.

For projections only the SS3 model was used, because explicitly accounting for age structure was considered important for projecting the dynamics of the species through 2070. The Committee noted that while the use of SS3 was considered as the best approach for generating the projections, these do not capture the full range of uncertainties originally considered in the stock assessment.

South Atlantic stock

For the South Atlantic shortfin mako, the estimate MSY was 1,648 t (95% CI: 1,519-1,795 t). The median estimate of SSF_{2023}/SSF_{MSY} was 0.949 (95% CI: 0.763-1.179), indicating the stock was likely to have been overfished in 2023. The median estimate of F_{2023}/F_{MSY} was 1.052 (95% CI: 0.837-1.287), indicating that overfishing was likely to have been occurring in 2023. The probability of the stock being in each quadrant of the Kobe plot in 2023 for combined scenarios is provided in **Figure 1**. For the combined scenarios, the corresponding probabilities are 50.5% occurred in the red (being overfished and subject to overfishing), 17.1% in the green (not being overfished not subject to overfishing), 16.4% were in the yellow (being overfished but not subject to overfishing), and 16.0% were in the orange (not being overfished but subject to overfishing).

Management recommendation

North Atlantic stock

The combined model results showed that in 2024, the North Atlantic shortfin mako stock was estimated to be overfished but that overfishing was not occurring. Even though the sum of reported and estimated dead discards, retained catch, and post-release mortality (defined as "total fishing mortality" in Rec. 21-09) has declined, it has however remained well above the allowed total fishing mortality of 250 t established in the Recommendation (mean annual total fishing mortality for 2022-2025 was 1,046 t).

The SCRS notes that despite this, the first objective of the rebuilding plan (i.e. ending overfishing) has been achieved. In line with Rec. 21-09, the K2SM has been updated until year 2070 and can be used to assess the probability of achieving the second objective of the rebuilding plan (i.e. gradually achieve biomass levels sufficient to support maximum sustainable yield with a probability ranging between 60 and 70% at least) in different future years under different levels of annual total removals. The SCRS also notes that based on the biological assumptions used in the current assessment, the generation time is estimated to be lower than previously (19 years vs 25 years), which the Commission should consider for updating the rebuilding plan.

Should the Commission consider future retention policies for shortfin mako, the Committee recognizes that this provides a critical opportunity for CPCs to collect biological data to support future assessments and to confirm the rebuilding trajectory.

South Atlantic stock

The results from the 2025 stock assessment (Anon., 2025a) showed that the 2023 South Atlantic shortfin mako stock status was estimated to be likely overfished and undergoing overfishing. Recent catches have largely declined compared to previous years (2020-2022: 2,558 t mean catch to 2023-2024: 864 t mean catch). These recent catches are below the current retention allowance established in the Rec. 22-11 and included as a catch scenario in the Kobe II Strategy Matrix. The Committee indicated that total removals (including landings, dead discards and post release mortalities) of 1,295 t will bring the stock to the green quadrant of the Kobe plot with at least a 66% probability by 2050 (**Table 3c**). The Committee noted that higher total mortality rates would have very low probabilities of being in the green Kobe quadrant by 2050.

Table 3. Kobe II matrices for the North and South Atlantic shortfin mako shark stocks giving the probability that: a) F≤F_{MSY}; b) SSF≥SSF_{MSY}; and c) the joint probability of F≤F_{MSY} and SSF≥SSF_{MSY}, for given years, for various constant catch levels based on model results.

North Atlantic Stock

a) Probability that F≤F_{MSY}

TAC (t)	2027	2028	2029	2030	2035	2040	2045	2050	2055	2060	2065	2070
0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
100	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
200	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
250	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
300	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
400	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
500	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
600	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
700	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
800	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
900	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1000	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1100	99%	99%	99%	99%	99%	100%	100%	100%	100%	100%	100%	100%
1200	97%	98%	98%	98%	98%	98%	99%	99%	99%	100%	100%	100%
1300	94%	95%	95%	96%	96%	96%	97%	97%	98%	98%	98%	99%
1400	88%	90%	91%	91%	91%	91%	92%	93%	94%	95%	95%	96%
1500	81%	83%	83%	84%	83%	83%	85%	86%	87%	88%	89%	90%
1600	71%	73%	74%	74%	73%	73%	75%	76%	77%	78%	79%	80%
1700	60%	62%	63%	64%	61%	61%	63%	64%	64%	65%	66%	67%
1800	49%	52%	53%	53%	50%	50%	51%	51%	52%	52%	53%	53%
1883	41%	43%	44%	44%	41%	40%	41%	42%	42%	42%	43%	43%
1900	39%	41%	42%	42%	39%	39%	40%	40%	40%	40%	40%	41%
2000	30%	32%	33%	33%	30%	29%	30%	30%	30%	30%	30%	30%
2100	23%	24%	25%	24%	22%	21%	22%	22%	22%	22%	22%	22%
2200	16%	18%	18%	18%	16%	15%	16%	16%	16%	16%	16%	16%
2300	12%	13%	13%	13%	11%	11%	11%	11%	11%	11%	12%	12%

b) Probability that SSF≥SSF_{MSY}

TAC (t)	2027	2028	2029	2030	2035	2040	2045	2050	2055	2060	2065	2070
0	50%	49%	47%	45%	59%	86%	96%	99%	100%	100%	100%	100%
100	50%	48%	47%	45%	57%	84%	95%	99%	100%	100%	100%	100%
200	50%	48%	46%	44%	56%	81%	93%	98%	100%	100%	100%	100%
250	50%	48%	46%	44%	55%	80%	92%	97%	99%	100%	100%	100%
300	50%	48%	46%	44%	54%	79%	92%	97%	99%	100%	100%	100%
400	50%	48%	46%	43%	52%	77%	89%	95%	98%	100%	100%	100%
500	50%	48%	45%	43%	50%	74%	87%	94%	97%	99%	100%	100%
600	49%	47%	45%	43%	49%	71%	84%	92%	96%	98%	99%	100%
700	49%	47%	45%	42%	47%	68%	81%	89%	94%	97%	99%	99%
800	49%	47%	44%	42%	46%	66%	78%	86%	92%	95%	97%	99%
900	49%	47%	44%	41%	44%	63%	74%	82%	88%	93%	95%	97%
1000	49%	47%	43%	41%	43%	60%	70%	78%	84%	89%	93%	95%
1100	49%	46%	43%	40%	41%	57%	66%	74%	80%	85%	89%	92%
1200	49%	46%	43%	40%	40%	54%	63%	69%	75%	80%	84%	87%
1300	49%	46%	43%	39%	38%	51%	59%	64%	70%	74%	78%	82%
1400	49%	46%	42%	39%	37%	48%	55%	60%	64%	68%	72%	75%
1500	48%	45%	42%	39%	35%	45%	51%	55%	59%	62%	65%	68%
1600	48%	45%	42%	38%	34%	42%	47%	50%	53%	56%	58%	61%
1700	48%	45%	41%	38%	33%	40%	43%	45%	47%	49%	51%	53%
1800	48%	45%	41%	37%	32%	37%	39%	41%	42%	43%	44%	45%
1883	48%	44%	41%	37%	30%	35%	37%	37%	38%	39%	39%	40%
1900	48%	44%	41%	37%	30%	35%	36%	37%	37%	38%	38%	39%
2000	48%	44%	40%	36%	29%	33%	33%	33%	33%	33%	33%	33%
2100	48%	44%	40%	36%	28%	30%	30%	29%	29%	28%	28%	28%
2200	48%	44%	40%	35%	27%	28%	27%	26%	25%	25%	24%	24%
2300	47%	44%	39%	35%	26%	26%	25%	23%	22%	21%	21%	20%

c) Probability that F≤F_{MSY} and SSF≥SSF_{MSY}

Probability F<=F_{MSY} and SSF>=SSF_{MSY}

TAC (t)	2027	2028	2029	2030	2035	2040	2045	2050	2055	2060	2065	2070
0	50%	49%	47%	45%	59%	86%	96%	99%	100%	100%	100%	100%
100	50%	48%	47%	45%	57%	84%	95%	99%	100%	100%	100%	100%
200	50%	48%	46%	44%	56%	81%	93%	98%	100%	100%	100%	100%
250	50%	48%	46%	44%	55%	80%	92%	97%	99%	100%	100%	100%
300	50%	48%	46%	44%	54%	79%	92%	97%	99%	100%	100%	100%
400	50%	48%	46%	43%	52%	77%	89%	95%	98%	100%	100%	100%
500	50%	48%	45%	43%	50%	74%	87%	94%	97%	99%	100%	100%
600	49%	47%	45%	43%	49%	71%	84%	92%	96%	98%	99%	100%
700	49%	47%	45%	42%	47%	68%	81%	89%	94%	97%	99%	99%
800	49%	47%	44%	42%	46%	66%	78%	86%	92%	95%	97%	99%
900	49%	47%	44%	41%	44%	63%	74%	82%	88%	93%	95%	97%
1000	49%	47%	43%	41%	43%	60%	70%	78%	84%	89%	93%	95%
1100	49%	46%	43%	40%	41%	57%	66%	74%	80%	85%	89%	92%
1200	49%	46%	43%	40%	40%	54%	63%	69%	75%	80%	84%	87%
1300	49%	46%	43%	39%	38%	51%	59%	64%	70%	74%	78%	82%
1400	49%	46%	42%	39%	37%	48%	55%	60%	64%	68%	72%	75%
1500	48%	45%	42%	39%	35%	45%	50%	54%	58%	62%	65%	68%
1600	47%	44%	41%	38%	34%	42%	46%	49%	52%	55%	57%	60%
1700	44%	42%	40%	36%	32%	38%	41%	44%	46%	48%	49%	51%
1800	40%	39%	37%	34%	30%	34%	36%	38%	39%	40%	42%	43%
1883	35%	35%	33%	31%	27%	30%	32%	33%	34%	35%	35%	36%
1900	34%	34%	33%	31%	26%	29%	31%	32%	32%	33%	34%	35%
2000	28%	28%	28%	26%	22%	24%	25%	25%	26%	27%	27%	28%
2100	22%	23%	22%	21%	18%	19%	19%	20%	20%	20%	21%	21%
2200	16%	17%	17%	17%	14%	14%	14%	15%	15%	15%	16%	16%
2300	12%	13%	13%	12%	10%	10%	11%	11%	11%	11%	12%	12%

South Atlantic stock

a) Probability that F≤F_{MSY}

Catch (t)	2026	2027	2028	2030	2032	2034	2036	2038	2040	2045	2050
0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
500	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
750	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1000	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1295	76%	79%	80%	81%	80%	82%	85%	87%	89%	92%	94%
1500	36%	39%	40%	40%	38%	39%	41%	44%	46%	50%	53%
1650	16%	17%	17%	17%	15%	15%	16%	17%	18%	19%	21%
1750	10%	9%	9%	8%	7%	7%	7%	8%	8%	9%	10%
2000	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	2%
2250	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%

b) Probability that SSF≥SSF_{MSY}

Catch (t)	2026	2027	2028	2030	2032	2034	2036	2038	2040	2045	2050
0	16%	16%	13%	28%	71%	94%	99%	100%	100%	100%	100%
500	14%	14%	10%	19%	51%	76%	88%	94%	97%	100%	100%
750	14%	13%	9%	16%	41%	62%	75%	83%	89%	98%	100%
1000	14%	12%	8%	12%	31%	47%	58%	64%	71%	87%	95%
1295	13%	11%	7%	9%	22%	31%	37%	40%	44%	56%	66%
1500	13%	11%	7%	8%	16%	22%	25%	26%	27%	33%	38%
1650	13%	10%	6%	7%	13%	16%	17%	17%	17%	20%	22%
1750	13%	10%	6%	6%	11%	14%	14%	13%	13%	14%	15%
2000	12%	9%	5%	4%	7%	8%	7%	6%	6%	5%	5%
2250	12%	9%	4%	3%	5%	4%	3%	3%	2%	2%	3%

c) Probability that F≤F_{MSY} and SSF≥SSF_{MSY}

Catch (t)	2026	2027	2028	2030	2032	2034	2036	2038	2040	2045	2050
0	16%	16%	13%	28%	71%	94%	99%	100%	100%	100%	100%
500	14%	14%	10%	19%	51%	76%	88%	94%	97%	100%	100%
750	14%	13%	9%	16%	41%	62%	75%	83%	89%	98%	100%
1000	14%	12%	8%	12%	31%	47%	58%	64%	71%	87%	95%
1295	13%	11%	7%	9%	22%	30%	36%	40%	43%	56%	66%
1500	11%	10%	6%	7%	14%	18%	21%	22%	24%	29%	34%
1650	7%	7%	4%	5%	7%	9%	10%	10%	11%	13%	15%
1750	6%	4%	3%	3%	4%	5%	5%	6%	6%	7%	8%
2000	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	2%
2250	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%

Additional supporting information

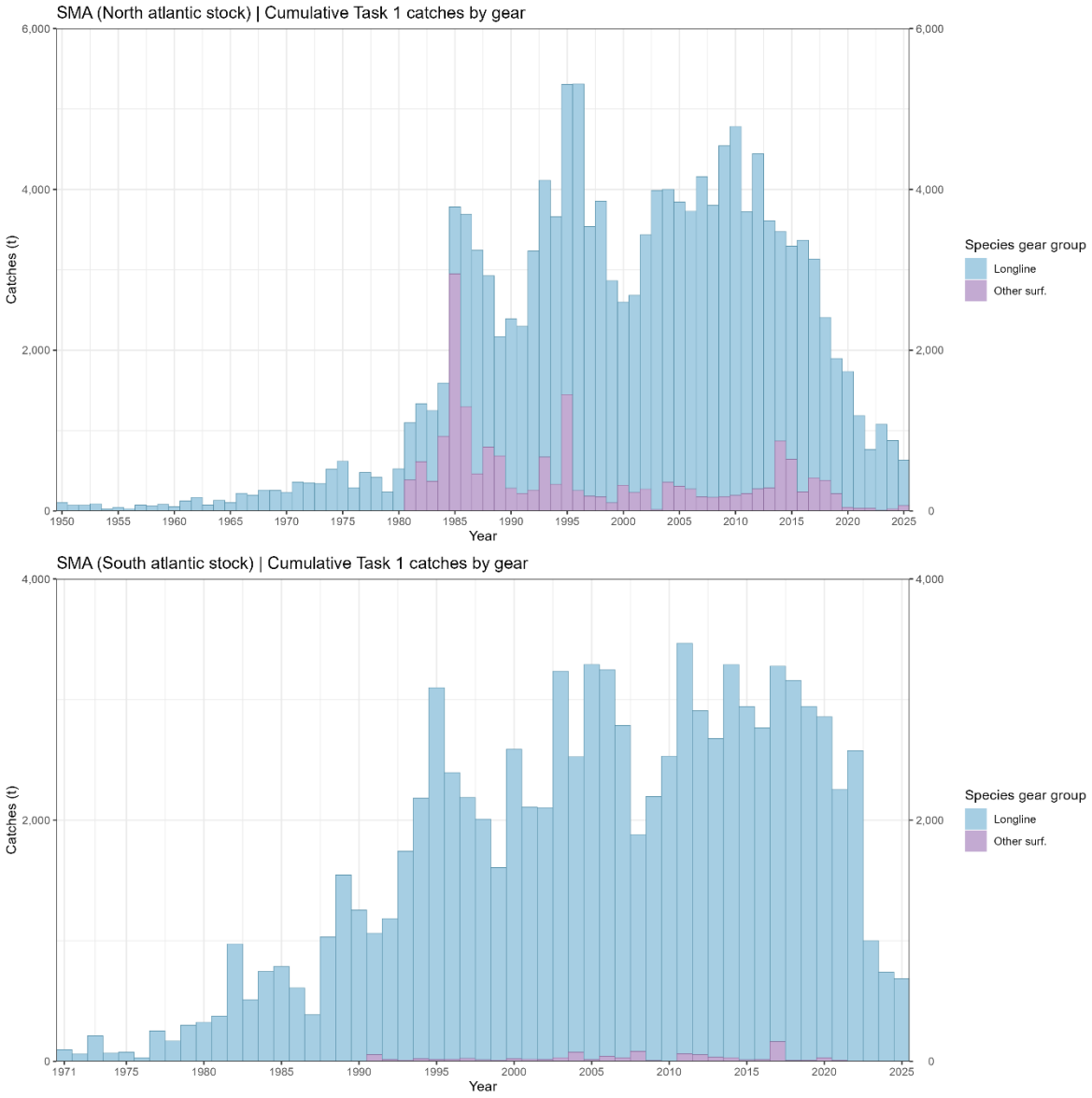


Figure 2. Shortfin mako shark North and South Atlantic stocks (SMA-N and SMA-S, respectively in top and bottom figures) total reported and estimated catches (landings and dead discards, t) by year and major gear. Data as of 18 September 2026.

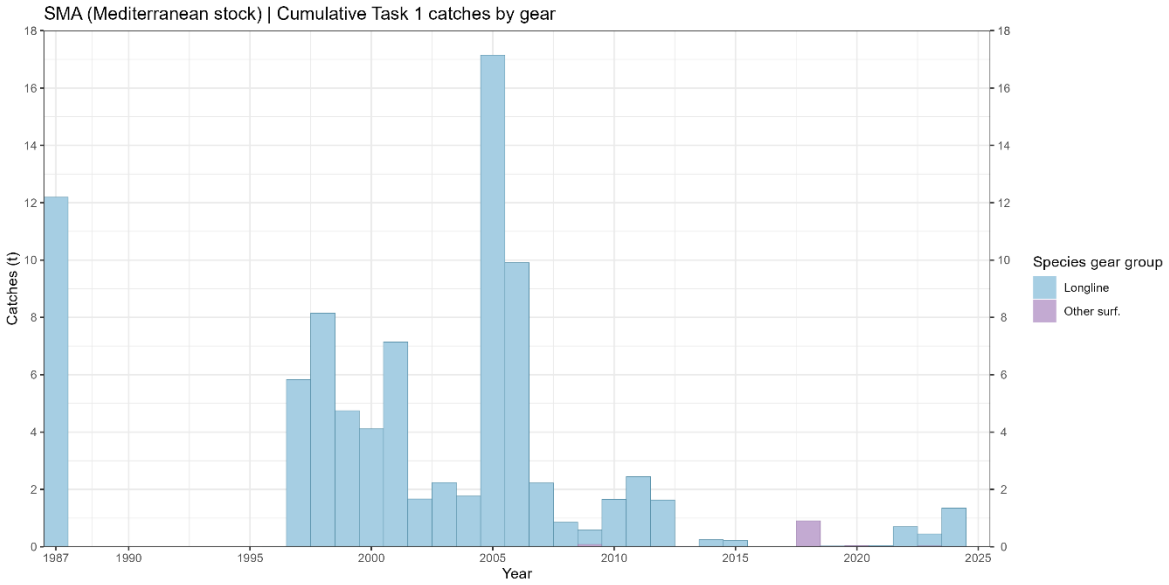


Figure 3. Shortfin mako shark Mediterranean stock (SMA-M) total reported and estimated catches (landings and dead discards, t) by year and major gear. Data as of 18 September 2026.

12.16 POR-Porbeagle shark (*Lamna nasus*)

Introduction

A stock assessment for porbeagle was conducted for three of the Atlantic stocks (Northwest, Southwest and Southeast) in 2020 (Anon., 2020a), whereas the Northeast stock was assessed in 2022 in a joint process with the International Council on the Exploration of the Sea (ICES) (Anon., 2022e). The complete description of the stock assessment process and the development of management advice can be found in the Report of the 2020 Porbeagle Stock Assessment (Anon., 2020a) and Report of the 2023 Blue Shark Stock Assessment (Anon., 2023a). A summary of each stock status is provided below (**Table 1a to 1c**). The Kobe Phase Plot and uncertainty of current status estimates is summarized in **Figure 1**. **Table 2** provides estimated catches, by landings and discards by gear, for the period 2016-2025 (NW, NE, SW and SE stocks), while historical catches for the North Atlantic (NW and NE stocks) and South Atlantic (SW and SE stocks) are shown in **Figures 2 and 3**, respectively. **Table 3** provides for the NW-POR estimated probabilities (%) that both the fishing mortality will be below F_{MSY} and spawning stock biomass will be above SSB_{MSY} in future years under different constant catch scenarios.

Table 1a. Northwest Atlantic porbeagle summary table.

Indicator		***Stock Status***
Maximum Sustainable Yield (MSY)	Not available	2018
TAC (2025)	N/A	
Current (2025) Yield[1]	14 t	
Relative Biomass (B_{2018}/B_{MSY})	0.57[2]	
Relative Fishing Mortality ($F_{2010\text{-}2018}/F_{MSY}$)	0.413[3]	
Stock Status	Overfished: YES (98% probability of being overfished) Overfishing: Unknown probability of overfishing	
Management measures in effect	Rec. 04-10, Rec. 07-06, Rec. 15-06	

[1] Task 1 catch as of 18 September 2026.
[2] Value obtained with the incidental catch model (ICM). The reference point used (Spawning Potential Ratio at Maximum Excess Recruitment (SPRMER)) is a proxy for B_{MSY}.
[3] Value obtained with the Sustainability Assessment for Fishing Effects (SAFE) approach for the Northwest Atlantic.

Table 1b. Northeast Atlantic porbeagle summary table.

Indicator		***Stock Status***
Maximum Sustainable Yield	Not available	2021
TAC (2025)	N/A	
Current (2025) Yield[1]	15 t[1]	
ICES-ICCAT Yield in 2021	7.95 t[2]	
Relative Biomass (B_{2021}/B_{MSY})	0.464 (0.15-1.43)[3]	
Relative Fishing Mortality (F_{2021}/F_{MSY})	0.013 (0.0024-0.073)[3]	
Stock Status	Overfished: YES (unknown probability of being overfished) Overfishing: NO (unknown probability of overfishing)	
Management measures in effect	Rec. 04-10, Rec. 07-06, Rec. 15-06	

[1] Task 1 catch as of 18 September 2026.
[2] The value reported represents the total catches determined at the ICES-ICCAT Working Group on Elasmobranch Fishes (WGEF). While Task 1 reported catch for the Northeast stock was 15.4 t in 2021, the catch shown does not include all dead discards and includes no mortalities resulting from live releases.
[3] Range obtained from reference case Stochastic Surplus Production Model in Continuous Time (SPiCT) with 95% Bayesian credibility intervals.
[4] Value obtained with the SAFE approach for the Northwest Atlantic.

Table 1c. South Atlantic porbeagle summary table.

Indicator		***Stock Status***
Maximum Sustainable Yield (MSY)	N/A	
TAC (2025)	N/A	
Current (2025) Yield[1]	1.5 t[1]	
Relative Biomass (B_{2018}/B_{MSY})	Unknown	
Relative Fishing Mortality ($F_{2010\text{-}2018}/F_{MSY}$)	0.0113[2]	
Stock Status	Overfished: Undetermined (unknown probability of being overfished) Overfishing: NO (unknown probability of overfishing)	2018
Management measures in effect	Rec. 04-10, Rec. 07-06, Rec. 15-06	

[1] Sum of Task 1 catches for the Southwest and Southeast Atlantic stock areas as of 18 September 2026.
[2] Value obtained with the SAFE approach for the South Atlantic.

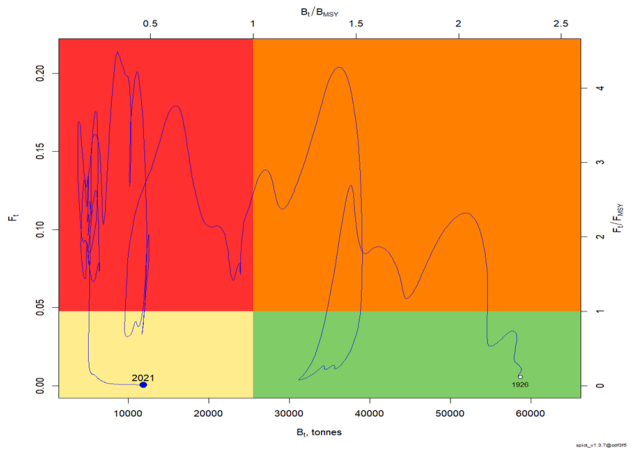


Figure 1. Kobe plot for the Northeast Atlantic porbeagle stock status in 2021, estimated during the 2022 stock assessment. The line indicates the stock status trajectory starting in 1926.

Outlook

Due to changes in management practices that would have affected the development of CPUE series and potentially length composition data, in 2020 the Committee was constrained to use non-traditional stock assessment methods. Overfished stock status could only be determined for the NW stock and overfishing stock status, for the combined stocks in the North Atlantic and the South Atlantic. The Committee formally assessed the NE stock together with the ICES WGEF in 2021-2022.

A Sustainability Assessment for Fishing Effects (SAFE) was used to evaluate whether the combined North and combined South Atlantic stocks were experiencing overfishing, and an Incidental Catch Model (ICM) was used to evaluate whether the NW Atlantic stock was currently overfished and to determine the stock's capacity for future removals. The 2022 stock assessment was carried out using the Stochastic Surplus Production Model in Continuous Time (SPiCT).

Table 2. Estimated catches, by landings and discards of Atlantic porbeagle by gear and area for the period 2016-2025.

				2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
TOTAL				41	48	27	16	14	15	22	23	19	30
	ANE			9	8	4	0	3	5	15	18	15	15
	ANW			30	39	19	16	11	10	7	6	4	14
	ASE			1	0	4	0	0	0	0	0	0	1
	ASW			0	0	0	0	0	0	0	0	0	1
	MED			1	1	0	0	0	0	0	0	0	0
Landings	ANE		Longline	3	1	0	0	0	0	0	0	0	0
			Other surf.	6	7	4	0	3	5	9	7	6	7
	ANW		Longline	10	10	6	0	0	0	0	0	0	0
			Other surf.	5	8	3	12	5	1	0	3	2	8
	ASE		Longline	1	0	4	0	0	0	0	0	0	0
	MED			0	0	0	0	0	0	0	0	0	0
			Other surf.	1	1	0	0	0	0	0	0	0	
Discards	ANE		Longline	0	0	0	0	0	0	2	0	3	2
			Other surf.	0	0	0	0	0	0	4	10	5	6
	ANW		Longline	13	19	7	0	1	2	4	3	2	2
			Other surf.	2	2	2	3	4	6	3	0	0	4
	ASE		Longline	0	0	0	0	0	0	0	0	0	1
			Other surf.	0	0	0	0	0	0	0	0	0	
	ASW		Longline	0	0	0	0	0	0	0	0	0	1
			Other surf.	0	0	0	0	0	0	0	0	0	
Landings	ANE	CP	EU-Denmark	0	0	0	0	0	0	0	0	0	**0**
			EU-France	0	1	0	0	0	0	2	0	0	1
			EU-Netherlands	0	0	0	0	0	0	0	0	0	0
			EU-Portugal	0	0	0	0	0	0	0	0	0	
			Japan	2	0	0	0	0	0	0	0	0	**0**
			Liberia	0	0	1	0	0	0	0	0	0	
			Maroc	1	0	0	0	0	0	0	0	0	
			Norway	6	6	3	0	3	5	8	7	7	6
			Russian Federation	0	0	0	0	0	0	0	0	0	
	ANW		Barbados	1	1	1	0	0	0	0	0	0	
			Canada	2	2	1	0	0	0	0	0	0	
			USA	4	8	3	12	5	1	0	3	2	8
			Venezuela	4	8	4	0	0	0	0	0	0	
		NCC	Chinese Taipei	4	0	0	0	0	0	0	0	0	
	ASE	CP	Japan	1	0	0	0	0	0	0	0	0	**0**
			Korea Rep	0	0	4	0	0	0	0	0	0	**0**
	MED		EU-France	0	0	0	0	0	0	0	0	0	
			EU-Italy	1	1	0	0	0	0	0	0	0	
Discards	ANE		EU-Denmark	0	0	0	0	0	0	0	0	0	3
			EU-España	0	0	0	0	0	0	0	0	2	2
			EU-France	0	0	0	0	0	0	6	10	5	4
			EU-Germany	0	0	0	0	0	0	0	0	0	
	ANW		Barbados	1	1	1	0	0	0	0	0	0	
			Canada	3	2	3	3	5	8	6	3	2	2
			EU-España	0	0	0	0	0	0	0	0	0	1
			Japan	1	1	0	0	0	0	0	0	0	
			UK-Bermuda	0	0	0	0	0	0	0	0	0	
			USA	1	9	1	0	0	0	0	0	0	4
			Venezuela	4	7	4	0	0	0	0	0	0	
		NCC	Chinese Taipei	4	0	0	0	0	0	0	0	0	
	ASE	CP	Curaçao	0	0	0	0	0	0	0	0	0	
			EU-España	0	0	0	0	0	0	0	0	0	0
			El Salvador	0	0	0	0	0	0	0	0	0	
			Guatemala	0	0	0	0	0	0	0	0	0	
			Korea Rep	0	0	0	0	0	0	0	0	0	**0**
			Panama	0	0	0	0	0	0	0	0	0	
			South Africa	0	0	0	0	0	0	0	0	0	0
		NCC	Chinese Taipei	0	0	0	0	0	0	0	0	0	
	ASW	CP	EU-España	0	0	0	0	0	0	0	0	0	0
			El Salvador	0	0	0	0	0	0	0	0	0	
		NCC	Chinese Taipei	0	0	0	0	0	0	0	0	0	1

Results of the SAFE approach indicated that neither the North Atlantic nor the South Atlantic stocks are undergoing overfishing. An equal mix of annual and biennial reproduction was considered the most likely scenario for the porbeagle population in the NW Atlantic, so these productivity assumptions were used for the base case formulation of the ICM. Two alternate parameterizations of the ICM were evaluated to determine the model's sensitivity to life history assumptions as well as to the assumed population size in 2018. The base case formulation of the ICM estimated biomass in 2018 to be 57% of the MSY proxy reference point (overfished). Due to the large reduction in recent reported removals, the Committee considered it unlikely that the stock is undergoing overfishing. Projections conducted with the ICM for the NW stock indicated that removals of less than 214 t would allow rebuilding with a 60% probability by 2070. If removals remained similar to 2014-2018 (mean = 47 t), the stock was predicted to rebuild with at least a 50% probability between 2030 and 2035. The Committee emphasized, however, that recent removals are very likely underestimated because few CPCs report dead discards, and post-release mortality of live discards was not taken into account.

For the Northeast stock, the exploited biomass was estimated in 2022 to be 50% of the MSY. The stock remains overfished, but overfishing is not occurring (**Figure 1**). During the 2022 porbeagle Northeast stock assessment, long-term projections using constant catch were not presented (Kobe Strategy matrix was not created). Projections will be produced during the next porbeagle stock assessment.

Management recommendation

North Atlantic

The Committee recommended that the Commission work with countries catching porbeagle and relevant Regional Fisheries Management Organization (RFMOs) to ensure recovery of North Atlantic porbeagle stocks. Porbeagle fishing mortality should be kept at levels in line with scientific advice and with removals not exceeding the current level. New targeted porbeagle fisheries should be prevented, porbeagles retrieved alive should be released following best handling practices to increase survivorship, and all catches should be reported. Management measures and data collection should be harmonized as much as possible among all relevant RFMOs dealing with these stocks, and ICCAT should facilitate appropriate communication.

Porbeagle stocks are also subject to mortality from CPCs' coastal fisheries and countries that are not ICCAT Parties. Therefore, the Committee recommended that CPCs implement a live release requirement for all porbeagle caught in their waters and that ICCAT develop integrated management approaches (with other countries, other Regional Fisheries Bodies, FAO) to assure the sustainability of Atlantic porbeagle stocks.

Considering the underreporting of removals, and the current low stock status of the NW Atlantic stock, the Committee recommended that total removals (i.e. the sum of landings, dead discards, and post-release mortality of live releases) do not exceed current levels (including unreported removals) to allow for stock recovery. However, the Commission should be aware that actual removals (particularly dead discards and post-release mortalities of live releases) are higher than what is being reported and the Kobe matrix is overly optimistic to the extent that removals are underreported.

Considering the underreporting of removals, the current stock status of the NE Atlantic stock B_{2022}/B_{MSY}=0.464 (0.15-1.43), and the lack of reliable projections to build Kobe II Strategy Matrix (**Table 3**), the Committee recommended that total removals (i.e. the sum of landings and estimated dead discards) at the very least shall not exceed the average reported ICCAT catch since the implementation of the zero TAC recommendation (i.e. 2010-2021 which current estimates would be 9.3 t) to allow for stock recovery.

South Atlantic

Although the Committee had, until now, considered two southern stock units (SW and SE), new information suggests a single stock of porbeagle in the South Atlantic, which may even extend across Indian and Pacific Ocean basins. Until more research on stock structure is undertaken, the Committee recommended leaving the management units as currently defined. The Committee was not able to draw any conclusions on the overfished status of the southern stock(s). It was noted that conventional data (e.g. landings, representative length compositions) cannot be collected for any northern or southern porbeagle stocks, so the Committee concluded that alternative (e.g. fishery independent) data collection methods that allow CPUE or length-frequency data (or other altogether different forms of data) to be collected are required to provide more reliable estimates of stock status in the North and in the South Atlantic.

Table 3. Kobe II strategy matrix showing the probability of being above the overfished reference point (a proxy for B_{MSY}) by 5-year time period for removals scenarios ranging from 0 to 24,000 individuals (0-734 t) for Northwest Atlantic porbeagle.

Animals (#)	Ton (mt)	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
0	0	2%	21%	47%	68%	83%	92%	96%	98%	99%	99%	100%
1000	31	3%	21%	44%	63%	77%	87%	92%	95%	97%	98%	99%
2000	61	2%	19%	40%	57%	71%	81%	87%	91%	94%	95%	96%
3000	92	1%	16%	35%	50%	62%	72%	79%	85%	88%	90%	92%
4000	122	2%	15%	32%	47%	58%	66%	73%	78%	82%	84%	87%
5000	153	2%	13%	27%	41%	50%	58%	64%	68%	72%	76%	78%
6000	183	1%	12%	25%	37%	45%	52%	57%	62%	65%	67%	70%
7000	214	2%	10%	22%	32%	39%	46%	50%	54%	57%	60%	62%
8000	245	2%	10%	19%	27%	34%	39%	44%	47%	50%	53%	55%
9000	275	2%	8%	17%	23%	30%	34%	38%	41%	43%	45%	47%
10000	306	2%	8%	14%	20%	25%	29%	31%	34%	36%	38%	39%
11000	336	1%	6%	13%	17%	21%	25%	27%	29%	31%	32%	33%
12000	367	2%	7%	11%	15%	18%	21%	23%	24%	26%	27%	28%
13000	398	2%	5%	9%	12%	14%	16%	18%	19%	20%	21%	22%
14000	428	2%	5%	7%	9%	12%	13%	14%	15%	16%	17%	18%
15000	459	1%	3%	5%	6%	8%	9%	10%	11%	11%	12%	12%
16000	489	2%	3%	4%	5%	6%	7%	8%	9%	9%	10%	10%
17000	520	2%	2%	3%	4%	5%	5%	6%	6%	6%	7%	7%
18000	550	2%	2%	2%	3%	3%	4%	4%	4%	5%	5%	5%
19000	581	2%	1%	2%	2%	3%	3%	3%	3%	3%	3%	4%
20000	612	2%	1%	1%	2%	2%	2%	2%	2%	2%	3%	3%
21000	642	2%	1%	1%	1%	1%	1%	2%	2%	2%	2%	2%
22000	673	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
23000	703	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
24000	734	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Additional supporting information

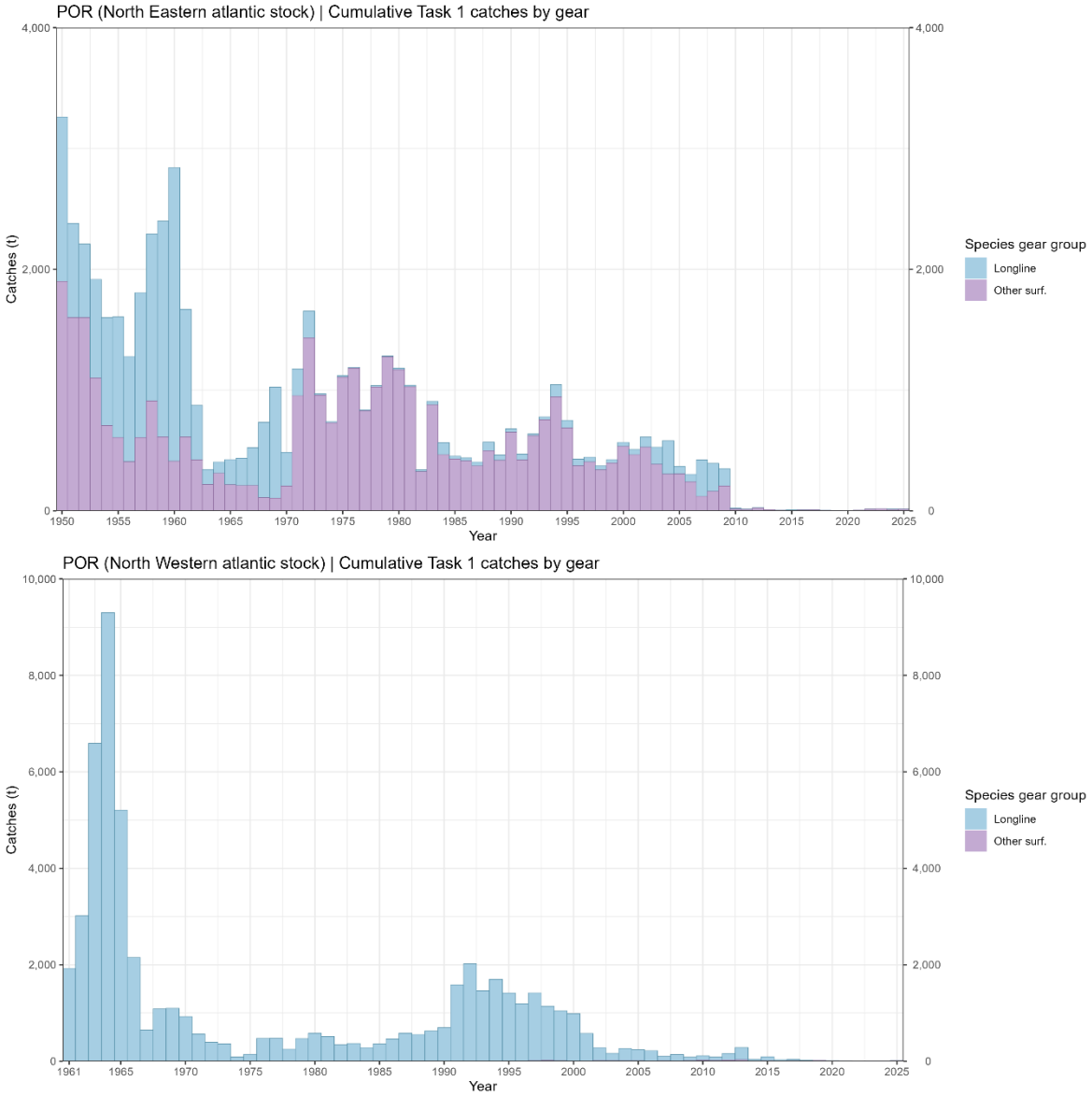


Figure 2. Porbeagle shark northeastern and northwestern Atlantic stocks (POR-NE and POR-NW, respectively in top and bottom figures) total reported and estimated catches (landings and dead discards, t) by year and major gear. Data as of 18 September 2026.

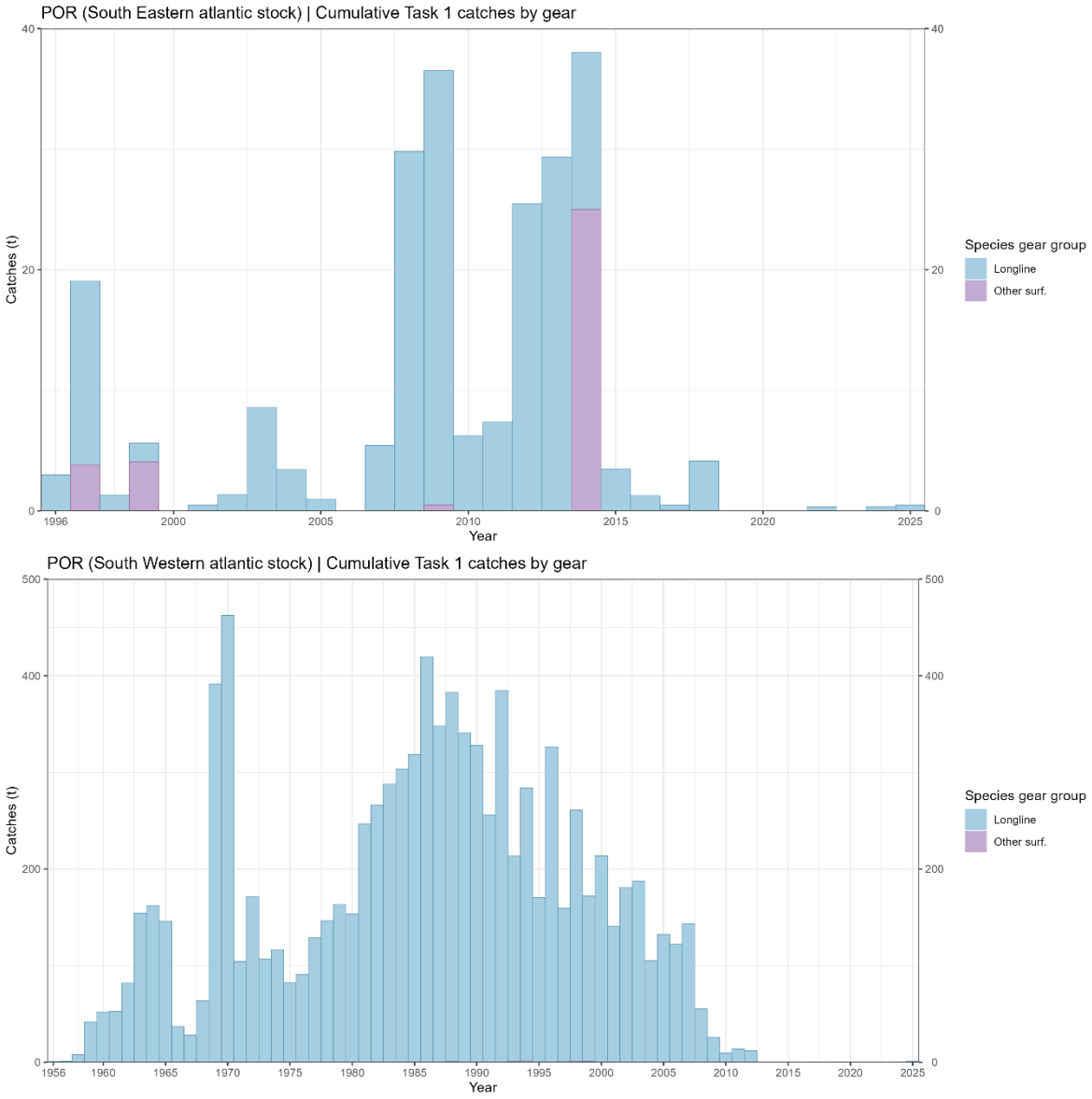


Figure 3. Porbeagle shark southeastern and southwestern Atlantic stocks (POR-SE and POR-SW, respectively in top and bottom figures) total reported and estimated catches (landings and dead discards, t) by year and major gear. Data as of 18 September 2026.

13. ICCAT Research Programmes

13.1 Atlantic-Wide Research Programme for Bluefin Tuna (GBYP)

GBYP Phase 14, which started on 1 February 2024, was successfully completed on 31st December 2025. The final technical report describing all the relevant activities and results was presented through the CINEA portal, besides the financial report. Both reports have been already evaluated and approved. A new GBYP proposal for the biennial period 2026-2027 (GBYP Phase 15), based on the SCRS workplan and budget for the Bluefin tuna Species Group approved by the Commission during the meeting held in Seville, Spain, 17-24 November 2025, has been presented to the European Climate, Infrastructure and Environment Executive Agency (CINEA), evaluated and approved. Consequently, the GBYP Phase 15 formally started on 1 February 2026.

The most relevant research activities completed or initiated during the reporting period (September 2025-August 2026), have been:

a) Data recovery and management

This has been mainly an in-house activity centered on providing further support to the implementation at the ICCAT Secretariat of new information systems for data related to biological and electronic tagging studies, to facilitate science broad joint studies which aims at the improvement of parameterization of the models used for stock management. One contract has been signed for getting external advice and support to complete and make fully operational the Electronic Tags Management System (ETAGs) database.

b) Fishery independent indices: GBYP aerial surveys

The results from 2025 GBYP aerial survey were analyzed to produce a strict update of the spawning stock biomass (SSB) abundance index, which has been provided to SCRS for its use within BFT MSE. Moreover, data preparatory work to provide the basis for the standardization of the whole GBYP aerial survey index time series accounting for the environmental impact on index values was completed in 2025.

In 2026 a new contract has been signed for the further development of model-based approaches for the standardization of the GBYP aerial index, aiming at providing improved BFT-E stock abundance and biomass indices time series, which could be used for reconditioning the Operating Models (OMs) within the BFT MSE. A new aerial survey has been carried out in the western Mediterranean in June 2026, and its results have been analyzed to provide a strict update of the GBYP aerial survey index in 2027.

In addition, a model-based approach to account for the impact of interannual environmental variability on GBYP aerial survey index values have been developed throughout 2025 and 2026. So, a first phase focused on the characterization of inter-annual variability in key environmental variables (sea surface temperature, salinity, chlorophyll-a concentration, mixed layer depth, and metrics describing frontal systems and spatial gradients) was completed in 2025. A second phase, consisting of the modelling tasks for standardizing the GBYP aerial-survey biomass index accounting for differences in sampling effort and environmental conditions among years, has been addressed in 2026.

The main conclusions from these modelling tasks have been:

- The reference delta-lognormal model provided an environmentally and spatially standardized relative biomass index for 2017-2025, with a partly consistent temporal signal across alternative approaches.
- Strong zero inflation, few positive segments, skewed biomass and heterogeneous segment lengths remain the principal sources of uncertainty.
- Environmental and spatial covariates improved model performance and materially affected annual estimates, confirming that environmental standardization is necessary.
- Extending the index to earlier surveys is limited by weak overlap in sampling protocols and environmental conditions, which can force extrapolation and produce highly uncertain estimates.
- A separate challenge is the ecological scale and temporal stability of environmental relationships.

c) Tagging

The general support to BFT tagging activities has included: provision of conventional tags and advice to the CPCs teams; reward programme to enhance tag recovery; continuous updating of the ICCAT conventional and electronic tagging databases; and active and direct support to electronic tagging campaigns developed by CPCs research teams through provision of ICCAT owned tags. The tagging activities developed under the MoU signed within GBYP phase 14 were completed and the reports are available here GBYP webpage. In 2026 a new call for expressions of interest has been launched to support acoustic tagging activities in Gulf of Cadiz area and archival tagging in the Mediterranean and southern regions of Northeast Atlantic. As a result, five MoUs were signed aiming the deployment of 40 acoustic tags and 2 acoustic receivers off the southern coast of the Algarve (Portugal), 47 pop-up tags (36 in the Western, Central and Eastern Mediterranean and 11 in the Eastern Atlantic), as well 8 internal tags in the Mediterranean. Acoustic tagging campaigns off south Portuguese coast and the deployment of pop-up tags in the Mediterranean have successfully concluded, whereas the deployment of internal tags in the Mediterranean and of pop-up tags in the Eastern Atlantic is still ongoing.

d) Biological studies

In addition to the maintenance of the GBYP tissue bank and the updating and consolidation of the information system developed for its management, the genetic studies developed along 2025, focused on determining the degree of mixing of East and West stock in the Atlantic, as well the interbreeding between both stocks in the Slope Sea, were successfully completed. The final report including the results and conclusion from these studies are available through the GBYP webpage. In 2026, a new contract has been awarded to continue enlarging and maintaining the GBYP tissue bank and associated information system, and to develop new genetic studies aiming at developing an epigenetic clock on different tissues providing aging, that will be used for stock status determination and future MSE reviews. Moreover, a second contract funded by Canada has been awarded for the genotyping of bluefin tuna samples from Canadian fisheries to support the Close-Kin Mark-Recapture (CKMR) project on western bluefin tuna.

e) Modelling

In line with the provisions of *Recommendation by ICCAT establishing a management procedure for Atlantic bluefin tuna to be used for both the western Atlantic and eastern Atlantic and Mediterranean management areas* (Rec. 22-09), the BFT workplan for 2025 included several tasks aiming at evaluating the implications of new information regarding abundance, indices and stock mixing in the bluefin tuna MSE. The results from these studies are available in the GBYP webpage.

As stated in the SCRS workplan approved by the Commission in 2025 (*Report for Biennial Period, 2024-25, Part II, Vol. 1*), the primary focus of the Committee on bluefin tuna for 2026 and beyond is to do the stock status assessment and MSE review. To support these tasks, in 2026 GBYP has awarded a contract to perform a status check of the stocks, including the development and implementation of a multi-stock assessment model that can incorporate mixing, movement and multi-stock dynamics, and to review the bluefin tuna MSE, aiming at ensuring that the MP is performing as expected, whose results have been presented to the SCRS Bluefin tuna Species Group at the September 2026 meeting (Huynh *et al.,* (in press) (SCRS/2026/224)).

13.2 Small Tunas Year Programme (SMTYP)

The SMTYP seeks to advance the current knowledge on small tunas, namely in terms of stock structure and boundaries, age and growth related studies, reproduction and maturity, thereby enabling a major step forward aiming at a small tuna stock assessment. The three main research areas - ageing and growth, reproductive biology, and genetics - each led by coordinators who oversee work developed by a consortium set up in 2026 involving 14 entities from 11 CPCs.

Between 2018 and 2026, SMTYP continued collecting biological samples of small tunas species (little tunny, LTA, *Euthynnus alletteratus*; Atlantic bonito, BON, *Sarda sarda*; and wahoo, WAH, *Acanthocybium solandri*). During recent phases of the project, sampling efforts have focused on covering size classes and spatio-temporal gaps for these species. Since 2023, new additional species were added as target species (bullet tuna, BLT, *Auxis rochei*; and frigate tuna, FRI, *Auxis thazard*). Sampling objectives for each species and research component were defined and compared against collected samples to determine sampling gaps.

The objective of the current contract was to collect biological samples to:

i. fill specific size gaps for estimating the growth and maturity parameters for BON, LTA and WAH;
ii. determine the growth and reproduction parameters for BON, LTA, WAH, FRI and BLT;
iii. refine the stock structure analysis for BON, LTA, WAH, FRI and BLT;
iv. investigate genetic species differentiation between FRI and BLT; and,
v. provide preliminary estimations of the growth and reproduction parameters for FRI and BLT.

Genetic analyses have provided evidence for stock differentiation and preliminary estimates of stock boundaries for several species, as follows:

- two distinct populations of BON have been identified across the eastern Atlantic and the northern Atlantic, including the Mediterranean: Group 1 (Côte d'Ivoire, Senegal, Morocco) and Group 2 (EU–Portugal, EU-Spain, and Tunisia).
- A distinction at the species level has also been confirmed between the northern Atlantic, including the Mediterranean (EU–Portugal, Tunisia), and the southern Atlantic (Côte d'Ivoire, Senegal, Gabon) for LTA.
- For WAH, no stock-level differences have been detected among different regions of the Atlantic.
- Similar population-level results have also been confirmed for BLT and FRI across the eastern Atlantic and the Mediterranean. However, a mixture of both species has been confirmed throughout the eastern Atlantic, with unknown species ratios, although FRI appears to be the predominant species. The subsequent phase will involve analyzing samples from previously unsurveyed areas, such as the eastern Mediterranean, the southern Atlantic, and the Gulf of Mexico (GOM), to investigate species structure across a broader spatial range.

Reproduction and maturity analysis also continued to progress using either microscopic or macroscopic techniques. Parameters of size at first maturity and spawning season have already been reported for LTA, BON and WAH, although several size gaps and temporal coverage will need to be filled to obtain more robust results. It is therefore essential to maintain the monthly collection of gonadal samples on a regional scale to fill these knowledge gaps, in order to determine size at first maturity and the spawning season. However, this activity is lagging significantly partially due to the high cost of purchasing whole individuals to get the gonads, but mostly due to the lack of capacity of local institutes to purchase the samples and get reimbursed after approval of provision of the samples.

Ageing and modelling are ongoing for several species. Subsequent processing and analysis of samples has led to ageing reading efforts and calibration exercises, that has allowed refining small tuna ageing protocols and significant progress on an age reading calibration exercise. Given the challenges of ageing some species (high vascularization within fin spines), there still remains a great deal of uncertainty in existing age readings, particularly with age rings close to the nucleus of cross sections. However, the work conducted has allowed:

- presenting (in 2026) reference sets and growth parameters for BON and two populations of LTA.
- highlight major discrepancies between spine- and otolith-based age estimates for WAH, which requires standardizing processing protocols and higher-quality images before reference sets can be finalized.

- In the case of BLT and FRI, processed samples exist (e.g. EU-Portugal), but most of available material from other regions still require processing and genetic validation. Similarly, size frequencies of the available sampled individuals have revealed the absence of certain size classes, which can lead to significant bias in the estimation of growth parameters. It is therefore essential to maintain sampling efforts to fill these size-related knowledge gaps.

Following the 2026 Species Group meeting, the Committee identified the priorities that should be considered in terms of the species and geographical areas to be sampled, and revised the biological data collected under the SMTYP biological collection contracts in the period 2024-2025. These priorities are among other included in the Small Tunas Workplan for 2027 (item 17.1.8), which also contains details on other relevant research activities to be developed throughout 2027-2029, such as:

- provide growth and reproduction parameters for the studied species;
- generate new information on the stock structure of the studied small tuna species through genetic analysis;

- updating the biological meta-database;
- species and stock identification using photographic biometric methods;
- data mining and reconstruction in fishing areas with scarce or insufficient information; and,
- further investigation into stock assessment approaches for the provision of management advice for these stocks.

The SMTYP detailed report will be prepared by the end of 2026 and posted on the ICCAT website.

13.3 Shark Research and Data Collection Programme (SRDCP)

The Shark Species Group (SSG) continued prioritizing the collaborative study on the age and growth of the shortfin mako. In 2025 the results of this study, for the North and South Atlantic, were updated and presented during the Shortfin Mako Shark Data Preparatory Meeting (Anon., 2025a) and Shortfin Mako Shark Stock Assessment Meeting (Anon., 2025g). One of the main changes from previous studies was the use of 2 band depositions until the age of maturity. After discussions on the best models presented, the Group agreed on this approach and decided to apply the same methodology for the North Atlantic study. The stock assessment for the South Atlantic stock in 2025 and the North Atlantic stock in 2026 were conducted considering these new results (Anon., 2025g). Beyond this, the Group agreed that it would be important to conduct additional age validation work on the band deposition periodicity. For that reason, a study using modern radiocarbon techniques started in 2026 focused on previously available vertebra samples from the North Atlantic, and it is expected to be completed in 2027.

In 2024, the SCRS established priorities for age and growth studies for priority shark species, most of which are a bycatch of ICCAT fisheries in both the North and South Atlantic. A previous survey on availability of shark vertebrae had been conducted, and priorities were established for longfin mako, oceanic whitetip and silky shark. The meta-data of available structures was compiled, and in 2026 there has been additional work on sectioning and imaging vertebrae from the priority species (longfin mako shark, *Isurus paucus*, LMA). The age reading work started in 2026 and the modelling results are expected for that species in 2027. The work will then advance to the remaining priority species for the remaining species.

In 2022, a study on genetic analysis of porbeagle in the Atlantic Ocean was initiated. Results of this study in 2023 and 2024 with full coverage of its distribution area demonstrated the existence of two distinct genetic groups as two sibling species, the North Atlantic and the Southern Hemisphere porbeagles. Also, results strongly support no genetic differentiation between samples collected from the Northeast and the Northwest Atlantic Oceans, as well as among samples collected from oceans in the Southern Hemisphere. In 2025, a new analysis to investigate the ongoing individual migration using kinship analysis was initiated. Genome-wide genotyping-by-sequencing (GBS) of 106 juveniles collected from the southeastern (SE) Atlantic yielded the two-fold amount of sequencing data compared to the previous study. The analysis with identical by descent (IBD) detected several pairs of the second-degree (e.g. half-sibling) or third-degree (e.g., cousin) kinship relationships, both within and among cohorts, while most pairs were inferred to be unrelated. In 2026, further improvement of single nucleotide polymorphism (SNP) filtering and analysis of samples from the areas of interest was conducted. The systematic evaluation of nine combinations of SNP-filtering thresholds for three genotyping rates and three minor allele frequencies and LD pruning provided the robust result for the kinship analysis that the same pair of porbeagle was suggested to be the second-degree relatives, consistent with half-siblings. This is the first finding of kinship for southern porbeagle with genetic approach, which provides insight into the reproduction of this species and important step to elucidate the ongoing migration. No related pairs were detected between SE Atlantic and southwestern Indian Ocean with the current dataset, the final result based on comprehensive dataset will be reported next year.

Studies on movements, stock boundaries, habitat use and post-release mortality of shortfin mako caught on pelagic longline fisheries continued. The study of post-release mortality (PRM) assessment published by Miller *et al.* (2020) was updated and presented during the 2025 Shortfin Mako Data Preparatory Meeting. The updated document analysed information from 128 tags deployed by the SRDCP as well as from other national tagging programmes. To maximize tag comparability for the PRM analysis, the mortality threshold was set at 28 days. The overall PRM rate for shortfin mako sharks caught by pelagic longliners was 29.4%. With regards to shortfin mako movements, a total of 52 ICCAT satellite tags have been deployed, including 7 in the SW Indian Ocean to determine possible trans-oceanic movements.

The porbeagle electronic tagging has continued by teams from EU-France, EU-Portugal and Norway in the North Atlantic to better understand movements, stock boundary, and habitat use of this species. To date, a total of 15 ICCAT satellite tags have been deployed, including miniPATs and SPOT tags, with some sharks showing very long migrations (~5,000 km) in the North Atlantic. Canada has also deployed satellite tags on porbeagle in the NW Atlantic, and a joint analysis for the NE and NW Atlantic combining all available tags is planned. Tagging efforts for porbeagle in the NE Atlantic are planned to continue.

The movements, stock boundaries and habitat use of other shark species, considered as priority species by the SCRS, in the Atlantic Ocean are also part of the ICCAT tagging efforts. For those species, a total of 114 ICCAT satellite tags have been deployed to date by EU-Portugal, USA, Uruguay, Brazil, EU-Spain, Norway, EU-France, South Africa and the UK. The species tagged to date included silky (39), oceanic whitetip (21), smooth hammerhead (9), scalloped hammerhead (6), blue shark (19), bigeye thresher (8) and longfin mako (12). Dedicated ICCAT tagging campaigns have been conducted in 2024, 2025 and 2026 in various priority areas, with the deployment of 49 tags in the eastern equatorial and central Atlantic area on the species listed above. Since 2024 there have been additional efforts to gather information on the movements of blue sharks between the Mediterranean and the NE Atlantic, with 16 tags deployed in 2025-2026, including 3 in the western Mediterranean and the remaining in the NE Atlantic. Regarding conventional tagging, ICCAT acquired in 2024 stainless steel dart tags, which have been distributed for some observer programmes that have the opportunity to tag sharks.

In 2025/2026 a pilot study was initiated on the use of mini data loggers, specifically Temperature-Depth Recorders (TDRs) on pelagic longline fisheries, as requested in Rec. 21-09 and Rec. 25-08. To date, 528 TDRs have been deployed on 93 fishing sets, with nine records of captures (four blue sharks and five swordfish). The information retrieved from the TDRs is very valuable, as it provides environmental data as well as time at capture, and behavior of the captured specimens. The SRDCP will continue with this study in the following years and will start working with national programs to also use TDRs in their fleets. This is seen as a longer-term research line of the SRDCP.

In 2023 a new study on the reproductive biology of North Atlantic shortfin mako began, based on the quantification of reproductive hormones concentrations from muscle tissue samples collected from stored vertebrae. Preliminary results suggest that, like the porbeagle shark, muscle tissue can be used to assess reproductive characteristics (i.e. maturity, reproductive status) and can provide critical information regarding important reproductive habitats for North Atlantic shortfin mako. This line of research, remains to be a priority of the SRDCP. However, there was no activity during 2026 due to the impossibility of conducting a campaign in late 2025 to obtain samples from gravid females.

13.4 Enhanced Programme for Billfish Research (EPBR)

The EPBR continued its activities in 2026. The Secretariat coordinates the transfer of funds, information, and data. The overall programme coordinator and Eastern Atlantic Coordinator during 2026 was Dr Rui Coelho (EU-Portugal), and Ms Karina Ramírez López (Mexico) remained as the West Atlantic Coordinator. The original plan (established in 1986) for EPBR included the following objectives: 1) to provide more detailed catch and effort statistics, particularly for size frequency data; 2) to initiate an ICCAT tagging programme for billfish; and 3) to assist in collecting data for age and growth studies. These objectives have been expanded to evaluate adult billfish habitat use, and to study billfish spawning patterns, and billfish population genetics, as these are essential pieces of information for improving billfish assessments. The Billfish Species Group also revised the original plan in order to overcome the data gap issues, in particular in artisanal fisheries of developing CPCs, taking into account the findings of regional reviews.

The previously available specific funding for EPBR has now been combined with the general research fund (ICCAT Science Envelope). Project funding is now being allotted on a more competitive basis with other Species Groups. The United States Data Fund has been supporting the EPBR activities.

Since 2019, short-term contracts have been awarded for the collection of biological samples and analysis for the study of growth of billfish in the eastern Atlantic for the main billfish species that occur in this area (*Makaira nigricans*, BUM; *Kajikia albida*, WHM; and *Istiophorus platypterus*, SFA). These contracts have engaged research teams from Senegal, Côte d'Ivoire, Gabon and São Tomé e Príncipe sampling from artisanal fisheries and teams from EU-Portugal sampling from industrial fisheries. Overall, a total of 781 samples have now been collected from the three species (256 BUM, 437 SFA and 88 WHM), including 689 spines, 313 otoliths and 273 genetic samples.

Sampling and age-reading activities are ongoing, with remaining gaps mainly concerning smaller and larger size classes. Preliminary results of a study to evaluate the use of otoliths to estimate the age and provide preliminary otolith-based estimates of potential longevity of BUM were provided and used during the 2024 Atlantic Blue Marlin Stock Assessment Meeting (Anon., 2024i). An update was provided in 2026, which presented preliminary otolith-based growth curves for the three species. A validation study for BUM otoliths using bomb radiocarbon was initiated in 2025 and continued in 2026 using BUM otoliths aged 1-22 years. Results indicate that otolith ^{14}C values matched expected regional ^{14}C chronologies, supporting the age reading protocols used. WHM age validation was initiated in 2026 with the selection of appropriate otolith samples and extraction of otolith cores for ^{14}C. Sampling, processing and analysis of spines and otoliths for the three species and the validation study for WHM will continue in 2027.

A reproductive study on blue marlin is underway in the Gulf of Mexico (GOM), led by Mexico (Mexican Institute for Research in Sustainable Fisheries and Aquaculture - IMIPAS), using samples from longline fishing fleet and recreational fisheries. During 2026, coordination and training activities were conducted with onboard observers to strengthen and harmonize biological sampling, fisheries data collection, species identification, incidental catch monitoring and tuna tagging techniques. Opportunistic biological sampling of BUM will also be conducted through the recreational fishery during the blue marlin tournament in Veracruz, providing additional samples for the ongoing reproductive study. These activities will contribute to improving the quality of biological information available for blue marlin in the GOM. Sampling will continue in 2027.

Since 2023, satellite tagging in the eastern Atlantic within the EPBR has been conducted, involving both dedicated campaigns (recreational fisheries) and opportunistic tagging. The priority area is in the NE Atlantic, where BUM and WHM occur in the summer/autumn, however other areas in the eastern Atlantic tropical and equatorial regions are also being considered. Overall, a total of 12 WHM have been tagged with miniPATs in waters offshore to the southern Portuguese coast, and 4 BUM and 3 SFA have been tagged in the equatorial Atlantic areas (off São Tomé e Príncipe). Thirty-one WHM have also been opportunistically tagged in tournaments with conventional tags. Specifically for 2026, the satellite tagging campaign off southern Portugal completed five dedicated trips by early September, resulting in one WHM tagged with a miniPAT and one genetic sample collected. Additional tagging trips are planned for September - October. The low availability of billfish during July and August in this region this year may have been related to colder than usual sea temperatures this year. Funding for 2027 is requested to continue the tagging study in the Northeast Atlantic.

The Committee reviewed the EPBR in 2026, noting the Secretariat coordination, shifts in funding support, and ongoing short-term contracts. It outlined priorities such as adult habitat use, tagging, and expanded biological sampling and capacity building in developing CPCs.

13.5 Albacore Year Programme (ALBYP)

Studies of albacore reproduction continued for both the North and South Atlantic stocks.

In the North Atlantic, an international team of scientists from EU-Spain, Canada, Venezuela, and Chinese Taipei analysed biological information from 717 specimens collected throughout the project. These individuals were obtained by Venezuelan and Chinese Taipei longliners, as well as baitboat and troll Spanish fleets. Sampling occurred year-round between 2019 and 2026. A total of 539 first dorsal fin spines were examined to determine age, with spine size distributions ranging from 49 to 114 centimeters and specimen ages spanning 1 to 11 years. Notably, older specimens (>9 years) were exclusively males. Analysis of 629 albacore gonads allowed assignment of maturity stages for individuals measuring 49 to 117 cm. All maturity stages were represented in this study. Approximately 35% of sampled individuals were either in the spawning capable phase (stage III) or actively spawning (stage IV), with stage IV spawners observed from April through September. As documented in previous research, a spatial trend in maturity distribution was evident, with spawners concentrated between 15º and 25º N latitude.

The size at first maturity (L_{50}), estimated using logistic regression, was determined to be 72.8 cm for females and 78.2 cm for males. The corresponding ages at first maturity (A_{50}) were 3.76 years and 3.97 years for females and males, respectively. These values are lower than previously reported, even though the species exhibit an exceptionally late-maturing nature, constituting an anomaly for a medium-bodied tuna species. However, a clear geographical sampling bias toward spawning grounds highlights the need for broader spatial sampling in underrepresented areas of the central North Atlantic to improve overall knowledge of albacore reproductive dynamics.

In the South Atlantic, a study on reproductive biology, ageing and growth is being conducted by a consortium of scientists from Brazil, Uruguay, South Africa, Namibia, and Chinese Taipei. Biological sampling has been carried out since July 2021. Results suggest that southern albacore spawns in the tropical Southwest Atlantic between spring and summer. Estimated L_{50} values were 91.9 cm fork length (FL) and 93.7 cm FL for males and females, respectively, and batch fecundity ranged from 0.14 to 1.7 million oocytes. Concerning the age and growth study, 352 specimens ranging from 66 cm to 125 cm FL were analysed using sagittal otoliths and first dorsal spines. Spine readings systematically underestimated the number of main growth marks compared with otoliths, which were retained as the reference structure for age estimation. Differences in the growth curves were observed for the distinct sampling areas in the South Atlantic (NW-SA, SW-SA, and SE-SA). These results indicate spatial heterogeneity in albacore growth, with potential relevance for stock assessment and fisheries management.

Another component of the research programme relates to movements and habitat use of Atlantic albacore, which is being conducted by scientists from Brazil, the EU, Japan, South Africa, Uruguay, and Chinese Taipei. In the North Atlantic, several tagging surveys targeting large individuals have been conducted off the Canary Islands, where 33 MiniPATs have been implanted. In addition, in the Bay of Biscay tagging has targeted small and medium size albacore, with 24 MiniPATs and 240 internal archival tags having already been deployed. Posters announcing rewards were produced in English, French, Spanish, Portuguese, Chinese, and Japanese, and distributed through collaborating Albacore Species Group participants from different CPCs. To date, data from 43 archival tags have been gathered, which includes >12,000 tracking days. It is worth noting that for the first time eighteen albacores have been tagged for more than a year, two of which have two years at liberty, with an overall recovery rate of 17.9% for the internal archival tags. The dataset also includes the first worldwide one-year PSAT tag retention for this species.

Juvenile albacore visited shallow waters of the Bay of Biscay in subsequent summers, suggesting a strong fidelity to this area where most important surface fisheries developed for this stock. In winter, they inhabit deeper waters in the central and western Atlantic as well as travelling south to the Canary Islands before returning to the Bay of Biscay. Remarkably, two larger individuals stayed in the Bay of Biscay until late winter, revealing a previously unknown behaviour for the species. Interestingly, no clear migration to western areas was observed yet.

In the South Atlantic, new attempts to deploy MiniPATs was carried out in southern Brazil in August 2026, and one specimen being tagged (tag retained for seven days). The teams will continue to deploy tags until early 2027 and an update of the results will be presented throughout 2027.

Finally, a short-term contract was issued to accomplish the technical tasks required to follow the albacore MSE schedule adopted by the Commission. According to this schedule, after adoption of the first ICCAT MP in 2021 (following adoption of a harvest control rule in 2017), it is necessary to check for the existence of exceptional circumstances on a yearly basis. In addition, in 2023 a new benchmark stock assessment using SS3 was conducted, which served as a basis for conditioning new OMs for the second round of the MSE framework, expected to be delivered in 2026. During 2026, the contractors finalized the reference OMs and developed new robustness OMs to test robustness of MPs to potential future decrease in recruitment and potential increase in recruitment variability, due to climate change.

The contractors presented regular updates during the two intersessional meetings of the Albacore Species Group, informal meetings of the MSE subgroup, and the 2026 Species Groups Meeting, and followed the advice of these groups along the year, as well as the one provided by Panel 2. In the new MSE, they proposed and tested new CMPs, including model based, CPUE ratio based and pseudo-constant catch MPs. They also updated the Trial Specifications document and the Shiny. The contractor also produced the necessary plots for the Albacore Species Group to discuss the detection of ECs, as requested by the ECP contained in the Rec. 21-04. In addition, they iterated the current MP and presented results to the Albacore Species Group, to be able to provide TAC advice for the 2027-2029 period.

13.6 Swordfish Year Programme (SWOYP)

The SWOYP was established in 2018 to address key uncertainties important for improving the scientific advice for management of the stocks. The three main research areas - ageing and growth, reproductive biology, and genetics - are each led by study coordinators who oversee work involving 23 institutions from 15 ICCAT CPCs. The work to date has been organized through a series of short-term contracts and in 2022

was formalized as an ICCAT research programme. Since project inception, 5,065 swordfish representing all three ICCAT managed stocks have been sampled for some combination of fin spines, otoliths, muscle tissue, gonads, and additional information has been collected on fish size, sex, maturity stage, and catch date, location and method. The SWOYP aims to improve knowledge of the stock distribution, age and sex of the catch, growth rates, age at maturation, maturation rate, spawning season and location, stock boundaries and mixing, thereby contributing to the next major advance in the assessment of swordfish status. In addition, tagging work supports studies on distribution, movement, and habitat use, which are important for the development of a species distribution model.

In 2018 and 2019, emphasis was placed on sample collection and standardization of sampling methods and processing among member institutions. Samples were collected in the major fishing areas in the North and South Atlantic and Mediterranean. Through all phases of the project, 5,065 samples have been collected from mostly longline fisheries, covering all three stocks. The majority of samples collected consist of an anal fin spine for age estimation, a piece of tissue for genetic analysis, including data on fish size, sex, location and catch date. Within this sample set are 3,631 fin spines, 1,281 otoliths, 972 gonads and 4,071 tissue samples. In recent project phases, the focus has been on processing and analysis while sampling from designated sizes and spatio-temporal gaps continues. Sampling objectives for each component were defined and compared against collected samples to determine sampling gaps. As sampling effort is decreasing, the effort in processing and analysis on the collected samples has been increasing.

For the age and growth component, in phase 8 (2026), reading and modelling results were presented for the South and Mediterranean stocks. Comparisons between structures showed good agreement at younger ages, whereas spine-based estimates underestimated the ages of older fish compared to otolith-based ageing. Otolith-derived annual age estimates ranged between 0-14 years in the South Atlantic and 0-7 years in the Mediterranean. Growth models were fitted, using frequentist and Bayesian approaches, to decimal ages for the South Atlantic stock and integer ages for the Mediterranean stock. Sex-specific von Bertalanffy to otolith based decimal ages (Bayesian fit) were used in the 2026 South Atlantic stock assessment (males: L_{INF}=207.37 cm; k= 0.28 yr^{-1}; t_0=-1.68; females: L_{INF} 304.43 cm; k=0.12 yr^{-1}; t_0=-3.14). These results corroborate that females attain larger maximum sizes than males at a slower rate. Combined growth curves for the Mediterranean stock were fit to the available spine and otolith data; however, additional sex-specific sampling across the size range and for both structures (spines and otoliths) is necessary to refine the growth models to produce structure and sex specific curves. An age validation exercise was conducted in 2023-2025. Bomb radiocarbon analysis applied to 59 samples collected under the SWOYP sampling programme and from National Oceanic and Atmospheric Administration (NOAA) otolith archives. Results indicate that most otolith ^{14}C values matched expected regional ^{14}C chronologies, and age estimates of 10 to 12 years for swordfish near 250 cm were supported. Some samples showed lower-than-expected ^{14}C values, but these were better explained by young swordfish diving into deeper, ^{14}C-poor waters - rather than by errors in age reading. Overall, the results indicate that current otolith ageing methods are broadly reliable, while also highlighting the need to account for early-life diving behaviour when interpreting ^{14}C signals in swordfish otoliths. Future work using very large individuals may help refine maximum age estimates.

Reproduction and maturity analysis also continues to progress. Currently, 350, 244 and 231 gonad samples have been processed for the North, South and Mediterranean stocks, respectively. Maturity patterns differ among stocks. The Mediterranean swordfish showed the smallest size at first maturity (L_{50} = 136.3 cm) and L_{90} (148.9 cm), followed by the South Atlantic stock (L_{50} = 141.3 cm; L_{90} = 159.8 cm) and the North Atlantic stock (L_{50} = 164.8 cm; L_{90} = 181 cm) indicating earlier maturation and probably younger age at maturity. Active reproductive individuals were recorded in summer in the Mediterranean (mainly from June to August), during spring and late summer/autumn in the South Atlantic, and mainly in summer/autumn in the North Atlantic. In the Mediterranean Sea, immature females were mostly in northern Levantine waters, while mature and regenerating individuals were in southern Levantine and north of Corsica, showing spatial segregation. The results provide further evidence of reproductive activity and a potential spawning ground in the southwestern Mediterranean, highlight the need for broader spatial and temporal sampling to improve knowledge of swordfish reproductive dynamics. Some ICCAT areas (e.g., BIL94C in the North Atlantic) are poorly represented, which limits precise estimates of maturity parameters. Additional sampling, particularly in underrepresented areas, is needed to improve the robustness of maturity estimates. Additional samples from hypothesized spawning areas in the Sargasso Sea and Gulf of Guinea would be important for genetic differentiation of stocks, understanding stock spawning period, and better estimating fecundity and recruitment.

The genetic analyses have resulted in sequencing of the swordfish genome, identification of single nucleotide polymorphism (SNPs) important for stock differentiation, and preliminary estimates of stock boundaries and mixing areas. Genetic stock assignments have been evaluated in relation to current ICCAT swordfish management areas using 766 double digest restriction-site associated DNA (ddRAD)-analyzed individuals from the Atlantic Ocean and Mediterranean Sea. Overall concordance between capture-area assignment and genetic stock assignment was high. All discordant assignments were observed in the North Atlantic and were concentrated in BIL94B, where North Atlantic-, South Atlantic- and Mediterranean-assigned individuals co-occurred. Within BIL94B, stock composition varied spatially within BIL94B and non-North Atlantic assignments were detected across multiple years, quarters and capture events. Size-frequency analyses using 5 cm Lower Jaw Fork Length (LJFL) classes showed no clear association between genetic assignment and fish size. These results identify BIL94B as a priority area for continued stock-origin monitoring and provide a framework for organizing genetic information by spatial, temporal and size strata. Epigenetic ageing is being conducted in unison with the ageing component. The first steps in this new project area started with the analysis of samples from 40 specimens from South Atlantic stock. The genome methylation analysis supports the feasibility of an epigenetic clock for swordfish, as methylation was shown to be age-associated. Two independent modelling strategies performed well and a 10-cytosine-phospho-guanine (CpG) core emerged as a robust candidate marker set. Having an epigenetic clock for swordfish will allow SWOYP to be better able to monitor for shifts in growth and maturity while not exclusively relying on otoliths or spine section readings.

Work within each of the project areas will continue in 2027 with continued processing of samples, readings of otoliths/spines and age and growth modelling, histological staging of gonads and modelling, genetic analysis of tissues and collection of samples in areas where there are sampling gaps.

Tagging studies aim to analyze the vertical habitat-use and migration patterns of swordfish, and help to delimit the stock boundaries and mixing rate of swordfish between the Mediterranean Sea and the North and South Atlantic. To date, a total of 71 mini pop-up archival transmitting (miniPAT) tags have been deployed, including 55 in the Equatorial and NE Atlantic mixture areas, 6 in the NW Atlantic, 6 in the South Atlantic and 4 in the Mediterranean Sea. An in-kind contribution of 10 miniPAT tags from Canada resulted in deployment of tags in a high-priority spatial zone for the Swordfish Species Group, in the NW Atlantic. In 2024-2026, dedicated tagging campaigns resulted in the successful deployment of 24 tags in the stock mixture area of the NE Atlantic, and also in the deployment of several other tags from other ICCAT tagging programmes, namely sharks and billfishes. Additionally, in 2024 and 2026, tagging and sampling trips were planned to respond to a possible swordfish northward shift, by targeting fishing activities off Newfoundland and Labrador. These tagging trips were also very successful, and biological samples (full samples) have been collected, in addition to the release of 16 tagged swordfish (several double tagged with satellite and acoustic tags). These studies indicate considerable horizontal movements and patterns of vertical movement through depth and temperature layers. These findings are important for improvements to the swordfish species distribution model which the Committee uses to better understand swordfish catch rates. Additionally, the data from these tagged swordfish will improve the understanding of habitat use of swordfish in the North Atlantic particularly in the stock mixture areas. Currently SWOYP has 10 satellite tags available to continue the work in late 2026, and expects to acquire some additional tags to deploy in the priority areas of stock mixture during 2027.

13.7 Tropical Tuna Research and Data Collection Programme (TTRaD)

The ICCAT Tropical Tuna Research and Data Collection Program (TTRaD) began its activities in 2024. The Secretariat coordinates the transfer of funds and distribution of information, and data.

The original plan for the TTRaD included the following objectives: 1) to provide more detailed catch and effort statistics, particularly for size frequency data; 2) to initiate an ICCAT tagging programme for tropical tunas; and 3) to assist in collecting data for age and growth studies. During past Tropical Tunas Species Group meetings, the Tropical Tuna Species Group requested that the objectives of TTRaD be expanded to provide a more long-term and costed workplan. Efforts to meet these goals in 2026 are highlighted below.

In 2026, the TTRaD prioritised MSE developments and improved biological parameters with funds to support additional biological sample collection and analyses, and to increase participation in a workshop which aimed to standardise methodologies for age and growth analysis. MSE developments have been provided throughout the year at intersessional meetings.

For the western skipjack MSE the focus has been developing the scientific aspects of the protocol for Exceptional Circumstances (ECs) with an aim to present the Exceptional Circumstances Protocol (ECP) to the Commission in November 2026. Document Sant'Ana *et al.*, in press (SCRS/2026/248) summarises the developments made by the west skipjack MSE development team in 2026.

For the multi-stock MSE, work during the first part of the year focused on checking internal consistency, refining reference points, reconditioning the bigeye tuna Operating Models (OMs) using the 2025 stock assessment (Anon., 2025j), revising recruitment assumptions, developing empirical Candidate Management Procedures (CMPs), and organizing a stepwise evaluation from single-stock tests to multi-stock simulations. Following the First Intersessional Meeting of Panel 1 meeting (March 2026) and the Intersessional Meeting of the Tropical tunas Species Group (including MSE) (April 2026), the workplan was revised to allow the new OMs and CMPs to be diagnosed before testing the full technical interactions among bigeye, yellowfin, and eastern skipjack fisheries. As of September 2026, reference-point adjustments, bigeye OM conditioning, and the empirical three-year moving-average MP have been completed, while the factorial evaluation of MPs and the analysis of fishery interactions remain in development. The document Merino *et al.*, in press (SCRS/2026/208) identifies the principal products required during the remainder of 2026, including updated diagnostics, and evaluations of alternative and visualization products.

ITUNNES/ICCAT Workshop

The ITUNNES–ICCAT joint workshop on age, growth and reproduction of Atlantic tropical tunas, was held in AZTI, Pasaia (1–5 June 2026). The workshop brought together experts, laboratories and data holders to review current biological information and methods for bigeye tuna (*Thunnus obesus* – BET), yellowfin tuna (*Thunnus albacares* – YFT) and skipjack tuna (*Katsuwonus pelamis* – SKJ), and to identify priorities for improving their use in ICCAT stock assessments. Document Lastra *et al*., in press (SCRS/2026/228) summarises progress made at the workshop and priority next steps including a staged programme of work, beginning with data inventory and preparation, followed by inter-laboratory calibration, harmonisation and protocol development, and progressing to validation and resolution of remaining biological uncertainties. The resulting recommendations provide a practical roadmap for strengthening the biological basis of future ICCAT tropical tuna assessments.

Skipjack tuna age validation

Document Andrews *et al.*, in press (SCRS/2026/191) summarized developments in an ICCAT funded project focused on bomb radiocarbon age validation of skipjack tuna (*Katsuwonus pelamis*) in the Atlantic Ocean. The ongoing project aims to establish the scientific and operational framework required to validate otolith age estimates and reduce uncertainty in the assessment of Atlantic skipjack tuna. Preliminary results are expected by the end of 2026, but finalization of the work is planned in 2027.

13.8 Subcommittee on Ecosystems and Bycatch Research Programme

The Committee reviewed the progress made regarding sea turtles in the Mediterranean Sea, as well as seabirds, in the context of the ongoing review of measures to mitigate seabird bycatch within ICCAT, modifications to fishing gear and data coordination. Coordination with the Sharks Species Group has continued, and studies have been presented modelling bycatch in some fleets and utilizing the ICCAT bycatch estimation tools (BYET).

Based on this work, an initial draft of the Subcommittee on Ecosystems and Bycatch Research Programme (bycatch component) was developed and presented during the Meeting of the Subcommittee on Ecosystems and Bycatch in May 2026. The Committee was informed of the plan to hold a workshop to finalise the draft programme, in coordination with the bycatch groups of the various tuna Regional Fisheries Management Organizations (tRFMOs) (Indian Ocean Tuna Commission (IOTC), Inter-American Tropical Tuna Commission (IATTC), Western and Central Pacific Fisheries Commission (WCPFC)). This workshop will be held in November 2026, with the aim of presenting a new, more consolidated version at the next meeting of the Subcommittee for possible approval in 2027.

14. Progress related to work developed on MSE

Since September 2025, the SCRS has further developed substantial work on the ongoing ICCAT MSE processes. Additional details are provided below (items 14.1 to 14.7).

14.1 Work conducted for northern albacore

In 2026, the MSE work has consisted in finalizing the MSE and evaluating alternative CMPs following the recommendations by Panel 2 (3-5 March 2026) and the Albacore Species Group. The evaluated CMPs included empirical and model-based CMPs. The CMPs were also evaluated with alternative stability constraints (10% and 25% max TAC change). The CMPs were evaluated against a reference set of OMs and three robustness scenarios reflecting potential changes in recruitment and its variability due to climate change (Urtizberea *et al*., 2026a, SCRS/2026/190).

Furthermore, the contractor continued the development of a Trial Specification Document that is available in the ICCAT MSE website and ICCAT repositories (https://iccat.github.io/nalb-mse-2/; https://iccat.github.io/nalb-mse-2/TechSpec/Trial_Specs.html), with all the documentation and details of the different components of the new MSE for North Atlantic albacore. And last, the FLBEIA shiny was also completed and made available.

Furthermore, in 2026, the MP specified in Rec. 21-04 was applied and presented to the Albacore Species Group in the Albacore Stock Assessment Meeting (Merino *et al*., 2026a, SCRS/2026/137).

The ECP in Rec. 21-04 requires determining, on a yearly basis, if exceptional circumstances (ECs) exist. The Committee evaluated the existence of ECs using both catch and CPUE related indicators and found no evidence of ECs that would prevent the application of the current TAC derived from the adopted MP in place.

14.2 Work conducted for southern albacore

The South Atlantic Albacore MSE Technical Team held three technical meetings during 2026 (13 January, 22 July and 19 August) to review progress on the operating models, robustness scenarios and candidate management procedures. Following completion of a new ALB-S stock assessment in June 2026, the OMs were reconditioned using an updated factorial grid spanning uncertainty in growth and natural mortality. Two robustness sets of OMs were additionally developed to explore the implications of conflicting recent trends between the Chinese Taipei and Brazil-Uruguay abundance indices. Five model-free CMPs were evaluated and tuned against the reference set of OMs, and preliminary performance results were presented to the Albacore Species Group and the SCRS (Hordyk and Mourato, 2026, SCRS/2026/233), while effort continues to develop model based CMPs. The Group noted that the unresolved conflict between abundance indices remains the main source of uncertainty affecting the MSE process and the tuning of CMPs, and that further consideration will be given to how the robustness scenarios are incorporated in future evaluations. The MSE framework and CMPs will continue to be refined based on feedback from the Albacore Species Group and the SCRS, with final MSE results targeted for 2027, in support of the Commission's scheduled adoption of a management procedure for South Atlantic albacore.

Furthermore, the analyst continued the development of the Trial Specifications Document, which is available on the ALB-S MSE website together with all technical details of the different components of the new MSE for South Atlantic albacore (https://iccatsalb.bluematterscience.com/tsd/). An interactive application (Slick) for exploring the MSE results in further detail was also made available (https://shiny.bluematterscience.com/app/slick).

14.3 Work conducted for bluefin tuna

The Committee held two intersessional meetings in 2026 to advance BFT MSE work. The Group discussed MSE review and intends that the multiSA modelling platform replace the current M3 model as the Operating Model (OM) underlying the MSE. While multiSA was not yet mature enough to provide 2026 stock status advice, the Committee has already used the model to help improve OM structure and design and exposed data conflicts. The Committee endorsed a simplified spatial structure within the OMs the multiSA model reducing the spatial areas from 7 to 4. The Group discussed further simplification (e.g. yearly time-steps, a two-area model, or a "fleets-as-areas" approach) given that many area/age/quarter strata lack sufficient data (e.g. electronic-tag transitions, stock-of-origin composition). The BFT Technical Sub-group on Assessment Models will pursue this in a stepwise fashion - simple configurations first, adding complexity once stable.

Based on recommendations from the intersessional meetings, the BFT Technical Sub-group on Modeling met intersessionally and the contractor incorporated suggestions into revisions to the multiSA model. A key recommendation from the intersessional meeting was to estimate the probability of belonging to the western stock for specific fleets rather than to attempt to estimate it for the entire western area. This was accomplished and the multiSA model modified to incorporate fleet-specific predictions and a new mixing data set was developed and fit into the multiSA model (Huynh, 2026, SCRS/2026/165).

The Committee received an update on the latest progress of the Bluefin Tuna MSE at the meeting of the BFT Species Group in September. Model testing has continued through a step-wise, structured process to test specific data inputs, explore the influences of different data inputs and stock interactions, all with the goal of improving model performance and diagnostics. While estimated biomass is of the same order of magnitude regardless of the structural differences between the modeling approaches, the trends in fishing mortality and biomass show greater similarity than the initial models in July 2026. This indicates that the models are improving, though there are still a number of issues to be addressed before it can be considered as a replacement for M3. Additional guidance for model improvement will be provided by the modeling and mixing sub-groups which will each develop a workplan (Walter *et al*., 2026, SCRS/2026/256).

14.4 Work conducted for northern swordfish

The Commission adopted a management procedure (MP) (*Recommendation by ICCAT on conservation and management measures, including a management procedure, for North Atlantic swordfish* (Rec. 24-10)) for the North Atlantic swordfish stock at its Annual Meeting in 2024, and set a Total Allowable Catch (TAC) for the first management cycle (2025-2027). Following advice from the SCRS on an exceptional circumstances protocol, a revised measure was adopted in 2025 (*Recommendation by ICCAT replacing Recommendation 24-10 on conservation and management of measures including a management procedure for North Atlantic swordfish* (Rec. 25-10)). The adopted MP is empirical and uses an index ratio harvest control rule (HCR) to produce a TAC for a 3-year management cycle. The Commission selected management objectives (and probability thresholds, where applicable) for four categories: safety, status, variability, and yield.

Rec. 25-10 sets out tasks for the SCRS which include reviews of exceptional circumstances (ECs), applying the adopted MP, and a general MSE review. Paragraph 18 requires that the SCRS continue work on robustness tests associated with Climate Change and minimum size limits with results due by 2027. The Committee completed work on assessing the effectiveness of minimum size limits in 2026 (see item 19.21 of this report). Preliminary work on Climate Change testing was initiated in 2026 and will be completed in 2027. In 2026, Panel 4 requested that the Committee complete additional analysis to evaluate the impact of trapline gear use on the adopted MP.

The Committee evaluated for exceptional circumstances in 2026, which included an update to the Combined Index of Abundance. See item 19.19 of this report for the findings of this evaluation.

14.5 Work conducted for western skipjack

Throughout this year, the Exceptional Circumstances Protocol (ECP) for western Atlantic skipjack tuna (SKJ-W) was developed to operate in conjunction with the management procedure (MP) currently in place. The work comprised two key stages. The first involved establishing the conceptual basis of the protocol (Sant'Ana and Mourato, 2026, SCRS/2026/077), which defines three detection principles: stock and fishery dynamics, data availability, and TAC implementation.

The second stage consisted of defining the methods and conducting a simulation-based evaluation of indicator behaviour (Sant'Ana R. and Mourato B. 2026a, SCRS/2026/248). This stage describes the implementation of the indicators and reports the results of the first evaluation round. All indicators are based on comparisons between observed and projected quantities, contrasting the values reported by the monitoring system with the corresponding distributions derived from the nine operating models × 100 simulations.

As an outcome of this stage, a draft of the Exceptional Circumstances Protocol and its preliminary evaluation are presented under section 19.43 of this report.

14.6 Work conducted for tropical tunas multi-stock MSE

In 2026, the tropical tunas MSE focused on strengthening consistency and preparing the framework for testing Candidate Management Procedures (CMPs). Key achievements included (1) re-conditioning the bigeye Operating Model (OM) with the 2025 stock assessment (Anon., 2025j), (2) adjusting and validating reference points, (3) conducting sanity checks through unfished and MSY projections, and comparisons with Stock Synthesis (SS) output, (4) designing three types of CMPs: a model-based, an empirical CMP that adjusts Total Allowable Catch (TAC) from changes in three-year average catch per unit effort (CPUE) and a pseudo-constant catch approach, (5) expanding the framework to compare full, partial and no fleet adaptation, thereby representing different levels of flexibility by fishing fleets under choke-stock constraints and, (6) developing visualization tools and a trial specification document.

Following feedback from the Tropical Tuna Species Group, the work in 2026 shifted from discussing the evaluation of CMPs carried out over the previous bigeye OM toward a staged intersessional diagnosis of the framework: first validating the OMs of the three stocks, the conducting single-stock tests and finally investigating the multi-stock interactions.

14.7 Work conducted for blue shark

In 2026, management strategy evaluation (MSE) development advanced for blue shark in the South Atlantic.

In the South Atlantic, the main achievement was a documented, reproducible workflow from stock assessment to management-rule testing (Taylor, 2026 (SCRS/2026/215), SCRS/2026/216, SCRS/2026/217). The workflow develops alternative operating models that retain biologically linked uncertainty in mortality, growth, and productivity, and fits each model to historical data. Results remain diagnostic, as interpretation of management performance and stock status depends on further validation of the conditioning assumptions. Likelihood profiling also showed that estimated stock size is sensitive to productivity assumptions.

The Committee was made aware that some discussion occurred at the Commission regarding potential inclusion of shortfin mako considerations in the blue shark MSE. The Committee discussed some options but notes that it has not yet received operational management objectives for the blue shark MSE.

14.8 Review of the Roadmap for the ICCAT MSE processes adopted by the Commission in 2025

The rapporteurs of the relevant Species Groups with ongoing MSEs presented an update to the roadmap for the ICCAT MSE processes, based on their workplans for 2027. The Committee updated MSE roadmap which is provided in **Appendix 6**.

15. SCRS Science Strategic Plan: Way forward

The SCRS recommends that the SCRS Chair, assisted by the rapporteurs of ICCAT scientific groups develop intersessionally a draft multiannual stock assessment schedule for the main ICCAT species that takes into account the MSE schedule, the workplan of relevant scientific groups and any limitations identified by the Secretariat, including resources and timing considerations.

16. Update of the stock assessment software catalogue

The Secretariat has been maintaining the ICCAT software catalogue and the GitHub site. Following the recommendation by the Committee in 2025, the a4a R-package (FLa4a) will be incorporated in the ICCAT software catalogue throughout 2026.

17. Consideration of plans for future activities

17.1 Annual workplans and research programmes

17.1.1 Subcommittee on Ecosystem and Bycatch Workplan for 2027

The activities listed below are planned to be developed during 2027 as part of Subcommittee on Ecosystems and Bycatch Workplan including a hybrid meeting of 5 days in 2027 with language interpretation:

Pertaining to Bycatch

a) Finalize the Subcommittee's Bycatch Research and Data Collection Programme for possible approval in 2027.

b) Bycatch affects all Species Groups, so coordination among the Subcommittee and SCRS Species Groups is essential. This collaboration would address the definition of bycatch species and appropriate benchmarks, as well as the inclusion of species in ICCAT databases, among other issues. Accordingly, the Subcommittee will continue coordination with the Species Groups.
c) Continue developing processes that allow progress in assessing the impact of ICCAT fleets on the bycatch of marine megafauna species (threatened and protected species) in the Atlantic.
d) Build on the experience and collaborative work on Mediterranean Sea turtles by extending activities to improve the statistics for other taxonomic groups of interest to the Subcommittee, particularly the blue shark, for a possible assessment in 2027-2028.
e) Continue the work in the Subgroup on Technical Gear Changes. Activities related to bycatch may fall within the objectives of this Subgroup.
f) Continue reviewing and refining the list of bycatch species in the ICCAT databases. The ICCAT databases contain a list of various taxa that should be examined by specialists.
g) Coordinate with other tuna Regional Fisheries Management Organization (tRFMO) Ecosystem and Bycatch groups to explore and reflect on different approaches to assessing and mitigating bycatch, to define joint objectives related to bycatch (discuss actions, methodologies for bycatch analysis, mitigation measures, best practice guidelines, training, and identify ways to harmonize measures).
h) Continue the ongoing review of best practices for mitigation measures for seabirds and move towards a review of the recommendations in 2027.
i) Continue the collaborative work on Atlantic and Indian Ocean sea turtles to integrate into the analyses the population structure of turtles affected by ICCAT fisheries and their condition.
j) Collect information and develop a manual of good practices for the release of cetaceans in ICCAT fisheries.

Pertaining to Ecosystems

Consistent with the ongoing exercise of developing an EcoCard and implementing an ecosystem approach to fisheries management (EAFM) framework for ICCAT, a workplan was drafted considerate of the limited capacity of the Subcommittee. The priority items for the coming year are identified.

*a) Pertaining to **Ecosystems Report Card** Development: Priority 1*

The Subcommittee recognized the need to continue the development of indicators reviewed at the 2025 Meeting of Subcommittee on Ecosystems and Bycatch (Anon., 2025e) recognizing that many would be available for an update of the EcoCard in 2027. It was emphasized that development and/or updates of indicators for some of the other ecosystem components should also be prioritized. The EcoCard components identified for updates or development are described in **Table 1** below. The schedule of updates for ecosystem components for which an indicator was adopted will be discussed at the 2027 meeting while those under development are expected to remain in the workplan until adopted.

It is recommended to host in-person workshops to advance the work on the EcoCard in 2027. The first is required to review indicators developed for select components of the EcoCard, and the second is to review indicators being proposed for the environmental component. The first workshop is planned by the end of November 2026, though the second one is planned for the first quarter of the following year, 2027. Feedback on the main outcomes of the two workshops will be communicated to the Subcommittee in the 2027 meeting.

Table 1. Summary of proposed EcoCard components, development status, objectives and contributors for indicator updates and future work.

Goal/Timing	***EcoCard Component***	***Objective***	***Contributor/s***
No expectation of development in 2026	Retained species: Not assessed	Perform Productivity and Susceptibility Analysis (PSA) for select retained unassessed species.	
Update for 2027	Retained species: Assessed	Update B_{RATIO} and/or F_{RATIO} values from recent assessments and deal with $F_{0.1}$ and MSE issue.	Alex Hanke/Eider Andonegi
In progress – update	Non-retained sharks (silky shark)	Increase the scope of the data used in the analysis. Include other gear types. Silky shark risk assessment based on Species Distribution Model (SDM) or vulnerability index. Hammer?	Rui Coelho/ Leire Lopetegui
Develop	Marine turtles	Perform risk assessment for loggerhead and leatherback turtles and indicator development. Check progress of other tRFMO.	Ochi Daisuke /Andrés Domingo
Develop	Seabirds (albatross/petrel)	Create vulnerability indicator based on overlap of species distribution with longline & purse seine fisheries. ICCAT and/or Spatially Explicit Fisheries Risk Assessment (SEFRA) data.	James Bell/ Sachiko Tsuji/Sebastián Jiménez /Helen Wade
Develop	Marine mammals	Discuss collaborations with the International Whaling Commission (IWC) and the International Council for the Exploration of the Sea (ICES). Following scoping exercise, develop index from Ecosim model of the tropical Atlantic.	Josu Meléndez/Eider Andonegi
Develop	Trophic structure, community, ecosystem, and diversity indicators.	Develop indicators from Ecopath with Ecosim (EwE) to monitor the biomass structure, size structure and trophodynamics of the ecological communities in the tropical Atlantic in response to fishing pressure and environmental drivers. Integrated ecosystem indicators (ETI)	Josu Meléndez/ Eider Andonegi/ María José Juan Jordà/ Hilario Murua
No expectation of development in 2026	Habitat	Create indicators to monitor climate-induced and fishing-induced habitat changes in ICCAT species.	
Update and develop for 2027	Socio economic	Develop indicators based on socio-economic data. Develop tool to extract the socio-economic data adjusted for inflation and per ton of catch.	Sachiko Tsuji/ José Carlos Baez/ Diego Álvarez
Develop	Fishing pressure	Develop an indicator based on fishing effort or capacity.	Diego Álvarez/ TunaMed
Develop	Environmental pressure	Develop indicators that have a causal relationship with stock life history traits.	Diego Alvarez/ María José Juan Jordà
Develop	Marine debris (abandoned, lost, or otherwise discarded fishing gears (ALDFG))	Quantify annual ALDFG strandings.	Eider Andonegi / Maitane Grande

b) Pertaining to the progress on including climate change considerations to inform scientific advice: Priority 1

b1. The Subcommittee will review the existing work, continuing discussions of the SWGSM meeting in 2026, and try to organize all and develop a road map for future developments.
b2. The Subcommittee will work on further implementing the Climate Change Test method approach as detailed in SCRS/2026/038 and Carruthers (2024a, b), for other ICCAT species.

c) Pertaining to the progress on the implementation of tools for the conservation of biodiversity: Priority 2

The Subcommittee will closely progress of the implementation of the BBNJ and will be prepared to any request from the Commission.

d) Pertaining to the progress on case studies: Priority 2

The case study groups are making progress towards achieving the objectives identified in the Terms of Reference (ToRs), in particular the Mediterranean and the Tropical Atlantic Case Studies. Progress made during the intersessional period will be presented in 2027. While there will be no formal review of the progress of the case studies in 2027, they continue to contribute through their support of indicator development for the EcoCard.

*Pertaining to **ECOtest**: Priority 3*

The Subcommittee will continue to advise on the development and validation of indicators and to explore the potential inclusion of marine turtle and seabird species.

17.1.2 Subcommittee on Statistics Workplan for 2026/2027

Since 2017, the Secretariat has been developing the IOMS, released into production on 1 August 2021, a long-term, mission-critical project that requires full Secretariat commitment, that will continue throughout 2026-2027.

Additionally, the following tasks represent ongoing database improvements and maintenance that will continue throughout 2026 and beyond. Priority tasks for 2026/2027 include:

Tasks (ICCAT Secretariat)

- Complete the final pending elements of the ICCAT-DB upgrade from MS-SQL Server 2016 to MS-SQL Server 2022 (90% completed, with only a small number of databases supporting web data publication remaining).
- Develop new cross-platform formats for publishing Task 2 Catch and Effort (T2CE) information, replacing the legacy MS Access formats.
- Improve the “client applications” that manage the databases of the ICCAT-DB system.
- Continue the development of statistical/tagging dashboards (dynamic querying).
- Continue the tagging database development for both conventional and electronic tagging.
- Continue the “Biological Sampling” (BIOSAMP) database development (includes data recovery/integration).
- Continue the standardization of the electronic forms (TG: tagging forms, CP: compliance forms).
- Extend the automatic data integration tools for the standardized electronic forms.
- Continue the development of the Geographic Information System (GIS) project (georeference all the pertinent ICCAT data available in ICCAT-DB).
- Continue the adaptation/migration of all the 58 databases of the ICCAT-DB system to the new ICCAT IOMS system.
- Continue the development of software libraries (in R and possibly Python) to standardize access and management of ICCAT public datasets.
- Continue the development of interactive applications to improve the dissemination of and simplify access to the core ICCAT public datasets through the web (T1 and T2 datasets, catch distribution (CATDIS), SCRS Catalogues, etc.).

- Study options to normalise in a single format (comma separated values (CSV)) the existing agreed flat-form formats to provide Task 2 datasets (T2CE, and T2CS).
- Review and develop proposals aiming to validate and potentially enrich Task 1, Task 2 and Task 3 datasets, using auxiliary information available at the Secretariat (Vessel Monitoring System (VMS), FAD deployment, vessel listing, etc.) to address SCRS scientific request, following the ICCAT data dissemination policy.
- Continue the activities on the design, development and data compilation for a database to manage SCRS recommendations (from all subsidiary bodies) and the SCRS's responses to the Commission, with the aim of facilitating traceability and improving effectiveness.
- Develop tools to assess and improve consistency across Task 1, Task 2 and Task 3 datasets, including cross-checks between related statistical information and the identification of potential discrepancies.
- Develop a dedicated application to support the programmatic generation, validation and updating of CATDIS estimates, reducing manual processing and improving reproducibility.

Intersessional activities (ad hoc working groups and meeting)

- Continue the work of the *ad hoc* Working Group to standardize the T1NC tables included in the Executive Summaries.
- Continue the work of the *ad hoc* Working Group to review and update the ICCAT Rules & Procedures on data protection, access, and dissemination, and to propose text amendments and an implementation timeline.
- Continue the work of the *ad hoc* Working Group to refine the Secretariat's CSV flat-file proposal for ST04 (size samples), inviting Flag CPCs currently using specially agreed formats to participate, and to consider defining analogous flat-file specifications for ST05 (catch-at-size) and ST03 (catch and effort)
- Establish an *ad hoc* Working Group to review the ST13-Traplines form.

17.1.3 Working Group on Stock Assessment Methods (WGSAM) Workplan

The following items were identified for the 2027 workplan:

- Keep refining the checklist of bycatch estimation methods.

- Based on the refined checklist, continue to review the submitted methods proposed to estimate the dead and live discards (bycatch) occurring in specific fisheries/fleets that have been forwarded from SCRS Species Groups and provide feedback to further improve those methods.

- Review the performance of Bycatch estimation tool (BYET) workshop and advanced technical Management Strategy Evaluation (MSE) workshop in 2026.

- Further improve the Shiny App of BYET tool to integrate model-based estimators.

- Conduct a BYET workshop using the latest version of the Shiny App.

- Conduct an advanced technical MSE workshop.

- To the extent possible, the WGSAM will discuss aspects of stock assessment and MSE brought to its attention by SCRS Species Groups in advance of the next meeting.

17.1.4 Albacore Workplan

The Mediterranean, South Atlantic, and North Atlantic albacore stocks were assessed in 2024, 2026, and 2023, respectively. In the case of North Atlantic albacore, an MP was adopted in 2021.

The main objectives for 2027 are to advance the South Atlantic stock MSE, to apply the Exceptional Circumstances Protocol (ECP) of the northern stock and to conduct additional analyses on northern Atlantic MSE, and to continue with the research as defined in the Albacore Year Programme (ALBYP).

Two one-day online intersessional meetings are proposed for the South Atlantic MSE discussion (one in February-March and one in June-July). The Group recommends 2 meetings with Panel 3 (May and October).

South Atlantic stock proposed workplan

a) MSE development and evaluation:

- The South Atlantic Albacore MSE Technical Team will review feedback from the Commission and the SCRS and develop a plan to address any additional requests. *Timing:* January 2027. *Deadline:* End of January. *Deliverable:* Updated MSE workplan. *Responsibility:* MSE Technical Team.

- The MSE Technical Team will agree and finalize the reference and robustness operating models and the Trial Specification Document (TSD), continue to develop CMPs and review the MSE results and candidate CMP performance. Produce a summary document drafting final results for Panel 3. A one-day online intersessional meeting will be held to review progress and prepare the analyses for Panel 3. *Timing:* February–April. *Deadline:* One week before the Intersessional Meeting of Panel 3. *Deliverable:* Updated MSE results and supporting documentation. *Responsibility:* MSE Technical Team.

- The MSE results will be presented and discussed at the Intersessional Meeting of Panel 3 to support the review and selection of final CMPs. *Timing:* May. *Deadline:* Intersessional Meeting of Panel 3. *Deliverable:* Presentation of MSE results and identification of final CMPs for further consideration. *Responsibility:* MSE Technical Team and Panel 3.

- Following Panel 3 feedback, the Technical Team will complete any additional analyses, finalize CMP testing, and prepare the final CMP specifications for review by the Albacore Species Group (June or July) and SCRS. *Timing:* June–September. *Deadline:* One week before the Species Group meeting. *Deliverable:* SCRS document(s) presenting final MSE results and CMP specifications. *Responsibility:* MSE Technical Team.

- The Albacore Species Group and the SCRS will review the final CMP results and provide the scientific information and technical specifications required for consideration by the Commission. *Timing:* September. *Deadline:* SCRS Plenary. *Deliverable:* Final scientific advice on the South Atlantic albacore MSE and CMPs. *Responsibility:* Albacore Species Group and the SCRS.
- The SCRS will present the final CMP results to Panel 3 at an intersessional meeting in October. Timing: October. *Deadline:* SCRS Plenary. *Deliverable:* Final scientific advice on the South Atlantic albacore MSE and CMPs. *Responsibility:* Albacore Species Group and the SCRS.

b) Research:

- The Committee reiterated the need to continue research activities within the ALBYP. Within biological studies, for 2027, the priority is to continue the reproductive biology and electronic tagging studies. *Deadline:* One week before the Species Group meeting. *Deliverable:* SCRS documents. *Responsibility:* Brazil, with the support of partner CPCs, Namibia, South Africa, Uruguay, and Chinese Taipei.

North Atlantic stock proposed workplan

a) Stock assessment and MSE:
- Update (up to 2025, and if possible 2026) the following standardized CPUEs. *Deadline:* One week before the species groups meeting. *Deliverable:* SCRS documents, following the standards provided by the Working Group on Stock Assessment Methods (WGSAM). *Responsibility:* CPCs:

    - Japanese longline
    - Chinese Taipei longline
    - US longline
    - Spanish baitboat

- Determine whether exceptional circumstances occur, according to the indicators in the ECP (Rec. 21-04). *Deadline:* One week before the Species Group meeting. *Deliverable:* SCRS Document. *Responsibility:* MSE contractor.
- Conduct additional work in the new MSE framework:
  - On the impact of the number/frequency of missing CPUEs on CMP performance (for the MP that will be chosen by Panel 2).
  - Test the effect of using alternative sets of CPUE indices, including newly developed juvenile indices on MWT and Troll, in the SS3 model.
  - Alternative/improved robustness tests on climate change impacts.
  - Assess the effect of the imperfect implementation of the TAC.
  - Document the analyses. *Deadline:* One week before the Species Groups meetings. *Deliverable:* SCRS Document. *Responsibility:* MSE contractor.
  - Provide a comparison of CMP results of the methodology of resampling of historical indices (current practices used in the MSE) and fixed historical indices to explore how this impacts performance metrics requested by the Commission.

b) Research:
- The Committee reiterated the need to continue research activities within the ALBYP. Within biological studies, for 2027, the priority is to continue the electronic tagging studies, preferably in the western Atlantic. *Deadline:* One week before the Species Group meeting. *Deliverable:* SCRS documents. *Responsibility:* CPCs and Albacore Species Group.

Mediterranean albacore stock proposed workplan

Research:

The Committee reiterated the need to continue research activities within the ALBYP. For 2027, the priorities are:
- To continue recovery of Task 1 and Task 2 data to allow building of alternative catch scenarios.
- To assess the impact of new information (calibrated larval index and revised Italian catches) on the Bayesian surplus production models used in the 2024 stock assessment.
- To develop a growth model for the Mediterranean stock that integrates the different studies on the matter available to date.
- To participate in the activities of the Mediterranean Albacore Research Network.
- To continue collaborating with the Secretariat on the development of prior distributions for the '*r*' and '*K*' parameters for the production models used in the assessment.

17.1.5 Billfishes Workplan

Considering the recommendations from the SCRS, the Billfish Species Group will continue working on developing and implementing the research work plan (7 years) in 2027.

Catch (Task 1), catch and effort, and size data (Task 2)

CPCs catching billfishes (directed or bycatch) are required to report species-specific catches (including live and dead discards), catch and effort, and size information by the required spatial and temporal scale. In 2027, efforts should continue to improve the completeness and consistency of billfishes catch and size frequency information, particularly to fill gaps and missing reports for the eastern and western stocks of sailfish (SFA), and for the combined white marlin and roundscale spearfish.

Life history parameters

Continue the Enhanced Programme for Billfish Research (EPBR) activities including:

- Age and growth studies on billfish (blue marlin, white marlin and sailfish) in the eastern Atlantic (West Africa) with regards to:

  - Continue sampling on the priority sizes, and sample processing of both spines and otoliths;
  - Try finding existing otoliths of white marlin and sailfish from various archives;

- Continue age estimation and growth modelling;
- Conclude age validation for white marlin through bomb radiocarbon and explore feasibility to conduct age validation for sailfish;
- Continue building a reference set for both spines and otoliths, with a repository of digital images of the structures.

- Continue the research and biological sampling of blue marlin from the Gulf of Mexico for Mexican longline and recreational fisheries. Strengthen biological sampling through collaboration with the recreational fishery and opportunistic sampling during blue marlin tournaments, while continuing activities to improve the collection and analysis of biological information relevant to reproductive studies.

Tagging

- To continue the satellite tagging of blue and white marlin on the South Portugal coast in the recreational fishery and conduct opportunistic electronic and conventional tagging of marlins and sailfish in other areas of the eastern Atlantic.

- In 2027 the Committee should evaluate the priority areas for e-tagging for 2028/2029, based on scientific needs, and re-assesses the 2028/2029 budget to support these priority areas.

CPUEs

- Explore the possibility of estimating a multi-fleet LL CPUE as has already been done for other ICCAT species, to address the conflicting CPUE trends. As a first step, interested CPCs can see what was developed in 2026 for the North Atlantic shortfin mako or other ICCAT stocks.

Intersessional meetings

- Hold one intersessional online meeting (three days) in 2027 to discuss mainly matters related to reported statistics, aiming scheduling the next stock assessments of billfish species.

17.1.6 Bluefin tuna Workplan

The primary focus of the Committee on bluefin tuna for 2027 and beyond is to complete the MSE review, as follows:

- **Stock Mixing Sub-group**: The BFT Technical Sub-group on Stock Mixing shall produce a mixing dataset suitable for the multiSA model, obtained from both genetics and otoliths. **1 April 2027** data guillotine for mixing data for the multiSA model (see Walter *et al*., 2026, SCRS/2026/256).

- **Modeling Sub-group**: The BFT Technical Sub-group on Modeling is composed of quantitative experts in stock assessment modeling for both western and eastern areas. The Sub-group will be tasked with taking guidance from the BFT Species Group to implement the multiSA model as the framework for the MSE OMs, focusing on testing the existing BR MP. The Sub-group should identify the critical uncertainties that relate to modeling decisions and performance for Reference Grid and any Robustness tests.

- Schedule of meetings and tasks:

  1. Informal webinar at technical level around February 2027 on BFT CKMR to include overview of BFT-W CKMR estimation and potential applications to MSE and management. Participants can provide questions in advance or during the meeting.

  2. 2027 Intersessional Meeting of Panel 2 to present progress on MSE review.

  3. Intersessional Meeting on BFT MSE in April-May 2027, 2 + 2 days (online, without interpretation):

Meeting 1: 2 days in April

a. Review of the conclusions of the BFT Technical Sub-groups on Mixing Stock and Modeling
b. Data guillotine for MSE data inputs (including new/revised indices, catch data, size composition, and tagging) for conditioning (terminal year 2025)
c. Index time series for inclusion in conditioning (e.g. retrospective analyses)

Meeting 2: 2 days in May

d. Results of multiSA conditioning using existing dataset
e. Comparison of the results between multiSA and M3
f. Initial runs with BR to examine 'does it matter', using the data up to 2024

4. Intersessional Meeting of the Bluefin Tuna Species Group focused on MSE review in June 2027 (hybrid, without interpretation), 5 days
   a. Confirm OM conditioning
   b. Approve MSE structural assumptions
   c. Finalize Reference Grid and Robustness tests
   d. Evaluate MP performance across Reference Grid
   e. Comparison with M3

5. Continue to support the Atlantic-Wide Bluefin Tuna Research Programme (GBYP) that will focus on supporting the MSE review, the tagging and electronic tagging database, the biological studies and conducting the Balearic Aerial Survey and related data analysis.

6. Annual index provision up to 2026, strict update, by 1 September 2027, and determination of exceptional circumstances at the meeting of the Bluefin Tuna Species Group.

7. Work on Responses to the Commission.

The tentative plan beyond 2028 is as follows:

- **March 2028:** Panel 2 meeting, feedback on MP performance

- **April 2028:** Further refinement and tuning of MP with possible iterative online meetings for further development, if necessary

- **April-May 2028 (TBD):** Intersessional Meeting of the Bluefin Tuna Species Group

- **September 2028:** Finalize MP to present to Panel 2 for 2029-2031 TAC advice

- **October 2028:** Extra Panel 2 meeting to select MP and develop TAC advice (if necessary)

- **September 2029:** Revised EC protocols drafted

The Committee makes the following additional recommendations for workplan consideration.

- Catch and Size data

  - The Committee recommended that national scientists continue reviewing and compiling novel historical size data for BFT-W fisheries to consider for inclusion in the ICCAT databases following the standard procedure for historical data revisions adopted by the SCRS.

- Tagging

  - Based on the shift towards e-tagging, the Committee recommended a phase-out of the conventional tagging programme for BFT within GBYP. Tag rewards would continue to be honoured for tags still in the water and conventional tags would still be required on fish with internal tags.

- The Committee recommended all the e-tag data from the different tagging activities to be used in the MSE work to be provided to the Secretariat, and requested an inventory to identify any outstanding gap.

- Others

  - The Committee recommended the deadline on documents and presentations submission to be enforced by the Species Group Rapporteurs.

  - The Committee recommended to carry out an independent global review of the main research lines of activities developed within GBYP, including a cost analysis, inputs for the provision of advice and how the programme has contributed to improve bluefin tuna fisheries management.

  - The Committee noted the pilot study from EU-Croatia (Talijančić *et al.,* 2026 (SCRS/2026/222)) presented at the Species Group and suggested the consideration of some additional methodologies and data sources that would improve the overall robustness and results and recommended that the results are presented at the SCRS at the end of the study.

17.1.7 Sharks Workplan

The Shark Species Group (SSG) has recommended in previous years (Report of the 2023 Blue Shark Stock Assessment Meeting (Anon., 2023a), and Report of the 2025 Shortfin Mako Shark Data Preparatory Meeting (Anon., 2025a)), and included in the 2026 workplan, the importance of establishing Mediterranean sharks as a priority, given the uncertainties of the status of its stocks. Thus, the SSG planned for 2027 to conduct a stock assessment for blue shark in the Mediterranean and analyse available information on other species.

During 2027, the Sharks Species Group (SSG) will continue with the blue shark MSE process proposed in the MSE Roadmap.

In preparation for the planned stock assessment for Mediterranean blue shark in 2027, the Group will conduct the following activities:

- Hold a 5-day long hybrid data preparatory (DP) meeting, with interpretation (in March-April) to collate and analyse all the existing information required for shark stock assessment, using data through 2025. Plus, review MSE North and South Atlantic blue shark activities (see below).
- Hold a 5-day hybrid stock assessment meeting (in June-July, if possible with interpretation), using data through 2025. Plus, review MSE North and South Atlantic blue shark activities (see below).

The following tasks will be required for the Blue Shark Assessment:

Data Preparatory Meeting

Tasks related to Mediterranean Blue Shark Stock Assessment

- Review any new life history information for the Mediterranean Sea (including growth, maturity, natural mortality, and steepness). Definition of the parameters to be used in the stock assessment models.
- If possible, review the methods used to generate the intrinsic growth rate, steepness from life-history parameters.
- Compile the sex-specific length-composition data from for all relevant CPCs by January/February 2027.
- Review recent catch data focusing on landing, discards and live releases. If necessary, estimate discards to fill the gaps.
- CPCs provide standardized catch per unit effort (CPUE) series going through 2025 in the form of SCRS documents (at least one week before the Data Preparatory Meeting).
- Identify appropriate CPUE indices for use in blue shark stock assessment models.

- Discuss which models might be used for the stock assessment.
- National scientists and the ICCAT Secretariat to use observer data and other potential techniques to estimate historical catches of fleets with significant catches where that information is missing.

Tasks related to the North and South Atlantic blue shark MSEs

- Compile data (updated indices of abundance, catches, length-composition information) needed to condition/recondition OMs for northern and southern Atlantic BSH stocks using the same structure used in the last assessment. CPCs need to submit data up to 2025 by the 2027 Shark Data Preparatory meeting.
- Discuss and agree on the principal uncertainties to be considered in the OM.
- Review the pipeline (SCRS/2026/215, 216, and 217 Taylor, 2026a, b and c) as the platform for future work.
- Adopt a phased workplan with milestones for the technical sub-group.
- Adopt terms of reference for one sharks MSE subgroup (TWG) and the Species Group's MSE work
- If requested by the Commission explore possible approaches for taking into account fishery interactions between target and bycatch species (e.g. shortfin mako).

Mediterranean Blue Shark Stock Assessment Meeting

Related to assessment

- Provide a set of model diagnostics according to the best practices for stock assessment models and recommendation from the WGSAM.
- Consider stock assessment model scenarios that take into consideration the main uncertainties identified by the SSG.

Related to the North and South Atlantic blue shark MSEs

- Refine and expand the operating models (OMs) for the South Atlantic stock.
- Extend the endorsed pipeline to the North Atlantic stock.

Other meetings and activities

- Continue the activities of the Sharks Research and Data Collection Programme (SRDCP)
    - It was agreed by the Sharks Species Group to work in 2027 on the possibility of updating the feasibility study of CKMR for North Atlantic shortfin mako in 2028. To proceed with this, during 2027, the Sharks Species Group will contact national scientists that might have a possibility to sample North Atlantic stock shortfin mako, to evaluate the sampling numbers that could be achieved.
- Continue and/or expand participation in the SCRS Sub-group on Technical Gear Changes in order to participate in the tasks assigned to it (see the Second Report of the Sub-group on Technical Gear Changes (Anon., 2022f) and Coelho (2025)
    - The SSG will start in 2027 to analyze information presented in relation to the use of traplines and the capture of sharks. The experience and advances on this issue from the Swordfish Species Group and SC-ECO will be considered.
- Continue and/or expand participation in the SCRS Technical Sub-group on EMS in order to participate in the tasks assigned to it.

17.1.8 Small tunas Workplan for 2027 and beyond

This workplan foresees both short and long-term objectives (see specific timeframes below).

Progress on the biological studies of small tunas

***Background/objectives**:* The Small Tunas Year Programme (SMTYP) started in 2016-2017 with the initial aim of recovering SMT historical data (statistical and biological data) from the main ICCAT fishing areas, including the development of specific components of biological studies.

Leader/participation: The consortium led by BLUE IMPACT (Brazil) and coordinated by Rubén Muñoz-Lechuga (IEO/CSIC, EU-Spain) is available to continue coordinating the research activities developed within SMTYP in 2027.

Reproduction

Monthly sampling of gonads is essential for studying the reproductive biology of the different species in order to determine size at first maturity and the spawning season. Size frequencies of available sampled individuals have shown the absence of individuals of certain size classes during some months of the year, which can lead to significant bias in reproductive parameters estimations. It is therefore essential to maintain the monthly collection of gonadal samples on a regional scale, to fill these knowledge gaps. This activity, is lagging significantly, partially due to the high cost of purchasing whole individuals to get the gonads, but mostly due to the lack of capacity of local institutes to purchase the samples and get reimbursed after approval of provision of the samples.

The funds will go towards finalizing ongoing reproduction studies in the order of priority indicated below.

Priority: High priority - to conclude ongoing studies following the order of priority stated below and keep collecting monthly gonadal samples (for 1. LTA, 2. BON, 3. WAH, 4. BLT, 5. FRI) to fill knowledge gaps.

Timeframe: The reproduction studies on BON will be finalized by 2027 and the other ones will be finalized by 2029.

***Leader/participation**:* David Macías/Ricardo Borrego (IEO/CSIC, EU-Spain).

Age and growth

The collection of dorsal spines as the primary hard structure, along with otoliths, for LTA, BON, WAH, BLT and FRI, remains a top priority to close key knowledge gaps on small tuna age and growth. The situation for the different target species is as follows:

- LTA: In the NE Atlantic and Mediterranean, substantial number of samples are already available, with spines identified as the preferred structure. In the SE and SW Atlantic, additional samples, especially for larger fish, are still needed, which in the case of samples from southern Morocco and Mauritania should be genetically validated.
- BON: A reference set was presented in September 2026 for the NE Atlantic, with finalization expected by the end of 2026. Other regions still require additional spine sampling.
- WAH: Major discrepancies between spines and otoliths highlight the need for standardized processing and better-quality images before reference sets can be finalized.
- BLT and FRI: Processed samples exist (e.g. Portugal), but most of available material from other regions requires processing and genetic validation, and there are gaps on the provision of samples for larger individuals.

The collection of hard structures for growth studies should focus on filling size gaps and follow the order of priority: 1. BON (large samples and small samples), 2. LTA (large specimens to conclude studies in 2027), 3. WAH (small and large fish), 4. BLT and 5. FRI.

The budget will go also towards finalizing the current studies for all five species.

Priority: High priority - expand the collection of hard structures for BON and LTA in the South Atlantic, complement BLT and FRI sampling, and consolidate reference collections for BON, LTA, and WAH.

Timeframe: Final reference sets of hard structure images for BON, LTA, and WAH should be completed by 2026. For BLT and FRI they will be completed by 2027. The estimation of growth parameters for the remaining species should be completed by 2029.

Leader/participation*:* Rubén Muñoz-Lechuga (IEO/CSIC, EU-Spain).

Genetics

1. Conclude studies on LTA (highest priority) based on samples from southern Morocco and Mauritanian coast to determine the boundary between the stocks;
2. Collect and analyse samples for all species from previously unsurveyed areas, such as the Eastern Mediterranean, Southern Atlantic or the Gulf of Mexico (GOM), to investigate species structure across a broader spatial range;
3. In order to classify growth (hard structures) and reproduction (gonads) samples: i) continue studies on stock structure for FRI and BLT, ii) support work on genetic differentiation between these species.

Priority: High priority - to keep collecting tissue samples to fill knowledge gaps for LTA, FRI, and BLT to finalize the genetic studies.

Timeframe**:** The genetic studies on LTA, BLT and FRI shall be completed by the end of 2029.

Leader/participation*:* Jordi Viñas (University of Girona, EU-Spain).

Systematics and identification of species and stocks

Undertake a feasibility study to determine the requirements (financial, personnel, etc., sampling) for doing a morphometric and morphological comparison between fresh/frozen specimens of *Euthynnus alletteratus* from the Northeast Temperate Atlantic, the Southwest Atlantic, the Mediterranean Sea, and the eastern tropical Atlantic to assess if physical characters can be used to discriminate the two genetically different stocks.

The development of this photographic biometric method for fish could be applied to other species to confirm accurate identification, differentiate stocks across study areas, or analyze catch composition in cryptic species (e.g., *Auxis* spp.).

The identification of small tuna species using the biometric method requires particular attention due to the numerous misidentification errors observed across various CPCs.

Priority: Medium.

Timeframe: The feasibility study shall be completed by 2027. The creation of a subgroup will be proposed, in collaboration with different CPCs, to develop this biometric data collection activity, with specific training planned for 2028.

Leader/Participation: Igor Talijancic (EU-Croatia), Rubén Muñoz-Lechuga (IEO/CSIC, EU-Spain), Pedro Lino (IPMA, EU-Portugal).

Updating the biological meta-database

In 2016, the Small Tunas Species Group started gathering information to build up a biological meta-database. The Committee will continue updating this database as new biological information becomes available, also developing criteria for replacing existing parameters when available. Such information is then provided to update the SMT Executive Summaries and will eventually be used for both qualitative and quantitative assessments for the different species and stocks.

Priority: Medium priority

Timeframe**:** A SCRS paper/presentation will be presented annually to the Species Groups.

Leader/Participation: EU-Portugal, with collaboration of CPCs willing to participate, will continue to update the meta-database and provide updated information (in the form of SCRS papers or presentation) to the SMT Species Group. The updates will be presented on an annual basis. Dr Pedro G. Lino (EU-Portugal) and Dr Rubén Muñoz-Lechuga (EU-Spain) will be coordinating this activity.

Historical data collection and recovery

Data from the Northwest Atlantic are entirely absent from the small tuna species database. CPCs with historical data on small tunas are encouraged to provide this information to ICCAT. This study will be essential for improving the quality of existing statistical data. In addition, a contract should be issued to carry out additional data recovery activities in selected countries/regions.

Priority**:** High priority - CPCs with historical data on small tunas to provide this information to ICCAT. This study will be essential for improving the quality of the existing statistical data. In addition, a contract should be issued to perform additional data collection activities in selected countries/regions.

Timeframe: A SCRS paper/presentation will be presented to the 2027 Species Group meeting.

Leader/Participation: Freddy Arocha (Venezuela) and Manoj Shivlani (USA), in coordination with the Secretariat (Francisco Alemany).

Small tunas stock assessment

The overarching objective is to achieve a full stock assessment for at least one small tuna species by 2028, supported by standard biological and fisheries data. Building upon the outcomes of the 2024 Technical Capacity Building Course on the use of Data Limited Stock Assessment Methods for Small Tunas held from 10-13 September 2024 at the Secretariat, the Group recognizes the urgent need to strengthen age and growth studies (particularly for LTA, BON, BLT, and FRI).

In 2026, an expert subgroup on Data-Limited Assessment Methods applied a decision framework (SCRS/P/2026/098) to identify potential candidates for the first stock assessment of small tunas stock within ICCAT. This subgroup has identified eight stocks as primary candidates to be assessed by 2028 (SCRS/P/2026/102). The Committee also identified the development of standardized abundance indices for these eight stocks as top priority for 2027.

In 2027, the Group will hold a data preparatory meeting to evaluate the suitability of the available datasets and the standardized abundance indices developed for the candidate stocks for use in a stock assessment. The assessment is planned to be completed by 2028.

Priority**:** High priority.

Timeframe: Further online meetings will be carried out by the subgroup until early 2027. If during the 2027 intersessional meeting it is determined that a stock assessment meeting is feasible, then a stock assessment meeting should be held in 2028. The sub-group will aim to conduct a stock assessment of one small tuna species (single stock). The subgroup will report to the SMT Species Group in 2027.

Leader/Participation: Mariela Narváez (Venezuela), Eidi Kikuchi (Brazil), Ruben Muñoz-Lechuga (EU-Spain) and Pedro Lino (EU-Portugal)

Update Chapter 2 of the ICCAT Manual

Recent genetic studies have identified two groups within BON: Group 1 (Côte d'Ivoire, Senegal, Morocco) and Group 2 (EU-Portugal and EU-Spain, and Tunisia), with EU-Malta's position in relation to these groups still unclear. A distinction at the species level has also been confirmed between the northern LTA (EU-Portugal, Tunisia) and the southern LTA, with further analysis revealing heterogeneity between Senegal and Côte d'Ivoire, and minor differences between EU-Malta and the EU-Portugal and EU-Spain group. The inclusion of these findings in the ICCAT Manual should be done by a small group of experts in coordination with the Secretariat in 2027.

***Priority*:** High priority.

Intersessional Meeting of the Small Tunas Species Group in 2027

To schedule a three-day intersessional meeting with a hybrid format in 2027, aiming to discuss the data-limited methods to be applied for the selected stocks/species in 2028.

***Priority*:** High priority.

17.1.9 Swordfish Workplan

Stock assessments for the Mediterranean and South Atlantic swordfish stocks were conducted in 2026 (Anon., 2026l). An assessment for the North Atlantic stock was conducted in 2022 (Anon., 2022e and an MP was adopted in 2024 (Rec. 24-10 and 25-10). The Committee requested one three-day online, intersessional meetings of the Swordfish Species Group in 2027 in order to advance work on the following items:

Life history project:

- *Background/objectives:* An understanding of the species biology, including age, growth and reproductive parameters is crucial for the application of biologically realistic stock assessment models and, ultimately, for effective conservation and management. Given the current uncertainties that still exist in those biological parameters, the Committee recommended that more studies on swordfish life history are carried out. Those should be integrated with an ICCAT swordfish research plan that is provided in the recommendations with financial implications.
- *Priority:* High priority.

- *Leader/Participation:* A consortium led by EU-Portugal with participation from several CPCs.

- *Timeframe:* Started in 2018 and currently ongoing; there is a request for funds to continue work throughout 2029.

Work related with northern Management Strategy Evaluation (MSE):

- *Background/objectives:* Consistent with the MSE implementation roadmap adopted by the Commission, various components of the MSE framework are ongoing. These are outlined below and in the ICCAT MSE roadmap. Additional work is needed on the following:

    - robustness testing of the MP to climate change;
    - robustness testing of the MP to trapline use;
    - the implications of gear and/or operational changes in the calculation of the combined index used to apply the MP;
    - Following identification of an EC in 2026, the Committee has developed the following work plan:

        - The Combined Index of Abundance will be updated to include an additional year of data, and model assumptions will be evaluated (by January 2027).
        - To evaluate whether the Combined Index of Abundance is consistent with other sources of catch rate information, the Committee requests that CPCs contributing CPUE indices to the N-SWO operating models update their standardized indices through 2025 (by April 2027).

  - The Committee will compare CPC-provided CPUE trends with the Combined Index of Abundance. If the CPUE indices and the Combined Index show broadly consistent abundance trends, the MP will be run to generate catch advice for the next management cycle. If substantial inconsistencies are identified, the Committee will provide guidance on the continued application of the MP.
  - Work on the MSE review will begin in 2028, and the results will be delivered to the Commission in 2030, as previously scheduled. The review will include reconditioning of the operating models, evaluation of model assumptions, and assessment of MP performance.

- *Priority:* High priority.

- *Leader/Participation:* MSE contractor; core MSE technical team.

- *Timeframe:* Ongoing (see ICCAT MSE Roadmap in **Appendix 7**).

Pop-up Satellite Archival Tag (PSAT) deployment and tag data request for joint analyses:

- *Background/objectives:* The Committee has identified priority locations for deployment of PSATs in the Atlantic. For 2027, the priority area will be the stock mixing area in the Northeast Atlantic. Deploying PSATs in these locations will support ongoing work on stock structure and mixing, identification of spawning areas, and work on habitat suitability which is incorporated into catch per unit effort (CPUE) standardization and Climate Change related advice. The Committee continues to encourage all CPCs to provide their swordfish PSAT tag data to the ad hoc study group. As a minimum, the data should include the temperature and depth by hour, date and one-degree latitude*longitude square. This will contribute to support the improvement of CPUE standardization through the removal of environmental effects as well as the better definition of stock boundaries. Collection of tissue samples from tagged fish may be integrated into the broader SWOYP program.
- *Priority:* High priority.
- *Leader/Participation:* Led by the EU-Portugal and Canada, with the participation of CPCs with PSAT data.
- *Timeframe:* Started in 2018, ongoing to date; to continue in 2027.

Continuing work on environmental effects:

- *Background/objectives:* Given the possibility of spatial and environmental effects being partially responsible for the conflicting trends of some of the influential indices of abundance, the Committee should further study this hypothesis during the coming years, use existing PSAT data to compliment this work, and determine how best to formally include these environmental covariates into the overall assessment process. The United States has taken a lead role in this investigation and likely collaborators could include scientists from Canada, Japan, and the EU (Spain and Portugal) as their indices of abundance are the most appropriate for this work. Expected deliverables would include quantified reduction in the conflicting indices of abundance from the temperate and tropic regions, which in turn should lead to a more stable stock assessment. Other products could include an increased understanding of the distribution of swordfish and perhaps a revisiting of the geographic structure of the data and the assessment. This work should be expanded to include the Mediterranean. Given projected Climate Change effects, the Group will explore future scenarios with updated data sources. This will support MSE work on development of robust climate advice.
- *Priority:* High priority.
- *Leader/Participation:* TBD, with participation of SC-ECO, and other CPCs.
- *Timeframe:* Ongoing, to be considered at the next stock assessment.

Application of methods to estimate dead discarding of swordfish in ICCAT fisheries:

- *Background/objectives:* The Committee continued to note that dead discard reporting for all three swordfish stocks is poor. As such, the Committee noted the importance of applying dead discard estimation analyses (e.g. Bycatch Estimator Tool (BYET) developed at the WGSAM) to swordfish stocks. The Committee will work with national scientists to implement and evaluate discard estimation procedures for major swordfish fleets.
- *Priority:* High priority.
- *Leader/Participation:* WGSAM, CPC scientists.
- *Timeframe:* Ongoing, to continue in 2027.

Revise and update conversions for the swordfish stocks:

- *Background/objectives:* The Swordfish Species Group recognized the need to develop conversions for new dressed formats and that the conversions provided on the ICCAT website may be incomplete or out of date and need to be updated.

- *Priority:* Medium priority.

- *Leader/Participation:* Secretariat/Rapporteur.

- *Timeframe:* 2027

Assess use of trapline gear

- *Background/objectives*: The Committee noted the growing use of trapline gear in the Atlantic and Mediterranean. The Committee considered new studies by ICCAT CPCs. Early evidence suggests that catchability, selectivity, and bycatch for this gear differ from typical longline gear. The objective of this work is to identify when and where this gear type has been widely used and then update catch and effort records, with a view to estimating CPUE calibration coefficients or developing new CPUE series.

- *Priority:* High priority.

- *Leader/Participation:* Led by the SWO SG Coordinator with participation from other CPCs.

- *Timeframe:* 2027/2028

17.1.10 Tropical tunas Workplan

Eastern skipjack tuna stock assessment

The Committee proposed holding an assessment for eastern skipjack in 2027 with two intersessional hybrid meetings with interpretation, a data preparatory meeting (four days, March-April), and a stock assessment meeting (five days, June-July).

The Committee proposed that the assessment of the eastern stock of Atlantic skipjack tuna continues to use a Stock Synthesis (SS) model and recommended that 2025 be used as the terminal year.

Noting the importance of relative abundance indices in stock assessment, the Committee recommended that various relative abundance indices be prepared for the 2027 skipjack stock assessment meeting:

- PS CPUE index, that should provide additional information on the components of FOB/FAD fishing effort (including number of FAD deployments, operational FOB/FAD buoys, FOB/FAD fishing sets) and the relationship between these components.
- PS acoustic buoy index.
- BB CPUE indices for eastern Atlantic BB fisheries. The Group noted that some BB CPUE indices have been prepared in the past by the Secretariat and encouraged national scientists to provide BB CPUE indices for the assessment.

In spite of noting that the relative contribution of longline fisheries to skipjack catches is generally low, the Committee encourages national scientists from CPCs with significant skipjack catches, to estimate relative abundance indices from LL CPUE data. The Committee also recommended that alternative CPUE standardization methods are explored, in particular for purse seine and baitboat CPUE indices.

The Committee noted that any new information on age, growth and reproduction (including updates derived from programmes like the Atlantic Ocean Tropical tuna Tagging Programme (AOTTP) or the ITUNNES-ICCAT be prepared ahead of the 2027 skipjack data preparatory meeting.

Management Strategy Evaluation (MSE)

The Committee will continue to support the development and implementation of the multi-stock and western skipjack MSE. Continued development of these MSEs is enhanced by the ability of all members of the Committee to have a basic understanding of the MSE processes and to contribute to technical aspects of these.

The technical MSE subgroup should meet regularly online to follow up the Group's recommendations. It is proposed that the SCRS develop ToRs for this subgroup in 2027.

Multi-stock MSE

The workplan for the multi-stock MSE includes the following activities:

On the MSE technical development:

- Investigate fleet's ability to adapt to catch limits of one stock (e.g. bigeye) [January 2027]
- Evaluate the bigeye and yellowfin stock components of the multi-stock MSE [January 2027]
- Provide a comparison of CMP results of the methodology of resampling of historical indices (current practices used in the MSE) and fixed historical indices to explore how this impacts performance metrics requested by the Commission [April 2027]
- Demonstrate that performance metric results are stable with the current specifications of one simulation per operating model, explore increasing simulations if necessary [July 2027]
- Develop a preliminary multi-stock MSE framework with CMPs for bigeye and yellowfin to illustrate the "choke species" effect and technical interactions. (Similar work including skipjack will be undertaken in 2028) [July 2027]
- Re-condition the eastern skipjack Operating Models (OMs) from an updated preliminary stock assessment for this stock [September 2027]
- Evaluate alternative Management Procedures (MPs) and combinations for yellowfin and bigeye tuna (similar work including skipjack will be undertaken in 2028) [September 2027]
- Shiny and graphical outputs (updated results exploration and communication/engagement products) [Ongoing]
- Trial specification document (updated information on the MSE, conditioning, technical interaction model and preliminary results) [Ongoing]

On the communication and dialogue with managers:

The Committee will increase dialogue with Panel 1 via both intersessional and ambassador meetings to inform them of progress, plans, and preliminary results for the single and multi-stock MSEs for tropical tunas, as well as to gather feedback and guidance on how to proceed.

SKJ-W MSE

Throughout 2026, work conducted under the western skipjack MSE focused on the conceptual and technical development of the Exceptional Circumstances Protocol (ECP). If the Commission adopts the ECP in 2026, the next phase will focus on the operational implementation of the protocol and the routine monitoring of the indicators defined therein. The main activities will include:

- Updating catch data and abundance indices;
- Consolidating and updating the indicators comprising the protocol;

- Evaluating indicator performance in relation to their associated trigger points; and
- Reporting the status of the indicators to the SCRS and, subsequently, to the Commission.

Improvement of biological parameters

The Committee will continue to support activities related to the AOTTP programme and the continuation of the analysis of the AOTTP data. These activities will provide data on recaptured tagged fish, and reporting rates of tagged fish through seeding experiments. The work will be focused on the monitoring of recaptured fish and tag seeding in West Africa.

Biological parameters of all tropical tuna stocks continue to have large associated uncertainty, and in particular those related to growth models and ageing. To support the development of future tropical tuna stock assessments, and building on recommendations from the ITUNNES/ICCAT Workshop, Correa *et al.,* (in press) (SCRS/2026/188) examined the key elements to consider and priorities when updating life history parameters. The authors highlight that growth and maturity assumptions are fundamental drivers of estimates of biomass, natural mortality, spawning stock biomass and management reference points, yet current assessments are often limited by inconsistent sampling, ageing uncertainty, spatial variability and differing modelling approaches across tuna Regional Fisheries Management Organization (RFMOs).

The authors reviewed the use of different data sources concluding that age and biological data can significantly improve assessments when properly validated and harmonised.

Key recommendations from this work include:

- Development of common standards for ageing and maturity determination;
- undertake inter-laboratory calibration and validation exercises;
- harmonise eastern and western Atlantic datasets;
- explicitly quantify uncertainty and systematically compare alternative growth and maturity assumptions before incorporating them into future ICCAT assessments.

For yellowfin and bigeye tuna, the next step is to evaluate whether regional age datasets can be combined to support Atlantic-wide growth models (results from this evaluation are expected at the end of 2026). For skipjack tuna the priority remains validation and standardisation of ageing methods before this information can be used in assessments. In 2026, the Tropical Tuna Research and Data Collection Programme (TTRaD) supported a project to undertake bomb radiocarbon age validation work for skipjack tuna. Funds are requested to continue this project into 2027, with an aim to finalise this work at the end of the year.

In addition to skipjack age validation, the program plans to undertake routine biological sampling (e.g., gonads) of tunas with an ambitious aim to update reproductive parameters every 5 years (using histology or other alternative appropriate techniques). For the three species of Atlantic tropical tunas, reproductive parameters were updated in 1986 for skipjack tuna (Cayre & Farrugio, 1986), 2002 for bigeye tuna (Matsumoto & Miyabe, 2002) and 2016 for yellowfin tuna (Diaha *et al.*, 2016). Therefore, skipjack tuna and bigeye tuna reproductive parameter updates are prioritised for 2027. To support the development of novel approaches that have the potential to be less demanding in terms of time and cost, the TTRaD aims to undertake a feasibility study to explore the use of genetic markers to estimate maturity for bigeye tuna and skipjack tuna.

In 2027, the group has also requested that feasibility studies be undertaken to improve age estimation (using epigenetics) and to explore the development of non-invasive maturity assessment. Genetic analysis can be used to improve ageing estimation. Traditionally, age is predicted by counting increments in otoliths or other hard parts. Recent studies have shown in a wide variety of vertebrate species that age can be predicted using DNA epigenetics. The Group requested that a scoping be undertaken to assess the feasibility of developing a DNA-based method to predict age from muscle tissue of tropical tuna species.

The scoping will require a feasibility and costing in year 1 with an aim to identify the most appropriate species and number of samples required. In year 2 to 4, hard part and tissue samples will be collected, shipped and processed for the selected species. Initial estimates of costs for years 2 to 4 include sample collection and shipment, processing of hard part samples and processing of genetic samples.

Population parameters

In 2027, the TTRaD recommends exploring the utility of close-kin mark recapture (CKMR) as an approach to support estimation of abundance and other important population parameters for tropical tuna. The aim of the work would be to scope the potential application of CKMR approach to tropical tuna stocks in the Atlantic including a review of concepts, technical considerations, current tropical tuna sampling programs in the Atlantic, and recommendation on the design of a pilot study to determine the feasibility of the approach for the different stocks.

Ad hoc Group on Statistics

Document Mayor *et al.,* (in press) (SCRS/2026/226) presented an update on progress in the ad hoc group of tropical tuna statistics during 2026. This group was set up to explore trends in the proportion of bigeye tuna in the purse seine FAD catches reported to ICCAT.

Next steps for this group are summarized below:

- CPCs should review and, where necessary, revise their historical tropical tuna statistical series from 1991 onwards, with particular attention to:

    - Task 1 Nominal Catches (T1NC);
    - Task 2 Catch and Effort (T2CE);
    - Task 2 Size data (T2SZ); and
    - Task 2 Catch-at-Size (T2CS) (optional).

Priority should be given to fleets and periods showing discontinuities, abrupt changes in species composition, incomplete series, or inconsistencies among datasets. Date of achievement: May 2027.

- Assess consistency across the different statistical datasets, particularly between T1NC, T2CE, T2SZ and T2CS, and identify whether anomalous patterns in catch composition can be traced to changes in data coverage, reporting, disaggregation or processing. This is particularly relevant for catch distribution (CATDIS), as its spatial and temporal distribution depends on T2CE, whose coverage and representativeness vary among fleets and years. Date of achievement: July 2027.

- Conduct finer-scale spatial and temporal analyses of FAD-associated catch composition, using the highest spatial and temporal resolution supported by the available Task 2 data. The current analysis indicates that broad geographical shifts alone do not explain the differences among fleets and that relevant changes may occur at finer spatial or temporal scales than those considered in the present analysis. Date of achievement: September 2027.

- Investigate the origin of differences among fleets operating in overlapping areas, particularly where fleets exploiting broadly similar fishing grounds show markedly different trends in the contribution of bigeye tuna. The current analysis shows that substantial spatial overlap among fleets does not necessarily result in similar temporal patterns in BET. Date of achievement: May 2028.

- Following the statistical review, investigate potential operational factors that could explain the remaining patterns, including changes in fishing strategies and practices. This analysis should focus on patterns that remain sufficiently robust after the consistency and quality of the underlying statistical series have been assessed, before attributing observed changes to biological or operational processes. Date of achievement: May 2028.

Other activities

The Committee highlighted other proposed work areas within the Tropical Tunas Species Group that should be explored or addressed in the coming years:

1. The Committee considers that compliance with reporting of ST01-T1FC data needs improvement in terms of timeliness and accuracy to facilitate the routine estimation of fishing capacity. CPCs are also encouraged to present to the Tropical Tunas Species Group information focused on any recent changes that might have occurred in their respective fisheries.

2. CPCs with purse seine tropical fisheries should aim to provide to the SCRS a summary of the current methodology used for the sampling, data processing and model estimation of the total catch, catch composition and size sampling by species from purse seine fishing operations. This summary can be provided as an SCRS document to the Tropical Tunas Species Group.

3. It is recommended that the Tropical Tunas Species Group continue the spatial-temporal modelling of catch, effort, catch composition and catch rates at high resolution in collaboration with national scientist in order to produce best scientific estimates of catch of tropical tunas, by stock, stock assessment fishery, fishing mode, and quarter, for purse seine ETRO fisheries. These analyses should consider validation of error model distributions with analysis of variograms, trends in spatial directions, before exploring potential variables that could explain variability of catch rates, or catch composition including, seasonal-area factors, environmental and oceanography variables, as well as management measures impacts.

4. There is limited information on the causes of recent catch trends of yellowfin and bigeye between 2024 and 2025, with a reported decrease in catch of yellowfin tuna of 27% and a decrease in catches of bigeye tuna of 3%. The Committee recommends that CPC scientists provide fishery indicators for tropical tunas (BET, YFT, SKJ), to evaluate catch and relative abundance trends during the proposed data preparatory meeting (19-22 April 2027, Hybrid, Madrid (Spain).

17.2 Intersessional meetings proposed for 2027

Given the current resources of the ICCAT Secretariat and existing levels of support from CPCs in terms of the participation of scientists, the Committee is limited in the number of formal SCRS meetings that can be conducted each year. This calendar reflects the priorities identified by the Committee for intersessional work requiring formal meetings to be carried out in 2027. The SCRS will also conduct numerous informal meetings not reflected in the calendar. The formal meetings include:

Stock assessments:

1) Sharks

The Shark Species Group (SSG) has emphasized in previous years (Report of the 2025 Shortfin Mako Data Preparatory Meeting Report (Anon., 2025a); Report of the 2023 Blue Shark Stock Assessment (Anon., 2023d), and reiterated in its 2026 workplan, the need to prioritize sharks in the Mediterranean, given the considerable uncertainty surrounding the status of their stocks. Accordingly, the Committee plans to conduct a stock assessment of BSH-MD in 2027, while also reviewing and analyzing available information for other shark species in the region. In parallel, the Committee will continue the MSE process for BSH-N and BSH-S according to the MSE Roadmap. To support these activities, the Committee proposes holding a 5-day hybrid data preparatory meeting with interpretation to compile, review, and analyze the information required for the BSH-MD assessment, assess available information on other shark species, and review progress on MSE activities. A 5-day hybrid BSH-MD stock assessment meeting will also be held, which will review the activities of the two blue shark MSEs.

2) Tropical tunas

SKJ-E was last assessed in 2022 using data through 2020 (Report of the 2022 Skipjack Stock Assessment Meeting (Anon., 2022d)). A new stock assessment (one data preparatory and one assessment meeting) will be conducted using a Bayesian surplus production model (JABBA) and a statistically integrated assessment model (Stock Synthesis). Results can provide current management advice and the Stock Synthesis models can potentially form the basis for OMs in MSE reconditioning.

Other intersessional meetings:

1) Small Tunas

SMT data preparatory meeting (hybrid, 3 days): The Group has selected the candidate stocks for a first attempt at assessing an small tunas stock within ICCAT. A data preparatory meeting in 2027 will give the Group the opportunity to discuss stock boundaries for the selected stocks, work on and agree upon the available data, review abundance indices, and discuss the biological parameters and models to use in this first attempt. The assessment meeting should be held in 2028.

2) Billfish

The Billfish Species Group should hold an online intersessional meeting to discuss mainly matters related to reported statistics, aiming scheduling the next stock assessments of billfish species.

3) Bluefin tuna

The Committee plans two intersessional meetings of the Bluefin Species Group in 2027, as part of the MP review process called for in Rec. 23-07:

1) 1st intersessional meeting with a focus on MSE, to be held in two sessions of 2 days each, with an online format and without interpretation.

2) 2nd intersessional meeting focusing mostly on the MSE review, for 4 days with a hybrid format and without interpretation.

4) Albacore

The Albacore Species Group will advance work on the ALB-S MSE. For that purpose, it will hold two 1-day online meetings in 2027.

5) Swordfish

The Swordfish Species Group requested one three-day online intersessional meeting of the Swordfish Species Group in 2027, without interpretation, in order to advance work on SWO-N MSE, discards, and ongoing biology studies.

6) Working Group on Stock Assessment Methods annual meeting.

7) Subcommittee on Ecosystems and Bycatch annual meeting.

Table 17.2.1 The table below summarizes the SCRS meetings scheduled for 2027.

Tentative date	*No. days*	*Meeting*	*Format and Location*	*Interpretation*
17 February/March	1	1st Intersessional Meeting of the Albacore Species Group on ALB-S MSE	Online*	NO
23-25 February	3	Small Tunas Data Preparatory Meeting	Hybrid, Málaga, Spain	NO
9-11 March	3	Intersessional Meeting of Billfish Species Group	Online*	YES
15-19 March	5	Sharks BSH-MD Data Preparatory Meeting (including BSH-N and S MSE)	Hybrid,TBD (EU)	YES
5-8 April	4	Eastern Skipjack Data Preparatory Meeting (including MSE)	Hybrid, Madrid (Spain)	YES
14-15 April	2	1st Intersessional Meeting of the Bluefin Tuna Species Group	Online*	NO
20-22 April	3	Intersessional Meeting of the Swordfish Species Group	Online*	NO
12-13 May	2	(Continue) 1st Intersessional Meeting of the Bluefin Tuna Species Group	Online*	NO
18-21 May	4	Meeting of Working Group on Stock Assessment Methods	Hybrid, Madrid (Spain)	NO
24-28 May	5	Meeting of Subcommittee on Ecosystems and Bycatch	Hybrid, Madrid (Spain)	YES
7 June	1	2nd Intersessional Meeting of the Albacore Species Group ALB-S MSE	Online*	NO
14-18 June	5	Sharks BSH-MD Stock Assessment Meeting (including BSH-N and S MSE)	Hybrid, TBD (EU)	YES
21-25 June	5	Second Intersessional Meeting of the Bluefin Tuna Species Group	Hybrid, TBC (Croatia)	NO
5-9 July	5	Eastern Skipjack Stock Assessment Meeting (including MSE)	Hybrid, Madrid (Spain)	YES
20-25 September	6	Species Groups and Subcommittee on Statistics Meetings	Hybrid, Madrid (Spain)	YES
27 Sept-1 October	5	SCRS Plenary Meeting	Hybrid, Madrid (Spain)	YES

* ICCAT online meetings will follow the usual working hours of ICCAT online meetings and may be adjusted based on the agendas and time differences between CPCs and their expected participation.

The September **Species Group Meetings** and the **SCRS Plenary** are also shown in the SCRS tentative calendar below.

SCRS draft calendar for 2027 / Projet de calendrier du SCRS pour 2027 / Proyecto de calendario del SCRS para 2027

2027	FRI VEN VIE	SAT SAM SAB	SUN DIM DOM	MON LUN LUN	TUE MAR MAR	WED MER MIE	THU JEU JUE	FRI VEN VIE	SAT SAM SAB	SUN DIM DOM	MON LUN LUN	TUE MAR MAR	WED MER MIE	THU JEU JUE	FRI VEN VIE	SAT SAM SAB	SUN DIM DOM	MON LUN LUN	TUE MAR MAR	WED MER MIE	THU JEU JUE	FRI VEN VIE	SAT SAM SAB	SUN DIM DOM	MON LUN LUN	TUE MAR MAR	WED MER MIE	THU JEU JUE	FRI VEN VIE	SAT SAM SAB	SUN DIM DOM	MON LUN LUN	TUE MAR MAR	WED MER MIE	THU JEU JUE	FRI VEN VIE	SAT SAM SAB	SUN DIM DOM
January Janvier Enero	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31								
February Février Febrero				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17 ALB SG MSE	18	19	20	21	22	23	24	25	26	27	28								
March Mars Marzo				1	2	3	4	5	6	7	8	9 Billfish SG intersessesional	10	11	12	13	14	15 Mediterranean Blue Shark Data Preparatory + MSE	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31					
April Avril Abril							1	2	3	4	5 Eastern Skipjack Data Prep. + MSE	6	7	8	9	10	11	12	13	14 1st Inters. BFT (I)	15	16	17	18	19	20 Swordfish SG intersessesional	21	22	23	24	25	26	27	28	29	30		
May Mai Mayo		1	2	3	4	5	6	7	8	9	10	11	12 1st Inters. BFT (II)	13	14	15	16	17	18 WGSAM	19	20	21	22	23	24 SC-ECO	25	26	27	28	29	30	31						
June Juin Junio					1	2	3	4	5	6	7 ALB SG MSE	8	9	10	11	12	13	14 Mediterranean Blue Shark Stock Assessment + MSE	15	16	17	18	19	20	21 2nd Intersessional BFT	22	23	24	25	26	27	28	29	30				
July Juillet Julio							1	2	3	4	5 Eastern Skipjack Stock Assessment + MSE	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
August Août Agosto			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31					
September Septembre Septiembre						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			
October Octobre Octubre	1 SCRS	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31							
November Novembre Noviembre				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30					
December Décembre Diciembre						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		

Species Groups + SC-STAT

SCRS Plenary

Free day in ICCAT
Jour libre à l'ICCAT
Día libre en ICCAT

Online meeting
Réunion en ligne
Reunión en línea

Secretariat meeting preparation/holidays
Préparation des réunions du Secrétariat/vacances
Preparación de las reuniones de la Secretaría/vacaciones

17.3 Date and place of the next meeting of the SCRS

The next meeting of the Standing Committee on Research and Statistics (SCRS) is planned for 27 September to 1 October 2027, the Species Groups meetings from 20 to 25 September 2027 and the Subcommittee on Statistics on 25 (afternoon session) and 26 September 2027. These meetings will be held in Madrid (Spain) and be in a hybrid format.

18. General recommendations to the Commission

18.1 General recommendations to the Commission that have financial implications

Management Strategy Evaluation (MSE) Technical Coordinator

The Committee recommends the Commission increase the capacity of the Secretariat by creating a full-time position entitled "MSE Technical Coordinator". This permanent position at the Secretariat would specifically work across Species Groups to coordinate and facilitate the development and provide technical support for the MSE processes developed within ICCAT. This would allow for a single point of contact on all MSE development and MP implementation, consistency across time and efforts, and reduced workload for other scientists and Secretariat staff. The participation of this MSE expert in the development of MSEs and testing of Management Procedures (MPs) would also serve to address in part the unevenness in MSE knowledge and experience across the various Working Groups of the SCRS. The position's responsibilities would include:

- Develop or keep up to date the workplan for each MSE process in collaboration with the associated SCRS Species Groups and Commission Panels;
- Identify areas for and facilitate synergies and consistencies, as relevant, between the various MSEs the Commission undertakes (including how results are presented, how objectives are framed, how adopted MPs are reviewed/updated/checked for Exceptional Circumstances (ECs), etc.);

- When tasked by the SCRS and/or Commission:

    - provide technical expertise in support of SCRS scientists in developing, completing and coding MSE work in collaboration with experts in charge; Support the technical work of the Species Groups with MP reviews/updates and EC checks; and, provide an initial overview, to the SCRS and/or the Commission on what an MSE process might look like for a given stock.

The Commission currently has implemented 4 MPs based on MSE (ALB-N, BFT, SWO-N, SKJ-W). Other MSE processes are underway (tropical tuna multi-stock MSE, blue shark South and North MSEs, South albacore MSE). The Committee views that there could be significant reductions in the SCRS budget related to MSE activities if this "MSE Technical Coordinator" permanent position is created within the Secretariat; the below table highlights the current estimates within the SCRS budgets dedicated to MSE activities.

Table of current MSEs that the Committee has included in their budget for 2027, in euros.

MSEs with adopted MPs	**2027**	**2028**	**2029**
ALB-N	35,000	35,000	35,000
BFT	100,000	80,000	80,000
SWO-N	30,000	5,000	15,000
SKJ-W	12,000	---	---
TRO MSE communication	---	12,000	12,000
Sub-total	***177,000***	***132,000***	***142,000***
MSEs underway			
TRO multi-stock	50,000	50,000	20,000
BSH-N and BSH-S	60,000	60,000	60,000
ALB-S*	---	35,000	35,000
Sub-total	***110,000***	***145,000***	***115,000***
TOTAL	**287,000**	**277,000**	**257,000**

*This process has external funding to support the work in 2026 and 2027.

The breakdown of the funds (in euros) requested related to the MSE Technical Coordinator position for the next two biennials periods (2026/2027 and 2028/2029) is detailed in the table below:

Secretariat	*2027*	*2028*	*2029*	*Explanations*
MSE Technical Coordinator	169,578	172,970	172,970	Coordination and technical support for ICCAT MSE processes

18.1.1 Subcommittee on Ecosystems and Bycatch

Pertaining to Ecosystems

The Subcommittee recommended organizing a workshop in 2027 to continue supporting the development of EcoCards, with a particular focus on advancing environmental and climate indicators. The workshop aims to discuss ongoing work assessing the impacts of environmental and climate variability on relevant ecological processes affecting large pelagic fish populations, and to explore how these indicators could be better linked to support stock assessment, Management Strategy Evaluation (MSE), and other ecosystem-based tools and advisory products within ICCAT.

Date: 1st quarter of 2027.

The breakdown of the funds (in Euros) requested related to Subcommittee on Ecosystems and Bycatch for 2027 and the next biennial period is detailed in the table below (a breakdown of the requested funding and associated activities for 2028/2029 will be provided in 2027):

SC-Ecosystems & Bycatch	*2027*	*2028*	*2029*	*Explanations*
Workshops/meetings				
Workshop on ECOcard	21,575			Objective is to advance the work on different aspects of the EcoCard in 2027. Funding aims for the attendance of up to 11 experts at the 5-day workshop.
Subtotal	**21,575**	**0**	**0**	
Science coordination	1,205			The amount related to science coordination was estimated by the Secretariat as a proportion of the SC-ECO total budget in relation to the overall science budget (GBYP excluded). Total coordination costs estimated €60,000 in 2027.
TOTAL	**22,780**	**0**	**0**	

18.1.2 Subcommittee on Statistics

- *Continue Phase II and III of the ICCAT Regional Caribbean Data Collection Project* - The Committee recommended continuing supporting Phase II of the ICCAT Regional Caribbean Data Collection Project.

- *Cloud infrastructure* - Considering the need for further developments (following the feedback provided by CPCs and the SCRS), as well as the necessity to deploy the new public data dissemination applications on a dedicated cloud infrastructure, the Committee recommended that additional funds be set aside specifically for these purposes.

The breakdown of the funds (in euros) requested related to Subcommittee on Statistics for 2027 and the next biennial period (2028/2029) is detailed in the table below (a breakdown of additional requested fund and associated activities for 2028/2029 will be provided in 2027):

SC-STAT	*2027*	*2028*	*2029*	*Explanations*
Other fisheries related studies				
Continue Phase II and III of Caribbean Project	37,500			The project aims to improve reporting and data analysis of fishery data of fleets capturing blue marlin and yellowfin tuna in the region. The U.S. has already committed to fully fund this activity, which shall be concluded in 2027.
Cloud infrastructure	4,500	4,500	4,500	Monthly renting of cloud servers with the required software, with potential to scale it up as required.
Subtotal	**42,000**	**4,500**	**4,500**	
Science coordination	2,346	243	285	The amount related to science coordination was estimated by the Secretariat as a proportion of the SC-STAT total budget in relation to the overall science budget (GBYP excluded). Total coordination costs estimated at €60,000 in 2027.
TOTAL	**44,346**	**4,743**	**4,785**	

18.1.3 Albacore

The Committee recommended continued funding of the Albacore Year Programme (ALBYP) for the North Atlantic, South Atlantic and Mediterranean stocks. For 2027, research on the North and South albacore stocks will be focused on biology and ecology and MSE. In the South Atlantic, funds for biology and tagging studies are required until 2027. Funds for southern MSE will be required after 2027. In the North Atlantic, archival tagging and MSE work will continue, and a new joint surface index of abundance for the Northeast Atlantic will be elaborated (in 2028).

The following list of activities are set by order of priority from highest to lowest:

- MSE development (North and South)
- Biological studies (finalize reproductive and aging studies in South)
- Development of a "Joint Northeast Atlantic juvenile index"
- E-tagging (North)
- E-tagging (South)

The breakdown of the funds (in euros) requested related to albacore for 2027 is detailed in the table below, together with tentative estimates for the next biennial period (2028/2029):

Albacore (ALBYP)	*2027*	*2028*	*2029*	*Explanations*
Tagging				
Tags (ALB-S)	6,000			There are 11 tags available from previous years. Only one additional PSAT will be purchased,
Tags (ALB-N)	7,680	7,680	7,680	Purchase ~12 internal archival tags per year. Western Atlantic priority.
Rewarding, awareness, satellite and tagging material	2,560			Rewards for recoveries, satellite, tagging material associated to PSATs deployed.
Rewarding, awareness, geolocation and tagging material	6,936	6,936	6,936	Rewards for recoveries, geolocation, tagging material associated to internal archival tags deployed.
Tagging campaign (ALB-N)	9,000	9,000	9,000	Cost of the fish and charters.
Tagging campaign (ALB-S)	14,000			Cost for controlled fishing operations on commercial longline vessels.
Biological studies:				
Reproduction (ALB-S)	12,500			Further processing and analysis of additional samples from the South Atlantic, aiming the conclusion of the reproductive biology study by 2027.
Other fisheries related studies				
Joint index of abundance juvenile (NE ALB)		25,000		Joint NE Atlantic juvenile albacore index of abundance prior to next benchmark assessment. Expert for data analysis and meetings with data providers.
Modelling:				
ALB-N MSE	35,000	35,000	35,000	Implement the ICCAT MSE roadmap and workplan.
ALB-S MSE		35,000	35,000	Implement the ICCAT MSE roadmap. External funding for 2026-2027 is already secured.
Subtotal	**93,676**	**118,616**	**93,616**	
Science coordination	5,233	6,418	5,925	The amount related to science coordination was estimated by the Secretariat as a proportion of the ALBYP total budget in relation to the overall science budget (GBYP excluded). Total coordination costs estimated at €60,000 in 2027.
TOTAL	**98,909**	**125,034**	**99,541**	

18.1.4 Billfishes

The Committee recommends continued funding of the Enhanced Programme for Billfish Research (EPBR), including the main activities related to age and growth, age validation, and tagging.

During the period 2027-2029, research will be focused on the following areas, by order of priority:

- Continue the ageing and growth studies of the three priority billfish species in the eastern Atlantic (blue marlin (BUM), white marlin (WHM), sailfish (SFA)). This recommendation addresses item Rec. 19-05, para 19. The age validation through bomb radiocarbon and growth model analysis will continue. Ageing and growth studies for blue marlin, sailfish and white marlin will be completed by 2029.

- Continue the e-tagging of the three priority billfishes (blue marlin, white marlin and sailfish). Priority area for 2027 is the temperate NE Atlantic, while opportunistic tagging is to be carried out in other areas of the eastern Atlantic. The Committee should evaluate the priority areas for 2028/2029 based on scientific needs.

- In addition, the Committee recommended that research aimed at improving the basic biological data and population dynamics information for roundscale spearfish to be discussed throughout 2027 and 2028, for possible inclusion in future EPBR activities. This recommendation aims to evaluate the current assumption that the biological and population parameters of roundscale spearfish do not differ significantly from those of white marlin, and therefore do not justify a separate assessment.

The breakdown of the funds (in euros) requested related to billfishes for 2027 is detailed in the table below, together with tentative estimates for the next biennial period (2028/2029):

Billfishes (EPBR)	***2027***	***2028***	***2029***	***Explanations***
Tagging				
Tags	22,200	22,200	22,200	Acquisition of miniPAT tags for the tagging campaign and opportunistic tagging (from other ICCAT tagging campaigns).
Rewarding, awareness, satellite and tagging material	2,700	2,700	2,700	Rewarding, e-tags related services of data transmission (satellite) and tagging material.
Tagging campaign	10,000	10,000	10,000	Main priority area is the NE Atlantic (southern Portugal) with dedicated tagging campaigns. The Committee will evaluate the priority areas in 2027 for next biennial period.
Biological studies:				
Age and growth	42,000	42,000	37,500	The plans from 2027 and beyond include: continue processing new samples; analyse current and new data; continue the development and/or complete the age and growth models. The annual costs related to age and growth include: processing and analysis (€17,000) and age validation (€25,000). Specifically, for age validation (bomb-radiocarbon), age validation for white marlin was started in 2026 and is expected to be completed by 2028 followed by sailfish in 2028-2030.
Sample collection and shipping	7,000	7,000	7,000	Additional samples to be collected for ageing and growth, collection of samples will focus on BUM, WHM, and SFA.
Subtotal	**83,900**	**83,900**	**79,400**	
Science coordination	4,687	4,539	5,025	The amount related to science coordination was estimated by the Secretariat as a proportion of the EPBR total budget in relation to the overall science budget (GBYP excluded). Total coordination costs estimated at €60,000 in 2027.
TOTAL	**88,587**	**88,439**	**84,425**	

18.1.5 Bluefin Tuna

The Committee recommended continued funding of the Atlantic-Wide Bluefin Tuna Research Programme (ICCAT GBYP). For the next year, research will be focused on the following areas by order of priority:

- Contract experts to support BFT MSE
- Standardisation of aerial survey index to account for various factors including environmental variability (modelling)
- Conduct GBYP aerial survey in 2027 in the Balearic region (only) and update the annual GBYP aerial survey index
- Collection of biological samples for biological studies required for stock assessment
- Recover genetic samples from pop-up satellite archival tag (P-SAT) tagged fish and run for genetic stock ID and sex using the array.

The breakdown of the funds (in euros) requested related to bluefin tuna for 2027 is detailed in the table below, together with tentative estimates for the next biennial period (2028/2029):

Bluefin tuna (GBYP)	*2027*	*2028*	*2029*	*Explanations*
Tagging				
Tags and tagging material	90,000	80,000	80,000	Electronic tags of different types.
Rewarding, awareness and satellite	17,500	30,000	30,000	Advertisements, physical tag recovery, rewards.
Development and maintenance of an electronic tagging database	10,000	10,000	10,000	Finishing developing the tagging database, fix most urgent issues, then yearly maintenance.
Tagging campaign		10,000		Eastern Mediterranean tagging support.
Biological studies				
Genetic	135,000	150,000	210,000	Epigenetic clock on different tissues providing aging that will be used for stock status determination and future MSE reviews (Rec. 23-07). Provision starting in 2028 if genetic tools for aging become operational. Genotyping of archived samples for stock of origin to support the MSE with priority given for Japan longline samples and others to support the MSE.
Stock ID for eTags	20,000	10,000	10,000	Assign genetic stock of origin to e-tags for use in the MSE.
BFT-W genotyping	15,000	15,000	15,000	Genotyping of BFT-W samples.
Sample collection and shipping	35,000	35,000	35,000	Field sample collection, shipping and preservation of samples.
Other (sample bank)	22,500	25,000	25,000	Tissue bank archiving and curation.
Other fisheries related studies				
Aerial surveys	105,000	120,000	120,000	Yearly aerial survey over the Balearic area field operations.
Aerial survey index provision	35,000	20,000	20,000	Yearly index provision to the Working Group for EC assessment (Rec. 23-07). Improving standardization of the index.
Modelling:				

Bluefin tuna (GBYP)	*2027*	*2028*	*2029*	*Explanations*
MSE	50,000	50,000		MSE review starting in 2026 (Rec. 23-07). The aim of the review is to ensure the MP is performing as expected and to determine whether there are conditions that justify its continuation, or that warrant: reconditioning the MSE OMs; retuning the existing MP; including new indices into a new MP; and/or considering alternate candidate MPs or development of a new MSE framework.
External expert for MSE	50,000	30,000	30,000	Development and implementation of a multi-stock assessment model that can incorporate mixing, movement and multi-stock dynamics. Continued support for MSE management procedure development and MSE expert support.
Subtotal	**585,000**	**585,000**	**585,000**	
Science coordination	190,000	190,000	190,000	Salary of program coordinator (part-time, 60% in 2027 and beyond); Salary of the Steering Committee (SC) external expert; travelling related to coordination activities (e.g. attendance to SC meetings and ICCAT meetings; participation on field work; etc.).
TOTAL	**775,000**	**775,000**	**775,000**	

18.1.6 Sharks

The Committee recommends continued funding of the Shark Research and Data Collection Programme (SRDCP) and other activities related with the Sharks Species Group work.

As established for the period 2026-2027, research will be focused on the following areas, listed by order of priority:

- Provide funding for the SRDCP for Year 13 to:

    i) *Satellite tagging*: Continue studies on movement, habitat use, and post-release mortality for priority species (shortfin mako, longfin mako, oceanic whitetip, silky shark, bigeye thresher, hammerheads, porbeagle and blue shark), through satellite tagging. This includes acquisition of additional satellite tags, and dedicated tagging campaigns in the priority areas of the SW and NW Atlantic (2027). This activity also continues opportunistic tagging in other areas, namely the NE Atlantic, Equatorial areas and the Mediterranean. Other priority areas will be defined later for tagging in future years.
    ii) *Genetics*: Apply the approach used in the kinship analysis to investigate the genetic population structure of porbeagle. New samples collected from four areas in the Atlantic, as well as adjacent regions, will be analyzed.
    iii) *Age and growth*: Continue the study on age and growth study for the priority species (longfin mako, oceanic whitetip, silky shark). Focus for 2027 will be to continue the age and growth of longfin mako, and in 2028/2029 one of the other priority species (to be decided).
    iv) *Age validation*: An age-validation study for shortfin mako in the North Atlantic using bomb radiocarbon started in 2026 and is scheduled to be completed in 2027.
    v) *Reproduction*: The reproductive biology of North Atlantic shortfin mako to quantify reproductive hormone concentrations from muscle tissue samples to determine maturity and reproductive status will continue from 2028 onwards.
    vi) *Temperature Depth Recorders (TDRs)*: Initial funding was available to acquire the first batch of TDRs, that are being used in 2026/2027. The Committee requests additional funds from 2028 onwards to acquire additional TDRs to replace the older ones as the batteries reach their limits.

- MSE for North and South stocks of blue shark: As a result of work requested by the Commission (Rec. 23-10 and Rec. 23-11), a feasibility analysis was prepared and presented in 2025. The Committee agreed that these two MSE processes (BSH-N and BSH-S) are technically feasible, cost-effective, and aligned with existing ICCAT MSE practice. Additional initial development work was carried out in 2026. The work will now be intensified for the 2027/2029 period to be completed in that three-year timeframe. A technical group was formed within the Sharks Species Group, and funds are requested for additional technical support concerning particularly the coding aspects. Additionally, an external revision of the code is planned for 2028.

The breakdown of the funds (in euros) requested related to sharks for 2027 is detailed in the table below, together with tentative estimates for the next biennial period (2028/2029):

Sharks (SRDCP)	*2027*	*2028*	*2029*	*Explanations*
Tagging				
Tags and tagging material	81,400	44,400	44,400	New tags (20 in 2026; 22 in 2027) to be acquired for the tagging campaigns and opportunistic tagging. Also includes value for acquiring tagging materials. Tags acquisition for 2028/2029 is more reduced (12 per year) with focus on other areas.
Rewarding, awareness and satellite	17,160	9,360	9,360	Value to cover rewarding, awareness and satellite transmissions
Tagging campaign	12,000	50,000	50,000	Dedicated tagging campaigns for the priority areas in the SW and NW Atlantic (2027) and other priority areas in 2028/2029. These data support stock mixture analysis and habitat suitability modelling for priority pelagic sharks.
Biological studies:				
Reproduction		15,000	15,000	From 2028 onwards, continue the study on the reproductive biology of North Atlantic shortfin mako quantifying reproductive hormone concentrations from muscle tissue samples to determine maturity and reproductive status.
Age and growth	12,000	12,000	12,000	Continue the study on age and growth for the priority shark species. Species priorities are longfin mako in 2027, and another of the priority sharks (TBD) in 2028/2029. This line of work contributes with biological information, that can be used in any future assessments or other risk analysis for sharks.
Age validation	22,500			An age-validation study for shortfin mako using bomb radiocarbon started in 2026 with existing samples, with particular focus on validating the early growth and defining growth band periodicity throughout the lifespan. Work is expected to be concluded in 2027. This will contribute to clarify uncertainties in the life history that have a strong influence in the stock assessments.
Genetics	25,000			Apply the approach used in the kinship analysis to investigate the genetic population structure of porbeagle. Previous years focused on the southern porbeagle and for 2027 there is the inclusion of the North porbeagle as well. New samples collected from four areas in the Atlantic, as well as adjacent regions, will

Sharks (SRDCP)	*2027*	*2028*	*2029*	*Explanations*
				be analyzed. The budget will cover sequencing, equipment, reagents, computer devices, and other related costs.
CKMR		60,000		Funds are requested in 2028 to conduct a feasibility study of using CKMR for shortfin mako. A previous study was conducted in 2019 with the previous stock assessment results, and the purpose is to update this study with the new stock assessment. In 2027, the Committee will contact national scientists that might have a possibility to sample shortfin mako, to evaluate the sampling numbers that could be achieved.
Sample collection and shipping	3,000			Continue sampling effort on priority shark species, including values for sample shipping.
Other fisheries related studies				
TDRs		10,000*	10,000*	Acquisition of TDRs (long-term study, requested by Rec. 21-09). * To be reviewed once the results of the experiments become available.
Modelling:				
MSE	60,000	60,000	60,000	Value related with the blue shark MSE for North and South Atlantic stocks. The process will start in 2026 with preliminary work, and will be intensified in the 2027/2029 period to be completed in that three-year timeframe. Budget is requested for this period to support coding with the technical team. This item addresses the Commission Rec. 23-10 and Rec. 23-11 on blue shark MSE.
MSE code review		20,000		The Committee requests funds in 2028 for an external revision of the blue shark MSE code that has been developed.
Subtotal	**233,060**	**280,760**	**200,760**	
Science coordination	13,020	15,190	12,707	The amount related to science coordination was estimated by the Secretariat as a proportion of the SRDCP total budget in relation to the overall science budget (GBYP excluded). Total coordination costs estimated at €60,000 in 2027.
TOTAL	**246,080**	**295,950**	**213,467**	

18.1.7 Small Tunas

The Committee recommends continued funding of the Small Tunas Year Programme (SMTYP). Activities under this programme are ongoing and for the next three years (until 2029), research will be focused on the following areas by order of priority (from highest to lowest):

1. *Continuing support to the SMTYP:* The Committee recommended continuing with the ICCAT SMTYP research programme activities in 2027-2029 to further improve the biological information as follows:

   Growth

   - Improving geographical coverage of sample collection, to fill gaps in growth. The species that are the highest priority are: 1. BON (large samples and small samples); 2. LTA (large specimens to conclude studies in 2027); 3. WAH (small and large fish); 4. BLT and 5. FRI.

   Reproduction

   - Improving geographical coverage of sample collection, to fill gaps and continue sampling for the months with missing data. Priorities are: 1. BON; 2. LTA; 3. WAH; 4. BLT; 5. FRI.

   Genetics

   - Conclude studies on LTA (highest priority) on southern Morocco and Mauritanian coast to determine the boundary between the stocks;

   - Continue stock structure (lower priority) studies for FRI (first priority) and BLT (second priority);

   - Continue support genetic differentiation between FRI and BLT.

2. *Historical data collection*

Data from the Northwest Atlantic is entirely absent from the minor tuna species database. CPCs with historical data on small tunas (SMT) are encouraged to provide this information to ICCAT. This study will be essential for improving the quality of existing statistical data. In addition, a contract should be issued to carry out additional historical data collections and data recovery for selected countries/regions.

3. The identification of small tuna species using the biometric method requires particular attention to be paid to the numerous differentiation errors observed in the various CPCs. The Committee therefore recommended organising a capacity-building workshop on this new method in 2028.

The breakdown of the funds (in euros) requested related to small tunas for 2027 is detailed in the table below, together with tentative estimates for the next biennial period (2028/2029):

Small tuna (SMTYP)	***2027***	***2028***	***2029***	***Explanations***
Biological studies:				
Reproduction	7,500	7,500	7,500	Monthly sampling of gonads is essential for studying the reproductive biology of the different species in order to determine size at first maturity and the spawning season. Size frequencies have shown the absence of individuals in certain size classes during some months of the year, which represents a significant bias, although some size gaps have been filled in, others still remain. On a regional scale, it is therefore essential to maintain the monthly collection of gonadal samples (in order or priority: 1. BON; 2. LTA; 3. WAH; 4. BLT; 5. FRI) fill these knowledge gaps (refer to the reference table). These funds will go towards finalizing ongoing reproduction studies in the same order of priority indicated above.
Age and growth	5,000	7,500	7,500	The collection of dorsal spines and otoliths for BON (large samples and small samples), LTA (large specimens to conclude studies in 2027), WAH (small and large fish), BLT and FRI remains a top priority to close key knowledge gaps on small tuna age and growth. WAH: Major discrepancies between spines and otoliths highlight the need for standardized processing and better-quality images before reference sets can be finalized. BLT and FRI: Processed samples exist (e.g. Portugal), but most of the available material from other regions requires processing and genetic validation, with gaps in larger individuals.
Genetics	10,000	20,000	20,000	The main goal genetic studies is to differentiate species and analyze stock structure. The current focus is on LTA, with additional samples being collected for BLT and FRI. Collecting tissue samples to fill knowledge gaps for these three species is a top priority. This work is ongoing and receives annual updates. The genetic studies on LTA, BLT, and FRI are to be completed by the end of 2029. As concerns the potential LTA differentiation, the Group will continue the genetic analyses and it would be necessary to also collect detailed meristic data also, according to the scheme provided by FAO for the tuna species.

Small tuna (SMTYP)	*2027*	*2028*	*2029*	*Explanations*
Biological studies:				
Sample collection and shipping (all species and research areas)	15,000	10,000	10,000	The sampling to be carried out must follow a rigorous protocol to complete the studies already underway. This protocol aims to ensure representative temporal coverage, thereby limiting seasonal effects. This approach will yield more reliable data for analysis.
Other fisheries related studies				
Historical data collection and data recovery	10,000	10,000		Data from the Northwest Atlantic is entirely absent from the minor tuna species database. CPCs with historical data on SMT are encouraged to provide this information to ICCAT. This study will be essential for improving the quality of existing statistical data. In addition, a contract should be issued to carry out additional historical data collection and data recovery mining activities in selected countries/regions.
Workshops				
Capacity-building workshop		6,500		Support the participation of one expert and a limited number of selected participants (total of 6-7).
Subtotal	47,500	61,500	45,000	
Science coordination	2,654	3,327	2,848	The amount related to science coordination was estimated by the Secretariat as a proportion of the SMTYP total budget in relation to the overall science budget (GBYP excluded). Total coordination costs estimated at €60,000 in 2027.
TOTAL	**50,154**	**64,827**	**47,848**	

18.1.8 Swordfish

An ICCAT project on swordfish biology, genetics and satellite tagging started in 2018 and the Committee recommended that the project continue for 2027 given the current uncertainties and recommended continued funding of the SWOYP. This recommendation applies to the North and South Atlantic and Mediterranean stocks. An understanding of the species biology, including age, growth and reproductive parameters, as well as stock structure and mixing is crucial for the application of biologically realistic stock assessment models and, ultimately, for effective conservation and management. The Committee further recommended the use of a multi-stocks research cruise to fill spatial-temporal samples gaps that are common among ICCAT Species Groups and continues work on SWO-N MSE.

The activities planned that require funding, by order of priority, are detailed below:

- *Biology:* Continue the biology work within the SWOYP, including new sampling and analysis of new and previous samples. Focus on age and growth using spines and otoliths, reproduction using gonads, population genetics and epigenetics analysis. For growth, reproduction, and genetics the aim is to produce baseline growth curves, maturity ogives and stock boundaries and mixing by 2027, and then start a regular monitoring program from 2028 onwards to monitor for possible changes in population dynamics of the stocks, related to density-dependant mechanisms and/or environmental changes.

- *MSE for SWO-N:* Support work requested in Rec. 25-10 related to Climate Change. Support evaluation of ECs and effects of trapline gear on the MP.

- *Satellite tagging work*: Ongoing work prioritizing stock mixture area of the NE Atlantic. Continue opportunistic tagging in other areas, including the SW Atlantic, equatorial region and the Mediterranean.

- *CKMR/Gene tagging pilot study*: Conduct a feasibility study for the application CKMR/gene tagging for SWO-N, needed for estimating total stock biomass used as input for stock assessment.

The breakdown of the funds (in euros) requested related to swordfish for 2027 is detailed in the table below, together with tentative estimates for the next biennial period (2028/2029):

Swordfish (SWOYP)	*2027*	*2028*	*2029*	*Explanations*
Tagging				
Tags and tagging material	44,400	120,000	120,000	New tags (12) to be acquired for the tagging campaign and opportunistic tagging. Also includes some value for acquiring tagging materials
Rewarding, awareness and satellite	5,160			Value to cover rewarding, awareness and satellite transmission costs.
Tagging campaign	55,000			Dedicated annual tagging campaigns for priority areas. In 2027, the priority area will be the NE Atlantic (stock mixing area). In subsequent years, tagging efforts will focus on priority areas in the South Atlantic and Mediterranean Sea. Tagging data supports stock mixing analysis, habitat suitability modelling, and CPUE standardization.
Biological studies:				
Reproduction	9,200	9,200	9,200	Continue processing gonad samples, and data analysis for reproduction work. Aim to produce baseline maturity ogives by 2027 and then start a regular monitoring program for 2028 onwards to monitor changes in population dynamics. This work supports spawning stock biomass assumptions in the assessment model.
Age and growth	32,500	17,500	17,500	Processing and analysis of spines and otoliths; data analysis and growth modelling by stock, that support data inputs into the assessment models. Aim to produce baseline growth curves for Atlantic stocks by 2027 and then start a regular monitoring program from 2028 onwards to monitor changes in population dynamic. Age validation sample compilation will continue for analysis in 2027.
Genetics	55,000	45,000	45,000	Continued population analysis for stock differentiation using double digest restriction-site associated DNA (ddRAD); continuation of the study on epigenetic ageing using Reduced Representation Bisulfite Sequencing (RRBS-SEQ). Further identification of SNPs for cost effective stock identification. Epigenetic ageing for age structure analysis and identification of maturity, that will be linked to the ageing studies. An analysis on

Swordfish (SWOYP)	*2027*	*2028*	*2029*	*Explanations*
				stock boundaries and mixing will be presented in 2027. The program will then begin transition to monitoring for changes in population dynamics e.g. stock structure, epigenetic ageing, epigenetic maturity etc., to support assessment inputs.
Sample collection and shipping	6,000	6,000	6,000	Continue sampling effort on priority and missing areas/sizes as defined in the project summary. Also includes value for sample shipping and tissue biopsy darts.
Consumables	1,000			Vials for the collection of gonads samples and shipping to the laboratories.
Modelling:				
Absolute abundance estimation: CKMR/Gene tagging		15,000		Conduct a feasibility study that evaluates the cost, benefits and logistics of conducting CKMR and gene tagging for SWO-N, SWO-S and SWO-MD in order to provide estimates of absolute stock abundance/estimates of exploitation rate for use in population models.
MSE	30,000	5,000	15,000	Value for the continue work on MSE, to support work requested in Rec. 25-10 related to Climate Change and assessing the effectiveness of minimum size limits, and support the evaluation of ECs. Includes funds for work in advance of the MSE review scheduled for 2030. In 2026, PA4 requested additional analyses on the effects of trapline gear on application of the MP. The revision to the 2027 MSE budget reflects this request.
Workshop				
Workshop to conclude Atlantic and Mediterranean SWO ageing studies	12,000			Technical workshop for age readers to conclude ageing calibration and among readers for Atlantic and Mediterranean stocks. Costs related to travel and subsistence of three experts.
Subtotal	**250,260**	**217,700**	**212,700**	
Science coordination	13,981	11,778	13,462	The amount related to science coordination was estimated by the Secretariat as a proportion of the SWOYP total budget in relation to the overall science budget (GBYP excluded). Total coordination costs estimated at €60,000 in 2027.
TOTAL	**264,241**	**229,478**	**226,162**	

18.1.9 Tropical tunas

The Committee recommends continued funding of the TTRaD. For 2027, research will be focused on the following areas by order of priority:

1. Continue MSE developments and implementation for SKJ-W and multi-stock tropical tunas MSE processes (€62,000);
2. Continuation of tag seeding, awareness and rewarding, including sample collection and storage (€5,000), to compliment age and growth ongoing analysis (final year);
3. Age and growth - sample collection and analysis (€30,000);
4. Continue SKJ age validation (€30,000);
5. Sample collection and biological parameter updates focused on skipjack and bigeye tuna (€10,000);
6. Genetics - CKMR feasibility and simulations (€40,000);
7. Genetics - Epigenetics feasibility and costing (€15,000);
8. Non-invasive maturity assessment feasibility (€20,000);

An update of the TTRaD programme was carried out in 2025, including more detailed information on the activities, time frames, costs and deliverables during the next two biennial cycles of ICCAT funding (2026/2027 and 2028/2029). The Committee recommends that the programme of work be reviewed and revised in 2027 for the period 2028/2029.

The breakdown of the funds (in euros) requested related to tropical tunas for 2027 is detailed in the table below, together with tentative estimates for the next biennial period (2028/2029):

Tropical tuna (TTRaD)	*2027*	*2028*	*2029*	*Explanations*
Tagging				
Tags and tagging material			45,000*	Tags procured for new campaign (check validity of stock unit).
Rewarding, awareness and satellite	5,000		5,000*	Funding for tagging offices (2027). *Cost in 2029 is an estimate and subject to revision based on results from the tagging workshop in 2028.
Biological studies				
Reproduction	30,000	20,000	10,000	SKJ updates (2027). BET updates (2028 & 2029). Conduct a feasibility study for maturation indicators to support the development of less invasive methods to assess maturity (2027).
Age and growth	60,000	30,000	30,000	Annual sample collection and update of parameters for all three species based on gaps. Age validation for SKJ (2027).
Genetics	55,000	50,000*	50,000*	Feasibility and costing for epigenetic study (€15,000), and CKMR (€40,000) in 2027. *Sample collection in 2028 and 2029 estimated and subject to revision based on results from feasibility in 2027.
Other fisheries related studies				
Environmental habitat definition		50,000*	100,000*	Changes in productivity and distribution of tropical tunas in relation to the environment and climate (including an update to environmental habitat definition using available tag data). Species and budgets to be defined and revised based on outcomes from SEAPODYM in 2027.
MSE				
SKJ-W MSE	12,000			Implement ICCAT MSE roadmap for SKJ-W as set by the Commission.
Enhance communication of MSE		12,000	12,000	Enhance communication of the tropical tunas MSE processes.

Tropical tuna (TTRaD)	*2027*	*2028*	*2029*	*Explanations*
Multi-stock tropical tunas MSE	50,000	50,000	20,000	Implement ICCAT MSE roadmap for multi-stocks as set by the Commission.
External review multi-stock MSE		30,000		
Workshop				
Workshop to advance age and growth studies		50,000		Age-growth-reproduction workshop (funding to support the participation of relevant scientists).
Coordination tagging programme		10,000		Workshop to coordinate new tagging campaign with funds to support expert attendance (2028).
Subtotal	**212,000**	**302,000**	**272,000**	
Science coordination	11,844	16,339	17,216	The amount related to science coordination was estimated by the Secretariat as a proportion of the TTRaD total budget in relation to the overall science budget (GBYP excluded). Total coordination costs estimated at €60,000 in 2027.
TOTAL	**223,844**	**318,339**	**289,216**	

18.1.10 Working Group on Stock Assessment Methods (WGSAM)

- The Group recommended that a Bycatch Estimation Tool (BYET) training workshop be organized in 2027, with the expectation that this will increase the number of CPCs that will report (dead and live discards). Based on the CPCs needs for additional BYET workshops, the Group will consider scheduling additional training workshops in 2028 and 2029.

- The Group recommended that a training workshop (5-days) be organized for advanced technical Management Strategy Evaluation (MSE) in 2027, based on the use of FLBEIA MSE platform.

- The Group recognized the need to increase capacity building at the SCRS level in MSE, and it recommends training workshops (5-days) for an intermedial technical MSE in 2028 and 2029.

The breakdown of the funds (in euros) requested related to the WGSAM for 2027 and the next biennial period (2028/2029) is detailed in the table below:

WGSAM	*2027*	*2028*	*2029*	*Explanations*
Workshops/Meetings				
Training workshops for the BYET*	30,000			It is estimated new training workshops are needed to further develop CPCs capacity building to use BYET to comply with report requirements on bycatch.
Training workshops for advanced/intermedial technical MSE*	40,000	40,000	40,000	It is estimated new advanced and intermedial technical workshops are needed to further develop SCRS capacity building on MSE development.
Modelling				
Further development of the BYET	20,000			To incorporate possible feedback from the training workshop held in 2025.
Subtotal	**90,000**	**40,000**	**40,000**	
Science coordination				
Science coordination	5,028	2,164	2,532	The amount related to science coordination was estimated by the Secretariat as a proportion of the WGSAM total budget in relation to the overall science budget (GBYP excluded). Total coordination costs estimated at €60,000 in 2027.
TOTAL	**95,028**	**42,164**	**42,532**	

* Includes the labour costs of the instructors (up to 2) and financial assistance for the instructors and selected participants in attendance at the workshop.

18.2 Other general recommendations

- In view to providing clarity to CPCs and assisting them to submit the complete data sets required by ICCAT for scientific purposes in a timely manner, with the aim of strengthening the capacity of all the ICCAT scientific groups to provide updated and robust scientific information to the Commission, the Committee recommended that the Secretariat:

  - Provides a document that compiles and clarifies the list of scientific data to be provided annually to the Commission, per species, fisheries, gear, etc., including any relevant coverage rate and information on the mandatory versus voluntary nature of each data requirement;
  - Explores options for assessing and presenting the level of completeness and quality of scientific data submitted by CPCs;
  - Provides annually to the Committee a report on the completeness in scientific data submissions per CPC;
  - Identifies ahead of each stock assessment preparatory meeting any outstanding data gaps that might affect the capacity of the relevant Species Group to undertake the assessment and notify the relevant CPC(s);

- Provides to each Species Group (in September) an annual overview of the relevant fisheries, including trends in key fisheries indicators, such as catch, effort, capacity and any other relevant information included in the scientific data submitted by CPCs for that reporting year.

- Noting the interest of the Commission to streamline the reporting requirements and avoid unnecessary duplications in data reporting, the Committee recommends that the Commission notes that the information included in the CPCs' Annual Reports Part I is already provided to the subsidiary bodies of the Committee in a more detailed, accurate and useful manner through other sources. Therefore, the Committee is of the view that Part I of the CPCs' Annual Reports do not provide any added value to its scientific work.

The Committee provides the following guidance specifically for bluefin tuna for the MP review process for the consideration of the Commission. This guidance could be considered for other MSEs conducted at ICCAT.

Management Procedure review process

Management Procedures (MPs) are developed to provide TAC recommendations that meet primarily high catch (Yield), low resource risk (Status and Safety), and low catch variability (Stability) performance objectives. These are to be achieved over a fairly long period chosen to be in line with the speed of the stock's dynamics – typically 20 or 30 years for tuna stocks.

MPs are tested by computer simulations to achieve this by applying them to a set of operating models (OMs) for the fisheries and tuna stock(s), which are developed based on the best available science at the time. Those models cover the range of uncertainties about fisheries' and stock dynamics. Hence, even if perceptions about the stock's most likely behaviour are wrong, the catch and risk outcomes from applying the MP should still be acceptable (i.e. the MP is to be "robust" to uncertainties).

Nevertheless, it is customary to "review" an MP at regular multi-year intervals (Panel 2 chose six years for Atlantic bluefin tuna). The reasons for the review are to allow for:

1) Updated estimates of the fisheries' and stock's behaviour, and the associated performance indicators, given the availability of further monitoring data since the previous review (e.g. from recent surveys, updated fishery indices, fishery catch composition, fishery removals, etc.).
2) New scientific findings, which may change perceptions about key uncertainties concerning the fisheries' and stock's behaviour, and their magnitudes.
3) Adjustments to the MP which improve performance, e.g. provide greater expected catches while meeting the same risk threshold.

In light of such new information, the OMs are revised (including re-conditioning), and then used to check that the MP will still meet its intended management objectives.

i) If the existing MP still meets the adopted objectives (Rec. 23-07) under the revised OMs, there may be no need to modify it.
ii) However, if the MP's performance against especially the management objectives adopted deteriorates meaningfully, the MP will need to be modified (to a greater or lesser extent) to again satisfy those objectives. Often this can be achieved quite simply by modifying (re-tuning) one or more of the values (parameters) in the MP formula without any need to change its structure.
iii) This process also retains the possibility to propose improvements (possibly including structural changes) to the MP to better meet management objectives.

This "MP review process" is quite different from the "exceptional circumstances checks" which are conducted regularly (often annually) following the exceptional circumstances protocol (ECP). Exceptional circumstances checks are simply tests made to ensure an MP is "on course", by checking that monitoring data (such as indices) remain within the ranges expected. If they do not, "Exceptional Circumstances" may be declared, and that may necessitate a move away from the current MP as the basis to set the TAC. Often this may result in the MP review process (to check and possibly amend the MP) being brought forward from the year originally scheduled for the next review.

Agreement on what constitutes a sufficient basis to change an MP following this review process is a matter for expert judgement in the Species Groups, first scientific and then management, responsible for decision making.

18.2.1 Subcommittee on Ecosystems and Bycatch

- The Committee recommended that SC-ECO and the Tropical Tuna Species Group collaborate to test the use of the Ecopath with Ecosim (EwE) model developed in the Tropical Atlantic described in document SCRS/2026/103 (Meléndez-Arteaga *et al.*, 2026) and Meléndez-Arteaga *et al.* (2025) for responding to ICCAT Commission requests related to evaluating ecosystem impacts of tropical tuna fisheries.

- The Committee recommended that ICCAT continue to strengthen collaborative work with other tuna RFMOs on bycatch-related issues, including the exchange of scientific information, harmonization of approaches where appropriate, and coordination on conservation and management strategies.

18.2.2 Subcommittee on Statistics

The Committee noted important data gaps for several important stocks and fisheries. In particular this year the Committee noted:

- That important Task 2 size data (ST04) from the Mediterranean purse seine fishery were not reported within the established deadlines and reiterated the need for CPCs to comply with the data submission obligations adopted by the SCRS and the Commission. The Subcommittee also acknowledged that some, but not all, CPCs have submitted their size data in ST06 forms and encouraged the relevant CPCs to continue working with the Secretariat to ensure that these data are provided in a timely manner for stock assessments.

- The Committee recommended that carryover estimates be applied only for data preparatory meetings and not during the Species Group meetings held in September. CPCs should review any carryover estimates concerning their fisheries and submit the corresponding official data through the IOMS Form Manager. However, the text was not finalized and required further clarification before adoption.

18.2.3 Albacore

- In order to facilitate better management advice of the Mediterranean stock, the research programme should focus on key points:

  - Improvement of fishery statistics through data recovery, an integrated growth analysis, improvement of *r* and *K* priors, development of a joint longline catch per unit effort (CPUE), and environmental effects.

  - Given the success of the initiative to establish the Mediterranean Albacore Research Network, it is recommended that the necessary steps be taken to consolidate it, with the aim of defining research priorities and needs and identifying potential synergies to enhance the group's capacity to respond to the Commission and;

  - Continue collaborating with the Secretariat on the development of prior distributions for the *r* and *K* parameters for the production models used in the assessment.

18.2.4 Billfishes

- The Committee recommends improving estimates of natural mortality (M) and considering developing a vector of natural mortality M at age for all billfish species.

- The Committee recommends a thorough review of the blue and white marlin and sailfish indices of abundance, including a clear definition of the catch used (landed only or landed and discards), fishing effort definition, data source (logbook, observer programmes, others), and if the catch includes strictly

identified white marlin versus roundscale spearfish. It should also include potential factors that may affect catchability in both target and bycatch fisheries. And exploring the possibility of estimating a multifleet LL CPUE as has already been done for other ICCAT species, in order to address the conflicting CPUE trends that the Committee faced during the billfish stock assessments.

18.2.5 Bluefin tuna

- To support an AI-driven process for the collection and storage of length measurements at the first transfer of bluefin tuna ("Draft amendment of Recommendation 25-04" [IMM_03/i2026]), the SCRS recommends that the Commission considers establishing a technical Group that would include the SCRS and other relevant Commission bodies (PWG) with the aim to developing the technical criteria and specifications required under Rec. 25-04 paragraph 173 for the evaluation of AI-based systems at first transfer/caging.

- Acknowledging that important Task 2 size data (ST-04) from the Mediterranean purse seine have not been reported on time, the Committee reiterates the need for CPCs to comply with the data submission obligations adopted by the Commission. The Committee also acknowledged that some, but not all, CPCs have submitted their size data obtained in farm events (ST-06) and encouraged them to continue working with the Secretariat with the aim to ensure that these data are provided timely for the stock assessments.

18.2.6 Sharks

- The Committee intends to continue working 2027-2029 on the two blue shark MSEs (North and South Atlantic stocks). Specifically for 2027 the technical team will work on the OMs conditioning with updated time series information (using the same fleet structure that in the last assessment), aiming to develop the final set of OMs for the MSE. To advance this work, the Committee recommends the Commission provide management objectives for the North and South Atlantic blue shark stocks, including clarity for the Committee on the interest of addressing interactions between target and bycatch species within the MSE while maintaining a single stock framework.

- The Committee noted the importance of improving shark statistics and assessments in the Mediterranean Sea and recommended establishing this issue as a priority. For 2027, the Committee recommends focusing on blue shark as a first priority, but also start collecting data from the other species. The specific plans for 2027 are to conduct a Mediterranean Sea blue shark stock assessment, including scheduling a data preparatory meeting to evaluate data and models that can be used, and a stock assessment meeting.

18.2.7 Small Tunas

- Sample collection is the basis of the work; to this end, noting that sample collection and analysis is the basis for the biological work of the Small Tunas Species Group and that some of the major harvesters of small tunas do not provide samples to ICCAT, the Committee recommends that the Commission notes these challenges and tasks the Secretariat to send a formal request to the relevant CPCs to make samples of small tunas available to the Small Tunas Year Programme (SMTYP) coordinators.

- The Committee reiterated its strong concerns regarding the persistent data gaps in the ICCAT fisheries statistics database and in the availability of biological samples to develop the studies required for a proper stock assessment for small tuna. Particularly, the Committee expressed concerns that small tuna catches, although having a very high social importance as a source of protein for coastal communities, are systematically underreported to ICCAT, and that the knowledge on their ecology and biology is scarce. This fact is due to many reasons that makes their monitoring very challenging, including: the artisanal nature of many fisheries; the wide geographical dispersion and remoteness of landing sites; the limited coverage or complete absence of national monitoring programs, which frequently prioritize species of higher commercial value; the lack of technical expertise in species identification and sampling protocols; and insufficient ICCAT funding available to assist developing countries in strengthening their monitoring systems. Considering these challenges, the Committee recommended:

- Scheduling a dedicated discussion to explore strategies for addressing this issue, with the goal of developing a long-term plan to improve small tuna fisheries data collection in the Mediterranean, particularly along the northern African coast, Eastern Atlantic and Gulf of Mexico.

- SCRS scientists proceed with data recovery/historical data collection activities and present the results as SCRS documents to the Small Tunas Species Group and the Subcommittee on Statistics, aiming at improving the planned activities related to the upcoming stock assessments.

- Recent genetic studies have identified two groups within BON: Group 1 (Côte d'Ivoire, Senegal, Morocco) and Group 2 (EU-Portugal and EU-Spain, and Tunisia), with EU-Malta's position in relation to these groups is still unclear. A distinction at the species level has also been confirmed between the northern LTA (EU-Portugal, Tunisia) and the southern LTA, with further analysis revealing heterogeneity between Senegal and Côte d'Ivoire, and minor differences between EU-Malta and the EU-Portugal and EU-Spain group. The inclusion of these findings in the ICCAT Manual should be done by a small group of experts in coordination with the Secretariat in 2027.

18.2.8 Swordfish

The Committee recognized the expanding use of trapline gear on swordfish longline fisheries and recommended the following actions to address this issue:

- CPCs implement measures that allow the use of this new gear to be recorded in their logbooks and fishery databases;
- CPCs and the SCRS to conduct work to understand the extent to which this gear is being used, specifically, the initial year in which the gear entered in the fishery and the associated historical catches; the area (Atlantic, Mediterranean or both); the fleets using the gear; the number of vessels using it; whether it is used alone or together with longline gear and, in such a case, in which proportion;
- CPCs and the SCRS, to conduct work on CPUE analysis specific to this gear, for both target and non-target species.

The Committee reiterated that it is important for the Committee to understand that data and the methodology used by CPCs to estimate live and dead discards. The Committee reminded CPCs that have not yet presented documentation or not provided sufficient information to do so. Estimation procedure authors should consult the review procedure and checklist in Annex 1 of the Report of the Second Intersessional Meeting of the Subcommittee on Statistics which will be published in the Col. Vol. Sci. Pap. ICCAT, 83(9).

18.2.9 Tropical tunas

Recommendations for the Commission

- The Commission may wish to consider how authorized fishing vessels ≥20 m could improve reporting their activity by continuously broadcasting accurate and complete static AIS data, including the IMO number where assigned, MMSI, IRCS and registered vessel name in addition to the CPCs VMS reporting.

18.2.10 Working Group on Stock Assessment Methods (WGSAM)

- SCRS Species Groups to test the usability of the draft checklist of bycatch estimation methods evaluation and work with the WGSAM to further refine the checklist.

- In 2027 the WGSAM should consider organizing a workshop addressing non-stationary population dynamics in stock assessment and MSE under climate change by inviting experts from ICCAT and other organizations in 2028.

18.2.11 Ad Hoc Working Group on Coordination of Tagging Information

Recommendations to the SCRS and the Secretariat:

- The Group agreed on the importance of reactivating and maintaining its activity more regularly, aiming for the provision of a coordination platform between the different tagging activities carried out by the Species Groups and the ICCAT Secretariat.

- It was highlighted that tagging activities remain valuable tools to address several biological and ecological aspects of interest to the SCRS and the different Working Groups. In addition, it was mentioned that an important step forward could be to coordinate tagging activities with other modern and complementary techniques such as genomics and close-kin mark-recapture (CKMR).

19. Responses to the Commission's requests

Subcommittee on Statistics

19.1 The SCRS will advise the Commission on the suitability of the alternative approach proposed by CPCs, Rec. 16-14, para 4b

Background: *4 b) Notwithstanding paragraph a), for vessels less than 15 meters, where an extraordinary safety concern may exist that precludes deployment of an onboard observer, a CPC may employ an alternative scientific monitoring approach that will collect data equivalent to that specified in this Recommendation in a manner that ensures comparable coverage. In any such cases, the CPC wishing to avail itself of an alternative approach must present the details of the approach to the SCRS for evaluation. The SCRS will advise the Commission on the suitability of the alternative approach for carrying out the data collection obligations set forth in this Recommendation. Alternative approaches implemented pursuant to this provision shall be subject to the approval of the Commission at the annual meeting prior to implementation.*

The Subcommittee on Statistics reviewed the information provided by the Species Groups in response to the Commission's request under Rec. 16-14, paragraph 4(b).

In 2026, limited information was presented that would allow the SCRS to assess the suitability of alternative scientific monitoring approaches under this provision. The Small Tunas Species Group also reviewed the results presented in Coelho *et al*., 2026, SCRS/2026/082; however, as no small tuna species were identified in that document, no specific conclusion could be reached with respect to these species.

The Bluefin Tuna and Sharks Species Groups indicated that no documents had been presented in 2026 that would allow the evaluation of alternative approaches under Rec. 16-14. Similarly, no alternative monitoring approaches were presented to the Tropical Tunas Species Group. The latter noted, however, the ongoing work of the SCRS Technical Sub-group on Electronic Monitoring Systems (EMS) to develop minimum EMS standards for small vessels as potentially relevant to the future development of alternative monitoring approaches.

19.2 Norway requests a partial exemption from submission of the ICCAT Shark Implementation Check Sheet, Rec. 18-06, para 3

Background: *Norway requests a partial exemption from submission of the ICCAT Shark Implementation Check Sheet under Rec. 18-06, paragraph 3, following the procedure adopted in COC_328/2025. Norway has one fishery targeting tuna and tuna-like species in the Convention area: the fishery for Atlantic bluefin tuna, prosecuted within the Norwegian Exclusive Economic Zone between 59.8°N and 64.3°N with purse seine, longline and pole and line. Three species on the ICCAT list of oceanic, pelagic and highly migratory elasmobranchs were recorded in Norwegian fisheries, all taken in gears the bluefin tuna fishery does not employ. Norway therefore requests exemption limited to six recommendations concerning species whose distributions do not extend to the area of the fishery, and will continue to complete the Check Sheet in full for all others.*

Following the procedure adopted in "SCRS Response on Exemption of presentation of Shark Check Sheet" [COC_328/2025], Norway presented the document Mjørlund 2026 (SCRS/2026/257) to the SCRS with detailed information on areas of operation of their ICCAT fisheries, as well as information on recorded interactions with ICCAT-listed sharks by Norwegian vessels in the period 2015-2026. Base on the information presented, the Committee understand that Norway´s request of partial exemption for Rec. 23-11, Rec. 25-08, Rec. 10-07, Rec. 10-08, Rec. 11-08 and Rec. 09-07, is well founded, and therefore accepted.

According to the adopted procedure, the partial exemption will be valid for the period 2027–2031. However, Norway will have to confirm every year in their Annual Report that no changes in their fisheries have been produced.

To renew the exemption, Norway will have to present a new request in 2031 for another five-year period.

Subcommittee on Ecosystems and bycatch

19.3 The SCRS should review the appropriateness of the southern boundary of this range and advise the Commission in 2023, Rec. 22-12, para 6

Background:

a) Paragraphs 1-3 shall not apply to vessels operating only North of 55 degrees N or South of 35 degrees S latitude (i.e., primarily outside the geographic range of Atlantic sea turtles).

b) In the Mediterranean Sea,

i. Paragraph 1 shall not apply at this time.
ii. Paragraphs 2-3 shall not apply for the period 2023 through 2025.

The SCRS should review the appropriateness of the southern boundary of this range and advise the Commission in 2023.

The Committee considered that the response has been already provided and therefore it should be considered as responded.

19.4 SCRS is requested to review periodically the provisions of this measure related to the spatio-temporal ecology of sea turtles, including their interactions and mortality associated with these fisheries, Rec. 22-12, para 7

Background: *In light of the potential impacts of climate change on ICCAT fisheries, including target stocks and bycatch species, the SCRS is requested to review periodically the provisions of this measure related to the spatio-temporal ecology of sea turtles, including their interactions and mortality associated with these fisheries.*

The Committee is conducting collaborative work in both the Atlantic and the Mediterranean Sea to gather additional information on the impact of ICCAT fisheries on sea turtles. Once this work is completed, it could contribute to respond to this request.

19.5 SCRS shall assess available information on the use of time-area fishing restrictions and closures in areas where there is a higher risk of interaction with sea turtles and advise the Commission, as appropriate, Rec. 22-12, para 10

Background: *The SCRS shall assess available information on the use of time-area fishing restrictions and closures in areas where there is a higher risk of interaction with sea turtles, and advise the Commission, as appropriate.*

The Committee is working to determine the status of turtles at the time of capture in some ICCAT fisheries in order to link this to their distribution areas. This objective is expected to be achieved by 2027.

19.6 SCRS, to the extent possible, develop further best practice guidelines for the safe handling and release of cetaceans, taking into account relevant guidelines already developed by relevant international organizations, Rec. 23-15, para 4

Background: *The Commission requests that the SCRS, to the extent possible, develop further best practice guidelines for the safe handling and release of cetaceans caught in association with ICCAT fisheries, taking into account relevant guidelines already developed by relevant international organizations, and that these guidelines be submitted to the 2026 Annual meeting for consideration and adoption by the Commission.*
The Committee included in its work plan for 2027 the development of a guide of good practices for the safe handling and release of cetaceans caught within the framework of ICCAT fisheries.

19.7 The SCRS should investigate workable examples of how marine biodiversity can be conserved in a way that is compatible with the conduct of responsible and sustainable fisheries, including other effective area-based conservation measures (OECMs), either as complementary or alternative measures to other area-based approaches, Res. 23-23

Background:

- *The Secretariat should collaborate with the SCRS to evaluate the possibility for the SCRS to provide expertise and advice for the implementation of the instruments, and explore ways in which the workload of the SCRS could accommodate this new task.*

- *The SCRS should investigate workable examples of how marine biodiversity can be conserved in a way that is compatible with the conduct of responsible and sustainable fisheries, including other effective area-based conservation measures (OECMs), either as complementary or alternative measures to other area-based approaches.*

- *CPCs, the SCRS, and the Secretariat should report regularly to the Commission on progress on the above.*

The Committee acknowledged that, given the overall context of this specific request, further clarification from the Commission would be necessary regarding what is specifically being requested the SCRS and the Subcommittee to do.

Albacore

19.8 The SCRS shall assess the occurrence of exceptional circumstances (ECs) and the Commission shall act in accordance with the Exceptional Circumstances Protocol sets out in Annex 2, Rec. 21-04, para 4

Background: *The SCRS shall assess the occurrence of exceptional circumstances (ECs) and the Commission shall act in accordance with the Exceptional Circumstances Protocol sets out in Annex 2.*

According to the North Atlantic albacore Exceptional circumstances protocol in Rec. 21-04, indicators related to catch, CPUE, relative biomass and relative fishing mortality were revised.

Since the adoption of the MP, catches have been lower than the TAC in all years except in 2019, when it was exceeded by 3.5% (**Figure 19.8.1**).

Updated CPUE series fall within the 2.5-97.5 percentile of the normalized CPUE values used to run the closed-loop simulations in the MSE. The only exception is the 2018 value of the Spanish baitboat CPUE, which is slightly larger than the values used in the MSE (**Figure 19.8.2**).

The adopted MP was rerun in 2026. Relative stock biomass and fishing mortality of the re-run MP were compared against the 2.5 and 97.5 percentile range of values in any year from the 2.5 and 97.5 percentile range of values in any year produced by the accepted MP's production model during MSE testing (**Figures 19.8.3, 19.8.4**). The estimates fall within the values (95% confidence interval (CI)) estimated in the MSE simulations.

In summary, the Committee concluded that no exceptional circumstance(s) were identified that preclude the application of the adopted MP to set the TAC for the period 2027-2029.

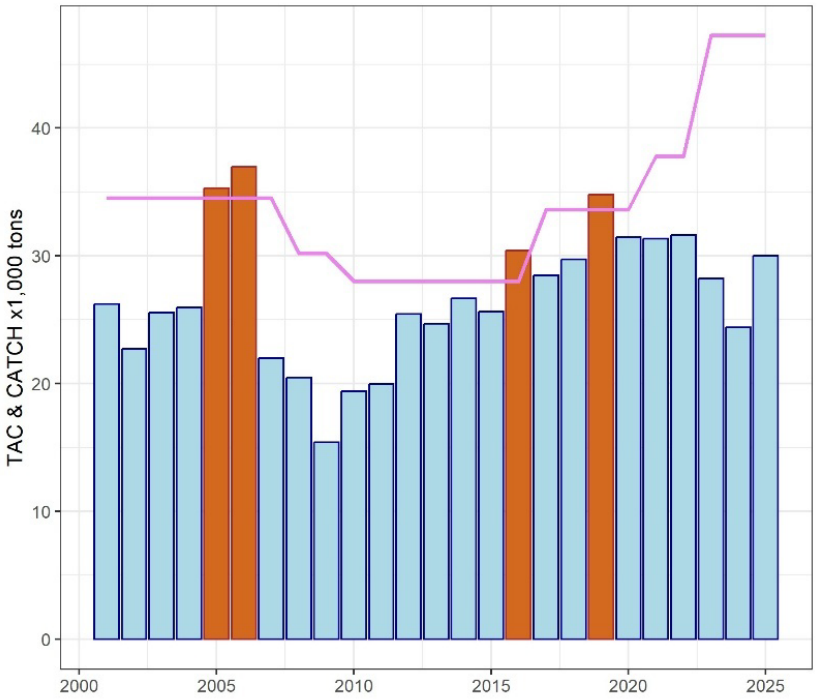


Figure 19.8.1 ALB-N reported catch (Task 1NC, bars) and TAC (solid line). Brown bars indicate years when the catch exceeded the TAC. Note that TAC established with the ALB-N harvest control rule or the MP started in 2018.

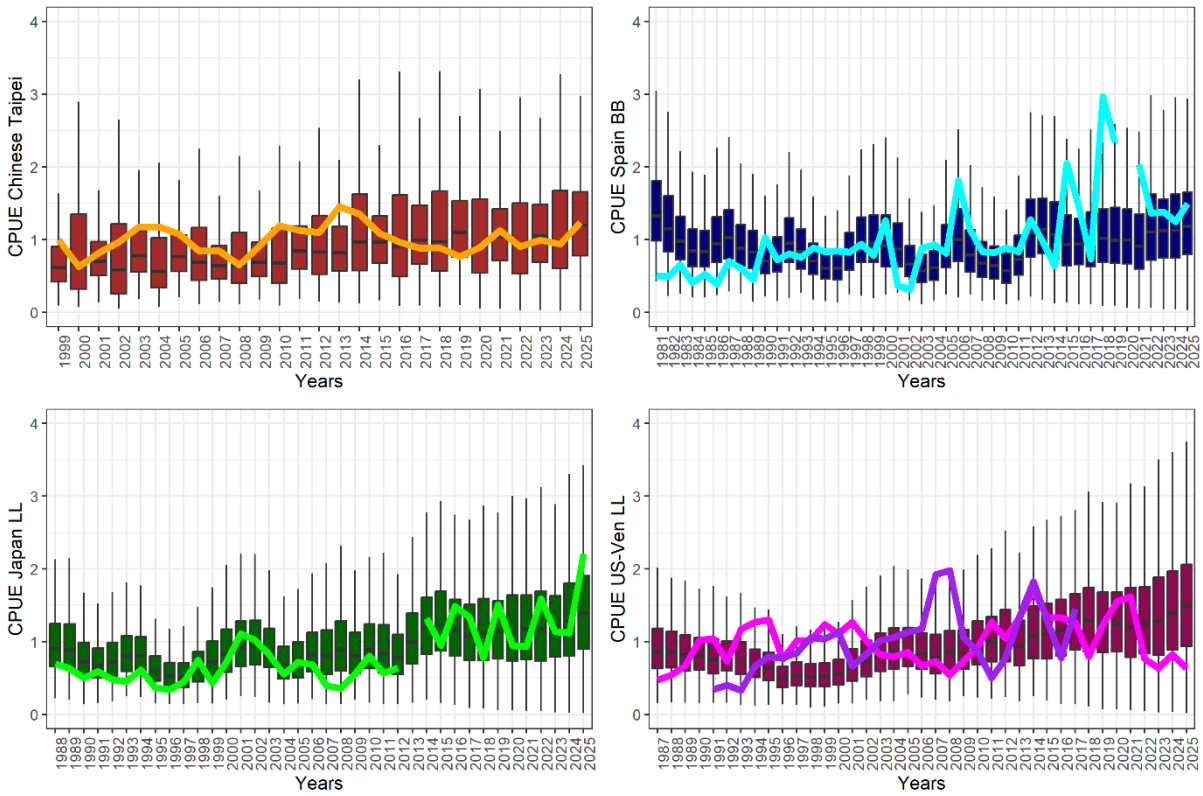


Figure 19.8.2 CPUE trajectories simulated in the MSE (boxplots) and standardized CPUEs (solid line) available in 2026.

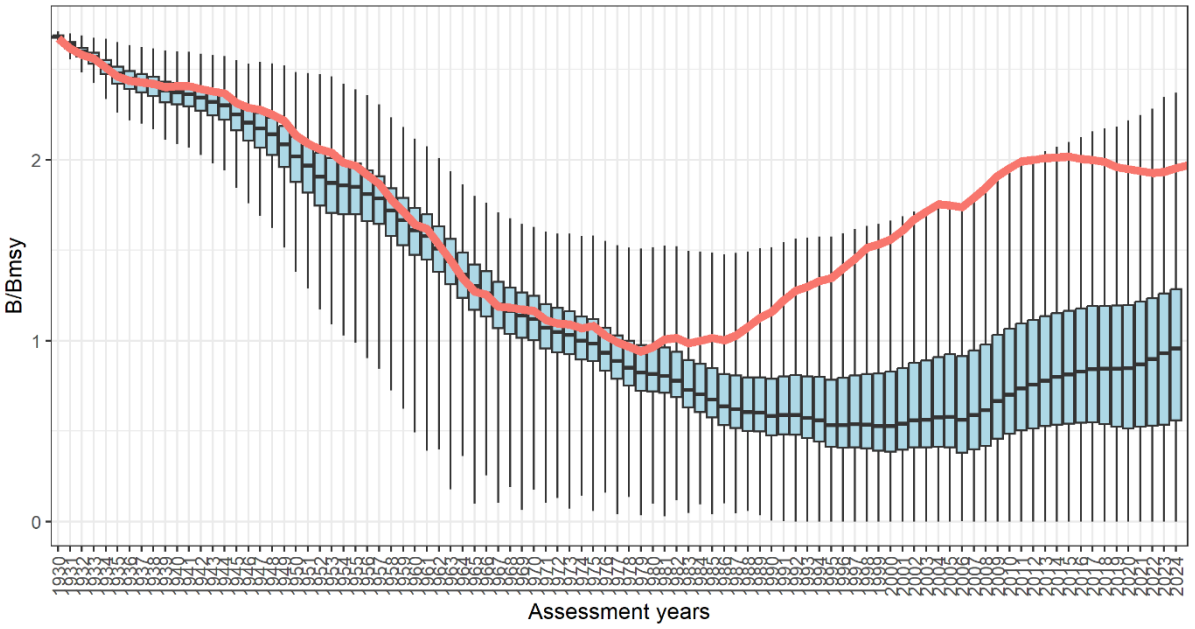


Figure 19.8.3 Relative biomass (B/B_{MSY}) estimated in the MPs of the MSE (boxplot, boxes represent 50% CI and whiskers 95% CI) and estimates from the 2026 MP model (solid line).

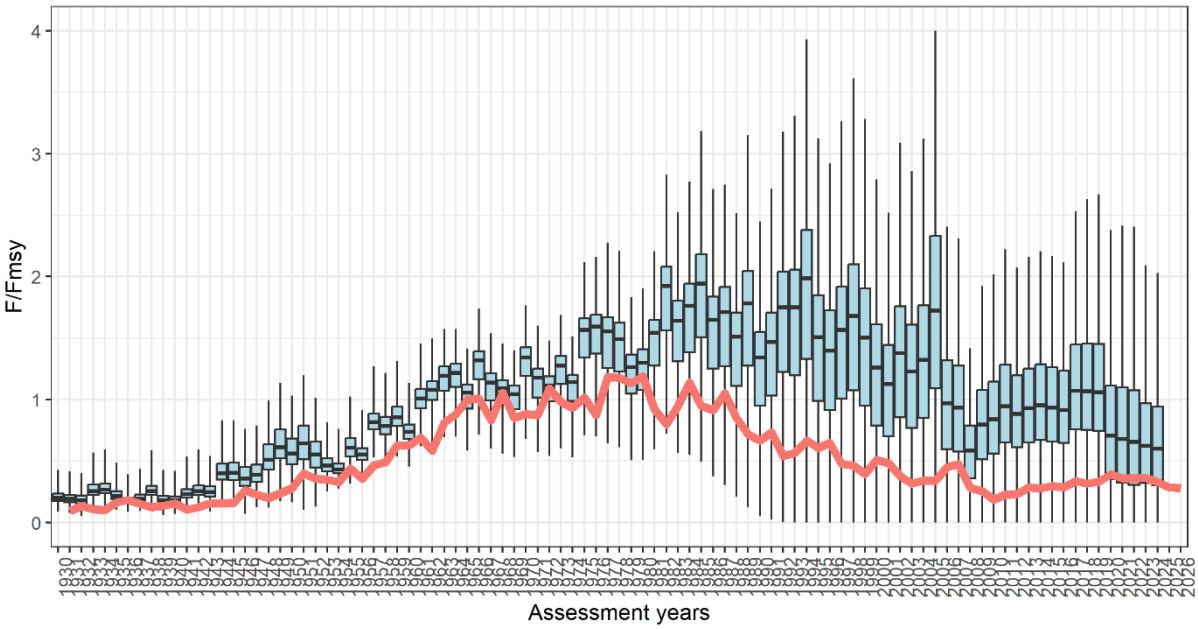


Figure 19.8.4 Relative fishing mortality (F/F_{MSY}) estimated in the MPs of the MSE (boxplot, boxes represent 50% CI and whiskers 95% CI) and estimates from the 2026 MP model (solid line).

19.9 The SCRS shall continue the development of a new MSE framework to support the possible adoption of a new MP no later than 2026 and the setting of a TAC for the management period 2027-2030, Rec. 21-04, para 18

Background*: The SCRS shall continue the development of a new MSE framework to support the possible adoption of a new MP by the Commission no later than 2026 and the setting of a TAC for the management period 2027-2030.*

In this respect, the SCRS is also requested to explore the possibility of defining potential additional CPUE indices, to complement those reported in Appendix A of Annex 1, as well as to advise on how possible environmental changes will be taken into account in the development of this framework.

The adopted MP for northern albacore (Rec. 21-04) was re-run, this resulted in a 2027-2029 TAC of 50,000 t.

New MSE framework

The new Management Strategy Evaluation (MSE) framework builds on the 2023 benchmark stock assessment and subsequent methodological developments discussed by the SCRS. Technical details, including the operating models (OMs) and candidate management procedures (CMPs), are provided in Urtizberea *et al*. (SCRS/2026/190), together with the Trial Specification Document (TSD) and Shiny application (FLBEIA Shiny App).

Due to changes in the MSE framework the adopted MP had to be slightly revised. For clarity "updated-MP" is used to describe this updated version of the adopted MP in Rec. 21-04).

Testing under the new MSE framework indicates that the updated-MP is predicted to meet the management objectives of stock status and safety (**Table 19.9.2**, **Figure 19.9.1**). Robustness tests that simulated potential climate-change impacts, including reduced recruitment and increased recruitment variability, also showed satisfactory performance (**Figure 19.9.2**). In these scenarios, the updated-MP responded to substantial (20%) recruitment declines by reducing the TAC, thereby maintaining stock status and safety.

The new MSE was used to evaluate performance of seven CMPs, including variants of the updated-MP with an additional stability constraint (±10%) or a higher target fishing mortality (F_{MSY}), as well as empirical CMPs based on catch per unit effort (CPUE) ratio or a pseudo-constant catch approach (**Table 19.9.1**).

Table 19.9.1. Code and description of the seven CMP evaluated in 2026.

Code	*Type*	*Description*
25%_F0.8_B1	Model-Based	Updated-MP: TAC from model-based HCR: F_tgt=0.8*F_{MSY}, B_thr=B_{MSY}. Maximum TAC increase of 25% and decrease of 20% between consecutive management periods. TAC cannot exceed 50,000 t
10%_F0.8_B1	Model-Based	TAC from model-based HCR: F_tgt=0.8*F_{MSY}, B_thr=B_{MSY}. Maximum TAC change of 10% between consecutive management periods. TAC cannot exceed 50,000 t
25%_F1_B1	Model-Based	TAC from model-based HCR: F_tgt=F_{MSY}, B_thr=B_{MSY}. Maximum TAC increase of 25% and decrease of 20% between consecutive management periods. TAC cannot exceed 50,000 t
10%_F1_B1	Model-Based	TAC from model-based HCR: F_tgt=F_{MSY}, B_thr=B_{MSY}. Maximum TAC change of 10% between consecutive management periods. TAC cannot exceed 50,000 t
15%_PCCatch	Empirical	TAC is constant (42,000 t) if combined index above reference value. Maximum TAC change of 15% between consecutive management periods TAC cannot exceed 42,000 t
10%_Emp_W	Empirical	TAC from empirical HCR (combined index ratio). Maximum TAC change of 10% between consecutive management periods. TAC cannot exceed 50,000 t

Code	*Type*	*Description*
25%_Emp_W	Empirical	TAC from empirical HCR (combined index ratio). Maximum TAC increase of 25% and decrease of 20% between consecutive management periods. TAC cannot exceed 50,000 t

All seven CMPs are predicted to meet the current management objectives (**Figure 19.9.1**), indicating scope to select an alternative CMP based on performance indicators for stock status, safety, yield and stability. **Table 19.9.2** summarizes these trade-offs, with further detailed results available in the Shiny application (FLBEIA Shiny App). **Figure 19.9.2** shows predicted trends of stock status under a 20% recruitment reduction scenario (Robustness scenario).

Table 19.9.2. Performance of the 7 CMPs evaluated in 2026 under the reference set of OMs. Indicators include PGK (probability of being in the green quadrant of the Kobe plot over 30 years), PB_{lim} (probability of being above the adopted Limit Reference Point (40% B_{MSY}), Tsrt (mean TAC in years 1-3), Tmed (mean TAC in years 5-10), Tlon (mean TAC in years 15-30) and Tc (mean absolute proportional change (%) in TAC). TAC1 is the TAC derived from the application of each CMP for 2027-2029. Values correspond to the mean over OM iterations across projection years (2027-2057).

CMP	*PGK*	*PBlim*	*Tstr*	*Tmed*	*Tlon*	*Tc*	*TAC1*
25%_F0.8_B1	0.97	1	48,455	43,019	38,092	7	50,000
10%_F0.8_B1	0.96	1	48,695	44,202	37,671	6	50,000
25%_F1_B1	0.86	1	49,838	47,471	39,924	9	50,000
10%_F1_B1	0.84	1	49,853	47,994	39,651	6	50,000
15%_PCCatch	1	1	42,000	42,000	41,536	1	42,000
10%_Emp_W	0.96	1	49,594	43,168	39,370	7	46,306
25%_Emp_W	0.98	1	49,582	39,600	37,289	11	46,306

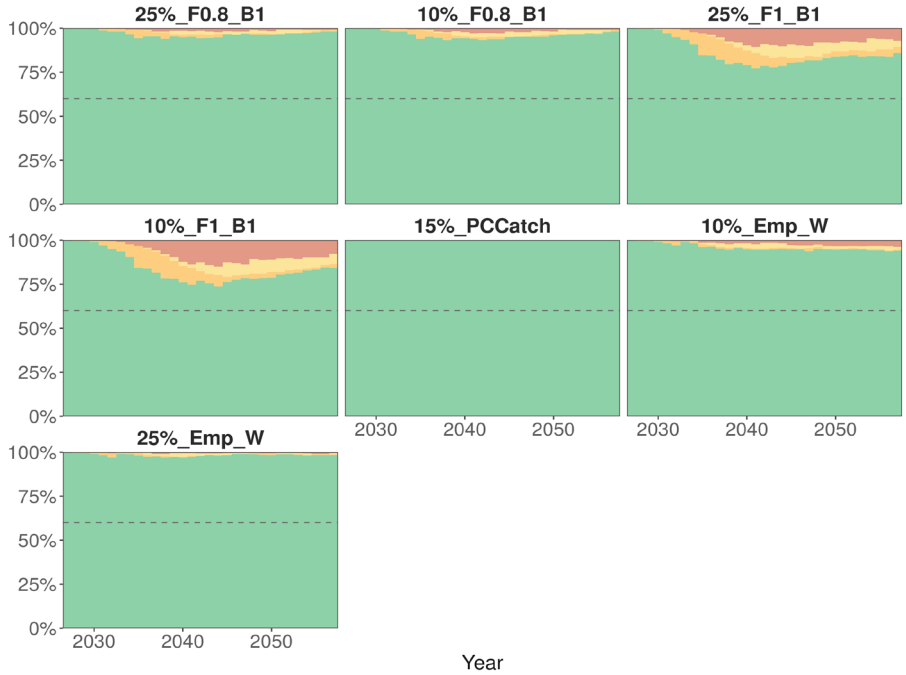


Figure 19.9.1. Time series of the estimated status of North Atlantic albacore under the seven CMPs evaluated in 2026 under the new MSE framework (reference set of operating models). For each year, colours indicate the probability of being in each of the Kobe quadrants. The dotted line indicates the 60% probability of being in the green quadrant of the Kobe Plot.



Figure 19.9.2. Time series of the estimated status of North Atlantic albacore under the seven CMPs evaluated in 2026 under the new MSE framework (robustness test in a scenario with a 20% reduction in recruitment due to climate change). For each year, colours indicate the probability of being in each of the Kobe quadrants. The dotted line indicates the 60% probability of being in the green quadrant of the Kobe Plot.

If the updated-MP, or a modified version of it, is selected, the group recommends updating the MP technical specifications in Appendix A of Annex 1 to Rec. 21-04 to reflect recent developments in production model software (**Table 19.9.3**) and the CPUE indices used in the latest benchmark assessment (**Table 19.9.4**) the proposed specifications are as follows:

Table 19.9.3. Specifications of the biomass dynamic model where "t" is the year of the Management Procedure iteration for the establishment of the TAC for the years t+1, t+2 and t+3.

Software	***Model***	***Catch series***
SPiCT	Surplus production model	Start in 1930 Final year: t-1

Table 19.9.4. CPUE indices and their starting years, where "t" is the year of the MP iteration for the establishment of the TAC for the years t+1, t+2 and t+3.

Index	***First year***	***Final year***
Venezuelan LL	1991	2017
US LL North	1987	t-1
US LL South	1987	t-1
Chinese Taipei LL late North	1999	t-1
Chinese Taipei LL late South	1999	t-1
Japan LL late North	1988	2009
Japan LL late South	1988	t-1
EU-Spain baitboat	1981	t-1

19.10 In 2026, or in any subsequent year identified by the SCRS in 2025 due to data limitations that prevent it from proceeding with its work, the SCRS shall provide an updated assessment of the state of the stock on the basis of the most recent data available, Rec. 24-08, para 11

Background*: In 2026, or in any subsequent year identified by the SCRS in 2025 due to data limitations that prevent it from proceeding with its work, the SCRS shall provide an updated assessment of the state of the stock on the basis of the most recent data available. It shall assess the effectiveness of this rebuilding plan and provide advice on possible amendments to the various measures within this plan. The SCRS shall advise the Commission on the appropriate characteristics of the fishing gear, the closure period in paragraph 9, as well as the minimum size to be implemented for Mediterranean albacore.*

The Committee recalled that the last stock assessment for Mediterranean albacore was conducted in 2024 using data up to 2022, and that despite recent progress made regarding catch data and the treatment of the larval index, major uncertainties (historical catches, life-history traits of the species) remain and continue to preclude a robust new assessment. It therefore advised that the next full assessment not be scheduled before 2028 and when these major uncertainties are addressed.

As stated in its 2024 response to the Commission (section 19.8 of the *Report for Biennial Period 2024-2025, Part I (2024), Vol. 2*), the Committee considered that changes to fishing gear would provide little benefit, as most catches are above the size at first maturity, and noted that the fall-winter closures adopted in 2022 may be contributing to reduced fishing effort, though their effect cannot yet be quantified. On minimum size, the Committee reiterated that such a measure would be of limited or no benefit given the current catch composition and resulted in potentially high discard mortality. The effectiveness of the rebuilding plan can optimally be evaluated through a full assessment of the stock.

Billfishes

19.11 The SCRS shall revise the statistical methodology used to estimate dead and live discards and provide feedback to CPCs. The SCRS Shall also determine if one or more capacity building workshops are warranted to help CPCs to comply with the requirement to report total live and dead discards, Rec. 19-05, para 16

Background: *No later than 2020, CPCs shall present to the SCRS the statistical methodology used to estimate dead and live discards. CPCs with artisanal and small-scale fisheries shall also provide information about their data collection programmes.*

The SCRS shall review these methodologies and if it determines that a methodology is not scientifically sound, the SCRS shall provide relevant feedback to the CPCs in question to improve the methodologies.

The SCRS shall also determine if one or more capacity building workshops are warranted to help CPCs to comply with the requirement to report total live and dead discards. If so, the ICCAT Secretariat in coordination with the SCRS should begin organizing the SCRS-recommended workshop(s) in 2021 with a view to convening them as soon as practicable.

In 2026, the Working Group on Stock Assessment Methods (WGSAM) (Anon., 2026h) reviewed a number of discard estimation methodologies for several species. WGSAM proposed a standardized framework and diagnostic checklist to support the assessment of the various methodologies. In general, WGSAM recommended that the final decision or recommendation regarding the acceptance of bycatch estimates for a particular CPC and a particular stock should be made by the Species Groups. The Committee recommended CPCs follow the adopted checklist including diagnostics and validation (SCRS/2026/197).

The Committee reiterated that it is important for the Committee to understand the methodology used by CPCs to estimate live and dead discards. The Committee reminded CPCs that have not yet presented documentation or not provided sufficient information following the adopted checklist by the Committee on the bycatch/discards (live and dead) estimation methodologies used of the obligation to do so.

The SCRS has conducted regional workshops on statistics of small-scale fisheries in West Africa and the Caribbean and has implemented a pilot project to improve data on blue marlin and yellowfin tuna caught by Caribbean fisheries. Artisanal and small-scale fleets do not often discard billfish as these species are retained and landed for local consumption. In most cases, landings represent the total catch.

In recent decades many sport vessels released most billfish caught, however, most of these fishing fleets do not report releases or landings consistently. The ratio of release versus landing from these fleets varies with time, between regions, and depending on whether fishing is done as part of a tournament.

To improve the quality of landing and discards of billfish data it is recommended to continue to support the ongoing collaborative project between national statistical correspondents, national scientists, and ICCAT data monitoring experts. The project aims to improve small-scale and sport fishery data on Caribbean billfish and has the following elements:

- Thorough review of historical documents on small-scale and sport fisheries catching ICCAT species, particularly billfish;
- Review of national governance systems related to ICCAT fisheries;
- Interview key participants involved in fishery governance, operations, and monitoring;
- Technical support to improve the design, monitoring, and statistical estimation of catch, discards, and fishing effort;
- Improve biological sample collections.

To increase capacity to estimate dead and live discards, the Committee supports the continued development and use of the Bycatch Estimation Tool (BYET). WGSAM identifies the ability to estimate bycatch and discards at the ICCAT statistical level (Task 1 reporting) WGSAM also agreed to continue capacity building activities in 2027, as well as a training workshop planned for December 2026. The Committee encourages CPCs to take advantage of this and future training opportunities to improve the capacity to estimate and report live and dead discards.

19.12 The SCRS shall evaluate the completeness of Task 1 and 2 data submissions, including estimates of total dead and live discards, and determine the feasibility of estimating fishing mortalities by industrial fisheries (including longline and purse seine), artisanal fisheries and recreational fisheries, Rec. 19-05, para 17

Background: *The SCRS shall evaluate the completeness of Task 1 and 2 data submissions, including estimates of total dead and live discards, and determine the feasibility of estimating fishing mortalities by industrial fisheries (including longline and purse seine), artisanal fisheries and recreational fisheries. If after conducting such evaluation, the SCRS determines that significant gaps in data reporting exist, the SCRS should explore approaches to estimate the level of unreported catches to include in future stock assessments in order to enhance the basis on which to provide management advice to the Commission.*

The Committee received a presentation on the online SCRS data catalogue dashboard BLUE / RED and refers individual CPCs to consult the dashboard and prioritize data improvements in anticipation of future billfish assessments.

19.13 The SCRS shall continue its work to further improve data collection initiatives as part of the EPBR to overcome the data gap issues of those fisheries, in particular artisanal fisheries of developing CPCs Rec. 19-05, para 18

Background: *The SCRS shall continue its work to further improve data collection initiatives as part of the ICCAT Enhanced Program for Billfish Research to overcome the data gap issues of those fisheries, in particular artisanal fisheries of developing CPCs to inform future decisions by the Commission.*

The Committee continued working under the EPBR programme with the objectives of maintaining and strengthening this research line with a view to improving the quality of the data and supporting the provision of scientific advice for billfishes. For further information please see items 13.4 (EPBR summary) and 17.1.5 (2027 workplan) in this Report.

19.14 The SCRS shall explore potential technical changes to the terminal gear and fishing practices that could reduce bycatch and bycatch mortality. Design and implement a study(ies) to compare the effects of hook shape and size on catch rates, Rec. 19-05, para 21

Background: *The SCRS shall, in collaboration with CPCs, explore potential technical changes to the terminal gear (such as hook shape, hook size, leader type, etc.) and fishing practices (e.g., timing, soaking time, bait, depths, areas) that could reduce bycatch and bycatch mortality (at-vessel and post-release). As part of this process, the SCRS in collaboration with CPCs shall design and implement a study(ies) to compare the effects of hook shape and size on catch rates (considering both hooking and retention rates), at-haulback mortality, and post-release mortality. The experimental design should account for the influence of leader material types and consider potential operational differences among regions and fleets.*

In 2026 no additional information on this matter was presented to the Committee. Therefore, the response provided in item 19.9 of the *Report for Biennial Period 2024-2025, Part II (2025), Vol. 2* continues to contain the most up-to-update information.

Bluefin tuna

19.15 SCRS to provide scientific guidance on the exceptional circumstances protocol for the BFT MP, Rec. 23-07, para 12

Background*: Panel 2, with scientific guidance from the SCRS, shall develop the exceptional circumstances protocol for this MP, for review and adoption by the Commission at its 2023 annual meeting. The protocol will become Annex 4 of this Recommendation once adopted.*

In accordance with the Exceptional Circumstances Protocol (ECP) outlined in Rec. 23-07, the Committee did not find that results warranted the triggering of Exceptional Circumstances (EC). This determination of ECs is based upon an evaluation of the criteria outlined in Rec. 23-07, as elaborated below.

a) Stock dynamics

i. *Indices.* The primary quantitative indicator for EC relates to whether the combined indices fall outside of 95% prediction intervals. For 2025, neither of the combined indices falls outside of the 95% prediction intervals (**Figure 19.15.1**), resulting in no triggering of EC.

ii.

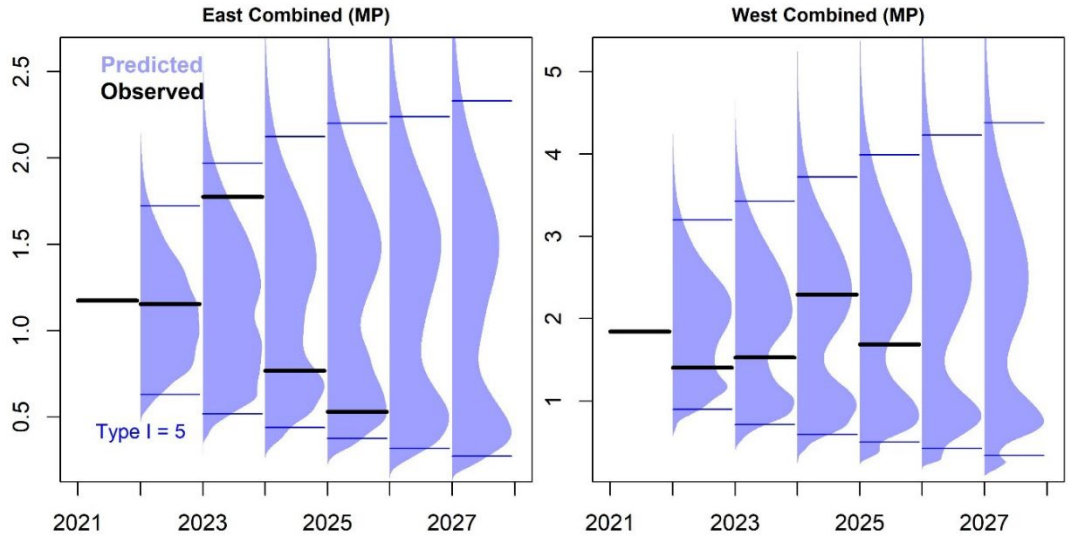


Figure 19.15.1 Standard marginal plots of observed composite indices (black bars) and distribution of posterior predicted data (blue density distribution) for the reference grid of OMs (n =2304, 48 OMs, 48 simulations each). Blue bars represent the 95% intervals. The Moroccan-Portuguese trap data points between 2023 and 2025 were not used due to changes in temporal distribution of the catches that created immediately unsolvable problems for the existing index standardization.

iii. *Abundance and life history or fishery dynamics*. Since 2025, there was no additional life history or fishery dynamics information that would indicate EC.

b) Data availability for the MP

For 2025, all indices were updated, made available, and accepted by the Committee, but with one exception (**Figure 19.15.2**). The Moroccan-Portugal trap data points between 2023 and 2025 were not considered reliable and were not used due to changes in temporal distribution of the catches that created immediately unsolvable problems for the existing index standardization. Therefore, there has been no triggering of EC for "data availability for the MP" within the ECP: in no year were three or more indices missing and no more than two indices were missing for two or more consecutive years.

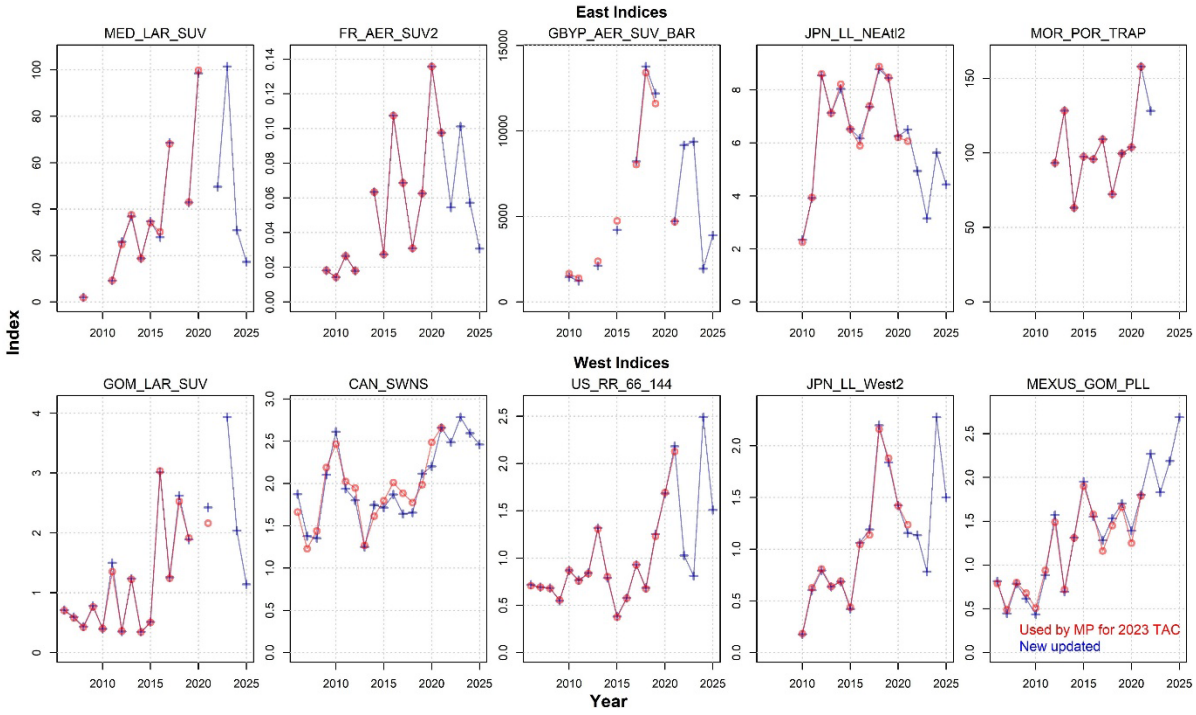


Figure 19.15.2 Plot of indices used in the 2022 MP calculation (red) and the new updated indices (blue) that were rescaled by the factor *k* and used in the MP calculations for 2026-2028 TACs. Red values are original indices used to determine the 2023-2025 TAC and in MSE conditioning; the blue values are strict updates of the indices through 2025. Within the past three years, the Moroccan-Portugal trap data points between 2023 and 2025 were not used.

c) Implementation of the TAC

The Committee confirmed that the reported catches in 2025 for East and West areas were both below the thresholds that would trigger ECs.

Swordfish

19.16 The SCRS should assess the impact of the reductions made on the recovery of the stock, as early as possible, Rec. 24-11, para 2

Background*: The SCRS should assess the impact of the reductions made on the recovery of the stock as early as possible.*

Mediterranean swordfish stock recovery was not directly assessed. However, estimates of spawning stock biomass from the 2026 assessment (**Figure 19.16.1**) indicate no increase since implementation of the recovery plan in 2017 (Rec. 16-05).

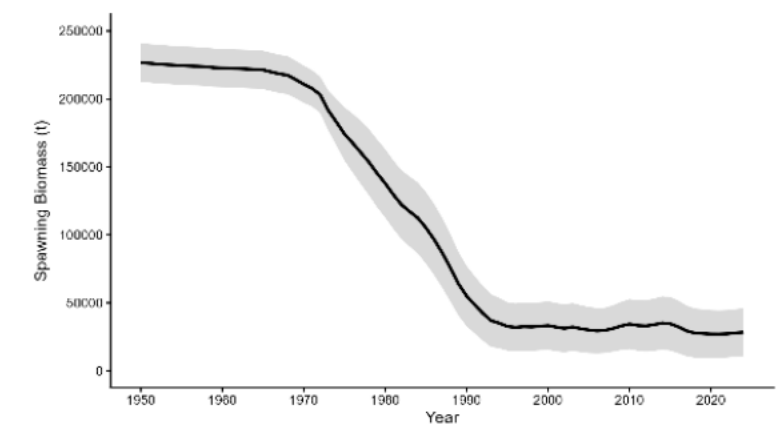


Figure 19.16.1. Spawning stock biomass time series for Mediterranean swordfish from the 2026 age structured assessment model.

19.17 The SCRS shall review the draft reporting template as well as the information included in Annex 2 and advise the Commission if amendments are necessary. Rec. 25-09, para 6

Background*: By the end of 2025, the ICCAT Secretariat shall create a draft reporting template to ensure harmonised data collection. A draft template shall be circulated to CPCs as soon as possible which shall use it when available. The SCRS, at its 2026 plenary, shall review the draft reporting template as well as the information included in Annex 2 and advise the Commission if amendments are necessary.*

The Committee is in general agreement with the requirements of the information included in Annex 2 of Rec. 25-09, that specify the data to be collected by CPCs within the trapline pilot projects.

The main Committee discussions were at the resolution level that the data needs to be transmitted to ICCAT, either if it needs to be fully detailed set-level raw data (which is the current draft of the ST-13 form, as of the data submissions deadline in 2026) or more general and/or aggregated meta-data with the main purpose of assuring that the data is being collected in a consistent way with what is requested in Annex 2 of Rec. 25-09.

The main issues raised for detailed set-level data were related with the following points: 1) for some CPCs it might not be possible to submit fully detailed set-level raw data due to internal data regulations and confidentiality issues; 2) it was agreed that detailed analysis should be conducted by the CPCs directly, that are fully aware of all data details and specificities, and not necessarily by the SWO-SG. It is further noted that various CPCs have already presented SCRS papers with the detailed findings of their pilot projects, highlighting that the detailed analysis should be conducted directly by the CPCs. The Committee should later conduct a final analysis that synthetises all contributions from the various CPCs (i.e., a metadata analysis) in order to provide a final answer to the Commission request under paragraph 7 of ICCAT Rec. 25-09.

For those reasons, the SWO-SG recommends that form ST-13 be reformulated, with the intent of collecting more general meta-data from the CPCs pilot projects and results, but not necessarily detailed raw set-level data. This would be in line with what is currently requests from CPCs to submit to the Secretariat from their national observer programs (form ST-09).

A proposal for a revised ST-13 form has been provided to the Secretariat.

19.18 The SCRS shall annually review the objectives and provisions of this measure and advise the Commission on potential amendments. Rec. 25-09, para 8

Background*: The SCRS shall annually review the objectives and provisions of this measure and advise the Commission on potential amendments, including on the timeline for providing advice and on information to be collected.*

The Committee is in general agreement with the objectives and provisions of the measures in *Recommendation by ICCAT on the experimental use of traplines* (Rec. 25-09). The SWO Species Group notes that to date, multiple CPCs have presented their pilot projects on the use of traplines from their fleets, including the presentation of preliminary results.

At this point, the Committee believes that it will be possible to maintain the current timeline specified in Rec. 25-09, to provide advice on the use of traplines by 2028.

19.19 The SCRS shall assess the occurrence of ECs annually, and the Commission shall act in accordance with the exceptional circumstances protocol set out in Annex 4, Rec. 25-10, para 5

Background*: 5. The SCRS shall apply the MP specified in Annex 1 in accordance with the timeline set out in Annex 3 and advise the Commission of the resulting TAC for North Atlantic swordfish for the next three-year management cycle. The SCRS shall assess the occurrence of ECs annually, and the Commission shall act in accordance with the exceptional circumstances protocol set out in Annex 4.*

The adopted MCC11 management procedure was run in 2024 and provided TAC advice for the first management cycle (2025-2027). The SCRS undertook analyses to support development of an exceptional circumstances protocol (ECP) and following to this advice, the Commission adopted a protocol in 2025. The adopted protocol emphasizes flexibility, expert judgment, and that it be used for identification of scenarios where application of the MP may be risky or inappropriate. The Committee has made an evaluation in accordance with the specifications of exceptional circumstances (EC) in Annex 4 of *Recommendation by ICCAT replacing Recommendation 24-10 on conservation and management of measures including a management procedure for North Atlantic swordfish* (Rec. 25-10).

Table 1 within the ECP provides four indicators for ECs that should be checked annually or whenever new information is available. The Committee has determined that in 2026, ECs do not occur for three indicators and do occur for one indicator.

Principle: Stock and fishery dynamics

Indicator: Indices	**Criterion:** If, in any year, the observed combined index values fall outside the range from the 2.5 to 97.5 percentile of the simulated combined index used in the projections for testing the adopted MP.	**Exceptional Circumstances?** YES
	Result: The terminal years (2023 and 2024) of the combined index of abundance falls outside of the upper bound of the 95% prediction interval (**Figure 19.19.1**).	

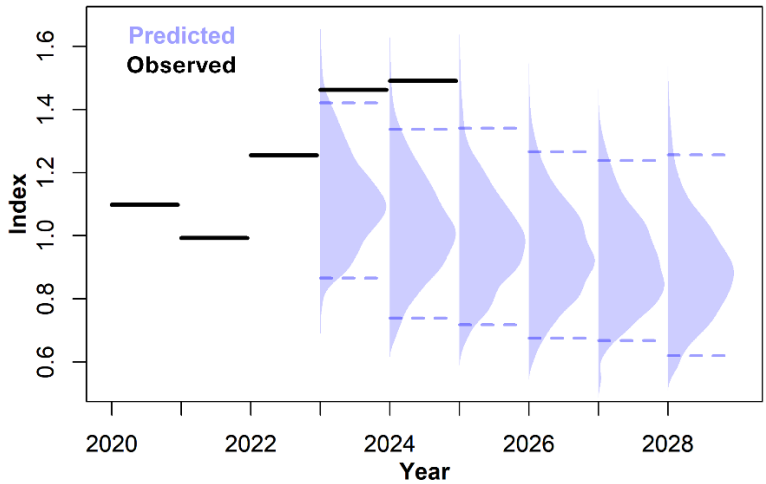


Figure 19.19.1 Observed values of the combined index (black lines) relative to simulated values projected from 2023 to 2028.

Indicator: Abundance, life history and fishery dynamics	**Criterion:** When there is evidence that the stock and/or fishery dynamics are in states not previously and/or no longer considered to be plausible in the context of the MSE, or when there is evidence that stock states or fishery dynamics included within the OMs for the MSE testing are no longer considered plausible.	**Exceptional Circumstances?** NO
	Result: The Committee has not been presented with evidence indicating EC for this indicator. The Committee notes however, that the emerging use of trapline gear will require further analysis to determine if the combined index of abundance and MP are robust to uncertainties related to use of this gear.	

Principle: Data availability for the MP

Indicator: Indices	**Criterion:** If data from two or more influential fleets contributing data to the combined index are missing.	**Exceptional Circumstances?** NO
	Result: All data required to update the combined index of abundance was available.	

Principle: Implementation of the TAC

Indicator: Catch	**Criterion:** If the total catch is 20% or more above the TAC set using the MP.	**Exceptional Circumstances?** NO
	Result: Reported catch in 2025 was 10,577 t and did not exceed the TAC set by the MP (14,769 t).	

Discussion

Upon determination of ECs, the adopted protocol requires that the SCRS consider the direction and severity of the ECs; provide the Commission with feedback on whether the EC precludes application of the MP; and if a specific EC precludes application of the MP, advice to the Commission on actions to be taken.

This particular EC determination is the result of 2023 and 2024 combined index of abundance values exceeding the upper bound of values predicted by the simulation framework. In other words, the combined index values, which are used to infer stock abundance, remain high and are higher than most of the values estimated in the MSE analysis. This could be due to catches consistently being lower than the TAC. The Committee has developed a work plan (see 17.1.9) to evaluate stock abundance trends and develop advice on continued application of the MP.

Should exceptional circumstances be identified for the index again in 2027, the ECP identifies the following options:

(i) maintaining the current TAC advice decided through the MP,
(ii) reducing the TAC advice in light of indications of stock decline,
(iii) increasing the TAC advice in light of indications of stock increase that were not considered plausible during the MSE testing, and
(iv) any other appropriate conservation and management actions.

Should one of these actions be required, the Committee will report back to the Commission with its recommendation.

Conclusion

The Committee determined that this EC does not preclude continuation of the TAC for 2027 set using the MP, nor is its implementation risky or inappropriate for the remainder of the current management cycle. The Committee has developed a work plan to further evaluate this EC and provide advice on future implementation of the MP.

19.20 The SCRS shall review the methodologies used by CPCs to estimate dead discards and live releases and, if it determines that a methodology is not scientifically sound, the SCRS shall provide relevant feedback to the CPCs in question to improve the methodologies, Rec. 25-10, para 19

Background*: No later than 15 July 2025, CPCs shall present to the SCRS the statistical methodology used to estimate dead discards and live releases. CPCs with artisanal and small-scale fisheries shall also provide information about their data collection programmes. The SCRS shall review these methodologies and, if it determines that a methodology is not scientifically sound, the SCRS shall provide relevant feedback to the CPCs in question to improve the methodologies. Once these methods are approved CPCs should update their catch reporting to incorporate these estimated dead and live discards.*

The Committee has been provided with proposed methods for swordfish discard estimation for some longline fleets. In 2027, the Committee will begin evaluating the methods submitted to date using the evaluation procedure and associated checklist in Annex 1 of the Report of the Subcommittee of Statistics.

19.21 The SCRS shall continue work on robustness tests, focusing particularly on the Climate Change scenarios and minimum size limits, Rec. 25-10, para 6 *(doc. SWO-12A)*

Background: *The Commission shall adopt the TAC based on the outcome of the MP unless the SCRS identifies exceptional circumstances that require the Commission to take alternative management actions to remain aligned with the principles of Recommendation 11-13.*

The Committee conducted two analyses to evaluate the expected impacts of eliminating or changing the minimum size limit (MSL).

The first analysis evaluated the trade-offs between selectivity, retention, and discard mortality (Hordyk and Gillespie, 2026, SCRS/2026/172). This study found:

- the high haul-back and post-release discard mortality means that the MSL is not protecting small/young fish from fishing mortality,
- removing the MSL (a full retention policy) would result in higher landed catch and would not significantly negatively impact the spawning population, even in scenarios where all fleets change their behaviour and catch more small fish,
- an MSL would only be effective if a) the size limit was increased closer to the size of maturity (~ 166 cm) AND b) gear interactions with fish below the MSL were negligible; i.e., there were a change in gear type that avoided capture of undersize fish OR haul-back and post-release mortalities were negligible.

The second analysis evaluated the robustness of the MCC management procedure under conditions where the MSL was removed and compared the projections with the status quo analysis where the selectivity and retention schedules are unchanged (Hordyk *et al*., 2026, SCRS/2026/243). This study found that:

- removing the MSL resulted in lower fishing mortality for the same TAC and about 5% higher landings (in weight) as the previously discarded fish now contribute to landed catches,
- in all cases the Safety, Status, and Yield performance metrics were either the same or improved when the MSL was eliminated compared to the status quo,
- Conclusion: the MCC MP is robust to the removal of the minimum size limit.

Summary

- These studies indicate that minimum size limits for swordfish do not effectively protect small fish.
- An increase in the minimum size limits is unlikely to protect small fish without implementation of changes to the gears used in this fishery.
- The MP is robust to the removal of minimum size limits should the Commission wish to do so.

Sharks

19.22 The SCRS shall, in 2024, review existing data and information relating to the life history and conservation status of mobulid rays, and confirm whether they meet the definition of being a taxon of

the greatest biological vulnerability and conservation concern for which there are very few data, Rec. 24-12, para 8,

Background: *8. The SCRS shall, in 2024, review existing data and information relating to the life history and conservation status of mobulid rays, and confirm whether they meet the definition of being a taxon of the greatest biological vulnerability and conservation concern for which there are very few data. Should this be the case, the SCRS shall advise on the appropriateness of applying precautionary management measures such as a prohibition on retention. The SCRS may also identify options for future research and data collection, as well as advise on other mitigation measures.*

In 2024 the Committee responded to the Commission request (ref. to item 19.24 in the 2024 SCRS plenary report) by recommending giving full effect to Rec. 23-14. In 2024 the Commission adopted Rec. 24-12 that repealed and replaced Rec. 23-14.

The Committee now understands that it is no longer necessary to respond to this request until new information on mitigation measures or research lines are presented.

19.23 The SCRS shall periodically advise on the geographic range distribution of basking shark and great white shark, Rec. 25-07, para 7

Background: *Notwithstanding paragraph 6, the SCRS shall in 2026 and periodically thereafter advise on the geographic range distribution of basking shark and great white shark. CPCs with vessels operating exclusively outside of the advised geographical range shall subsequently, upon Commission decision based on SCRS advice, be exempted from the measures under paragraphs 1, 2 and 3. The exemption analysis should be species specific, taking into consideration the range distribution of both species. If the SCRS finds this geographical range to be inaccurate, the exemption will not apply.*

No documents were presented in 2026 to the Committee regarding the geographic range distribution of these species. In addition, no CPC requested exemption from measures contained in paragraphs 1, 2 and 3 of Rec. 25-07.

19.24 CPCs shall present to the SCRS the statistical methodology used to estimate dead discards and live releases, the SCRS shall review and approve the methods and, if not scientifically sound, shall provide relevant feedback to the CPCs to improve them, Rec. 25-08, para 14

During 2026 documents related to the statistical methodology to estimate shortfin mako captures, complying with Rec. 21-09 and Rec. 25-08, were presented by South Africa (DaSilva *et al*., (in press) SCRS/2026/134), EU-Portugal (DaSilva *et al.,* (in press) SCRS/2026/082), EU-Spain (Baez *et al.,* (in press) SCRS/2026/097) and Namibia (Jagger *et al.,* (in press) SCRS/2026/135) to the Working Group on Stock Assessment Methods (WGSAM).

19.25 The SCRS shall continue to prioritize research, Rec. 25-08 para 20

Background: *The SCRS shall continue to prioritize research into: identifying mating, pupping and nursery grounds, and other high concentration areas of South Atlantic shortfin mako; options for spatial-temporal measures; mitigation measures (inter alia, gear configuration and modification, deployment options), together with the benefits and disadvantages for the objectives of the rebuilding programme, aimed at further improving stock status; and other areas the SCRS deems helpful both to improving stock assessments and reducing shortfin mako mortality. In addition, CPCs are encouraged to investigate at vessel and post-release mortality of shortfin mako including, but not exclusively through, the incorporation of hook-timers and of satellite tagging programmes.*

The Shark Research and Data Collection Programme (SRDCP) started in 2014 with its focus on different aspects of the life history, stock structure, and fisheries of the shortfin mako. Since then, a large amount of work has been done, producing very valuable information regarding the age and growth of the species, stock structure, movements, habitat use, and post release mortality. Most of the information produced has been used in the 2025 – 2026 shortfin mako assessments. However, there is still uncertainty on some aspects of the life history of this species, and those remain as priority for the SRDCP.

19.26 The SCRS shall explore the benefits of installing mini data loggers to have a better understanding of the effects of the soaking time, fishing depths and environmental characteristics underpinning higher incidental catches of shortfin mako, Rec. 25-08, para 21

Background*: Taking into account that hotspots of incidental catches may occur in areas and periods with specific oceanographic conditions, the SCRS shall continue the development of a pilot project to explore the benefits of installing mini data loggers on the mainline and on the branchlines of longline fishing vessels which participate in the project on a voluntary basis targeting ICCAT species that have potential interactions with shortfin mako sharks. The SCRS shall provide guidance on the basic characteristics, minimum number and positions to install the mini data loggers with a view to have a better understanding of the effects of the soaking time, fishing depths and environmental characteristics underpinning higher incidental catches of shortfin mako.*

The use of hook timers and small data loggers, including time–depth and temperature–depth recorders (TRDs), was proposed as a potential long-term research activity under the Shark Research and Data Collection Programme (SRDCP) in the coming years. The use of TDRs started in 2025 and continued in 2026. A first preliminary analysis on the use of mini data loggers on pelagic longline vessels was presented to the SCRS in document Coelho *et al.*, (in press) (SCRS/2026/242). A total of 93 sets were monitored, where 528 TDR were deployed, with only 9 records of captures (four blue sharks + five swordfish). The information retrieved from the TDRs is very valuable as it provides environmental data as well as time at capture, and behavior of the captured specimen. However, as has been mentioned before, this is a long-term study, even more so when thinking about a species like the shortfin mako. The SRDCP will continue with this study in the following years and will start also working with National Programs that also use TDRs.

19.27 The SCRS shall provide to the Commission, whenever new information becomes available, updated advice on mitigation measures aimed at further reducing shortfin mako mortality, Rec. 25-08, para 22a

Background*:*

a) The SCRS shall provide to the Commission, whenever new information becomes available, updated advice on mitigation measures aimed at further reducing shortfin mako mortality. CPCs applying paragraph 8 shall submit to the SCRS information by fishery on the technical and other management measures they have implemented for reducing total fishing mortality of South Atlantic shortfin mako sharks, except the CPCs that have already provided this information to the ICCAT Secretariat. The SCRS shall review this information and advise the Commission on which tools and approaches have been most effective at reducing fishing mortality with a view to recommending specific measures that should be considered for adoption by the Commission.

The Committee noted that no new documents were submitted in 2026 to the SCRS giving compliance to this Commission request.

Documents presenting information on the use and effectiveness of different mitigation measures have been presented to the Committee in the last few years. This information on mitigation measures has been discussed on various occasions by the Sharks Species Group, and in the Subcommittee on Ecosystems and Bycatch. However, there is still no definition nor recommendation on the most effective measures to reduce fishing mortality of this species.

19.28 SCRS shall assess the potential benefits of both minimum and maximum size limits for live retention, Rec. 25-08, para 22b,

Background*: b) Taking into account the information on the technical and other management measures submitted by CPCs in subparagraph a) above, the SCRS shall assess the potential benefits of both minimum and maximum size limits for live retention (applied separately or in combination), in particular sex specific sizes at maturity based on the best available science, particularly when considered in combination with other management measures, to meet required mortality reductions.*

No documents were presented in 2026 to the Committee giving compliance to the Commission request in Rec. 21-09 para. 21b and Rec. 25-08 para. 22b.

Based on the information available, the SCRS does not have a conclusion on whether size restrictions for this species are effective tools to meet the required mortality reductions.

19.29 SCRS shall advise on the most effective technical measures to reduce fishing mortality for shortfin mako, while also providing information and advice on the tradeoff for the catches of the target species by fishery, Rec. 25-08, para 22c

Background*:*

> *c) The SCRS shall advise the Commission on the most effective technical measures that should be implemented to reduce fishing mortality for shortfin mako while also providing information and advice on the tradeoff for the catches of the target species by fishery.*

No documents were presented in 2026 to the SCRS giving compliance to the Commission request. Based on the information available, the SCRS does not have a conclusion on effective technical measures to reduce shortfin mako fishing mortality.

The Committee is aware of pilot studies ongoing with traplines (ICCAT Rec. 25-09), and will be evaluating the effect of this gear modification on target and bycatch species, including sharks.

19.30 SCRS shall review the reported landings and discards of longfin mako shark, Rec. 25-08, para 23

Background*:* *The SCRS shall review the reported landings and discards of longfin mako shark to identify any unexpected inconsistencies that could be the result of misidentification between the two mako species, for the purpose of formulating management advice.*

The Committee reviewed the reported nominal catches of longfin mako shark in the last years. Insofar as the possible reporting of shortfin mako as longfin mako, no inconsistencies related to possible misidentification of the species were found.

19.31 SCRS shall calculate the retention level of North Atlantic shortfin mako Rec. 21-09 para 5c

Background: *Permissible retention shall be pursuant to the following process:*

> *c) Starting in 2023 and annually thereafter, the SCRS will use Annex 1 to calculate a possible level of retention, including eligible CPCs' individual retention allowances, allowed in the subsequent year, and provide the results to the Commission.*

The Committee reviewed all data submissions for North Atlantic shortfin mako for 2025. The reported data on landings, dead discards and live releases of 2025 are presented in the Table below. Highlighted in blue, those values that the SCRS considered the need to be estimated based on the reported captures of the three previous years.

	Landings			***Dead discards***			***Live releases***		
FlagName	***2023***	***2024***	***2025***	***2023***	***2024***	***2025***	***2023***	***2024***	***2025***
Cabo Verde	2.58	0.86	0.00						
Canada	0.12			11.60	13.63	10.40	23.33	44.57	47.03
China PR				3.64	5.76	20.93	6.74	20.90	34.35
Chinese Taipei	0.00	0.00	0.00	5.76	2.05	3.31	4.86	1.70	2.81
EU-España	0.00	0.00	0.00	935.65	714.40	452.75	706.35	435.77	269.93
EU-France	0.45	0.19	0.04	0.56	0.13	0.18	0.15	0.15	0.00
EU-Portugal	0.25	0.86	0.09	58.58	47.15	42.91	108.93	87.93	77.63

	Landings			*Dead discards*			*Live releases*		
Japan	0.00	0.00	0.00	11.45	18.11	11.03	9.00	14.23	8.67
Korea Rep	0.00	0.00	0.00	0.10			0.00		
Maroc	0.00	0.00	0.00	8.81	56.15	67.31	15.30	181.27	27.51
Mexico	2.15	1.45	0.71	0.07	0.00	0.00	0.62	0.14	0.44
Panama							2.75		
Russian Federation							0.25	1.13	0.05
Trinidad and Tobago	0.25	0.13	0.08	0.00	0.00	0.00	0.00	0.00	0.00
UK-Bermuda				0.00		0.00	0.04	0.09	0.09
USA	0.29	0.98	0.00	28.62	9.33	19.48	43.75	34.82	37.53
Venezuela	5.76	5.07	1.36						
TOTAL	**11.85**	**9.55**	**2.27**	**1064.84**	**866.71**	**628.30**	**922.05**	**822.70**	**506.02**

Retention allowance for the northern stock

Considering all CPCs, the preliminary Committee estimates were as follows:

- Retained catch (landings): 2.27 t
- Dead discards: 628.30 t
- Live discards: 506.02 t

Using a post-release mortality rate of 29.4% (Domingo *et al.*, 2025), the "total fishing mortality from all sources" (the value needed for Rec. 21-09, Annex 1, paragraph 1a) for 2025 was estimated as 779.34 t.

According to Annex 1 of Rec. 21-09, these values are then subtracted from the amount established in Rec. 21-09, paragraph 4a (250 t), to estimate the "dead bycatch retention allowance" in 2026 (see equation 1 below).

"limit from Rec. 21-09" – "fishing mortality 2025" = "dead bycatch retention allowance in 2027" (1)

If the "dead bycatch retention allowance" amount is negative, no retention is to be allowed in 2027.

The dead bycatch retention allowance was calculated to be -529.34. Therefore, the possible retention allowance for 2027 (calculated with Annex 1) is 0 t. In accordance with paragraph 1c of Annex 1, CPCs shall prohibit retaining onboard, transhipping, and landing, whole or in part, North Atlantic shortfin mako caught in association with ICCAT fisheries in year Y+1 (in this case 2027).

19.32 SCRS shall calculate the retention level of South Atlantic shortfin mako, Rec. 25-08 para 7

Background: *For subsequent years, the SCRS will use Annex 1 to calculate a possible level of retention, including eligible CPCs' individual retention allowances, allowed in the subsequent year, and provide the results to the Commission. The Secretariat shall provide a paper to Panel 4 including the CPCs permissible retentions based on the advice from the SCRS and potential paybacks. The Commission shall validate the permissible retention in the subsequent year.*

The Committee reviewed all data submissions for South Atlantic shortfin mako for 2025. The reported data on landings, dead discards and live releases of 2023 - 2025 for the southern shortfin mako are presented in the table below:

	Landings			*Dead discards*			*Live releases*		
Flag Name	**2023**	**2024**	**2025**	**2023**	**2024**	**2025**	**2023**	**2024**	**2025**
Angola	13.79	2.15	13.06						
Belize									
Brazil	121.00	30.39	0.00			44.00			
China PR				3.28	0.36		6.07	1.30	
Chinese Taipei	2.00	4.84	1.00	6.56	13.73	16.33	3.00	6.00	7.00
Côte d'Ivoire									
Curaçao									
El Salvador									
EU-España	0.00	0.00	0.00	187.40	270.96	215.00	120.30	150.35	88.00
EU-France	0,00	0,00	0,00	0.07	0.02	0.00	0.59	0.00	0.00
EU-Portugal				24.23	21.60	22.52	43.84	39.07	40.74
Ghana									
Guatemala									
Japan	0.00	0.00	0.00	0.63	1.89	4.85	1.23	3.66	6.70
Korea Rep	0.00	0.00		0.18	0.00		0.00		
Namibia	545.29	253.63	260.62			0.0			224.65*
Panama							0.09		
Philippines									
Senegal									
South Africa	96.00	139.60	90.22	0.00	0.00	17.00	0.07	4.32	1.00
UK-Sta Helena	0.00	0.00	0.00				0.00	0.02	
Uruguay	0.00	0.00	0.00						
TOTAL	**778.08**	**430.61**	**364.90**	**222.36**	**308.54**	**319.70**	**175.19**	**204.72**	**368.09**

* The amount of Namibian live releases submitted after the data submission deadline but was confirmed during the SCRS Plenary for use in this response to the Commission. Note that the discards of Namibia are not included in any other fisheries table of this Report.

Retention allowance

Considering all CPCs, the preliminary Committee estimates were as follows:

- Retained catch (landings): 364.90 t
- Dead discards: 319.70 t
- Live discards: 368.09 t

Using a post-release mortality rate of 29.4% (Domingo *et al.*, 2025) the "total fishing mortality from all sources" (the value needed for Rec. 22-11, Annex 1, paragraph 1a) for 2025 was estimated as 792.82 t.

According to Annex 1 of Rec. 25-08, if the total estimated fishing mortality from the previous year (Y-1) is lower than the mortality limit established in paragraph 3 (i.e. 1,000 t), retention in Y+1 shall be allowed.

Total fishing mortality in year 2025: 792.82 t. Then, the dead bycatch retention allowance (hereinafter "retention allowance") for 2027 is 1,000 t.

To estimate the retention allowance to be shared between CPCs for year 2027, the fishing mortality from year 2025 (dead discards and live releases with a post release mortality value, excluding landings) shall be subtracted from total mortality agreed in this measure (i.e. 1,000 t). The resulting amount shall be referred to as the dead bycatch retention allowance (hereinafter "retention allowance") for the year 2027.

Fishing mortality 2025 = Dead Discards + (Live Releases * PRM)
Fishing mortality 2025 = 319.70 + (368.09 * PRM)
Fishing mortality 2025 = 319.70 + 108.22
Fishing mortality 2025 = 427.92 t

Retention allowance 2027 = 1,000 – Fishing mortality 2025
Retention allowance 2027 = 1,000 – 427.92 t
Retention allowance 2027 = 572.08 t

If retention is permissible, the retention allowance for each CPC will be calculated using the following formula:

$$Individual\ CPC\ retention\ allowance\ (t) = \frac{\text{(CPC average annual catches from } 2013 - 2016) \text{ x (Retention Allowance)}}{\text{Average total ICCAT catches from } 2013 - 2016}$$

The individual CPC retention allowance for the year 2027 would be as follows:

CPC	2027 Individual Retention Allowance
Angola	0.00
Belize	5.82
Brazil	41.19
China PR	1.28
Chinese Taipei	27.78
Côte d'Ivoire	3.75
Curaçao	0.00
El Salvador	0.00
European Union	231.01
Ghana	0.00
Guatemala	0.00
Japan	23.64
Korea Rep	1.62
Namibia	149.95
Panama	0.00
Philippines	1.79
Senegal	1.94
South Africa	82.21
UK-Sta Helena	0.04
Uruguay	0.07
TOTAL	572.08

19.33 Evaluation of data completeness on sharks, Rec. 21-09 para 15 and Rec. 25-08 para 16

Background:

(Rec. 21-09 para 15) The SCRS shall evaluate the completeness of Task 1 and 2 data submissions, including estimates of total dead discards and live releases. If, after conducting this evaluation, the SCRS determines that significant gaps in data reporting exist, or, following the review in paragraph 13, that the methodology used by one or more CPCs to estimate dead discards and live releases is not scientifically sound, the SCRS shall inform the Commission that the data for those CPCs are inappropriate for inclusion in the calculation of the retention allowance. In this case, the SCRS shall estimate dead discards and live releases for those CPCs for use in the retention allowance calculation.

(Rec. 25-08 para 16) To allow for future assessments of the stock, the SCRS shall evaluate the completeness of Task 1 and 2 data submissions, including estimates of total dead discards and live releases. If, after conducting this evaluation, the SCRS determines that significant gaps in data reporting exist, or, following the review in paragraph 14, that the methodology used by one or more CPCs to estimate dead discards and live releases is not scientifically sound, the SCRS shall inform the Commission that the data for those CPCs are inappropriate for inclusion in the calculation of the retention allowance. In this case, the SCRS shall estimate dead discards and live releases for those CPCs for use in the retention allowance calculation.

The revision of data completeness of Task 1 and 2 was done and questions clarified any inconsistencies, for the calculation of retention allowance. For more details on the revision, please refer to items 19.31 and 19.32 of this Report.

As discussed previously, the Committee expressed its concern on the task requested by the Commission that the SCRS has to identify and report inappropriate data reported by CPCs. The Committee agreed to work with the most updated data available in ICCAT Database, as it is considered the best information available.

Tropical tunas

19.34 Maximum proportion of support vessels, Rec. 24-01, para 27

Background: *Any CPC having vessels that operate, part-time or full-time, in support of purse seiners shall report the names and characteristics of all of their vessels to the ICCAT Secretariat, including which of those vessels were active in 2019 in the ICCAT Convention area, and the names of the purse seiner(s) that received the support of each support vessel. The ICCAT Secretariat shall compile this information and prepare a report for the Commission to be able to consider the type of limitation that support vessels shall be subject to in the future, including a phasing-out plan, where required. Notwithstanding this, CPCs shall not increase the number of support vessels from the number active in 2019; this does not apply to the new participants in purse seine fisheries, for which a maximum proportion of support vessels can be defined in 2025 based on an SCRS recommendation.*

Appendix 5 of the Secretariat Report on Statistics and Research (PLE-SCRS_07/2026) provides a summary of the reported list of support vessels submitted by CPCs (ST07 form) from 2010 to 2025 (see **Table 19.34.1** below). However, as indicated in previous responses, the Committee cannot correlate the activity of a given support vessel with the catch, effort or overall catch rates of the vessels receiving the support activities, as no link on total catch or effort (Task 2 CE ETRO) by vessel is provided by CPCs. Therefore, the Committee is not in a position to recommend a given number of support vessels or a proxy for an estimation of "limited support activity". The Committee noted that the number of support vessels reported by CPC has decreased in recent years.

The Committee request that the Commission provide a clearer and more precise definition of the type of analysis being required.

Table 19.34.1 – Number of support vessels and total fishing vessels supported by them as reported by Flag CPC (form ST07) during the reporting period (Appendix 5 of Secretariat Report on Statistics and Research (PLE-SCRS_07/2026).

	PartyName	FlagName	2013	2014	2016	2019	2020	2021	2022	2023	2024	2025
Number of support Vessels	BELIZE	Belize			1	4	3	2	1	1		1
	CURAÇAO	Curaçao	1	1		2	2	1	3	2	2	2
	EL SALVADOR	El Salvador					1	1	1	1	2	2
	EUROPEAN UNION	EU-España				4		3	2	2	1	1
	PANAMA	Panama				4	1	3	2	2		
	SENEGAL	Senegal				1						
	Total		1	1	1	15	7	10	9	8	5	6
Number of fishing Vessels supported	BELIZE	Belize			1	4	8	2	3	4		1
	CURAÇAO	Curaçao	1	1		6	2	1	5	3	2	3
	EL SALVADOR	El Salvador					1	1	5	5	8	6
	EUROPEAN UNION	EU-España				8		7	5	5	3	3
	PANAMA	Panama				14	1	10	7	7		
	SENEGAL	Senegal				1						
	Total		1	1	1	33	12	21	25	24	13	13

19.35 The SCRS shall conduct further analysis on the effect of support vessels on the catches of juvenile yellowfin and bigeye tuna, Rec. 24-01 para 36

Background: *Further analysis shall be conducted by the SCRS on the effect of support vessels on the catches of juvenile yellowfin and bigeye tuna to be considered in 2025.*

The Committee cannot correlate the activity of a given support vessel with the catch, effort or overall catch rates of the vessels receiving the support activities, as no link on total catch or effort (Task 2 CE ETRO) by vessel is provided by CPCs. Therefore, the Committee is not in a position to analyze the effect of support vessels on catches of juvenile yellowfin and bigeye tunas.

19.36 In 2025 SCRS shall review the information reported by CPCs and shall provide recommendations on additional drifting FAD management options, including recommendations on improved drifting FAD designs, Rec. 24-01 para 51

Background: *The SCRS and the IMM Working Group shall review the information reported by CPCs and shall, as necessary, provide recommendations on additional drifting FAD management options for consideration by the Commission, including recommendations on improved drifting FAD designs.*

No new information was presented to the Committee in 2026, and the IMM Working Group made no specific recommendations. The Commission should be aware that there are continued industry-lead initiatives to adapt designs to the requirements set in Rec. 24-01. The Committee was informed of some difficulties in implementing the guidelines, therefore it continued suggesting that a dedicated science-industry workshop could be useful at some point to share experiences and seek synergies.

19.37 The SCRS shall refine the MSE process in line with the roadmap adopted by the Commission, Rec. 24-01, para 75

Background: *The SCRS shall refine the MSE process in line with the roadmap adopted by the Commission. Based on input from Panel 1 on interim operational management objectives starting in 2025 in the Resolution by ICCAT on interim operational management objectives for Atlantic bigeye tuna, yellowfin tuna, and the eastern stock of skipjack tuna (Res. 24-02), the SCRS should continue testing the candidate management procedures. In 2026 or as soon as possible thereafter, the Commission shall review the candidate management procedures, including pre-agreed management actions to be taken under various stock conditions. These shall take into account the differential impacts of fishing operations (e.g. purse seine, longline and baitboat) on juvenile mortality and the yield at MSY, as well as other impacts of these fisheries, including impacts on bycatch, ecosystem impacts and socio-economic impacts.*

Western Atlantic skipjack tuna MSE

The development of the Western Atlantic skipjack MSE proceeded entirely according to the SCRS Roadmap, requiring no rescheduling of stages or revision of the originally agreed timeline. The MSE was concluded in 2025 with the adoption of the MP at the Commission's annual meeting and the setting of the TAC for the 2026-2028 triennium. Consequently, the process transitioned from the development phase to the operational phase of the decision rule.

The subsequent stages were, therefore, operational in nature. In 2026, the SCRS was tasked with developing the special monitoring criteria to support the ECP, scheduled for adoption by the Commission at that year's annual meeting, and conducting the annual monitoring verification. The next major milestone occurs in 2028, when the MP is triggered to generate the TAC for the 2029-2031 period, for adoption by the Commission at that year's annual meeting. The review of the MP and the next stock status check remained scheduled for 2031, marking the completion of the first full cycle of the decision rule's application.

Tropical tunas multi-stock MSE

The workplan for the tropical tuna Multi-Stocks MSE process has been revised following the Committee's recognition that several key elements of the MSE framework require further development before candidate management procedures (CMPs) can be submitted for consideration by the Commission. A central component of this work is the updated stock assessment for eastern Atlantic skipjack tuna (E-SKJ), the

results of which are required to recondition the operating models (OMs) for this stock. Without this update, E-SKJ could not be represented within the joint framework on an appropriate analytical basis, and the technical interactions among the three stocks, including the potential effects associated with a limiting or choke species, would remain insufficiently characterized. As a result, the Committee now anticipates the completion of the technical work of multi-stock MSE not earlier than 2028, instead of 2027 as previously reported (Panel 1 intersessional meeting, 5-7 May 2026).

The revised approach is intended to maintain momentum in the overall process by allowing the development and evaluation of CMPs for yellowfin tuna (YFT) and bigeye tuna (BET) to proceed independently and in parallel while the E-SKJ OMs are being reconditioned. Accordingly, in 2027, the Committee will focus on refining the MSE framework and evaluating CMPs for BET and YFT, incorporating guidance provided by the SCRS Plenary and Panel 1 (including comparing CMP results using methods which either resample historic indices or use fixed historic indices). At the same time, the SKJ-E OMs will be reconditioned using the results of the updated stock assessment, while development of the Multi-Stocks framework will continue using BET and YFT CMPs to illustrate the consequences of technical interactions and the potential choke-species effect. By separating those components that can progress immediately from those that depend on an updated analytical basis, this approach facilitates continued development and understanding of the Multi-Stocks MSE without delaying progress on the remaining components.

In 2028, Management Procedures for BET, YFT, and E-SKJ will be evaluated individually and within the Multi-Stocks MSE framework. This work will be accompanied by the standardization and updating of the abundance indices required for CMP implementation, including the joint PLL, BAI, and PSFAD indices. The objective is to support consideration of MP adoption at the 2028 annual meeting, together with the corresponding TACs for the 2029-2031 management period. This would be preceded by an intersessional meeting of Panel 1 to provide guidance on CMP design, as well as an Ambassadors' meeting. The Committee will also conduct peer review of the Multi-Stock MSE framework in 2028.

In 2029, the Committee would develop and evaluate the exceptional circumstances criteria, followed by consideration of the Exceptional Circumstances Protocol (ECP) for possible adoption by the Commission at its annual meeting.

These revisions are accompanied by a deliberate strengthening of the communication and stakeholder-engagement components of the MSE process. This includes the continued development of graphical outputs and the Shiny application as tools for exploring and communicating MSE results, together with more intensive interaction with Panel 1 through intersessional meetings and Ambassadors' webinars. These are intended to communicate progress, planned activities, and preliminary results from both the single-stock and Multi-Stocks MSEs, while also providing opportunities for Panel 1 to guide the subsequent development of the process. Such engagement is particularly important given the nature of the management decisions involved. Demonstrating trade-offs among stock-specific yields within a framework that explicitly represents technical interactions requires prior agreement on operational management objectives.

19.38 SCRS shall explore the efficacy that full fishery closures might have to reduce the catches of tropical tunas to the agreed levels, Rec. 24-01, para 79a

Background:

a) The SCRS shall explore the efficacy that full fishery closures along the lines of those proposed in PA1-505A/2019[1] might have to reduce the catches of tropical tunas to the agreed levels; and the potential of such scheme to reduce the catches of juvenile bigeye and yellowfin tunas, in line with recommendations from the SCRS.

SCRS/2026/185 updated the 2024 study (SCRS/2024/135) using the latest stock assessment models for bigeye, yellowfin, and eastern skipjack. Consistent with the earlier study, they concluded that a closure's effectiveness could be jeopardized if catches are redistributed. The study also conducted an exploratory analysis of recent trends (2018–2024) in FAD fishery catch and effort using Task 2 data from the ICCAT database. FAD fishing effort, measured by the number of sets, decreased in the first quarter but remained relatively stable annually throughout the period analysed (**Figure 19.38.1**). Likewise, first-quarter catches

[1] Available upon request from the ICCAT Secretariat or on the 2019 Commission meeting documents webpage.

declined for all three tropical tuna stocks during the period in which recent closures were implemented (**Figure 19.38.2**). However, trends in annual catches differed among stocks: annual catches declined notably for bigeye, which was subject to catch limits after 2020 but remained relatively stable for yellowfin and skipjack. These trends indicate that closures may have redistributed fishing effort among quarters rather than reducing annual effort. However, the effect of the closures on catches is not conclusive and the Committee recommends further analysis of catch and effort data to continue exploring the overall effectiveness of the closure.

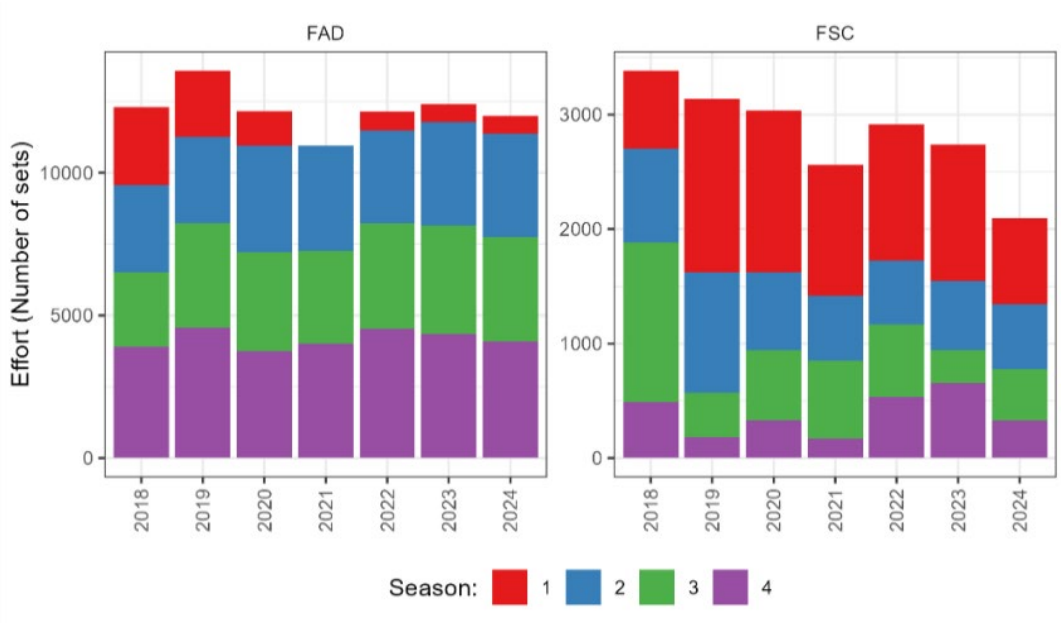


Figure 19.38.1 Recent trends in effort per season for the purse seine fishery operating on free schools (PSFS) and floating objects (PSLS).

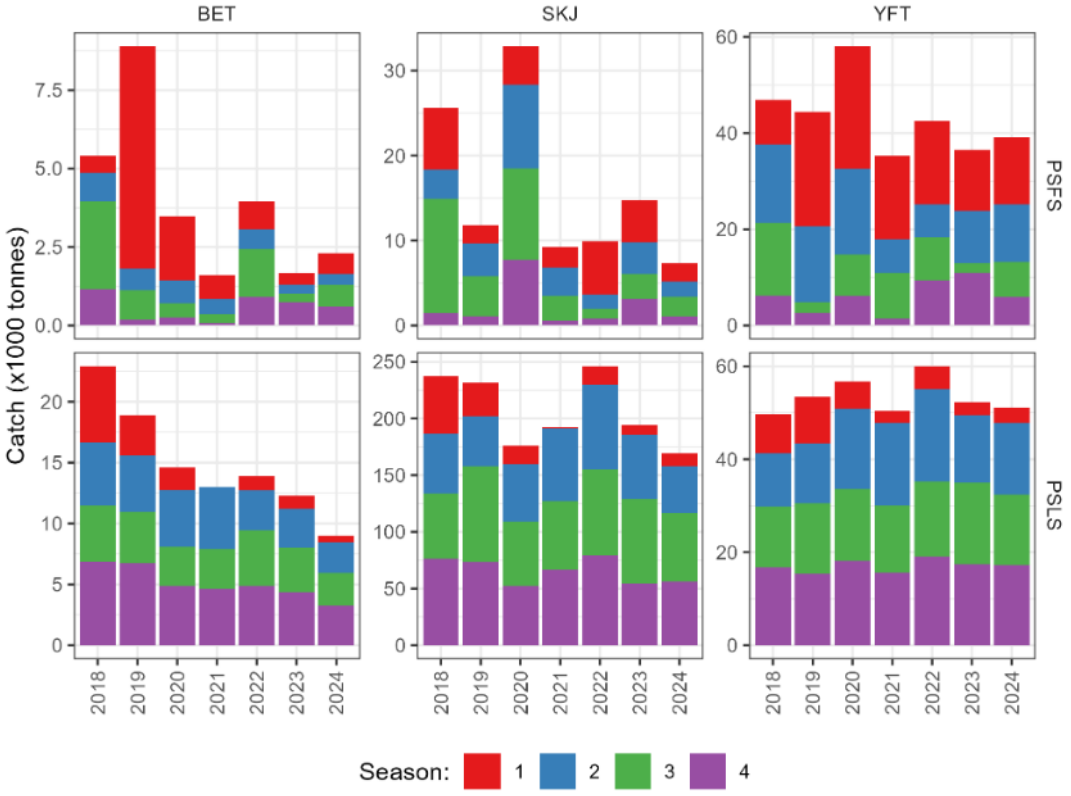


Figure 19.38.2 Recent trends in catch per season for the purse seine fishery operating on free schools (PSFS) and floating objects (PSLS) for each stock.

19.39 The SCRS shall estimate the capacity in the Convention area, to include at least all the fishing units that are large-scale or operate outside the EEZ of the CPC they are registered in, Rec. 24-01, para 79b

Background:

> *b) The ICCAT Secretariat shall work with the SCRS in preparing an estimate of capacity in the Convention area, to include at least all the fishing units that are large-scale or operate outside the EEZ of the CPC they are registered in. All CPCs shall cooperate with this work, providing estimates of the number of fishing units fishing for tuna and tuna-like species under their flag, and the species or species groups each fishing unit targets (e.g. tropical tunas, temperate tunas, swordfish, other billfish, small tunas, sharks, etc.). This work shall be presented to the next meeting of the SCRS in 2025 and forwarded to the Commission for consideration.*

The Committee provided an initial response to this request in 2025, focusing on fishing activity during 2024. This year, Restrepo *et al*., 2026 (SCRS/2026/150) presented an updated estimation of the fishing capacity for tropical tunas in the ICCAT Convention area during the year 2025, focusing again on large-scale vessels (20 meters or larger in length overall) targeting tropical tunas using data primarily submitted via form ST01-T1FC. That study also used automatic identification system (AIS) data to infer fishing activity in the Atlantic Ocean, which is seen as complementary to CPC reports. The Committee prepared this updated response based on that document. It needs to be noted, however, that several CPCs expressed disagreement with the values related to their flagged vessels which form the basis of the analysis.

The Committee compared these estimates of vessel numbers and GT for vessels probably active in 2025, against those obtained last year for vessels probably active in 2024 (**Table 19.39.1**). The apparent 39% increase in the number of vessels and 22% increase in GT between 2024 and 2025 are not necessarily indicative of actual increases. There may have been more complete reporting of ST01 in 2025. Also importantly, AIS data was not used in last year's work to detect or confirm vessel activity in the ICCAT area, whereas AIS was used this year to complement ST01 reports in estimating the number of active vessels.

Table 19.39.1 Comparison of the estimates of active vessels and associated GT in 2024 and 2025 for vessels ≥20 m. The 2025 values are from this response, and the 2024 values are from the 2025 SCRS Annual Report.

	2024		2025	
Gear	**Vessels**	**GT**	**Vessels**	**GT**
BB	26	4721	191	39514
HL	39	8387	3	232
LL	342	115557	370	121393
PS	54	74594	64	84647
RR	-	-	6	837
UN	22	2612	37	4779
Total	**483**	**205871**	**671**	**251401**

The Committee concluded that, while VMS remains the most reliable and accurate source of positioning information for fishing vessels, AIS data could be a complement in support of CPCs efforts in tracking and studying vessel activity.

The Committee concluded that, where CPC reports on vessel activity are absent, AIS can be useful to identify fishing vessel activity at sea. However, there are potential limitations of AIS (e.g. not tamper-proof, manual data entry, etc.) that require careful consideration in its use.

19.40 The SCRS will advise on final LRPs for Atlantic bigeye tuna, yellowfin tuna and the eastern stock of skipjack tunas, Res. 24-02 para 2

Background: *When assessing stock status and providing management recommendations to the Commission, the SCRS shall consider the interim limit reference point (LRP) of 0.4*B_{MSY} for Atlantic bigeye tuna, yellowfin tuna, and the eastern stock of skipjack tuna. The SCRS will advise on final LRPs for Atlantic bigeye tuna, yellowfin tuna, and the eastern stock of skipjack tunas.*

The multi-stock MSE is built upon the interim limit reference point (LRP) of 0.4*B_{MSY} as indicated by the Commission in *Resolution by ICCAT on interim operational management objectives for Atlantic bigeye tuna, yellowfin tuna, and the eastern stock of skipjack tuna* (Res. 24-02).

19.41 SCRS to evaluate the differential impacts of fishing operations on the whole range of the stock, including on juvenile mortality and yield at MSY, as well as other impacts of these fisheries, including impacts on bycatch, ecosystem impacts and socio-economic impacts, Res. 24-02, para 4

Background: *In the development of the operating models for the multi-stock tropical tunas MSE, the Commission calls on the SCRS, consistent with paragraph 75 of Recommendation by ICCAT replacing Recommendation 22-01 on a multi-annual conservation and management programme for tropical tunas (Rec. 24-01), to evaluate the differential impacts of fishing operations (e.g., purse seine, longline, and baitboat) on the whole range of the stock, including on juvenile mortality and yield at MSY, as well as other impacts of these fisheries, including impacts on bycatch, ecosystem impacts and socio-economic impacts.*

While considering the single-species MSY results, the Committee noted the broader nature of the Commission request and in particular the multi-species nature of the tropical tuna fisheries. The Committee recognised that often all three species taken together in surface fisheries, and bigeye and yellowfin tuna commonly taken together in longline fisheries. Further, it was recognised that there are other species which are of concern to the Commission taken as bycatch in these fisheries. Measures considered for one species could have impacts on other species, including socio-economic impacts. This emphasizes the importance of considering both the single and multispecies impacts of fishing operations.

The evaluation of the differential impacts of fishing operations on the tropical tuna stocks, including juvenile mortality and yield at MSY will be evaluated with the multi stock tropical tunas MSE.

Lauretta *et al.*, (in press) (SCRS/2026/239) evaluated the historical trends in MSY for seven Atlantic tuna stocks, including the four tropical tunas, based on the adopted stock assessments for each species. The analysis revealed long-term declines in MSY for bigeye and yellowfin tunas (**Table 19.41.1**), associated with increased proportion of juveniles in numbers on catches. Notably, juveniles comprised over 90% of yellowfin catches in number of fish in the recent years, resulting in a current MSY that is at a near-historic low, approximately 60% of the peak MSY estimate (**Figure 19.41.1**). Results showed that MSY is a shifting baseline that may be greatly reduced or increased over time, depending on the changes in fleet selectivity and overall age composition of the catches. It also indicated that current sustainable catch levels may be significantly different than historical averages, particularly for larger bodied species that grow rapidly over their first few years of life and have been subjected to high fishing mortality of juveniles, such as Atlantic yellowfin and bigeye. The Committee suggested conducting the same analysis for the full range of model configurations for each stock.

Table 19.41.1. Atlantic tuna stocks MSY summary statistics, estimated for the period 1975 to terminal year of the most recent reference case stock assessments.

Stock	Current Yield (t)	MSY Current (t)	MSY Minimum (t)	Year Min	MSY Maximum (t)	Year Max	Max MSY - Min MSY (t)	Current MSY: Max MSY (%)
BET	51,052	88,889	84,684	2014	107,385	1977	22,701	83%
YFT	109,526	124,274	122,029	2016	208,298	1987	86,269	60%
SKJE	237,859	192,319	192,319	2020	207,712	1984	15,393	93%
SKJW	23,005	33,497	31,695	1984	33,730	2017	2,035	99%
ALBN	28,471	42,270	42,188	2016	42,687	1984	499	99%

The impact on bycatch and the ecosystem may be addressed with the development of an Ecopath with EcoSim model. Meléndez-Arteaga *et al.,* (Anon., 2026) summarized preliminary developments towards an integrated and ecosystem-based model for the tropical Atlantic Ocean. At present the model is able to reproduce biomass and catch trends for several species and functional groups. However, further developments are required to improve model performance and to decrease uncertainty.

The Committee noted that the Commission may consider to devote funds to carry out a socio-economic study, which may explore the impacts of management scenarios for tropical tunas over the CPC that carry out or depend on ICCAT fisheries for tropical tunas, and agreed to prepare Terms of Reference and a budget estimate in 2027 to carry out this work, for the consideration of the Commission.

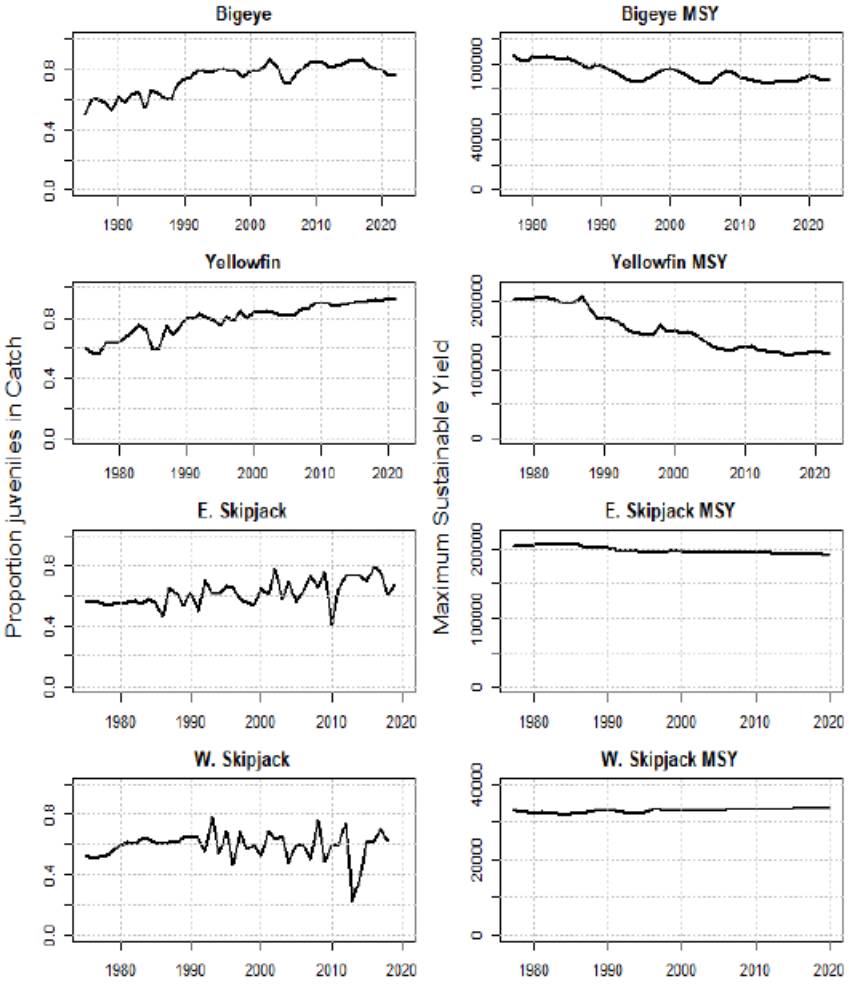


Figure 19.41.1. Estimated proportion (in numbers of fish) of juveniles in catches of Atlantic tropical tunas (left column plots) over time compared to time-dynamic estimates of MSY (right column plots).

19.42 Panel 1 will provide its recommendations to confirm or amend the management objectives for Atlantic bigeye tuna, yellowfin tuna, and the eastern stock of skipjack tuna, considering SCRS input, to the Commission for consideration as part of the selection of a management procedure at its 2026 Annual Meeting or as soon as possible thereafter. Panel 1 should consider whether the management objectives should be the same for the three stocks or if an asymmetric approach for each stock be more appropriate, Res. 24-02 para 6

Background: *Panel 1 will provide its recommendations to confirm or amend the management objectives for Atlantic bigeye tuna, yellowfin tuna, and the eastern stock of skipjack tuna, considering SCRS input, to the Commission for consideration as part of the selection of a management procedure at its 2026 Annual Meeting or as soon as possible thereafter. Panel 1 should consider whether the management objectives should be the same for the three stocks or if an asymmetric approach for each stock be more appropriate.*

Due to time limitations and the present status of the MSE multi-stock development, the Committee was not able to address this request in 2026.

19.43 SCRS shall assess the occurrence of Exceptional Circumstances annually, Rec. 25-02, para 8

Background: *The SCRS shall assess the occurrence of exceptional circumstances annually and the Commission shall act in accordance with the exceptional circumstances protocol, developed based on scientific advice provided by the SCRS and adopted by the Commission.*

Based on paragraph 9 in Rec. 25-02 the Committee provides its recommendations for an Exceptional Circumstances Protocol (ECP) for the Commission's consideration. This draft ECP for SKJ-W is based on the ECP for SWO-N (Rec. 25-10), as well as those for BFT (Rec. 23-07) and ALB-N (Rec. 21-04).

Draft Exceptional Circumstances Protocol (ECP) for western Atlantic skipjack tuna

1. Principles of Exceptional Circumstances (ECs)

The following three general principles should be considered as a signal indicating the possibility that ECs exist:

a) When there is evidence that the stock and/or fishery dynamics are in states (as defined in **Table 19.43.1 a**) outside the range of MSE Operating Models (OMs) and/or are no longer considered to be plausible in the context of the MSE, or when there is evidence that stock states or fishery dynamics included within the OMs for the MSE testing are no longer considered plausible.

b) When there is evidence that the data required to apply the MP are not available or sufficient, or are no longer appropriate (as defined in **Table 19.43.1 b**); and/or,

c) When there is evidence that total catch is meaningfully (as defined in **Table 19.43.1 c**) above the TAC set using the MP.

It is not possible to define all scenarios in which ECs may occur in this protocol. A protocol with general guidance for determining whether ECs exist and whether the implication(s) arising from them is sufficiently severe to warrant revising the advice from the MP is described below. The protocol should not be viewed as a definitive set of criteria/responses. Nor should it be viewed as a mechanism for making small adjustments. A finding of EC requires compelling scientific evidence, and EC actions should be taken only when maintaining the current MP is considered to be highly risky or highly inappropriate.

2. Indicators for ECs and process to determine if ECs occur

In light of the principles specified in Section 1, the SCRS should use the general guidance provided in **Table 19.43.1** and any other relevant information to determine annually whether ECs exist. If the SCRS determines that there is evidence of ECs, the SCRS will consider the direction and severity of the ECs

(e.g., the degree to which CPUE values fall outside of their expected range and whether they are higher or lower than expected) and, where possible, examine its potential impacts on the performance of the MP.

Subsequently, the SCRS will inform the Commission of any such occurrence and the appropriate response. Triggering ECs does not immediately result in TAC advice from the MP being rescinded; rather, it means that the SCRS needs to consider the evidence from the indicators in **Table 19.43.1**, and any other relevant information, and determine if a change in advice is warranted and whether further research work or adjustments to the MSE schedule is required.

With respect to identified ECs, such evidence would need to be sufficiently consequential that it would meaningfully affect TAC advice from the MP.

Table 19.43.1. General guidance on indicators for western Atlantic skipjack ECs and timetable for conducting the evaluation.

Principle	***Indicator***	***Criterion***	***Frequency***
a) Stock and fishery dynamics	Indices	If, in any year, the observed combined index values fall outside the range from the 2.5 to 97.5 percentile of the simulated combined index used in the projections for testing the adopted MP.	Annually
	Abundance, life history and fishery dynamics	When there is evidence that the stock and/or fishery dynamics are in states not previously and/or no longer considered to be plausible in the context of the MSE, or when there is evidence that stock states or fishery dynamics included within the OMs for the MSE testing are no longer considered plausible.	Whenever information is available and after completion, presentation, and acceptance by the SCRS of a study as the new reference.
b) Data availability for the MP	Indices	If data from the Brazil or from both of the other two CPCs (Venezuela and United States of America) contributing to the combined index are missing.	Annually
c) Implementation of the TAC	Catch	If the total catch is 5% or more above the TAC set using the MP for 2 consecutive years.	Annually

3. Actions to be taken in light of ECs

If the SCRS determines that ECs exist which preclude the application of the MP or make the application of the MP or the implementation of its results inadvisable based on the principles outlined in Section 1, the SCRS shall evaluate the nature of the EC and advise the Commission on:

a) Additional research which may bring more clarity on whether it is necessary to divert from the current MP revision schedule and TAC;

b) Alternative management options for the coming fishing year aimed at ensuring, at a minimum, stability in the stock status, including the implications of: (i) maintaining the TAC advice decided through the MP, (ii) reducing the TAC advice in light of indications of stock decline, (iii) increasing the TAC advice in light of indications of stock increase that was not considered plausible during the MSE testing, and (iv) any other appropriate conservation and management actions;

c) Whether the existing MP should be adjusted or whether development of a new MP is required; and

d) Whether a stock assessment or other SCRS-approved method of determining TACs is needed for providing management advice in the interim while a revised MP is developed.

Based on the SCRS advice on the above, the Commission shall decide on alternative management action(s). As needed and appropriate, the SCRS shall conduct a new stock assessment and/or provide advice on new candidate MPs as soon as possible.

See the flowchart below for a schematic representation of the above process:

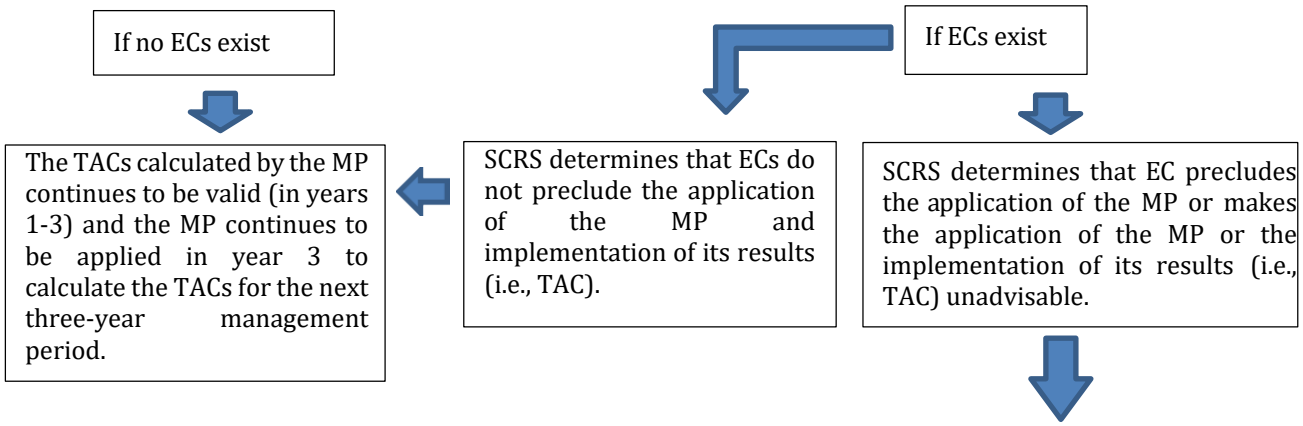
The SCRS shall check if ECs exist using the indicators and criteria specified in **Table 19.43.1** and according to the indicated frequency.

Year 1 & 2:

1. Update the Combined Index of abundance
2. Update catch
3. Consider evidence that stock states and fishery dynamics are in states not previously and/or no longer considered to be plausible in the context of the MSE, or when there is evidence that stock status or fisheries dynamics included within the OMs for the MSE testing are no longer considered plausible, and any other relevant information

Year 3:

1. Check that all datasets required in running the MP are available
2. Re-run MP
3. Same checks as conducted in Years 1 & 2



The SCRS shall advise the Commission on:

a) Additional research which may bring more clarity on whether it is necessary to divert from the current MP revision schedule and TAC;

b) Alternative management options for the coming fishing year aimed at ensuring, at a minimum, stability in the stock status, including the implications of: (i) maintaining the TAC decided through the MP, (ii) reducing the TAC in light of indications of stock decline, (iii) increasing the TAC in light of indications of stock increase that was not considered plausible during the MSE testing, and (iv) any other appropriate conservation and management actions;

c) Whether the existing MP should be slightly adjusted or whether development of a new MP is required; and

d) Whether a stock assessment or other SCRS-approved method of determining TACs is needed for providing management advice in the interim while a revised MP is developed.

Based on the SCRS advice on the above, the Commission shall decide on alternative management action(s). As needed and appropriate, the SCRS shall conduct a new stock assessment and/or provide advice on new candidate MPs as soon as possible.

The adopted management procedure (MP) was run in 2025 and provided total allowable catch (TAC) advice for the first management cycle (2026–2028). The Committee undertook analyses to support development of a draft Exceptional Circumstances Protocol (ECP) above. The protocol is scheduled to be adopted by the Commission in 2026, entering into effect in 2027. Final criteria associated with the three core principles of the protocol have not been formally adopted by the Commission. The Committee has, nevertheless, made an evaluation in accordance with the draft specifications of the present ECs.

The Committee has determined that ECs do not occur for the 2026 EC determination. This determination is based upon an evaluation of the draft criteria and elaborated here.

a) Stock dynamics

i. Indices. For 2025, the combined index of abundance does not fall outside of the conventional 95% (i.e. 2.5 to 97.5 percentiles) prediction intervals (**Figure 19.43.1**).

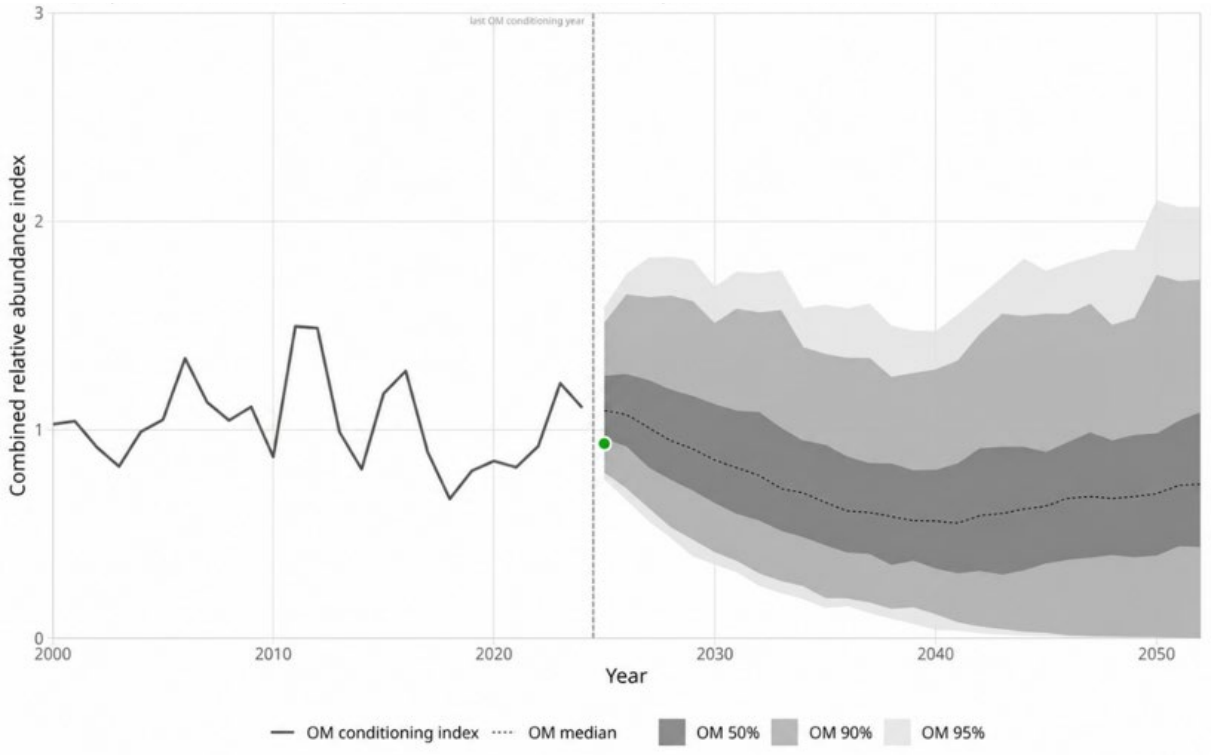


Figure 19.43.1. Plot shows the combined index against the OM reference envelope. The gray envelope gathers the percentiles of the 9 OMs * 100 simulations = 900 projected trajectories, the dashed line corresponds to the models' conditioning index, and the green point is the 2025 observation.

ii. Abundance and life history or fishery dynamics. There is no new evidence that abundance, life history or fishery dynamics are substantively different than those tested in the OMs.

b) Data availability for the MP

The combined index of abundance was updated in 2026 with data to 2025. Data from Venezuela was available through 2024 but not 2025. Therefore, the 2025 index estimate is based on Brazil and U.S. data only, which is not considered to be an EC as defined in **Table 19.43.1**.

c) Implementation of the TAC

There was no TAC for western skipjack in 2025, but 2025 landings were 23,004 t, below the 2026-28 MP-based TAC of 30,844 t. In 2027, the Committee will evaluate catch levels relative to this TAC.

19.44 SCRS shall report each year on the implementation of the port sampling programme broken down by CPCs, Rec. 24-01 para 73

Background: *The port sampling programme developed by the SCRS in 2012 shall be continued for landing or transhipment ports. Data and information collected from this sampling programme shall be reported to ICCAT each year, describing, at a minimum, the following by country of landing and quarter: species composition, landings by species, length composition, and weights. Biological samples suitable for determining life history should be collected as practicable. SCRS shall report each year on the implementation of the port sampling programme broken down by CPCs.*

In 2025, the Committee proposed that the ST-10 form for the submission of the port sampling fisheries data be discontinued. The SCRS and the Commission during the Annual Meeting approved the proposal which was implemented for the 2026 Statistics Data submission.

The Appendix 6 of the 2026 Secretariat's Report on Research and Statistics [PLE-SCRS-07/2026]) (**Table 19.44.1**) presented a summary of the information provided under the ST10 or data in the port sampling database from 2018 to 2025.

It is important to note that the recommendation to discontinue ST10 port sampling data was based on the fact that the same information was already submitted by CPCs through Task 2 Size samples (T2SZ) and catch-at-size data (T2CS) and Task 3 biological sampling data. This includes CPCs with fisheries of tropical tunas in the eastern tropical area (which was the original intent of the ST10). As the same data was submitted in two different statistical forms, there was duplication, inefficiency and redundant work for statistical correspondents and CPCs.

Table 19.44.1. Number of individuals of tropical species (BET, YFT, SKJ) sampled at port and reported through the ST10 form, 2018-2025.

Status	PartyName	FlagName	GearCode	SpeciesGrp	2018	2019	2020	2021	2022	2023	2024	2025
CP	CANADA	Canada	HARP	BET	8							
			HARPE	BET			9	34	71	27		
				YFT				1	11			
			LL	BET	6148							
				YFT	460							
			LL-B	BET				3413				
				YFT				2835				
			LL-surf	BET		1721	1791	925	6433	6588	4642	
				YFT		469	2445	206	6148	4088	3012	
			OTH	BET					5	572	161	
				YFT					1	29		
			RR	BET	16							
			RRFB	BET			103					
				YFT			167					
			TRAP	BET				6				
	COSTA RICA	Costa Rica	LL-surf	BET					7		6	
				YFT					44	124	149	
				Others					289	304	317	
			UNCL	BET							6	
				YFT							149	
				Others							317	
	EUROPEAN UNION	EU-España	BB	BET							7428	
				SKJ							1704	
				YFT							3285	
		EU-France	BB	BET		300	79	126	51	105	75	
				SKJ		299	107	3234	80	1727	325	
				YFT		241	109	1140	93	548	1003	
				Others		9	13					
			PS	BET		2184	1725	7755	1831	2391	1862	
				SKJ		1165	991	132010	1191	30005	11880	
				YFT		2929	2451	48835	3005	27775	38228	
				Others		606	580	3230				
	MAROC	Maroc	PS	BET			6					
				SKJ			5					
				YFT			6					
	MEXICO	Mexico	LL	BET			50	56				
				SKJ			486	731				
				YFT			6661	26372	17061	17779		
	SOUTH AFRICA	South Africa	BB	BET						163	492	
				YFT						1380	3435	
			LL	BET							9	
				YFT							8	
	GHANA	Ghana	PS	BET								6503
				SKJ								4687
				YFT								8966
				Others								298
NCO	Non-contracting parties	Brunei	PS	SKJ		25						
				YFT		25						
TOTAL					**6632**	**9973**	**17784**	**230909**	**36321**	**93605**	**78493**	**20454**

20. Other matters

20.1 Chapter 5 of the ICCAT Manual: Types of data that are not usually collected for scientific purposes (although they can sometimes be used to complement scientific estimates)

Due to time constraints this subject was postponed to next year's Committee meeting.

20.2 Deadline for the submission of SCRS documents and presentation to SCRS meetings

The Committee agreed to provisionally apply the following proposal in 2027 and revisited at its 2027 Plenary meeting.

The Committee agreed that the deadline for the submission of papers for scientific meetings be implemented strictly as follows: two weeks before the meeting start for title and abstract and seven days before the meeting start for the full paper.

Irrespective of the above paragraph, for documents critical to the objectives of the meeting the Chairs will have the flexibility to accept these documents after the deadline.

20.3 Update of the ICCAT webpage

Due to time constraints this subject was postponed to next year's Committee meeting.

20.4 Changing the Committee's handling of recommendations

20.4.1 Eliminating restrictions on recommendations to the Commission without financial implications

Background and rationale

Currently, existing protocols limit recommendations appearing in the main body of the annual SCRS Report that do not carry financial implications to a maximum of two per section.

Proposed change

- The Committee agreed as for 2027 for recommendations to the Commission, the limit shall be removed on the number of recommendations that do not carry financial implications.
- The Committee also agreed to provisionally apply the following proposal in 2027 and revisited at its 2027 Plenary meeting.
- For recommendations intended for SCRS Working Groups, Subcommittees, or the SCRS as a whole the mechanisms proposed below in 20.4.2 would apply.

20.4.2 Proposal for the preservation of SCRS Species Group recommendations

Background and rationale

During the annual ICCAT SCRS Species Group meetings held during the week prior to the SCRS Plenary session, each individual Species Group conducts extensive scientific discussions, reviews stock assessments, and formulates technical recommendations. Due to tight schedule constraints and the absence of dedicated time to formally write and adopt comprehensive intersessional meeting reports during that week, many valuable internal technical and operational recommendations generated by the Species Groups risk being lost or omitted from the institutional record.

Given the recommendation limits described above, there is no standardized vehicle to systematically record, track, and preserve internal, scientific recommendations agreed upon by Species Groups that are directed towards internal SCRS bodies rather than the Commission.

This proposal establishes a formal process to preserve and document internal scientific and operational recommendations generated by Species Groups without modifying or interfering with established SCRS Plenary decision-making procedures or Commission reporting rules. It will also allow all SCRS Working Groups to have an organized list of all SCRS recommendations directed to them.

Scope

This proposal relates strictly to internal working recommendations within the SCRS structure (i.e. recommendations directed to SCRS Working Groups, Subcommittees, or the SCRS as a whole). This mechanism will serve as a structured way to register and enable the follow up of recommendations to themselves and inter-group recommendations addressed to the SCRS and its various bodies.

Proposed operational mechanism

Formulation of internal recommendations

Each Species Group may adopt an official list of internal recommendations to the SCRS during its pre-plenary meeting week. Groups with annual meeting reports (i.e. WGSAM, SC-STATS, SC-ECO) should create a list of recommendations adopted in their reports.

Recommendations must be categorized into two distinct sections:

1. *Self-directed recommendations:* recommendations directed to the Species Group itself for future intersessional work, research priorities, or data requests.
2. *External/inter-Group recommendations:* recommendations directed to other specific SCRS bodies (e.g. WGSAM, SC-STATS, SC-ECO, or other Species Groups) or the SCRS, explicitly identifying the intended recipient body.

Presentation to the SCRS Plenary

The Working Group Officers will submit and present this list of internal recommendations to the SCRS Plenary as part of their standard presentation of documents and Executive Summaries.

Status at Plenary

To respect the consensus reached within the Species Groups during their annual meetings, this list of internal recommendations will be presented for information and integration into the institutional record and [**will not be subject to editing or drafting changes by the SCRS Plenary]**. They can be discussed in Plenary, and the implications of the recommendations taken into consideration (e.g. in the finalization of work plans).

All internal recommendations compiled under this mechanism will be preserved in a dedicated Annex to the annual SCRS Report, which will be translated to the official ICCAT languages. [Recommendations from all Working Groups will be consolidated and restructured by the recipient body (e.g., WGSAM, SC-STATS, SC-ECO, specific Species Groups)], a task that can be facilitated with the use of AI. Under each recipient header, the list will include both self-directed recommendations and all recommendations received from other Working Groups, with the originating group clearly identified for each recommendation.

20.5 Discussions on individual participation at SCRS Meeting and scientific integrity and conduct of SCRS processes

Due to time constraints this subject was postponed to next year's Committee meeting.

21. Election of the SCRS Chair

The Executive Secretary called for nominations for the position of SCRS Chair. Brazil nominated Prof. Luis Gustavo Cardoso. Many Contracting Parties also showed their support for this nomination, thanked Dr Cardoso for his hard work during his mandate as SCRS Vice Chair and wished him success in his new role. Dr Cardoso was elected as the next SCRS Chair by acclamation.

Upon his election as SCRS Chair, Dr Luis Gustavo Cardoso (Brazil) thanked the supporting CPCs, the Secretariat and the SCRS Rapporteurs, noting the honour of leading a Committee with such history and renowned scientists. He acknowledged the responsibility ahead, including strengthening inclusiveness, streamlining the Committee's work and communication with the Commission, and expressed his intention to lead collaboratively, with the support of the Officers and Secretariat. He closed by thanking Dr Craig Brown, outgoing SCRS Chair, for the opportunity to serve as Vice Chair and for all he had learned.

Several Contracting Parties also thanked Dr Craig Brown for his hard work and leadership during his tenure as Chair of the Committee. Dr Brown, who will remain in office as SCRS Chair until the end of 2026, thanked the Committee for their support. He congratulated Dr Cardoso on his election, and thanked him for his invaluable assistance during his tenure as Vice Chair. Finally, Dr Brown expressed full confidence that the Committee will be in good hands under Dr Cardoso’s leadership.

22. Adoption of the report and meeting closure

As this was Dr Brown's final SCRS meeting as SCRS Chair, the Executive Secretary expressed appreciation for his service, both in leading the Committee and in communicating its scientific advice to the Commission. Dr Brown thanked the Executive Secretary for his kind words, as well as the Secretariat for its exceptional support. In thanking the Committee and the interpreters for their hard work during the meeting and throughout the year, Dr Brown noted that, while he had always recognized their efforts, his tenure as Chair gave him an even deeper appreciation for the immense dedication required at all levels to conduct the Committee's work and produce its reports. Finally, the SCRS Chair expressed his sincere gratitude to the SCRS Officers, who successfully rose to the challenge of implementing process reforms during his tenure.

The Report of the 2026 SCRS meeting was adopted and the 2026 Meeting of the SCRS was adjourned.

Appendix 1

SCRS Plenary Agenda

1. General remarks by the SCRS Chair and the Executive Secretary
2. Adoption of agenda and arrangements for the meeting
3. Introduction of Contracting Party delegations
4. Introduction and admission of observers
5. Admission of scientific documents and presentations
6. Report of ICCAT Secretariat activities on statistics and science
7. Review of national fisheries and research programmes
8. Reports of intersessional SCRS meetings
9. Report of the Meeting of the Subcommittee on Ecosystems and Bycatch
10. Report of the Meetings of the Subcommittee on Statistics
11. Discussions at the Intersessional Meetings of the Commission relevant to the SCRS
    - 11.1 Intersessional Meetings of Panel 1
    - 11.2 Intersessional Meeting of Panel 2
    - 11.3 Intersessional Meeting of Panel 4
    - 11.4 Meeting of the Electronic Monitoring Systems Working Group (EMS WG)
    - 11.5 19th Meeting of the Working Group on Integrated Monitoring Measures (IMM)
    - 11.6 Meeting of the Standing Working Group on Dialogue between Fisheries Scientists and Managers (SWGSM)
    - 11.7 Meetings of the Virtual Working Group on Sustainable Financial Position for ICCAT (VWG-SF)
12. Executive Summaries on species
    - 12.1 YFT - Yellowfin
    - 12.2 BET - Bigeye
    - 12.3 SKJ - Skipjack
    - 12.4 ALB-AT - Atlantic albacore
    - 12.5 ALB-MD - Mediterranean albacore
    - 12.6 BFT - Atlantic bluefin tuna
    - 12.7 SBF - Southern bluefin
    - 12.8 BUM - Blue marlin

12.9 WHM - White marlin

12.10 SAF - Sailfish

12.11 SWO-AT - Atlantic swordfish

12.12 SWO-MD - Mediterranean swordfish

12.13 SMT - Small tunas

12.14 BSH - Blue shark

12.15 SMA - Shortfin mako

12.16 POR - Porbeagle

13. ICCAT Research Programmes

13.1 Atlantic-Wide Research Programme for Bluefin Tuna (GBYP)

13.2 Small Tunas Year Programme (SMTYP)

13.3 Shark Research and Data Collection Programme (SRDCP)

13.4 Enhanced Programme for Billfish Research (EPBR)

13.5 Albacore Year Programme (ALBYP)

13.6 Swordfish Year Programme (SWOYP)

13.7 Tropical Tuna Research and Data Collection Program (TTRaD)

13.8 Subcommittee on Ecosystems and Bycatch Research Programme

14. Progress related to work developed on Management Strategy Evaluation (MSE)

14.1 Work conducted for northern albacore

14.2 Work conducted for southern albacore

14.3 Work conducted for bluefin tuna

14.4 Work conducted for northern swordfish

14.5 Work conducted for western skipjack

14.6 Work conducted for tropical tunas multi-stock MSE

14.7 Work conducted for blue shark

14.8 Review of the Roadmap for the ICCAT MSE processes adopted by the Commission in 2025

15. SCRS Science Strategic Plan: way forward

16. Update of the stock assessment software catalogue

17. Consideration of plans for future activities

17.1 Annual workplans and research programmes

17.1.1 Subcommittee on Ecosystems and Bycatch Workplan for 2027

17.1.2 Subcommittee on Statistics Workplan for 2026/2027

17.1.3 Working Group on Stock Assessment Methods (WGSAM) Workplan

17.1.4 Albacore Workplan

17.1.5 Billfishes Workplan

17.1.6 Bluefin Tuna Workplan

17.1.7 Sharks Workplan

17.1.8 Small Tunas Workplan for 2027 and beyond

17.1.9 Swordfish Workplan

17.1.10 Tropical Tunas Workplan

17.2 Intersessional meetings proposed for 2027

17.3 Date and place of the next meeting of the SCRS

18. General recommendations to the Commission

18.1 General recommendations to the Commission that have financial implications

18.1.1 Subcommittee on Ecosystems and Bycatch

18.1.2 Subcommittee on Statistics

18.1.3 Albacore

18.1.4 Billfish

18.1.5 Bluefin tuna

18.1.6 Sharks

18.1.7 Small tunas

18.1.8 Swordfish

18.1.9 Tropical tunas

18.1.10 Working Group on Stock Assessment Methods (WGSAM)

18.2 Other general recommendations

18.2.1 Subcommittee on Ecosystems and Bycatch

18.2.2 Subcommittee on Statistics

18.2.3 Albacore

18.2.4 Billfishes

18.2.5 Bluefin tuna

18.2.6 Sharks

18.2.7 Small tunas

18.2.8 Swordfish

18.2.9 Tropical tunas

18.2.10 Working Group on Stock Assessment Methods (WGSAM)

18.2.11 Ad Hoc Working Group on Coordination of Tagging Information

19. Responses to the Commission's requests

20. Other matters

20.1 Chapter 5 of the ICCAT Manual: Types of data that are not usually collected for scientific purposes (although they can sometimes be used to complement scientific estimates)

20.2 Deadline for the submission of SCRS documents and presentations to SCRS meetings

20.3 Update of the ICCAT webpage

20.4 Changing the Committee's handling of recommendations

20.5 Discussions on individual participation at SCRS Meeting and scientific integrity and conduct of SCRS processes

21. Election of the SCRS Chair

22. Adoption of the report and meeting closure

Appendix 2

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Appendix 3

List of SCRS documents and presentations

List of documents

Number	*Title*	*Authors*
SCRS/2026/016	The use of traplines in the Portuguese pelagic longline fleet operating in the eastern Atlantic	Coelho R., Lino P., Barbosa C., Rosa D.
SCRS/2026/018	Updated standardized catch rates for South Atlantic stock of swordfish (*Xiphias gladius*) from the Spanish longline fleet for the period 1989-2024	Fernández-Costa J., Ramos-Cartelle A.
SCRS/2026/019	Update standardized catch rates of the North Atlantic stock of shortfin mako (*Isurus oxyrinchus*) inferred from Spanish surface longline fishery targeting swordfish during the 1990-2024 period	Ramos-Cartelle A., Fernández-Costa J.
SCRS/2026/020	Bluefin tuna mixing rates in the western Atlantic Ocean based on genetic data: 2016-2021	Hanke A.R., Akia S., Lauretta M.
SCRS/2026/021	Preliminary results and model diagnostics of continuity run using Stock Synthesis 3 for a status check of Atlantic bluefin tuna in the West Atlantic Ocean	Tsukahara Y., Kimoto A., Ortiz M., Lauretta M., Walter J.
SCRS/2026/022	Alternative model settings for WBFT area-based stock assessment using Stock Synthesis 3	Tsukahara Y., Fukuda H.
SCRS/2026/023	Stock Synthesis continuity runs from the 2022 stock assessment for eastern Atlantic and Mediterranean bluefin tuna	Fernandez C., Carmona I., Kimoto A., Lauretta M., Ortiz M., Rouyer T., Tsukahara Y., Walter J.
SCRS/2026/024	Report on the collaborative ageing of western Atlantic bluefin tuna	Zipp K., Pacicco A., Busawon D., Nadeau S., Carlucci J., Rudnicky B., Koob E., Hanke A., Sée I., Alper B., Lauretta M., O'Donnell M., Allman R., Golet W.
SCRS/2026/025	Operational protocol for tuna size estimation with the Kongsberg M3 multibeam sonar	Uranga J., Boyra G., Martínez U., Lastra P., Lekanda A., Onandia I., Sobradillo B., Arrizabalaga H.
SCRS/2026/026	GBYP biobank: development of Biotuna visualization tool	Artetxe-Arrate I., Zudaire I., Lastra-Luque P., Diaz-Arce N., Rodriguez-Ezpeleta N., Alemany F., Fraile I.
SCRS/2026/027	Genetic and isotopic estimates of Atlantic bluefin tuna stock mixing	Fraile I., Artetxe-Arrate I., Rodríguez-Ezpeleta N., Lastra-Luque P., Arrizabalaga H., Alemany F., Díaz-Arce N.
SCRS/2026/028	Summary of input data (catch and size) used in the Atlantic bluefin tuna for stock status check and operating models in 2026	Kimoto A., Ortiz M., Deprez B., Mayor C.
SCRS/2026/029	Standardized catch rates for Mediterranean swordfish (*Xiphias gladius Linnaeus, 1758*) from the Spanish longline fishery. 1988-2024.	Saber S., Rueda, L., Macías D., García S., Rioja P., Puerto M.A., Ortiz de Urbina J.
SCRS/2026/030	Characterizing a decade of Atlantic bluefin tuna stock mixing in the Gulf of Maine	Berge K., Whitener Z., Golet W., Lauretta M., Kerr L.
SCRS/2026/031	Improved acoustic abundance index of bluefin tuna in the Bay of Biscay: A 2015–2025 time series	Uranga J., Sobradillo B., Onandia I., Boyra G., Martínez U., Melvin G., Arrizabalaga H.
SCRS/2026/032	Bomb 14C dating, age estimate refinement, and growth characteristics using otoliths of North Atlantic albacore (*Thunnus alalunga*)	See I., Andrews A.H., Krusic-Golub K., Haghipour N., Allman R.J., Orbesen E., Snodgrass E., Pacicco A., Quelle Eijo P., Ortiz de Zárate V., Golet W.J.

Number	*Title*	*Authors*
SCRS/2026/033	Revision of historical catch statistics of swordfish (*Xiphias gladius*) caught by the Mexican fishing fleet in the Gulf of Mexico	Ramírez-López K., Rojas-González R.I., Mayor C.
SCRS/2026/034	Spatio-temporal model for CPUE standardization: application to South Atlantic swordfish caught by Japanese tuna longline fishery from 1962 to 2024	Kai M.
SCRS/2026/035	Influences of using ring-shaped branch-line (Meka-Ring) on Atlantic swordfish CPUE in Japanese longline fisheries	Kai M., Tsukahara Y., Sato K., Semba Y.
SCRS/2026/036	Review and preliminary analysis of size samples of South Atlantic and Mediterranean swordfish (*Xiphias gladius*)	Ortiz M., Taylor N.G., Mayor C., Kimoto A.
SCRS/2026/037	Standardized catch per unit effort of albacore (*Thunnus alalunga*) from the Spanish baitboat fleet for the period: 1981-2025 in the Northeast Atlantic	Quelle P., Jaranay M., Carmona I., Ortiz M.
SCRS/2026/038	Applying the exploratory climate test for western skipjack tuna and North Atlantic swordfish	Carruthers T.
SCRS/2026/039	CPUE trends of the Greek surface longline swordfish fishery in the eastern Mediterranean	Tserpes G., Peristeraki P.
SCRS/2026/041	Final report for phase seven of the ICCAT short-term contract for continuation of the swordfish growth, reproduction and genetics studies: biological samples collection and analysis	Rosa D., Stewart N., Gioacchini G., Borrego-Santos R., Andrews A.H., Krusic-Golub K., Carnevali O., Macías D., Hanke A., Gillespie K., Coelho R.
SCRS/2026/042	Updated standardized swordfish catch rates from longline fisheries operating in the Ligurian Sea (Italy, Western Mediterranean) (Period 1990–2024)	Garibaldi F., Bottero F., Lanteri L., Pinto C.
SCRS/2026/043	Multi-fleet longline CPUE standardization for South Atlantic swordfish (*Xiphias gladius*)	Su N-J., Mourato B.L., West W., Coelho R., Forselledo R., Kai M., Sant'Ana R., Báez J.C., Jagger C.E., Gillespie K., Kimoto A., Cardoso L.G.
SCRS/2026/045	Climate-induced shifts in swordfish spawning habitat in the Western Mediterranean	Tugores M.P., Torres A.P., Reglero P., Martín M., Balbín R., Tintoré J., Alvarez-Berastegui D.
SCRS/2026/046	Swordfish discard estimates in the Spanish Mediterranean longline fleet using the Bycatch Estimator Tool	Rueda L., Moreno J., Ortiz de Urbina J., Puerto M.A., Macías D.
SCRS/2026/047	Preliminary results on the use of traplines in the swordfish longline Spanish fishery in the Mediterranean Sea	Rueda L., Macías D., Moreno J., Borrego-Santos R., Alegría A., Salmerón F., García-Barcelona S., Ortiz de Urbina J., Báez J.C.
SCRS/2026/048	Updated catch rates of swordfish (*Xiphias gladius*) caught by Moroccan longline fleet in the Mediterranean Sea, 2012–2024	Layachi M., Ikkis A., Abid N., Serghini M., Bensbai J.
SCRS/2026/049	Revision of historical size distributions of swordfish (*Xiphias gladius*) caught by the Mexican fishing fleet in the Gulf of Mexico	Ramírez-López K., Rojas-González R.I., Mayor C.
SCRS/2026/050	CPUE standardisation of swordfish caught by longline in South African waters	West W.M., da Silva C., Kerwath S.E.
SCRS/2026/051	Development and results of the pilot project on the efficacy of traplines/loops in the Spanish longline fleet in the ICCAT area	Baez J.C., Alegría A., Moreno J., Borrego-Santos R., Salmerón F., García-Barcelona S., Rodríguez E., Carrera M., Rueda L., Puerto M.A., Gómez-Vives M.J., Macías D.
SCRS/2026/052	Standardized catch rates of swordfish from Brazilian and Uruguayan pelagic longline fisheries in the South Atlantic Ocean (1994-2024)	Mourato B., Forselledo R., Jiménez S., Kikuchi E., Mas F., Cardoso L.G., Sant'Ana R.

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SCRS/2026/053	Statistique des prises accessoires de l'Espadon (*Xiphias gladius*) des navires de la pêche industrielle (PI), pêche semi-industrielle (PA) et pêche artisanale (PA) 2010-2025	Soumah M.
SCRS/2026/054	Updated fishery statistics of tuna species caught off Madeira archipelago, 2014-2024	Alves A., Amorim A., Ferreira R., Gouveia L.
SCRS/2026/055	Updated analysis of maturity in swordfish (*Xiphias gladius*) from western Mediterranean Sea: From 2018 to 2025	Borrego-Santos R., Puerto M.Á., Alegría A., Rueda L., Rodríguez E., Gómez-Vives M.J., Moreno J., Carrera M., Saber S., Poisson F., Macías D.
SCRS/2026/056	Standardization of CPUE for South Atlantic swordfish (*Xiphias gladius*) caught in the Chinese Taipei tuna longline fishery using Delta approach	Su N-J., Sung Y.F.
SCRS/2026/057	Report of the 2025 ICCAT swordfish tagging campaigns off São Tomé e Príncipe (Gulf of Guinea)	Gillespie K., da-Conceição I.
SCRS/2026/058	Preliminary Evaluation of Candidate Management Procedures for North Atlantic Albacore.	Urtizberea A., Correa G.M., Merino G., Arrizabalaga H.
SCRS/2026/059	Evaluation of Candidate Management Procedures for Atlantic tropical tunas	Urtizberea A., Correa G.M, Merino G., Arrizabalaga H.
SCRS/2026/062	Temporal trends in standardized CPUE of South Atlantic albacore (*Thunnus alalunga*) from Brazilian and Uruguayan longline fisheries (1978-2024)	Mourato B., Forselledo R., Jiménez S., Kikuchi E., Mas F., Cardoso L.G., R. Sant'Ana
SCRS/2026/063	Informe de las Actividades del componente captura fortuita del Sub-Eco en el mar Mediterráneo	Anonymous
SCRS/2026/064	Regional abundance index for albacore tuna caught in the Chinese Taipei longline fisheries in the North Atlantic	Su N-J., Sung Y.F.
SCRS/2026/065	CPUE standardization for albacore tuna (*Thunnus alalunga*) caught in the Chinese Taipei longline fishery in the South Atlantic	Su N-J., Sung Y.F.
SCRS/2026/066	Analyse des structures de tailles du germon (*Thunnus alalunga*) provenant de la pêche palangrière en Algerie	Rouidi S., Mennad M.
SCRS/2026/067	Projet thonidés tropicaux : collecte et analyse d'échantillons biologiques pour l'âge et la croissance des thons tropicaux	Diaha N.C., Ngom S.F., Abekan E., Ba K., Aissan R.A., Sadio N., Djeneba C., N'guessan Y.
SCRS/2026/068	Environmental effects on the standardization of albacore (*Thunnus alalunga*) abundance index in the Gulf of Hammamet and adjacent Mediterranea Sea (2024-2025)	Hajjej G., Hanke A., Sosthene A.
SCRS/2026/069	Standardization of CPUE for albacore tuna (*Thunnus alalunga*) in the Namibian pelagic longline fishery (2004-2024)	Jagger C.E., Paulus S.C.
SCRS/2026/070	The growth of the North Atlantic shortfin mako: reliability and accuracy according to Δ14C data	Ramos-Cartelle A., Fernández-Costa J.
SCRS/2026/071	CPUE Standardization of albacore (*Thunnus alalunga*) caught by the South African tuna-pole-line (baitboat) fleet for the time series 2003-2024	West W.M., Kerwath S.E.
SCRS/2026/072	Standardized CPUE for South Atlantic albacore by Japanese longline fishery from 1979 to 2025	Matsubara N., Aoki Y.
SCRS/2026/073	Standardized CPUE for North Atlantic albacore by the Japanese longline fishery from 1975 to 2025 as bycatch period	Matsubara N., Aoki Y.
SCRS/2026/074	Process error diagnostics in Stock Synthesis (SS3): an example based on North Atlantic shortfin mako shark	Kell L., Cardinale M.

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SCRS/2026/075	Standardized indices of albacore, *Thunnus alalunga*, from the United States pelagic longline fishery	Lauretta M.
SCRS/2026/077	Conceptual basis and structural elements for an exceptional circumstances protocol in the western skipjack tuna management strategy evaluation	Sant'Ana R., Mourato B.
SCRS/2026/078	Characterizing growth uncertainty in albacore (*Thunnus alalunga*) using a Monte Carlo approach based on literature-derived variability	Mourato B., Kikuchi E.
SCRS/2026/079	North Atlantic albacore tuna reproductive biology study: biological samples collection and analysis	Busawon D.S., Alex Hanke A., Quelle P., Su N.J., Macías D., Puerto M.A., Gomez M.J., Rodríguez E., Borrego-Santos R., Chapela I., Jaranay M., Sánchez C., García B., Gutiérrez O.
SCRS/2026/080	Mise à jour des traits biologiques de la bonite à ventre rayé capturée dans la zone sud du Maroc entre 2021 et 2024	El-Joumani E.M., Baibbat S.A., Bensbai J., Abid N.
SCRS/2026/081	Statistique des prises accessoires des thonidés tropicaux (albacore, listao, thon obèse) des navires de la pêche industrielle (PI), pêche semi-industrielle (PA) et pêche artisanale (PA) 1995-2025	Soumah M.
SCRS/2026/082	Methods to estimate multi-species discards from the Portuguese pelagic longline fishery in the Atlantic Ocean	Coelho R., Rosa D., and Lino P.G.
SCRS/2026/083	Preliminary analysis of satellite telemetry data from tagged blue and shortfin mako sharks reveals substantial connectivity across the ICCAT–IOTC boundary	DaSilva C., West W.M., Rogers T., Booth A.J., Marsac M., Meyer M., Singh S., Wilke C.W., Kerwath S.E.
SCRS/2026/090	Estimation of undersize Mediterranean swordfish (*Xiphias gladius*) dead discards between 2019–2024 for the main longline fleets	Ortiz M., and Kimoto A.
SCRS/2026/091	Preliminary analysis of Meka-ring effects on bycatch in Japanese longline fisheries based on scientific observer data	Matsushita H., Ochi D., and Okamoto K.
SCRS/2026/092	Mapping trophic interactions in the western central Atlantic pelagic ecosystem: an ecopath modeling approach	Narváez M., Marín H., Herrera A.T., Evaristo E., Villamizar V., and Arocha F.
SCRS/2026/094	Planning experimental studies on technical fishing gear modifications to detect catch rate changes in ICCAT pelagic longline fleets	Coelho R., Bowlby H., Carlson J., Díaz G.A., Domingo A., Forselledo R., and Su N-J.
SCRS/2026/095	Checklist of bycatch species observed in the Spanish fleet targeting tunas and tuna-like species in the ICCAT area	Baez J.C., Alegría A., Moreno J., Salmerón F., Alonso M.L.R., Pascual P.J., Abascal F.J., Déniz S., García-Barcelona S., Casañas I., de la Rosa J., Torreblanca Estrada D., and Macías D.
SCRS/2026/096	Differences in bycatch associated with surface longline métiers targeting swordfish using traplines/loops from Mediterranean Sea	Macias D.
SCRS/2026/097	Estimates of live and dead discards of shortfin mako sharks in Spanish surface longline fisheries in the Atlantic Ocean using bycatch-estimation tool	Baez J.C., Alegría A., Rueda L., Salmeron F., DeLaRosa J., Torreblanca D., Ramos M.L., and Macias D.
SCRS/2026/098	EcoTest indicator 3: greater indicator generality, higher precision and empirical comparisons	Carruthers T., and Taylor N.G.
SCRS/2026/099	Modelling spatiotemporal patterns of mobulids in the East Tropical Atlantic Ocean	Riesgo Torres M.D., Pennino M.G., Ramos Alonso M.L., Ruiz Gondra J., Sabarros P.S., Erauskin Extramiana M., and Juan Jordá M.J.

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SCRS/2026/100	A temperature-driven early-life habitat suitability indicator for bigeye tuna in the Tropical Atlantic: towards climate-informed ecosystem indicators	Chaguaceda M., Juan-Jordá M.J., and Alvarez D.
SCRS/2026/101	Economic indicators of Spanish fisheries targeting tunas and tuna-like species in the ICCAT area	de-La-Rosa J.
SCRS/2026/103	Preliminary Ecosim model of the tropical Atlantic Ocean: hindcasting food-web and fisheries dynamics	Meléndez-Arteaga J., Andonegi E., Juan Jordá M.J., Zudaire I., Forrestal F., Die D., and Corrales X.
SCRS/2026/107	Incidental catch information from Namibia's large pelagic fishery: preliminary indicators in support of ICCAT ecosystem considerations	Jagger C.E.
SCRS/2026/108	The Role of the TUNAMED Observatory for assessing environmental variability and climate change impacts on large pelagic fish populations in the Mediterranean	Alvarez-Berastegui D., Tugores M.P., Torres A.P., Ottmann D., González N., Aranda I., Alvarez-Ellacuria I., Balbín R., Carreño A., Santandreu M., Juza M., and Reglero P.
SCRS/2026/109	Spatial segregation and bycatch risk as potential drivers of population trends of wandering albatrosses at South Georgia	Warwick-Evans V, Pearmain E., Thorne L., and Phillips R.A.
SCRS/2026/110	Overlap between high seas fishing activity and tropical seabirds that rely on subsurface predators to catch prey	Clark B.L, Shearer L., Simpson T.J.S., Beard A.M., Wright S., Defriez E., Oppel S., Bell J., Reynolds S.J., Phillips R.A., Davies T., Clingham E., Dickey R.C., Henry L., Hughes B.J., Small A., Tuppen S., Wearn C.P., Weber N., Weber S., and Carneiro A.P.B.
SCRS/2026/111	Updated indicators for ICCAT species that are retained and assessed	Hanke A.R., and Andonegi E.
SCRS/2026/113	Update and revision of economic indicator for ICCAT Eco-Card	Tsuji S.
SCRS/2026/114	Technical improvements to the bycatch estimation toolkit and prototype web-based application	Babcock E.A., Adao A., and Harford W.J.
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SCRS/2026/116	Evaluating ICCAT candidate ecoregions as a framework to support ecosystem-based advisory products: a comparative analysis of tuna and billfish fisheries and fleets	Casado-Orta H., Mariño G., Murua H., Andonegi E., Idarraga Garces V., and Juan-Jordá M.J.
SCRS/2026/117	Assessment of sea turtle bycatch and fishery interactions along the Egyptian Mediterranean coast	Saber M.A., El Haweet A., and Osman H.
SCRS/2026/119	Improving post-release survival of silky sharks through best handling practices and bycatch release technologies in tuna purse seiners	Grande M., Mugerza A., Murua J., Cuevas N., Salgado A., Onandia I., Lopetegui-Eguren L., Erauzkin-Extramiana M., Ruiz J., and Arrizabalaga H.
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SCRS/2026/121	Electronic Monitoring Systems as a tool to enhance bycatch and discard data collection and compliance with mitigation measures: preliminary results from the Brazilian pelagic longline tuna fishery	Lezama A.Q., Cabanillas-Torpoco M., Canani G., and Peres M.B.
SCRS/2026/122	Bycatch Research and Data Collection Data Program (PIRDCaF)	Anonymous
SCRS/2026/123	Bycatch landed by the Mexican longline fleet in the Gulf of Mexico	Ramírez-López K., Rojas-González R.I., and Wakida-Kusunoki A.T.

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SCRS/2026/125	Integrating salinity anomalies into CPUE standardization: a case study of Mediterranean albacore (*Thunnus alalunga*)	Hajjej G., Hanke A., and Sosthene A.
SCRS/2026/126	Application of the Bycatch Estimator Tool to estimate bycatch in the Venezuelan industrial longline fleet	Narvaez M., Marín H., Evaristo E., Gutiérrez X., and Arocha F.
SCRS/2026/127	Swordfish bycatch estimation for the Chinese longline fleet in the Atlantic	Jiang M., Wang R., Cheng X., Dong S., and Zhang F.
SCRS/2026/128	Preliminary data model analysis of bycatch from Tunisian swordfish fishery: case of Mahdia port	Zarrad R.
SCRS/2026/129	Evaluating weighting strategies for ensemble model averaging in fisheries stock assessment	Wang R., and Zhang F.
SCRS/2026/130	Development report on a spatial production model	Ijima H.
SCRS/2026/131	Review of the assessment for all initiative (a4a) statistical catch-at-age framework for the ICCAT software catalogue	Jardim E., Mantopoulou Palouka D., Tserpes G., and Kimoto A.
SCRS/2026/132	Evaluation of demographic analyses to derive inputs for stock assessment of northern shortfin mako sharks	Bowlby H.D., Babcock E.
SCRS/2026/133	Estimation of swordfish discards in the South African longline fleet, using the Bycatch Estimator Tool	West W.M., and DaSilva C.
SCRS/2026/134	Estimation of shortfin mako discards in the South African longline fleet	DaSilva C., and West W.M.
SCRS/2026/135	Assessing shortfin mako live-release catch rates in Namibia using a Tweedie GAM standardization framework	Jagger C.E., Hanghome G., Nambahu T., and Paulus S.C.
SCRS/2026/136	A multi-fleet standardized relative abundance index for North Atlantic shortfin mako shark	Coelho R., Arocha F., Baez J.-C., Bowlby H., Carlson J., Courtney D., Diaz G., Fernandez C., Kuo T.-C., Liniers G., Lino P.-G., Ramirez-Lopez K., Rice J., Rosa D., Rueda L., Ruiz M., Salmeron F., Su N.-J., Cardoso L.-G., Forselledo R.
SCRS/2026/137	Stock assessment and application of management procedure for North Atlantic albacore.	Merino G., Urtizberea G., Moron Correa G., and Arrizabalaga H.
SCRS/2026/138	Decoupling of blue shark and shortfin mako fishing mortality in the South Atlantic: implications for BSH MSE design	Taylor N.G.
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SCRS/2026/140	Atlantic blue shark Management Strategy Evaluation: operating model development and preliminary analysis	Taylor N.G., Sant'ana R., Fernandez C., Liniers G.
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SCRS/2026/142	From fitted to fit-for-purpose: intertwining the strands of stock assessment; internal, external, and robustness diagnostics for stock assessment	Kell L., Cardinale M.
SCRS/2026/143	Preliminary 2026 Stock Synthesis (SS3) model runs for North Atlantic shortfin mako shark (1950–2024) under three alternative biological scenarios	Fernández C., Courtney D., Rice J., Liniers G., Cardoso L.G., Forselledo R.

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SCRS/2026/144	Longevity-based constraints on equilibrium age structure: an application using age- and sex-specific natural mortality	Rice J.
SCRS/2026/145	Stock Synthesis version update for the 2017 North Atlantic shortfin mako shark Stock Synthesis (SS3) model run 3	Courtney D.
SCRS/2026/147	Discards estimates in the swordfish longline fishery from 2023 to 2025: an updated analysis using an integrated web and mobile application that combines traditional and advanced sampling plans	Serghini M., Baibbat S.A., Abid N., Bensbai J., Ikkis A.
SCRS/2026/148	Spatial and vertical behaviour analysis of the longfin mako shark (*Isurus paucus*) using satellite tagging, including depth-based trajectory correction	Teixeira J., Rosa D., Coelho R.
SCRS/2026/149	Bayesian production models applied to North Atlantic mako sharks using JABBA and JABBA-Select, updated in 2026	Babcock E.A.
SCRS/2026/150	Estimation of fishing capacity of active vessels fishing for tropical tunas in the ICCAT convention area during 2025.	Restrepo V.R., Mayor, C. Palma, C., Claudino, R. and Deprez, B.
SCRS/2026/151	Report of the Shark Species Group informal meetings on the 2026 North Atlantic shortfin mako stock assessment	Forselledo R.
SCRS/2026/152	Updated size frequency data of the Atlantic bluefin tuna East Atlantic and Mediterranean stock for the 2026 status check	Kimoto A., Mayor C., Deprez B., and Ortiz M.
SCRS/2026/153	Updated size frequency data of West Atlantic bluefin tuna including reconstructed historical data	Kimoto A., Boustany A.M., McClenachan L., Van-Houtan K., Walter J., and Lauretta M.
SCRS/2026/154	Specifications for MSE Trials for North Atlantic Albacore.	Urtizberea A., Correa Giancarlo M., Merino G., and Arrizabalaga H.
SCRS/2026/155	Calibration of fishing gears for standardizing catches of albacore tuna larvae in the western Mediterranean.	Alvarez-Berastegui D., Tugores M. P., Torres A.P, Alvarez I., Gonzalez N., Aranda I., Carreño A., and Reglero P.
SCRS/2026/156	Preliminary stock synthesis assessment for south Atlantic albacore (*Thunnus alalunga*) covering 1956–2024.	Kikuchi E., Mourato M., Hordyk A., Sant'Ana R., Kimoto A., Ortiz M., and Cardoso L.G.
SCRS/2026/157	Preliminary Evaluation of Candidate Management Procedures for North Atlantic Albacore	Urtizberea A., Correa G.M., Merino G., and Arrizabalaga H.
SCRS/2026/158	Bluefin tuna management procedure reviews	Butterworth D.
SCRS/2026/159	Preliminary JABBA Model runs in support of the 2026 Stock Assessment of South Atlantic Albacore (*Thunnus alalunga*)	Sant'Ana R., Mourato B., Kikuchi E., Cardoso L.G., Kimoto A., and Ortiz M.
SCRS/2026/160	Continuity model using Stock Synthesis 3 for a status assessment of Atlantic bluefin tuna in the West Atlantic Ocean: part 1 input data and model specification	Tsukahara Y., Gillespie K., Kimoto A., Ortiz M., Lauretta M., and Walter J.
SCRS/2026/161	Continuity model using Stock Synthesis 3 for a status assessment of Atlantic bluefin tuna in the West Atlantic Ocean: part 2 model diagnostics and results	Tsukahara Y., Gillespie K., Kimoto A., Ortiz M., Lauretta M., and Walter J.
SCRS/2026/162	Continuity model using Stock Synthesis 3 for a status assessment of Atlantic bluefin tuna in the West Atlantic Ocean: part 3 sensitivity runs	Tsukahara Y., Gillespie K., Kimoto A., Ortiz M., Lauretta M., and Walter J.
SCRS/2026/163	Stock Synthesis model runs for the 2026 stock assessment for eastern Atlantic and Mediterranean bluefin tuna	Fernández C., Carmona I., Kimoto A., Lauretta M., Ortiz M., Rouyer T., and Walter J.

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SCRS/2026/168	Analysis of catch-at-size data of swordfish (*Xiphias gladius*) caught by longline fisheries operating in the Ligurian Sea (Italy, Western Mediterranean), period 1990–2024	Garibaldi F.
SCRS/2026/169	Continuity model runs for the Mediterranean swordfish stock assessment using the a4a initiative	Mantopoulou-Palouka D., Tserpes G., Kimoto A., and Jardim E.
SCRS/2026/170	Assessing Mediterranean swordfish using the Assessment for All (a4a) model	Mantopoulou-Palouka D., Tserpes G., Kimoto A., and Jardim E.
SCRS/2026/171	Assessment of Mediterranean swordfish (*Xiphias gladius*) status using the Bayesian state-space surplus production model JABBA	Liniers G., Rueda L., Kimoto A., Ortiz M., Gillespie K., and Tserpes G.
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SCRS/2026/173	Stock assessment of south Atlantic swordfish in 2026: exploring alternative biological priors with JABBA model	Mourato B., Kikuchi E., Gillespie K., Sant'Ana R., Kimoto A., Ortiz M., and Cardoso L.G.
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SCRS/2026/175	Contribution to the biological study of the blue shark (*Prionace glauca*) in Moroccan Atlantic waters	Hamdi H., Abid N., Baibbat S.A., Bensbai J., Ikkis A., Joumani M.
SCRS/2026/176	2026 South Atlantic Albacore Stock Projections	Kimoto A., Lauretta M., Urtizberea A., Kikuchi E., Sant'Ana R., Cardoso L.G., Mourato B., and Ortiz M.
SCRS/2026/177	2026 Mediterranean Swordfish Stock Projections	Kimoto A., Liniers G., Fernandez C, and Ortiz M.
SCRS/2026/178	2026 North Atlantic Shortfin Mako Shark Stock Projections	Liniers G., Kimoto A., and Fernandez C.
SCRS/2026/179	Progress report on the ICCAT-GBYP Phase 15 short-term contract for biological studies	Artetxe-Arrate I., Diaz-Arce N., Rodriguez-Ezpeleta N., Bonhommeau S., Rouger T., Derridj O., Quelle P., Nøttestad L., Sørensen Ø., Lastra-Luque P., Alemany F., and Fraile I.
SCRS/2026/180	Revision of bluefin catch data from the old tuna trap "Tonnara del Secco" (San Vito Lo Capo, Trapani, Sicily, Italy)	Ravazza N., and DiNatale A.
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SCRS/2026/182	Revision of bluefin catch data from the old tuna trap "Saline" (Stintino, Sassari, Sardinia, Italy)	DiNatale A.
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SCRS/2026/189	In memoriam of a tuna scientist: Prof. Corrado Piccinetti	DiNatale A.
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SCRS/2026/191	Progress on skipjack tuna (*Katsuwonus pelamis*) age validation in the Atlantic Ocean using bomb radiocarbon	Andrews A.H., Lastra-Luque P., Zudaire I., Fraile I., Cardoso L.G., Coletto J., Krusic-Golub K. and Artetxe-Arrate I.
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SCRS/P/2026/078	Preliminary Stock Synthesis analysis for Mediterranean swordfish	Liniers G., Rueda L., Kimoto A., Ortiz M., Gillespie K., Tserpes G.
SCRS/P/2026/079	Evaluation of BFT EC 2026	Walter J., Kimoto A., Rouyer T.
SCRS/P/2026/080	Whole-genome sequencing reveals continuous population structure, extensive admixture, and a putatively adaptive genomic inversion in Atlantic bluefin tuna from the Northwest Atlantic	Jia I.L., Scher A., Maheux S., Leblanc N.M., Hanke A., Busawon D., Stewart N.D., Gillespie K., Therkildsen N.O., Iqbal A.R., Dimens P.V., Landis J.B., Grenier J.K., Chavarie L., Oomen R.A.
SCRS/P/2026/081	Exceptional Circumstance evaluation for North Atlantic swordfish in 2026	Gillespie K., Hordyk A.
SCRS/P/2026/082	Updated North Atlantic albacore e-tagging research 2019-2026	Cabello M., Arregui I., Onandia I., Markalain G., Uranga J., Lezama-Ochoa N., Ortiz de Zarate V., Delgado de Molina R., Santiago J., Abascal F., Arrizabalaga H.
SCRS/P/2026/083	Short-Term Contract for ICCAT SMTYP for the Biological Samples Collection and Results for Growth, Maturity and Genetics – Year 2026	Muñoz-Lechuga R., Frédou T., Viñas J., Ollé J., Hajjej G., Macías D., Borrego R., Lino P.G., Ngom Sow F., Diaha N'G.C., Angueko D., Lucena-Frédou F., Silva G., Narvaez M., Alemany F., Kikuchi E., Cardoso L.G., Talijancic I., Sidahmed B., Conceição I., Di Natale A., Benounnas K., da Luz A., Vieira N.
SCRS/P/2026/084	Collection of biological samples and analysis for the study of growth of billfish in the eastern Atlantic: update on year 6	Almeida D., Rosa D., Andrews A.H., Krusic-Golub K., Sow F.N., Coelho R.
SCRS/P/2026/085	Update on the swordfish growth, reproduction and genetics studies under the SWOYP: Phase 8	Rosa D., Borrego-Santos R., Gioacchini G., Carnevali O., Macías D., Gillespie K., Coelho R.
SCRS/P/2026/086	Presentation on Task 1 and Task 2 statistics for small tunas	ICCAT Secretariat
SCRS/P/2026/087	Presentation on Task 1 and Task 2 statistics for swordfish	ICCAT Secretariat

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SCRS/P/2026/088	Presentation on Task 1 and Task 2 statistics for bluefin tuna	ICCAT Secretariat
SCRS/P/2026/089	Presentation on Task 1 and Task 2 statistics for billfish	ICCAT Secretariat
SCRS/P/2026/090	Presentation of Task 1 and Task 2 statistics for tropical tunas	ICCAT Secretariat
SCRS/P/2026/091	Presentation of Task 1 and Task 2 statistics for sharks	ICCAT Secretariat
SCRS/P/2026/092	Presentation of Task 1 and Task 2 statistics for albacore tuna	ICCAT Secretariat
SCRS/P/2026/093	Towards establishing a framework for evaluating manual and AI-based tuna counting and measurement systems	Talijančić I., Jakelić P., Perišić M., Šimleša M., Grubišić L.
SCRS/P/2026/094	Epigenetic age estimation in swordfish: updated results and ongoing validation	Gioacchini G., Rosa D., Krusic-Golub K., Gillespie K., Coelho R., Carnevali O.
SCRS/P/2026/097	Acoustic telemetry for tracking tuna migrations across the strait of Gibraltar and Gulf of Cádiz: straits project and GBYP supported tagging campaigns	Vilas C., Cabanellas M., Abecasis D., Jiménez-Rincón J., Mansilla O., Lino P., Alemany F., Dos Santos M.N., Sanchez-Leal R.F.
SCRS/P/2026/098	Decision framework for selecting stock assessment model: application to ICCAT small tunas	Narváez M., Kikuchi E., Muñoz R., Lino P., Cardoso L.G.
SCRS/P/2026/099	Age and growth studies on priority shark species: Preliminary ageing work for LMA	Santos C.C., Machado M., Passerotti M., Carlson J., Coelho R.
SCRS/P/2026/100	Age and growth studies on priority shark species: Survey on the availability of samples and future steps	Santos C.C., Domingo A., Junge C., Mas F., Bowlby H., Carlson J., Cardoso L.G., Passerotti M., Forselledo R., Joyce W., Coelho R.
SCRS/P/2026/101	Updated standardized CPUEs of the EU.PRT + MAR tuna traps, with data until 2025	Lino P.G., Abid N., Bensbai J., Coelho R.
SCRS/P/2026/102	Preliminary selection of small tuna species stocks as candidates for future stock assessment	Muñoz-Lechuga R., Narvaez M., Kikuchi E., Lino P.G., Cardoso L.G.
SCRS/P/2026/103	Reporting Status 2026 including Tagging and pending Task 1 & Task 2 Submissions	ICCAT Secretariat
SCRS/P/2026/104	Summary of ICCAT Secretariat dataset estimations	ICCAT Secretariat
SCRS/P/2026/105	Data deficiencies in ICCAT Fisheries & Biological Data	ICCAT Secretariat
SCRS/P/2026/106	ST/TG forms and templates revisions for 2027	ICCAT Secretariat
SCRS/P/2026/107	IOMS 2026 status update	ICCAT Secretariat
SCRS/P/2026/108	Split the sampling areas in the Mediterranean to replace older T1NC areas	ICCAT Secretariat
SCRS/P/2026/109	Outcomes of the SC-STATS ad hoc Groups	ICCAT Secretariat
SCRS/P/2026/110	AM100-System and Tuna AI Developments 2026	Dell M.
SCRS/P/2026/111	Analysis of the operating models developed for bigeye and yellowfin	Urtizberea A., Correa G.M., Merino G., Arrizabalaga H.

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	tuna under the tropical tuna MSE Framework.	
SCRS/P/2026/112	Norway porbeagle tagging	Junge C., Ferter K., Bjelland O
SCRS/P/2026/113	New Tools: Responses to the Commission application & conversion factor calculator	ICCAT Secretariat
SCRS/P/2026/114	Mediterranean albacore research priorities aligning network expertise with SCRS Stock Assessment needs	Alvarez-Berastegui D.

Appendix 4

2026 Secretariat Report on Research and Statistics

The final 2026 Secretariat Report on Research and Statistics will be published in the *Report for Biennial Period 2026-2027, Part I (2026), Vol. 4.*

Appendix 5

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Appendix 6

ICCAT MSE Roadmap

In 2025 the Commission approved a new format to the ICCAT MSE Roadmap document. The aim is to facilitate reading, comparison among processes and navigation. The table below contains the revisions suggested by the SCRS during its 2026 Plenary meeting for Commission consideration.

Stock	*MP adoption (actual or planned)*	*ECP adoption (actual or planned)*	*Next year to run MP*	*Next stock status check*	*Next MP review*	*2026 Workplan*		*2027 Workplan*		*2028 Workplan*		*2029 Workplan*	
						SCRS	*COMM*	*SCRS*	*COMM*	*SCRS*	*COMM*	*SCRS*	*COMM*
Northern Albacore	2021/2026	2021	2026	2029	2032	Present progress to PA2 at intersessional meeting. Run the current and alternative MPs to provide TAC for 2027-2029.	PA2 to meet intersessionally to provide feedback on how to finalize the MSE (objectives, performance indicators, MPs, tuning). Adopt 2027-2029 TAC at the annual meeting based on current or alternative MP.	Check for ECs. Conduct any pending analyses as requested by COM or SCRS.		Check for ECs. Conduct any pending analyses as requested by COM or SCRS.		Bench-mark assessment (status check). Run MP to provide TAC for 2030-2032.	Adopt 2030-2032 TAC at the annual meeting based on MP.
Southern Albacore	2027	2028				Conduct stock assessment Agree on: - Major sources of uncertainty to be considered in the MSE; - MSE framework structure; - Reference and robustness set of OMs.	PA3 to provide feedback on initial MSE structure and testing.	Finalize MSE and CMP testing considering the PA3 feedback.	Intersessional meetings of PA3-SCRS. Consider MP adoption at annual meeting, including the 2028-2030 TACs.	Develop EC criteria for ECP.	Adopt ECP at annual meeting.	Check for ECs.	

Stock	*MP adoption (actual or planned)*	*ECP adoption (actual or planned)*	*Next year to run MP*	*Next stock status check*	*Next MP review*	*2026 Workplan*		*2027 Workplan*		*2028 Workplan*		*2029 Workplan*	
						SCRS	***COMM***	***SCRS***	***COMM***	***SCRS***	***COMM***	***SCRS***	***COMM***
Atlantic Bluefin	2022	2023	2028	To be determined, preferably for after 2028 (due to workload)	2027-2028	Conduct status check. Begin MP review. Present to PA2. Check for ECs.	Review progress on status check and MP review.	Continue MP review. Present to PA2 for feedback. Check for ECs.	Review progress on MP review.	Finalize any MP revisions. Present to PA2 for final feedback. Provide TACs for 2029-2031 based on current or alternative MP. Check for ECs.	Adopt 2029-2031 TACs based on current or alternative MP.	Revise ECP. Check for ECs.	Adopt new ECP.
Northern Swordfish	2024	2025	2027	2029	2030	Continued robustness testing, per Rec. 24-10. Check for ECs.		Continued robustness testing, per Rec. 25-10, requests from PA4. EC review. Run MP to provide TAC for 2028-2030.	Adopt 2028-2030 TAC based on MP.	Check for ECs.		Conduct status check. Check for ECs. Prepare for MSE review.	Review progress on status check.
Western Skipjack	2025	2026	2028	2031	2031	Develop EC criteria for ECP. Check for ECs.	Adopt ECP at annual meeting.	Check for ECs.		Check for ECs. Run the MP to provide TAC for 2029-2031.	Adopt 2029-2031 TAC based on MP.	Check for ECs.	
Multi-stock Tropical tunas	2028	2029				Further develop MSE framework incorporating PA1 feedback and collaboration with Tropical Tuna SG. Build the multi-stock approach to investigate "choke" species effects and produce first round of	PA1 to meet intersessionally to provide guidance on CMP design. Hold Ambassadors meeting. Consider advice from SCRS about new timeline.	Recondition SKJ-E OMs. Continue development of multi-stock MSE incorporating PA1 feedback. Develop communications materials for PA1 and others and seek feedback.	PA1 to meet intersessionally to provide guidance on CMP design. Hold Ambassadors meeting. Consider MP adoption at annual meeting, including the 2029-2031 TACs.	Evaluate MPs for BET, YFT and E-SKJ both individually and within the multi-stock MSE framework. Develop and evaluate indicators for use within CMP. Provide and communicate advice on	PA1 to meet intersessionally to provide guidance on CMP design. Hold Ambassadors meeting. Consider MP adoption at annual meeting, including the 2029-2031 TACs.	Develop EC criteria for ECP. Check for ECs.	Adopt ECP at annual meeting (assuming 2028 MP adoption; otherwise, consider MP adoption).

Stock	MP adoption (actual or planned)	ECP adoption (actual or planned)	Next year to run MP	Next stock status check	Next MP review	2026 Workplan		2027 Workplan		2028 Workplan		2029 Workplan	
						SCRS	COMM	SCRS	COMM	SCRS	COMM	SCRS	COMM
						evaluations of CMPs. SCRS to report PA1 on the status of development of the MSE and potential timeline for adoption.				tradeoffs among final set of CMPs. SCRS to conduct an external technical review.			
North Atlantic Blue sharks	2029	2030				Establish the Atlantic BSH MSE technical team. Initiate the OM development work. Update MSE plan and roadmap.	Provide the final operational management objectives and performance indicators.	Agree on uncertainty/ OMs, and develop the final OMs. Further develop MSE process and plans.	PA4 to meet intersessionally (if needed) to provide guidance on CMP preferences and design.	CMP development and testing. Present results to PA4.	PA4 to meet intersessionally to provide guidance on final CMP preferences/shortlist.	Finalize MSE and CMP testing. Present results to PA4.	PA4 to meet intersessionally to review final MSE results. Hold Ambassadors meeting. Consider MP adoption at annual meeting, including the TACs.
South Atlantic Blue sharks	2029	2030				Establish the Atlantic BSH MSE technical team. Update MSE plan and roadmap.	Provide the final operational management objectives and performance indicators.	Agree on uncertainty/ OMs, and develop the final OMs. Further develop MSE process and plans.	PA4 to meet intersessionally (if needed) to provide guidance on CMP preferences and design.	CMP development and testing. Present results to PA4.	PA4 to meet intersessionally to provide guidance on final CMP preferences/ shortlist.	Finalize MSE and CMP testing; present results to PA4.	PA4 to meet intersessionally to review final MSE results. Hold Ambassadors meeting. Consider MP adoption at annual meeting, including the TACs.

Appendix 7

Terms of Reference for the Ad Hoc Working Group on Coordination of Tagging Information

These Terms of Reference were drafted following a decision taken by the SCRS in 2024 to reactivate the Ad Hoc Working Group on the Coordination of Tagging Information (hereafter, the Group).

The objective of the Group is to facilitate coordination among tagging programmes conducted within the Convention area and to address issues of common relevance to tagging activities, acting in a horizontal coordinating capacity among Species Groups, with a view to resolving common challenges and sharing past experiences.

The Group will meet as required by the SCRS. The Group's work will encompass the specific tasks listed below, *inter alia*.

1. Coordination (in collaboration with the Secretariat)

    a) Continue the development and maintenance of conventional and electronic databases, incorporating feedback from Species Groups and conveying it to the Secretariat.

    b) Review, revise and update tag-related information on the ICCAT webpage.

        i. Poster formats
        ii. Tagging procedures
        iii. Electronic forms (TG01, TG02, TG03)

    c) Develop and maintain tag catalogues, including stock control, and distribution of tags (conventional and electronic) and materials (i.e. applicators, posters, etc.).

    d) Coordinate between Species Groups when dedicated tagging activities are developed, so that these activities may also benefit multiple Species Groups objectives at once.

    e) Serve as a liaison, in a coordinating capacity, between Species Groups, the Secretariat, and tag manufacturers, with a view to centralizing and channeling scientific requirements, technical difficulties, and requests for tags and tagging materials.

2. Monitoring (in collaboration with the Secretariat)

    a) Tag performance

    b) Tag-related failures and problems

3. Advice

    Inform Species Groups on the latest developments in electronic tags and provide advice on the best available options to tackle their scientific needs and research objectives (newly developed tags, sensors, technologies, etc.).