



**SCIENTIFIC COMMITTEE
TWENTY-SECOND REGULAR SESSION**
11-19 August 2026
Apia, Samoa (Hybrid)

Provisional Annotated Agenda

**WCPFC-SC22-2026-03_Rev01
2August 2026**

AGENDA ITEM 1 OPENING OF THE MEETING

The meeting will commence at 8:30 AM on Tuesday, August 11, 2026.

1.1 Welcome address

The Chair will welcome delegations from WCPFC Members, Cooperating Non-Members, participating Territories (CCMs), and Observers to the Twenty-Second Regular Session of the Scientific Committee (SC22). A senior official from the Government of Samoa, the Commission Chair, the WCPFC Executive Director, and the SC Chair will each be invited to deliver their opening address.

1.2 Meeting arrangements

The Chair will outline procedural matters, including the meeting schedule, administrative arrangements, and SC22 Theme Convenors.

1.3 Issues arising from the Commission

SC22 will consider relevant issues arising from the previous meetings of the Commission and the Scientific Committee.

1.4 Adoption of the agenda

SC22 will review the Provisional Agenda for adoption. Other matters that are not included in the Provisional Agenda may be proposed here for consideration under Agenda Item 12.

1.5 Reporting arrangements

The Secretariat will appoint a lead rapporteur to produce a draft SC22 Summary Report and an SC22 Outcomes Document. The Outcomes Document will contain the text of all decisions and recommendations adopted at SC22 and will be posted on the SC22 meeting page on the WCPFC website within seven (7) working days after the conclusion of SC22. Theme Convenors are required to arrange their support rapporteurs, as needed, to assist with the drafting of Theme recommendations. The SC22 Summary Report will be adopted intersessionally.

1.6 Intersessional activities of the Scientific Committee

The Chair, with support from the Secretariat, will report on SC's intersessional activities since its 21st meeting in 2025.

AGENDA ITEM 2 REVIEW OF FISHERIES

2.1 Overview of Western and Central Pacific Ocean (WCPO) fisheries

The WCPFC Scientific Services Provider (SSP), the Pacific Community – Oceanic Fisheries Programme (SPC-OFP), and the Pacific Islands Forum Fisheries Agency (FFA) will present an overview of tuna fisheries in the Western and Central Pacific Ocean (WCPO), including economic conditions for 2025.

As recommended by SC14¹, analyses and projections of economic conditions in WCPO fisheries will be presented under this agenda item. SC22 will be invited to provide supplementary information, questions, and comments.

2.2 Overview of Eastern Pacific Ocean (EPO) fisheries

The Inter-American Tropical Tuna Commission (IATTC) will present an overview of the highly migratory species fisheries in the EPO. SC22 will be invited to provide supplementary information, questions, and comments.

2.3 Annual Report – Part 1 from Members, Cooperating Non-Members, and Participating Territories

All CCMs shall submit Part 1 of the Annual Report (the amended template is available at [Template for Annual Report to the Commission, Part 1](#) under Guidelines on the WCPFC website) via the dedicated Document Submission link on the SC22 meeting site by 7 July 2026.

All submitted Part 1 Annual Reports are posted on the SC22 meeting page and will be taken as read (i.e. not presented at SC22). This agenda item is an opportunity for questions and clarifications ONLY on any of the reports.

2.4 Reports from regional fisheries bodies and other organisations

Organisations with WCPFC observer status may deliver a brief presentation (up to 3 minutes) on key issues relevant to the Scientific Committee's work.

AGENDA ITEM 3 DATA AND STATISTICS THEME

3.1 Data gaps of the Commission

3.1.1 Report on the WCPFC scientific data

SC22 will consider the annual report on the scientific data available to the WCPFC, including the status, completeness and quality of the Commission's core scientific data holdings, together with recent progress in improving data collection, submission and management. The report reviews the availability of annual catch estimates, operational catch and effort data, size composition data and observer data, identifies historical and ongoing data gaps, and highlights developments to improve data reporting systems, transparency and understanding of Commission scientific data and associated data products. Supporting papers provide updates on annual catch estimates, operational data coverage, observer data management, improvements in scientific data collection in the West Pacific East Asia (WPEA) region, and guidance on the interpretation and application of WCPFC scientific data and data products. SC22 will review progress in addressing priority data gaps and improving data quality, coverage and reporting systems, and provide recommendations to the Commission on priorities for further strengthening scientific data collection, submission, management and transparency, particularly where persistent deficiencies continue to affect the scientific work of the Commission.

¹ See paragraph 119 of SC14 Summary Report.

3.1.2 Reconciliation of size composition data for stock assessments (Project 127 and 127a)

SC22 will review progress under Project 127/127a and provide guidance on further developing statistically based, flag- or fishery-specific size-data sampling targets by species, gear and fishery area, together with a recent-period traffic-light system for monitoring coverage and directing future sampling improvements. SC22 will also consider whether to recommend that WCPFC23 adopt the proposed size-data information proforma as part of the standardized SciData submission process, and may provide comments on priorities for further development of data-exploration tools and conversion factors.

- ❖ *Reliable size composition data are essential for WCPFC stock assessments and scientific analyses. Through Project 127 and its extension (Project 127a), the Commission has been working to improve the quality, representativeness and documentation of size composition data, including addressing sampling imbalances, uncertainties in conversion factors, and the consistency of size data collection and reporting. Building on previous Scientific Committee recommendations, the project has advanced work to support more consistent sampling practices and improve the reliability and transparency of size composition data used for scientific advice.*

3.1.3 Improved coverage of cannery receipt data (Project 114)

SC22 will consider a proposed approach to support the use of cannery receipt data by national scientists to improve purse-seine species composition estimates prior to submission to the Commission, and provide guidance on future work under Project 114. SC22 will also consider recommending a virtual stakeholder meeting in late 2026 to further develop the proposal and extending Project 114 through 2027 to support its implementation and reporting to SC23 and WCPFC24.

- ❖ *Accurate estimates of purse-seine species composition are fundamental to WCPFC scientific analyses and stock assessments. Recognising the potential value of cannery receipt data to improve the accuracy of species composition estimates, the Commission has supported Project 114 to explore practical mechanisms for incorporating these data into the scientific process. While progress has been made, continued challenges in obtaining cannery receipt data have limited broader implementation, and alternative approaches are now being considered to facilitate their use while addressing practical and confidentiality concerns.*

3.1.4 Scientific data (SciData) submission standardisation and data management improvements

SC22 will review progress in implementing the standardised SciData reporting framework and provide guidance on improvements to reporting systems and processes. SC22 is also invited to support the continued development of data management systems that improve the efficiency, timeliness, accuracy and accessibility of scientific data used to support the work of the Commission.

- ❖ *Timely, consistent and high-quality scientific data are fundamental to supporting the Commission's scientific analyses, stock assessments and management advice. To improve the efficiency of scientific data reporting and reduce delays associated with non-standard data submissions, the Commission adopted standardised SciData reporting templates. SC22 will consider progress in implementing the new reporting framework, including lessons learned from the first reporting cycle and opportunities to further improve data submission, validation and exchange processes to enhance the timeliness, quality and transparency of scientific data available to the Commission.*

3.1.5 Minimum data reporting requirements

SC22 will review the proposed revisions to the SciData reporting requirements, provide guidance on the issues identified for further consideration, and recommend any revisions that should be forwarded to the

Commission for adoption to improve the consistency, completeness and efficiency of scientific data reporting.

- ❖ The Commission periodically reviews the *Scientific Data to be Provided to the Commission (SciData)* to ensure that reporting requirements remain fit for purpose and continue to support the scientific work of the Commission. As implementation of the standardized SciData reporting templates has progressed, ambiguities, inconsistencies and gaps have been identified in the current reporting requirements that may reduce reporting efficiency, data consistency and interoperability across Commission data systems. Consequently, revisions have been developed to clarify reporting requirements, strengthen standardization, and ensure that the SciData framework continues to support evolving scientific and management needs.

3.2 Evaluation of purse seine fishing activities

SC22 will review information compiled by the Secretariat on reported discards from purse seine vessels as outlined in paragraph 16 of CMM 2025-04.

3.3 Regional Observer Programme

SC22 will review the outputs of the ROPIWG and provide feedback on proposed revisions to the Regional Observer Programme Minimum Standard Data Fields, including matters relating to species identification and reporting and other scientific monitoring requirements. SC22 is also invited to identify priorities for future ROPIWG work to improve the quality, consistency and integration of observer data in support of the Commission's scientific and monitoring objectives.

- ❖ The ROPIWG supports the ongoing review and improvement of observer data collection to ensure that the ROP continues to meet the Commission's scientific and compliance monitoring needs. As new Conservation and Management Measures are adopted and monitoring requirements evolve, periodic review of the Regional Observer Programme Minimum Standard Data Fields (MSDF) is required to ensure that observer data remain fit for purpose, support consistent data collection, and facilitate effective integration with compliance monitoring and emerging electronic monitoring systems. The ROPIWG met twice virtually during the first half of 2026 ([ROPIWG08](#) and [ROPIWG09](#)).

3.4 Electronic Reporting and Electronic Monitoring

SC22 will provide guidance on priorities identified by the ERandEM-IWG, including EM coverage levels, harmonisation of EM and observer data standards, data validation and quality assurance processes, and other scientific requirements to support the implementation of the WCPFC Electronic Monitoring Programme.

- ❖ As the Commission advances the implementation of electronic monitoring (EM), SC22 will consider scientific issues associated with the use of EM to support fisheries monitoring and data collection, particularly in longline fisheries where monitoring coverage remains limited. To inform these discussions, a preliminary evaluation of EM data from the 2025 fishing year has been undertaken to examine the extent to which EM-derived data can meet the Commission's scientific monitoring requirements. In parallel, the ERandEM-IWG has identified a number of issues requiring further scientific consideration, including appropriate monitoring coverage, harmonisation of EM and Regional Observer Programme data standards, data quality assurance and validation, and governance arrangements for the management and use of EM data. These issues will help inform the ongoing development of the WCPFC Electronic Monitoring Programme. The ERandEM-IWG met twice during the first half of 2026 ([ERandEMIWG8](#) and [ERandEMIWG9](#)).

3.5 Other ST Theme issues

SC22 may consider any other issues related to Data and Statistics.

AGENDA ITEM 4 STOCK ASSESSMENT THEME

4.1 Improvement of stock assessment software

4.1.1 Update of the MULTIFAN-CL software

SC22 will note the recent developments to the MULTIFAN-CL software, including enhancements implemented during 2025–26, progress in addressing peer-review recommendations, and the proposed 2026–27 workplan. SC22 will also note progress towards the development of next-generation tuna stock assessment software and provide comments or recommendations, as appropriate.

4.1.2 Scoping the next generation of stock assessment software (Project 123)

SC22 will review progress under Project 123 on the development of next-generation tuna stock assessment software and consider proposed priorities for the next phase of work. The Committee will discuss the scientific and technical requirements for future assessment platforms, including model design, incorporation of emerging analytical approaches such as spatio-temporal modelling and tagging data integration, and collaborative development arrangements with partner organizations. SC22 may provide guidance on project priorities and implementation to support the transition to future stock assessment frameworks.

- ❖ *Project 123 was established as a three-year scoping initiative to identify pathways for transitioning WCPFC tuna stock assessments from MULTIFAN-CL to next-generation assessment software. The project responds to the increasing limitations of the current modelling framework in meeting evolving scientific and management needs, while ensuring that future assessment platforms remain robust, transparent, and fit for supporting harvest strategies, management procedures, and other emerging analytical requirements. Current work includes defining software design requirements, evaluating candidate modelling approaches, exploring the integration of spatio-temporal methods and tagging information, and strengthening collaboration with technical partners, including IATTC and the Technical University of Denmark, to guide the future development and implementation of assessment software.*

4.2 Tagging data and research for stock assessment

SC22 will consider the contribution of the Pacific Tuna Tagging Project (Project 42) to WCPFC science, including its role in supporting stock assessments, harvest strategies, climate projections and other scientific projects, and provide advice on the scientific implications of options to improve Project 42 cost-efficiency in response to the FAC19 request. SC22 will also consider the proposed update to the Project's Terms of Reference and determine whether to endorse the revised Terms of Reference and forward the paper, together with any comments, to FAC20 and WCPFC23.

- ❖ *FAC19 requested the Scientific Services Provider to examine options to improve the cost-efficiency of the Pacific Tuna Tagging Project and report the scientific implications of those options to SC22, FAC20 and WCPFC23. FAC19 also requested that projects leveraging significant co-financing and in-kind contributions be clearly identified. In response, this paper provides the scientific information requested by FAC19 and seeks SC22's advice on the implications of Project 42 for the Commission's scientific programme, as well as consideration of a proposed revision to the Project's Terms of Reference to reflect its current scope and scientific priorities.*

4.3 WCPO Tunas

4.3.1 WCPO yellowfin tuna (*Thunnus albacares*)

4.3.1.1 Research and information

Review of the 2026 yellowfin tuna stock assessment

SC22 will review the results of the 2026 yellowfin tuna stock assessment, including data inputs, CPUE analysis, stepwise (bridging) analyses, and methodology, and will consider new findings, suggestions, and future research needs, including budget implications, to provide management recommendations to the Commission.

- ❖ *The last yellowfin tuna stock assessment was conducted in 2023 and reviewed at SC19. The 2023 yellowfin tuna stock assessment concluded that the stock is not experiencing overfishing (100% probability $F_{recent} < F_{MSY}$) and is not in an overfished condition (0% probability $SB_{recent}/SB_{F=0} < LRP$). SC19 identified priority areas for the next assessment, including improving CPUE standardisation through clearer representation of model effects and inclusion of key covariates affecting catchability, such as hooks, vessel characteristics, and fishing practices, as well as explicit consideration of effort creep and temporal changes in catchability. Further work was also requested to better evaluate environmental and region-specific covariates and their influence on both abundance and catchability.*

SC19 called for the development of alternative CPUE series under different model assumptions to better represent uncertainty and to examine implications for regional scaling, alongside evaluation of alternative spatial structures, including single-region areas-as-fleets or equatorial-focused models. Strengthened characterisation of uncertainty was also requested through expanded sensitivity analyses, refinement of uncertainty grids, and assessment of parameter sensitivity to initial conditions.

Further work was requested on key biological processes, including natural mortality and growth, and on resolving conflicts in size and weight composition data. SC19 also emphasised improved use of tagging data, including alternative modelling approaches and stand-alone (external) tag-based models, and highlighted the need for improved catch estimates and biological sampling, particularly for Indonesia, the Philippines, and Vietnam. In addition, SC19 encouraged simplification of model structure, improved model stability and convergence, exploration of alternative assessment platforms, clearer reporting of model assumptions, and provision of stochastic projections to support a more robust and transparent assessment.

4.3.1.2 Provision of scientific information to the Commission

SC22 will provide recommendations for the following:

- a. Stock assessment and trends
- b. Stock status
- c. Management advice

4.3.2 WCPO bigeye tuna (*Thunnus obesus*)

4.3.2.1 Research and information

Review of the 2026 bigeye tuna stock assessment

SC22 will review the results of the 2026 bigeye tuna stock assessment, consider new findings, suggestions, and future research needs, including budget implications, and provide management recommendations to the Commission.

- ❖ *The last stock assessment for bigeye tuna was conducted in 2023 and reviewed at SC19. The 2023 bigeye tuna stock assessment concluded that the stock is very likely not experiencing overfishing (100% probability $F_{recent} < F_{MSY}$) and is not in an overfished condition (0% probability $SB_{recent}/SB_{F=0} < LRP$). To support further development and improvement of the WCPO bigeye tuna stock assessment, SC19 in*

2023 identified key priority areas, including strengthening research and data inputs through improved biological sampling, particularly age composition, expanded tagging programs, and review of size composition data; advancing model development through refinement of CPUE indices, consideration of effort creep, improved estimation of growth and mortality, and evaluation of spatial structure; and improving uncertainty analysis through targeted sensitivity testing of key assumptions, including tagging processes and data weighting, and addressing inconsistencies among data sources. SC19 also highlighted the importance of enhanced tagging diagnostics and supporting analyses.

Building on these areas, SC21 identified additional issues directly relevant to the next assessment. Indicator analyses presented to SC21 showed a sustained decline in mean weight across fisheries, linked to increased catches of small fish, which affects key model inputs and has contributed to higher estimated fishing mortality relative to FMSY. SC21, therefore, recommended a detailed analysis of mean weight trends by space, time, and fleet to inform model assumptions. SC21 also highlighted the need to resolve key data uncertainties, including issues related to small bigeye classification, and supported continued improvements in biological sampling, size data reconciliation, and conversion factors, as well as ongoing refinement of model assumptions and uncertainty related to growth, mortality, movement, and CPUE, to improve the robustness of the 2026 stock assessment.

4.3.2.2 Provision of scientific information to the Commission

SC22 will provide recommendations for the following:

- a. Stock assessment and trends
- b. Stock status
- c. Management advice

4.3.3 Fisheries indicators for target tuna stocks

SC22 will review the fishery indicator analyses and short-term projections presented for stocks not assessed in 2026 and consider whether they identify notable changes in recent fishery performance or emerging issues that should be taken into account in future scientific work and stock assessments. SC22 will also provide comments on the analyses, interpretation and presentation of the indicators to support their continued development and application.

- ❖ *In years when full stock assessments are not conducted for particular target tuna stocks, the Scientific Committee reviews fishery indicators to monitor recent developments in fisheries and provide supporting information between assessment cycles. These indicators help identify changes in catch, fishing patterns, catch rates, spatial distribution, and size composition, while providing context for interpreting recent fishery developments and identifying issues that may warrant further investigation or consideration in future assessments. For skipjack and South Pacific albacore, the paper also presents short-term stock projections to provide an indication of potential near-term stock status under recent fishery conditions. The paper emphasises that these indicators are descriptive and should not be interpreted as estimates of current stock status in the absence of a full stock assessment.*

4.4 Northern stocks

Annex I of the Commission's Rules of Procedure defines 'Northern stocks' to be 'stocks which occur mostly in the area north of 20° north parallel'. Stocks designated by the Commission as Northern stocks are 'northern Pacific bluefin², northern albacore³ and the northern stock of swordfish⁴'.

² Pacific bluefin tuna

³ North Pacific albacore

⁴ North Pacific swordfish

4.4.1 Provision of scientific information from the ISC⁵

Pursuant to the MOU between WCPFC and ISC, the ISC Chair, or designated representative, will be invited to brief SC22 on ISC activities since SC21, including stock status and conservation information for stocks under ISC purview, as well as future research plans.

4.4.2 North Pacific albacore (*Thunnus alalunga*)

4.4.2.1 Research and information

North Pacific albacore stock assessment

SC22 will review the results of the 2026 North Pacific albacore stock assessment, including the assessment methodology, stock status relative to the agreed reference points, key sources of uncertainty, and future stock projections. SC22 will provide comments and recommendations on the assessment and its management implications for consideration by the Commission.

❖ *The North Pacific albacore stock is assessed every three years by the International Scientific Committee (ISC) to provide updated scientific advice for management of the fishery. The 2026 benchmark stock assessment incorporates the latest fishery and biological information, updated model assumptions, and improved analytical approaches since the previous assessment in 2023. The assessment provides the scientific basis for evaluating stock status against the Commission's agreed reference points and for supporting the continued implementation and future development of the North Pacific albacore harvest strategy.*

4.4.2.2 Provision of scientific information to the Commission

SC22 will provide recommendations for the following:

- a. Stock assessment and trends
- b. Stock status
- c. Management advice

4.4.3 Pacific bluefin tuna (*Thunnus orientalis*)

4.4.3.1 Research on migratory patterns

At WCPFC21, the Commission requested research on the migratory patterns of Pacific bluefin tuna (paragraph 178, WCPFC21 Summary Report). The Scientific Committee will consider the results of that research, which are presented in a paper prepared by the International Scientific Committee (ISC) for NC21 on the stock structure and distribution of Pacific bluefin tuna and reposted for SC22 as WCPFC-SC22-2026-SA-IP16.

4.4.3.2 Pacific bluefin tuna stock assessment peer review

SC22 will review the results of the independent peer review of the Pacific bluefin tuna stock assessment, which was conducted by an expert panel independent of the assessment team. The peer review was held from 20 to 23 March 2026, and its findings were subsequently reported to ISC26.

4.5 Billfish

4.5.1 Pacific blue marlin (*Makaira nigricans*)

4.5.1.1 Pacific blue marlin stock assessment

SC22 will review the results of the 2026 benchmark stock assessment undertaken by the ISC and provide

⁵ International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean

updated stock status and management advice to the Commission.

- ❖ *The last assessment was conducted by the ISC in 2021 and reviewed at SC17. ISC concluded that Pacific blue marlin spawning biomass is above SB_{MSY} and fishing mortality is below F_{MSY} , indicating that the stock is likely not overfished and overfishing is very unlikely, although some uncertainty remains. SC17 supported this view but noted that the stock status depends on model assumptions, particularly CPUE index selection, and highlighted uncertainties in data inputs and model structure that should be addressed in future assessments.*

4.5.1.2 Provision of scientific information to the Commission

SC22 will make recommendations for the following:

- a. Stock assessment and trends
- b. Stock status
- c. Management advice

4.6 Projects and Requests

4.6.1 Application of Close-Kin-Mark-Recapture methods (Project 100d)

SC22 will review the progress of work under Project 100d, focusing on progress in large-scale sample collection and genotyping, feasibility of integrating Close-Kin-Mark-Recapture (CKMR) outputs into assessment models, and the strategic value of CKMR in reducing key uncertainties, alongside consideration of logistical requirements, timelines, and resource implications for scaling this method within the WCPFC scientific work programme.

- ❖ *The project extends earlier work by applying CKMR methods to South Pacific albacore and seeks to deliver CKMR-based estimates of key demographic parameters such as absolute adult abundance, mortality, and connectivity, for incorporation into the 2027 stock assessment. The project will also evaluate the broader applicability of CKMR approaches across WCPFC-managed tuna, billfish, and shark stocks, and develop a cost-benefit and prioritisation framework to guide future investment in and application of CKMR methods across species.*

4.6.2 Updated reproductive biology of tropical tunas (Project 120)

SC22 will review progress under Project 120 and consider the updated reproductive biology information and its implications for future tropical tuna stock assessments. SC22 will also consider the recommendations arising from the study, including the potential application of the updated maturity parameters in future assessments, priorities for further investigation of spatial and temporal variation in reproductive biology, and future sampling requirements to improve biological information and complete the remaining Project 120 activities.

- ❖ *Reliable estimates of reproductive biology parameters are fundamental inputs to tropical tuna stock assessments, as they directly influence estimates of spawning potential and spawning biomass. The reproductive biology information currently used for WCPO tropical tuna assessments is based largely on studies conducted decades ago, prompting SC19 to support an EU-funded project to update these parameters for yellowfin tuna, later expanded to include bigeye and skipjack tuna. WCPFC20 subsequently approved co-funding for Project 120. This paper reports progress on the project, presents updated reproductive biology information for yellowfin tuna, and identifies priorities for completing the remaining work.*

4.6.3 Global tuna RFMO technical workshop on longline CPUE analysis to support best available science (Project 122a)

SC22 will note the progress in planning and organising the Global Joint Tuna RFMO Longline CPUE Technical Workshop, to be held from 12–16 October 2026 in Yokohama, Japan, including the draft agenda, supporting review paper, and external funding arrangements. SC22 will also note that the workshop outcomes and recommendations will be reported to SC23 to inform future improvements in longline CPUE standardisation and related analytical practices across the tuna RFMOs.

- ❖ *Project 122a supports the first Global Joint Tuna RFMO Longline CPUE Technical Workshop, building on the findings of WCPFC Project 122, which identified a broad range of methodological, operational and technological issues affecting the development and interpretation of longline CPUE indices used in stock assessments. Recognising that these challenges are common across tuna RFMOs, the project has expanded to a collaborative global initiative to review current practices, improve technical consistency, and strengthen the scientific basis for longline abundance indices. This paper updates SC22 on preparations for the workshop, including the technical review being undertaken to support workshop discussions, prior to presentation of the workshop outcomes to SC23.*

4.6.4 Biology from billfish in longline fisheries (Project 125)

SC22 will note progress under Project 125, including biological sampling activities, observer training, and development of the Pacific Marine Specimen Bank to support billfish research. SC22 will also consider the practical challenges associated with implementing the project, including sampling logistics, the need for continued support from CCMs and the Pacific Marine Specimen Bank, and the implications for future biological data collection and annual reporting through 2028.

- ❖ *Project 125 was established under the Billfish Research Plan to address priority knowledge gaps in the age, growth and reproductive biology of WCPO billfish species, thereby improving the biological information available for stock assessments. Following SC20 guidance on spatially and temporally stratified biological sampling, implementation has focused on developing coordinated sampling through observer programmes and the Pacific Marine Specimen Bank. Progress has been constrained by logistical challenges associated with sampling billfish and, in 2026, by the absence of approved project funding, making it appropriate for SC22 to review progress and consider priorities for continuing implementation.*

4.6.5 Developing a sampling strategy for tuna, billfish, and sharks (Project 117, 118 and 126)

SC22 will review progress under WCPFC Projects 117, 118 and 126 on the development of biological sampling plans for tuna, billfish and sharks. SC22 is invited to discuss priorities and practical approaches for implementing the proposed biological sampling plans, including priority regions, fleets and size classes, the feasibility of achieving target sampling rates, coordination among CCMs, and the use of alternative sampling approaches where observer coverage is limited or biological sampling is constrained, including challenges associated with shark non-retention measures.

- ❖ *SC19 and SC20 recommended the development of standardized biological sampling plans for tuna, billfish and sharks to improve the collection of representative biological samples needed to estimate growth, maturity and other life history parameters that support stock assessments. Building on the framework presented at SC21, this paper develops biological sampling plans for selected tuna, billfish and shark species, establishing target sampling rates and identifying sampling priorities based on fisheries, regions and size classes. The paper also highlights practical implementation issues for SC22's consideration, including collaborative delivery across CCMs, multi-year sampling strategies, observer coverage limitations, increasing use of electronic monitoring, alternative sampling approaches such as port sampling, and constraints associated with shark non-retention measures.*

4.6.6 Age-length data stream for tuna assessments (Project 129)

SC22 will review progress under Project 129 and consider the scientific and operational advances towards establishing a scalable age-length data stream for WCPFC tuna stock assessments. SC22 is invited to discuss progress in developing and validating rapid ageing methodologies, progress towards establishing a regional age-length sampling programme, and priorities for the next phase of the project, including Member support for expanded sample collection and continued development of a routine regional age-length sampling programme.

- ❖ *Reliable age information is fundamental to tuna stock assessments because it improves estimation of growth, mortality, recruitment, productivity and stock status. However, routine conditional age-at-length (CAAL) data remain extremely limited for WCPFC-managed tuna species, resulting in continued reliance on static growth assumptions and size-based proxies for age. Project 129 was established to develop the scientific and operational foundations for a scalable regional age-length data stream by developing and validating rapid ageing methodologies and progressing these approaches towards implementation within routine sampling programmes. This paper provides the first progress update on the four-year project, outlining progress in establishing validated reference age datasets, developing rapid age-prediction methods, and evaluating the requirements for implementing a regional age-length sampling programme to improve the quantity and representativeness of age data available for future tuna stock assessments.*

4.6.7 Joint bycatch assessment workshop for billfish and sharks (Project 130)

SC22 will review progress under Project 130, including the establishment of the steering group, the proposed workshop scope, programme and timeline, and the plan to convene the technical workshop in early 2027 following a no-cost extension of the project. SC22 is invited to provide guidance on the proposed workshop outcomes, particularly the development of a tiered framework for assessment advice based on management objectives, data availability and certainty, and to encourage technical collaboration with ISC and IATTC to improve consistency in assessment methods, terminology, reference points and assessment schedules across Pacific tuna RFMOs.

- ❖ *Billfish and shark assessments in the WCPO span a wide range of data availability and management contexts, resulting in the use of different assessment methods, terminology, reference points and assessment schedules across Pacific tuna RFMOs. Consistent with the Shark Research Plan and Billfish Research Plan, Project 130 was established to develop a coordinated framework for assessing billfish and shark stocks by reviewing existing assessment approaches and convening a joint technical workshop involving WCPFC, ISC and IATTC experts. The workshop will examine assessment methods across different levels of data availability, develop a tiered framework linking assessment approaches to management objectives and data quality, and provide recommendations to improve consistency and collaboration in future assessment and scientific advice across the Pacific.*

4.6.8 Research Plan Update

SC22 will review the progress of various research plans and provide recommendations for any plan updates.

4.6.8.1 Tuna Assessment Research Plan (TARP) for ‘Key’ Tuna Species Assessments in the WCPO, 2026-2029

SC22 will review the updated Tuna Assessment Research Plan (TARP) for 2026-2029 and provide guidance on its further refinement. SC22 is invited to provide feedback on potential gaps and improvements to the plan, identify priority work areas for future SC project proposals, consider approaches for better capturing research undertaken by SC members and other partners, and advise on the annual review and updating of the TARP by the Secretariat and the Scientific Services Provider (SSP).

4.6.8.2 Billfish Research Plan (2023 – 2030) annual update

SC22 will review progress against the 2023-2030 Billfish Research Plan and consider updates to the billfish assessment work plan and project priorities. SC22 is invited to provide guidance on proposed changes to the project list and specifications, consider the proposed 2027 project on data characterisation for black marlin, sailfish and shortbill spearfish, and provide advice on the agenda and priorities for the Joint Bycatch Assessment Workshop for Billfish and Sharks (Project 130), planned for February 2027, to support future billfish assessments and research.

4.6.8.3 Shark Research Plan 2021-2030 annual updates

SC22 will review progress against the 2021-2030 Shark Research Plan and consider updates to the shark assessment work plan, project list and assessment schedule. SC22 is invited to provide guidance on proposed changes to the project list and specifications, including the proposed postponement of the southwest Pacific blue shark assessment until after the Joint Bycatch Assessment Workshop for Billfish and Sharks (Project 130), expected to be conducted in early 2027 and reported to SC23, consider new and revised shark research projects and their priorities, and provide advice on future funding priorities and updates to the Shark Research Plan.

4.7 Application of Convention language to stock assessment advice

The Commission requested SC22 to consider whether scientific advice for stocks whose catches are retained could explicitly address whether the use of those stocks is sustainable using the language of the Convention (paragraph 261(b) of the WCPFC22 Summary Report). SC22 may consider whether existing scientific findings and stock assessment outputs provide a sufficient scientific basis for interpreting and communicating assessment results using the terminology and objectives of the Convention, and whether standardized wording could be developed to ensure consistent communication of assessment outcomes without altering the underlying scientific assessments.

4.8 Other SA Theme issues

SC22 may consider any other issues relating to Stock Assessment.

AGENDA ITEM 5 MANAGEMENT ISSUES THEME

4.5 Development of the WCPFC harvest strategy framework

SC22 will note the following key updates to the *Indicative Workplan for the Adoption of Harvest Strategies under CMM-2022-03* adopted by the Commission at WCPFC22⁶:

- a. Bigeye tuna: Develop management procedures and management strategy evaluation; SC agree the operating models for MSE; SC endorses the estimation method; SC provide advice on performance of candidate management procedures; SC provides advice on the monitoring strategy; TCC consider the implications of candidate management procedures; the Commission consider and refine a candidate set of management procedures; Commission agree a TRP for bigeye; and the Commission ADOPT a management procedure.
- b. Yellowfin tuna: Develop management procedures and management strategy evaluation; SC agree the operating models for MSE; SC provide advice on outcomes under the mixed fishery approach; Commission considers outcomes under the mixed fishery approach; SC provides advice on monitoring strategy; Commission agree a TRP for yellowfin; and the Commission adopts the mixed fishery management approach for YFT.

⁶ See Attachment 24, WCPFC22 Summary Report.

- c. South Pacific albacore: Run management procedure for the first time; SC provides advice on the monitoring strategy; Commission reviews and adopts the monitoring strategy; and the Commission adopts implementing arrangements for the management procedure.

5.1.1 Bigeye tuna harvest strategy

5.1.1.1 Bigeye operating models

SC22 will review the proposed reference set of operating models and associated robustness and sensitivity scenarios and consider whether the reference set adequately reflects the most important sources of uncertainty and plausible states of nature for WCPO bigeye tuna. SC22 will also consider whether to agree the reference set of operating models as the basis for testing candidate management procedures and note future work to further develop and refine the OM framework through an agreed monitoring strategy.

- ❖ *SC21 supported an initial reference set of operating models for WCPO bigeye tuna and recommended that the reference set be further refined and expanded to better represent the key sources of uncertainty relevant to Management Strategy Evaluation. Under the harvest strategy workplan, SC22 is scheduled to agree the operating models for bigeye tuna, considering the expanded uncertainty grid, proposed robustness and sensitivity scenarios, and the ongoing refinement of the OM framework.*

5.1.1.2 Bigeye estimation method

SC22 will consider the results of the proposed estimation method for the bigeye tuna management procedure, noting the improvements gained over the results presented to SC21. SC22 will also consider whether to endorse the use of the proposed estimation method within the design and testing of the bigeye tuna Management Strategy Evaluation framework.

- ❖ *A robust, computationally efficient estimation method is a key component of the bigeye tuna Management Strategy Evaluation framework, providing the estimate of stock status used by the harvest control rule. Following SC21, the candidate EM has been refined to address technical issues identified during the Committee's previous review, including model settings for recruitment variation, natural mortality, steepness, CPUE indices, and evaluation against the expanded operating model uncertainty grid. The revised EM demonstrated improved model convergence, reduced bias, and more reliable estimation of stock status across a wider range of uncertainty scenarios, providing the basis for consideration of its use in MSE design and testing.*

5.1.1.3 Bigeye management procedure – design and implementation considerations

SC22 will review the proposed design of the bigeye tuna Management Procedure and provide technical advice on the overall MP design, including the proposed continuum of pairs of harvest control rules for longline fishing opportunities and FAD closure periods. SC22 will consider the approach used to evaluate the alternative spatial extents of longline fisheries managed through the MP and provide technical advice on the proposed assumptions for future catch or effort of fisheries not managed through the MP, consistent with the mixed-fishery framework, noting that these assumptions may differ depending on the spatial range of the MP.

- ❖ *The Commission has tasked the development of a Management Procedure for WCPO bigeye tuna, with adoption targeted at WCPFC23 under the Harvest Strategy Workplan. Following discussions at WCPFC22 and BMW01, further technical advice is required to refine the proposed MP design and implementation approach before candidate management procedures can be evaluated through the Management Strategy Evaluation framework. SC22 consideration of these issues will guide further intersessional development of the bigeye MP prior to BMW02.*

5.1.1.4 Bigeye management procedure – evaluations

SC22 will review the results of the candidate bigeye tuna management procedure evaluations and provide technical advice on the performance and trade-offs of alternative management procedures against the agreed management objectives and performance indicators. In particular, SC22 will consider the comparative performance of candidate MPs across alternative target reference points, harvest control rule structures, spatial management configurations and mixed-fishery assumptions, including whether any candidate MPs satisfy the Commission's agreed risk criteria, such as the limit reference point, to support further refinement of candidate MPs prior to Commission consideration.

- ❖ *The evaluation of candidate management procedures is a key milestone in the development of the bigeye tuna harvest strategy, marking the transition from MP design to performance testing within the Management Strategy Evaluation framework. Building on the proposed operating models, estimation methods and management procedure design developed under the harvest strategy workplan, candidate MPs are evaluated against the Commission's agreed management objectives and performance indicators across the range of uncertainties represented in the operating model reference set. SC22's review will assess how alternative MP designs perform under uncertainty, including the implications of different target reference points, harvest control rule structures, spatial management configurations and mixed-fishery assumptions, to support refinement of candidate MPs prior to Commission consideration.*

5.1.1.5 Bigeye tuna management workshop

The First Bigeye Tuna Management Workshop ([BMW01](#)), held virtually in May 2026, advanced the development of a management procedure for western and central Pacific bigeye tuna by providing technical guidance to SPC on key elements of the Management Strategy Evaluation, including candidate target reference points, spatial scope, harvest control rules, management period, performance indicators, and implementation arrangements. The outcomes of BMW01 will inform SC22 discussions and identify key outstanding issues for further consideration at the second Bigeye Tuna Management Workshop ([BMW02](#)), to be held in Honolulu on 1–2 October 2026, ahead of the planned adoption of the bigeye tuna MP at WCPFC23.

5.1.2 Yellowfin tuna harvest strategy

5.1.2.1 Yellowfin operating models

SC22 will consider the suitability and scope of the operating models and the robustness of underlying assumptions and parameterisation for representing yellowfin dynamics within the mixed fishery harvest strategy framework.

- ❖ *The development of yellowfin tuna operating models represents an initial step toward integrating yellowfin into the WCPFC harvest strategy framework, noting that, unlike skipjack, South Pacific albacore, and bigeye, yellowfin currently has no dedicated management procedure and is managed indirectly within a mixed fishery framework dominated by purse seine and longline fisheries. Previous analyses have shown that under the current framework, yellowfin stock outcomes emerge from the interaction of other species' MPs, particularly skipjack and bigeye, and existing management measures. The proposed operating models will therefore play a critical role in characterising key uncertainties, including fleet interactions, spatial structure, and the influence of fisheries outside direct control to evaluate the implications of the mixed fishery framework for yellowfin tuna.*

5.1.2.2 Yellowfin outcome evaluations

SC22 will consider the extent to which yellowfin objectives can be achieved under the current framework, including the robustness of evaluation assumptions and baseline conditions, and the implications of fisheries outside management control. SC22 will also consider whether the results indicate structural

limitations in the current framework and whether alternative approaches, including adjustments to existing measures or future MP development, may be required.

- ❖ *Evaluations will assess whether expected outcomes under the adopted MPs for other stocks can achieve yellowfin objectives within the mixed fishery harvest strategy framework, noting that current fishing levels are unlikely to meet agreed objectives within CMM 2025-02 and that inherent conflicts exist between species targets in mixed fisheries.*

5.1.3 South Pacific albacore harvest strategy

5.1.3.1 South Pacific albacore management procedure – run

SC22 will review the outcomes of the first South Pacific albacore MP run and provide advice on the technical performance of the estimation method, the adequacy of data inputs and monitoring arrangements, and the application of the harvest control rule, to support Commission consideration of the MP outputs and implementation of the 2027–2029 management cycle.

- ❖ *Following the adoption of the South Pacific albacore Management Procedure ([CMM 2025-01](#)), the Commission is preparing for its first operational implementation in 2027. As part of this process, SC22 will review the first MP run using updated data through 2024 to confirm that the estimation method, data inputs, harvest control rule and monitoring processes continue to operate as intended and remain consistent with the assumptions under which the MP was developed and tested. SC22 will also consider issues relevant to the ongoing monitoring strategy, including the representativeness of CPUE indices and operational data availability, to ensure the robustness of future MP applications.*

5.1.3.2 South Pacific albacore monitoring strategy

SC22 will review the proposed South Pacific albacore MP monitoring strategy and provide advice on its scope, structure and technical requirements, including priorities for strengthening data inputs to the estimation method, incorporation of climate-related uncertainties and economic information where appropriate, and the ongoing monitoring and review processes necessary to support implementation of the MP.

- ❖ *Following the adoption of the South Pacific albacore Management Procedure (CMM 2025-01), a monitoring strategy is required to ensure that the MP continues to perform as intended and remains consistent with the assumptions under which it was developed and tested. As implementation arrangements for the MP are still under development, SC22 will consider the proposed monitoring framework to identify the information, data and review processes needed to monitor MP performance, implementation, estimation method performance, data availability, management objectives, and assumptions underpinning the Management Strategy Evaluation framework, including areas requiring future refinement as implementation arrangements are finalised.*

5.1.3.3 Joint WCPFC/IATTC Working Group for South Pacific Albacore

SC22 will review the outcomes of [SPAJWG01](#) and provide guidance on scientific priorities for future joint work, including coordination of the 2027 South Pacific-wide stock assessment, improvements to data exchange and harmonisation, scientific work relating to the overlap area and stock structure, and other priority intersessional activities to support compatible management of South Pacific albacore by WCPFC and IATTC.

- ❖ *The First Joint WCPFC–IATTC Working Group on South Pacific Albacore (SPAJWG01) was established to strengthen cooperation between the two Commissions on the management of this shared stock across its full geographic range. As WCPFC and IATTC are at different stages in developing their respective management frameworks, SC22 will consider the outcomes of SPAJWG01 to provide*

scientific guidance on issues requiring further intersessional development, including coordination of the 2027 pan-Pacific stock assessment, harmonisation of data exchange and analytical approaches, treatment of the overlap area, uncertainties relating to stock structure and data availability, and the development of compatible management approaches between the two Commissions.

5.1.3.4 Updates on SP Albacore Roadmap IWG

SC22 will review progress under the South Pacific Albacore Roadmap Intersessional Working Group (IWG), which has been tasked with advancing key components of the harvest strategy. Following endorsement of the [2023–2026 workplan](#) and the adoption of the SPA MP at WCPFC22, the IWG's current focus is on operationalizing the MP, including the first MP run, development and review of the monitoring strategy, and progression of implementing arrangements and allocation considerations in advance of adoption of an implementing CMM at WCPFC23. SC22 will consider updates on these activities and provide technical advice relevant to monitoring strategy and implementation design, and guidance to support the completion of remaining roadmap elements and readiness for full implementation of the SPA MP from 2027.

5.1.4 Skipjack tuna harvest strategy

5.1.4.1 Skipjack monitoring strategy

SC22 will review the proposed updates to the skipjack monitoring strategy, including the regional CPUE analyses combining purse seine and pole-and-line fisheries as a potential alternative abundance index, and provide advice on revisions to the monitoring framework, priorities for future technical work, and any additional amendments required to support the continued implementation and review of the skipjack MP.

- ❖ *The Commission has recognised that ongoing monitoring is essential to ensure the skipjack Management Procedure continues to perform as intended and remains robust as fishery conditions, data availability and management arrangements evolve. SC22 will therefore consider updates to the skipjack monitoring strategy, with particular attention to issues affecting the reliability of key data inputs and monitoring of MP performance, including the declining representativeness of the Japanese pole-and-line CPUE index, evaluation of alternative abundance indices, alignment of the MP with the Tropical Tuna CMM following the revised implementation schedule, incorporation of climate-related uncertainties into the operating model framework, and continued monitoring of catch, effort and implementation outcomes.*

5.1.5 Mixed fishery monitoring strategy

SC22 will review the proposed monitoring strategy framework for WCPO bigeye and yellowfin tuna and provide advice on its scope and content, including any additional elements that should be incorporated. SC22 will also consider proposals to strengthen the implementation of monitoring strategies under the mixed fishery framework, including establishing monitoring strategy review as a standing agenda item, consolidating monitoring reports and information products, and improving the presentation of stock-specific monitoring strategies following adoption of the bigeye MP.

- ❖ *As the Commission progresses towards implementation of management procedures for all key tuna stocks, monitoring strategies are required to ensure that adopted MPs and the mixed fishery framework continue to perform as intended. With development of the bigeye MP and the planned adoption of monitoring strategies for bigeye and yellowfin tuna, SC22 is invited to consider the proposed monitoring strategy framework, including monitoring of MP performance, management procedure design, Management Strategy Evaluation assumptions, exceptional circumstances, and opportunities to improve the efficiency and coordination of monitoring across stocks under the mixed fishery framework.*

5.1.6 Progress of the WCPFC Harvest Strategy Work Plan

SC22 will review the progress of developing the harvest strategy framework along with the [*Indicative Work Plan for the Adoption of Harvest Strategy Under CMM 2022-03*](#) and provide advice to the Commission of further updates to the work plan as needed.

5.1.7 Pacific bluefin tuna – Long-term harvest strategy

SC22 will consider progress toward the development of a long-term harvest strategy for Pacific bluefin tuna and review the scientific advice supporting its finalization. The Committee will discuss key scientific elements requiring further consideration, including candidate harvest control rules, management procedure performance, exceptional circumstances, recruitment monitoring, and arrangements for implementation and future monitoring, and provide advice to support consideration of the harvest strategy by the Commission.

- ❖ *Following completion of the Management Strategy Evaluation (MSE) and rebuilding of the stock to the second rebuilding target, the Joint IATTC–WCPFC NC Working Group (JWG) has been advancing the development of a long-term harvest strategy to replace the current interim management framework. While substantial progress has been made, several scientific components require further review before adoption, including refinement of candidate harvest control rules, evaluation of management procedure performance under a two-year management cycle, development of an exceptional circumstances framework, recruitment monitoring indicators, and implementation arrangements. ISC has continued to provide scientific advice on these issues, with adoption of the long-term harvest strategy anticipated in 2026 and implementation from 2027.*

5.1.8 Southwest Pacific swordfish management procedure (Project 131)

SC22 will consider progress in implementing the [*Southwest Pacific Swordfish Harvest Strategy workplan*](#) and provide technical advice on the proposed operating models, candidate management procedures, baseline catch levels, management controls, treatment of key uncertainties, and other scientific issues necessary to support further development of the MSE framework. SC22 may also provide guidance on priorities for intersessional work, including arrangements to facilitate coordination of Project 131 and delivery of the workplan milestones.

- ❖ *Following the Commission's adoption of the Indicative Workplan for Developing a Southwest Pacific Swordfish Harvest Strategy, Project 131 has commenced the development of a Management Strategy Evaluation (MSE) framework to support a long-term harvest strategy for the stock. As this work enters the technical design phase, scientific guidance is required to address key uncertainties identified in the 2025 stock assessment and to establish the analytical framework needed to evaluate candidate management procedures, consistent with the milestones and timelines set out in the Commission's workplan.*

5.2 Review of effectiveness of CMM 2025-02

SC22 will review the latest scientific evaluation of [*CMM 2025-02*](#), updated catch and effort information, and analyses of alternative skipjack CPUE indices, and provide advice on whether the measure is likely to achieve its stated objectives for bigeye, yellowfin and skipjack tuna. SC22 will also consider the implications of recent fishing patterns and CPUE analyses for monitoring implementation of CMM 2025-02, the continued application of the skipjack Management Procedure, and priorities for future scientific work.

- ❖ *The Commission requested regular scientific evaluation of the Tropical Tuna Measure to assess whether it continues to achieve its objectives for bigeye, yellowfin and skipjack tuna as stock status,*

fishery performance and management arrangements evolve. In particular, continued implementation of the skipjack Management Procedure, ongoing development of the bigeye Management Procedure, and changes in fishing patterns and the spatial coverage of key fisheries require continued evaluation of the measure's performance and consideration of whether existing monitoring approaches remain appropriate.

5.3 Other MI Theme issues

SC22 may consider any other issues that are not covered under the Management Issues Theme agenda items.

AGENDA ITEM 6 ECOSYSTEM AND BYCATCH MITIGATION THEME

6.1 Ecosystem and Climate Indicators

6.1.1 Progress of Project 121 (Ecosystem and Climate Indicators)

SC22 will review progress in the development and application of ecosystem and climate indicators, consider the recommendations arising from the international workshop, and provide scientific advice on the future development, interpretation and application of ecosystem and climate indicators to support implementation of the WCPFC Ecosystem Approach to Fisheries Management and future reporting to the Commission.

- ❖ *The Scientific Committee has previously supported the continued development of ecosystem and climate indicators to strengthen implementation of the WCPFC Ecosystem Approach to Fisheries Management (EAFM). This agenda item presents an update on the development of ecosystem and climate indicators for the western and central Pacific Ocean, including incorporation of recent data, refinement of the regional structure to better represent oceanographic processes, and continued development of ecosystem and climate indicators for future reporting. It also presents the outcomes of an international workshop on ecosystem and climate indicators for tuna regional fisheries management organizations, which examined the selection, interpretation and application of ecosystem, fisheries and climate indicators. The workshop highlighted the importance of using a limited set of transparent, reproducible and informative indicators, and recognised that climate indicators are best used to provide context for biological and fisheries indicators, supporting risk-based approaches and longer-term planning.*

6.1.2 Development of early warning tools and expanded climate impact assessments

SC22 is invited to review progress in developing early warning tools to anticipate climate-driven changes, including the scientific approaches, supporting projects and resource requirements identified by the SSP and partners. SC22 may provide guidance on priorities for future work, including the development of a workplan from 2028 onwards, consideration of project arrangements and resourcing, and the continued integration of climate change information into WCPFC scientific advice and evaluations of conservation and management measures.

- ❖ *At WCPFC22, the Commission requested the SSP and the Secretariat to explore the development of early warning tools to anticipate climate-driven changes and encouraged CCM support for the associated data and resource requirements. In response, work has progressed through existing initiatives, including Project 121 (ecosystem and climate indicators), Project 62 (SEAPODYM climate simulations), the Climate Science to Ensure Pacific Tuna Access (CSEPTA) project, the Regional Tuna Programme (RTP), and related ecosystem modelling activities. Collectively, these initiatives provide the foundation for monitoring climate trends, projecting the impacts of climate change on tuna stocks, ecosystems, economies and livelihoods, improving seasonal forecasting, and supporting future*

evaluations of conservation and management measures under changing climate conditions. The paper also outlines options for further developing early warning tools, including project governance, resourcing requirements and preparation of a longer-term workplan

6.1.3 Climate Change Workplan

SC22 will review the general progress of tasks assigned to the Scientific Committee in the Climate Change Workplan and provide advice or recommendations to the Commission, as needed.

- ❖ *WCPFC21 adopted the WCPFC Climate Change Workplan for 2024 – 2027 (Attachment 13, WCPFC21 Summary Report). WCPFC22 noted that the CCVA consultancy had met its terms of reference and provided a sound conceptual framework, while recognising that full implementation would require substantial additional data and resources. The Commission further agreed that climate considerations should be progressively integrated into existing SC, TCC, and Secretariat processes, using both quantitative and qualitative methods (para. 352, WCPFC22 Summary Report).*

6.2 Updates on the 2019 SEAPODYM Review

SC22 is invited to review progress in implementing the recommendations of the 2019 SEAPODYM Review and SC21, including developments to the modelling framework, estimation methods and updated reference models. SC22 may consider the robustness, transparency and performance of the updated models, identify remaining priorities for model development and validation, and provide guidance on the future role and application of SEAPODYM within WCPFC scientific processes, including its contribution to stock assessment, climate change analyses and the provision of scientific advice.

- ❖ *Following the 2019 independent review of SEAPODYM and subsequent guidance from SC21, the SSP has continued to enhance the SEAPODYM framework and update the reference models for skipjack, yellowfin, bigeye and South Pacific albacore. The work includes improvements to the model structure and estimation framework, incorporation of updated oceanographic forcing and additional fisheries, tagging and early life-stage data, and evaluation of updated reference models against previous versions. The accompanying methodological paper describes advances in parameter estimation, convergence diagnostics, sensitivity analyses, uncertainty characterisation and model validation to address key recommendations from the 2019 review and strengthen the scientific basis of the modelling framework. The updated reference models are intended to support future assessments of climate change impacts on tuna populations and regional fisheries.*

6.3 FAD impacts

6.3.1 Research on non-entangling and biodegradable FADs

SC22 is invited to review progress on biodegradable dFAD research and consider the proposed future work programme and Terms of Reference to support implementation of the FAD Management Options IWG workplan. In doing so, SC22 may provide scientific advice on priorities for future research, including the evaluation of biodegradable materials and designs, development of appropriate testing and certification standards for the marine environment, and measures to support the practical transition to biodegradable dFADs in the WCPO.

- ❖ *At SC21, the Scientific Committee noted progress under Projects 110 and 110a on the development and testing of non-entangling and biodegradable drifting Fish Aggregating Devices (dFADs) and encouraged further work to clarify biodegradable materials and appropriate standards for the marine environment. Since then, the SSP has expanded its dFAD research programme to support the FAD Management Options IWG workplan, including continued industry trials of biodegradable dFADs, monitoring of dFAD designs and materials, development of future research workplans and Terms of*

Reference, and assessment of the operational performance, feasibility and implementation challenges associated with biodegradable dFADs. The agenda item also includes the outcomes of the Second International Workshop on Biodegradable dFADs, which reviewed international experience from field trials and identified priorities for improving material selection, certification, testing standards and practical implementation of biodegradable dFADs.

6.3.2 Research on dFAD loss and abandonment

SC22 will consider recent findings and recommendations on mitigating dFAD loss, abandonment and stranding, and provide scientific advice on practical approaches to support their implementation. In particular, SC22 will consider the feasibility of mitigation and recovery options, monitoring and data-sharing arrangements, the development of recovery programmes, and priorities for future research and pilot activities to support effective management measures.

- ❖ *At SC21, the Scientific Committee highlighted the need to improve understanding of dFAD loss, abandonment and stranding, including their environmental and socio-economic impacts, and encouraged further work on mitigation and recovery. In response, this agenda item presents recent scientific analyses of mitigation and recovery options, together with the outcomes of an international workshop, drawing on stakeholder consultations, dFAD tracking data, case studies and economic analyses to evaluate the feasibility, costs and effectiveness of different approaches and to identify priorities for future management, monitoring and collaborative recovery efforts.*

6.3.3 Updates on FAD Management Options IWG

SC22 will review the progress of the FADMO-IWG priority tasks for 2026 and provide scientific advice on issues relating to satellite buoy data transmission, FAD recovery programmes, the WCPFC FAD logbook, biodegradable dFADs, and dFAD deployment, to support the FADMO-IWG in developing recommendations for consideration by TCC22 and WCPFC23.

- ❖ *The FADMO-IWG continued its work during 2026 in response to the Commission's tasking to progress priority activities under its 2024–2026 Work Plan. These include streamlining satellite buoy data reporting arrangements and reducing duplication, advancing FAD recovery programmes, refining the WCPFC FAD logbook, considering the stepwise introduction of biodegradable dFADs, and evaluating the information required to assess the effectiveness of current dFAD deployment limits. The outcomes of this work are presented to SC22 to inform subsequent recommendations to TCC22 and WCPFC23.*

6.4 Bycatch management

6.4.1 Bycatch Management Information System

SC22 will review any updates related to bycatch management, including the Bycatch Management Information System (BMIS), any feedback on the bycatch management site at <http://www.wcpfc.int/bycatch-management> or <http://www.bmis-bycatch.org/>, and the Bycatch Data Exchange Protocol (BDEP) within the BMIS.

6.4.2 Review of CMM for seabirds (CMM 2025-05)

SC22 will review updated information relevant to CMM 2025-05 and provide advice on whether adjustments or additional measures are needed to improve effectiveness and ensure consistent application across the Convention Area.

- ❖ *Review of the seabird CMM reflects continued concern regarding seabird bycatch risks and the effectiveness of mitigation measures across different regions and fisheries. The newly adopted CMM 2025-05 strengthens requirements by mandating combinations of mitigation measures tailored to*

area-specific risk profiles and vessel characteristics, while also introducing annual reviews and a formal review within three years to assess effectiveness and remaining risks.

6.4.3 Review of CMM for Sea Turtles (CMM 2018-04)

SC22 will consider the outcomes of the First Sea Turtle Informal Intersessional Working Group Meeting, including the proposed options for revising CMM 2018-04, and provide scientific advice on issues relevant to the revision of the measure, including mitigation measures, sea turtle interaction reporting requirements, and future research priorities, for consideration by TCC22 and WCPFC23.

- ❖ *At WCPFC21, the Commission agreed to review CMM 2018-04 in 2026 to clarify sea turtle reporting requirements and consider expanding the scope of the measure. At WCPFC22, the Commission endorsed the establishment of an informal intersessional working group, led by the United States, to undertake this review and report to SC22, TCC22 and WCPFC23. The First Sea Turtle Informal Intersessional Working Group Meeting ([STIIWG01](#)) was held virtually on 8 and 10 April 2026 to review the current measure, consider options for strengthening mitigation measures, particularly for deep-set longline fisheries, and develop proposals for a revised CMM.*

6.5 Marine pollution

SC22 will provide scientific advice to support the intersessional review of CMM 2017-04 on Marine Pollution. In particular, SC22 will consider the scientific basis for including underwater noise and greenhouse gas emissions within the scope of the measure, the utility of abandoned, lost or otherwise discarded fishing gear (ALDFG) data and appropriate reporting arrangements, the review cycle for the measure, and any other scientific issues relevant to the revision of the CMM.

- ❖ *CMM 2017-04 requires the Commission to review the measure every three years to consider expanding its scope with respect to the elimination of marine pollution caused by fishing vessels. Following Canada's proposal to amend the measure at WCPFC21, the Commission established an informal intersessional process to develop a revised CMM for consideration by TCC22 and adoption at WCPFC23. WCPFC-SC22-2026-EB-WP12 updates SC22 on the progress of this work and identifies issues requiring scientific advice from the Scientific Committee.*

6.6 Deep-sea mining

SC22 will consider updates provided by the Secretariat on deep sea mining activities in the western and central Pacific Ocean. SC22 may also consider a role for the Ecosystem and Bycatch Mitigation Theme or ecosystem-related workstreams in tracking and assessing potential risks to tuna fisheries from deep-sea mining, including identifying data needs, strengthening coordination with the International Seabed Authority and other relevant bodies, and considering whether future scientific advice and monitoring frameworks should incorporate these emerging pressures.

- ❖ *SC21 and WCPFC22 discussions indicate emerging concerns about the potential impacts of International Seabed Authority deep-sea mining activities on tuna ecosystems and the broader marine environment, although this issue is still at an early stage within WCPFC processes. SC21 acknowledged that external pressures, including activities such as deep-sea mining, are becoming increasingly relevant to fisheries management and may affect ecosystem dynamics that underpin tuna stocks. This reflects a growing recognition that non-fishing impacts could influence stock productivity, habitat conditions, and ecosystem interactions. While no specific management actions were agreed upon, the issue highlights a gap in current scientific monitoring and assessment frameworks, which are not yet designed to evaluate such impacts. WCPFC participated in the ISA REMP workshop in Busan from 18 to 21 May 2026 and will report key outcomes to SC22, including identified management measures, knowledge gaps, and collaboration needs from the workshop process.*

6.7 Other EB Theme issues

SC22 may consider any other issues that are not covered under the EB Theme agenda items.

AGENDA ITEM 7 OTHER RESEARCH PROJECTS

7.1 Pacific Marine Specimen Bank (Project 35b)

SC22 will review the progress of Project 35b and the outcomes of the 8th Steering Committee meeting and provide recommendations to the Commission for the project's continuity.

7.1.1 Updates on pollutant studies in WCPO tuna

This agenda item introduces contaminant monitoring as a new area of scientific work within the Scientific Committee through the Pacific Marine Specimen Bank (PMSB). Building on more than a decade of research using PMSB samples, the paper presents recent findings on mercury, methylmercury, persistent organic pollutants (POPs), plastics and plastic additives in tunas and billfishes, highlighting their value for understanding marine pollution, food safety, and the role of tunas as bioindicators of ocean contamination. The paper also demonstrates how the PMSB provides a long-term biological sampling platform capable of supporting contaminant monitoring alongside its existing contribution to fisheries science. SC22 will consider the scientific findings and recommendations of the paper, including the proposed role of the PMSB in supporting long-term monitoring of known and emerging pollutants to inform evidence-based policies on the health risks and benefits of consuming tuna and bycatch species.

7.2 Pacific Tuna Tagging Project (Project 42)

SC22 will review the progress of the Pacific Tuna Tagging Project (Project 42) and the results of its 18th PTPP Steering Committee Meeting. SC22 will provide recommendations to the Commission for the continuity of the project.

7.3 West Pacific East Asia Project

SC22 will note the progress of the WPEA-SPF project that began in 2024 and is scheduled to conclude in 2027. SC22 is encouraged to consider data collection improvements to date and future needs and support for continuation of this work beyond 2027.

7.4 Japan Trust Fund activities

SC22 will review the results of the 2026 JTF Steering Committee meeting and provide advice, as needed.

7.5 Other Projects

SC22 may consider any other projects funded through voluntary contributions of WCPFC CCMs.

AGENDA ITEM 8 COOPERATION WITH OTHER ORGANISATIONS

SC22 will review the Secretariat's activities to strengthen cooperation with other intergovernmental organisations, regional fisheries management organisations (RFMOs), and scientific and technical partners in support of the Commission's objectives. SC22 will consider recent developments in collaborative initiatives, including joint work on harvest strategies, management procedures, scientific services, data exchange, electronic monitoring, fisheries information systems, marine biodiversity, deep-seabed mining, and other emerging international initiatives relevant to the Commission's work.

AGENDA ITEM 9 SPECIAL REQUIREMENTS OF DEVELOPING STATES AND PARTICIPATING TERRITORIES

SC22 will consider the special requirements of developing States, particularly small island developing

States (SIDS) and Participating Territories as they relate to the work of the Scientific Committee. This may include reviewing workplan prioritization, improving timelines and accessibility of scientific materials, considering capacity impacts when developing advice, and providing input to the Article 30 review by identifying where SC processes may necessitate Commission support related to Article 30 and relevant CMMs.

SC21 highlighted practical barriers for SIDS and Participating Territory CCMs, such as increasing workload, compressed timelines, and increasing data obligations, all of which present challenges for small delegations with limited capacities.

AGENDA ITEM 10 FUTURE WORK PROGRAM AND BUDGET

10.1 Development of the 2027 work program and budget, and projection of the 2028-2029 provisional work program and indicative budget

SC22 will develop the 2027 SC work program and budget, as well as the provisional work program and indicative budget for 2028–2029, for the Commission’s consideration and endorsement. All project proponents should submit proposals with detailed terms of reference, including objectives, rationale, assumptions, scope of work, data requirements, whether public or non-public, time frame, budget, and references, for SC review and prioritisation. Proponents should refer to the *Template for SC Project Proposals* in Attachment B of [SC21-GN-WP-03](#), which is also available in the [Key Documents Library](#) on the WCPFC website.

SC22 will note a recommendation from the Finance and Administration Committee to the Commission (Para 71, FAC9 Summary Report) that “WCPFC12 task SC with carefully considering proposed scientific projects in the context of the indicative budget agreed for the coming year.”

AGENDA ITEM 11 ADMINISTRATIVE MATTERS

11.1 Future operation of the Scientific Committee

SC22 will consider a range of proposals aimed at improving the future operation of the Scientific Committee, including measures to enhance the timeliness and efficiency of the stock assessment process, prioritise the Scientific Committee's work programme, and strengthen the quality and robustness of stock assessments through a structured framework for independent review. Discussions under this agenda will also consider opportunities to improve the sustainability and effectiveness of the Scientific Committee's operations while maintaining the quality, transparency and independence of scientific advice.

❖ *This agenda item responds to a series of recommendations from SC21 and taskings from WCPFC22 to improve the effectiveness and long-term sustainability of the Scientific Committee's operations. The Commission requested further work on improving the stock assessment workflow, prioritising the Scientific Committee's work programme, and developing a structured framework for independent reviews of stock assessments. Agenda Item 11.1 brings together these related initiatives, which are addressed in WCPFC-SC22-2026-GN-IP06 and GN-WP05 and GN-WP06, for consideration by SC22.*

11.1.1 Activities addressing challenges in the delivery of stock assessments in time for member’s peer review

SC22 will consider the progress made in improving the timeliness and efficiency of the stock assessment process and discuss further measures to support the delivery of assessment outputs in time for members' peer review. SC22 will consider supporting earlier data submission by CCMs where feasible, provide feedback on the implementation of the standardised SciData submission process to facilitate further refinement, and discuss the prioritisation of Scientific Committee projects, including approaches to focus available resources on projects that directly support Commission priorities.

- ❖ *WCPFC22 requested the Scientific Committee and the Scientific Services Provider (SSP) to review the stock assessment workflow and identify practical measures to improve the timely delivery of assessment outputs for members' peer review prior to SC meetings. In response, WCPFC-SC22-2026-GN-IP06 provides an update on activities undertaken to improve the efficiency of the stock assessment process and support the timely delivery of scientific advice, while identifying remaining challenges and opportunities for further improvement.*

11.1.2 Prioritizing the work of the Scientific Committee

SC22 will consider the proposed three-year process for prioritising the work of the Scientific Committee, including a scheduling-based approach to managing the increasing workload of the SC and the associated risks of delaying work or reducing the frequency of updates. SC22 will also consider the proposal to establish a small group to examine options for revising the stock assessment schedules for tunas, billfish and sharks, discuss proposed adjustments to the Ecosystem and Bycatch (EB) theme review schedule, and consider the proposal for the Secretariat to prepare a paper for SC23 compiling CMM review obligations requiring SC advice to support future prioritisation of the SC work programme.

- ❖ *At WCPFC22, the Commission requested the SC Vice-Chair to lead intersessional work to develop options for prioritising the work of the Scientific Committee for consideration at SC22. In response, WCPFC-SC22-2026-GN-WP05 presents a proposed framework to support a more sustainable and efficient management of the Scientific Committee's increasing workload while maintaining its existing mandate and considering the potential risks associated with changes to the timing and frequency of its work.*

11.1.3 Framework for the independent review of WCPFC Stock Assessments (WCPFC-SC22-2026-GN-WP06)

SC22 will consider the proposed process for establishing a periodic schedule of independent reviews of WCPFC stock assessments, including the proposed criteria for identifying candidate stocks for review and their application in developing an indicative review schedule. SC22 will also discuss how independent reviews can be integrated with the existing stock assessment schedule and harvest strategy work programme and consider whether the proposed process should be applied on a periodic basis to support the Scientific Committee's future work.

- ❖ *SC12 adopted a formal Process for the Independent Review of Stock Assessments⁷, including provisions for developing a multi-year review schedule, Commission approval, reviewer selection, and the conduct of independent reviews. At SC21, the Scientific Committee recognised the importance of establishing a regular programme of independent reviews as good fisheries management practice and recommended that this matter be considered at SC22. In response, WCPFC-SC22-2026-GN-WP06 proposes a process for developing a periodic schedule of independent reviews, including criteria for identifying candidate stocks for review and an illustrative application of those criteria that takes account of the existing stock assessment schedule and harvest strategy work programme.*

11.2 Next meeting

Members are invited to recommend provisional meeting dates of 10 to 18 August 2027 and the venue of Pohnpei, FSM, for SC23 in 2027 and to propose the dates and venue for SC24 in 2028, taking into account SC21's recommendation that the Scientific Committee be held every other year at the location of the Commission Secretariat, beginning with SC23, unless otherwise agreed.

⁷ See Attachment K, [SC12 Summary Report](#).

AGENDA ITEM 12 OTHER MATTERS

SC22 will consider any other issues that are raised under Agenda Item 1.4.

AGENDA ITEM 13 ADOPTION OF THE SUMMARY REPORT OF THE TWENTY-SECOND REGULAR SESSION OF THE SCIENTIFIC COMMITTEE

SC22 will adopt all recommendations of the Scientific Committee. The SC22 Summary Report will be adopted intersessionally following SC22. The Outcomes Document containing all agreed decision points will be posted on the SC22 website within seven working days.

AGENDA ITEM 14 CLOSE OF THE MEETING

The Chair will formally close the meeting on Wednesday, 19 August 2026.