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South Pacific Albacore Tuna Reference Paper

WCPFC22-2025-IP08
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Submitted by the Secretariat

Purpose and Background

1. In 2024, WCPFC21 agreed that CCMs will cooperate to develop a Management Procedure and implementing measure for SP-ALB during 2025, with a view to adopt both a management procedure and its implementing measure at WCPFC22, that will replace CMM 2015-02[1]. The purpose of this paper is to provide reference information to assist the Commission in its consideration and planned adoption of a Management Procedure and associated implementing measure for South Pacific albacore at WCPFC22.

2. This paper summarises:

   i. The status of the south Pacific albacore stock, based on the 2024 stock assessment;

   ii. The management status, including CMM 2015-02, interim arrangements, and intersessional progress toward a replacement measure;

   iii. Data collection and monitoring frameworks;

   iv. Compliance history under the Compliance Monitoring Scheme; and

   v. Progress in harvest strategy development, including outcomes of recent workshops and coordination with the IATTC.

Stock Status

3. The most recent stock assessment for South Pacific albacore tuna was conducted in 2024, incorporating data up to 2022 (SC20-SA-WP-02_Rev.3). The stock assessment concluded that the stock remains in a healthy condition overall, with the results showing that South Pacific albacore (including the eastern Pacific Ocean component) is **not overfished** (*0% probability SBrecent/SBF=0 < LRP*) and **is not experiencing overfishing** (*100% probability Frecent < FMSY)*.

4. In 2023, at WCPFC20, the Commission adopted an interim Target Reference Point (iTRP) for South Pacific albacore specified as four percent below the estimated average spawning potential depletion of the stock over the period 2017-2019 (0.96 $SB_{(2017–2019)}/SB_{F=0}$). The median depletion from the stock assessment model ensemble with estimation uncertainty for the recent period (2019-2022;

[1] WCPFC21 Summary Report Paragraph 716.

SB*recent*/SB*F=0*) was 0.48 (10th to 90th percentile interval of 0.36 to 0.62), which is close to, but just below, the 0.5 re-calibrated iTRP for South Pacific albacore.

5. Refer to **Attachment B** for more details on the most recent stock assessment. Further information on Trends in the South Pacific albacore longline and troll fisheries is also provided annually by the SSP to SC, TCC and Commission.

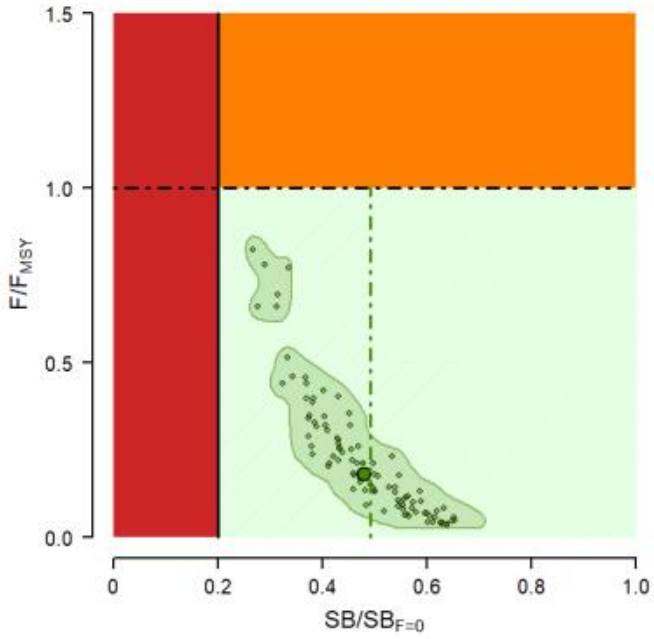

Figure 1*: SPA stock status (full south Pacific stock, including EPO), as measured by $SB_{recent}/SB_{F=0}$, and F/F_{MSY}, shown on a Majuro plot. The small green points show the stock status of each model in the model ensemble, the large green point is the median stock status for the 'recent' period and the shaded contour region indicates the range of uncertainty in stock status from other runs in the structural uncertainty grid including their (bootstrapped) statistical uncertainty. (SC21-SA-IP-09)*.

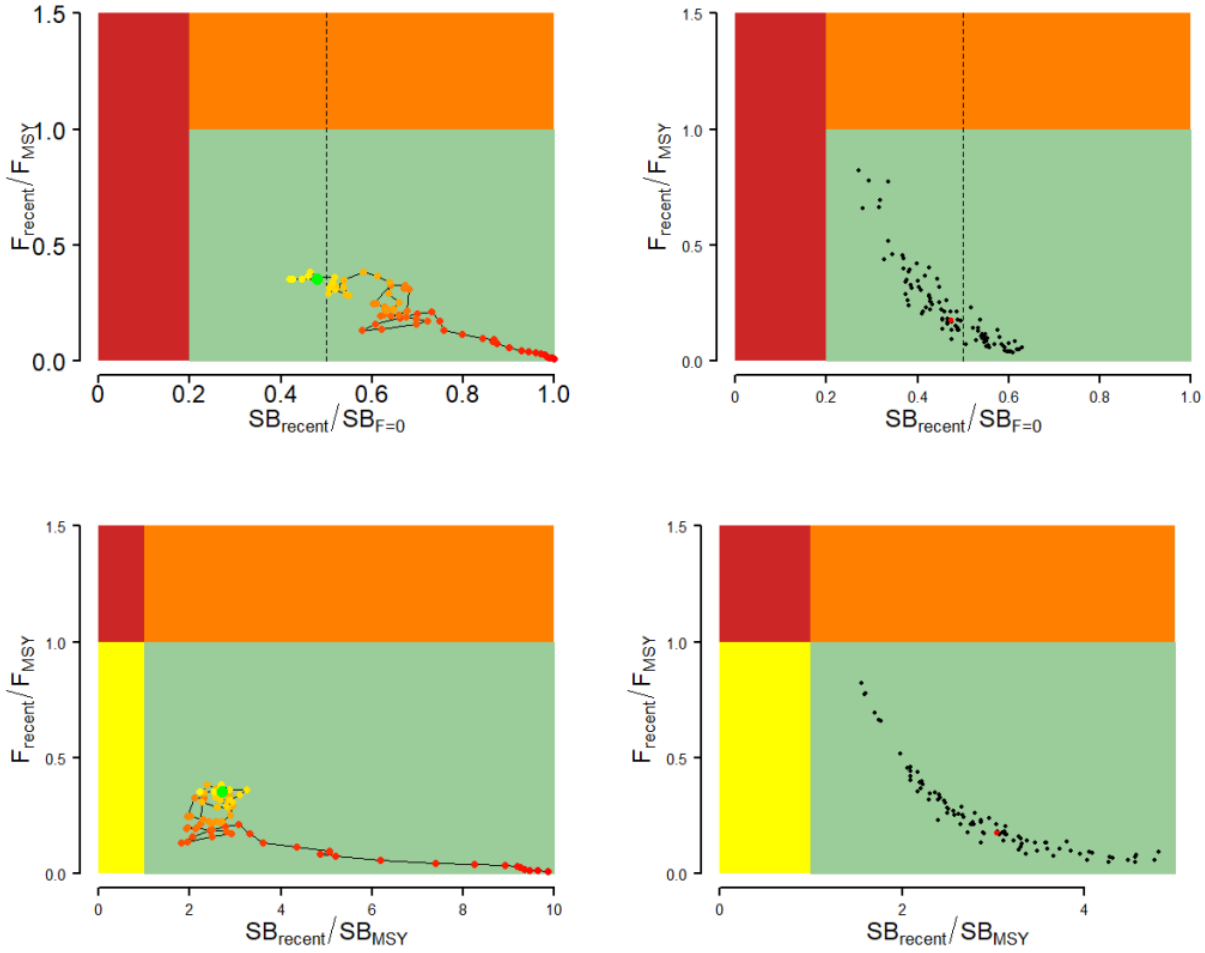

Figure 2. *Majuro plots (top) and Kobe plots (bottom) summarising the results for the dynamic MSY analysis (left) and each of the models in the model ensemble for the recent period (2019– 2022; right). Majuro plots include a dashed line at iTRP estimate (0.5), calculated from the current assessment (Pilling et al., 2024). Colors for dynamic MSY go from red to green over time. The red point in the model ensemble (right) represents the median. (Reference Figure SPA-10, SC20 Outcomes Document)*

Management status (CMM overview)

6. The inaugural South Pacific albacore conservation and management measure (CMM 2005-02), was adopted at the Second Regular Session of the Commission, and was among the first substantive conservation and management measures adopted by WCPFC. This measure was later replaced by CMM 2010-05 in 2010, and subsequently by CMM 2015-02, which remains in effect.

7. Paragraph 1 of CMM 2015-02 is the key management tool for South Pacific albacore and stipulates that "*CCMs shall not increase the number of their fishing vessels actively fishing for South Pacific albacore in the Convention Area south of 20°S above 2005 levels or recent historical (2000-2004) levels*." This vessel limit applies to most non-SIDS CCMs fishing for South Pacific albacore in the waters south of 20°S in the Convention Area, and remains unchanged from the inaugural CMM 2005-02.

8. Over the past ten years, the area south of 20°S where the vessel limit applies has accounted for an average of approximately 34% of the total South Pacific albacore catch within the Convention Area. There is no vessel limit under CMM 2015-02 for vessels fishing between 0° and 20°S.

9. The status of vessel limits for WCPFC CCMs in the area south of 20°S as notified is:

    - Australia, China, New Zealand, and Chinese Taipei have notified the Commission of their limits, referencing the baseline of 2005 or the 2000 – 2004 levels.
    - The European Union, Japan, and Korea who have acknowledged having vessels fishing in the waters south of 20°S, have reported that their vessels do not "fish for" South Pacific albacore, so therefore have unspecified limit.
    - The United States has notified of the baseline levels for the troll fishery 2000 – 2004 levels but the applicable limit is not yet specified.
    - The limit is considered applicable to Indonesia and Philippines and is also unspecified but in recent years these CCMs have not had any vessels operating in the area south of 20°S.[2]
    - The limit does not apply to small island developing State and Territory CCMs in the Convention Area (CMM 2015-02 paragraph 2).

10. Paragraph 4 of CMM 2015-02 requires that CCMs report the annual catch levels taken by each of their fishing vessels that have taken South Pacific albacore, as well as the number of vessels actively fishing for South Pacific albacore, in the Convention area south of 20°S. Catch by vessel is to be reported according to the following species groups: albacore tuna, bigeye tuna, yellowfin tuna, swordfish, other billfish, and sharks. Initially, this information was to be provided for the period 2006 - 2014 and then updated annually. CCMs are encouraged to provide data from periods prior to these dates.

11. Efforts to revise CMM 2015-02 and strengthen the management of South Pacific albacore have been ongoing for the Commission, with an Intersessional Meeting to progress the draft Bridging CMM on South Pacific Albacore taking place in 2017. In 2020, the South Pacific Albacore Roadmap Intersessional Working Group (SPA RM-IWG) was reinvigorated, and subsequent meetings of this group in 2021, 2022, 2023, and 2024 have considered a range of issues including the development and recalibration of an interim Target Reference Point; management objectives and economic performance of the longline fishery; the design and testing of Management Procedures through Management Strategy Evaluation; options for setting a Total Allowable Catch; the selection of appropriate reference years and harvest control rules; addressing data uncertainties such as effort creep and hyperstability in CPUE; the consideration of allocation frameworks consistent with Article 10(3) of the Convention; and enhanced cooperation with the IATTC toward harmonized management of the South Pacific albacore stock.

12. In 2021, the Commission at WCPFC18, noted:

    a. the ongoing work to review CMM 2015-02 through the SP Albacore Roadmap IWG (SPA-RM IWG);
    b. concerns regarding the delayed process to implement an interim TRP adopted in 2018; and
    c. the need to take action to rebuild the stock to support the economic viability of fleets and to achieve a long-term TRP.

13. Considering these concerns, the Commission agreed to the following interim arrangement for South Pacific albacore:

[2] In early 2023, the Secretariat released an enhanced CMM page that includes Audit Points and Limits (https://cmm.wcpfc.int/)

The Commission agreed that until a new CMM for South Pacific Albacore is adopted, each CCM is encouraged to take steps to implement interim controls on South Pacific albacore catch or effort across the convention area south of the equator.

i. CCMs are encouraged to limit commercial fishing of South Pacific albacore within EEZs to domestically applied catch or effort limits in recent years.

ii. Each CCM is encouraged to ensure that its flagged vessels for this species shall not exceed the high seas catch or effort (such as number of vessels) of South Pacific albacore by its flagged vessels in recent years.

These interim arrangements do not confer the allocation of rights to any CCM and are without prejudice to any future decisions of the Commission.

These interim arrangements shall not prejudice the legitimate rights and obligations under international law for small island developing State and Participating Territory CCMs in the Convention Area for whom South Pacific albacore is an important component of the domestic tuna fishery in waters under their national jurisdiction, and who may wish to pursue a responsible level of development of their fisheries for south Pacific albacore in their EEZs or adjacent high seas.

Ref: WCPFC18 Summary Report, paragraph 197 – 199

14. In 2024, the WCPFC SMD02 agreed on the value of a joint working group (JWG) process between WCPFC CCMs and IATTC CPCs to harmonize management measures for SP-ALB, and invited the Commission to consider the establishment of such a JWG, this was endorsed in principle by the Commission at WCPFC21. Further, WCPFC21 agreed that CCMs will cooperate to develop a management procedure and implementing measure for SP-ALB during 2025, with a view to adopt both a management procedure and its implementing measure at WCPFC22, that will **replace** CMM 2015-02.

15. In the eastern Pacific, under the mandate of Inter-American Tropical Tuna Commission (IATTC), a new measure for South Pacific albacore was adopted in 2024, Resolution C-24-04 on South Pacific Albacore Tuna, which commits the IATTC to consider reference points that are compatible with the work of the WCPFC in 2026.

16. Throughout 2025, the IATTC and WCPFC have been progressing the development of Terms of Reference to establish a Joint IATTC/WCPFC Working Group on the Management of South Pacific Albacore Tuna Fisheries (SPAJWG) through a series of informal virtual meetings. The IATTC adopted the Resolution on Terms of Reference of an Ad Hoc IATTC-WCPFC Joint Working Group on South Pacific Albacore Tuna at its 103rd Annual Meeting in September 2025 (Resolution C-25-04). For the details about the establishment of the SPAJWG, refer to WCPFC22-2025-19 (*Establishment of a Joint Working Group on the Management of South Pacific Albacore Tuna*).

Monitoring and Data Collection

17. The primary source of data for South Pacific albacore is self-reported operational logbook data submitted by flag CCMs. Data collection to assist with monitoring of South Pacific albacore follows the Commission's *Standards for the Provision of Scientific Data to the Commission*, most recently revised at WCPFC21. For albacore, this includes annual and seasonal catch estimates (including discards/releases) by area and gear type; operational-level catch and effort data for individual fishing events, using the FAO species code ALB, with data aggregated where operational coverage is

incomplete; size composition information (length in 1 cm intervals; weight in 1 kg intervals) representing catches by time and area strata; and reporting of vessel activity and submission of all data by the specified annual deadlines. Some different requirements apply to troll fisheries.

18. Independent data to support compliance validation and verification are collected primarily through the Regional Observer Programme (ROP), transshipment observer reports from carrier vessels, and VMS data. These are reported on annually by the Secretariat through the Annual Report on the Regional Observer Programme, the Annual Report on WCPFC Transhipment Reporting and the Annual Report on the Commission VMS.

19. WCPFC-TCC21-2025-IP01 from the Secretariat noted that gaps in operational catch and effort data, the option for anonymized reporting under CMM 2015-02, and the 5% minimum ROP observer coverage mean the TCCs evaluation of the current vessel limit and annual reporting for South Pacific albacore relies largely on self-reported CCM data that is not independently verified. While self-reported data show some variation across years and CCMs from 2015–2024, overall trends in catches and vessel numbers fishing for South Pacific albacore south of 20°S have remained relatively stable.

20. The Close-Kin Mark-Recapture programme (WCPFC Project 100c)—a joint CSIRO–SPC initiative—is a new and developing potential component for independent data collection. At its most recent session, SC21 acknowledged the progress achieved and the preliminary findings on the genetic structure of South Pacific albacore, noting that further consideration is required regarding how these results could inform future stock assessments.

Compliance history

21. CMM 2015-02 paragraph 1 stipulates that "*CCMs shall not increase the number of their fishing vessels actively fishing for South Pacific albacore in the Convention Area south of 20°S above 2005 levels or recent historical (2000-2004) levels.*"

22. Since 2013, the TCC has reviewed compliance with this vessel limit obligation in the south Pacific albacore CMM under the Compliance Monitoring Scheme (CMS) every year except 2023, when the assessments for RY 2021 and RY 2022 were not undertaken. A summary of the outcomes of annual CMS assessments of the limit obligation between 2013 - 2024 (covering RY 2012-2023) is provided in **Figure 3** (below).

23. Prior to 2015, TCC had acknowledged that there were challenges for TCC to complete assessments of compliance with the south Pacific albacore CMM limit (CMM 2010-05 para 1) e.g., see note from WCPFC13 final CMR in lower left side of **Figure 3**. The limitation at that time was that some CCMs had gaps in the complete operational catch and effort data set they provided. This meant the data available to the Secretariat when preparing the draft Compliance Monitoring Report (dCMR) tended to be based on the levels of longline activity derived from VMS analysis for relevant CCMs in the area where the limit applied. This was problematic because the information was not targeted to the vessels that each flag CCM considers to be "actively fishing for" South Pacific albacore in the area south of 20°S.

24. Since the adoption by the Commission of CMM 2015-02, the SSP has had additional information reported in accordance with paragraph 4 to support their preparation of information for the Secretariat to use when preparing the dCMR. **Attachment C** collates information reported by CCMs to the Secretariat and/or the SSP in response to paragraph 4 of CMM 2015-02.

25. In 2020 and 2021, TCC acknowledged there were ongoing difficulties with completing the assessment of vessel limits. CMS audit points for the south Pacific albacore CMM were adopted by the Commission at WCPFC19, in December 2022. In 2023, at TCC19, no assessments of the limit were undertaken but

TCC did use the agreed CMS audit point to assess the annual reporting requirement obligation (CMM 2015-02 04) in the south Pacific albacore CMM for RY 2021 and RY 2022.

26. In 2023, at WCPFC20, the Commission agreed that the term "actively fishing for" used in CMM 2015-02 is applied to '*Vessels fishing south of 20 degrees South with an annual catch of albacore in that area with South Pacific albacore greater than 50% of the catch of potential target tuna (albacore, yellowfin and bigeye, southern bluefin, skipjack) and swordfish*.'

27. In 2024, TCC resumed the assessment of the limit obligation in the south Pacific albacore CMM and the annual reporting requirement obligation (CMM 2015-02 04) applying the definition of "actively fishing for" that was adopted at WCPFC20. In carrying out its assessment, TCC noted that the information provided is self-reported by each CCM and not independently verified. No compliance issues were raised by TCC in 2024 and this outcome was subsequently endorsed by the Commission at WCPFC21 in its adoption of the Final Compliance Monitoring Report.

28. Access to historical Compliance Monitoring Reports are available on the WCPFC website at https://www.wcpfc.int/monitoring-and-evaluation/compliance-monitoring-scheme/final-compliance-monitoring-reports

Figure 3

Outcome of CMS assessment of vessel limit obligations in The South Pacific Albacore CMM

CMM 2010-05 para 1
To support assessments of the limit, CMM 2010-05 included a new annual reporting obligation by CCMs to ensure reporting of catches by vessels in areas south of 20°S

CMM 2015-02 para 1
To further support assessments of the limit, CMM 2015-02 clarified that annual reporting should include catch composition at individual vessel level (for analysis *of targeting by each vessel in area south of 20°S)*

Definition of "actively fishing for" WCPFC20

Audit points

Evaluated	RY2012	RY2013	RY2014	RY2015	RY2016	RY2017	RY2018	RY2019	RY2020	RY2021	RY2022	RY2023
# Applicable CCMs	9	10	10	10	10	10	10	10	8 ** 2 not assessed	10	10	10
# Compliance issues	1	2						1		n/a	n/a	
% Compliance	89%	80%	100%	100%	100%	100%	100%	90%	80%			100%

Excerpts from the Adopted Final CMR Executive Summary

WCPFC13

CMM 2010-05 has been difficult to interpret and implement and warrants further consideration for improvement **| Para 19**

WCPFC17

Noted concerns had been expressed by many CCMs over a number of years concerning SP albacore fishery and the desire to develop a new CMM. Some CCMs saw the issue as complicated and challenging, for reasons that included whether there were gaps in data which could be addressed, whether vessels were determined to be fishing south of 20°S and whether there were catch attribution issues. Given the high interest in SP albacore fisheries, TCC16 recommended that priority be given by the Commission to this CMM **| Para 25**

WCPFC18

Noted that there were ongoing difficulties related to interpretation of the term "actively fishing for" (and similar terms such as "directed at" and "targeting") for this CMM which continue to present challenges and makes it difficult for TCC to complete the assessment some obligations during the CMR **| Para 31**

Status of harvest strategy development

29. The development of a harvest strategy for South Pacific albacore has been a multi-year, iterative process under the WCPFC harvest strategy framework established by the Conservation and Management Measure on Establishing a Harvest Strategy for key fisheries and stocks in the Western and Central Pacific, CMM 2014-06 (currently, CMM 2022-03). For a full summary of annual progress on harvest strategy development for South Pacific albacore, refer to **Attachment A.**

30. Initial progress between 2015-2018 focused on establishing foundational elements: adopting workplans, defining acceptable risk levels for breaching the limit reference point (LRP), and developing performance indicators. By 2018, the Commission agreed to an iTRP of 0.56 $SB_{F=0}$, aiming for an 8% increase in CPUE compared to 2013 levels within 20 years. The South Pacific Albacore Roadmap Working Group (SPALB-RM) was tasked by WCPFC15 to develop the roadmap for effective conservation and management of South Pacific albacore.

31. Between 2019 and 2021, the Commission's focus shifted toward technical development, including management strategy evaluation (MSE) work, defining performance indicators, and capacity building for CCMs. The Commission endorsed a trial Science–Management Dialogue (SMD) process in 2022 to better link scientific advice and management decisions. Progress remained incremental, with continued refinement of the South Pacific albacore Roadmap, and a call for a new conservation and management measure. By 2021, the Commission encouraged interim controls on catch and effort, pending a finalized management procedure and new CMM.

32. The 2022–2023 period marked substantial institutional consolidation. The Commission agreed on an updated iTRP for South Pacific albacore at 0.96 $SB_{(2017–2019)}/SB_{F=0}$, superseding the earlier 2018 iTRP. The Commission tasked the SSP to evaluate candidate MPs using both total allowable effort (TAE) and total allowable catch (TAC) outputs. Preparations for a dedicated MP and implementing CMM increased, with SMD02 (2024) endorsing a three-year cycle for running the South Pacific albacore MP, and the use of more robust, bias-minimized estimators, thereby reducing the number of candidate MPs being considered.

33. By 2024 and 2025, the harvest strategy entered its final development phase. SC20 endorsed new reference and robustness operating model sets for evaluating candidate MPs, including scenarios addressing climate change and stock structure uncertainty. In addition to a series of meetings for the establishment of the SPAJWG, WCPFC21 also agreed to convene a South Pacific Albacore Management Workshop, with the first workshop (SPAMWS01) convened in September 2025. The SPAMWS01 advanced the design of MPs capable of maintaining the stock above the LRP with ≥80% probability, while exploring spatial and allocation frameworks. A follow-up workshop (SPAMWS02, November 2025) is planned to focus on HCRs and any proposals for a CMM that would implement the SPA MP.

South Pacific Albacore – Annual Progress Reference Summaries (2015–2025)

2025 South Pacific Albacore Summary (*Reference*)

SC21 Updates on South Pacific Albacore Management Procedure

i. SC21 reviewed revised candidate MPs for South Pacific albacore, updated for the area south of 10°S with new HCRs and catch assumptions.
ii. Additional information was requested to assist SPAMWS01 and WCPFC22 discussions.
iii. Future MP revisions should be guided by Commission direction and supported through timely feedback on MSE development.
iv. Baseline catches outside MP control were set at 18,000 mt (EPO) and 9,000 mt (0–10°S); close monitoring and scenario testing were emphasized.
v. All candidate MPs performed well, maintaining low risk of breaching the LRP.
vi. Three additional MPs will be developed to test varying catch and effort assumptions, with results to be presented at SPAMWS01 and WCPFC22. (*SC21 Provisional Summary Report*)

Joint WCPFC/IATTC Working Group for South Pacific Albacore

vii. WCPFC and IATTC agreed to form a Joint Working Group to manage South Pacific albacore, recognizing shared stock across both Convention Areas.
viii. Initiative builds on outcomes from WCPFC21 (2024) and IATTC's 102nd Meeting.
ix. Two informal joint meetings (May & Aug 2025) finalized the Terms of Reference (TOR) and 2026 Workplan.
x. SPAJWG will coordinate harvest strategies, scientific analyses, and data exchange between the two Commissions. (*Co-Chairs' Summary Report 1* & *Co-Chairs' Summary Report 2*)

Updates on South Pacific Albacore Roadmap IWG

xi. SC21 was briefed by the Chair of the SPA Roadmap Intercessional Working Group (IWG).
xii. The briefing highlighted the importance of adopting a South Pacific albacore management procedure in 2025 to maintain progress toward a full harvest strategy.(*SC21 Provisional Summary Report, Paragraphs 546-547*)

First South Pacific Albacore Management Workshop (SPAMS01)

xiii. The **SPAMWS01** met in September to advance development of a management procedure (MP) and implementing arrangements for South Pacific albacore. SPC presented updated analyses of candidate MPs designed to maintain stock levels above the limit reference point with at least 80% probability while meeting potential target reference points. Participants discussed spatial scope (equator vs. 10°S), preferred harvest control rules (HCRs), and requests for additional SPC analyses before WCPFC22. The workshop also reviewed draft management arrangements emphasizing zone-based management, equitable allocation, and cooperation with IATTC. Members agreed to continue technical work and hold a follow-up workshop in November 2025 ahead of WCPFC22. (*Chairs summary report*)
xiv. At the time of posting, the *SPAMWS02* will meet on 5 November to discuss a review of SPAMWS01's requests for additional candidate MPs, a CMM on the SPA MP and a CMM on the Management Arrangements for Implementing the SPA MP.

2024 South Pacific Albacore Progress Summary (*Reference*)

SPA Target Reference Point

i. SC20 recommended the Commission note that the biomass depletion associated with the adopted iTRP has been re-estimated to be 50% based on the 2024 assessment, which was 47% based on the 2021 assessment. *(SC20 Outcomes Document, Para. 105)*

ii. SC20 recommended that both catch numbers and weight be used for projections. SC20 further recommended that SSP present trends in vulnerable biomass among specific WCPFC-CA longline fleets, and for WCPFC-CA catch levels to be related to 2017-2019 levels. *(SC20 Outcomes Document, para 107)*

iii. SC20 recommended including more scenarios for projections by fixing EPO catch at 2017-2019 levels and using multiple catch levels in the WCPFC-CA related to 2017-2019 levels. *(SC20 Outcomes Document, para 108)*

SPA Operating Model

iv. SC20 adopted the operating model (OM) reference set, together with the proposed robustness set (Table 2, SC20-MI-WP-04), for the evaluation of candidate SPALB MPs. (*SC20 Outcomes Document para 109)*

v. SC20 recommended that future work to elaborate the OM sets be conducted through the monitoring strategy and could include:
   a. development of scenarios for the impacts of climate change
   b. consideration of potential effects of effort creep and/or hyperstability in CPUE
   c. development of models that address uncertainties around stock structure to the robustness set. (*SC20 Outcomes Document, para 110)*

vi. SC20 recommended that simulations be conducted to explore the implications of assuming a single stock OM when there could be multiple stocks. If ongoing genetics work confirms the presence of multiple-stocks and the simulations indicate that the single-stock assumption made in the OMs is problematic, then exceptional circumstances should be considered and the OM sets should be revised to account for multiple reproductive stocks in the South Pacific. (*SC20 Outcomes Document, para 111)*

SPA Management Procedure

vii. SC20 recommended that SSP focus primarily on the following two ASPM-derived estimators with a view to having a robust estimator, without obvious future data vulnerabilities:
   a. A direct biomass depletion approach using mean SB/SBF=0 of the last three years; and
   b. A ratio approach that uses Mean SB/SBF=0 of the last three year (same as in 1.a) relative to 2017-2019. (*SC20 Outcomes Document, para 112)*

viii. SC20 noted that there was bias in estimation model performance at low predicted stock sizes. SC20 recommended that this bias be addressed through the design of the HCR and its significance or otherwise will be evaluated through evaluation of candidate MPs. Should the estimation model bias become problematic in the MP design context, then steps will need to be taken to address that issue. *(SC20 Outcomes Document, para 113)*

ix. SC20 recommended that SSP conduct a Management Strategy Evaluation of a range of candidate MPs, using updated estimators together with HCR and maximum change metarule specifications similar to those presented at SC19 (SC19-MI-WP-06). (*SC20 Outcomes Document, para 114)*

x. SC20 recommended that SSP, in addition to running projections assuming a single baseline for all fisheries within the Management Procedure evaluations, explore the potential implications of using different reference periods for different fisheries and gears within the MP. *(SC20 Outcomes Document, para 115)*

xi. SC20 recommended that EPO catches be assumed to remain constant at recent levels but with an exploration of a case where the EPO is subject to MP controls (in a similar way to SC20-MI-WP-03). (*SC20 Outcomes Document, para 116)*

xii. SC20 noted that it was desirable to constrain the number of candidate MPs evaluated for consideration and recommended that steps be taken to manage this, including using one-off variations from a base-case scenario, rather than a full factorial grid of options. *(SC20 Outcomes Document, para 117-118).*

Second Science Management Dialogue

xiii. SMD-02 reviewed a summary of the 2024 SP-ALB stock assessment before the SSP presented WCPFC-SMD02-2024-BP-01 and noted the recent high catches of South Pacific albacore in the Eastern Pacific Ocean. SMD02 generally supported maintaining the use of both weights and numbers in the South Pacific albacore catch-based projections.

xiv. SMD02 supported maintaining all the current performance indicators noting that those focused on vulnerable biomass and catch stability are critical for South Pacific albacore fisheries.

xv. SMD-02 supported a 3-year frequency for running the South Pacific albacore management procedure (MP), which is in line with the current skipjack MP, the South Pacific albacore assessment schedule, and the biology of South Pacific albacore, and which balances responsiveness to stock status changes and stability for fishery operations.

xvi. SMD02 supported the removal of candidate MPs that use an absolute estimator, and MPs using Harvest Control Rule (HCR) 4, from the set of candidate MPs provided in WCPFC-SMD02-2024-BP-02.

xvii. The SPALB-RM-05 met in October to advance work on the South Pacific albacore harvest strategy, allocation framework, and new CMM development. (*Chairs summary report*)

WCPFC21

xviii. The Commission noted the importance and need for a dedicated south Pacific albacore management workshop (SPAM-WS) to expedite the progress of implementation on the Indicative Workplan for the Adoption of Harvest Strategies under CMM 2022-03.

xix. The Commission agreed to hold south Pacific albacore management workshops in 2025 focused on:

- South Pacific albacore management procedures.
- South Pacific albacore management arrangement for implementing the management procedure.
- Mixed fishery issues including ensuring compatibility between the bigeye and South Pacific Albacore management procedures.

xx. The Commission agreed that CCMs will cooperate to develop a management procedure and implementing measure for south Pacific albacore during 2025, with a view to adopt both a management procedure and its implementing measure at WCPFC22, that will replace CMM 2015-02. (*WCPFC21 Outcomes document, para 38-42*))

xxi. The Commission agreed in principle to the establishment of a JWG for SP Albacore and endorses the framework in WCPFC21-2024-DP14b as a guide for progressing the development.

xxii. The Commission requested the WCPFC Chair to engage with the IATTC Chair in early 2025 on the establishment of a JWG for SP Albacore, with the objective of establishing an informal initial meeting of the JWG in the first half of 2025 and adopting the Terms of Reference by WCPFC22 in 2025. (*WCPFC21 Outcomes document, para 81-84*)

2023 South Pacific Albacore Progress Summary (*Reference*)

i. The SPALB-RM-04 met to discuss updated analyses on management objectives, the interim Target Reference Point (iTRP), and the harvest strategy for South Pacific albacore. *(Chairs summary report)*

SPA ITRP

ii. The Commission agreed on an interim target reference point (iTRP) for south Pacific albacore specified **as four percent below the estimated average spawning potential depletion of the stock over the period 2017-2019 (0.96 $SB_{\{2017-2019\}}/SB_{F=0}$).** This supersedes an earlier decision of the Commission made at WCPFC 15. (*WCPFC20 Summary Report , para. 238*)

iii. The Commission shall amend or develop appropriate conservation and management measures to implement a management procedure, developed in accordance with CMM 2022-03, with the ultimate objective of maintaining the south Pacific albacore stock at the interim target reference point, on average. (*WCPFC20 Summary Report para. 239*)

iv. The iTRP for SPALB shall be subject for review following the 2024 stock assessment and further development of candidate MPs. Subsequent to this review, the confirmed or amended iTRP will again be adopted by the Commission within a Conservation and Management Measure that specifies a management procedure for South Pacific albacore tuna. (*WCPFC20 Summary Report para. 241*)

v. The Commission tasked the SSP to undertake:

- evaluations of some selected candidate Management Procedures for South Pacific albacore where the output of the HCR is total allowable effort and alternatively where the output of the same or similar HCR is total allowable catch;
- evaluation of a range of alternative candidate South Pacific albacore target reference points between SB/SBF=00.42–0.56 (long-term avg SB/SBF=0(WCPF-CA), or preferably equivalent levels defined in terms of a reference period.) that will be considered in the context of the review of the adopted iTRP (*WCPFC20 Summary Report* Para. 242)

xxiii. The Commission agreed to hold a Science-Management Dialogue in 2024 (SMD-02) focused on, among other issues, the South Pacific albacore management procedures (including review of the iTRP) (*WCPFC20 Outcomes document, para 36*)

SPALB Management Procedure

vi. Agreed to hold a Science-Management Dialogue in 2024 (SMD-02) focused on:

- South Pacific albacore MPs (including review of the iTRP);
- Development of BET and YFT TRPs;
- Issues pertaining to the application of the SKJ management procedure, and
- Harvest strategy capacity-building for CCMs (SPC-facilitated). (*WCPFC20 Summary Report Para. 264*)

vii. Noted the importance of applying compatible measures between WCPFC and IATTC, the Commission tasked the Secretariat to strengthen its relations with the IATTC in the development of the MSE and MPs for South Pacific albacore. (*WCPFC20 Summary Report Para. 268-270*)

Mixed Fishery MSE

viii. The Commission noted the progress to date on the development of the mixed fishery MSE framework. (*WCPFC20 Summary Report*, para 337)

2022 South Pacific Albacore Progress Summary (*Reference*)

i. The SPALB-RM-03 met to progress work on the iTRP, management procedures, and the development of a new CMM for South Pacific albacore (*Chairs summary report*)

- The Commission noted South Pacific albacore objectives and the TRP. *(WCPFC19 Summary Report, para 212; WCPFC19-2022-15 (Further analyses to inform discussions on South Pacific albacore objectives and the TRP)*

ii. The Commission noted the additional work tasked by SMD01 to support decision-making on MPs for South Pacific albacore (WCPFC19-2022-16). *(WCPFC19 Summary Report, para 222; WCPFC19-2022-16 (Updates on MP evaluations for south Pacific albacore since SMD01)*

iii. The Commission adopted CMM 2022-03 *CMM on Establishing a Harvest Strategy for key fisheries and stocks in the WCPO. (WCPFC19 Summary Report, para 270)*

iv. The Commission adopted the updated *Indicative Workplan for the Adoption of Harvest Strategies under CMM 2014-06. (WCPFC19 Summary Report, para 277; Att. L)*

v. The Commission adopted the terms of reference and work plan for the SPA Roadmap-IWG (WCPFC19-2022-SPALB_RM) (*WCPFC19 Summary Report, para 228; Att. I)*

vi. First Science Management Dialogue held in August 2022. *(SMD01 Outcomes Document: WCPFC19-2022-SMD01-01)*

2021 South Pacific Albacore Progress Summary (*Reference*)

i. The SPALB-RM-02 reviewed SPC analyses on catch trajectories and management options to achieve the interim Target Reference Point. While no consensus was reached, members agreed to continue developing a new, comprehensive CMM and to strengthen monitoring systems. (*Chairs summary report*)
ii. The Commission noted the advice related to a recalibration of the interim TRP for the SP albacore. *(WCPFC18 Summary Report, para 171)*
iii. The Commission noted the priorities for the SP albacore Roadmap WG for 2022, in particular the development of harvest strategies for SPA, the setting of a TAC and allocation, and encouraged CCMs to continue to work cooperatively in the IWG. *(WCPFC18 Summary Report, para 184)*
iv. The Commission adopted the updated *Indicative Workplan for the Adoption of Harvest Strategies under CMM 2014-06*. *(WCPFC18 Summary Report, para 256; Att. I)*
v. The Commission agreed to have the first Science-Management Dialogue, on a trial basis, back-to-back with SC18 in 2022, with a list of proposed areas of focus. *(WCPFC18 Summary Report, para 271-272)*
vi. The Commission agreed that until a new CMM for South Pacific Albacore is adopted, each CCM is encouraged to take steps to implement interim controls on South Pacific albacore catch or effort across the convention area south of the equator.
   - CCMs are encouraged to limit commercial fishing of South Pacific albacore within EEZs to domestically applied catch or effort limits in recent years.
   - Each CCM is encouraged to ensure that its flagged vessels fishing for this species shall not exceed the high seas catch or effort (such as number of vessels) of South Pacific albacore by its flagged vessels in recent years. (*WCPFC18 Summary Report, para 195-199*)

2020 South Pacific Albacore Progress Summary (*Reference*)

i. The SPALB-RM-01 reviewed SPC analyses on catch and effort pathways to reach the iTRP, discuss reference periods, and consider updates to CMM 2015-02. (*Chairs summary report*)
ii. The Commission noted the report of progress from the SP Albacore Roadmap Working Group (WCPFC17-2020-SPALB-Roadmap-IWG). (*WCPFC17 Summary Report, Para 224*)
iii. The Commission noted that the review of CMM 2015-02 Conservation and Management Measure for South Pacific Albacore is ongoing as part of the work of the SP Albacore Roadmap Working Group. (*WCPFC17 Summary Report, Para 228*)

* The SSP has made substantial technical progress during 2020, notably on MSE for South Pacific albacore and skipjack.

2019 South Pacific Albacore Progress Summary (*Reference*)

i. The Commission noted the progress on the development of performance indicators, of harvest control rules and management strategy evaluation for South Pacific Albacore. (*WCPFC16 Summary Report, para 392, 403*)
ii. The Commission agreed there is no need to review the Management Objectives on an annual basis. *WCPFC16 Summary Report, para 170)*
iii. The Commission agreed to progress work on a multispecies approach and to report back to the Commission. *(WCPFC16 Summary Report, para 195)*
iv. Adopted the Updated Indicative Workplan for the Adoption of Harvest Strategies. (*WCPFC16 Summary Report, Att. H)*
v. The Commission agreed to reinvigorate the South Pacific Albacore Roadmap Working Group in 2020 under the leadership of Fiji and for it to continue to work intersessionally to develop the Roadmap for Effective Conservation and Management of South Pacific Albacore. (*WCPFC16 Summary Report para 390*)

2018 South Pacific Albacore Progress Summary (*Reference*)
i. The Commission adopted the Updated Workplan for the Adoption of Harvest Strategies under CMM 2014-06. (*WCPFC15 Summary Report, Att. I*) ii. The Commission agreed on an interim TRP for South Pacific albacore at $0.56SB_{F=0}$ with the objective of achieving an 8% increase in CPUE for the southern longline fishery as compared to 2013 levels. The TRP shall be reviewed every 3 years, consistent with the SP albacore assessment schedule, and the timeline for achieving the interim TRP shall be no later than 20 years. (*WCPFC15 Summary Report, paras 207-212*) iii. The Commission agreed to task the SPA-VIWG, chaired by New Zealand, to continue work intersessionally to develop the Roadmap for Effective Conservation and Management of South Pacific Albacore. (*WCPFC15 Summary Report, para 182*)
2017 South Pacific Albacore Progress Summary (*Reference*)
i. An Intersessional Meeting to progress the draft Bridging CMM on South Pacific Albacore took place, focusing on progress assessing the scientific and economic status of the SPA fishery, defining management objectives, and advancing a draft bridging CMM under the WCPFC harvest strategy framework. (*Meeting Summary Report*) ii. The Commission noted candidate performance indicators for the Southern Longline Fishery and the Tropical Longline fishery to evaluate harvest control rules. (*WCPFC14 Summary Report Attachment K, Table 1 and 2*) iii. The Commission agreed on actions to prioritise the development and adoption of a Target Reference Point for south Pacific albacore at WCPFC15. (*WCPFC14 Summary Report, para 188*) iv. The Commission agreed to the formation of a virtual intersessional process to develop a Roadmap to implement the elements needed for the effective conservation and management for south Pacific albacore. *(WCPFC14 Summary Report, para 264-266)*
2016 South Pacific Albacore Progress Summary (*Reference*)
i. The Commission agreed to determine the acceptability of potential HCRs where the estimated risk of breaching the LRP is between 0 and 20%. (*WCPFC13 Summary Report, Para 296*). ii. The Commission agreed to a refined workplan for the adoption of harvest strategies under CMM 2014-06 (*WCPFC13 Summary Report, Att. N.*)
2015 South Pacific Albacore Progress Summary (*Reference*)
i. The Commission agreed to harvest strategy workplan for the adoption of harvest strategies under CMM 2014-06 (*WCPFC12 Summary Report, Att. Y*)

The Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean
TWENTIETH REGULAR SESSION OF THE SCIENTIFIC COMMITTEE

14 – 21 August 2024
Manila, Philippines

South Pacific albacore tuna (*Thunnus alalunga*) stock assessment
Paragraphs 173 – 186, SC20 Summary Report

South Pacific albacore tuna (*Thunnus alalunga*) stock assessment

1. SC20 thanked the SSP for their thorough work conducted on the South Pacific albacore stock assessment and for the considerable efforts to improve the assessment, particularly by simplifying the spatial structure in the 2024 assessment.

2. **SC20 accepted this assessment for management advice, and expressed relatively high overall confidence in the assessment, noting the model still shows some lack of fit to the CPUE index and troll length frequency data.**

3. The 2024 South Pacific-wide albacore tuna stock assessment provides stock status based upon an uncertainty ensemble comprising 100 models derived from prior distributions for average natural mortality and steepness (100 independent replicates from these priors) together with estimation error for individual models.

4. SC20 noted that both natural mortality and steepness were influential on assessment outcomes. However, important uncertainties such as stock structure were not considered, and the **SC recommended that this be accounted for in the future, subject to the results of ongoing genetic research.**

Provision of scientific information to the Commission

5. The regional spatial structure used in the 2024 stock assessment is shown in **Figure SPA-01**, and the fisheries' spatial structure is shown in **Figure SPA-02**. The time series of total annual catch by fishing gear and model region over the full assessment period is shown in **Figure SPA-03**. The time series of the total annual catch by model region and flag is shown in **Figure SPA-04**. Estimated spawning biomass by model region is shown in **Figure SPA-05,** and estimated annual total recruitment is shown in **Figure SPA-06**. Juvenile and adult fishing mortality rates from the diagnostic model are shown in **Figure SPA-07**. Estimated trends in spawning biomass for the 100 models are shown in **Figure SPA-08**. Estimated trends in spawning biomass depletion (SB/SBF=0) for the 100 models in the model ensemble are shown in **Figure SPA-09**. A Majuro and Kobe plot summarizing the results for each of the 100 models in the model ensemble are shown in **Figure SPA-10**.

Stock status and trends

6. Noting that data up to and including 2022 are used in the 2024 assessment, the preliminary estimates of 2023 albacore tuna catch within the southern part of the WCPFC-CA (64,996t) was lower than

the 2022 level shown in **Figure SPA-03**. Longline catch in 2023 (63,804 mt) was lower than the 2022 catch and lower than the recent 10-year average. Four flag states (Canada, the Cook Islands, USA and New Zealand) reported troll catch within the WCPFC-CA during the period from 2000 to 2023. Troll catch in 2023 (1,192t) was lower than the 2022 catch and lower than the recent 10-year average **(see tables in WCPFC-SC20-2024/SA-IP-07)**. By flag, China and Chinese Taipei had the highest catch estimates of South Pacific albacore in recent years, mostly taken on the high seas **(Figure SPA-04)**.

7. Spawning biomass shows a sharp decline from the beginning of the model period until the mid-1970s after which it stabilizes (**Figure SPA-05**). The stock status, as indicated by the spawning biomass depletion ($SB/SB_{F=0}$), shows a more gradual long-term decline from the beginning of the model period (**Figure SPA-09**).

8. Although spawning biomass estimates for recent years should be interpreted with caution, the terminal decline in spawning biomass depletion that was the focus of the previous assessment has moderated in the new assessment, and there are recent indications that the overall stock status has improved.

9. Recruitment shows similar interannual variability across years, with an increasing trend from the late 1990s becoming more apparent in the estimates (**Figure SPA-06**). SC20 acknowledged the troll CPUEs (from 1992 to 2022) were used to inform stock-wide recruitment and provide some constraints on recruitment variability, although the fit of the troll index was relatively poor in the 1990s and in the final decade.

10. Fishing mortality on adults continues to increase, while fishing mortality on juveniles remains low. Fishing mortality has increased sharply in the EPO since 2010 as the longline catches have increased but has remained stable in the WCPFC-CA over a similar period (**Figure SPA-07**).

11. The median depletion from the model ensemble with estimation uncertainty for the recent period (2019-2022; $SB_{recent}/SB_{F=0}$) was 0.48 (10th to 90th percentile interval of 0.36 to 0.62; **Table SPA-01**) , which is close to, but just below, the 0.5 re-calibrated interim Target Reference Point (iTRP) for South Pacific albacore based on the 2024 assessment. For each model in the ensemble, the ratio of the $SB_{recent}/SB_{F=0}$ to the iTRP estimated for that model was calculated (**Table SPA-01**). Across the 100 models, the median ratio of $SB_{recent}/SB_{F=0}$ to the iTRP was 0.952, ranging from 0.899 to 1.016, which is close to the iTRP.

12. The median recent spawning biomass from the model ensemble with estimation uncertainty is well above the spawning biomass to achieve MSY (median SB_{recent}/SB_{MSY} = 3.02, 10th to 90th percentile interval of 2.04–5.21, full range 1.20–8.96; **Table SPA-01**).

13. All models in the uncertainty ensemble $SB_{recent}/SB_{F=0}$ was above the limit reference point of 0.2 (**Figure SPA-09**) and the dynamic MSY analysis indicated that for all time periods, the $SB_{recent}/SB_{F=0}$ was > 0.2, SB_{recent}/SB_{MSY} was > 1 and the F_{recent}/F_{MSY} was < 1 (**Figure SPA-10**).

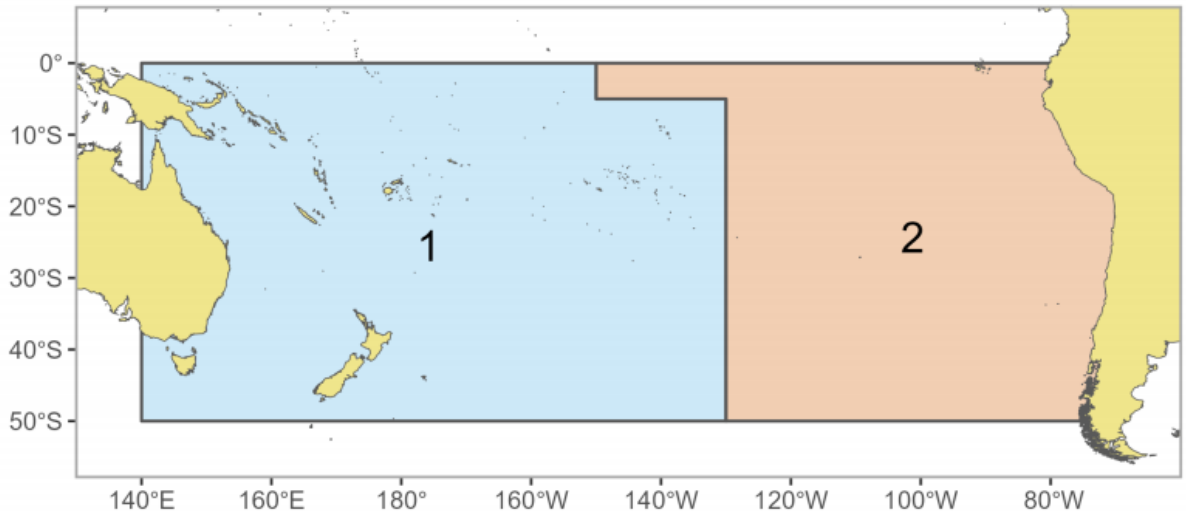

Figure SPA-01 The geographical area covered by the stock assessment and the boundaries of the two model regions used for the South Pacific-wide 2024 albacore assessment.

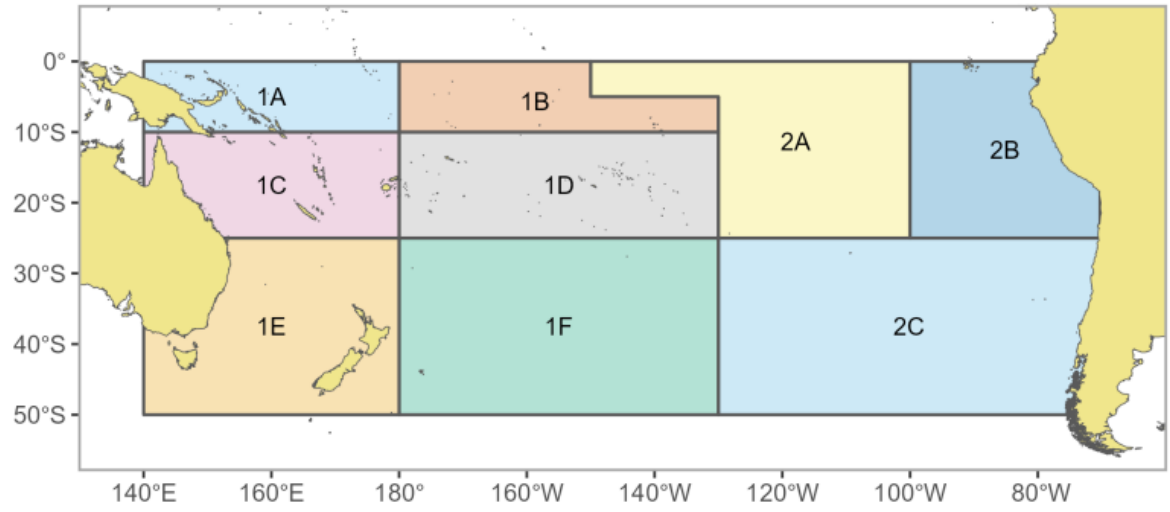

Figure SPA-02 The geographical area boundaries of the nine fisheries areas used for the South Pacific-wide 2024 albacore assessment.

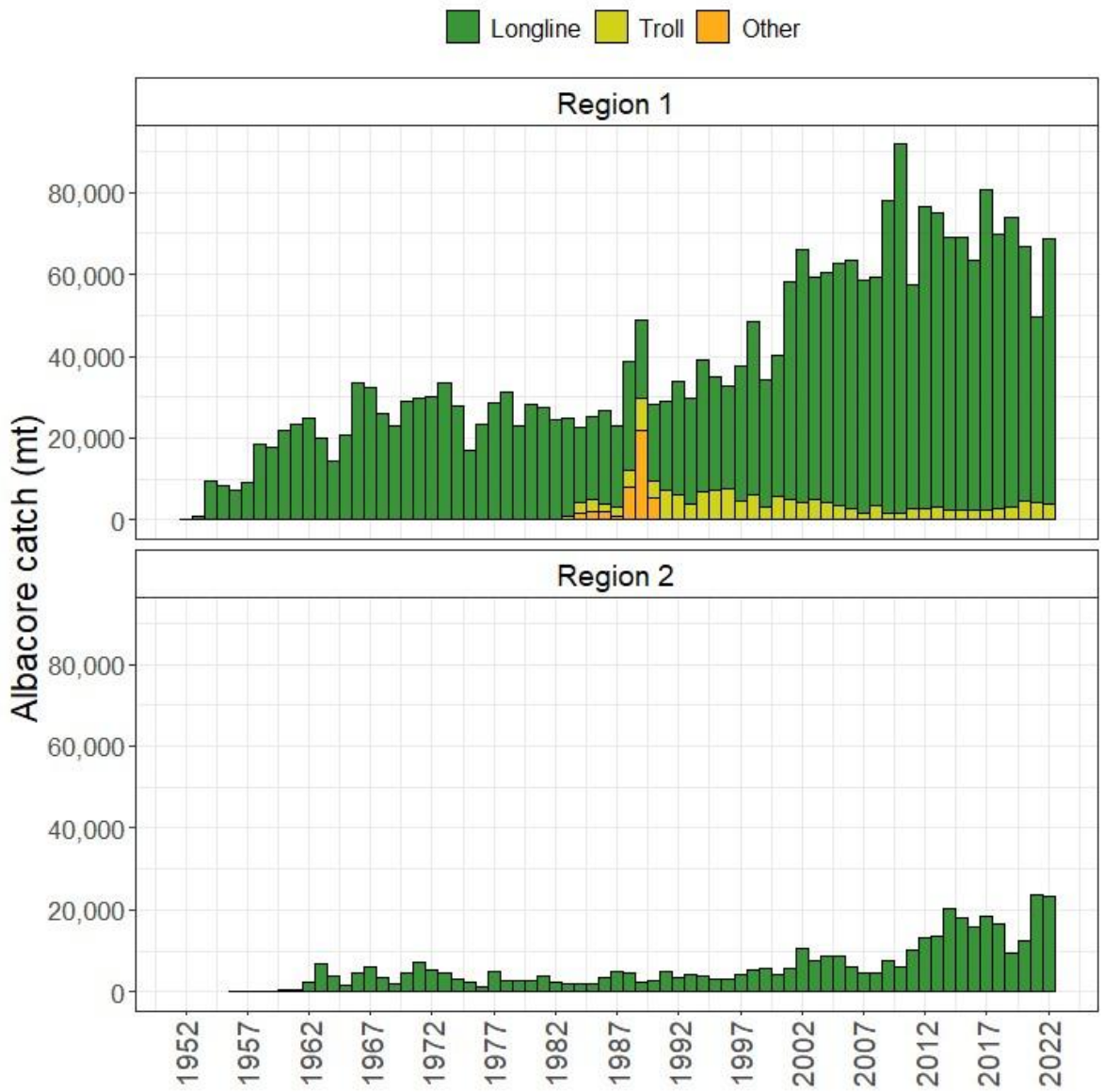

Figure SPA-03 Historical catches of South Pacific albacore in each model region (WCPFC-CA = region 1, EPO = region 2) from 1952-2022 by gear type. Region 1 is the WCPFC-CA (includes catches from the overlap area), and Region 2 is the EPO (excludes the overlap area catches).

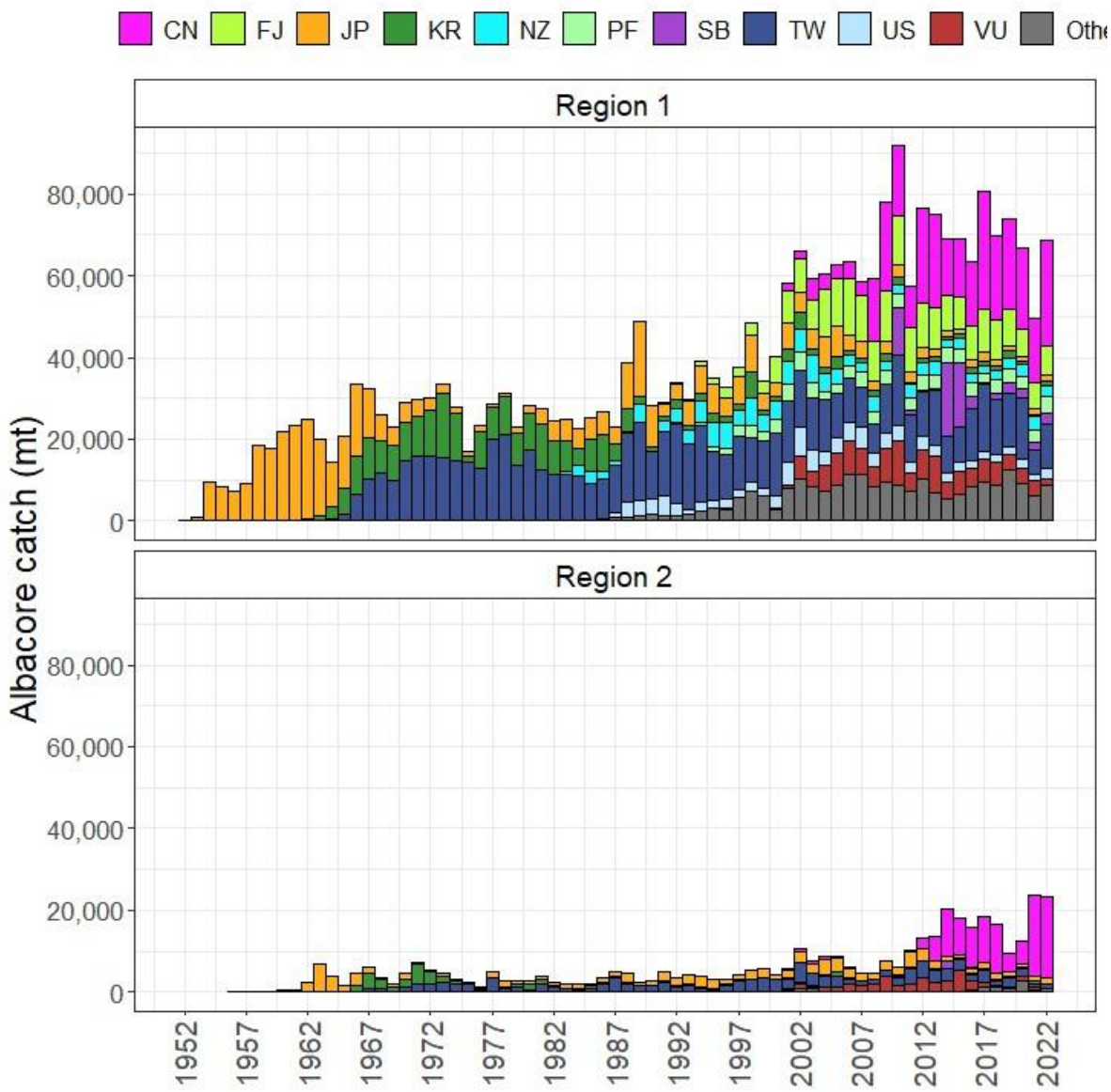

Figure SPA-04 Annual catches of albacore from 1952-2022 separated by flag for the two model regions. Region 1 is the WCPFC-CA (includes cathes from the overlap area), Region 2 is the EPO (excludes the overlap area catches).

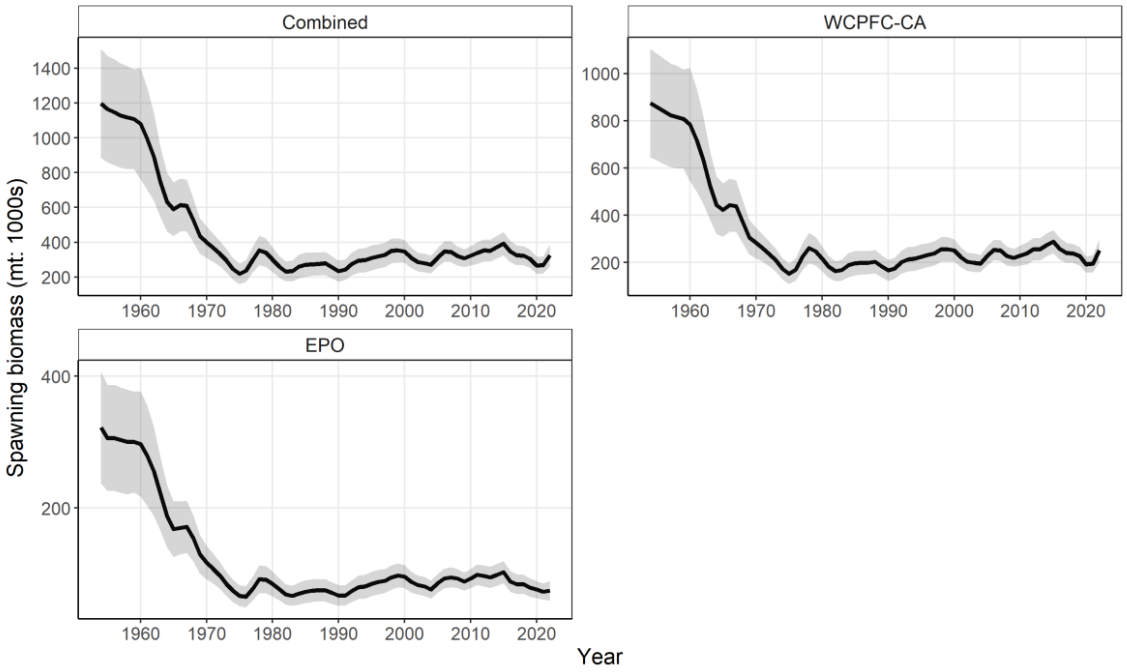

Figure SPA-05 Estimated annual spawning biomass with 95% confidence intervals by model region and the South Pacific for the diagnostic case model.

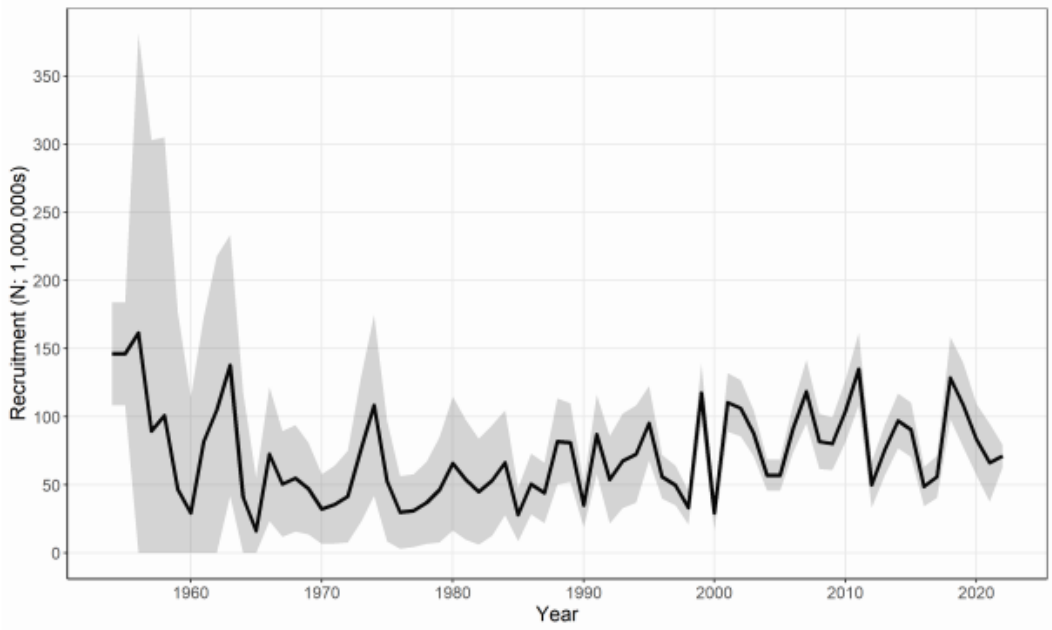

Figure SPA-06 Estimated annual recruitment with 95% confidence intervals across model regions for the diagnostic case model.

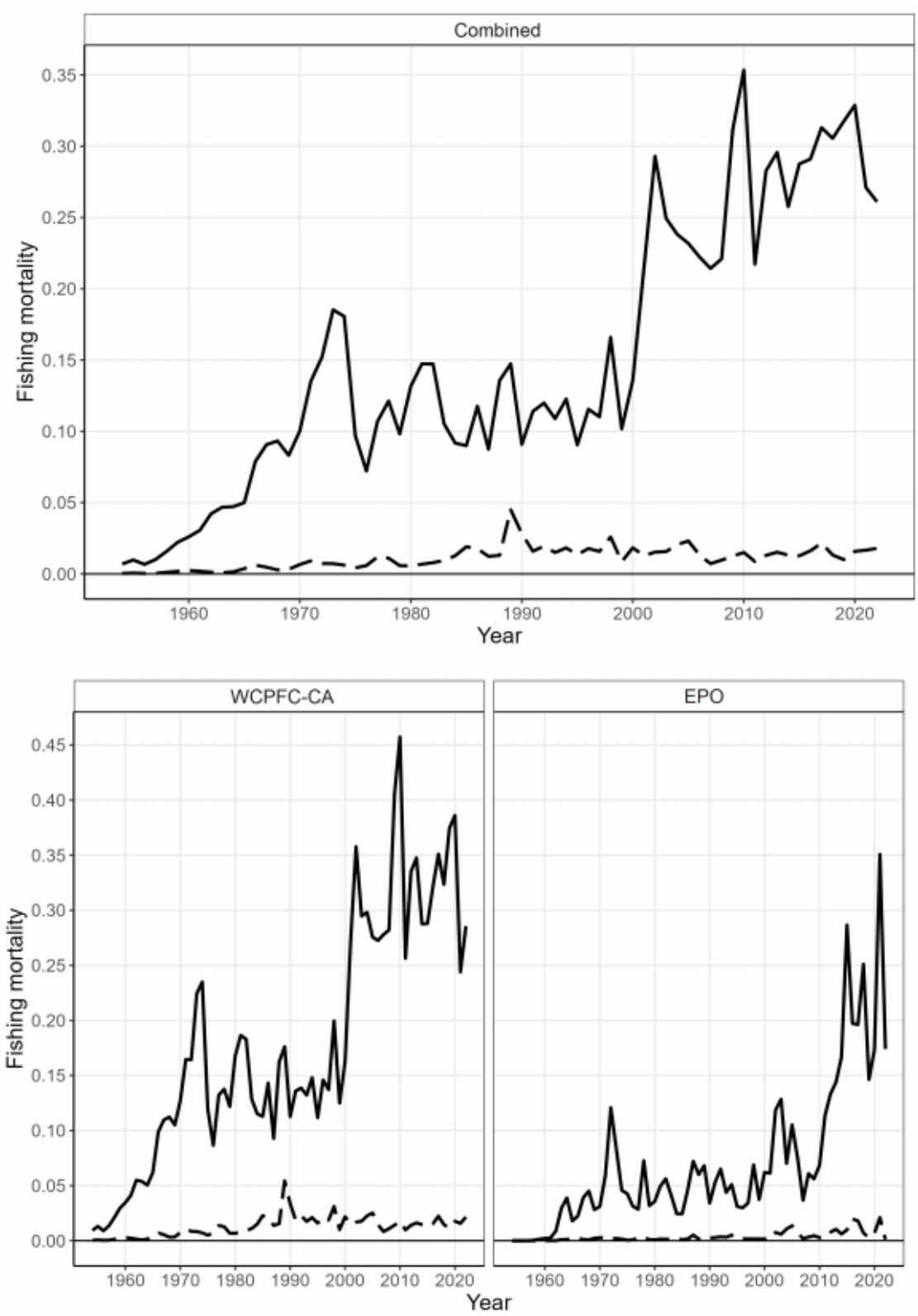

Figure SPA-07 Estimated annual juvenile (dashed line) and adult (solid line) fishing mortality for the diagnostic case model.

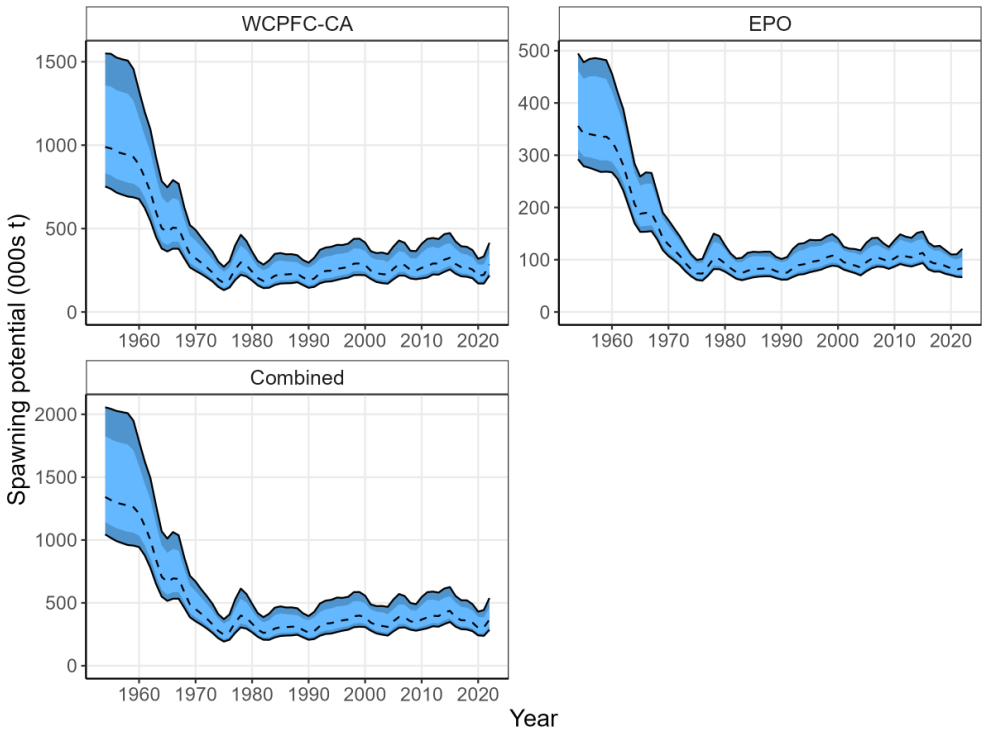

Figure SPA-08. Annual estimated 90% (dark blue) and 75% (light blue) quantiles of SB by region from the model ensemble. The dashed line indicates the median.

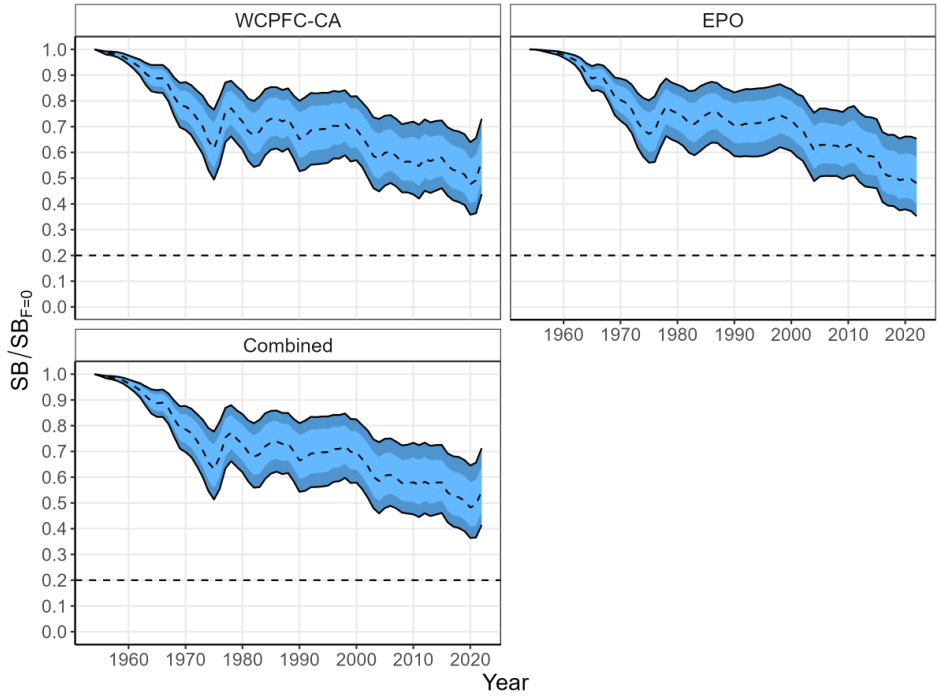

Figure SPA-09. Annual estimated 90% (dark blue) and 75% (light blue) quantiles of *SBt/SBF =0(t)* by region from the model ensemble. The dashed line within the interval indicates the median.

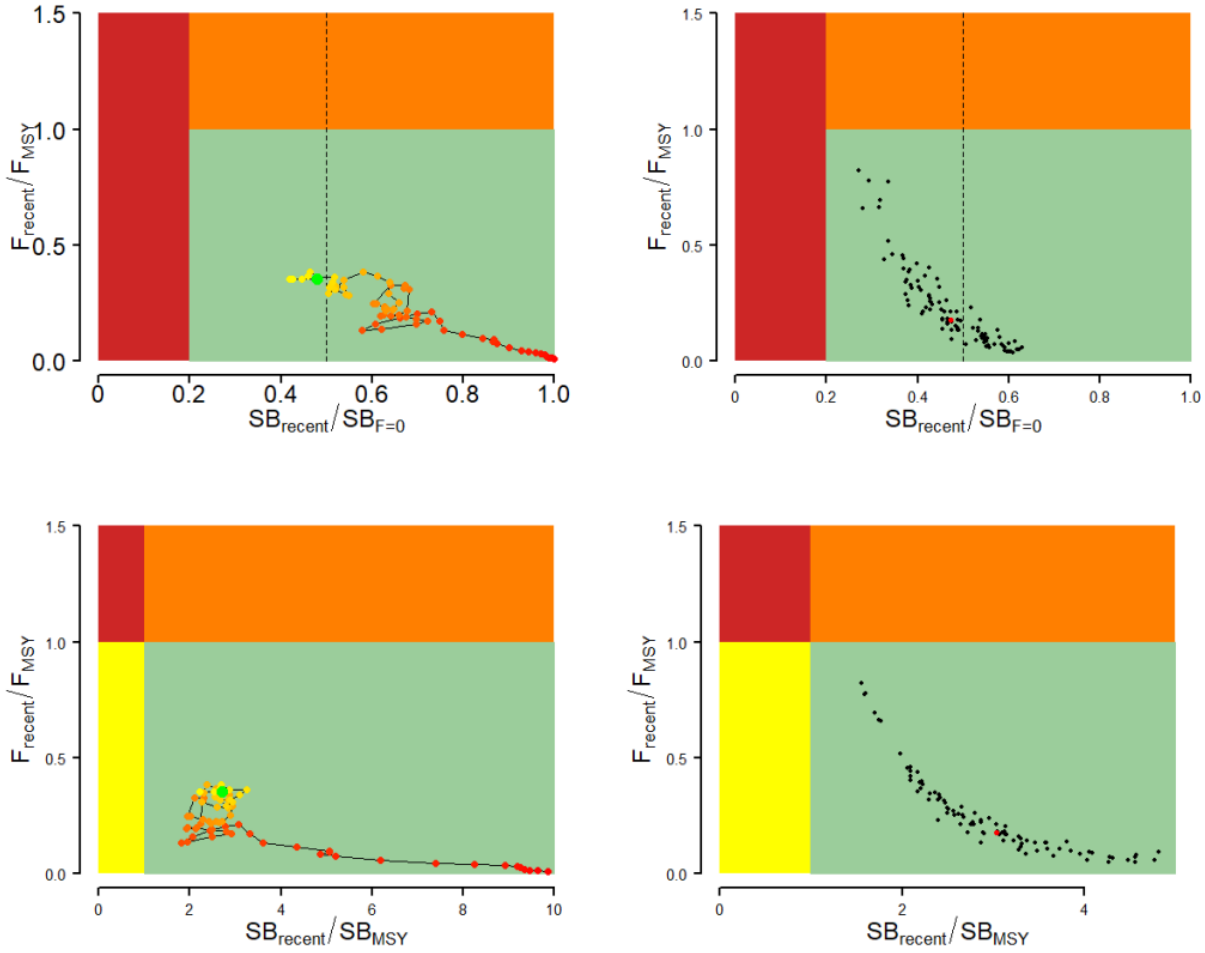

Figure SPA-10 Majuro plots (top) and Kobe plots (bottom) summarising the results for the dynamic MSY analysis (left) and each of the models in the model ensemble for the recent period (2019– 2022; right). Majuro plots include a dashed line at iTRP estimate (0.5), calculated from the current assessment (Pilling et al., 2024). Colors for dynamic MSY go from red to green over time. The red point in the model ensemble (right) represents the median.

b. Management advice and implications

14. **The South Pacific-wide albacore tuna stock spawning biomass depletion is above the RP, and F_{recent} is below F_{MSY} for all models in the uncertainty ensemble. The stock is not overfished (0% probability $SB_{recent}/SB_{F=0}$ < LRP) and is not experiencing overfishing (100% probability $F_{recent} < F_{MSY}$).**

Table SPA-01 Summary of reference points over the model ensemble, along with results incorporating estimation uncertainty. Note that these values do not include estimation uncertainty, unless otherwise indicated.

	Mean	Median	Min	10%	90%	Max
F_{MSY}	0.15	0.16	0.10	0.12	0.18	0.20
f_{mult}	7.95	5.61	1.21	2.27	17.18	27.66
F_{recent}/F_{MSY}	0.22	0.18	0.04	0.06	0.44	0.82
MSY	113,308	101,100	62,120	74,018	176,330	202,400
SB_0	587,089	566,950	529,100	537,100	662,500	749,700
$SB_{F=0}$	724,200	711,059	665,389	674,633	788,312	857,071
SB_{latest}/SB_0	0.66	0.67	0.38	0.53	0.81	0.90
$SB_{latest}/SB_{F=0}$	0.54	0.54	0.29	0.41	0.70	0.78
SB_{latest}/SB_{MSY}	3.71	3.40	1.65	2.32	5.77	7.45
SB_{MSY}	111,738	110,950	65,140	80,350	142,690	172,600
SB_{MSY}/SB_0	0.19	0.20	0.11	0.13	0.24	0.27
$SB_{MSY}/SB_{F=0}$	0.15	0.16	0.10	0.11	0.19	0.22
$SB_{recent}/SB_{F=0}$	0.48	0.48	0.27	0.37	0.62	0.65
SB_{recent}/SB_{MSY}	3.30	3.06	1.54	2.10	5.23	6.34
YF_{recent}	74,531	74,375	61,760	67,731	83,023	86,180
$SB_{latest}/SB_{F=0}$: iTRP	1.065	1.051	0.961	1.015	1.139	1.213
$SB_{recent}/SB_{F=0}$: iTRP	0.952	0.952	0.899	0.924	0.986	1.016
Including estimation uncertainty						
F_{recent}/F_{MSY}	0.23	0.18	0.03	0.06	0.44	1.00
$SB_{recent}/SB_{F=0}$	0.48	0.48	0.23	0.36	0.62	0.77
SB_{recent}/SB_{MSY}	3.32	3.02	1.20	2.04	5.21	8.96

Note: Recalibrated value for iTRP= 0.50 (Pilling et al., 2024)

Reporting by CCMs against paragraphs 1 and 4 of CMM 2015-02, and for 2023 has also applied the WCPFC20 definition of "vessels actively fishing for" (as at 3 September 2025)

		CMM 2015-02 Para. 4																		
		2006-2014		2015			2016			2017			2018			2019			2020		
	GEAR	Vessels	Catch	Vessels	Catch by vessel	Catch	Vessels	Catch by vessel	Catch	Vessels	Catch by vessel	Catch	Vessels	Catch by vessel	Catch	Vessels	Catch by vessel	Catch	Vessels	Catch by vessel	Catch
AUSTRALIA	LL	YES	YES	36	YES	585	34	YES	715	36	YES	687	53	YES	608	34	YES	646	34	YES	842
CHINA	LL	YES	YES	70	YES	6,504	76	YES	3,945	63	YES	6,676	*37*	YES	4,960	*81*	YES	4,464	*35*	YES	3,594
COOK ISLANDS	LL	YES	YES	2	YES	58	3	YES	81	11	YES	232	8	YES	371	7	YES	264	6	YES	286
EUROPEAN UNION	LL	YES	YES	4	YES	2	4	YES	0	3	YES	2	3	YES	2	3	YES	2	3	YES	4
FIJI	LL	YES	YES	49	YES	1,498	72	YES	2,572	65	YES	3,456	73	YES	3,538	61	YES	2,518	61	YES	3,083
FRENCH POLYNESIA	LL	YES	Partial	42	YES	518	73	YES	636	53	YES	561	42	YES	275	41	YES	229	48	YES	335
JAPAN	LL	YES	YES	NO	NO	851	2	YES	835	2	YES	974	27	YES	608	27	YES	567	21	YES	952
	PL	NO	NO	NO	YES	0	3	YES	7	2	YES	2	1	YES	39	1	YES	25	0	YES	0
KIRIBATI	LL	...	...	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	YES	16
NEW CALEDONIA	LL	YES	YES	26	YES	1,003	17	YES	1,527	16	YES	1,137	18	YES	1,271	19	YES	1,211	22	YES	1,472
NEW ZEALAND	LL	YES	YES	34	YES	207	32	YES	242	32	YES	189	34	YES	239	28	YES	650	28	YES	165
	TR	YES	YES	139	YES	2,425	137	YES	1,669	115	YES	1,952	148	YES	2,271	145	YES	2,320	142	YES	2,859
NIUE	LL	YES	YES	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
REPUBLIC OF KOREA	LL	NO	NO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SOLOMON ISLANDS	LL	YES	YES	5	YES	49	-	-		-	-	-	-	-	-	-	-	-	-	-	-
CHINESE TAIPEI	LL	YES	YES	YES	YES	3,264	44	YES	4,947	61	YES	7,517	65	YES	8,393	50	YES	6,057	102	YES	9,255
TONGA	LL	...	...	5	YES	31	4	YES	46	6	YES	22	5	YES	19	6	YES	22	5	YES	12
TUVALU	LL	...	...	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
USA	LL	YES	YES	3	YES	14	2	YES	3	3	YES	7	0	YES	0	0	YES	0	0	YES	0
	TR	YES	YES	7	YES	156	9	YES	300	15	YES	555	12	YES	433	9	YES	876	18	YES	1,912
VANUATU	LL	YES	YES	21	YES	3,132	16	YES	2,262	26	YES	3,792	24	YES	4,549	15	YES	3,449	26	YES	3,518

	CMM 2015-02 Para. 4														CMM 2015-02 Para.1		
	2021			2022			2023				2024						
	Vessels	Catch by vessel	Catch	Vessels	Catch by vessel	Catch	Vessels (actively fishing for)	Adjusted Vessels (NOTES 11)	Catch by vessel	Catch	Vessels (actively fishing for)	Adjusted Vessels (NOTES 11)	Catch by vessel	Catch	# Vessels (avg. 2000-2004)	# Vessels (2005)	NOTES
AUSTRALIA	32	YES	844	33	YES	852	0	18	YES	579	0	15	YES	496		132	5
CHINA	46	YES	2,156	64	YES	6,168	23	22	YES	3,425	53	53	YES	5,173		70	2, 10
COOK ISLANDS	3	YES	184	2	YES	44	2	2	YES	83	1	1	YES	41		n/a	4
EUROPEAN UNION	7	YES	4	7	YES	0	0	0	YES	7	0	0	YES	0		EU - not specified	5
FIJI	56	YES	2,571	45	YES	2,670	47	46	YES	3,135	43	44	YES	4063		n/a	4
FRENCH POLYNESIA	43	YES	292	42	YES	312	41	41	YES	607	27	30	YES	534		n/a	4
JAPAN	23	YES	694	22	YES	745	1	1	YES	682			YES	1070		31	1, 7, 12, 13
	1	YES	227	1	YES	48			-	-		-	-	-		not specified	1, 7
KIRIBATI	4	YES	285	3	YES	145	3	3	YES	38	6	6	YES	230		n/a	4
NEW CALEDONIA	18	YES	1,208	16	YES	1,575	16	16	YES	1,524	10	15	YES	1490		n/a	4
NEW ZEALAND	28	YES	78	22	YES	145	0	16	YES	114	1	2	YES	23		270	5
	151	YES	3,383	135	YES	4,147	92		YES	864	74	74	YES	1321		combined with LL	5
NIUE	-	-	-	-	-	-		-	-	-		-	-	-		n/a	6
REPUBLIC OF KOREA	-	-	-	-	-	-		-	-	-		-	-	-		not specified	6
SOLOMON ISLANDS	-	-	-	-	-	-	1	1	YES	68			YES	0		n/a	6
CHINESE TAIPEI	32	YES	2,569	27	YES	3,911	34	34	YES	2,610	26	26	YES	3810		81	9
TONGA	4	YES	8	6	YES	26		-	YES	19	0	-	YES	14		n/a	4
TUVALU	1	YES	60	0	YES	0		-	-	-		-	-	-		n/a	4
USA	0	YES	0	0	YES	0	0	-	-	-	0	0	-	-		not specified	3, 5
	21	YES	1,908	18	YES	1,401	10	-	YES	328	4	4	YES	165		not specified	3
VANUATU	30	YES	3,486	10	YES	1,446	10	10	YES	1,516	5	5	YES	1508		n/a	4

NOTES

1. Japan provided 2006-2014 vessels and catch according to CMM 2015-02 Para 4. requirements on 31st October 2016. Japan provided 2015-2023 vessels and catch in their April 2024 data submission.
2. China provided 2015 vessels and catch according to CMM 2015-02 Para 4. requirements on 4th November 2016.
3. USA provided 2006-2014 vessels and catch according to CMM 2015-02 Para 4. requirements on 10th June 2017. USA also provided 2015-2023 vessel catch and vessel numbers.
4. Operational data submitted to SPC (as a member country) on a regular basis since 2000 and therefore satisfies the requirement for producing breakdowns of catch and vessel numbers by year.
5. Operational data submitted to WCPFC for years 2015-2023 and therefore satisfies the requirement for producing breakdowns of catch and vessel numbers by year.
6. These fleets do not appear to have been active in the WCPFC Area south of 20°S for years 2015 onwards.
7. Operational data submitted to WCPFC for 2016-2023 and therefore satisfies the requirement for producing breakdowns of catch and vessel numbers by year. Operational data provided for 2015 does not cover the area south of 20°S while there is evidence of catch.
8. Cells with 'Partial' mean that coverage of the catch by vessel data was evaluated to be < 80% but > 40%. Cells with 'NO' mean that coverage of the catch by vessel data was evaluated to be < 40%.
9. Chinese Taipei provided 2006-2014 vessels and catch according to CMM 2015-02 Para 4. requirements on 31st December 2016. Chinese Taipei also provided 2015 vessel catch and vessel numbers on this date. The 2016 catch has been determined from aggregate catch/effort data provided by Chinese Taipei. The 2017-2023 catch and vessels has been determined from operational data provided to the WCPFC by Chinese Taipei and coastal states.
10. Operational data submitted to WCPFC for years 2015-2023, which would normally satisfy the requirement for producing breakdowns of catch and vessel numbers by year, but coverage is not 100%. However, China also provided separate summaries of annual catch by vessel for the WCPFC area south of 20°S (according to CMM 2015-02 Para 4.) which represents 100% coverage.
11. WCPFC20 agreed that the term "actively fishing for" used in CMM 2015-02 is applied to: "Vessels fishing south of 20 degrees South with an annual catch of albacore in that area with South Pacific albacore greater than 50% of the catch of potential target tuna (albacore, yellowfin, bigeye, southern bluefin), skipjack and swordfish." The "adjusted vessels" figures consider that a vessel may conduct trip(s) in a certain season where ALB is the predominant part of the catch. In addition, for China and Chinese Taipei, the number of vessels reported as CMM 2015-02 04 were used for RY2023.
12. Japan provided 2005 vessels and catch including SBT for 2005 (baseline year) and 2023 on the 27th September 2024. The estimated vessels fishing for albacore in 2005 is yet to be cross-checked.
13. Japan does not submit catches of SBT to the WCPFC, and therefore, these figures rely on a separate submission related to this CMM since the definition of actively fishing for was implemented.