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**REVISING THE CONSERVATION AND MANAGEMENT MEASURE FOR SOUTH PACIFIC  
SWORDFISH IN THE WCPFC AREA**

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**WCPFC18-2021-DP08  
27 November 2021**

**Australia**

# Revising the conservation and management measure for South Pacific Swordfish in the WCPFC Area

## Australia

### Purpose

The purpose of this paper is to seek preliminary feedback from WCPFC Members and Participating Territories on a revised draft CMM for South-West Pacific Swordfish (Attachment A). Australia will use this feedback to inform bilateral consultations and further development of the draft CMM in 2022.

### Background

#### The need for a revised CMM

The current measure for South-West Pacific Swordfish (CMM 2009-03) contains no restrictions on fishing mortality in the high seas area north of 20°S and contains flag-based limits south of 20°S that may be too high to prevent future overfishing. Subsequently, it lacks the overall provisions required to ensure the ongoing sustainability of the stock and does not protect either the future fishery development opportunities for SIDS nor the economic viability of current swordfish targeting fisheries or fisheries for which swordfish is an important economic bycatch.

#### Key principles for a revised CMM

At WCPFC16 in 2019, Australia committed to helping the Commission develop a revised draft measure (Attachment A) that would meet a set of key principles, linked to the WCPFC Convention. The principles are as follows and aim to ensure a CMM that will:

- apply in EEZs and high seas throughout the whole area of the stock (consistent with Article 3 and Article 5);
- be reflective of our current best understanding of swordfish science and its assessed status;
- prevent further increases in fishing mortality on the stock to avoid future overfishing and an overfished stock (as per Article 5);
- accommodate subregional zone-based management approaches and limits and ensure compatible management and limits on the high seas (as per Article 8).
- recognize the sovereign rights of coastal States to explore, exploit, conserve and manage HMS within areas under their national jurisdiction (as per Article 7), and
- recognize the special requirements of, and avoid transferring a disproportionate burden of conservation upon, SIDS and Participating Territories (as per Article 30).

WCPFC16 also recognised the need to seek the development of a consistent set of conservation and management measures for fish stocks that occur in both the WCPFC and IATTC Convention Areas (as per Article 22).

#### Progress to date

In the period since WCPFC16, a large suite of work has been funded and undertaken within the WCPFC processes to ensure that the revised draft CMM can be based on the latest relevant fisheries information, data and science, and be able to meet the principles outlined above. A significant body of work has been completed to inform the revision of the CMM including:

- [WCPFC16-2019-DP19](#) (AU paper to WCPFC16): A review of the current CMM 2009-03 and based on that review, the proposal to design a revised CMM around the above principles.

- [SC17-MI-IP-10](#): A review of potential management options for fisheries taking swordfish as bycatch (provided to SC16 and updated at SC17).
- [\(SC17-MI-IP-12\)](#) – A spatial and temporal characterisation catch data for fisheries targeting swordfish or taking swordfish as bycatch, both on the high seas and within EEZs.
- [SC17-SA-IP-08](#): A general characterisation of fisheries taking swordfish in the southern WCPFC Area (SC17 paper by SPC).
- [SC17-SA-WP-04](#): A revised stock assessment for SWPO Swordfish (SC17 paper by SPC).
- WCPFC18-2021-21: Southwest Pacific Swordfish projections (<https://meetings.wcpfc.int/node/14248>)

## Overview of draft CMM

The revised draft CMM at Attachment 1 draws upon the suite of technical and information papers presented to the Commission over the past two years to address the key principles outlined above. To help understand the rationale behind each component of the draft revised CMM, **Table 1 below** describes how each of the key principles has been taken into account. It also highlights key areas in the draft CMM that require further discussion and development. In those cases, the draft CMM simply indicates a placeholder table or text, for further development in 2022.

A key feature of the revised draft CMM is that as a result of the healthy status of the stock, it does not seek to reduce fishery catches, but rather, focus on preventing future increases in catches that could result in overfishing and/or prevent future SIDS fishery development opportunities and/or impact the economic viability of existing fisheries targeting this species.

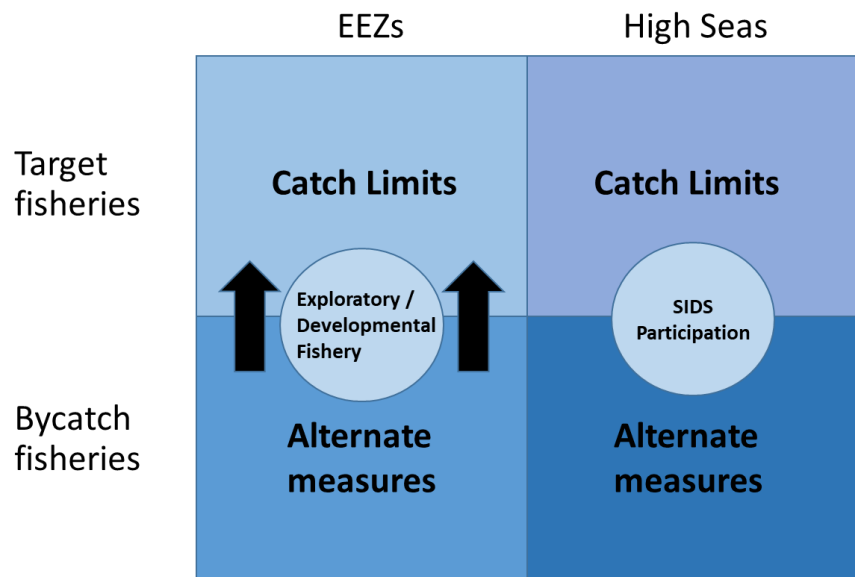
Please note that a full assessment of the revised draft CMM against 2013-06 will be provided alongside the draft CMM in 2022, following further consultation with WCPFC SIDS both bilaterally and via WCPFC forums.

**Table 1** - Key features of the revised draft CMM that address the principles outlined above.

Principle	Implementation in revised draft CMM
1. apply in EEZs and high seas throughout the whole area of the stock (consistent with Article 3 and Article 5).	At WCPFC16, members expressed support for broadening the spatial scope of the measure to the whole area of the stock within the WCPFC Area. The revised CMM at Attachment A applies to the whole area of the stock (i.e. south of the equator within the WCPFC area of competence), both within EEZs and on the high seas.
2. be reflective of our current best understanding of swordfish science and its assessed status.	The revised CMM (Attachment A): <ul style="list-style-type: none"> <li>• takes account of the most recent stock assessment (SC17-SA-WP-04) which indicated that the stock is not overfished nor subject to overfishing against either 20% SSB depletion or MSY based reference points.</li> <li>• takes account of the Scientific Committees most recent advice, including the continued importance for WCPFC to develop a revised and strengthened CMM that will ensure the ongoing future sustainability of the SWP swordfish.</li> </ul>
3. prevent further increases in fishing mortality on the stock to avoid future overfishing and an overfished stock (as per Article 5).	The revised CMM (Attachment A) acknowledges the current healthy state of the stock and as such: <ul style="list-style-type: none"> <li>• <b>does not</b> seek to implement catch reductions from recent levels for any fleets, however,</li> <li>• <b>does</b> propose a system of catch limits (for target fleets) and alternate measures (for bycatch fleets) that in combination</li> </ul>

	<p>would seek to prevent increases in future fishing mortality that could lead to overfishing, and which would maintain stock at levels that maintain future fishery development opportunities for SIDS, and protect the economic viability of existing swordfish fisheries.</p> <p>The revised CMM will ultimately take account of catch projections presented in the WCPFC19-2021-20, which demonstrate that:</p> <ol style="list-style-type: none"> <li>1) projections that maintained the status quo catch levels tended to result in the stock being maintained at similar depletion levels to the starting year of 2019, both at the 10 year and terminal (30) year stage of the projections.</li> <li>2) Increases of 20-30% in catch above the 2016-18 baseline levels resulted in 22-30% of models breaching the benchmarks for overfishing or overfished status applied to tuna by the WCPFC.</li> <li>3) under the two high catch scenarios the stock became considerably more depleted (to 10-18% of unfished spawning biomass levels after 30 years), with a relatively high number of projections that resulted in the stock crashing after only 10 years.</li> </ol> <p>Noting the review and discussion of the catch projections is due to occur at WCPFC18, the draft revised CMM does not attempt to suggest catch limits (or detailed alternate measures) at this time. Those will be subject to WCPFC discussion in 2022.</p> <p>Future versions of the draft revised CMM (in 2022) will be accompanied by summaries of information derived from <a href="#">SC17-MI-IP-10</a>, relating to potential options (alternate measures) for fisheries taking swordfish as bycatch. For this draft, a simple placeholder table has been included to indicate the type of alternate measures that might be considered in the final CMM.</p> <p>It should also be noted that potential LRPs for billfish including Swordfish are yet to be agreed by the Commission but were explored in a recent paper to SC17. As such the proposed LRP for this stock is left as “x” (undetermined) in the draft CMM at this point in time.</p>
<p>4. accommodate subregional zone-based management approaches and limits and ensure compatible management and limits on the high seas (as per Article 8).</p>	<p>The revised draft CMM aims to ensure that the future management of the stock can accommodate and account for, in a manner consistent with the Convention:</p> <ul style="list-style-type: none"> <li>• zone-based management approaches,</li> <li>• the sovereign rights of coastal states and</li> <li>• recognise the special requirements of (and avoid disproportionate burden upon) SIDS and Participating Territories.</li> </ul>
<p>5. recognize the sovereign rights of coastal States to explore, exploit, conserve and manage HMS within areas under</p>	<p>To achieve this the revised draft CMM contains a framework of provisions (see also Figure 1 below) to manage fishing mortality in a manner consistent with these principles by:</p> <ul style="list-style-type: none"> <li>• Clearly dividing fishing mortality controls into <b>zone based</b> and <b>high seas</b>-based provisions.</li> </ul>

<p>their national jurisdiction (as per Article 7).</p>	<ul style="list-style-type: none"> <li>• Further dividing those controls into catch limit-based controls for targeted fisheries and “alternate measure” controls for fisheries taking swordfish as bycatch – to avoid the transfer of disproportionate burden and to accommodate existing zone-based approaches.</li> </ul>
<p>6. recognize the special requirements of, and avoid transferring a disproportionate burden of conservation upon, SIDS and Participating Territories (as per Article 30).</p>	<ul style="list-style-type: none"> <li>• Allow for swordfish fishery development in SIDS EEZs in the future, to maintain coastal state sovereign rights to explore and exploit fishery resources in their zones.</li> </ul> <p>Paper <a href="#">SC17-MI-IP-12</a> to the SC17 demonstrated that the majority of past fishery catches (and therefore fishing mortality and catch driven stock depletion to date) can be attributed to swordfish target fisheries (operating in EEZs and on the high seas) and fisheries taking swordfish as bycatch on the high seas. The final revised CMM must recognise these factors and protect the rights of SIDS to access and develop fisheries for this resource, and not impose measures that impact on SIDS fishery tuna catches in the meantime.</p>
<p>7. seek the development of a consistent set of conservation and management measures for fish stocks that occur in both the WCPFC and IATTC Convention Areas (as per Article 22).</p>	<p>The WCPFC Commission Chair wrote to the IATTC Chair, as per the WCPFC16 decision, on 21 April 2020. The IATTC Chair replied on 23 April 2020, affirming the IATTC’s commitment to a revised assessment, development of an IATTC management measure and cooperation with WCPFC on the management of south Pacific Swordfish.</p>



**Figure 1** – Schematic representing the suite of controls on fishing mortality proposed to be included in the draft CMM, with swordfish targeting fisheries managed under catch limits and fisheries taking swordfish as bycatch managed via a suite of alternate measures (from which CCMs might select one or two, depending on their fishery circumstances and associated preferences).

## Next steps

Following feedback from the broader WCPFC membership on the preliminary revised draft CMM (Attachment A), via the online discussion forum at WCPFC18, Australia will seek to further progress development of the draft throughout 2022 via:

- An informal small working group and/or bilateral discussions with CCMs;
- Forum Fisheries Committee meetings,
- Scientific Committee review;
- Technical and Compliance Committee review; and
- WCPFC19.

**ATTACHMENT A**

**DRAFT CONSERVATION AND MANAGEMENT MEASURE FOR SOUTHWEST PACIFIC SWORDFISH**

**Conservation and Management Measure 20xx-xx\***

**PREAMBLE**

*The Western and Central Pacific Fisheries Commission (WCPFC):*

**Recognizing** that SC17 noted the current [preceding] measure (CMM 2009-03) for this stock does not contain provisions to limit total fishing mortality on the stock and emphasized the continued importance of WCPFC to develop a revised and strengthened CMM that will ensure the ongoing future sustainability of the SWP swordfish.

**Recognizing** that SC17 noted that fishing mortality is predicted to have increased gradually across the assessment region through the mid-1990s, increased sharply in the early-2000s and stabilized at high levels in the last decade, and that the median latest spawning potential depletion ( $SB_{latest}/SB_{F=0}$ ) level is 0.39.

**Recognizing** that the SC17 determined that the Southwest Pacific Swordfish stock is likely not experiencing overfishing (80% probability  $F < F_{MSY}$ ) and is likely not in an overfished condition (13% probability that  $SB_{latest}/SB_{MSY} < 1$  and a 10% probability that  $SB_{latest}/SB_{F=0} < 0.2$ ).

**Further recognizing** that SC17 stated that the outcomes of the assessment are on average more optimistic in relation to the 2017 assessment, but the estimated uncertainty has increased. Further, Unresolved uncertainties combined with the need to further refine and review the new ensemble approach suggest additional caution may be appropriate when interpreting the current assessment outcomes to guide management decisions. The SC noted that the stock [status] is estimated to be at a similar level as the overall low with a declining trend in the last 4 years of the model.

**Further noting** that SC17 noted that over the past two decades, the majority of catch has been taken by a combination of swordfish targeting fleets (in the area south of 20°S; 42%) and fleets taking swordfish as a bycatch on the high seas (in particular in the eastern stock area north of 20°S; 34%).

**Noting that** SC17 noted the suite of catch projections requested by WCPFC16, and undertaken by the SSP, are intended to test the future likely state of the stock under a range of potential future catch or effort scenarios and this information informs this conservation and management measure.

**Noting that** WCPFC XX and SCxx (2022) recommended on the basis of a suite of future catch projections, that total catch of swordfish not exceed XXXX mt. [For further discussion in 2022]

**Further noting** the range of potential alternate management measures for fisheries taking swordfish as bycatch, reviewed by SC16 and SC17 and the importance of ensuring that measures adopted for swordfish do not significantly impact on catches of tuna by longline fisheries targeting tuna.

**Acknowledging** IATTC's recognition of the importance of establishing complementary conservation and management measures for species of mutual interest, and that swordfish stocks in the central Pacific are likely to occur in waters under the competence of both the WCPFC and IATTC;

**Recognizing** the need for both IATTC and WCPFC to adopt conservation and management measures to provide for the sustainable management of swordfish stocks across the Pacific Ocean.

**Noting that Article 30(1)** of the Convention requires the Commission to give full recognition to the special requirements of developing States that are Parties to the Convention, in

particular small island developing States and territories and possessions, in relation to the conservation and management of highly migratory fish stocks in the Convention Area and development of fisheries for such stocks. This recognition should include the provision of financial, scientific, and technological assistance;

*Noting further that Article 30(2)* of the Convention requires the Commission to take into account the special requirements of developing States, in particular Small Island developing States, territories and possessions. This includes the need to ensure that conservation and management measures adopted by it do not result in transferring, directly or indirectly, a disproportionate burden of conservation action onto developing States Parties, territories and possessions;

*Noting that Article 8(1)* of the Convention which requires compatibility of conservation and management measures established for the high seas and those adopted for areas under national jurisdiction;

*Recalling Article 8(4)* of the Convention which requires the Commission to pay special attention to ensuring compatibility between conservation and management measures established for the high seas in the Convention Area that are surrounded by exclusive economic zones (EEZs) and measures established by surrounding coastal States in areas under national jurisdiction;

*Noting further that the Parties to the Nauru Agreement* have adopted and implemented a Vessel Day Scheme for the longline fishery and may establish longline effort limits, or equivalent catch limits for longline fisheries within their exclusive economic zones.

*Noting furthermore* that the Members of the Pacific Islands Forum Fisheries Agency have indicated their intention to adopt a system of zone-based longline limits **and alternate measures** to replace the current system of flag-based **swordfish** catch limits within their EEZs;

*Recalling* Article 25(1)(b) of the UNFSA places a responsibility on all States to cooperate either directly or through RFMOs to ensure that developing States can participate in high seas fisheries;

## **{INTERIM} OBJECTIVES and LIMIT REFERENCE POINT FOR BROADBILL SWORDFISH**

1. The objective of this measure is to maintain spawning biomass depletion ratio (SB/SBF=0) at or above the average **SB/SBF=0 for XXXX-YYYY [years]**. This is in recognition of the importance of this stock to the commercial viability of fisheries targeting this stock, its economic value as a significant retained bycatch for some fisheries taking it as a bycatch, and its importance to the future development aspirations of Small Island Developing States and Territories.
2. Until such time as the Commission agrees a limit reference point for this stock, an interim LRP of **x% SSB<sub>f=0</sub>**, will be applied for this stock to assist in determining sustainable catch levels via projections and associated analyses.

### **Principles for the application of this measure**

3. **Area of Application** - This Measure applies to all areas of high seas and all EEZs in the Convention Area south of the equator except where otherwise stated in the Measure.
4. **Sustainability and Economic viability** - This measure aims to reflect the current best understanding of swordfish science and its assessed status and to prevent further increases in fishing mortality (**\*pending projections advice**), and ensure that overfishing and an overfished stock do not occur in future (as per Article 5). Furthermore, the measure aims to maintain the stock at levels that will support the economic viability of existing and potential future coastal state fisheries for this species.
5. **Compatibility** - Conservation and management measures established for the high seas and those adopted for areas under national jurisdiction shall be compatible in order to ensure conservation and management of the swordfish stock in its entirety.



6. ***Small Island Developing States*** - With the exception of paragraphs [x to y], nothing in this Measure shall prejudice the rights of those small island developing State Members and Participating Territories in the Convention Area seeking to develop their domestic fisheries. For the avoidance of doubt, where the term "SIDS" is used throughout this measure, the term includes Participating Territories. The term "CCM" means Members, Cooperating Non-Members and Participating Territories.
7. ***Sovereign rights of coastal states and zone-based management*** - This measure shall allow for the application of a zone-based management approach by FFA member coastal states and recognition of the sovereign rights of coastal states to explore, exploit, conserve and manage highly migratory species within areas under their national jurisdiction

***Adopts as follows:***

8. **Zone based fisheries targeting swordfish** - Coastal states in the Convention area south of the equator with established fisheries for (targeting) swordfish shall restrict catches of swordfish within their EEZs in accordance with catch limits specified in Attachment 1 Table X1.
9. **Zone based exploratory/developing swordfish fisheries** - Coastal states in the Convention area south of the equator currently developing (or intending to develop) fisheries for (targeting) swordfish shall notify the Commission of intended zone based limits by **[within X months of targeted fishing commencing, or similar]** and subsequently restrict catches of (or targeted effort for) swordfish within their EEZs in accordance with that notified limit (to be reflected in Attachment 1 Table X1 after notification). Such notified limits may be amended from time to time.
10. **Zone based fisheries taking swordfish as bycatch** - Coastal states in the Convention area south of the equator with fisheries taking swordfish as a bycatch only shall notify the Commission, by [specify date] of at least one of the "alternate measures" listed in Attachment 1 Table X3, to be implemented in their longline fisheries. Should that coastal state wish to develop a targeted fishery in future, the coastal state shall instead be subject to para 26 (above).
11. **High Seas fisheries targeting swordfish** - CCMs fishing on the high seas in the Convention area south of the equator, with established fisheries for (targeting) swordfish, shall restrict catches of swordfish in accordance with [area based] catch limits specified in Attachment 1 Table X2.
  - a. **11bis – SIDS Participation in high seas fisheries** – **[e.g. TBD - A process to be developed for a SIDS to notify the Commission that it is ready to participate in the high seas and a consequent limit to be set]**
12. **High seas fisheries taking swordfish as bycatch** - CCMs fishing on the high seas in the Convention area south of the equator, which take swordfish as a bycatch, will notify the Commission, by [specify date] of at least one of the "alternate measures" listed in Attachment 1 Table X3, to be implemented in their longline fisheries before **[specify date]**.
13. **Review and amendment of longline provisions** – the Scientific Committee shall review the implementation of this CMM at least every two years. Should the Scientific Committee identify that the sum total of limits and/or recent catches are inconsistent with the intent of this measure [specifically paragraphs 18, 20, 32 and 33], the Commission shall review the measure and consider amendment of limits at the next Commission meeting (post SC) to ensure the ongoing sustainability of the stock under the measure.

## **GENERAL PROVISIONS**

## **DATA PROVISION REQUIREMENTS**

14. Operational level catch and effort data in accordance with the *Standards for the Provision of Operational Level Catch and Effort Data* attached to the Rules for *Scientific Data to be Provided to the Commission* relating to all fishing in EEZs and high seas south of the equator subject to this CMM except for artisanal small-scale vessels shall be provided to the Commission not only for the purpose of stocks management but also for the purpose of cooperation to SIDS under Article 30 of the Convention.
15. The Commission shall ensure the confidentiality of those data provided as non-public domain data.

[NOTE – it may be that these provisions are not needed and the broader Commission requirements for provision of operational-level C&E data will suffice – for further discussion/advice.]

#### MONITORING CONTROL AND SURVEILLANCE PROVISIONS

16. All vessels conducting their fishing activities pursuant to this measure shall comply with all other relevant CMMs. Vessels found to be non-compliant with this measure shall be dealt with in accordance with CMM 2019-07, and any other applicable measure adopted by the Commission.
17. CCMs shall ensure that zone-based fisheries targeting swordfish and high seas fisheries targeting swordfish within the convention area shall be subject to the Commission's VMS SSP and are subject to x% of observer coverage or equivalent electronic monitoring coverage while actively fishing.
18. CCMs shall ensure that zone-based fisheries targeting swordfish and high seas fisheries targeting swordfish within the convention area shall be subject to any future electronic-reporting/CDS obligations adopted by the Commission.

[This is example text for MCS provisions – members feedback is sought on practical implementation of these and alternate MCS provisions]

## Attachment 1

**Table X1** – Coastal CCM EEZ longline catch limits (for fisheries that target swordfish)

Coastal CCM EEZ	Annual Catch Limit (mt)	Comment
CCM-1		
CCM-2		

**Table X2** – High seas longline catch limits (for fisheries that target swordfish)

CCM	Annual Catch Limit (mt)	Comment
CCM-3		
CCM-4		

**Table X3** – CCM nominated alternate measures for longline fisheries taking swordfish as bycatch.NOTE – the options stated below are currently high level and will be **developed further in 2022**.

This table serves to indicate the types of alternate measures that might be included in a future CMM.

No.	Provision	Comment
1	Prohibition of swordfish retention	This provision would prevent targeting and minimise mortality of swordfish taken as bycatch. Its effectiveness will depend on fleet specific levels of at haul mortality and post release survival. For fleets with a significant bycatch of swordfish it may have economic implications.
2	Prohibition of live or undersized swordfish retention	This provision would act to prevent targeting and prevent the retention of live or undersized (e.g. immature) fish when hauled to the vessel. Its effectiveness will depend on fleet specific levels of at haul mortality and post release survival. It would have lower economic impact than option 1 as it allows retention of dead fish (typically >50%).
3	Fleet specific limits	Typically applied as catch limits (number or weight of fish), other options can be considered including percentage of catch composition and effort limits (e.g. fishing days). Limits can be applied at a number of temporal scales (e.g. trip, season/year).
4	Gear limitations	The banning or restriction of fishing methods and gear configuration designed specifically to target swordfish could assist in limiting potential future increases in fishing mortality on this stock by fleets that currently take swordfish as bycatch and do not currently use these methods to target tuna. For such fleets, this measure would not impact current tuna fishing operations.

5	Spatial, Temporal and Combined Management Options	There are a range of combinations of the bycatch management options described above that may provide more effective and acceptable options for managing swordfish bycatch in the stock area, than a single option considered in isolation. Furthermore, the addition of specific spatial or temporal elements to those options can help to refine and focus their application
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