

# Consideration of Exceptional Circumstances for the Swordfish MP 2026

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## **Request for review, discussion and advice**

The paper is to request that the Working Party on Methods **review, discuss and develop advice** to the Scientific Committee, pertaining to the 2026 review of exceptional circumstances for the IOTC Management Procedure for swordfish. The key suggested areas of focus are summarised in the Abstract. In short, the Working Party on Methods is requested to consider any new information relating to population dynamics, stock status, data (catch, effort, CPUE) or fisheries (methods, operations) that may present evidence for potential exceptional circumstances.

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## Abstract

The IOTC adopted a revised swordfish management procedure (MP) in 2025 (IOTC 2025a), which was used to recommend the Total Allowable Catch (TAC) for the Indian Ocean stock: 30,527 t per year for the 2026 to 2028 period.

As part of the MP schedule, the Commission has adopted an annual review of evidence for exceptional circumstances that checks for conditions that could make the implementation of the TAC advice risky to the stock or fishery.

The Exceptional Circumstances Guidelines (Appendix 6A in IOTC (2021)) specify a three-stage process: (i) examining evidence for exceptional circumstances, (ii) determining severity and impact, and (iii) recommending any management or research action that should be taken. A wide range of information is reviewed to examine if there is evidence for exceptional circumstances, e.g., changes in the knowledge of stock or fishery uncertainties against which the MP was tested. The Exceptional Circumstances Guidelines provide a scientific process for developing appropriate management responses to exceptional circumstances and, hence, provide transparency in TAC decision-making by the Commission.

This paper summarises the outcomes from a review of a wide range of information to determine whether there is evidence of exceptional circumstances in 2026. Note that this review paper takes account of new information presented to the WPB24 (9-12 September 2026 – IOTC (2026b)) and the discussions and advice of WPB24. The key conclusions from the review are:

- **TAC implementing measure**
  - At its meeting in May 2026, the IOTC Commission adopted Resolution 26/02 to implement the TAC recommended by the MP (IOTC, 2026a) for the years 2027 and 2028. Noting that only major catching CPCs have explicit catch limits under the Resolution, and that catches in 2025 (the most recent year of data) appear to have exceeded the recommended level (30527 t) for 2027 and 2028, *it will be important the Commission ensures total catches do not exceed the recommended level for those years.*
- **Stock status, population dynamics or biology**
  - A new swordfish stock assessment was presented to WPB in 2026 and WPB24 reviewed if: a) any biological or fishery data inputs to the assessment lay outside the bounds of those used in the OMs, and; b) if key population outputs lay outside the bounds of those predicted by the OMs.
  - The WPB24 noted that while a re-analysis of growth data was included in the new assessment, this did not result in significant changes to the growth inputs (relative to those considered in the OM or 2023 assessment).
  - With respect to stock status estimates (F/FMSY and SB/SBMSY), while the 95% confidence intervals of the 2026 assessment and the 90% CI's from the OMs overlap across the time series, the 2026 stock assessment estimates of status are generally more optimistic (i.e. a lower range for F/FMSY and a higher range for SB/SBMSY). While the more positive status suggests reduced implications for the ability of the MP to meet sustainability objectives, *nonetheless the WPM should consider if it presents evidence for an exceptional circumstance, and if so, examine potential impact, severity and actions (if required).*

- **Fishery or fishing operations**
  - Two main issues were discussed at the WPB24 in 2026.
  - Firstly, a new longline fishing gear (trap lines or meka rings) for targeting swordfish has emerged in global longline fisheries. New research presented to WPB24 confirmed that traplines have been used by one IOTC fleet and achieve a significantly higher catch rate of swordfish than traditional longline approaches for targeting swordfish. *However, the extent of its use in IOTC in recent years is highly uncertain and further information is needed to assess its implications* (e.g. for CPUE indices used in OM<sub>s</sub> and the MP).
  - Secondly, the relative proportions of swordfish catch by fishery type from the two most recent years of data are not substantially different to the most recent levels considered by the OM<sub>s</sub>.
- **Catch data inputs**
  - In 2026, there has been no significant recent changes in the quality and representativeness of swordfish catch data to be utilised by the MP.
- **CPUE data inputs**
  - WPB24 highlighted the continued decline in Japanese longline fishing effort in the NWIO area (from which the CPUE index used in the MP is derived) and the complete absence of fishing by Japanese vessels in that region in 2024.
  - As per the WPB24 Report: “*The WPB RECOGNIZED that the absence of fishery observations in the Northwest Indian Ocean raises serious concerns regarding the long-term suitability of the Japanese CPUE series as a monitoring index for the Management Procedure. .... The WPB RECOMMENDED that the SC ...consider this an Exceptional Circumstance with a potential impact on the future application of the MP. The WPB NOTED that the current implementation of the Management Procedure, through the adopted TAC for 2027 and 2028..., is not affected, as it is based on the agreed CPUE index.*”
  - *The WPB RECOMMENDED that the Scientific Committee prioritize the development of a workplan to investigate alternative CPUE indices, including indices derived from alternative fleets, areas, or combinations of fleets and areas, for potential incorporation into revised candidate harvest control rules and the MSE testing of these within revised candidate Management Procedures, for consideration by the Commission. The WPB NOTED that this work may take a number of years to complete and as such, FURTHER RECOMMENDED that this work commence as a matter of urgency. ... to mitigate against the scenario whereby the Japanese Northwest Indian Ocean CPUE series no longer provides an adequate monitoring index in future.”*
  - *It is suggested that WPM should support the recommendations of the WPB24.*

Note that the annual review of exceptional circumstances for the Swordfish MP is to be updated and presented to both the WPB and WPM each year.

# 1. Introduction

The IOTC first adopted the swordfish management procedure (MP) in 2024 via Resolution 24/08 (IOTC, 2024a) and then adopted a slightly revised MP in 2025 (IOTC, 2025a) via Resolution 25/07<sup>1</sup>. The MP is run every 3 years to recommend an annual Total Allowable Catch (TAC) for the subsequent 3-year period. As part of the MP schedule, the Commission has adopted an annual review of evidence for exceptional circumstances, to check for conditions that could make implementing the MP TAC advice risky. Exceptional circumstances are conditions or data that fall outside the range of uncertainties that the MP was tested against, i.e., the reference set of operating models used for Management Strategy Evaluation (MSE), and the robustness tests. The Exceptional Circumstances Guidelines (IOTC–2021–SC24 Appendix 6A) provide a scientific process for examining evidence for exceptional circumstances, evaluating potential impacts, and developing appropriate management responses if necessary. This process of examining evidence for exceptional circumstances provides a safety-net around the MP TAC advice and transparency in TAC decision making by the Commission.

The exceptional circumstances review process has three stages:

- 1) determine whether any exceptional circumstances exist,
- 2) determine the severity and impact of the exceptional circumstances on achieving the objectives of the MP, and
- 3) if necessary, identify the research and/or management actions that could be taken by the IOTC.

The swordfish MP was run for the first time in 2024, resulting in advice from the SC to the Commission on implementing an annual TAC of 30527t for the years 2026 to 2028 (IOTC, 2024f). The Commission has subsequently adopted Resolution 26/02 to implement and allocate the TAC for 2027 and 2028 (IOTC 2026a).

This report provides advice on evidence of exceptional circumstances in 2026, using the same report template and structure as developed by Preece and Williams (2022) for bigeye tuna.

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<sup>1</sup> The revised MP had been retuned to correct for errors (during the MSE tuning process) in both the CPUE values applied for 2020-2022, and the lag applied for the period between the final year CPUE and the first year of TAC implementation.

## 2. Examining evidence for the existence of exceptional circumstances in 2026

The information that should be checked for evidence of exceptional circumstances is specified in the Guidelines (IOTC–2021–SC24 Appendix 6A).

The MP is specified in Resolution 25/07 (IOTC, 2025a). The operating models (OMs) used to MSE test the adopted MP included a range of uncertainties and conditions (Brunel and Mosqueira 2024a, 2024b) (**Table 1**), and the robustness tests (that test implementation errors, 2-year management lag and recruitment failure) are specified in Brunel and Mosqueira (2024c).

The data input specification of the standardised CPUE is in Matsumoto et al. (2023) and the outputs of the 2024 standardisation are found here ([link](#)). Catch data preparation is specified in IOTC (2024a) and IOTC (2024b).

The following items, specified in the Exceptional Circumstances Guidelines (IOTC–2021–SC24 Appendix 6A), have been examined:

- New knowledge about the stock, population dynamics or biology,
- Changes in fisheries or fishing operations,
- Changes to input data to the MP, or missing data, or
- Inconsistent implementation of the MP advice (e.g., total catch is greater than, or less than, the TAC) or changes to the operation of the MP.

**Table 1** – A comparison of the structural uncertainty grid used to develop the swordfish operating models, with the final model options for the grids of the 2023 and 2026 stock assessments (Fu, 2023; Phillips, 2026)

| Parameter                           | OM Grid                                                                                                        | Stock Assessment Grid                                                                                          |                                                                                                                         | Possible EC? |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|--------------|
|                                     |                                                                                                                | 2023                                                                                                           | 2026                                                                                                                    |              |
| Steepness                           | 0.6<br>0.75<br>0.9                                                                                             | 0.7<br>0.8<br>0.9                                                                                              | 0.7<br>0.8<br>0.9                                                                                                       | No           |
| Growth and maturity                 | 1 - Slow growth late maturity (Wang et al 2010)<br>2 - Fast growth early maturity (Farley et al 2016 otoliths) | 1 - Slow growth late maturity (Wang et al 2010)<br>2 - Fast growth early maturity (Farley et al 2016 otoliths) | 1 - Slow growth late maturity ( <b>Wang et al 2026</b> )<br>2 - Fast growth early maturity (Farley et al 2016 otoliths) | No           |
| Natural mortality                   | 1 - Low - 0.2<br>2 - High - 0.3<br>3 - Sex specific Lorenzen (Farly et al 2016 otoliths)                       | 0.25 all ages                                                                                                  | 1 - 0.25 all ages<br><b>2 - Lorenzen M with ref ages 5-12yrs and fixed M=0.25</b>                                       | No           |
| Selectivity                         | Double normal                                                                                                  | ?                                                                                                              | ?                                                                                                                       | ?            |
| Sigma R (recruitment variability)   | 0.2<br>0.4<br>0.6                                                                                              | 0.2<br>0.4                                                                                                     | 0.2<br>0.4                                                                                                              | No           |
| Stock structure                     | Single IOTC stock                                                                                              | Single IOTC stock                                                                                              | Single IOTC stock                                                                                                       | No           |
| Effective sample size (length data) | 2<br>20                                                                                                        | 5<br>20                                                                                                        | 20 ( <b>only?</b> )                                                                                                     | No           |
| CPUEs                               | 1 - JP (late)+EUPRT<br>2 - JPN Late<br>3 - TWN+EUPRT                                                           | 1 - JPLL,POR,ZAF<br>2 - JPLL,TWLL,IND                                                                          | 1 - JPLL (4 areas)<br>2 - JPLL (4 areas), IND-NE; ZAF-SW; EUREU-SW                                                      | ?            |
| Catchability                        | 1 - 0%/year<br>2 - 1%/year                                                                                     | 1 - 0%/year                                                                                                    | 1 - 0%/year                                                                                                             | No           |

## 2.1 New knowledge - Stock, population dynamics or biology

### 2.1.1 Biology and population dynamics

There was limited new information on biology or biological parameters for swordfish population dynamics presented at WPB24 in 2026 (IOTC, 2026a). There was, however, a new stock assessment in 2026 that utilised a range of biological inputs. The 2026 stock assessment and the MP OMs utilised largely the same inputs to inform population parameters and used similar ranges of these parameters where multiple values were explored in the assessment grid or OMs (**Table 1**). The WPB24 considered a number of specific issues pertaining to biology and population dynamics:

**Growth** - The only new biological research on swordfish that was presented to WPB24 (in 2026) that was relevant to the assessment or OM population dynamics, was a paper re-analysing swordfish growth data (Wang et al 2026). However, this did not result in significant changes to the key growth inputs for the 2026 assessment (relative to the 2023 assessment or original OM inputs).

**Population dynamics** - While the  $SB/SB_{MSY}$  time-series from the 2023 assessment was shown to be largely within the range of the operating models and projections, this is no longer completely the case for the  $SB/SB_{MSY}$  time-series from the 2026 assessment (**Figure 1** upper) (Brunel and Mosqueira (2024a)). This is discussed further in the “Stock status” section below.

**Stock structure** - As noted in the 2024 and 2025 reviews of exceptional circumstances (Bromhead et al., 2024, 2025; IOTC, 2024e; 2025d,e), some research presented to WPB in the past has identified some evidence of potential north-south stock structuring for IOTC swordfish (e.g. Grewe et al., 2020; Chevrier et al 2024). The WPB23 requested further consideration of this information by WPM in 2025 (IOTC-2025-WPB23-R[E]). Subsequently, WPM16 (IOTC 2025e) reviewed this issue and noted the following:

*58. The WPM NOTED the gaps in the data and spatial extent of sampling, and the need for collection of additional samples from other subregions not yet sampled, including from gillnet fisheries in the north and from fisheries in the Eastern Indian Ocean (e.g., including off West Australia). There may be some samples collected in EIO not yet analysed.*

*59. The WPM NOTED that additional sampling could be prioritised by the SC as part of the scoping work to develop a new IOTC biological sample collection program.*

*60. The WPM NOTED that additional simulation analyses could be conducted for design of sample collection that will lead to better understanding of movement and mixing between regions and implications for the assessment, OMs and MP. The simulation analyses could also examine levels at which stock structure would matter.*

*61. The WPM NOTED that undertaking Close-Kin Mark-Recapture (CKMR, genetic analysis of kin-pairs) could help in reducing uncertainty in stock structure due to the CKMR approach operating on timescales more relevant to informing current structure/mixing assumptions.*

In conclusion, the WPM16 “NOTED that currently *there is not sufficient certainty around the implications of the new research on stock structure to conclude that there is an exceptional circumstance* in relation to the swordfish MP TAC advice. The WPM AGREED that additional

*sampling and analyses should be prioritised by the SC and Commission to help reduce uncertainty around stock structure”.*

No new information was presented relating to stock structure in 2026, and subsequently, at its September 2026 meeting, the WPB24 (IOTC, 2026b):

- *“..**NOTED** that previously identified evidence suggesting possible north-south stock structure remains unresolved and requires additional sampling and analysis. The WPB **AGREED** that there remains insufficient certainty to consider stock structure an Exceptional Circumstance at present”.*

### 2.1.2 Stock status

The 2026 stock assessment (Phillips, 2026) estimated that the stock is not overfished and not subject to overfishing. The key uncertainties considered in the 48 models in the reference set of models of the 2023 assessment are CPUE, growth, natural mortality, recruitment variability and steepness (**Table 1**).

**Figure 1** shows a comparison of the  $SB/SB_{MSY}$  and  $F/F_{MSY}$  estimates from the 2026 stock assessment with those from the range of scenarios included in the swordfish operating models. The 95% confidence intervals of the 2026 assessment and the 90% CI's from the OM's overlap for both quantities across the entire time series. However, compared with the 2023 stock assessment, the 2026 stock assessment estimates of status are generally more optimistic. Furthermore:

- For  $F/F_{MSY}$ , the lower bound of the 2026 assessments 95% CI is often below the lower bound of the OM's 90% CI's.
- For  $SB/SB_{MSY}$ , in the later years in particular, the upper bound of the 2026 assessments 95% CI is well above the upper bound of the OM's 90% CI's.

Subsequently, the 2026 WPB24 ***“NOTED** that the 2026 stock assessment did produce stock status estimates or parameter estimates outside the range of expectations represented within the operating models in recent years. The implications of this with respect to exceptional circumstances should be considered further by the WPM”.*

The authors agree that this may indicate an exceptional circumstance and the WPM should examine potential impact, severity and actions (if required). However, with respect to impact/severity, it should be noted that the more positive status estimated by the assessment implies low risk (associated with this possible EC) to the MP's ability to ensure stock sustainability. While this should be further reviewed in conjunction with other indicators and at the next assessment, no action on TAC is currently recommended.



**Figure 1** - Historical swordfish stock status trends in the Operating Model developed for the MSE (orange) and in the WPB 2026 swordfish stock assessment (blue)(Data: Brunel and IOTC Sec pers comms 2026).

## 2.2 Fishery or fishing operations

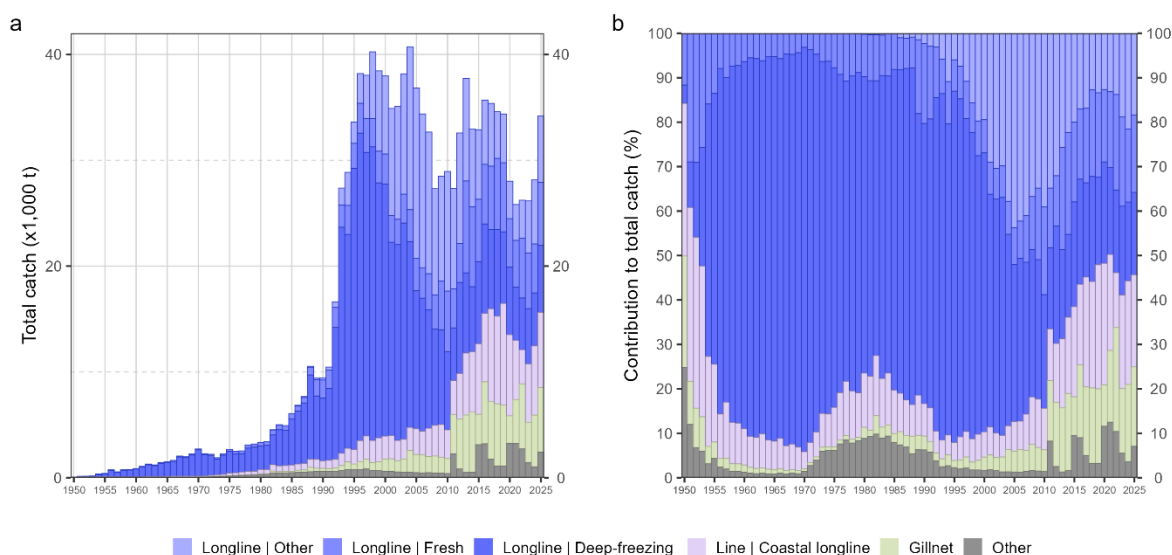
With respect to changes in fisheries or fishing operations, 2026 WPB24 noted again the emergence of a new longline fishing gear, called trap lines (also meka-ring or loop gear), that is used to target swordfish, and the potential for this to impact on IOTC swordfish catch and CPUE indices in the future if adopted in IOTC longline fisheries. This has been previously discussed by WPEB ([IOTC, 2025c](#)), WPB (IOTC 2025b) and in the 2025 review of exceptional circumstances (Bromhead et al 2025). Key WPEB papers describing this issue include [Ochi et al \(2025\)](#) and [Coelho et al 2026](#), with the latter paper confirming that trap lines are associated with a much higher catch rate of swordfish relative to traditional longline sets for targeting swordfish. The 2026 WPB24:

- “... **DISCUSSED** the potential implications of the increasing use of meka-ring (also called loop or trapline) terminal branchline gear in some longline fisheries. The WPB **ACKNOWLEDGED** that this gear may affect swordfish catchability and could influence the interpretation of CPUE indices in the future. However, the WPB **NOTED** that there is currently insufficient information on the extent of recent adoption and impact of meka-rings within the Indian Ocean to determine whether this issue should trigger an Exceptional Circumstance. The WPB **ENCOURAGED** the continued collection of information on the use of this gear and its potential influence on catchability and CPUE trends” ([IOTC, 2026a](#)).

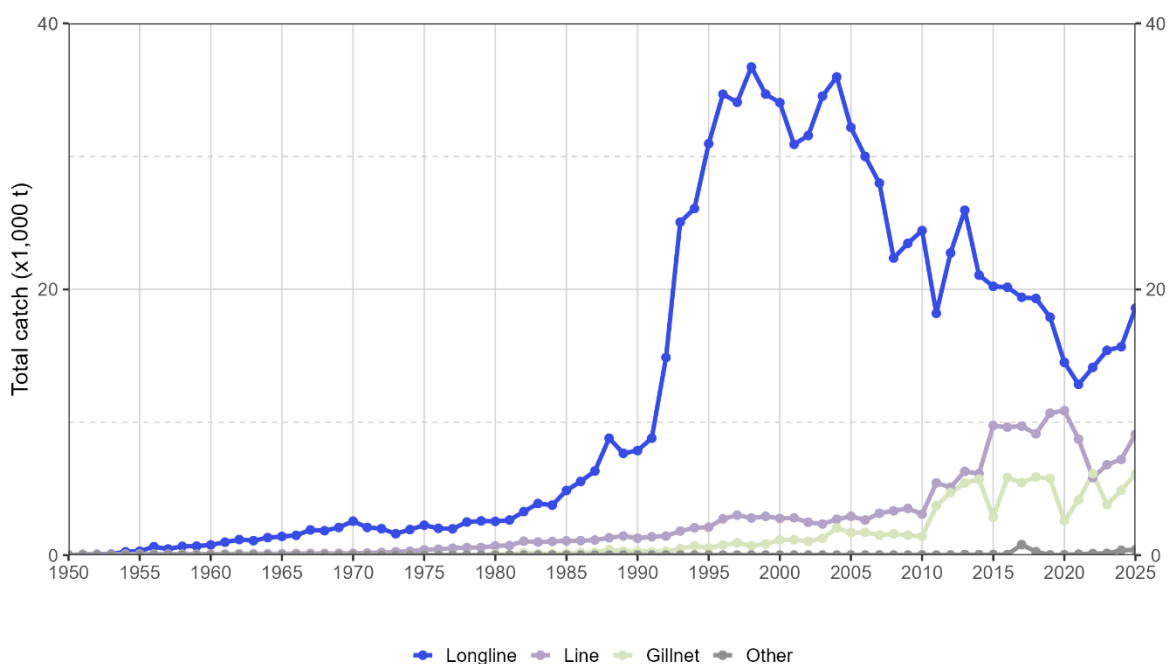
The second issue discussed at the 2026 WPB meeting relates to the distribution of swordfish catches by fisheries over time, specifically the shift in the relative levels of Swordfish catch from distant water fisheries to coastal fisheries over time. These changes have been discussed previously (Bromhead et al 2025) and the conclusions of both the authors and WPB24 remains the same, that these changes in catch data have been incorporated into MSE operating models, and the MP performance has been tested under these conditions. The most recent 2 years of data are not substantially different, in terms of catch by fishery mix, to recent catches (**Figure 3**), although the data indicate a significant increase in catch (see below) in 2025.

In relation to the above two issues, there is currently no evidence to indicate any exceptional circumstances in 2026 related to fisheries and fishing operations.

However, a third issue was discussed by WPB24, relating to the significant decline in Japanese longline fishing effort in the North West Indian Ocean (see also Bromhead et al 2025), that has implications for use of the Japanese longline CPUE index in the MP. This may indicate an exceptional circumstance and is discussed further in section 2.3.2 below (on CPUE inputs).



**Figure 2** - Annual time series of cumulative retained absolute (a) and relative (b) catches (metric tonnes; t) of swordfish by IOTC fishery type for the period 1950-2025. Data source: best scientific estimates of retained catches. (Source IOTC Secretariat 2026).



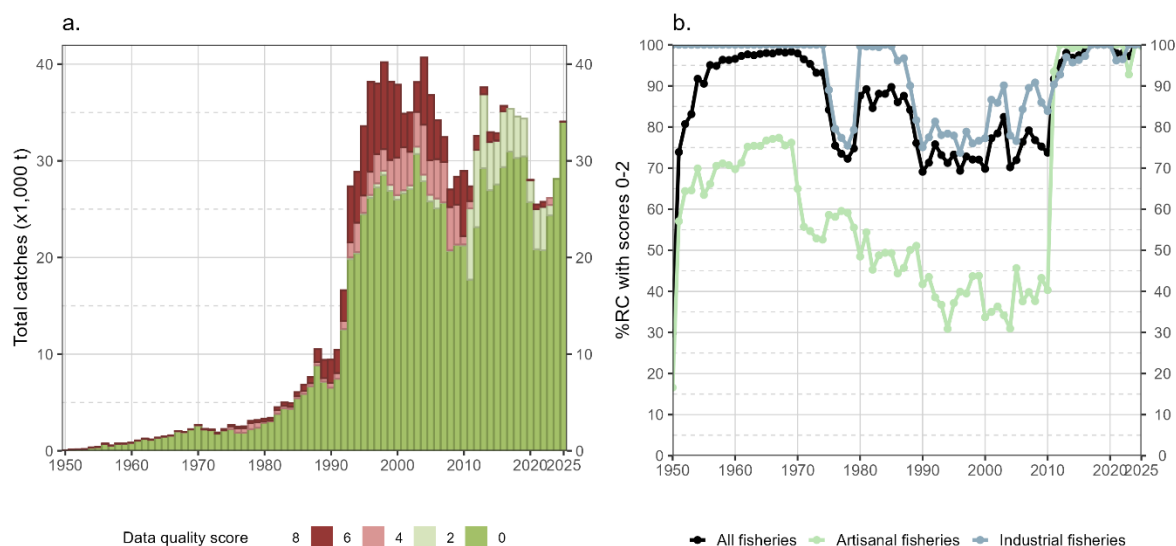
**Figure 3** – Annual time series of retained catches (metric tonnes; t) of swordfish by fishery group for the period 1950-2025. (Source IOTC Secretariat 2026).

## 2.3 MP input data and operation of the MP

### 2.3.1 Catch data

Total IOTC catch estimates, including 2023 catches, were available for running the MP in 2024.

As it does every year, the WPB24 (2026) reviewed recent nominal catches, fishery features, quality and representativeness of catch data relative to previous years and have noted continued similar quality and representativeness of reported data. The 2024 review of IOTC statistical data for IOTC Swordfish noted that “*The quality of the total retained catches of swordfish is considered to be good and overall the best among the five billfish species under*



**Figure 4** – (a) Annual retained catches (metric tonnes; t) of swordfish estimated by quality score whereby 0 is highest quality and 8 is poorest quality; and (b) percentage of total retained catches fully or partially reported to the IOTC Secretariat for all fisheries and by type of fishery, in the period 1950-2022 (Source – IOTC Secretariat 2026).

*IOTC mandate*” (IOTC 2024c) and this level of quality was maintained in the most recent year estimated (**Figure 4**) (IOTC Secretariat 2026).

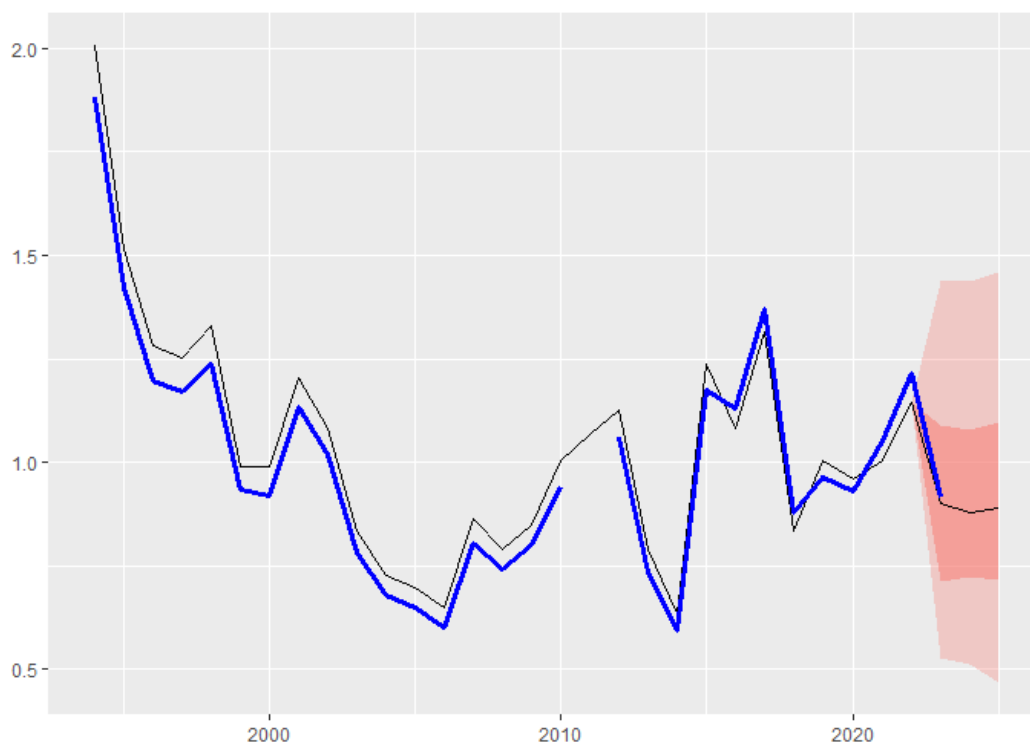
On the basis of this, there is no evidence of exceptional circumstances pertaining to the catch data.

### 2.3.2 CPUE data

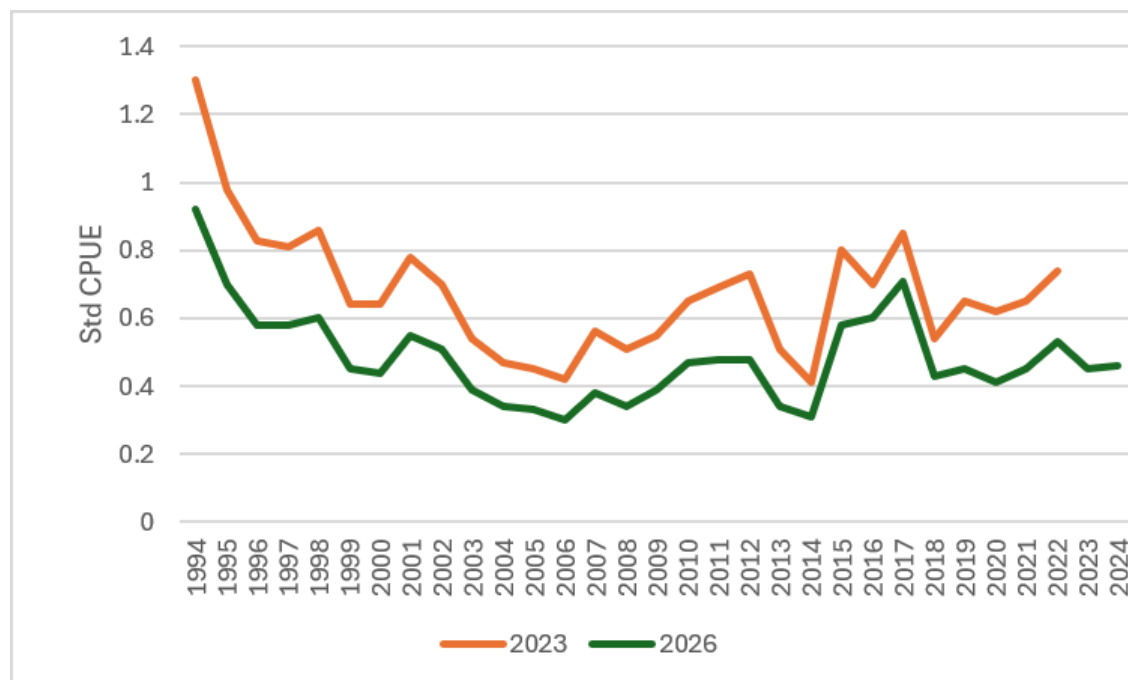
As planned, there was no update to the standardised CPUE index (that is used within the Swordfish MP) in 2025 or 2026. An updated CPUE will be required to be produced by mid-2027, in time for the next run of the Swordfish MP (late 2027), to generate a TAC for Commission consideration in 2028, and implementation in 2029-2031.

**Figure 5** compares the stdCPUE time series estimates from 2023 (for period to 2022) and 2024 (for period to 2023), showing the two series to be very similar in trends and have relatively small differences, primarily in the more recent years.

A revised stdCPUE time series was estimated for the 2026 IOTC Swordfish stock assessment that was reviewed by WPB24. **Figure 6** compares the 2023 and 2026 assessment stdCPUE trends for the NWIO region. The trends are quite similar but with some minor variations. It should be noted that some changes may be apparent due to changes in standardisation methodology for the assessment, that would not be apparent when applying the CPUE method approved for the Swordfish MP. It should also be noted the 2026 series is offset to lower values than the 2023 series and the reasons for this should potentially be queried by WPM.



**Figure 5** – Comparison of relative stdCPUE time series estimates from the 2023 standardisation process (black line, for the period to 2022) and the 2024 standardisation process (blue line, for the period to 2023) and the near future predicted CPUE (black line, 2023-2025).



**Figure 6** – Comparison of relative stdCPUE time series estimates for the NWIO Japanese longline, from the 2023 assessment (Matsumoto et al 2023) and the 2026 assessment (Takahashi et al 2026).

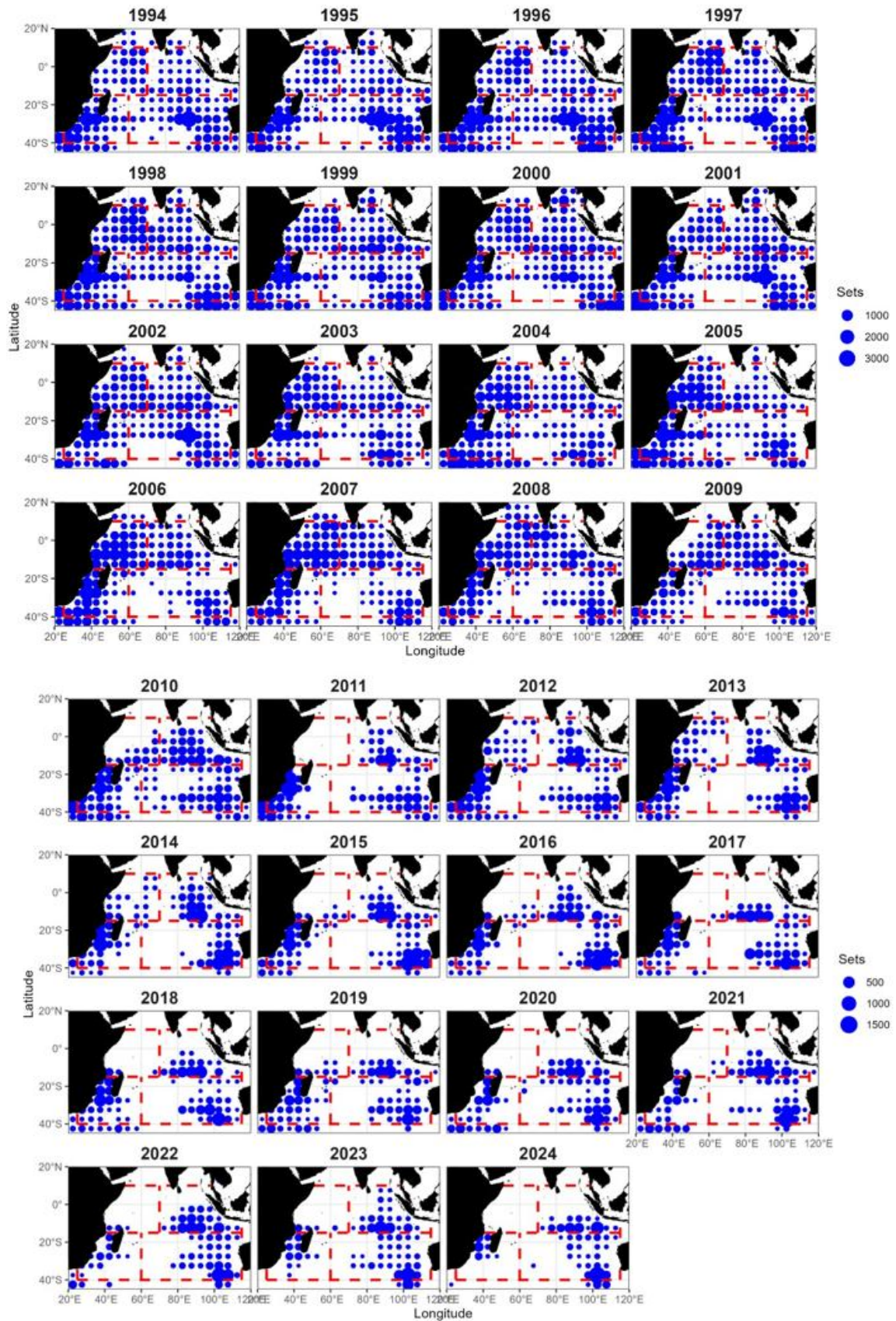
Overall, however, the key issue relating to CPUE that was identified by the WPB24 (in 2026) was the continued decline in Japanese longline fishing effort and catch in the north-west Indian Ocean (an area of significant swordfish catch). The WPB and WPM have previously questioned if that might have potential implications for whether the Japanese CPUE can still index stock abundance in that area (IOTC, 2024e). Bromhead et. al. (2024 and 2025) noted that:

- the decline in effort in this region has been occurring since at least 2007 (Matsumoto et al 2023) (**Figure 7**),
- The MSE operating models incorporated a range of alternative CPUE series, and MP performance (using the Japan LL CPUE) was robust to these uncertainties, and was shown to reach the target.
- The NW JP LL CPUE was chosen based on prediction skill and discussions with WPB in previous years. A subsequent and more recent examination of the prediction skill of the NW JP CPUE from the 2023 assessment model indicates that the prediction skill remains acceptable (**Figure 8**).

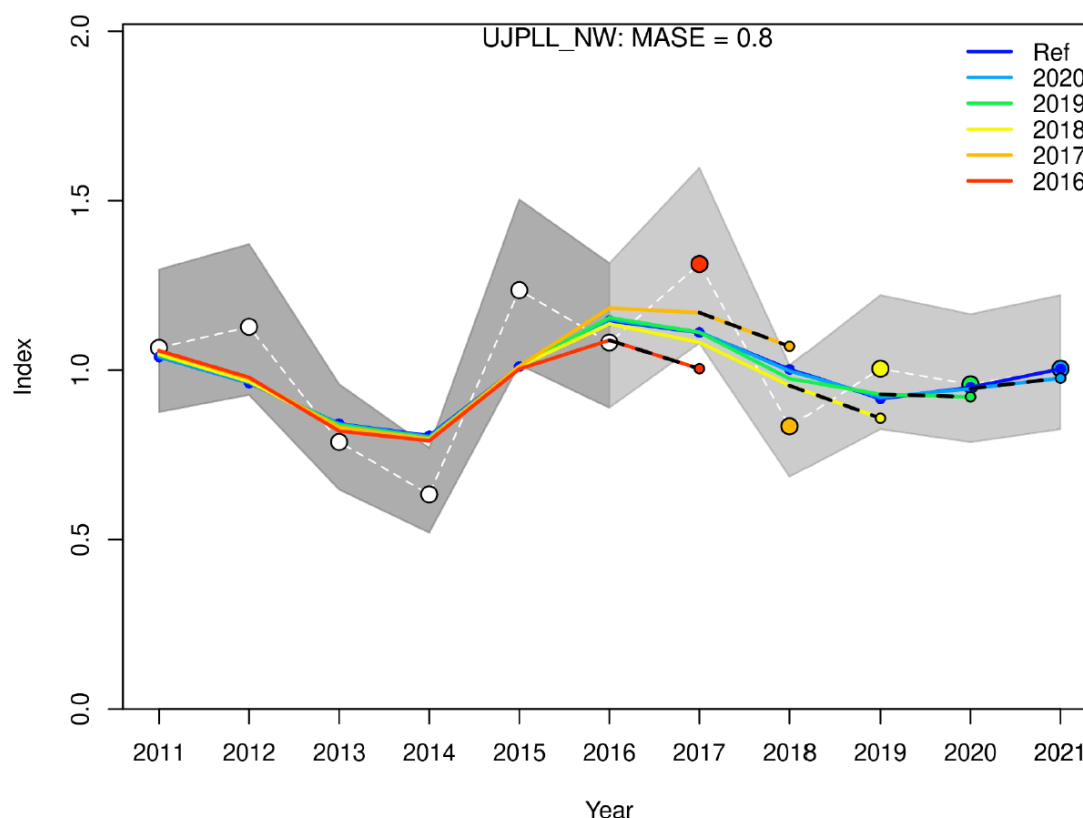
Until now, the WPM and WPB had not defined this issue as an exceptional circumstance. However, WPB24 identified that in 2024 there was no fishing at all by Japan in the NWIO (See Figure 7, meaning there would be no CPUE generated for that year.

The WPB discussed this issue in detail and provided the following recommendations for WPM and SC consideration.

1. *The WPB **NOTED** that the current Management Procedure was developed and tested using a Japanese CPUE index (as the key harvest control rule indicator) that was based solely on fishing activity in the Northwest Indian Ocean. The WPB **RECALLED** that there has been general agreement that continued reductions in effort, or periods without observations in that region, could ultimately mean that a revision of the monitoring index used by the Management Procedure may be required and potentially necessitate re-evaluation of the Management Strategy Evaluation framework.*
2. *The WPB **NOTED** that the standardized Japanese longline CPUE series remains an important component of the Management Procedure and that the 2023 and 2024 standardized indices were generally consistent. However, the WPB **DISCUSSED** the continuing decline in Japanese fishing effort in the Northwest Indian Ocean and the complete absence of observations from that area in 2024. The WPB **NOTED** that the 2024 CPUE value for the Northwest region (included in Takahashi et al (2026)), was derived from model predictions rather than direct observations.*
3. *The WPB **RECOGNIZED** that the absence of fishery observations in the Northwest Indian Ocean raises serious concerns regarding the long-term suitability of the Japanese CPUE series as a monitoring index for the Management Procedure. The WPB **AGREED** that this situation represents an Exceptional Circumstance with respect to the continued future use of the MP. The WPB **RECOMMENDED** that the SC also consider this an Exceptional Circumstance with a potential impact on the future application of the MP. The WPB **NOTED** that the current implementation of the Management Procedure, through the adopted TAC for 2027 and 2028, as per Resolution 26/02, is not affected, as it is based on the agreed CPUE index.*
4. *The WPB **RECOMMENDED** that the Scientific Committee prioritize the development of a work-plan to investigate alternative CPUE indices, including indices derived from alternative fleets, areas, or combinations of fleets and areas, for potential incorporation into revised candidate harvest control rules and the MSE testing of these within revised candidate Management Procedures, for consideration by the Commission. The WPB **NOTED** that this work may take a number of years to complete and as such, **FURTHER RECOMMENDED** that this work commence as a*



**Figure 7.** Distribution of fishing effort (number of sets) by Japanese longline fishery in the Indian Ocean (annual from 1994). Dashed lines show boundary for the areas for CPUE standardization (Source – Takahashi et al 2026).



**Figure 8** – Prediction skill of the base case 2023 assessment model for the north-west Indian Ocean Japanese longline CPUE. Large, coloured dots, show the CPUE observations over the last five years considered (2017-2021). Coloured lines show the one-year-ahead predictions obtained from a catch-based hindcast (as per Carvalho et al., 2021). MASE values less than 1 indicate that the model is able to generate predictions for this series that are better than random.

*matter of urgency. This is required to mitigate against the scenario whereby the Japanese North-west Indian Ocean CPUE series no longer provides an adequate monitoring index in future.*

The lack of catch and effort data from the fishery in the region used for the MP CPUE standardisation is an exceptional circumstance, but we note that this does not affect the current TAC. We recommend further work as recommended by the WPB..

### 2.3.3 Catch relative to TAC

The MP recommended TAC in 2026 will be the first TAC to be implemented for swordfish by the IOTC, therefore there is no exceptional circumstance, because a comparison of 2026 catch relative to TAC does not exist (2026 catch will be first estimated at the end of 2027, early 2028). It is also important to note however that following the running of the MP by the SC in 2024, and the SC's advice to implement the MP derived TAC of 30527 t, the IOTC Commission in 2025 did not propose and agree a measure to implement (and allocate) the TAC recommended by the MP for 2026. As such, there was no measure in place to ensure TAC adherence in 2026. However, the 2026 Commission did agree on a measure (IOTC, 2026a) to implement the TAC in 2027 and 2028, albeit strict limits were applied only to the major catching nations, on the assumption of continued stable catches by smaller catching fleets.

It should be noted that preliminary catch estimates for 2025, as per **Figure 2**, appear to indicate a catch significantly higher than the TAC (for 2027-2028) of 30527t. The Commission should monitor this going forward and look to ensure catches are brought down to within TAC levels.

### 3. Discussion and Conclusion

The Exceptional Circumstances Guidelines make it clear that identifying exceptional circumstances does not necessarily result in changes to the recommended TAC. In fact, changes to the recommended TAC should be avoided except in situations where the TAC advice would pose a risk to the stock or the fishery if implemented. The alternatives are to collect more information, or conduct further research, to inform the review of evidence of exceptional circumstances in future years. Another alternative is to proceed with the TAC advice (or precautionary advice) and trigger a review of the MP earlier than planned. Recommending a change to the TAC is appropriate if there is a high risk to the stock. If the TAC is to be adjusted, further evaluation of the scale and severity of the exceptional circumstance provides guidance (% change) on how to calculate an adjustment to the TAC.

A wide range of items are reviewed to examine if there is evidence for exceptional circumstances, i.e., the data inputs to the MP, the range of uncertainties against which the MP was tested, and implementation of MP TAC advice. This review is conducted annually to provide advice to the SC on any risks with the operation of the MP and TAC advice.

The annual review of exceptional circumstances is an important component of providing management advice using an adopted management procedure. It is the safety net process that evaluates the extent to which the MP is operating as expected (from the MP testing) and identifies any risks associated with implementing the MP TAC advice. The review requires consideration of evidence for exceptional circumstances. It provides a scientific process for developing appropriate management responses if any exceptional circumstances are identified and, hence, provides transparency in TAC decision making by the Commission.

The key conclusions of the current review are:

- **TAC implementing measure**
  - At its meeting in May 2026, the IOTC Commission adopted Resolution 26/02 to implement the TAC recommended by the MP (IOTC, 2026a) for the years 2027 and 2028. Noting that only major catching CPCs have explicit catch limits under the Resolution, and that catches in 2025 (the most recent year of data) appear to have exceeded the recommended level (30527 t) for 2027 and 2028, it will be important the Commission ensures total catches do not exceed the recommended level.
- **Stock status, population dynamics or biology**
  - A new swordfish stock assessment was presented to WPB in 2026 and WPB24 reviewed if: a) any biological or fishery data inputs to the assessment lay outside the bounds of those used in the OMs, and; b) if key population outputs lay outside the bounds of those predicted by the OMs.
  - The WPB24 noted that while a re-analysis of growth data was included in the new assessment, this did not result in significant changes to the growth inputs (relative to those considered in the OM or 2023 assessment).
  - With respect to stock status estimates ( $F/FMSY$  and  $SB/SBMSY$ ), while the 95% confidence intervals of the 2026 assessment and the 90% CI's from the OMs overlap across the time series, the 2026 stock assessment estimates of status are generally

more optimistic (i.e. a lower range for F/FMSY and a higher range for SB/SBMSY). While the more positive status suggests reduced implications for the ability of the MP to meet sustainability objectives, [nonetheless the WPM should consider if it presents evidence for an exceptional circumstance, and if so, examine potential impact, severity and actions \(if required\).](#)

- **Fishery or fishing operations**

- Two main issues were discussed at the WPB24 in 2026.
- Firstly, a new longline fishing gear (trap lines or meka rings) for targeting swordfish has emerged in global longline fisheries. New research presented to WPB24 confirmed that traplines have been used by one IOTC fleet and achieve a significantly higher catch rate of swordfish than traditional longline approaches for targeting swordfish. However, [the extent of its use in IOTC in recent years is highly uncertain and further information is needed to assess its implications](#) (e.g. for CPUE indices used in OMIs and the MP).
- Secondly, the relative proportions of swordfish catch by fishery type from the two most recent years of data are not substantially different to the most recent levels considered by the OMIs.

- **Catch data inputs**

- In 2026, there has been no significant recent changes in the quality and representativeness of swordfish catch data to be utilised by the MP.

- **CPUE data inputs**

- WPB24 highlighted the continued decline in Japanese longline fishing effort in the NWIO area (from which the CPUE index used in the MP is derived) and the complete absence of fishing by Japanese vessels in that region in 2024.
- As per the WPB24 Report: “*The WPB RECOGNIZED that the absence of fishery observations in the Northwest Indian Ocean raises serious concerns regarding the long-term suitability of the Japanese CPUE series as a monitoring index for the Management Procedure. .... The WPB RECOMMENDED that the SC ...consider this an Exceptional Circumstance with a potential impact on the future application of the MP. The WPB NOTED that the current implementation of the Management Procedure, through the adopted TAC for 2027 and 2028..., is not affected, as it is based on the agreed CPUE index.*”
- *The WPB RECOMMENDED that the Scientific Committee prioritize the development of a workplan to investigate alternative CPUE indices, including indices derived from alternative fleets, areas, or combinations of fleets and areas, for potential incorporation into revised candidate harvest control rules and the MSE testing of these within revised candidate Management Procedures, for consideration by the Commission. The WPB NOTED that this work may take a number of years to complete and as such, FURTHER RECOMMENDED that this work commence as a matter of urgency. ... to mitigate against the scenario whereby the Japanese Northwest Indian Ocean CPUE series no longer provides an adequate monitoring index in future.”*
- [It is suggested that WPM should support the recommendations of the WPB24.](#)

Note that the annual review of exceptional circumstances for the Swordfish MP is to be updated and presented to both the WPB and WPM each year.

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