

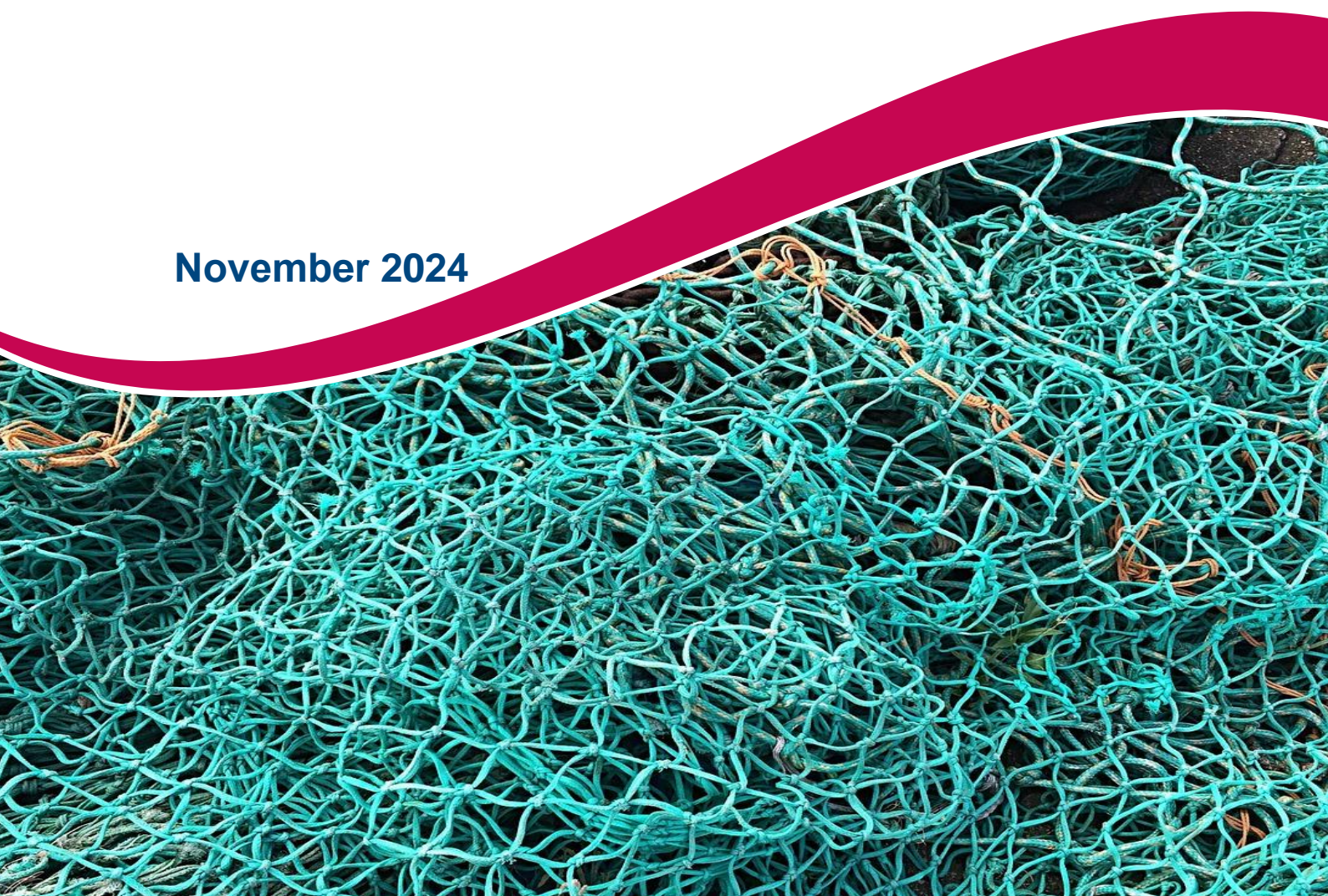


Australian Government

Australian Fisheries Management Authority

AFMA procedure for setting TACCs for quota managed species in the Western Tuna and Billfish Fishery

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About this document

This document sets out the Australian Fisheries Management Authority's (AFMA) procedure for setting total allowable commercial catches (TACCs) for quota species in the Western Tuna and Billfish Fishery (WTBF). The quota species are bigeye tuna (*Thunnus obesus*), yellowfin tuna (*Thunnus albacares*), broadbill swordfish (*Xiphias gladius*) and striped marlin (*Kajikia audax*).

This procedure has been developed in consultation with the Tropical Tuna Resource Assessment Group (TTRAG) [July 2023, July 2024 and September 2024] and the Tropical Tuna Management Advisory Committee (TTMAC) [October 2024]¹. The AFMA Commission agreed to this procedure at its meeting on 12 November 2024.

¹ TTRAG and TTMAC records are available on the [AFMA website](#)

1 Background

The setting of TACCs for quota species in the WTBF is a key fisheries management process that pursues AFMA's legislative objectives. Under the *Western Tuna and Billfish Fishery Management Plan 2005*² (WTBF Plan) AFMA must, before the start of each fishing season and for each quota species, determine the TACC. The WTBF Plan further stipulates that the overcatch and undercatch limits be determined once a fishing season has commenced. Under the WTBF Plan, in determining a TACC, AFMA must consider:

- a) information given by the advisory committees, other interested Australian and international bodies and other interested persons; and
- b) the total estimated catch by the commercial, recreational, Indigenous and other users of the fishery; and
- c) information about the sustainability of marine species in the area of the fishery; and
- d) the reference points set for the stocks of quota species; and
- e) the precautionary principle; and
- f) any decision made by the Minister or an intergovernmental Ministerial Council about resource sharing in the fishery; and
- g) any decision rule used for setting the TACC; and
- h) the likely effect, for the fishing season, of any overcatch permitted.

In addition to the considerations specified in the WTBF Plan (points a-h above), AFMA also have regard to the advice of the TTRAG and the interests of recreational and indigenous fishers.

Since 2018, WTBF TACC recommendations have been based on the application of an indicators-based and “whole of government position” approach. Previously, the WTBF applied the harvest strategy framework developed for the Eastern Tuna and Billfish Fishery (ETBF) to determine TACCs. The then AFMA Commission discontinued this approach due to unnecessary complexity and low levels of catch and effort in the fishery.

The procedure outlined in this document maintains key aspects of the previous approach but provides guidance for setting TACCs for multiple fishing seasons in a single determination (decision). Under this arrangement TACCs still apply for individual fishing seasons, but the TACCs for three fishing seasons are determined at one time (i.e. in one decision). For the purposes of this document, this is referred to as a multi-season TACC decision.

1.1 Commonwealth Harvest Strategy Policy

The Commonwealth Fisheries Harvest Strategy Policy, 2018 (the Policy) and associated implementation guidelines aim to ensure key commercial and byproduct fish species are managed for long-term biological sustainability and to maximise the net economic returns to the Australian community – through the implementation of harvest strategies. A harvest strategy, sometimes referred to as a management procedure, sets out a decision framework for fisheries management

² [Western Tuna and Billfish Fishery Management Plan 2005](#)

necessary to achieve defined biological and economic objectives for commercial fish stocks in a fishery. In general, harvest strategies outline:

- processes for monitoring and assessing the biological and economic conditions of commercial fish stocks against fishery-specific reference levels (a reference point or points) and indicators; and
- pre-determined rules that control fishing activity and could include controls on catch, effort, gear and spatial limits. These rules are referred to as harvest control rules or decision rules.

The Policy further states that for jointly managed international stocks, AFMA will set Commonwealth fishery catch levels taking into account available science and evidence; the Australian negotiating position; advice from government; and any relevant decisions of the applicable regional fisheries management organisation (RFMO). For such international stocks, the domestic Commonwealth catch level must be determined at the same or less than that permitted under the relevant international arrangements.

The Australian Government Guidelines for the Implementation of the Policy (the Guidelines, 2018) identify important considerations for determining the likely effectiveness of a domestic harvest strategy for an internationally shared stock including stock structure, trends in foreign fisheries and the proportion of Australian catch. If Australia is a major harvester of the stock and no harvest strategy has been determined internationally, AFMA must develop and implement a domestic harvest strategy consistent with the objectives of the Policy.

The Guidelines state that there is unlikely to be a specific point at which Australia is no longer a major harvester of the stock and a domestic harvest strategy is no longer effective. As general guidance, the Guidelines state that Australian catch shares above 60 per cent would be desirable and catch shares below 30 per cent are unlikely to be an appropriate circumstance for a domestic harvest strategy.

1.2 IOTC, stock structure and Australia's catch shares

In addition to the objectives AFMA must pursue when administering the *Fisheries Management Act 1991*, AFMA must also have regard to the objective of ensuring that conservation and management measures in the Australian Fishing Zone (AFZ) and the high seas implement Australia's obligations under international agreements that deal with fish stocks. Relevantly, the WTBF is subject to Australia's obligations to the Indian Ocean Tuna Commission (IOTC). TACCs for quota managed species in the WTBF must not be greater than the agreed catch limits set by the IOTC. Of the WTBF quota species, an IOTC management procedure (harvest strategy) has been agreed for bigeye tuna and broadbill swordfish.

The WTBF quota managed species are assessed by the IOTC as being single stocks within the IOTC Convention Area. In 2006, where the IOTC did not have any agreed catch level decisions, Australia adopted a whole of Government position to guide the initial setting of domestic catch levels. The recommended TACCs for the WTBF quota managed species were then determined at approximately 2.5% of the maximum sustainable yield (MSY), per species, derived from the IOTC stock status assessments. These TACCs were considered precautionary based on the relative size of the AFZ compared to the IOTC.

TACCs for WTBF quota managed species, as a percentage of the current IOTC estimates of maximum sustainable yield (MSY), are 10% or less than 10%. Specifically, 2.08% for bigeye tuna, 0.57% for yellowfin tuna, 2.59% for striped marlin, and 10% for broadbill swordfish. These percentages are based on the most recent stock assessments for each species, with data last updated in 2023³. Average⁴ annual WTBF catches, per species, are less than 1% of total IOTC catches. Specifically, 0.04% for bigeye tuna, 0.007% for yellowfin tuna, 0.02% for striped marlin, and 0.4% for broadbill swordfish.

A domestic harvest control rule-based approach is not recommended for these species as the WTBF catches contribute a small fraction of fishing mortality on the stocks which are internationally managed; any changes in WTBF fishing mortality is unlikely to influence the future status of the stock. The successful management of these resources cannot be undertaken by Australia alone and require a regional management approach since the majority of the catch taken within the IOTC is taken by international fleets.

1.3 Historic TACCs and catches in the WTBF

Previous TACCs for the WTBF quota managed species (**Table 1**) have remained unchanged since 2007 following the introduction of the 2005 WTBF Plan and are based on the 2006 calculated MSY for each of the stocks. There have been two exceptions:

- First, where AFMA determined WTFB TACCs for a 19-month season (1 July 2010 to 31 January 2012) in line with the introduction of SFRs; and to transition to the 12-month fishing season commencing on 1 February each year (rather than 1 July).
- Second, for the 2022/23 fishing season, the TACC for yellowfin tuna was reduced following IOTC agreement to an interim management measure for Yellowfin Tuna (Resolution 21/01) under which Australia agreed to limit its take of Yellowfin Tuna to no greater than 2,000t due to region-wide stock depletion.

Annual catches for the WTBF quota managed species are very low and have consistently been below the determined TACCs (<10% in most cases; **Table 2**).

³ [Status summaries and executive summaries for tuna and tuna-like species under the IOTC mandate, as well as species impacted by IOTC fisheries.](#)

⁴ Recent 5-year average, calculated using catch from 2018-2022 inclusive.

Table 1. Seasonal TACCs (tonnes) for quota managed species in the WTBF. For the 2015/16-2017/18 and 2018/19-2020/21 fishing seasons, AFMA determined TACCs for 3 fishing seasons in a single decision.

Fishing Season	2007/08	2008/09	2009/10	2010/12*	2012/13	2013/14	2014/15	2015/16	2016/17
Bigeye Tuna	2000	2000	2000	3150	2000	2000	2000	2000	2000
Broadbill Swordfish	3000	3000	3000	4750	3000	3000	3000	3000	3000
Striped Marlin	125	125	125	200	125	125	125	125	125
Yellowfin Tuna	5000	5000	5000	7900	5000	5000	5000	5000	5000
Fishing Season	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	
Bigeye Tuna	2000	2000	2000	2000	2000	2000	2000	2000	
Broadbill Swordfish	3000	3000	3000	3000	3000	3000	3000	3000	
Striped Marlin	125	125	125	125	125	125	125	125	
Yellowfin Tuna	5000	5000	5000	5000	5000	2000	2000	2000	

Table 2. Seasonal catches (tonnes) for quota managed species in the WTBF. For the 2015/16-2017/18 and 2018/19-2020/21 fishing seasons, AFMA determined TACCs for 3 fishing seasons in a single decision.

Fishing Season	2007/08	2008/09	2009/10	2010/12*	2012/13	2013/14	2014/15	2015/16	2016/17
Bigeye Tuna	40.2	41.4	74.3	97.1	192.2	94.2	88.4	106.9	79.2
Broadbill Swordfish	211.8	216.2	400.8	379.4	234.4	225.6	220.8	217.3	160.8
Striped Marlin	0.8	0.2	0.3	1.2	2.1	2.1	0.8	1.6	0.9
Yellowfin Tuna	12.2	4.4	21.6	28.2	26.3	41.9	22.1	82.0	73.8
Fishing Season	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	
Bigeye Tuna	63.2	49.2	38.3	33.3	59.5	22.1	41.1	33.5	
Broadbill Swordfish	155.0	173.7	119.5	100.4	150.0	85.2	90.4	70.9	
Striped Marlin	1.5	0.5	1.0	0.0	0.7	0.5	0.9	0.4	
Yellowfin Tuna	72.1	42.4	45.8	17.7	22.8	19.0	49.8	26.7	

2 AFMA procedure for setting TACCs for quota managed species in the WTBF

2.1 Scope and approach

This procedure applies to all quota managed species in the WTBF. The approach is based on monitoring pre-agreed indicators (the Indicators) and having regard for relevant whole of government positions. This approach is referred to as the *indicator and whole of government position* approach.

The procedure outlines AFMA's process for making multi-season TACC decisions for these species. The approach is considered appropriate on the basis that the TACCs for these species have not fluctuated significantly over the last decade and there are both administrative and industry benefits to streamlining the TACC decision-making process. Multi-season TACC decisions can reduce unnecessary regulatory processes (e.g. associated with administrative decision making) and provide greater operational certainty and stability for industry.

The procedure is designed to include flexibility where changes to the stock, fleet capacity, or international obligations require a multi-season TACC decision to be reviewed and amended. This is achieved by ensuring a subset of Indicators continue to be monitored annually.

2.2 Multi-season TACC decisions

Unless otherwise recommended by TTRAG or TTMAC, TACCs for the WTBF quota managed species will be set for three consecutive fishing seasons in a single determination by the AFMA Commission (a multi-season TACC decision).

A multi-season TACC decision may be varied by the AFMA Commission, within the 3-year cycle, following consultation with TTRAG and TTMAC. Any variations will be implemented in the next fishing season. There could be several reasons why this may be required, including changes in the operating environment of the fishery or in order to meet Australia's obligations to IOTC.

2.3 Indicators and review cycle

2.3.1 Indicators

The following indicators are considered by the TTRAG and TTMAC to inform TACC advice for the quota managed species in the WTBF.

Indicator	Description
Catch information.	Analyses include spatial and temporal trends, catch relative to other regions (including total IOTC catch), and discards; and catch relative to the TACC. Change in catch can

Indicator	Description
	indicate changes in availability/targeting and allow identification of potential errors in the data.
Effort	Analyses include spatial and temporal trends, bait type, and gear type. This can indicate potential changes in fleet dynamics or targeting strategies and allow identification of potential errors in the data.
Size	Analyses include spatial and temporal trends, size frequency, and size class. This can indicate potential changes in targeting and patterns in recruitment.
Nominal CPUE	Analyses include temporal trends (annual, seasonal) and can give an idea of general trends in catch rates. This indicator is not indicative of abundance trends.
Stock status	A summary of IOTC assessments, including stock depletion and fishing mortality, is presented to the RAG. This gives a broad stock-wide (Indian Ocean) view of stock status and fishing pressure relative to reference points.
Stock structure	Review of any new and existing information regarding stock structure, and whether species are considered to be single or multiple stocks across the Indian Ocean.

In addition to these quantitative indicators, the RAG would also consider any management advice from the IOTC or changes to Australia's obligations to IOTC which would affect TACC advice.

2.3.2 Review cycle

During the multi-season TACC setting year, which will occur every three years, TTRAG will review all the Indicators for all quota managed species and provide advice on recommended TACCs to the TTMAC and the AFMA Commission. A reduced set of the Indicators will continue to be reviewed annually by TTRAG. The purpose of the annual Indicator review is to enable regular review of the data quality for the fishery and the detection of significant trends that may warrant further investigation, management action or alternative TACC advice. In revising the fishery data each year, any change greater than 1% will be flagged and brought to the attention of TTRAG for discussion. A summary of the indicators and their review frequency is provided in **Table 3** below.

Table 3. WTBF fishery indicators for tropical tunas and striped marlin and TTRAG review frequency.

Indicator	TACC setting year (occurs every three years)	Non-TACC setting years
Catch information. <ul style="list-style-type: none"> • Catch • Catch relative to TACC • Catch compared to IOTC total catch/allocation 	Yes	Yes
Effort	Yes	Yes
Nominal CPUE	Yes	Yes
Stock status	Yes	When available from IOTC
Stock structure	Yes	No

Consideration of IOTC management advice will occur when it becomes available from IOTC.

2.4 Implementation

TACCs for WTBF tropical tunas and striped marlin are determined by the AFMA Commission and are given effect through a legislative instrument. The implementation of this procedure is summarised below.

Under this procedure, in a:

- TACC setting year, TTRAG reviews all indicators for all species (**Table 3**) and other relevant information; and compiles a full report with their TACC advice for consideration by TTMAC and the AFMA Commission. TTMAC considers the RAG’s advice and other management issues and provides TACC advice to the AFMA Commission.
- non-TACC setting years, TTRAG considers a reduced set of indicators (**Table 3**) and considers if something has changed in the fishery that may warrant alternative TACC advice, including the operating environment of the fishery or Australia’s obligations to IOTC. TTRAG may provide TACC advice annually as required. After consideration by TTMAC, the AFMA Commission may vary the TACC Determination.

3 Review

This procedure will be reviewed periodically on an as needs basis.