



## MarinTrust Standard V2

# Whole fish Fishery Assessment Report Template

**MarinTrust Programme**

Unit C, Printworks

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**Table 1 Application details and summary of the assessment outcome**

Application details and summary of the assessment outcome			
Name: Proteins Australia Pty Ltd.			
Address: 3260 Princes Highway, Moruya			
Country: New South Wales		Zip: 2537	
Tel. No.		Fax. No.	
Email address: jeff@afflicks.com.au		Applicant Code	IFFO 200
Key Contact: Joe Rossignuolo		Title: Business Development Manager	
Certification Body Details			
Name of Certification Body:		Lloyds Register	
Assessor Name	CB Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Heri	Kate Morris	5	Surveillance
Assessment Period	2021		
Scope Details			
Management Authority (Country/State)		Australian Fisheries Management Authority (AFMA)	
Main Species		Jack Mackerel ( <i>T. declivis</i> ); Blue Mackerel ( <i>S. australasicus</i> ); Red Bait/Cape Bonnetmouth ( <i>E. nitidus</i> ); Australian Sardine ( <i>S. sagax</i> ).	
Fishery Location		FAO 81	
Gear Type(s)		Purse seine; mid-water trawl; jigging; minor	
Outcome of Assessment			
Overall Outcome		PASS	
Clauses Failed		NONE	
CB Peer Review Evaluation		Approve	
Fishery Assessment Peer Review Group Evaluation		Approve – see <a href="#">Appendix</a>	
Recommendation		PASS	

**Table 2. Assessment Determination**

Assessment Determination
<p>The Australian Fisheries Management Authority (AFMA) is the Government agency responsible for the efficient management and sustainable use of Commonwealth fish resources. Almost all stocks in the Small Pelagic Fishery (SPF) are managed by both Australian (Commonwealth) and State governments under Offshore Constitutional Settlement (OCS) arrangements.</p> <p>State Governments manage fishing from the Australian coast out to 3 nautical miles including commercial and recreational fishing. AFMA and SEMAC (South East Management Advisory Committee) jointly manage the Small Pelagic Fishery (SPF) in the assessment area. With the exception of the Australian sardine <i>S.sagax</i> each target species is assessed in two sub areas, east and west of latitude 146°30' due to evidence of stock separation in the area assessed.</p> <p>A Harvest Strategy (Quota species) adopts exploitation rates tested to provide a high probability that target stocks will be maintained, on average, at the target reference point of 50% of unfished levels (<math>B_{50}</math>), with a less than a 10% probability over 50 years of falling below limit reference point of 20% (<math>0.2B_0</math>) of unfished levels. The current Harvest Strategy (2016) is being reviewed (2019, not yet published) as part of a three-year cycle.</p> <p>All stocks in the assessment area are considered by AFMA (Jan 2019) to be not subject to overfishing (fishing mortality) and are not overfished (biomass). Jack Mackerel, Blue Mackerel and Red Bait/Cape Bonnetmouth were assessed as Category A stocks; and Australian Sardine was assessed as a Category C stock (&lt;5% of landings, subject to a species-specific management regime)</p> <p>A SFP Scientific Panel provides advice and recommendations to AFMA and SEMAC on stock status. The Panel (2019) noted that Victorian catches (Australian sardine) have still not been provided due to confidentially concerns. The issue of data sharing is becoming a concern in multiple jurisdictions for a number of jointly managed stocks.</p> <p>Jack Mackerel, Blue Mackerel, Red Bait/Cape Bonnetmouth, and Australian Sardine are not listed in the current CITES appendices of endangered species and are not listed in the current IUCN Redlist of threatened or endangered species (websites accessed 18.08.2021).</p> <p>The Species listed in this report are approved for use in the assessment area under the current MarinTrust Standard v 2.0 for whole fish.</p>
Fishery Assessment Peer Review Comments
Notes for On-site Auditor



## Table 3 General Results

General Clause	Outcome (Pass/Fail)
M1 - Management Framework	PASS
M2 - Surveillance, Control and Enforcement	PASS
F1 - Impacts on ETP Species	PASS
F2 - Impacts on Habitats	PASS
F3 - Ecosystem Impacts	PASS

## Table 4 Species- Specific Results

List all Category A and B species. List approximate total percentage (%) of landings which are Category C and D species; these do not need to be individually named here

Category	Species	% landings	Outcome (Pass/Fail)	
Category A	Jack Mackerel ( <i>T. declivis</i> )	48,6%	A1	PASS
			A2	PASS
			A3	PASS
			A4	PASS
Category A	Blue Mackerel ( <i>S. australasicus</i> )	35%	A1	PASS
			A2	PASS
			A3	PASS
			A4	PASS
Category A	Red Bait/Cape Bonnetmouth ( <i>E. nitidus</i> )	15,1%	A1	PASS
			A2	PASS
			A3	PASS
			A4	PASS
Category B				
Category C	Australian Sardine ( <i>S. sagax</i> )	1,4%	PASS	
Category D				



## MANAGEMENT

The two clauses in this section (M1, M2) relate to the general management regime applied to the fishery under assessment. The clauses should be completed by providing sufficient evidence to justify awarding each of the requirements a pass or fail rating. A fishery must meet all the minimum requirements in every clause before it can be recommended for approval.

M1	Management Framework – Minimum Requirements	
	M1.1	There is an organisation responsible for managing the fishery.
	M1.2	There is an organisation responsible for collecting data and assessing the fishery.
	M1.3	Fishery management organisations are publicly committed to sustainability.
	M1.4	Fishery management organisations are legally empowered to take management actions.
	M1.5	There is a consultation process through which fishery stakeholders are engaged in decision-making.
	M1.6	The decision-making process is transparent, with processes and results publicly available.
Clause outcome:		PASS
<p><b>M1.1 There is an organisation responsible for managing the fishery.</b></p> <p>The Australian Fisheries Management Authority (AFMA) is the Government agency responsible for the efficient management and sustainable use of Commonwealth fish resources. The South East Management Advisory Committee (SEMAC) is the overarching committee that provides management advice to AFMA.</p> <p>Stocks in the SPF are managed under a harvest strategy that has been revised several times in recent years. The review of the 2014 harvest strategy included ecosystem and population modelling. Recommendations from the review were incorporated into the current harvest strategy, which adopts a target reference point of 0.5B<sub>0</sub> (50% of the unfished biomass) and a limit reference point of 0.2B<sub>0</sub>.</p> <p>There is an organisation responsible for managing the fishery.</p> <p><b>M1.2 There is an organisation responsible for collecting data and assessing the fishery.</b></p> <p>The SPF Scientific Panel provides advice and recommendations to SEMAC and AFMA on the status of target stocks in the (SPF), harvest rates, TACs, and the impact of fishing on the marine environment. Members of the Scientific Panel consist of fisheries scientists, marine ecologists and natural resource management economists. The Panel also meets with stakeholders (Forums) at least twice a year to report findings and gather relevant information from them.</p> <p>The Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) is the science and economics research division of the Department of Agriculture. ABARES provides independent research, analysis and advice for government and private sector decision-makers. Fishery status reports published by ABARES cover 96 fish stocks across 22 fisheries. Those stocks managed by different organization with details: 65 stocks were assessed across 9 fisheries that are managed solely by AFMA on behalf of the Australian Government, and 31 stocks were assessed across 13 fisheries that are managed jointly by the Australian Government and 1 or more other Australian jurisdictions or other countries.</p> <p>From the reports the SPF stocks are stable and not subject to overfish.</p> <p>There is an organisation responsible for collecting data and assessing the fishery</p> <p><b>M1.3 Fishery management organisations are publicly committed to sustainability.</b></p> <p>The Fisheries Management Act 1991 Part 1 (Preliminary) Section 3A Principles of ecologically sustainable development gives legal empowerment to AFMA to develop sustainability objectives.</p> <p>These principles state that:</p>		

- Decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equity considerations.
- If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.
- The principle of inter-generational equity: the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations;
- The conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making;

Fishery management organisations are publicly committed to sustainability

#### **M1.4 Fishery management organisations are legally empowered to take management actions.**

AFMA Objectives (Fisheries Management Plans) are set out in Section 3 of the Fisheries Management (1991) Act as follows:

- Implementing efficient and cost-effective fisheries management on behalf of the Commonwealth;
- Ensuring that the exploitation of fisheries resources and the carrying on of any related activities are conducted in a manner consistent with the principles of ecologically sustainable development (which include the exercise of the precautionary principle), the need to have regard to the impact of fishing activities on non-target species and the long-term sustainability of the marine environment;
- Maximizing net economic returns to the Australian community from the management of Australian fisheries;
- Ensuring accountability to the fishing industry and to the Australian community in AFMA's management of fisheries resources;
- Achieving government targets in relation to the recovery of the costs of AFMA.

Fishery management organisations are legally empowered to take management actions

#### **M1.5 There is a consultation process through which fishery stakeholders are engaged in decision-making.**

AFMA Resource Assessment Groups (RAGs) and Management Advisory Committees (MACs) play a role in identifying research needs, assessing proposals and the outcomes of research, both essential stock assessment type research and other relevant management related projects. The SPF Scientific Panel is considered a RAG. AFMA's Research Committee (ARC) determines research priorities and projects for funding.

Members of Committees and Groups include AFMA fishery managers, fishing operators, scientists and researchers, State and territory governments, conservation groups and recreational fishers.

The Scientific Panel will meet "in session" the required number of times each year to consider and review relevant science and economics for the fishery; it will also meet with stakeholders at least twice a year to report its findings and gather relevant information from stakeholders.

There is a consultation process through which fishery stakeholders are engaged in decision-making.

#### **M1.6 The decision-making process is transparent, with processes and results publicly available.**

Stakeholder Forums are the main avenue to capture stakeholder views regarding science for the SPF. Forums are open to members of peak recreational fishing bodies, environmental non-government organizations (e-NGOs), indigenous groups, individual community stakeholders and commercial fishing industry members.



Amendments to the Freedom of Information Act 1982 introduced an Information Publication Scheme which requires Government agencies to publish certain information on their website (from May 2011).

Information available on AFMA's website includes:

- AFMA's organizational structure; functions and powers
- Details of statutory appointments
- AFMA's annual reports, including TAC's
- Current agency consultations
- Information AFMA routinely provides to Parliament

Documents listed as operational information, where they have not been published for downloading on AFMA's website, can be made available to members of the public by contacting AFMA's Freedom of Information Coordinator.

The decision-making process is transparent, with processes and results publicly available.

## References

- R1** Patterson, H, Larcombe, J, Woodhams, J and Curtotti, R 2020, Fishery status reports 2020, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra. CC BY 4.0. <https://doi.org/10.25814/5f447487e6749>
- R2** AFMA (Last revised April 2017) Small Pelagic Fishery Harvest Strategy June 2008 11pp  
[https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2017/04/SPF-Harvest-Strategy\\_April2017\\_FINAL.pdf](https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2017/04/SPF-Harvest-Strategy_April2017_FINAL.pdf)
- R3** Australian Fisheries Management Authority AFMA (Home page): <https://www.afma.gov.au/fisheries>
- R4** South East Management Advisory Committee (SEMAC):  
[https://www.afma.gov.au/sites/default/files/semac\\_36\\_final\\_minutes\\_-\\_signed.pdf](https://www.afma.gov.au/sites/default/files/semac_36_final_minutes_-_signed.pdf)
- R5** AFMA Commission: <https://www.afma.gov.au/about/afma-commission>
- R6** SPF Scientific Panel and Stakeholder Forum Meetings <https://www.afma.gov.au/newsmedia/news/spf-scientific-panel-and-stakeholder-forum-meetings>
- R7** Office of Parliamentary Counsel, Canberra: Fisheries Management Act 1991 No. 162, 1991 (includes amendments up to Act No 123 (2017) 460pp <https://www.legislation.gov.au/Details/C2017C00363>
- R8** Small Pelagic Fishery (SPF) Resource Assessment Group (SPFRAG):  
<https://www.afma.gov.au/sites/default/files/uploads/2015/01/March-2013-SPFRAG-meeting-minutesPDF-381-KB.pdf>

## Links

<b>MARINTRUST Standard clause</b>	1.3.1.1, 1.3.1.2
<b>FAO CCRF</b>	7.2, 7.3.1, 7.4.4, 12.3
<b>GSSI</b>	D.1.01, D.4.01, D2.01, D1.07, D1.04,

<b>M2 Surveillance, Control and Enforcement - Minimum Requirements</b>			
<b>M2</b>	<b>M2.1</b>	There is an organisation responsible for monitoring compliance with fishery laws and regulations.	YES
	<b>M2.2</b>	There is a framework of sanctions which are applied when laws and regulations are discovered to have been broken.	YES
	<b>M2.3</b>	There is no substantial evidence of widespread non-compliance in the fishery, and no substantial evidence of IUU fishing.	YES

	<b>M2.4</b> Compliance with laws and regulations is actively monitored, through a regime which may include at-sea and portside inspections, observer programmes, and VMS.	YES
Clause outcome:		PASS
<p><b>M2.1 There is an organisation responsible for monitoring compliance with fishery laws and regulations.</b></p> <p>AFMA's National Compliance and Enforcement Program is conducted via the use of a risk-based approach, which enables resources to be targeted to the areas where they are most needed.</p> <p>The main functions of the Program are:</p> <ul style="list-style-type: none"> <li>• Ensuring compliance with AFMA's domestic fisheries management measures.</li> <li>• Ensuring licensed boats comply with fishing conditions.</li> <li>• Ensuring that there are no unlicensed foreign boats operating.</li> <li>• Managing port access for foreign boats.</li> <li>• Surveillance and apprehension of foreign boats fishing illegally.</li> </ul> <p>Compliance Risk Management Teams (CRMTs) are prioritised for action (in the annual compliance program) by the Operational Management Committee (OMC). Teams are generally multi-disciplinary, and/or multi-agency with team members determined by the risk being addressed and/or the type of program proposed.</p> <p>Fisheries Officers conduct targeted inspections of Commonwealth endorsed operators. All foreign fishing boats can be inspected on arrival. All Commonwealth fishing boats are tracked via vessel monitoring systems (VMS).</p> <p>The AFMA National Compliance Operations and Enforcement Policy establishes the framework on which AFMA's Compliance and Enforcement Program is based.</p> <p>There is an organisation responsible for monitoring compliance with fishery laws and regulations</p> <p><b>M2.2 There is a framework of sanctions which are applied when laws and regulations are discovered to have been broken.</b></p> <p>Statutory Fishing Rights (SFRs) allow fishers take a percentage of the TAC that has been set for each quota species. SFR's granted under the Management Plan may be transferred, leased, surrendered or cancelled. A 28-day quota reconciliation process is in place should a quota be exceeded. Compliance actions are undertaken if a quota holder is still over quota after a 28-day period for any landing. AFMA has set an overcatch percentage of 10% for all SPF quota species on the last day of the fishing season. AFMA then deduct this amount from the Quota SFR (fisher) in the next season, provided there is enough uncaught quota SFRs to cover the overcatch.</p> <p>Part 3 (Regulation of Fishing) Division 8 (Suspension and cancellation of fishing concessions) of the Fisheries Management Act 1991 outlines conditions whereby AFMA may suspend or cancel a fishing concession with the SPF.</p> <p>Part 6 (Surveillance and Enforcement) Division 1 (Officers) of the Fisheries Management Act 1991 Section 84 (Powers of Officers) gives Officers powers of search and seizure of evidence when a commission of an offence against the Act is suspected.</p> <p>These measures (or tools) can be used in combination, separately or for types of incidents to achieve the most appropriate outcome. Sanctions may include:</p> <ul style="list-style-type: none"> <li>• Warnings, Cautions</li> </ul>		

- Commonwealth Fisheries Infringement Notices
- Amendments to fishing concession conditions
- Directions by fisheries officers e.g. to cease fishing or return to port
- Prosecution, suspension or cancellation of fishing concessions. The Commonwealth Director of Public Prosecutions (CDPP) prosecutes crimes against Commonwealth law

There is a framework of sanctions which are applied when laws and regulations are discovered to have been broken.

**M2.3 There is no substantial evidence of widespread non-compliance in the fishery, and no substantial evidence of IUU fishing.**

During the 2018-19 fishing season AFMA Fisheries Officers undertook 231 port visits, 16 sea patrols and nine aerial surveillance flights and conducted 356 boat inspections and 146 fish receiver inspections. The program saw a high level of compliance, with no further action required in 89.6 % of the inspections.

Australia combats IUU fishing through aerial surveillance, sea patrols and real-time monitoring of fishing vessels. If IUU boats are caught in Australian waters they can be seized, and the crew detained and prosecuted, and in some cases imprisoned.

AFMA has a key role in implementing several regional and international agreements and arrangements which identify the tools used to strengthen policing systems, or monitoring, control and surveillance (MCS) programs to combat IUU fishing.

The Australian National Audit Office (ANAO) conducted audits in 2008/09 and 2012/13 to assess the effectiveness of AFMA's administration of its Domestic Fishing Compliance Program. Overall, the 2012/13 audit found that AFMA has developed and implemented effective arrangements for administering its Compliance Program

**M2.4 Compliance with laws and regulations is actively monitored, through a regime which may include at-sea and portside inspections, observer programmes, and VMS.**

All vessels nominated to the SPF quota are fitted with a Vessel Monitoring System (VMS) of a category specified in the register of AFMA approved units. The VMS unit must remain always switched on that the boat is nominated to a Commonwealth concession, including when in port or engaged in State fishing. The register can be found on the AFMA website.

If the VMS is not operating or is malfunctioning the boat must remain in port until the VMS is inspected, repaired if necessary and AFMA has received confirmation from an authorised technician that the automatic location communicator (ALC) is functioning normally

AFMA, with the assistance of the NSW Water Police and Border Protection Command, also lead fisheries patrols on the East coast of Australia and outside the AFZ on high seas area of the Pacific Ocean. AFMA Fisheries Officers board and inspect fishing vessels through international fisheries management agreements to ensure that these vessels are following agreed rules and to ensure their operations do not undermine the sustainability of shared fish stocks.

Onboard Scientific Observers are employed by AFMA to independently record catch, effort and biological information of each fishing trip. Vessels in the SPF must carry an AFMA observer when requested by AFMA. Observers have no authority to direct fishing operations of the boat or act in an enforcement role. However, observers are required to report their observations. Observer coverage targets at least 10% of effort for purse seine and mid-water trawler vessels.

Compliance with laws and regulations is actively monitored, through a regime which may include at-sea and portside inspections, observer programmes, and VMS monitoring.

#### References

**R9** AFMA Annual Report 2018-2019. 227 pp.

[https://www.afma.gov.au/sites/default/files/afma\\_annual\\_report\\_201819\\_full\\_fa\\_tagged\\_final.pdf](https://www.afma.gov.au/sites/default/files/afma_annual_report_201819_full_fa_tagged_final.pdf)

**R10** AFMA National Compliance and Enforcement Program 2020-21. 35pp

[https://www.afma.gov.au/sites/default/files/final\\_ncep\\_2020-21\\_cleared.pdf](https://www.afma.gov.au/sites/default/files/final_ncep_2020-21_cleared.pdf)

**R11** Department of Agriculture 2014, Australia's Second National Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing. CC BY 3.0

<https://www.agriculture.gov.au/sites/default/files/sitecollectiondocuments/fisheries/iuu/aus-second-npoa-iuu-fishing.pdf>

**R12** Satellite monitoring of fishing boats <https://www.afma.gov.au/monitoring-enforcement/satellite-monitoring-fishing-boats>

#### Links

<b>MARINTRUST Standard clause</b>	1.3.1.3
<b>FAO CCRF</b>	7.7.2
<b>GSSI</b>	D1.09

## CATEGORY A SPECIES

The four clauses in this section apply to Category A species. Clauses A1 - A4 should be completed for **each** Category A species. If there are no Category A species in the fishery under assessment, this section can be deleted. A Category A species must meet the minimum requirements of all four clauses before it can be recommended for approval. The clauses should be completed by providing sufficient evidence to justify awarding each of the requirements a pass or fail rating. The species must achieve a pass rating against all requirements to be awarded a pass overall. **If the species fails any of these clauses it should be re-assessed as a Category B species.**

Species Name		Jack mackerel ( <i>Trachurus declivis</i> ) Eastern and Western Stocks	
A1	Data Collection - Minimum Requirements		
	A1.1	Landings data are collected such that the fishery-wide removals of this species are known.	YES
	A1.2	Sufficient additional information is collected to enable an indication of stock status to be estimated.	YES
Clause outcome:			PASS

### A1.1 Landings data are collected such that the fishery-wide removals of this species are known.

The fishing season is a 12-month season, beginning each May and is divided into two sub areas, east and west of latitude 146°30' due to evidence of separate stocks in the fishery (Figure 1):

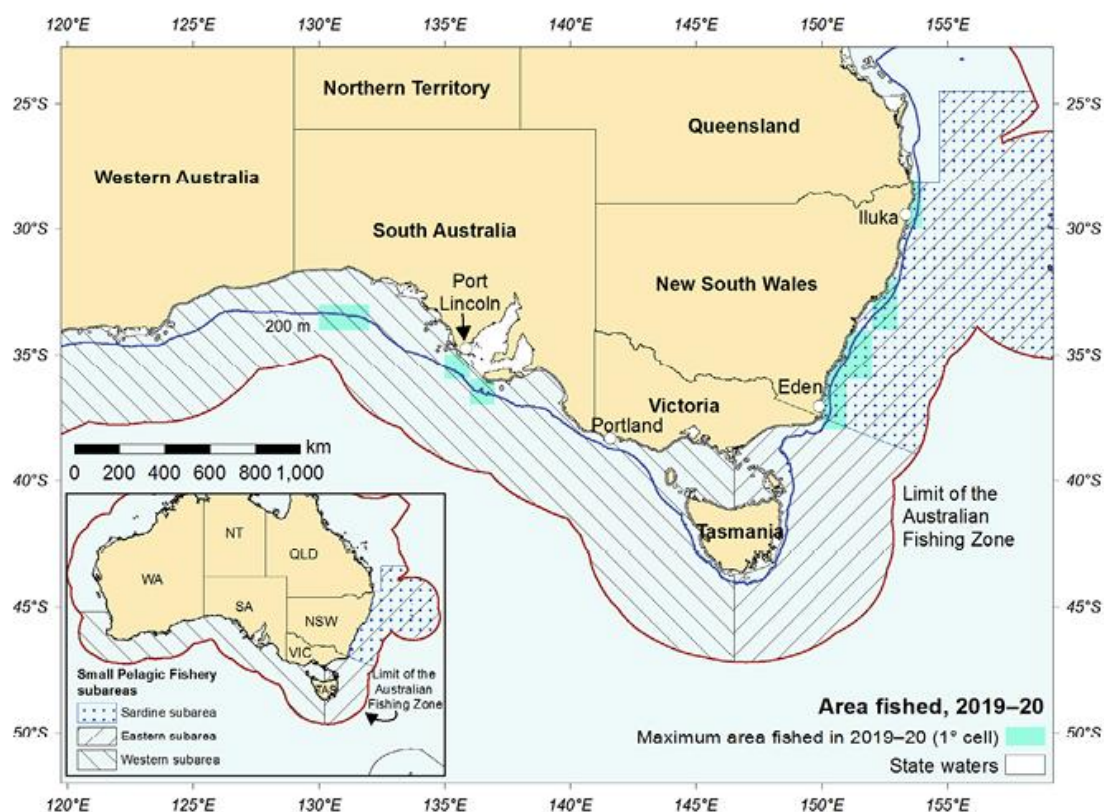
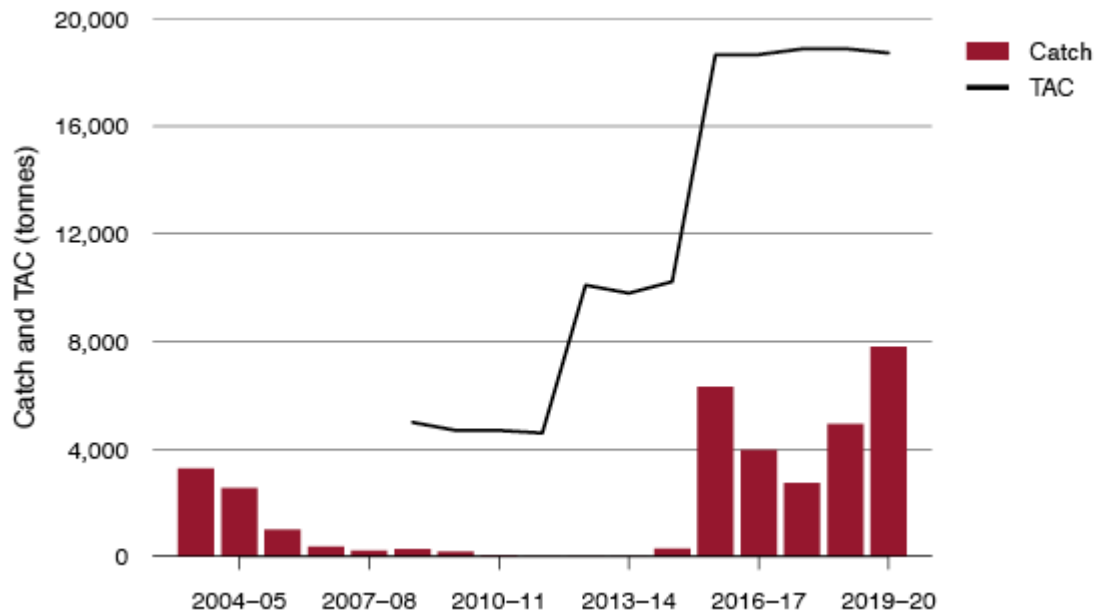


FIGURE 1: Area fished in the Small Pelagic Fishery, 2019–20 fishing season

All Commonwealth fishers must record all catch and effort details (including gear and spatial position) in their AFMA daily fishing logbooks. Catch weights are used in combination with logbook gear, effort and spatial data to inform fishery stock assessments. A Harvest Strategy Policy (HSP) makes provision for the monitoring of all fishery-dependent data (catch, effort and size/age catch structure).

#### Jack Mackerel Eastern catch:

Commonwealth catch increased to 9,873 t in 1997–98, fluctuated markedly to 2003–04 and then declined as a result of decreasing effort in the fishery. Commonwealth catch has increased, reaching 6,316 t in 2015–16, decreasing to 4,942 in 2018–19 and increasing again to 7,808 t in 2019–20 (Figure 2). State catches have been negligible in recent years. The total combined catch (Commonwealth and state) for 2018–19 was 4,947 t, comprising 4,942 t of Commonwealth catch and 5 t of state catch. Commonwealth catch for 2019–20 was 7,808 t (Figure 2). State catches are not yet available for 2019–20.



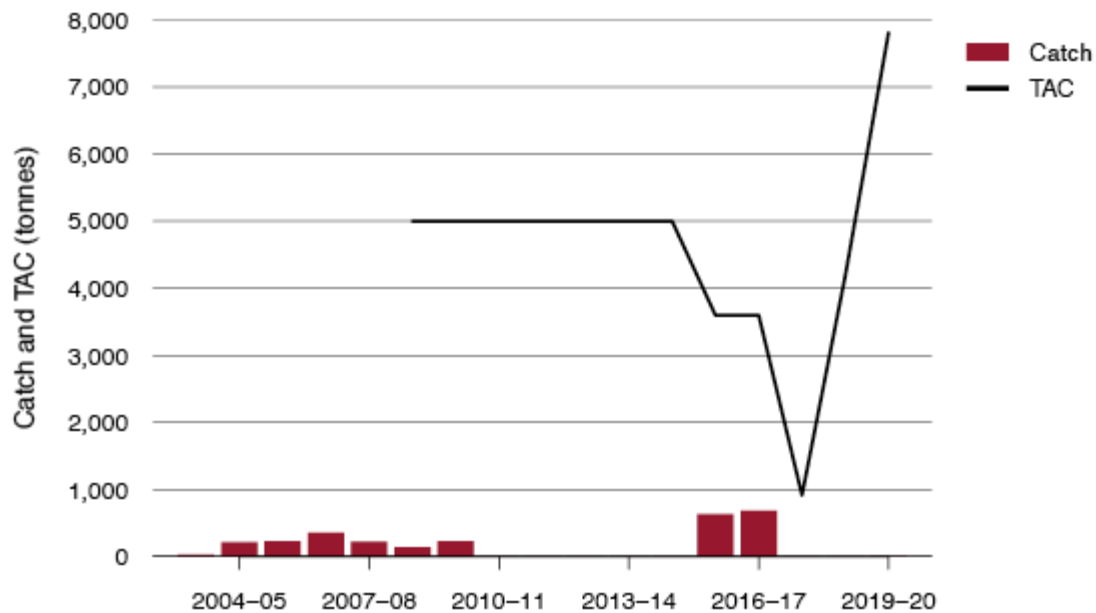
Note: **TAC** Total allowable catch.

FIGURE 2. Commonwealth eastern jack mackerel catch and TAC, 2003–04 season to 2019–20 season

#### Jack Mackerel Western catch:

Total catch (Commonwealth and state) for western jack mackerel did not exceed 250 t before 2005–06. Commonwealth catch was zero or negligible from 2011–12 to 2014–15, increasing to 634 t in 2015–16 and 686 t in 2016–17. No Commonwealth catch was reported for 2017–18 or 2018–19 (Figure 3). Commonwealth catch was 12 t for 2019–20. State catches are not available for 2019–20 and have been confidential for the preceding 4 years.





Note: TAC Total allowable catch.

FIGURE 3. Commonwealth western jack mackerel catch and TAC, 2003–04 season to 2019–20 season

Landings data are collected such that the fishery-wide removals of this species are known.

#### A1.2 Sufficient additional information is collected to enable an indication of stock status to be estimated.

Daily Egg Production Method (DEPM) surveys generate estimates of spawning stock size (SSB) based on surveys of eggs during spawning seasons. DEPM estimates are currently used as absolute estimates of stock size for the purpose of calculating Recommended Biological Catches (RBCs). TACs are then calculated by subtracting any significant known sources of mortality from RBCs. Adjustments for catches taken in other fisheries will be based on the Scientific Panel's best estimate of future catch in other fisheries. Where no DEPM surveys have been conducted, the use of an Atlantis ecosystem model to provide estimates of biomass is available.

Atlantis is an ecosystem model that provides estimates of the likely biomass of key species required to support the functioning of the modelled ecosystem. The model uses all available information on species distribution, relative abundance and dietary requirements. The SPF Harvest Strategy (HS) explicitly recognises that biomass estimates derived from the Atlantis–SPF model are more uncertain than those based on DEPMs.

#### Jack Mackerel Eastern stock:

Recent catches have been low and below the RBC calculated using an MSE-tested harvest strategy. This level of fishing mortality is unlikely to have substantially reduced spawning biomass. On this basis, the eastern jack mackerel stock is classified as not overfished and not subject to overfishing.

#### Jack Mackerel Western stock:

In years when catches have been taken, they have been below the RBC calculated using an MSE-tested harvest strategy and are a small proportion of the most recent estimate of biomass. This level of fishing mortality is unlikely to have substantially reduced spawning biomass. On this basis, the western jack mackerel stock is classified as not overfished and not subject to overfishing.

Sufficient additional information is collected to enable an indication of stock status to be estimated.

## References

- R1** Patterson, H, Larcombe, J, Woodhams, J and Curtotti, R 2020, Fishery status reports 2020, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra. CC BY 4.0. <https://doi.org/10.25814/5f447487e6749>
- R2** AFMA (Last revised April 2017) Small Pelagic Fishery Harvest Strategy June 2008 11pp  
[https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2017/04/SPF-Harvest-Strategy\\_April2017\\_FINAL.pdf](https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2017/04/SPF-Harvest-Strategy_April2017_FINAL.pdf)
- R3** Australian Fisheries Management Authority AFMA (Home page): <https://www.afma.gov.au/fisheries>
- R6** SPF Scientific Panel and Stakeholder Forum Meetings <https://www.afma.gov.au/newsmedia/news/spf-scientific-panel-and-stakeholder-forum-meetings>

## Links

MARINTRUST Standard clause	1.3.2.1.1, 1.3.2.1.2, 1.3.2.1.4, 1.3.1.2
FAO CCRF	7.3.1, 12.3
GSSI	D.4.01, D.5.01, D.6.02, D.3.14

A2 Stock Assessment - Minimum Requirements		
A2.1	A stock assessment is conducted at least once every 3 years (or every 5 years if there is substantial supporting information that this is sufficient for the long-term sustainable management of the stock), and considers all fishery removals and the biological characteristics of the species.	YES
A2.2	The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy.	YES
A2.3	The assessment provides an indication of the volume of fishery removals which is appropriate for the current stock status.	YES
A2.4	The assessment is subject to internal or external peer review.	YES
A2.5	The assessment is made publicly available.	YES
Clause outcome:		PASS
<p><b>A2.1 A stock assessment is conducted at least once every 3 years (or every 5 years if there is substantial supporting information that this is sufficient for the long-term sustainable management of the stock), and considers all fishery removals and the biological characteristics of the species.</b></p> <p>Annual fisheries assessments include updated catch and effort data from the previous fishing season in addition to length–frequency and age information from catches. Adjustments for catches taken in other fisheries are based on the SPF Scientific Panel’s best estimate of future catch in other fisheries (e.g. average of recent recorded annual catches). Information on changes in spatial and temporal patterns of effort and catch are also included in these annual assessments.</p> <p>Annual Fishery Assessments also aim to provide evidence suitable for detecting stock depletion, localised depletion or changes in the size and age structure of the catch that cannot be adequately explained by reasons other than a decline in abundance.</p> <p>A DEPM survey for Jack Mackerel (West) was conducted in 2017. On the basis of information provided, the Scientific Panel (Jan 2019) agreed that survey results (2017-19) were appropriate for setting Jack mackerel RBCs (both stocks) under the Harvest Strategy (HS) for the 2019-20 season</p> <p>A stock assessment is conducted at least once every 3 years (or every 5 years)</p>		
<p><b>A2.2 The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy.</b></p> <p>The Harvest Strategy adopts exploitation rates tested to provide a high likelihood that stocks will be maintained, on average, at the target reference point of 50 per cent of unfished levels (B50), with a less than a 10 per cent chance over 50 years of falling below the limit reference point of 20 per cent (0.2B0) of unfished levels.</p> <p>These target and limit reference levels are consistent with those established in the Commonwealth Harvest Strategy Policy, and have been shown to be ecologically sound for Australian small pelagic stocks as a result of the low dietary dependency of higher</p>		



trophic level predators in south east Australia on the targeted SPF species. The 2016 SPF Harvest Strategy (all Quota species) will be reviewed at least once every three years.

The B50 reference point represents a trade-off of an optimal economic reference point for an ecologically conservative reference point. This is because economic research has found that BMEY is equal to BMSY for SPF stocks and BMSY for these stocks is estimated to be between B30 and B36. Given these BMSY levels are uncertain and the ecosystem in southern and eastern Australia is not highly dependent on these species, the higher target of B50 is considered safe from an ecological perspective. Exploitation rates applied are maximum limits only; lower harvest rates may be recommended.

The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy

### **A2.3 The assessment provides an indication of the volume of fishery removals which is appropriate for the current stock status.**

#### **Jack mackerel East:**

The most recent egg survey for eastern jack mackerel available for the (then) SPF Scientific Panel to use when setting an RBC was conducted off eastern Australia in January 2014 (Ward et al. 2015b), and a spawning biomass of 157,805 t (95% CI 59,570–358,731 t) was estimated using the DEPM. An egg survey for eastern jack mackerel in January and February 2019 produced a biomass estimate of 156,292 t (AFMA 2019c). However, these results were not available when developing an RBC or for AFMA to set a TAC in 2019–20; they were used to inform the 2020–21 TAC.

An MSE in 2015 suggested linking harvest strategy settings to the productivity of the species (Smith et al. 2015). For eastern jack mackerel, it was suggested that tier 1 harvest rates should be set at 12%, that tier 2 harvest rates should be set at 50% of tier 1, and that neither should be applied for longer than 5 years. Additional testing in 2016 was also used to assess harvest rates and target reference points (Pascoe & Hillary 2016; Punt, Little & Hillary 2016). A tier 1 harvest rate of 12% was formally adopted in the 2017 SPF harvest strategy. The SPF Scientific Panel used the 2014 DEPM-based biomass estimate to recommend a 2019–20 RBC of 18,937 t, using tier 1 of the 2017 harvest strategy (AFMA 2019d). The AFMA Commission agreed to a TAC of 18,730 t.

Recent catches have been low and below the RBC calculated using an MSE-tested harvest strategy. This level of fishing mortality is unlikely to have substantially reduced spawning biomass. On this basis, the eastern jack mackerel stock is classified as not overfished and not subject to overfishing.

#### **Jack mackerel West:**

Between December 2016 and February 2017, western jack mackerel was surveyed to estimate biomass using the DEPM (Ward et al. 2018). Biomass was estimated in a core area and an extended area (into Bass Strait) after opportunistic sampling. Because the extended area showed extensive spawning in Bass Strait, it was included in the biomass estimate, but with a caveat that it is underestimated because the area was not extensively sampled. Biomass was initially estimated at 34,978 t (AFMA 2017d) but was revised down to 31,069 t (Ward et al. 2018).

The 2015 MSE suggested linking harvest strategy settings to the productivity of the species (Smith et al. 2015). For western jack mackerel, it was suggested that tier 1 harvest rates should be set at 12%, that tier 2 harvest rates should be set at 50% of tier 1, and that neither should be applied for longer than 5 years. Because information on life history and productivity for western jack mackerel is limited, data from eastern jack mackerel were used in the MSE instead, which may compromise the model outputs for the stock. A tier 1 harvest rate of 12% was formally adopted in the 2017 SPF harvest strategy.

The SPF Scientific Panel recommended a 2019–20 RBC of 4,197 t, using the initial biomass estimate and tier 1 of the 2017 harvest strategy (AFMA 2019d). After factoring in state catches, the AFMA Commission agreed to a TAC of 4,200 t.

In years when catches have been taken, they have been below the RBC calculated using an MSE-tested harvest strategy and are a small proportion of the most recent estimate of biomass. This level of fishing mortality is unlikely to have substantially reduced spawning biomass. On this basis, the western jack mackerel stock is classified as not overfished and not subject to overfishing.

The assessment provides an indication of the volume of fishery removals which is appropriate for the current stock status.

#### A2.4 The assessment is subject to internal or external peer review.

The SPF Scientific Panel last met in January 2019 in order to peer review scientific and economic data provided by ABARES and in turn provide advice to SEMAC and AFMA (Commission). During the 2019 meeting the Panel noted that no issues were raised at the Stakeholder forum regarding annual assessments of SPF Stocks including Jack mackerel and RBC advice. The Panel confirmed its previous recommendations for RBCs, based on the 2017 SPF Harvest Strategy and DEPM Survey results

The assessment is subject to internal or external peer review.

#### A2.5 The assessment is made publicly available.

Minutes of annual meetings of the SPF Scientific Panel summarise findings of stock assessment studies and list agreed RBC's and SSB's for each managed stock on their website. Detailed information on stock assessments is available on request through the Freedom of Information Act.

Fishery status reports published by the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) provide independent assessments of the biological status of fish stocks including Jack mackerel and the economic status of fisheries managed, or jointly managed, by the Australian Government (Commonwealth fisheries). ABARES uses data and information sourced from AFMA and Regional Fisheries Management Organisations (RFMO's). Fishery status reports are published annually on the ABARES website.

#### References

- R1** Patterson, H, Larcombe, J, Woodhams, J and Curtotti, R 2020, Fishery status reports 2020, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra. CC BY 4.0. <https://doi.org/10.25814/5f447487e6749>
- R2** AFMA (Last revised April 2017) Small Pelagic Fishery Harvest Strategy June 2008 11pp  
[https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2017/04/SPF-Harvest-Strategy\\_April2017\\_FINAL.pdf](https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2017/04/SPF-Harvest-Strategy_April2017_FINAL.pdf)
- R3** Australian Fisheries Management Authority AFMA (Home page): <https://www.afma.gov.au/fisheries>
- R6** SPF Scientific Panel and Stakeholder Forum Meetings <https://www.afma.gov.au/newsmedia/news/spf-scientific-panel-and-stakeholder-forum-meetings>
- R8** Small Pelagic Fishery (SPF) Resource Assessment Group (SPFRAG):  
<https://www.afma.gov.au/sites/default/files/uploads/2015/01/March-2013-SPFRAG-meeting-minutesPDF-381-KB.pdf>
- R13:** A Moore and D Mobsby (2017) Department of Agriculture and Water Resources Fishery Status Reports Chapter 7: Small Pelagic Fishery Status Reports (2017) <http://www.agriculture.gov.au/abares/research-topics/fisheries/fishery-status/small-pelagic>
- R14:** AFMA (March 2018) Fisheries Management (Small Pelagic Fishery Total Allowable Catch – Quota Species) Fishing Capacity Determination 2018 4pp <https://www.legislation.gov.au/Details/F2018L00337>
- R15:** Small Pelagic Fishery Scientific Panel (the Panel) Meeting Minutes (Jan 2018)  
[https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2018/02/DRAFT-SPF-meeting-minutes\\_22-January\\_FINAL.pdf](https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2018/02/DRAFT-SPF-meeting-minutes_22-January_FINAL.pdf)

#### Links

MARINTRUST Standard clause	1.3.2.1.2, 1.3.2.1.4, 1.3.1.2
FAO CCRF	12.3
GSSI	D.5.01, D.6.02, D.3.14

A3	Harvest Strategy - Minimum Requirements	
	A3.1	There is a mechanism in place by which total fishing mortality of this species is restricted.
		YES

	<b>A3.2</b>	Total fishery removals of this species do not regularly exceed the level indicated or stated in the stock assessment. Where a specific quantity of removals is recommended, the actual removals may exceed this by up to 10% ONLY if the stock status is above the limit reference point or proxy.	YES
	<b>A3.3</b>	Commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point or proxy (small quotas for research or non-target catch of the species in other fisheries are permissible).	YES
Clause outcome:			PASS
<p><b>A3.1 There is a mechanism in place by which total fishing mortality of this species is restricted.</b></p> <p>The Harvest Strategy (HS) applies harvest control rules to available biomass estimates (from Daily Egg Production Method (DEPM) surveys) to determine a Recommended Biological Catch (RBC) for each quota species. Other sources of mortality are then applied to RBCs to derive the total allowable catch (TAC) recommendations by AFMA's Commission.</p> <p>A Harvest Strategy Policy (HSP) adopts exploitation rates (see below) to maintain spawning stock biomass (SSB), on average, at the target reference point of 50% of unfished levels and achieve a less than 10% chance over a 50year period of the SSB falling below limit reference point (LRP) of 20% of unfished levels (0.2B0). Recent catches of a number of SPF stocks have been limited by economic constraints.</p> <p>Target and limit reference levels are consistent with those established in the Harvest Control Plan (HCP) and have been shown to be ecologically sound for small pelagic stocks including Jack mackerel as a result of low dietary dependency of higher trophic level predators in south east Australia on targeted SPF species.</p> <p>There is a mechanism in place by which total fishing mortality of this species is restricted.</p> <p><b>A3.2 Total fishery removals of this species do not regularly exceed the level indicated or stated in the stock assessment. Where a specific quantity of removals is recommended, the actual removals may exceed this by up to 10% ONLY if the stock status is above the limit reference point or proxy.</b></p> <p><b>Jack mackerel East:</b></p> <p>Commonwealth catch increased to 9,873 t in 1997–98, fluctuated markedly to 2003–04 and then declined as a result of decreasing effort in the fishery. Commonwealth catch has increased, reaching 6,316 t in 2015–16, decreasing to 4,942 in 2018–19 and increasing again to 7,808 t in 2019–20 (Figure 2). State catches have been negligible in recent years. The total combined catch (Commonwealth and state) for 2018–19 was 4,947 t, comprising 4,942 t of Commonwealth catch and 5 t of state catch. Commonwealth catch for 2019–20 was 7,808 t (Figure 2)</p> <p><b>Jack mackerel West:</b></p> <p>Total catch (Commonwealth and state) for western jack mackerel did not exceed 250 t before 2005–06. Commonwealth catch was zero or negligible from 2011–12 to 2014–15, increasing to 634 t in 2015–16 and 686 t in 2016–17. No Commonwealth catch was reported for 2017–18 or 2018–19 (Figure 7.7). Commonwealth catch was 12 t for 2019–20. State catches are not available for 2019–20 and have been confidential for the preceding 4 years.</p> <p>AFMA has set an overcatch percentage for all SPF quota species on the last day of the fishing season. Up to 10% over a quota for each species in one fishing season can be landed without penalty. AFMA will then deduct this amount from quota holdings in the next season, provided enough uncaught quota SFRs in the next season is present to cover the overcatch. Catches have never exceeded the allocated TAC's. Total fishery removals of this species do not regularly exceed the level indicated or stated in the stock assessment.</p>			

Total fishery removals of this species do not regularly exceed the level indicated or stated in the stock assessment. Where a specific quantity of removals is recommended, the actual removals may exceed this by up to 10% ONLY if the stock status is above the limit reference point or proxy.

**A3.3 Commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point or proxy (small quotas for research or non-target catch of the species in other fisheries are permissible).**

The National Compliance and Enforcement Program is conducted via the use of a risk-based approach, which enables AFMA's resources to be targeted to areas where they are most needed and where they will prove most effective. Features of the programme include ensuring compliance with AFMA's domestic fisheries management measures. Fisheries Officers conduct targeted inspections of Commonwealth endorsed operators. All Commonwealth fishing boats are tracked via satellite – to vessel monitoring systems. Catch monitoring includes electronic logbooks, a Catch Documentation Scheme, electronic monitoring, logbooks, observers, audits and inspections.

AFMA enforces the provisions of the Fisheries Management Act 1991, Torres Strait Fisheries Act 1984 and the Maritime Powers Act 2013; including the power to close a fishery should the stock be estimated to be below the limit reference point or proxy. To date this has not happened for the Jack mackerel stock.

Commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point or proxy (small quotas for research or non-target catch of the species in other fisheries are permissible).

#### References

- R1** Patterson, H, Larcombe, J, Woodhams, J and Curtotti, R 2020, Fishery status reports 2020, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra. CC BY 4.0. <https://doi.org/10.25814/5f447487e6749>
- R2** AFMA (Last revised April 2017) Small Pelagic Fishery Harvest Strategy June 2008 11pp  
[https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2017/04/SPF-Harvest-Strategy\\_April2017\\_FINAL.pdf](https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2017/04/SPF-Harvest-Strategy_April2017_FINAL.pdf)
- R3** Australian Fisheries Management Authority AFMA (Home page): <https://www.afma.gov.au/fisheries>
- R8** Small Pelagic Fishery (SPF) Resource Assessment Group (SPFRAG):  
<https://www.afma.gov.au/sites/default/files/uploads/2015/01/March-2013-SPFRAG-meeting-minutesPDF-381-KB.pdf>
- R9** AFMA Annual Report 2018-2019. 227 pp.  
[https://www.afma.gov.au/sites/default/files/afma\\_annual\\_report\\_201819\\_full\\_fa\\_tagged\\_final.pdf](https://www.afma.gov.au/sites/default/files/afma_annual_report_201819_full_fa_tagged_final.pdf)
- R10** AFMA National Compliance and Enforcement Program 2020-21. 35pp  
[https://www.afma.gov.au/sites/default/files/final\\_ncep\\_2020-21\\_cleared.pdf](https://www.afma.gov.au/sites/default/files/final_ncep_2020-21_cleared.pdf)
- R11** Department of Agriculture 2014, Australia's Second National Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing. CC BY 3.0  
<https://www.agriculture.gov.au/sites/default/files/sitecollectiondocuments/fisheries/iuu/aus-second-npoa-iuu-fishing.pdf>
- R12** Satellite monitoring of fishing boats <https://www.afma.gov.au/monitoring-enforcement/satellite-monitoring-fishing-boats>
- R13:** A Moore and D Mobsby (2017) Department of Agriculture and Water Resources Fishery Status Reports Chapter 7: Small Pelagic Fishery Status Reports (2017) <http://www.agriculture.gov.au/abares/research-topics/fisheries/fishery-status/small-pelagic>
- R14:** AFMA (March 2018) Fisheries Management (Small Pelagic Fishery Total Allowable Catch – Quota Species) Fishing Capacity Determination 2018 4pp <https://www.legislation.gov.au/Details/F2018L00337>

Standard clause 1.3.2.1.3

#### Links

<b>MARINTRUST Standard clause</b>	1.3.2.1.3, 1.3.2.1.4
<b>FAO CCRF</b>	7.2.1, 7.22 (e), 7.5.3
<b>GSSI</b>	D3.04, D6.01

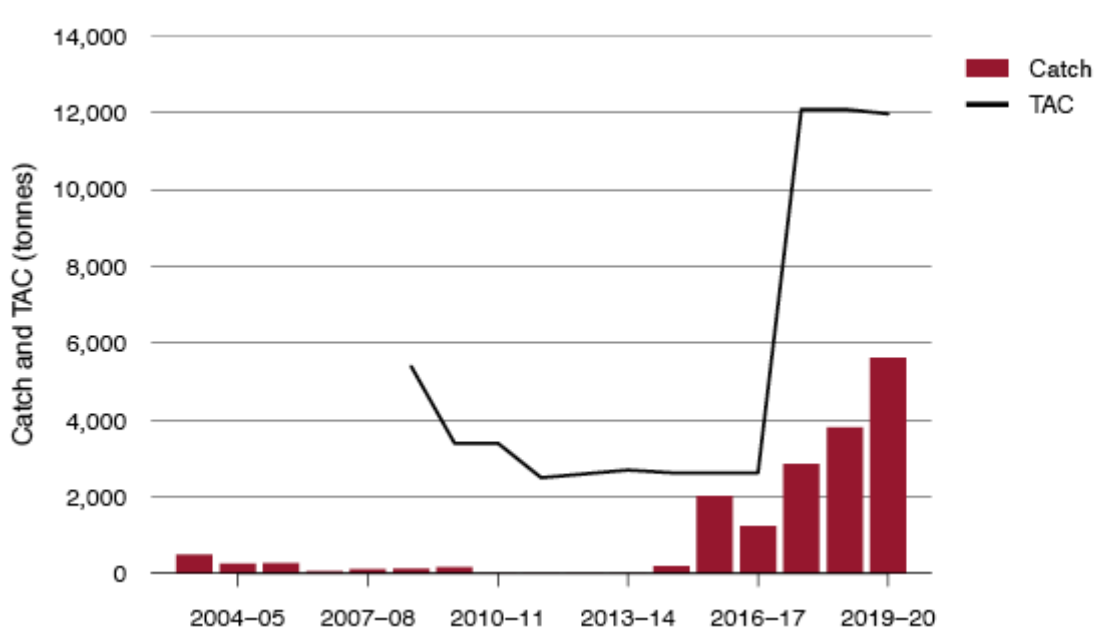
A4 Stock Status - Minimum Requirements		
A4.1	The stock is at or above the target reference point, OR IF NOT:	YES
	The stock is above the limit reference point or proxy and there is evidence that a fall below the limit reference point would result in fishery closure OR IF NOT:	
	The stock is estimated to be below the limit reference point or proxy, but fishery removals are prohibited.	
Clause outcome:		PASS
<p><b>A4.1 The stock is at or above the target reference point, OR IF NOT:</b></p> <p><b>The stock is above the limit reference point or proxy and there is evidence that a fall below the limit reference point would result in fishery closure OR IF NOT:</b></p> <p><b>The stock is estimated to be below the limit reference point or proxy, but fishery removals are prohibited.</b></p> <p><b>Jack mackerel East:</b></p> <p>Peak harvest during the past 30 years in this fishery was 4% of SSB, with most catches far below this. This level of fishing mortality is unlikely to have substantially reduced SSB. Current fishing mortality remains a small proportion of biomass and below previous RBC's</p> <p>The Scientific Panel (2019) concluded that the stock was not subject to overfishing (fishing mortality) and not overfished (biomass).</p> <p><b>Jack mackerel West:</b></p> <p>As there is a DEPM survey now available for the Jack Mackerel West stock, this species moves to Tier 1 harvest rate (12%) under the Harvest Strategy. The peak harvest from this fishery was less than 1% of SSB, catches have been low as a proportion of estimated biomass. This level of fishing mortality is unlikely to have substantially reduced SSB.</p> <p>The Scientific Panel (2019) concluded that the stock was not subject to overfishing (fishing mortality) and not overfished (biomass)</p>		
<p><b>References</b></p> <p><b>R1</b> Patterson, H, Larcombe, J, Woodhams, J and Curtotti, R 2020, Fishery status reports 2020, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra. CC BY 4.0. <a href="https://doi.org/10.25814/5f447487e6749">https://doi.org/10.25814/5f447487e6749</a></p> <p><b>R2</b> AFMA (Last revised April 2017) Small Pelagic Fishery Harvest Strategy June 2008 11pp <a href="https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2017/04/SPF-Harvest-Strategy_April2017_FINAL.pdf">https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2017/04/SPF-Harvest-Strategy_April2017_FINAL.pdf</a></p> <p><b>R3</b> Australian Fisheries Management Authority AFMA (Home page): <a href="https://www.afma.gov.au/fisheries">https://www.afma.gov.au/fisheries</a></p> <p><b>R6</b> SPF Scientific Panel and Stakeholder Forum Meetings <a href="https://www.afma.gov.au/newsmedia/news/spf-scientific-panel-and-stakeholder-forum-meetings">https://www.afma.gov.au/newsmedia/news/spf-scientific-panel-and-stakeholder-forum-meetings</a></p> <p><b>R8</b> Small Pelagic Fishery (SPF) Resource Assessment Group (SPFRAG): <a href="https://www.afma.gov.au/sites/default/files/uploads/2015/01/March-2013-SPFRAG-meeting-minutesPDF-381-KB.pdf">https://www.afma.gov.au/sites/default/files/uploads/2015/01/March-2013-SPFRAG-meeting-minutesPDF-381-KB.pdf</a></p> <p><b>R9</b> AFMA Annual Report 2018-2019. 227 pp. <a href="https://www.afma.gov.au/sites/default/files/afma_annual_report_201819_full_fa_tagged_final.pdf">https://www.afma.gov.au/sites/default/files/afma_annual_report_201819_full_fa_tagged_final.pdf</a></p>		
<b>Links</b>		
MARINTRUST Standard clause		1.3.2.1.4
FAO CCRF		7.2.1, 7.2.2 (e)
GSSI		D6 01

Species Name		Blue Mackerel <i>Scomber australasicus</i>	
A1	Data Collection - Minimum Requirements		
	A1.1	Landings data are collected such that the fishery-wide removals of this species are known.	YES
	A1.2	Sufficient additional information is collected to enable an indication of stock status to be estimated.	YES
Clause outcome:			PASS

A1.1 Landings data are collected such that the fishery-wide removals of this species are known.

**Blue Mackerel East:**

Most of the eastern blue mackerel catch has historically been taken in state fisheries. However, Commonwealth catch began exceeding state catch in 2015–16 and continues to be higher. Total combined catch in 2018–19 was 4,265 t, comprising 3,811 t from the Commonwealth and 454 t from state fisheries. Commonwealth catch increased to 5,617 t in 2019–20 (Figure 4). State catches for the season are not yet available.



Season	Catch (tonnes)	TAC (tonnes)
2004–05	500	
2005–06	300	
2006–07	300	
2007–08	200	
2008–09	200	
2009–10	200	
2010–11	200	5,000
2011–12	200	3,500
2012–13	200	3,500
2013–14	200	2,500
2014–15	200	2,500
2015–16	2,000	2,500
2016–17	1,500	12,000
2017–18	3,000	12,000
2018–19	4,000	12,000
2019–20	5,617	12,000

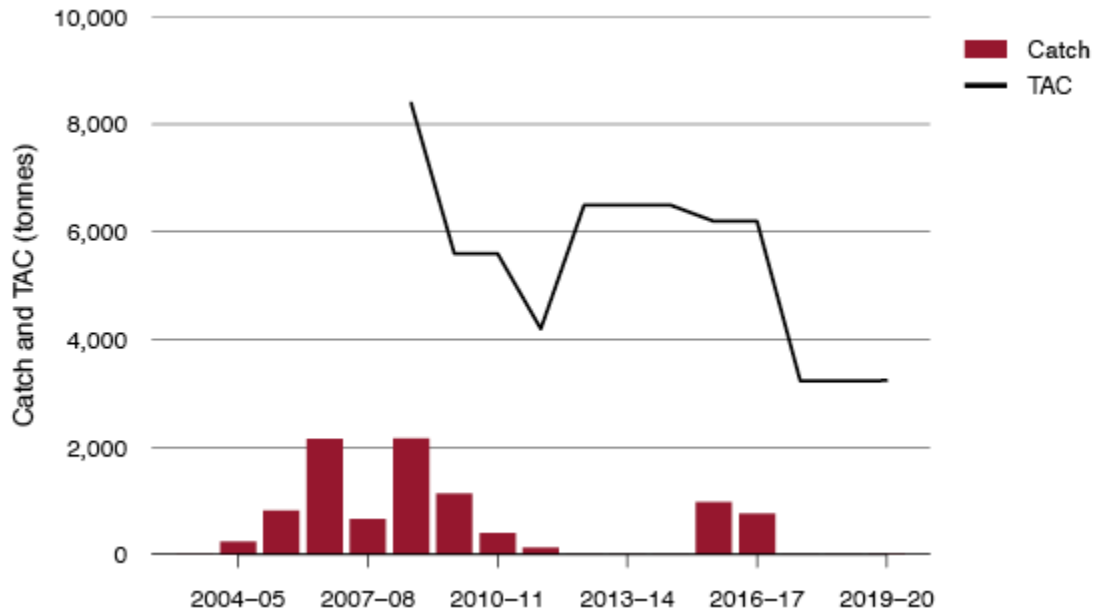
Note: **TAC** Total allowable catch

FIGURE 4 Commonwealth eastern blue mackerel catch and TAC, 2003–04 season to 2019–20 season

**Blue Mackerel West:**

Very little western blue mackerel was caught before 2004–05. Total Commonwealth-landed catch increased in 2005–06, peaked in 2008–09 at 2,164 t and decreased steadily thereafter. Catch was negligible between 2011–12 and 2014–15 in both the Commonwealth and state fisheries. No Commonwealth catch was reported in 2017–18 or 2018–19. Commonwealth catch for 2019–20 was 9 t (Figure 5), state catches have been either negligible or confidential in recent years.





Note: **TAC** Total allowable catch.

FIGURE 5 Commonwealth western blue mackerel catch and TAC, 2003–04 season to 2019–20 season

Landings data are collected such that the fishery-wide removals of this species are known

**A1.2 Sufficient additional information is collected to enable an indication of stock status to be estimated.**

#### Blue Mackerel East:

Recent catches have been below the RBC calculated using an MSE-tested harvest strategy and are a small proportion of the most recent estimate of biomass (5.1% in 2018–19, including state catches, and 6.7% in 2019–20, not including state catches). This level of fishing mortality is unlikely to have substantially reduced spawning biomass. On this basis, the eastern blue mackerel stock is classified as not overfished and not subject to overfishing.

#### Blue Mackerel West:

Recent catches have been below the RBC calculated using an MSE-tested harvest strategy and are a small proportion of the most recent estimate of biomass. Although the 2005 biomass estimate is dated, the level of fishing mortality in any year is unlikely to have substantially reduced spawning biomass. On this basis, the western blue mackerel stock is classified as not overfished and not subject to overfishing.

Sufficient additional information is collected to enable an indication of stock status to be estimated

#### References

- R1** Patterson, H, Larcombe, J, Woodhams, J and Curtotti, R 2020, Fishery status reports 2020, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra. CC BY 4.0. <https://doi.org/10.25814/5f447487e6749>
- R2** AFMA (Last revised April 2017) Small Pelagic Fishery Harvest Strategy June 2008 11pp  
[https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2017/04/SPF-Harvest-Strategy\\_April2017\\_FINAL.pdf](https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2017/04/SPF-Harvest-Strategy_April2017_FINAL.pdf)
- R3** Australian Fisheries Management Authority AFMA (Home page): <https://www.afma.gov.au/fisheries>

**R6** SPF Scientific Panel and Stakeholder Forum Meetings <https://www.afma.gov.au/newsmedia/news/spf-scientific-panel-and-stakeholder-forum-meetings>

**Links**

<b>MARINTRUST Standard clause</b>	1.3.2.1.1, 1.3.2.1.2, 1.3.2.1.4, 1.3.1.2
<b>FAO CCRF</b>	7.3.1, 12.3
<b>GSSI</b>	D.4.01, D.5.01, D.6.02, D.3.14

<b>A2</b>	<b>Stock Assessment - Minimum Requirements</b>		
	<b>A2.1</b>	A stock assessment is conducted at least once every 3 years (or every 5 years if there is substantial supporting information that this is sufficient for the long-term sustainable management of the stock), and considers all fishery removals and the biological characteristics of the species.	YES
	<b>A2.2</b>	The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy.	YES
	<b>A2.3</b>	The assessment provides an indication of the volume of fishery removals which is appropriate for the current stock status.	YES
	<b>A2.4</b>	The assessment is subject to internal or external peer review.	YES
	<b>A2.5</b>	The assessment is made publicly available.	YES
<b>Clause outcome:</b>			PASS
<b>A2.1 A stock assessment is conducted at least once every 3 years (or every 5 years if there is substantial supporting information that this is sufficient for the long-term sustainable management of the stock), and considers all fishery removals and the biological characteristics of the species.</b>			
<p>Egg surveys for the eastern stock of blue mackerel (and Australian sardine) were conducted in August–September 2014. For eastern blue mackerel, the DEPM-based estimate of spawning biomass was 83,300 t (95% CI 35,100–165,000 t) (Ward et al. 2015a). However, because samples of adult blue mackerel were not collected during the egg survey, reproductive parameters of adult blue mackerel taken from previous egg surveys off southern Australia between 2001 and 2006 were used. Ward et al. (2015a) therefore suggest that their estimate of spawning biomass be treated with caution.</p> <p>Although the 2014 DEPM-based biomass estimate was available for use for both the 2015–16 and 2016–17 seasons, results from the previous DEPM-based biomass estimate (Ward et al. 2007) were used. This was to allow for additional testing (including MSE) of the SPF harvest strategy in use at that time (Pascoe &amp; Hillary 2016; Punt, Little &amp; Hillary 2016). The SPF Scientific Panel used the 2014 DEPM estimate for the first time in 2017 to recommend an RBC. Results from an egg survey in 2019 are expected to be used when the TAC is set for 2021–22.</p> <p>The 2015 MSE suggested linking harvest strategy settings to the productivity of the species (Smith et al. 2015). For blue mackerel, it was suggested that tier 1 harvest rates could be increased from 15% to 23%, that tier 2 harvest rates should be set at 50% of tier 1, and that neither should be applied for longer than 5 years. Smith et al. (2015) noted that there was some concern around the level of risk for breaching the <math>B_{20}</math> limit reference point if regular egg surveys were not conducted. There was also some concern about the age structure and reproductive biology parameters available for use in the MSE (AFMA 2015b). As a result, a tier 1 harvest rate of 15% was formally retained in the 2017 SPF harvest strategy.</p> <p>Because of the age of the DEPM-based biomass estimate, the 2019–20 season was treated as season 4 of 5 at tier 1, despite it only being the third season that tier 1 had been used. The tier 1 exploitation rate of 15% equates to an RBC of 12,495 t. After factoring in state catches, the AFMA Commission agreed to a TAC of 11,970 t.</p> <p>A stock assessment is conducted at least once every 3 years (or every 5 years if there is substantial supporting information that this is sufficient for the long-term sustainable management of the stock), and considers all fishery removals and the biological characteristics of the species</p>			



## **A2.2 The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy.**

### **Blue mackerel East:**

While there is uncertainty associated with adult parameters used in the DEPM, the 2014 DEPM survey biomass estimates were deemed appropriate by the Panel to be used as the basis for providing RBC advice and 2019-2020 TAC's. Reference points are set as a % of B<sub>0</sub>.

### **Blue mackerel West:**

The Panel confirmed its previous support of the SPFRAG approach which adopted biomass estimates based on the results of two surveys (2005, 2006) that covered most of the western spawning area.

The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy.

## **A2.3 The assessment provides an indication of the volume of fishery removals which is appropriate for the current stock status.**

### **Blue mackerel East:**

Because of the age of the DEPM-based biomass estimate, the 2019–20 season was treated as season 4 of 5 at tier 1, despite it only being the third season that tier 1 had been used. The tier 1 exploitation rate of 15% equates to an RBC of 12,495 t. After factoring in state catches, the AFMA Commission agreed to a TAC of 11,970 t.

### **Blue mackerel West:**

An egg survey for western blue mackerel was completed in 2005, and a spawning biomass of 56,228 t (95% CI 10,993–293,456 t) was estimated using the DEPM. However, the SPF Resource Assessment Group considered this to be too low and adjusted the estimate to 86,500 t.

The 2015 MSE suggested linking harvest strategy settings to the productivity of the species (Smith et al. 2015). For western blue mackerel, it was suggested that tier 1 harvest rates should be set at 23%, that tier 2 harvest rates should be set at 50% of tier 1, and that neither should be applied for longer than 5 years. Smith et al. (2015) noted that there was some concern around the level of risk for breaching the B<sub>20</sub> limit reference point if regular egg surveys were not conducted, and so lower harvest rates were adopted (starting at 15% for tier 1) in the 2017 SPF harvest strategy.

Tier 3 of the 2017 harvest strategy (a harvest rate of 50% of tier 2) was used to recommend a 2019–20 RBC of 3,243 t. This was the third season that tier 3 was used to set an RBC for western blue mackerel. After factoring in state catches, the AFMA Commission agreed to a TAC of 3,240 t.

The assessment provides an indication of the volume of fishery removals which is appropriate for the current stock status.

## **A2.4 The assessment is subject to internal or external peer review.**

The SPF Panel met (January 2019) in order to peer review scientific and economic data from ABARES and provide advice to SEMAC and AFMA (Commission). During the meeting the Panel noted that no issues were raised at the Stakeholder forum regarding the annual assessment of SPF Stocks and RBC advice including advice for Blue mackerel. The Panel confirmed its previous recommendations for RBCs, based on the 2017 SPF Harvest Strategy and DEPM Survey results for the stocks.

The assessment is subject to internal or external peer review.

## **A2.5 The assessment is made publicly available.**

Minutes of annual meetings of the Scientific Panel summarise findings of stock assessment studies and list agreed RBC's and SSB's for each managed stock on their website. Detailed information on stock assessments is available on request through the Freedom of Information Act.

Fishery status reports published by the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) provide independent assessments of the biological status of fish stocks and the economic status of fisheries managed, or jointly managed, by the Australian Government (Commonwealth fisheries). ABARES uses data and information sourced from AFMA and Regional Fisheries Management Organisations (RFMO's). Fishery status reports are published annually on the ABARES website.

Assessments are subject to peer review and are made publically available

## References

- R1** Patterson, H, Larcombe, J, Woodhams, J and Curtotti, R 2020, Fishery status reports 2020, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra. CC BY 4.0. <https://doi.org/10.25814/5f447487e6749>
- R2** AFMA (Last revised April 2017) Small Pelagic Fishery Harvest Strategy June 2008 11pp  
[https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2017/04/SPF-Harvest-Strategy\\_April2017\\_FINAL.pdf](https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2017/04/SPF-Harvest-Strategy_April2017_FINAL.pdf)
- R3** Australian Fisheries Management Authority AFMA (Home page): <https://www.afma.gov.au/fisheries>
- R6** SPF Scientific Panel and Stakeholder Forum Meetings <https://www.afma.gov.au/newsmedia/news/spf-scientific-panel-and-stakeholder-forum-meetings>
- R8** Small Pelagic Fishery (SPF) Resource Assessment Group (SPFRAG):  
<https://www.afma.gov.au/sites/default/files/uploads/2015/01/March-2013-SPFRAG-meeting-minutesPDF-381-KB.pdf>
- R13:** A Moore and D Mobsby (2017) Department of Agriculture and Water Resources Fishery Status Reports Chapter 7: Small Pelagic Fishery Status Reports (2017) <http://www.agriculture.gov.au/abares/research-topics/fisheries/fishery-status/small-pelagic>
- R14:** AFMA (March 2018) Fisheries Management (Small Pelagic Fishery Total Allowable Catch – Quota Species) Fishing Capacity Determination 2018 4pp <https://www.legislation.gov.au/Details/F2018L00337>
- R15:** Small Pelagic Fishery Scientific Panel (the Panel) Meeting Minutes (Jan 2018)  
[https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2018/02/DRAFT-SPF-meeting-minutes\\_22-January\\_FINAL.pdf](https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2018/02/DRAFT-SPF-meeting-minutes_22-January_FINAL.pdf)

## Links

<b>MARINTRUST Standard clause</b>	1.3.2.1.2, 1.3.2.1.4, 1.3.1.2
<b>FAO CCRF</b>	12.3
<b>GSSI</b>	D.5.01, D.6.02, D.3.14

<b>A3 Harvest Strategy - Minimum Requirements</b>			
<b>A3</b>	<b>A3.1</b>	There is a mechanism in place by which total fishing mortality of this species is restricted.	YES
	<b>A3.2</b>	Total fishery removals of this species do not regularly exceed the level indicated or stated in the stock assessment. Where a specific quantity of removals is recommended, the actual removals may exceed this by up to 10% ONLY if the stock status is above the limit reference point or proxy.	YES
	<b>A3.3</b>	Commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point or proxy (small quotas for research or non-target catch of the species in other fisheries are permissible).	YES
<b>Clause outcome:</b>			<b>PASS</b>
<b>A3.1 There is a mechanism in place by which total fishing mortality of this species is restricted.</b>			
A Harvest Strategy Policy (HSP) adopts exploitation rates to maintain spawning stock biomass (SSB), on average, at the target reference point of 50% of unfished levels and achieve a less than 10% chance over a 50year period of the SSB falling below limit reference point (LRP) of 20% of unfished levels (0.2B0). Recent catches of a number of SPF stocks have been limited by economic constraints. A review of the HSP is expected in 2019 (not available at time of drafting).			

Target and limit reference levels are consistent with those established in the HSP for Blue mackerel and have been shown to be ecologically sound for the Australian small pelagic stocks as a result of the low dietary dependency of higher trophic level predators in south east Australia on targeted SPF species. Other sources of mortality are also applied to RBCs to derive TAC recommendations by AFMA.

Spatial management arrangements, in the form of regional catch limits, apply to all vessels operating in the SPF (regardless of fishing method). Closed areas are in operation when regional catch limits are exceeded.

There is a mechanism in place by which total fishing mortality of this species is restricted

**A3.2 Total fishery removals of this species do not regularly exceed the level indicated or stated in the stock assessment. Where a specific quantity of removals is recommended, the actual removals may exceed this by up to 10% ONLY if the stock status is above the limit reference point or proxy.**

#### **Blue mackerel East:**

Commonwealth catch increased in 2015-16 to 2,022t (up from 203 t in 2014–15) and decreased to 1,248 t in 2016-17. State catches are not available for 2016-17. Total state and Commonwealth catch were 2,367t in 2015-16, which is the peak catch for the fishery representing 3% of 2014 SSB. The Commonwealth catch in 2016-17 was 67% of RBC, 76% of TAC and less than 2% of the 2014 SSB. Total fishery removals of this species do not regularly exceed the level indicated or stated in the stock assessment (**Figure 4**).

#### **Blue mackerel West:**

Very little Blue Mackerel (West) was caught before 2004/05. Total Commonwealth-landed catch increased in 2005–06, peaking in 2008–09 at 2,168 t (4% of SSB) and decreasing steadily thereafter. There was negligible catch between 2011-12 and 2014–15 in both the State and Commonwealth fisheries. Commonwealth catch was 979 t in 2015-16 with negligible state catch, and 766 t in 2016–17. Total fishery removals of this species do not regularly exceed the level indicated or stated in the stock assessment (**Figure 5**).

**A3.3 Commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point or proxy (small quotas for research or non-target catch of the species in other fisheries are permissible).**

The National Compliance and Enforcement Program is conducted via the use of a risk-based approach, which enables AFMA's resources to be targeted to areas where they are most needed and where they will prove most effective. Features of the programme include ensuring compliance with AFMA's domestic fisheries management measures. Fisheries Officers conduct targeted inspections of Commonwealth endorsed operators. All Commonwealth fishing boats are tracked via satellite – to vessel monitoring systems. Catch monitoring includes electronic logbooks, a Catch Documentation Scheme, electronic monitoring, logbooks, observers, audits and inspections.

AFMA enforces the provisions of the Fisheries Management Act 1991, Torres Strait Fisheries Act 1984 and the Maritime Powers Act 2013; including the power to close a fishery should the stock be estimated to be below the limit reference point or proxy. To date this has not happened for the Jack mackerel stock.

Commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point or proxy (small quotas for research or non-target catch of the species in other fisheries are permissible).

#### **References**

- R1** Patterson, H, Larcombe, J, Woodhams, J and Curtotti, R 2020, Fishery status reports 2020, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra. CC BY 4.0. <https://doi.org/10.25814/5f447487e6749>
- R2** AFMA (Last revised April 2017) Small Pelagic Fishery Harvest Strategy June 2008 11pp  
[https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2017/04/SPF-Harvest-Strategy\\_April2017\\_FINAL.pdf](https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2017/04/SPF-Harvest-Strategy_April2017_FINAL.pdf)
- R3** Australian Fisheries Management Authority AFMA (Home page): <https://www.afma.gov.au/fisheries>

**R8** Small Pelagic Fishery (SPF) Resource Assessment Group (SPFRAG):

<https://www.afma.gov.au/sites/default/files/uploads/2015/01/March-2013-SPFRAG-meeting-minutesPDF-381-KB.pdf>

**R9** AFMA Annual Report 2018-2019. 227 pp.

[https://www.afma.gov.au/sites/default/files/afma\\_annual\\_report\\_201819\\_full\\_fa\\_tagged\\_final.pdf](https://www.afma.gov.au/sites/default/files/afma_annual_report_201819_full_fa_tagged_final.pdf)

**R10** AFMA National Compliance and Enforcement Program 2020-21. 35pp

[https://www.afma.gov.au/sites/default/files/final\\_ncep\\_2020-21\\_cleared.pdf](https://www.afma.gov.au/sites/default/files/final_ncep_2020-21_cleared.pdf)

**R11** Department of Agriculture 2014, Australia's Second National Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing. CC BY 3.0

<https://www.agriculture.gov.au/sites/default/files/sitecollectiondocuments/fisheries/iuu/aus-second-npoa-iuu-fishing.pdf>

**R12** Satellite monitoring of fishing boats <https://www.afma.gov.au/monitoring-enforcement/satellite-monitoring-fishing-boats>

**R13:** A Moore and D Mobsby (2017) Department of Agriculture and Water Resources Fishery Status Reports Chapter 7: Small Pelagic Fishery Status Reports (2017) <http://www.agriculture.gov.au/abares/research-topics/fisheries/fishery-status/small-pelagic>

**R14:** AFMA (March 2018) Fisheries Management (Small Pelagic Fishery Total Allowable Catch – Quota Species) Fishing Capacity Determination 2018 4pp <https://www.legislation.gov.au/Details/F2018L00337>

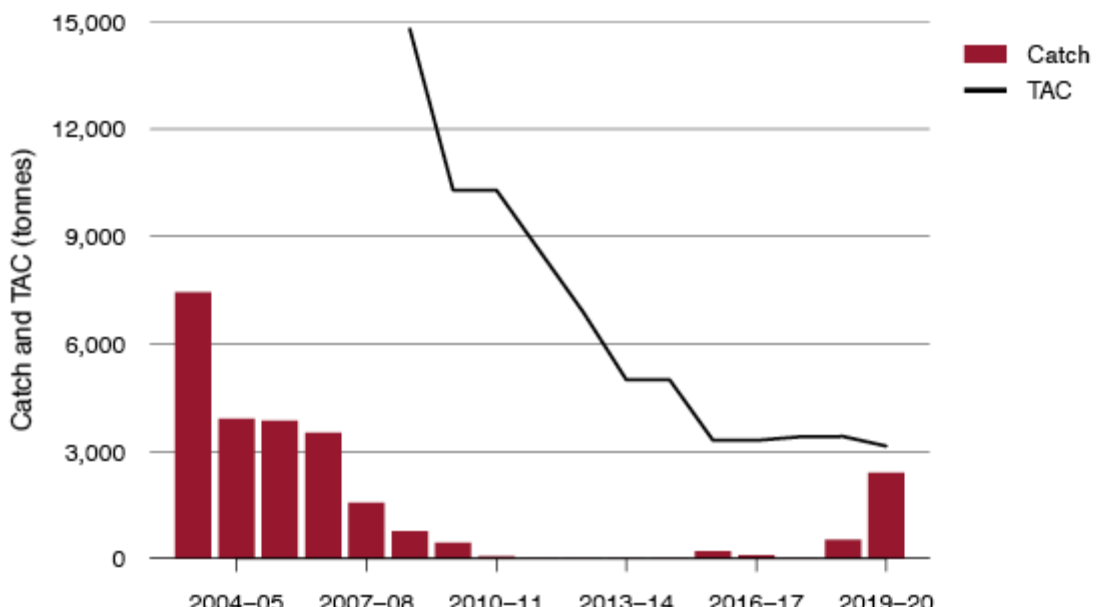
Standard clause 1.3.2.1.3

#### Links

<b>MARINTRUST Standard clause</b>	1.3.2.1.3, 1.3.2.1.4
<b>FAO CCRF</b>	7.2.1, 7.22 (e), 7.5.3
<b>GSSI</b>	D3.04, D6.01

<b>A4 Stock Status - Minimum Requirements</b>		
<b>A4.1</b>	The stock is at or above the target reference point, OR IF NOT:	YES
	The stock is above the limit reference point or proxy and there is evidence that a fall below the limit reference point would result in fishery closure OR IF NOT:	
	The stock is estimated to be below the limit reference point or proxy, but fishery removals are prohibited.	
<b>Clause outcome:</b>		PASS
<p><b>A4.1 The stock is at or above the target reference point, OR IF NOT:</b></p> <p>The stock is above the limit reference point or proxy and there is evidence that a fall below the limit reference point would result in fishery closure OR IF NOT:</p> <p>The stock is estimated to be below the limit reference point or proxy, but fishery removals are prohibited.</p> <p><b>Blue mackerel East:</b> The 2019 annual assessment provided no basis to change the Panel's previous advice for this species. The current exploitation rate is considered to be precautionary. The stock is considered to be not subject to overfishing (fishing mortality) and is not overfished (biomass). Historical catches have been low and are not likely to have reduced biomass below the limit reference point.</p> <p><b>Blue mackerel West:</b> The 2019 annual assessment provided no basis to change the Panel's previous advice for this species. The current exploitation rate is considered to be precautionary. The stock is considered to be not subject to overfishing (fishing mortality) and is not overfished (biomass). Historical catches have been low and are not likely to have reduced biomass below the limit reference point.</p>		

References	
Links	
MARINTRUST Standard clause	1.3.2.1.4
FAO CCRF	7.2.1, 7.2.2 (e)
GSSI	D6 01

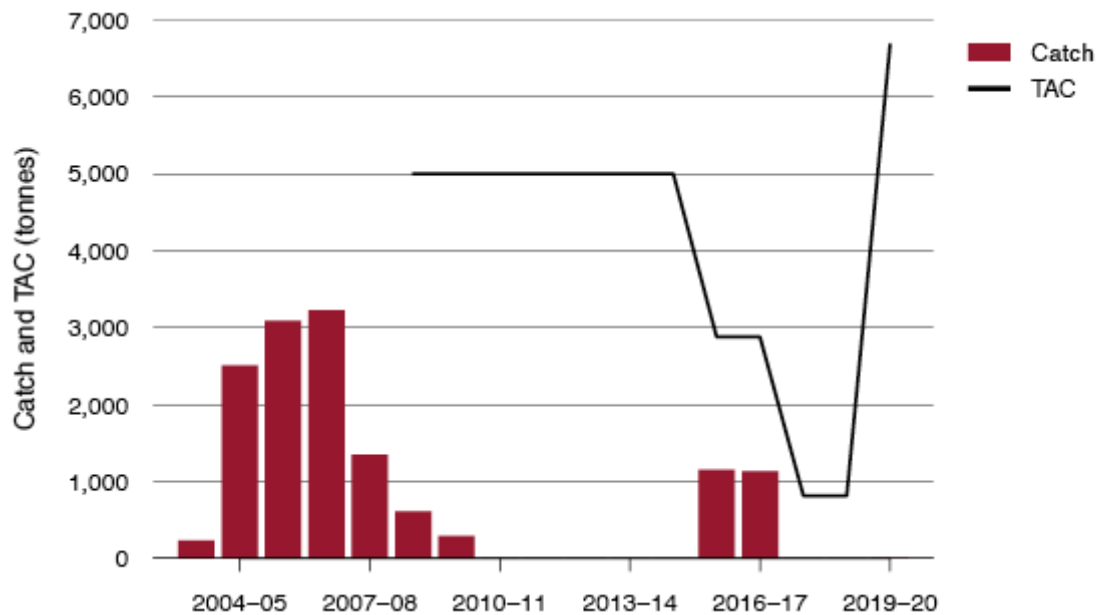
Species Name		Redbait/Cape Bonnetmouth ( <i>Emmelichthys nitidus</i> )																																																				
A1	Data Collection - Minimum Requirements																																																					
	A1.1	Landings data are collected such that the fishery-wide removals of this species are known.	YES																																																			
	A1.2	Sufficient additional information is collected to enable an indication of stock status to be estimated.	YES																																																			
Clause outcome:			PASS																																																			
A1.1 Landings data are collected such that the fishery-wide removals of this species are known.																																																						
Redbait East:																																																						
The redbait fishery started in the early 1980s. Total landings (Commonwealth and state) were less than 2,000 t per year between 1984–85 and 2000–01, but increased in 2001–02 and subsequent years, peaking at 7,450 t in 2003–04. Annual catches decreased steadily thereafter. Commonwealth catch for 2019–20 was 2,412 t, up from 539 t in 2018–19 (Figure 7.8). State catches have been negligible or confidential in recent years and are not available for 2019–20.																																																						
 <table><caption>Estimated data for Figure 7.8</caption><thead><tr><th>Fishing Year</th><th>Catch (tonnes)</th><th>TAC (tonnes)</th></tr></thead><tbody><tr><td>2004-05</td><td>7,450</td><td>15,000</td></tr><tr><td>2005-06</td><td>4,000</td><td>10,500</td></tr><tr><td>2006-07</td><td>4,000</td><td>10,500</td></tr><tr><td>2007-08</td><td>3,500</td><td>10,500</td></tr><tr><td>2008-09</td><td>1,500</td><td>10,500</td></tr><tr><td>2009-10</td><td>500</td><td>10,500</td></tr><tr><td>2010-11</td><td>200</td><td>10,500</td></tr><tr><td>2011-12</td><td>100</td><td>10,500</td></tr><tr><td>2012-13</td><td>100</td><td>10,500</td></tr><tr><td>2013-14</td><td>100</td><td>5,000</td></tr><tr><td>2014-15</td><td>100</td><td>5,000</td></tr><tr><td>2015-16</td><td>100</td><td>3,000</td></tr><tr><td>2016-17</td><td>100</td><td>3,000</td></tr><tr><td>2017-18</td><td>100</td><td>3,000</td></tr><tr><td>2018-19</td><td>539</td><td>3,000</td></tr><tr><td>2019-20</td><td>2,412</td><td>3,000</td></tr></tbody></table>				Fishing Year	Catch (tonnes)	TAC (tonnes)	2004-05	7,450	15,000	2005-06	4,000	10,500	2006-07	4,000	10,500	2007-08	3,500	10,500	2008-09	1,500	10,500	2009-10	500	10,500	2010-11	200	10,500	2011-12	100	10,500	2012-13	100	10,500	2013-14	100	5,000	2014-15	100	5,000	2015-16	100	3,000	2016-17	100	3,000	2017-18	100	3,000	2018-19	539	3,000	2019-20	2,412	3,000
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2010-11	200	10,500																																																				
2011-12	100	10,500																																																				
2012-13	100	10,500																																																				
2013-14	100	5,000																																																				
2014-15	100	5,000																																																				
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2019-20	2,412	3,000																																																				

Note: **TAC** Total allowable catch.

FIGURE 7. Commonwealth eastern redbait catch and TAC, 2003–04 season to 2019–20 season

#### Redbait West:

No catches of western redbait were reported before 2001–02. Commonwealth catches increased from 1,100 t in 2001–02 to a peak of 3,228 t in 2006–07, and decreased steadily thereafter, with no reported catch between 2010–11 and 2014–15. Commonwealth catches were taken again in 2015–16 (1,157 t) and 2016–17 (1,140 t), but no catch was reported in 2017–18 or 2018–19 (Figure 7.9). Commonwealth catch was 9 t in 2019–20. No state catches have been reported in recent years.



Note: **TAC** Total allowable catch.

FIGURE 8. Commonwealth western redbait catch and TAC, 2003–04 season to 2019–20 season

Landings data are collected such that the fishery-wide removals of this species are known.

**A1.2 Sufficient additional information is collected to enable an indication of stock status to be estimated.**

#### Redbait East:

Recent catches have been below the RBC calculated using an MSE-tested harvest strategy and are a small proportion of the most recent estimate of biomass. This level of fishing mortality is unlikely to have substantially reduced spawning biomass. On this basis, the redbait east stock is classified as **not overfished** and **not subject to overfishing**.

#### Redbait West:

Recent catches have been low and below the RBC calculated using an MSE-tested harvest strategy. This level of fishing mortality is unlikely to have substantially reduced spawning biomass. On this basis, the western red bait stock is classified as **not overfished** and **not subject to overfishing**.

Sufficient additional information is collected to enable an indication of stock status to be estimated.

#### References



- R1** Patterson, H, Larcombe, J, Woodhams, J and Curtotti, R 2020, Fishery status reports 2020, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra. CC BY 4.0. <https://doi.org/10.25814/5f447487e6749>
- R2** AFMA (Last revised April 2017) Small Pelagic Fishery Harvest Strategy June 2008 11pp  
[https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2017/04/SPF-Harvest-Strategy\\_April2017\\_FINAL.pdf](https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2017/04/SPF-Harvest-Strategy_April2017_FINAL.pdf)
- R3** Australian Fisheries Management Authority AFMA (Home page): <https://www.afma.gov.au/fisheries>
- R6** SPF Scientific Panel and Stakeholder Forum Meetings <https://www.afma.gov.au/newsmedia/news/spf-scientific-panel-and-stakeholder-forum-meetings>

#### Links

<b>MARINTRUST Standard clause</b>	1.3.2.1.1, 1.3.2.1.2, 1.3.2.1.4, 1.3.1.2
<b>FAO CCRF</b>	7.3.1, 12.3
<b>GSSI</b>	D.4.01, D.5.01, D.6.02, D.3.14

<b>A2 Stock Assessment - Minimum Requirements</b>		
<b>A2.1</b>	A stock assessment is conducted at least once every 3 years (or every 5 years if there is substantial supporting information that this is sufficient for the long-term sustainable management of the stock), and considers all fishery removals and the biological characteristics of the species.	YES
<b>A2.2</b>	The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy.	YES
<b>A2.3</b>	The assessment provides an indication of the volume of fishery removals which is appropriate for the current stock status.	YES
<b>A2.4</b>	The assessment is subject to internal or external peer review.	YES
<b>A2.5</b>	The assessment is made publicly available.	YES
<b>Clause outcome:</b>		PASS

**A2.1 A stock assessment is conducted at least once every 3 years (or every 5 years if there is substantial supporting information that this is sufficient for the long-term sustainable management of the stock), and considers all fishery removals and the biological characteristics of the species.**

#### Redbait East:

RBC's and TAC's are set using 2015 harvest strategy control rules and latest DEPM biomass estimates using the Atlantis ecosystem model. Annual fisheries assessments are undertaken and include updated catch and effort data from the previous fishing season in addition to Length–frequency and age information from catches for each stock fished.

#### Redbait West:

RBC's and TAC's are set using 2015 harvest strategy control rules and latest DEPM biomass estimates using the Atlantis ecosystem model. Annual fisheries assessments are undertaken and include updated catch and effort data from the previous fishing season in addition to Length–frequency and age information from catches for each stock fished. A daily egg production method (DEPM) survey was undertaken during 2017 for the western Redbait stock for the first time.

**A2.2 The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy.**

For both stocks annual fisheries assessments provide calculations of DEPM biomass estimates (SSB) and RBC's. Reference points are set as a % of B0.

The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy

**A2.3 The assessment provides an indication of the volume of fishery removals which is appropriate for the current stock status.**

**Redbait East:**

This is the stock's eighth season at Tier 2. The Panel (2019) noted that the most recent biomass estimates from DEPMs in October 2005 and October 2006 were of 86,990t and 50,782t, respectively. The Panel also noted that the approach used by SPFRAG of adopting the average of these DEPM estimates (68,886t) should be continued.

The Harvest Strategy Tier 2 harvest rate for redbait of 5% continues to be used as the basis for RBC advice. A TAC of 68,886t x 5% = 3,444t was published by the AFMA Commission for the 2019/2020 season.

**Redbait West:**

Because of the lack of data in recent years SPFRAG estimated SSB by drawing on expert opinion and experience of similar stocks (Management Strategy Evaluation). In the absence of empirically derived biomass estimates, the RBC was based on a model-derived one (Atlantis-SPF ecosystem model) and a Tier 2 harvest rate.

A new DEPM survey for this stock was completed in 2017 with the Panel recommending that a spawning biomass estimate of 66,787t be used for the RBC.

With the new survey results accepted by the Panel, this species moves into Tier 1 under the Harvest Strategy with an exploitation rate of 10%. A TAC of 6,678t (66,787 x 10%) was published by the AFMA Commission for the 2019/2020 season.

**A2.4 The assessment is subject to internal or external peer review.**

The SPF Scientific Panel last met in January 2019 in order to peer review scientific and economic data from ABARES and provide advice to SEMAC and AFMA (Commission). During the meeting the Panel noted that no issues were raised at the Stakeholder forum regarding the annual assessment of SPF Stocks and RBC advice including Red bait. The Panel confirmed its previous recommendations for RBCs, based on the 2017 SPF Harvest Strategy and DEPM Survey results.

**A2.5 The assessment is made publicly available.**

Minutes of annual meetings of the Scientific Panel summarise findings of stock assessment studies and list agreed RBC's and SSB's for each managed stock on their website. Detailed information on stock assessments is available on request through the Freedom of Information Act.

Fishery status reports published by the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) provide independent assessments of the biological status of fish stocks and the economic status of fisheries managed, or jointly managed, by the Australian Government (Commonwealth fisheries). ABARES uses data and information sourced from AFMA and Regional Fisheries Management Organisations (RFMO's). Fishery status reports are published annually on the ABARES website.

**References**

- R1** Patterson, H, Larcombe, J, Woodhams, J and Curtotti, R 2020, Fishery status reports 2020, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra. CC BY 4.0. <https://doi.org/10.25814/5f447487e6749>
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- R3** Australian Fisheries Management Authority AFMA (Home page): <https://www.afma.gov.au/fisheries>



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**R8** Small Pelagic Fishery (SPF) Resource Assessment Group (SPFRAG):

<https://www.afma.gov.au/sites/default/files/uploads/2015/01/March-2013-SPFRAG-meeting-minutesPDF-381-KB.pdf>

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**R14:** AFMA (March 2018) Fisheries Management (Small Pelagic Fishery Total Allowable Catch – Quota Species) Fishing Capacity Determination 2018 4pp <https://www.legislation.gov.au/Details/F2018L00337>

**R15:** Small Pelagic Fishery Scientific Panel (the Panel) Meeting Minutes (Jan 2018)

[https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2018/02/DRAFT-SPF-meeting-minutes\\_22-January\\_FINAL.pdf](https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2018/02/DRAFT-SPF-meeting-minutes_22-January_FINAL.pdf)

#### Links

<b>MARINTRUST Standard clause</b>	1.3.2.1.2, 1.3.2.1.4, 1.3.1.2
<b>FAO CCRF</b>	12.3
<b>GSSI</b>	D.5.01, D.6.02, D.3.14

<b>A3 Harvest Strategy - Minimum Requirements</b>			
<b>A3</b>	<b>A3.1</b>	There is a mechanism in place by which total fishing mortality of this species is restricted.	YES
	<b>A3.2</b>	Total fishery removals of this species do not regularly exceed the level indicated or stated in the stock assessment. Where a specific quantity of removals is recommended, the actual removals may exceed this by up to 10% ONLY if the stock status is above the limit reference point or proxy.	YES
	<b>A3.3</b>	Commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point or proxy (small quotas for research or non-target catch of the species in other fisheries are permissible).	YES
<b>Clause outcome:</b>			<b>PASS</b>
<p><b>A3.1 There is a mechanism in place by which total fishing mortality of this species is restricted.</b></p> <p>A Harvest Strategy Policy (HSP) adopts exploitation rates to maintain spawning stock biomass (SSB), on average, at the target reference point of 50% of unfished levels and achieve a less than 10% chance over a 50year period of the SSB falling below limit reference point (LRP) of 20% of unfished levels (0.2B0). Recent catches of a number of SPF stocks have been limited by economic constraints.</p> <p>Target and limit reference levels are consistent with those established in the HSP and have been shown to be ecologically sound for the Australian small pelagic stocks as a result of the low dietary dependency of higher trophic level predators in south east Australia on targeted SPF species. Other sources of mortality are also applied to RBCs to derive TAC recommendations by AFMA.</p> <p>Spatial management arrangements, in the form of regional catch limits, apply to all vessels operating in the SPF (regardless of fishing method). Closed areas are in operation when regional catch limits are exceeded. A framework of sanctions is applied when laws and regulations are discovered to have been broken.</p> <p>There is a mechanism in place by which total fishing mortality of this species is restricted</p>			
<p><b>A3.2 Total fishery removals of this species do not regularly exceed the level indicated or stated in the stock assessment. Where a specific quantity of removals is recommended, the actual removals may exceed this by up to 10% ONLY if the stock status is above the limit reference point or proxy.</b></p>			
<b>Redbait East:</b>			

The fishery started in the early 1980s. At its peak total (Commonwealth and state) catch in 2003–04 was 10% of the estimated SSB average. No catch was reported in 2017–18. Commonwealth catch in 2015–16 was less than 1% of the SSB estimate, and 5% of the RBC and TAC. 2017/18 SPF catches were 0.02% of agreed DEPM biomass estimate and 0.3% of the TAC.

#### Redbait West:

Catches have historically been low in the fishery. This level of fishing mortality is unlikely to have substantially reduced SSB. No catches of redbait (west) were reported before 2001–02. Catches increased to a peak of 3,228 t in 2006–07 (5% of estimated SSB of 66,000t) and decreased steadily thereafter. This is the stock's first season at Tier 1 with an RBC set at  $66,787\text{t} \times 10\% = 6,678\text{t}$ .

#### A3.3 Commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point or proxy (small quotas for research or non-target catch of the species in other fisheries are permissible).

The National Compliance and Enforcement Program is conducted via the use of a risk-based approach, which enables AFMA's resources to be targeted to areas where they are most needed and where they will prove most effective. Features of the programme include ensuring compliance with AFMA's domestic fisheries management measures. Fisheries Officers conduct targeted inspections of Commonwealth endorsed operators. All Commonwealth fishing boats are tracked via satellite – to vessel monitoring systems. Catch monitoring includes electronic logbooks, a Catch Documentation Scheme, electronic monitoring, logbooks, observers, audits and inspections.

AFMA enforces the provisions of the Fisheries Management Act 1991, Torres Strait Fisheries Act 1984 and the Maritime Powers Act 2013; including the power to close a fishery should the stock be estimated to be below the limit reference point or proxy.

Commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point or proxy (small quotas for research or non-target catch of the species in other fisheries are permissible).

#### References

- R1** Patterson, H, Larcombe, J, Woodhams, J and Curtotti, R 2020, Fishery status reports 2020, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra. CC BY 4.0. <https://doi.org/10.25814/5f447487e6749>
- R2** AFMA (Last revised April 2017) Small Pelagic Fishery Harvest Strategy June 2008 11pp  
[https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2017/04/SPF-Harvest-Strategy\\_April2017\\_FINAL.pdf](https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2017/04/SPF-Harvest-Strategy_April2017_FINAL.pdf)
- R3** Australian Fisheries Management Authority AFMA (Home page): <https://www.afma.gov.au/fisheries>
- R8** Small Pelagic Fishery (SPF) Resource Assessment Group (SPFRAG):  
<https://www.afma.gov.au/sites/default/files/uploads/2015/01/March-2013-SPFRAG-meeting-minutesPDF-381-KB.pdf>
- R9** AFMA Annual Report 2018-2019. 227 pp.  
[https://www.afma.gov.au/sites/default/files/afma\\_annual\\_report\\_201819\\_full\\_fa\\_tagged\\_final.pdf](https://www.afma.gov.au/sites/default/files/afma_annual_report_201819_full_fa_tagged_final.pdf)
- R10** AFMA National Compliance and Enforcement Program 2020-21. 35pp  
[https://www.afma.gov.au/sites/default/files/final\\_ncep\\_2020-21\\_cleared.pdf](https://www.afma.gov.au/sites/default/files/final_ncep_2020-21_cleared.pdf)
- R11** Department of Agriculture 2014, Australia's Second National Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing. CC BY 3.0  
<https://www.agriculture.gov.au/sites/default/files/sitecollectiondocuments/fisheries/iuu/aus-second-npoa-iuu-fishing.pdf>
- R12** Satellite monitoring of fishing boats <https://www.afma.gov.au/monitoring-enforcement/satellite-monitoring-fishing-boats>
- R13:** A Moore and D Mobsby (2017) Department of Agriculture and Water Resources Fishery Status Reports Chapter 7: Small Pelagic Fishery Status Reports (2017) <http://www.agriculture.gov.au/abares/research-topics/fisheries/fishery-status/small-pelagic>
- R14:** AFMA (March 2018) Fisheries Management (Small Pelagic Fishery Total Allowable Catch – Quota Species) Fishing Capacity Determination 2018 4pp <https://www.legislation.gov.au/Details/F2018L00337>

Standard clause 1.3.2.1.3

#### Links

MARINTRUST Standard clause	1.3.2.1.3, 1.3.2.1.4
FAO CCRF	7.2.1, 7.22 (e), 7.5.3
GSSI	D3.04, D6.01

<b>A4</b>	<b>Stock Status - Minimum Requirements</b>	
	<b>A4.1</b>	<p>The stock is at or above the target reference point, OR IF NOT:</p> <p>The stock is above the limit reference point or proxy and there is evidence that a fall below the limit reference point would result in fishery closure OR IF NOT:</p> <p>The stock is estimated to be below the limit reference point or proxy, but fishery removals are prohibited.</p>
		YES
		Clause outcome: PASS
<p><b>A4.1 The stock is at or above the target reference point, OR IF NOT:</b></p> <p>The stock is above the limit reference point or proxy and there is evidence that a fall below the limit reference point would result in fishery closure OR IF NOT:</p> <p>The stock is estimated to be below the limit reference point or proxy, but fishery removals are prohibited.</p> <p>For the Redbait East stock the Panel (2019) concluded that the stock is not subject to overfishing and is not being overfished. Recent catches have been below the RBC. Historically catches have been low and are not likely to have reduced biomass below limit reference point.</p> <p>For the Redbait West stock the Panel (2019) concluded that the stock is not subject to overfishing and is not being overfished. Recent catches have been below the RBC. Historically catches have been low and are not likely to have reduced biomass below limit reference point.</p> <p>The stock is at or above the target reference point</p>		
<p><b>References</b></p> <p><b>R1</b> Patterson, H, Larcombe, J, Woodhams, J and Curtotti, R 2020, Fishery status reports 2020, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra. CC BY 4.0. <a href="https://doi.org/10.25814/5f447487e6749">https://doi.org/10.25814/5f447487e6749</a></p> <p><b>R2</b> AFMA (Last revised April 2017) Small Pelagic Fishery Harvest Strategy June 2008 11pp <a href="https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2017/04/SPF-Harvest-Strategy_April2017_FINAL.pdf">https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2017/04/SPF-Harvest-Strategy_April2017_FINAL.pdf</a></p> <p><b>R3</b> Australian Fisheries Management Authority AFMA (Home page): <a href="https://www.afma.gov.au/fisheries">https://www.afma.gov.au/fisheries</a></p> <p><b>R6</b> SPF Scientific Panel and Stakeholder Forum Meetings <a href="https://www.afma.gov.au/newsmedia/news/spf-scientific-panel-and-stakeholder-forum-meetings">https://www.afma.gov.au/newsmedia/news/spf-scientific-panel-and-stakeholder-forum-meetings</a></p> <p><b>R8</b> Small Pelagic Fishery (SPF) Resource Assessment Group (SPFRAG): <a href="https://www.afma.gov.au/sites/default/files/uploads/2015/01/March-2013-SPFRAG-meeting-minutesPDF-381-KB.pdf">https://www.afma.gov.au/sites/default/files/uploads/2015/01/March-2013-SPFRAG-meeting-minutesPDF-381-KB.pdf</a></p> <p><b>R9</b> AFMA Annual Report 2018-2019. 227 pp. <a href="https://www.afma.gov.au/sites/default/files/afma_annual_report_201819_full_fa_tagged_final.pdf">https://www.afma.gov.au/sites/default/files/afma_annual_report_201819_full_fa_tagged_final.pdf</a></p>		
<b>Links</b>		
MARINTRUST Standard clause		1.3.2.1.4
FAO CCRF		7.2.1, 7.2.2 (e)
GSSI		D6 01

## CATEGORY B SPECIES

Category B species are those which make up greater than 5% of landings in the applicant raw material, but which are not subject to a species-specific research and management regime sufficient to pass all Category A clauses. If there are no Category B species in the fishery under assessment, this section can be deleted.

Category B species are assessed using a risk-based approach. The following process should be completed once for each Category B species.

### If there are estimates of biomass (B), fishing mortality (F), and reference points

It is possible for a Category B species to have some biomass and fishing mortality data available. When sufficient information is present, the assessment team should use the following risk matrix to determine whether the species should be recommended for approval.

TABLE B(A) - F, B AND REFERENCE POINTS ARE AVAILABLE

Biomass is above MSY / target reference point	Pass	Pass	Pass	Fail	Fail
Biomass is below MSY / target reference point, but above limit reference point	Pass, but re-assess when fishery removals resume	Pass	Fail	Fail	Fail
Biomass is below limit reference point (stock is overfished)	Pass, but re-assess when fishery removals resume	Fail	Fail	Fail	Fail
Biomass is significantly below limit reference point (Recruitment impaired)	Fail	Fail	Fail	Fail	Fail

	Fishery removals are prohibited	Fishing mortality is below MSY or target reference point	Fishing mortality is around MSY or target reference point, or below the long-term average	Fishing mortality is above the MSY or target reference point, or around the long-term average	Fishing mortality is above the limit reference point or above the long-term average (Stock is subject to overfishing)
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## If the biomass / fishing pressure risk assessment is not possible

Initially, the resilience of each Category B species to fishing pressure should be estimated using the American Fisheries Society procedure described in Musick, J.A. (1999). This approach is used as the resilience values for many species and stocks have been estimated by FishBase and are already available online. For details of the approach, please refer to Appendix A. Determining the resilience provides a basis for estimating the risk that fishing may pose to the long-term sustainability of the stock. Table B(b) should be used to determine whether the species should be recommended for approval.

**TABLE B(b) - NO REFERENCE POINTS AVAILABLE. B = CURRENT BIOMASS; B<sub>av</sub> = LONG-TERM AVERAGE BIOMASS; F = CURRENT FISHING MORTALITY; F<sub>av</sub> = LONG-TERM AVERAGE FISHING MORTALITY.**

<b>B &gt; B<sub>av</sub> and F &lt; F<sub>av</sub></b>	Pass	Pass	Pass	Fail
<b>B &gt; B<sub>av</sub> and F or F<sub>av</sub> unknown</b>	Pass	Pass	Fail	Fail
<b>B = B<sub>av</sub> and F &lt; F<sub>av</sub></b>	Pass	Pass	Fail	Fail
<b>B = B<sub>av</sub> and F or F<sub>av</sub> unknown</b>	Pass	Fail	Fail	Fail
<b>B &gt; B<sub>av</sub> and F &gt; F<sub>av</sub></b>	Pass	Fail	Fail	Fail
<b>B &lt; B<sub>av</sub></b>	Fail	Fail	Fail	Fail
<b>B unknown</b>	Fail	Fail	Fail	Fail
<b>Resilience</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>	<b>Very Low</b>

## Assessment Results

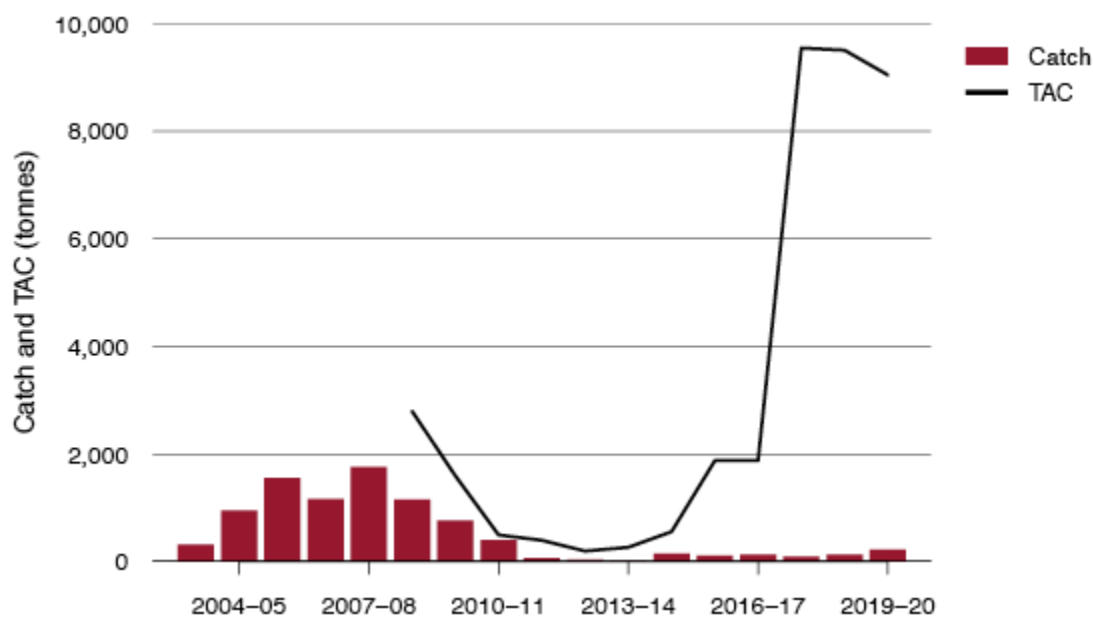
<b>Species Name</b>	
<b>B1</b>	Species Name
	Table used (Ba, Bb)
	Outcome
References	
Links	
MARINTRUST Standard clause	1.3.2.2, 4.1.4
FAO CCRF	7.5.1
GSSI	D.5.01

## CATEGORY C SPECIES

In a whole fish assessment, Category C species are those which make up less than 5% of landings, but which are subject to a species-specific management regime. In most cases this will be because they are a commercial target in a fishery other than the one under assessment.

Clause C1 should be completed for **each** Category C species. If there are no Category C species in the fishery under assessment, this section can be deleted. Where a species fails this Clause, it may be assessed as a Category D species instead, EXCEPT if there is evidence that it is currently below the limit reference point.

Species Name		Australian Sardine ( <i>Sardinops sagax</i> )	
C1	Category C Stock Status - Minimum Requirements		
	C1.1	Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.	YES
	C1.2	The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.	YES
Clause outcome:			PASS
C1.1 Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.			
<p>State catches of Australian sardine comprise most of the total catch. Unlike in the Commonwealth fishery, state catches are not constrained by catch limits. State catches increased substantially from 2001–02 to 2009–10, contributing to reductions in the Commonwealth TAC.</p> <p>Total sardine catch from Commonwealth and state fisheries (other than that taken in South Australia) peaked in 2007–08 at 4,619 t, before decreasing to 894 t in 2014–15—its lowest level since 2001–02. Total catch increased to 2,887 t in 2016–17, primarily driven by increased catches by the Victorian fleet. The total combined catch (state and Commonwealth, excluding Victorian catches because they were confidential) for 2018–19 was 596 t, comprising 132 t of Commonwealth catch and 464 t of state catch. Commonwealth catch for 2019–20 was 226 t (Figure 8). State catches are not yet available.</p>			



Note: **TAC** Total allowable catch.

FIGURE 8. Commonwealth Australian sardine catch and TAC in the SPF, 2003–04 season to 2019–20 season

Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.

**C1.2 The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.**

Recent catches have been below the RBC calculated using an MSE-tested harvest strategy and are a small proportion of the most recent estimate of biomass. This level of fishing mortality is unlikely to have substantially reduced spawning biomass. On this basis, the Australian sardine stock is classified as **not overfished** and **not subject to overfishing**.

#### References

- R1** Patterson, H, Larcombe, J, Woodhams, J and Curtotti, R 2020, Fishery status reports 2020, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra. CC BY 4.0. <https://doi.org/10.25814/5f447487e6749>
- R2** AFMA (Last revised April 2017) Small Pelagic Fishery Harvest Strategy June 2008 11pp  
[https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2017/04/SPF-Harvest-Strategy\\_April2017\\_FINAL.pdf](https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2017/04/SPF-Harvest-Strategy_April2017_FINAL.pdf)
- R3** Australian Fisheries Management Authority AFMA (Home page): <https://www.afma.gov.au/fisheries>
- R4** South East Management Advisory Committee (SEMAC):  
[https://www.afma.gov.au/sites/default/files/semac\\_36\\_final\\_minutes\\_-\\_signed.pdf](https://www.afma.gov.au/sites/default/files/semac_36_final_minutes_-_signed.pdf)



- R5** AFMA Commission: <https://www.afma.gov.au/about/afma-commission>
- R6** SPF Scientific Panel and Stakeholder Forum Meetings <https://www.afma.gov.au/newsmedia/news/spf-scientific-panel-and-stakeholder-forum-meetings>
- R7** Office of Parliamentary Counsel, Canberra: Fisheries Management Act 1991 No. 162, 1991 (includes amendments up to Act No 123 (2017) 460pp <https://www.legislation.gov.au/Details/C2017C00363>
- R8** Small Pelagic Fishery (SPF) Resource Assessment Group (SPFRAG):  
<https://www.afma.gov.au/sites/default/files/uploads/2015/01/March-2013-SPFRAG-meeting-minutesPDF-381-KB.pdf>
- R9** AFMA Annual Report 2018-2019. 227 pp.  
[https://www.afma.gov.au/sites/default/files/afma\\_annual\\_report\\_201819\\_full\\_fa\\_tagged\\_final.pdf](https://www.afma.gov.au/sites/default/files/afma_annual_report_201819_full_fa_tagged_final.pdf)
- R10** AFMA National Compliance and Enforcement Program 2020-21. 35pp  
[https://www.afma.gov.au/sites/default/files/final\\_ncep\\_2020-21\\_cleared.pdf](https://www.afma.gov.au/sites/default/files/final_ncep_2020-21_cleared.pdf)
- R11** Department of Agriculture 2014, Australia's Second National Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing. CC BY 3.0  
<https://www.agriculture.gov.au/sites/default/files/sitecollectiondocuments/fisheries/iuu/aus-second-npoa-iuu-fishing.pdf>
- R12** Satellite monitoring of fishing boats <https://www.afma.gov.au/monitoring-enforcement/satellite-monitoring-fishing-boats>
- R13:** A Moore and D Mobsby (2017) Department of Agriculture and Water Resources Fishery Status Reports Chapter 7: Small Pelagic Fishery Status Reports (2017) <http://www.agriculture.gov.au/abares/research-topics/fisheries/fishery-status/small-pelagic>
- R14:** AFMA (March 2018) Fisheries Management (Small Pelagic Fishery Total Allowable Catch – Quota Species) Fishing Capacity Determination 2018 4pp <https://www.legislation.gov.au/Details/F2018L00337>
- R15:** Small Pelagic Fishery Scientific Panel (the Panel) Meeting Minutes (Jan 2018)  
[https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2018/02/DRAFT-SPF-meeting-minutes\\_22-January\\_FINAL.pdf](https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2018/02/DRAFT-SPF-meeting-minutes_22-January_FINAL.pdf)

Links	
MARINTRUST Standard clause	1.3.2.2
FAO CCRF	7.5.3
GSSI	D.3.04, D5.01



## FURTHER IMPACTS

The three clauses in this section relate to impacts the fishery may have in other areas. A fishery must meet the minimum requirements of all three clauses before it can be recommended for approval.

F1	Impacts on ETP Species - Minimum Requirements		
	F1.1	Interactions with ETP species are recorded.	YES
	F1.2	There is no substantial evidence that the fishery has a significant negative effect on ETP species.	YES
	F1.3	If the fishery is known to interact with ETP species, measures are in place to minimise mortality.	YES
Clause outcome:			PASS

### F1.1 Interactions with ETP species are recorded.

AFMA now publish preliminary reports (as well as final reports) on their website to allow interested stakeholders have earlier access to this information. Quarterly reports on protected species interactions with stakeholders in fishery are provided:

Gear Type	Common name	Total	Life status				Interaction type <sup>1</sup>
			Alive	Dead	Injured	Unknown	
Midwater otter trawl	Common dolphin	3	1	2	-	-	Entangled
	New Zealand fur seal	4		4			Entangled
	Total interactions	7	1	6			

**Figure 9** Small Pelagic Fishery Preliminary Report Protected species interactions (April-June 2019) R23

Reports are compiled by AFMA from official logbook records submitted to AFMA by fishers.

Interactions with ETP species are recorded.

### F1.2 There is no substantial evidence that the fishery has a significant negative effect on ETP species.

The Scientific Panel (2019) noted that for protected species marine mammals and large bycatch monitoring should be reduced from 100 to 10% of Electronic Monitoring footage. This recommendation was based on the outcomes of footage reviewed in the SPF to date, as well as evidence from both AFMA-managed fisheries and international work that this level of review is sufficient to achieve accurate reporting in logbooks. As risk to seabird interactions in the fishery is low (due to very little discarding of catch and the use of bird mitigation devices) it was decided that the deployment of mitigation be audited by electronic monitoring.

There is no substantial evidence that the fishery has a significant negative effect on ETP species

### F1.3 If the fishery is known to interact with ETP species, measures are in place to minimise mortality.

AFMA have developed protected species management strategies for Australian sea lions, dolphins and upper slope dogfish which outline management arrangements that minimise the impact of fishing on these species. Strategies involve unique management arrangements tailored to reducing interactions with each species. Arrangements can include area closures, gear restrictions, monitoring requirements or trigger limits.

Additional management responses are triggered if the maximum interaction rate for a vessel is exceeded. The minimum management response requires the holder to immediately cease fishing and return to port until authorised by AFMA to recommence fishing using trawl gear

The Commonwealth SPF industry purse-seine code of practice requires fishers to avoid interactions with species, where possible; implement mitigation measures, where necessary; release all captured protected species alive and in good condition; and report all interactions with protected species.

AFMA-managed fisheries have accreditation (Department of the Environment and AFMA) for interactions with protected species under Part 13 of the Environment Protection and Biodiversity Conservation Act 1999. Without this accreditation, fishing operators may be liable for prosecution for the capture of protected species.

Observer reports, in addition to other duties, record observations such as whether birds and other wildlife could be seen during a fishing trip. All operators are required to carry observers when requested by AFMA.

#### References

**R16:** Lyle, JM & Willcox (2008) Dolphin and seal interactions with mid-water trawling in the Small Pelagic Fishery, including an assessment of bycatch mitigation strategies, Tasmanian Aquaculture and Fisheries Institute, University of Tasmania, Hobart. <https://www.afma.gov.au/sites/default/files/uploads/2014/02/SPF-discussion-paper-FINAL.pdf>

**R17:** AFMA Website (accessed 18.08.21): Protected Species Interaction Reports: <https://www.afma.gov.au/sustainability-environment/protected-species-management/protected-species-interaction-reports>

#### Links

<b>MARINTRUST Standard clause</b>	1.3.3.1
<b>FAO CCRF</b>	7.2.2 (d)
<b>GSSI</b>	D4.04, D.3.08

<b>F2 Impacts on Habitats - Minimum Requirements</b>			
<b>F2</b>	<b>F2.1</b>	Potential habitat interactions are considered in the management decision-making process.	YES
	<b>F2.2</b>	There is no substantial evidence that the fishery has a significant negative impact on physical habitats.	YES
	<b>F2.3</b>	If the fishery is known to interact with physical habitats, there are measures in place to minimise and mitigate negative impacts.	YES
<b>Clause outcome:</b>			PASS
<b>F2.1 Potential habitat interactions are considered in the management decision-making process.</b>			
AFMA regularly monitor the effects fishing activities have on marine species, habitats and communities through ecological risk assessments. Assessment results help prioritise management, research, data collection and monitoring needs for the fishery.			
The Ecological Risk Management (ERM) framework is used to assist decision makers in developing fisheries management arrangements consistent with Ecologically Sustainable Development (ESD) objectives. The framework uses Ecological Risk Assessment for the Effects of Fishing (ERAEF) as the primary means of assessing the risks that fisheries may pose to the marine environment.			

ERAEF provides a hierarchical framework for a comprehensive assessment of ecological risks arising from fishing, with impacts assessed against five ecological components including habitats. The latest Ecological Risk Assessment (ERA) for the effects of fishing report (midwater trawl small pelagic fishery) was published in September 2017. For the purse seine fishery, the latest report was published in 2007.

As the gear is designed to fish in the water column it is a rare event that the gear does come into contact with the bottom. Impact on benthic habitats is likely to be minimal compared to demersal trawling.

Potential habitat interactions are considered in the management decision-making process

## **F2.2 There is no substantial evidence that the fishery has a significant negative impact on physical habitats.**

ERAEF proceeds through four stages of analysis: scoping; an expert judgement-based Level 1 analysis (SICA – Scale Intensity Consequence Analysis); an empirically based Level 2 analysis (PSA – Productivity Susceptibility Analysis); and a model-based Level 3 analysis. This hierarchical approach provides a cost-efficient way of screening hazards, with increasing time and attention paid only to those hazards that are not eliminated at lower levels in the analysis. Risk management responses may be identified at any level in the analysis.

The assessment (2017) of the SPF Midwater Trawl Sub-fishery included a scoping stage and a Level I analysis. All hazards (fishing activities) were eliminated at Level 1 (risk scores 1 or 2). All ecological components (including habitats) were eliminated at Level 1 i.e. there were no risk scores of 3 – moderate – or above for any component.

Fishing methods used do not cause damage to the bottom: the mid-water trawl is designed and rigged to fish in midwater and is not intended to come in contact with the seabed. For purse seining, effective use requires that fish form dense aggregations on or close to the surface of the water.

There is no substantial evidence that the fishery has a significant negative impact on physical habitats.

## **F2.3 If the fishery is known to interact with physical habitats, there are measures in place to minimise and mitigate negative impacts.**

An ERM Guide (June 2017) to assist AFMA fishery managers better implement ERAEF in a consistent and transparent manner has been published. The Guide outlines the process by which fishery managers can develop strategies to plan, implement, monitor and review fisheries, ensuring they are being managed in an ecologically sustainable way. A five-year schedule of re-assessment for all Commonwealth fisheries has been developed (unless an earlier re-assessment has been triggered).

Application of the Guide will improve the implementation of the ERAEF framework, by applying certainty to the identification of high-risk species and the adoption of risk mitigation management responses. The Guide provides an overview of ERAEF and ERM for habitats and ecological communities to date, including a review of relevant objectives, ERA methods, recent research and future directions

## **References**

**R18:** Ecological Risk Management (2010) Report for the purse-seine sector of the Small Pelagic Fishery March 2010 20pp  
<https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2014/11/Ecological-Risk-Management-SPF-purse-seine-March-2010.pdf>

**R19:** Guide to AFMA's Ecological Risk Management (June 2017) 119pp  
[https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2017/08/Final-ERM-Guide\\_June-2017.pdf](https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2017/08/Final-ERM-Guide_June-2017.pdf)

Links	
MARINTRUST Standard clause	1.3.3.2
FAO CCRF	6.8
GSSI	D.2.07, D.6.07, D3.09

F3 Ecosystem Impacts - Minimum Requirements		
F3	F3.1	The broader ecosystem within which the fishery occurs is considered during the management decision-making process.
	F3.2	There is no substantial evidence that the fishery has a significant negative impact on the marine ecosystem.
	F3.3	If one or more of the species identified during species categorisation plays a key role in the marine ecosystem, additional precaution is included in recommendations relating to the total permissible fishery removals.
Clause outcome:		PASS
<p><b>F3.1 The broader ecosystem within which the fishery occurs is considered during the management decision-making process.</b></p> <p>A Five-Year Strategic Research Plan (2017-2022) for the SPF has been published by AFMA. The Plan aims to address AFMA's strategic research objectives including preventing unacceptable impacts of Commonwealth fisheries on marine ecosystems and organisms. Each year the SPF Scientific Panel reviews research needs and develops an annual set of research priorities and work plans.</p> <p>A key goal is the annual monitoring, reporting and assessment of the effectiveness of current mitigation measures and the impact of the fishery on protected species. Marine mammal bycatch data are collected through observer and camera coverage and reported through regular SPF reports on protected species interactions.</p> <p>A Bycatch and Discard workplan includes specific measures to address risks highlighted by the ERA and to minimise the risk of further interactions with non-target species. Management actions under the Bycatch and Discard workplan include implementing upward-opening Seal Excluder Devices and developing other equipment for each mid-water trawl vessel operating in the fishery to minimise the risk of interactions with seabirds; seals and dolphins. This workplan will be replaced by a chapter in the Fishery Management Strategy (FMS); currently under development (January 2019).</p> <p>The FMS will incorporate previously existing fishery management strategies (i.e. harvest strategies, ecological risk management strategies, bycatch strategies, research strategies and data strategies) into a single document.</p> <p>The broader ecosystem within which the fishery occurs is considered during the management decision-making process</p>		
<p><b>F3.2 There is no substantial evidence that the fishery has a significant negative impact on the marine ecosystem.</b></p> <p>SICA (Scale, Intensity, Consequence Analysis) analysis evaluates the risk to ecological components resulting from stakeholder-agreed set of activities. SICA elements are scored on a scale of 1 to 6 (negligible to extreme) using a "plausible worst case" approach. Level 1 analysis potentially result in the elimination of activities (hazards) and in some cases whole components. Any SICA element that scores 2 or less is documented, but not considered further for analysis or management response.</p>		

The assessment (2017) of the SPF Midwater Trawl Sub-fishery included a scoping stage and a Level I analysis (AFMA 2017). All hazards (fishing activities) were eliminated at Level 1 (risk scores 1 or 2). All ecological components were eliminated at Level 1 i.e. there were no risk scores of 3 – moderate – or above for any component.

Significant external hazards were from other fisheries in the region. Risks rated as major or above (risk scores 4 or 5) were all related to other fishing activities on protected species and habitats and coastal development for protected species.

**F3.3 If one or more of the species identified during species categorisation plays a key role in the marine ecosystem, additional precaution is included in recommendations relating to the total permissible fishery removals.**

The ecosystem in Southern and Eastern Australia is not highly dependent on these target species. Research by CSIRO (Smith et al 2015) has found that depletion of the four main target species in the SPF (jack mackerel, redbait, blue mackerel and Australian sardine) has only minor impacts on other parts of the ecosystem. The research suggested that, unlike other areas that show higher levels of dependence on similar species, such as in Peru the food web in southern and eastern Australia does not appear to be highly dependent on SPF target species, and none of the higher trophic-level predators, including tunas, seals and penguins, has a high dietary dependence on the species.

The AFMA Bycatch and Discard Program develops policy and management strategies to manage the impact of commercial fishing on non-target and protected species. Work involves trialling and assisting in the development of new bycatch reduction devices and practices. Bycatch species may include fish, crustaceans, sharks, molluscs, marine mammals, reptiles and birds. Discards can apply to fish of a commercial species that are not kept (because they are undersize, or the fishers could not obtain quota, or trip limits apply) and to the disposal of incidental species taken during fishing operations. Handling practices for commonly caught bycatch species are published regularly by AFMA.

Additional precaution is included in recommendations relating to the total permissible fishery removals.

#### References

**R20** AFMA Bycatch and Discarding Workplans: <https://www.afma.gov.au/sustainability-environment/bycatch-discarding/bycatch-discard-workplans>

**R21** AFMA Protected Species Management Strategies: <https://www.afma.gov.au/sustainability-environment/protected-species-management-strategies>

**R22** Commonwealth Scientific and Industrial Research Organisation (CSIRO): Smith et al (2015): MSC Low Trophic Level Project: South Eastern Australian case study <https://publications.csiro.au/rpr/pub?list=SEA&pid=csiro>

#### Links

<b>MARINTRUST Standard clause</b>	1.3.3.3
<b>FAO CCRF</b>	7.2.2 (d)
<b>GSSI</b>	D.2.09, D3.10, D.6.09

## SOCIAL CRITERION

In addition to the scored criteria listed above, applicants must commit to ensuring that vessels operating in the fishery adhere to internationally recognised guidance on human rights. They must also commit to ensuring there is no use of enforced or unpaid labour in the fleet(s) operating upon the resource.



## Appendix A - Determining Resilience Ratings

The assessment of Category B species described in this assessment report template utilises a resilience rating system suggested by the American Fisheries Society. This approach was chosen because it is also used by FishBase, and so the resilience ratings for many thousands of species are freely available online. As described by FishBase, the following is the process used to arrive at the resilience ratings:

*“The American Fisheries Society (AFS) has suggested values for several biological parameters that allow classification of a fish population or species into categories of high, medium, low and very low resilience or productivity (Musick 1999). If no reliable estimate of  $r_m$  (see below) is available, the assignment is to the lowest category for which any of the available parameters fits. For each of these categories, AFS has suggested thresholds for decline over the longer of 10 years or three generations. If an observed decline measured in biomass or numbers of mature individuals exceeds the indicated threshold value, the population or species is considered vulnerable to extinction unless explicitly shown otherwise. If one sex strongly limits the reproductive capacity of the species or population, then only the decline in the limiting sex should be considered. We decided to restrict the automatic assignment of resilience categories in the Key Facts page to values of  $K$ ,  $t_m$  and  $t_{max}$  and those records of fecundity estimates that referred to minimum number of eggs or pups per female per year, assuming that these were equivalent to average fecundity at first maturity (Musick 1999). Note that many small fishes may spawn several times per year (we exclude these for the time being) and large live bearers such as the coelacanth may have gestation periods of more than one year (we corrected fecundity estimates for those cases reported in the literature). Also, we excluded resilience estimates based on  $r_m$  (see below) as we are not yet confident with the reliability of the current method for estimating  $r_m$ . If users have independent  $r_m$  or fecundity estimates, they can refer to Table 1 for using this information.”*

Parameter	High	Medium	Low	Very low
Threshold	0.99	0.95	0.85	0.70
$r_{max}$ (1/year)	> 0.5	0.16 - 0.50	0.05 - 0.15	< 0.05
$K$ (1/year)	> 0.3	0.16 - 0.30	0.05 - 0.15	< 0.05
Fecundity (1/year)	> 10,000	100 - 1000	10 - 100	< 10
$t_m$ (years)	< 1	2 - 4	5 - 10	> 10
$t_{max}$ (years)	1 - 3	4 - 10	11 - 30	> 30

[Taken from the FishBase manual, “Estimation of Life-History Key Facts”,  
<http://www.fishbase.us/manual/English/key%20facts.htm#resilience>]



## Glossary

**Non-target:** Species for which the gear is not specifically set, although they may have immediate commercial value and be a desirable component of the catch. OECD (1996), Synthesis report for the study on the economic aspects of the management of marine living resources. AGR/FI(96)12

**Target:** In the context of fishery certification, the target catch is the catch of stock under consideration by the unit of certification – i.e. the fish that are being assessed for certification and ecolabelling. (GSSI)

## Appendix

### MarinTrust Fishery Assessment Peer Review Template

This section comprises a summary of the fishery being assessed against version 2 of the MarinTrust Standard.

Fishery under assessment	FISH2 - MarinTrust V2.0 Wholefish fishery assessment _whole fish Australia 81_2
Management authority (Country/State)	Australian Fisheries Management Authority (AFMA)
Main species	Jack Mackerel ( <i>T. declivis</i> ,); Blue Mackerel ( <i>S. australasicus</i> ); Red Bait/Cape Bonnetmouth ( <i>E. nitidus</i> ); Australian Sardine ( <i>S. sagax</i> ).
Fishery location	FAO 81
Gear type(s)	Purse seine; mid-water trawl; jigging; minor
Overall recommendation. (Approve/ Fail)	Approve

Summary: in this section, provide any additional information about the fishery that the reviewers feel is significant to their decision.
-

General Comments on the Draft Report provided to the peer reviewer

## Summary of Peer Review Outcomes

Peer reviewers should review the fishery assessment report with the primary objective of answering the key questions listed in the table below. Where the situation is more complicated, reviewers may instead answer “See Notes”.

	YES	NO	See Notes
<b>A – Fishery Assessment</b>			
1. Has the fishery assessment been fully completed, using the recognised MarinTrust fishery assessment methodology and associated guidance?	X		
2. Does the Species Categorisation section of the report reflect the best current understanding of the catch composition of the fishery?	X		
3. Are the scores in the following sections accurate (i.e. do the scores reflect the evidence provided)?			
Section M - Management	X		
Category A Species	X		
Category B Species			NA
Category C Species	X		
Category D Species			NA
Section F – Further Impacts	X		

## Detailed Peer Review Justification

Peer reviewers should provide support for their answers in the boxes provided, by referring to specific scoring issues and any relevant documentation as appropriate.

Detailed justifications are only required where answers given are one of the ‘No’ options. In other (Yes) cases, either confirm ‘scoring agreed’ or identify any places where weak rationales could be strengthened (without any implications for the scores).

Boxes may be extended if more space is required.

1. Is the scoring of the fishery consistent with the MarinTrust standard, and clearly based on the evidence presented in the assessment report?
The assessment report seems to be adequate, and it provides the information necessary to justify the scores assigned to the different categories. A management system is in place. The target species are over the reference points and the fishery has a low impact on ETP species, habitats and ecosystem.
Only minor comments and a missing species (Redeye Round Herring) which needs to be included (or excluded depending on the circumstances, see my comments).
Certification body response
Redeye Round Herring excluded.

2. Has the fishery assessment been fully completed, using the recognised MARINTRUST fishery assessment methodology and associated guidance?
Yes, the MT methodology has been adequately applied to this assessment.
Certification body response

### 3. Does the Species Categorisation section of the report reflect the best current understanding of the catch composition of the fishery?

The fishery categorisation is based on the data provided by the AFMA's Fishery Status Reports 2020. I understand this data is correct. No species are identified under category B (and D?). However, category C (and D?) species are not included in Table 4. Please, amend it.

The percentages of the landings corresponding to category A shown in table 4 does not correspond to the percentage shown in table 5. I am not sure why is that. Please, double-check that and include the correct figures.

Redeye Round Herring is named in the assessment determination as assessed under Category D stock, but it does not appear anywhere else in the report.

Referencing needs to be improved in this section (and other section of the report).

#### Certification body response

Table 4 amend already. Table 5 is the correct figure.  
Redeye Round Herring excluded in the assessment determination.

### 3M. Are the scores in "Section M – Management" clearly justified?

Yes, a management system exists for the fishery. The Australian Fisheries Management Authority (AFMA) is the Government agency responsible for the management of the fish resources in the area of the assessment. Scientific data is collected, and a Surveillance, Control and Enforcement system is in place. Just a couple of minor comments.

M 2.3 The 2016-17 fishing season is relatively outdated. Is there not more updated data about compliance in this fishery? That number of port visits, boat inspections, etc, refer to this particular fishery?

#### Certification body response

Data updated with 2018-19 fishing season.  
Those port visits, boat inspections etc refer to the other fisheries under AFMA management.

### 3A. Are the "Category A Species" scores clearly justified?

Scores are clearly justified; a harvest strategy is in place for the target fisheries and all the stocks are over the reference points. Just minor concerns:

#### Jack mackerel

A1.1 The assessor indicates that: "*Landings data are collected such that the fishery-wide removals of this species are known*". Well, I understand this statement is made considering that the State catches are "negligible" (or well below the TAC) for the "western Jack mackerel" as in the paragraph is it said that the state catches have been confidential for the preceding 4 years. Confidential for the management agency, does it mean? If so, how can the fishery be "efficiently" managed if the catches are unknown? (the same applies for Redbait).

#### Blue mackerel

A1.2 I am not sure about the meaning of this sentence “*Although the 2005 biomass estimate is dated*”, anything is missing there?

A2.1 strictly speaking, if the last survey was conducted in 2014, more than 3/5 years have gone since the last stock assessment, but I understand this data has been reviewed/considered more recently.

Biomass data for the Blue mackerel west seems to be quite outdated, it should be improved but landings for that stock are very low.

#### Certification body response

Confidential issues found in few other information in the fishery status reports, back in 2019 and 2018 as well.

The sentence mean that the 2005 biomass estimate is the recent estimation, although its too far or too old and supposed to be updated, but no new estimation.

Well noted for the 2014 survey, but yes, it is the last survey, no new survey yet.

#### 3B. Are the “Category B Species” scores clearly justified?

No category B species identified

#### Certification body response

#### 3C. Are the “Category C Species” scores clearly justified?

Yes, only one species (Australian sardine) is assessed under category C. The stock is not overfished and not subject to overfishing.

C1.1. Again, the problem with confidentiality for a public managed resource. I will never understand that.

#### Certification body response

#### 3D. Are the “Category D Species” scores clearly justified?

No category D species identified but see my comment about the redeye round herring in the general comments section.

#### Certification body response

Excluded already

3F. Are the scores in “Section F – Further Impacts” clearly justified?

Yes, the information shown is concise but adequate. The impact of the assessed gears on ETP species, habitats and ecosystem seems to be low.

Certification body response

Optional: General comments on the Peer Review Draft Report

The use of the adjective “efficient” in the first sentence of the assessment determinations sounds a little strange: “*The Australian Fisheries Management Authority (AFMA) is the Government agency responsible for the **efficient** management and sustainable use of Commonwealth fish resources*”. I understand that it is a copy and paste from the AFMA’s website maybe? The management of the fisheries in the country may be efficient, but I understand it needs to be proved.

The assessor state in the assessment determination section: “*Redeye Round Herring was assessed as a Category D stock (<5% by volume of landings, no species-specific management regime)*” but this species does not appear in the species categorisation table or anywhere else.

“*The Panel (2019) noted that Victorian catches (Australian sardine) have still not been provided **due to confidentially concerns. The issue of data sharing is becoming a concern in multiple jurisdictions for a number of jointly managed stocks***”. This issue about the data sharing or confidentially concerns is very interesting. I understand this is a common resource which needs to be managed by the authorities using the best available data (landing/catch data). So, what kind of confidentially agreement is that?

Different font sizes have been used through the text. Please, amend it.

References are missing in some sections.

Certification body response

Yes, the first sentence taken from AFMA website.

Redeye Round Herring excluded already.

Cannot respond on confidentiality issue