

The Senate

Environment and Communications
References Committee

Factory freezer trawlers in the
Commonwealth Small Pelagic Fishery

November 2016

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List of recommendations

Recommendation 1

6.22 The committee recommends that the Australian government ban all factory freezer mid-water trawlers from operating in the Commonwealth Small Pelagic Fishery.

Recommendation 2

6.25 The committee recommends that the Australian government expedite its 2013 election commitment to appoint a National Recreational Fishing Council. An Agriculture and Water Resources portfolio minister should chair the Council.

Recommendation 3

6.26 The committee recommends that the government expedite its 2016 election commitment to amend the *Fisheries Management Act 1991* to specify that the Australian Fisheries Management Authority is required to consider the interests of all users of fisheries including recreational, Indigenous and commercial fishers.

Recommendation 4

6.28 To enhance public confidence in the management of Australian fisheries, the committee recommends that the Australian Fisheries Management Authority publish, on a regular basis, further information about fishing activity in the Small Pelagic Fishery. This information should include:

- the total value of the fishery;
- quantity of catch (by species);
- the amount of bycatch caught and discarded by species; and
- the areas where fishing activity is taking place.

6.29 Publication of this information should occur:

- despite any claims from industry that particular information is commercially sensitive or should not be disclosed, although a short delay in publication may be appropriate to accommodate concerns about the commercial sensitivity of particular information; and
- regardless of any additional disclosures the operator of the FV *Geelong Star* may provide as part of a voluntary undertaking.

Recommendation 5

6.30 As the visual identification of protected species is critical for their protection, the committee recommends that the Australian Fisheries Management Authority restrict mid-water trawling in the Small Pelagic Fishery to daylight hours.

Recommendation 6

6.31 The committee recommends that the Australian Fisheries Management Authority require estimates of spawning biomass based on the daily egg production method to be obtained for all quota fish populations in the Small Pelagic Fishery more frequently than the current arrangements. The cost of these surveys is to be recovered from industry.

Abbreviations

ABARES	Australian Bureau of Agricultural and Resource Economics and Sciences
AFMA	Australian Fisheries Management Authority
AFZ	Australian Fishing Zone
AMCS	Australian Marine Conservation Society
ANSA	Australian National Sportfishing Association
ARFF	Australian Recreational Fishing Foundation
CFA	Commonwealth Fisheries Association
CPUE	Catch per unit effort
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DEPM	Daily egg production method
EEZ	Exclusive economic zone
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cth)</i>
Fisheries Administration Act	<i>Fisheries Administration Act 1991 (Cth)</i>
Fisheries Management Act	<i>Fisheries Management Act 1991 (Cth)</i>
FRDC	Fisheries Research and Development Corporation
<i>Geelong Star</i>	<i>FV Geelong Star</i>
GVP	Gross value of production
HSP	<i>Commonwealth Fisheries Harvest Strategy Policy (2007)</i>
IMAS	Institute for Marine and Antarctic Studies
ITQ	Individual transferable quotas
MAC	Management advisory committee

<i>Margiris</i>	<i>FV Margiris</i>
NTDPIF	Department of Primary Industry and Fisheries, Northern Territory Government
RAG	Resource assessment group
RBC	Recommended biological catch
RD&E	Research, development and extension
SEMACE	South East Management Advisory Committee
SFR	Statutory fishing rights
SPF	Commonwealth Small Pelagic Fishery
SPFIA	Small Pelagic Fishery Industry Association
SPFRAG	Small Pelagic Fishery Resource Assessment Group
TAC	Total allowable catch
TARFish	Tasmanian Association for Recreational Fishing
TCT	Tasmanian Conservation Trust
<i>Veronica</i>	<i>FV Veronica</i>
VMP	Vessel management plan
WAGFA	Western Australian Game Fishing Association

Chapter 1

Introduction

1.1 In recent years, the operation of factory freezer trawlers in Australian waters has attracted controversy. Following the FV *Veronica* in 2004 and the FV *Margiris* in 2012, then known as the FV *Abel Tasman*, the latest vessel to be a source of widespread community and stakeholder concern is the FV *Geelong Star*, which commenced fishing in the Commonwealth Small Pelagic Fishery (SPF) in 2015.¹

1.2 Stakeholders opposed to the operation of factory freezer trawlers in the SPF argued that these vessels harm and/or present significant risk to the marine environment and the sustainability of fishing activities. Other stakeholders, however, contend that the vessels can operate sustainably and that Australia's regulatory system successfully minimises the risk of overfishing and other unacceptable outcomes. This inquiry has provided an opportunity to air and test various claims and counterclaims.

Referral and reporting timeframe

1.3 On 7 September 2015, the Senate referred the following matter to the Environment and Communications References Committee for inquiry and report by 30 April 2016:

The environmental, social and economic impacts of large-capacity fishing vessels commonly known as 'supertrawlers' operating in Australia's marine jurisdiction, with particular reference to:

- (a) the effect of large fishing vessels on the marine ecosystem, including
 - (i) impacts on fish stocks and the marine food chain, and
 - (ii) bycatch and interactions with protected marine species;
- (b) current research and scientific knowledge;
- (c) social and economic impacts, including effects on other commercial fishing activities and recreational fishing;
- (d) the effectiveness of the current regulatory framework and compliance arrangements;
- (e) any other related matters.²

1 Department of Agriculture and Water Resources, *Submission 12*, p. 12; Australian Fisheries Management Authority (AFMA), 'Geelong Star meets AFMA requirements on arrival into Australia', *Media Release*, 1 April 2015.

2 *Journals of the Senate*, 7 September 2015, p. 3040.

1.4 On 31 March 2016, the committee presented an interim report requesting an extension of time to 24 August 2016 for the final report.

1.5 On 8 May 2016, the Governor-General issued a proclamation dissolving the Senate and the House of Representatives from 9 am on 9 May 2016 for a general election on 2 July 2016. As a result of the dissolution of the Senate for an election, the committee ceased to exist and the inquiry lapsed.

1.6 The 45th Parliament commenced on 30 August 2016 and members of this committee were appointed on 1 September 2016. On 13 September 2016, the Senate agreed to the committee's recommendation that this inquiry be re-adopted with a reporting date of 23 November 2016. The Senate also agreed to the recommendation that the committee have the power to consider and use the records of the Environment and Communications References Committee appointed in the previous parliament that related to this inquiry.³

Conduct of the inquiry

1.7 As noted above, the inquiry spans two parliaments—the 44th and 45th—with the conduct of the inquiry interrupted by the dissolution of the Senate prior to the 2016 general election.

Progress during the 44th Parliament

1.8 In accordance with its usual practice, the committee appointed in the previous parliament advertised the inquiry on its website and wrote to relevant individuals and organisations inviting submissions. The date for receipt of submissions was initially 20 November 2015; however, the committee subsequently agreed to extend the submission receipt date to 22 January 2016.

1.9 The committee received 167 submissions, which are listed at Appendix 1. The public submissions are also available on the committee's website at www.aph.gov.au/senate_ec.

1.10 In addition to the published submissions, the committee received a significant number of form letters and other correspondence, the overwhelming majority of which expressed opposition to super trawlers operating in Australian waters. This material is categorised as follows:

- Four different form letters were sent to the committee with 10,833 letters received in total⁴ from Australian residents and residents of other countries.

3 *Journals of the Senate*, 13 September 2016, p. 177.

4 Form letters sent following the dissolution of the Senate on 9 May 2016 were not received by the committee and are not included in the total figure of form letters received. The total number of form letters received should be distinguished from the number of individuals who lodged a form letter, as a large number of individuals lodged multiple form letters. Some individuals who signed one of the four types of form letters also signed at least one of the other three types.

The committee agreed to publish an example of each type of form letter and the number of each type received. A breakdown of the form letters by type is at Appendix 1.

- The committee also received 138 emails containing short statements of support for the inquiry and/or opposition to factory freezer trawlers. This correspondence was available to the committee throughout the inquiry, however, the emails were not published as submissions.

1.11 During the 44th Parliament, the committee conducted a hearing in Hobart on 15 April 2016. A list of witnesses who appeared at the hearing is at Appendix 2.

Progress during the 45th Parliament

1.12 Following the re-adoption of the inquiry on 13 September 2016, the committee published seven additional submissions. The committee also continued the program of public hearings with a public hearing held in Canberra on 1 November 2016.

1.13 As above, further information about the submissions and witnesses who participated in the public hearing is at Appendices 1 and 2 respectively.

Acknowledgement

1.14 The committee thanks all of the individuals and organisations that contributed to the inquiry.

Structure of the report

1.15 This report comprises six chapters, as follows:

- Chapter 1 has outlined introductory matters regarding the referral and conduct of the inquiry. The remaining sections of this chapter provide background information on:
 - the jurisdictional and regulatory arrangements for Commonwealth fisheries, including an overview of the agency responsible for managing these fisheries—the Australian Fisheries Management Authority (AFMA);
 - the fishery that is relevant to this inquiry—the SPF;
 - the factory freezer trawler that is the subject of public concern—the FV *Geelong Star*; and
 - the debate about the operation of the *Geelong Star*, including a brief overview of the positions held by key stakeholders on the management arrangements for the *Geelong Star*. The term 'super trawler' is also discussed.

- Chapter 2 provides an overview of the management arrangements currently applied in the SPF and to the *Geelong Star*.
- Chapter 3 examines the evidence received about the effects and potential effects the *Geelong Star* has, or may have, on the marine environment in the SPF.
- Chapter 4 considers the evidence received about the economic and social consequences of the activities of the *Geelong Star*.
- To the extent that these matters were not discussed in the preceding chapters, Chapter 5 examines the management of the SPF by AFMA, including the science relied on for the management of the fishery, AFMA's decision-making processes and the transparency of the operations of the *Geelong Star*.
- The committee's findings and recommendations are outlined in the final chapter.

Note on references

1.16 References in this report to the *Hansard* of the 15 April 2016 public hearing are to the official version of the transcript. References to the 1 November 2016 public hearing are to the proof version of the transcript. Page numbers may vary between the proof and the official *Hansard* transcripts.

Overview of the regulation of Commonwealth fisheries

1.17 The following paragraphs provide background information on the jurisdictional and regulatory arrangements relevant to Australia's fisheries and the roles and responsibilities of AFMA, which is the agency charged with managing Commonwealth fisheries.

Fishing zones and jurisdictional arrangements

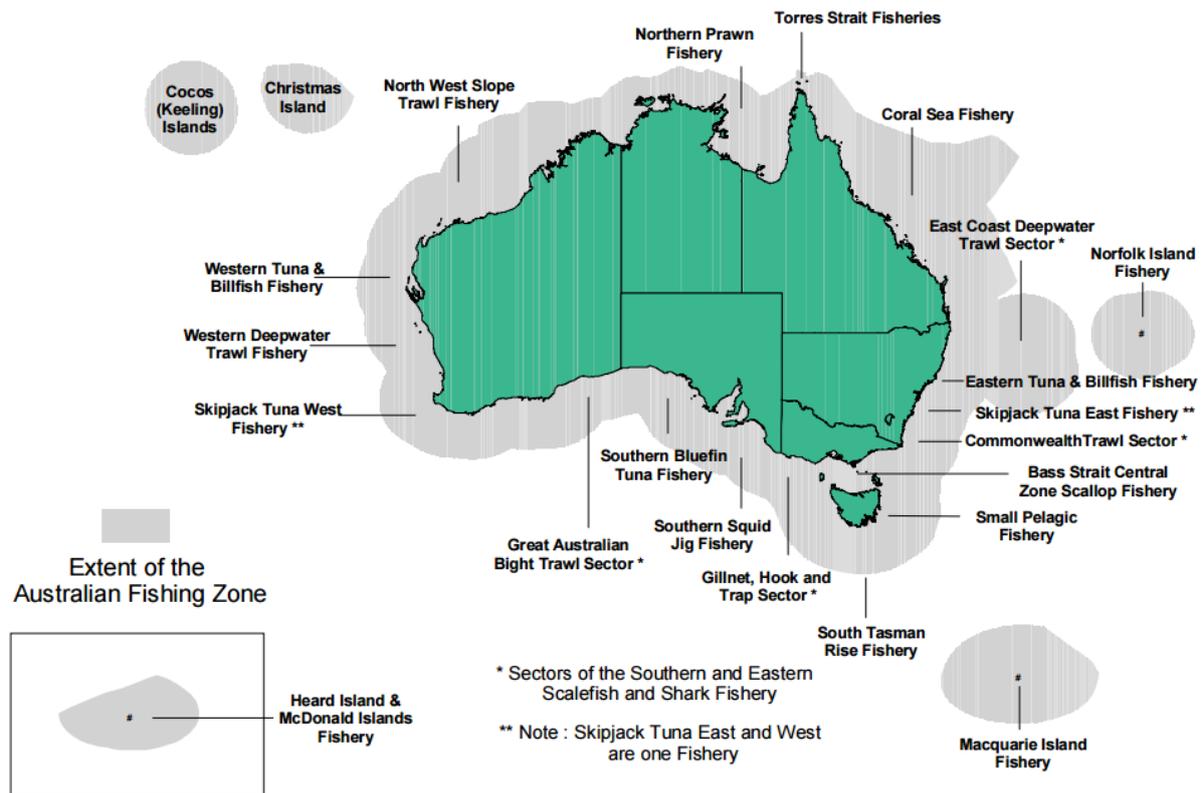
1.18 Australia's marine jurisdiction comprises:

- Australia's territorial sea—which extends to 12 nautical miles from the coast and within which Australia has full sovereignty; and
- the contiguous zone, exclusive economic zone (EEZ) and continental shelf, areas within which the Commonwealth has certain rights. For example, within the EEZ, Australia has 'has sovereign rights to explore and exploit, conserve and manage the natural resources', such as fisheries.⁵

5 Geoscience Australia, 'Australia's jurisdiction', www.ga.gov.au/scientific-topics/marine/jurisdiction/australia (accessed 6 November 2015); and Department of Agriculture and Water Resources, 'The Australian Fishing Zone', www.agriculture.gov.au/fisheries/domestic/zone (accessed 6 November 2015).

1.19 The Australian Fishing Zone (AFZ), which was first declared in 1979, encompasses Commonwealth waters—generally the area covering three nautical miles to 200 nautical miles from the Australian coast and also including the waters surrounding Australia's external territories, such as Heard and Macdonald Islands in the Antarctic.⁶ The area covered by the AFZ is depicted at Figure 1.1.

Figure 1.1: Australian Fishing Zone and AFMA managed fisheries



Source: AFMA, 'The Australian Fishing Zone'.

1.20 The AFZ reflects the Commonwealth's constitutional responsibilities. Paragraph 51(x) of the Constitution provides the Commonwealth with the power to legislate relating to 'fisheries in Australian waters beyond territorial limits' (three nautical miles), leaving the states generally responsible for managing inland fishing and coastal fisheries out to three nautical miles from the low-water mark.⁷

1.21 Under the Offshore Constitutional Settlement between the Commonwealth, states and the Northern Territory,⁸ however, parties can agree to 'adjust these

6 AFMA, 'The Australian fishing zone', www.afma.gov.au/wp-content/uploads/2010/07/fs02_afz.pdf (accessed 6 November 2015).

7 D Borthwick, *Review of Commonwealth fisheries: legislation, policy and management*, December 2012, p. 16.

8 Attorney-General's Department, 'Offshore constitutional settlement', www.ag.gov.au/Internationalrelations/InternationalLaw/Pages/TheOffshoreConstitutionalSettlement.aspx (accessed 6 November 2015).

arrangements by passing management responsibility for particular fisheries exclusively to the Commonwealth or to the adjacent states/Northern Territory; or alternatively, for the Commonwealth and the states/Northern Territory to jointly manage a fishery through a Joint Authority'.⁹ That is, 'state and territory governments generally manage fisheries within their borders and inside three nautical miles from shore, except where Offshore Constitutional Settlement exist between the Commonwealth and state governments'.¹⁰ The Commonwealth has 'generally limited its jurisdiction to commercial fishing, with the state/Northern Territory governments assuming responsibility for recreational fishing'.¹¹

Australian Fisheries Management Authority

1.22 AFMA is a Commonwealth statutory authority responsible for managing Commonwealth commercial fisheries, managing Australian boats fishing on the high seas and deterring illegal foreign fishing in the AFZ.¹² AFMA is also involved in the management of several fisheries jointly with other Australian jurisdictions or other countries.¹³

1.23 AFMA's objectives and functions are outlined in the *Fisheries Administration Act 1991*. In summary, the principal objectives are:

- implementing efficient and cost-effective fisheries management on behalf of the Commonwealth, and ensuring such arrangements and related activities implement Australia's obligations;
- ensuring fishing and related activity is consistent with the principles of ecologically sustainable development,¹⁴ including exercise of the precautionary principle, and in particular the need to have regard to the impact of fishing activities on non-target species and the long term sustainability of the marine environment;

9 D Borthwick, *Review of Commonwealth fisheries: legislation, policy and management*, p. 16.

10 AFMA, *Annual Report 2014–15*, September 2015, p. 14.

11 Department of Agriculture and Water Resources, www.agriculture.gov.au/fisheries/domestic/managing-australian-fisheries (accessed 9 November 2015).

12 AFMA, *Submission 18*, p. 1.

13 AFMA, *Annual Report 2014–15*, September 2015, p. 70.

14 The principles of ecologically sustainable development are outlined in section 6A of the Fisheries Administration Act. The principles are: '(a) decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equity considerations; (b) 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; (c) the principle of inter-generational equity—that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations; (d) the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making; and (e) improved valuation, pricing and incentive mechanisms should be promoted'.

-
- maximising the 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; and
 - achieving government targets in relation to recovery of AFMA's costs.¹⁵

1.24 The functions provided to AFMA under the Fisheries Administration Act include, among others:

- devising and implementing management regimes that relate to fishing for fish stocks;
- devising and carrying out fisheries adjustment programs, fisheries restructuring programs and exploratory and feasibility programs relating to fishing;
- establishing priorities in respect of research relating to fisheries managed by AFMA and arranging for the undertaking of such research;
- making arrangements in relation to the placement of persons as observers on board boats used for commercial fishing, including foreign fishing boats operating, or intended to operate, outside the Australian fishing zone if such placements are consistent with Australia's international obligations;
- establishing and allocating fishing rights, and establishing and maintaining a register of fishing rights;
- any functions provided under legislation relating to plans of management or recreational fishing; and
- collection, on behalf of the Commonwealth, of payments from person exploiting fisheries resources.¹⁶

1.25 AFMA's Commission is responsible for 'performing and exercising the domestic fisheries management functions and powers' of AFMA. AFMA's Chief Executive Officer, who is also a Commissioner, is responsible for performing and exercising AFMA's foreign compliance functions and powers, and for assisting the Commission, including by giving effect to its decisions.¹⁷

1.26 AFMA's submission explains that it is also required to comply with the Ministerial Direction to AFMA of 2005 to 'the extent it is consistent with the pursuit of its objectives'. AFMA explained that the direction 'seeks to focus AFMA's activities on a number of its objectives, including avoiding overexploitation of resources, economic efficiency (by implementing individual transferable quotas) and

15 *Fisheries Administration Act 1991*, s. 6; AFMA, *Annual Report 2014–15*, p. 18. Additional objectives are outlined in subsection 3(2) of the Act.

16 *Fisheries Administration Act 1991*, s. 7.

17 *Fisheries Administration Act 1991*, ss. 10B(2), 10B(3) and 11(1).

ecologically sustainable development. The direction added that, in pursuing these objectives 'AFMA must take a more science-based approach to decision making'. The *Commonwealth Harvest Strategy Policy*, which is discussed in Chapter 2, arises from this direction.¹⁸

Other departments and agencies

1.27 Although responsibility for fisheries policy falls under the Agriculture portfolio, the Department of the Environment and Energy has responsibilities under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The EPBC Act requires the Australian government to assess the environmental performance of fisheries and promote ecologically sustainable fisheries management. The department's primary role in fisheries is 'to evaluate the environmental performance of fisheries, including the strategic assessment of fisheries under Part 10 of the EPBC Act; assessments relating to impacts on protected marine species under Part 13; and assessments for the purpose of export approval under Part 13A'.¹⁹

1.28 To export product, fishing operations in Commonwealth waters 'must first be accredited under the EPBC Act'. The Commonwealth Fisheries Association, which is the peak body for the commercial fishing industry in Commonwealth regulated fisheries, explained that the accreditation includes:

...the requirement to monitor, mitigate and report any interactions with protected species. Accreditations are subject to regular reassessment and often include requirements to undertake specific actions to reduce their effects on protected species.²⁰

The Small Pelagic Fishery

1.29 The operation of factory freezer vessels in Australian fisheries is not a new phenomenon—a factory freezer vessel has operated in the Southern and Eastern Scalefish and Shark Fishery since 1988 to catch blue grenadier.²¹ The stakeholder and public concerns about the effects and potential effects of factory freezer vessels relate to vessels that operate, or proposed to operate, in the SPF.

1.30 The location of the SPF is indicated at Figure 1.2. The fishery is divided into east and west geographical sub-areas at latitude 146°30' east.

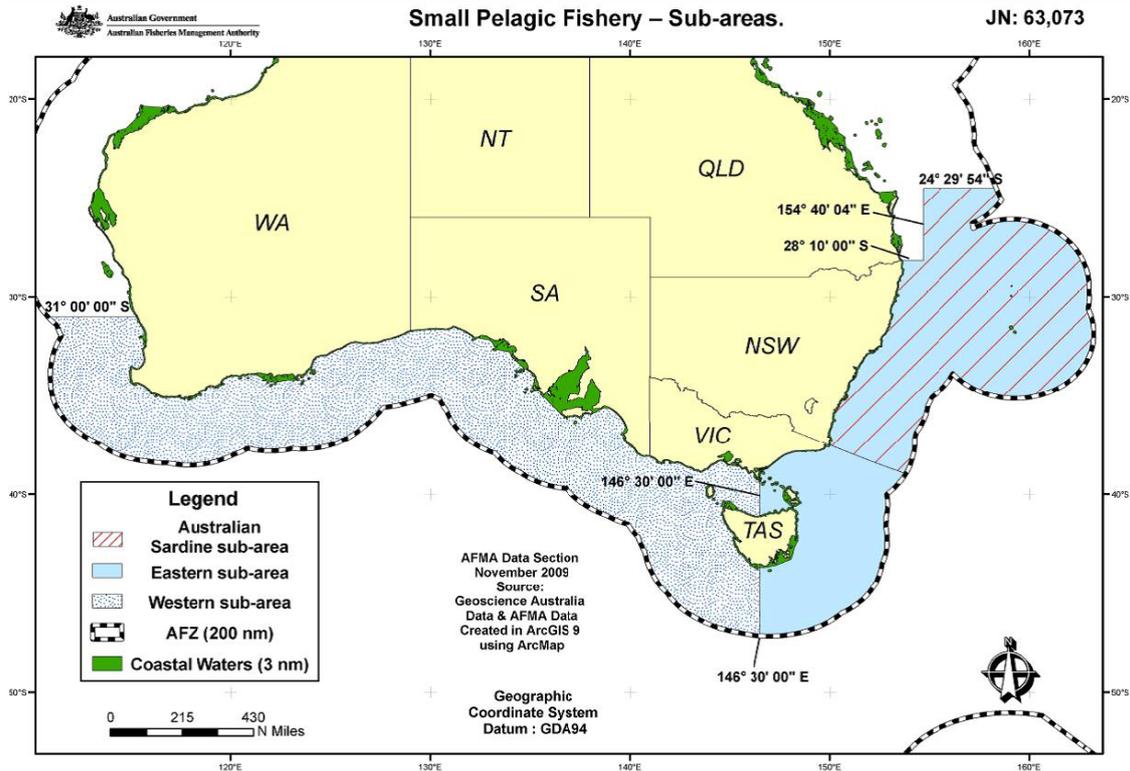
18 AFMA, *Submission 18*, Attachment 9, p. 1.

19 Department of the Environment (now Department of the Environment and Energy), 'Fisheries and the environment', www.environment.gov.au/marine/fisheries (accessed 9 November 2015).

20 Commonwealth Fisheries Association, *Submission 15*, p. 3.

21 Petuna Sealord Deepwater Fishing, *Submission 11*, pp. 2, 11.

Figure 1.2: Map of the Small Pelagic Fishery



Source: Department of Agriculture and Water Resources, *Submission 12*, p. 10.

1.31 In the SPF, commercial fishers target Australian sardines, blue mackerel, jack mackerel and redbait.²² Catches can be used for bait for fishing operations, fish meal for agricultural feed, and human consumption.²³

1.32 Sustained concerns about attempts to bring large mid-water fishing trawlers into the SPF led to the government, in April 2015, banning all boats over 130 metres in length from undertaking fishing related activities within the AFZ.²⁴ Nevertheless, concerns about the operation of the FV *Geelong Star* remain; these concerns are the focus of this inquiry.

History of the SPF

1.33 The history of the SPF is important for understanding concerns about the operation of factory freezer trawlers and how aspects of the management framework have evolved. The SPF's history in recent decades can be divided between fishing operations undertaken by purse seiners and mid-water trawling by traditional vessels, and fishing or interest in fishing through the use of factory freezer trawlers.

22 Department of Agriculture and Water Resources, *Submission 12*, p. 30.

23 Small Pelagic Fishery Management Plan 2009, Explanatory Statement, p. 2.

24 Fisheries Management Amendment (Super Trawlers) Regulation 2015.

Fishing by traditional fishing vessels

1.34 From the mid-1980s to 2000, a large-scale purse seine fishery for jack mackerel operated off the east coast of Tasmania.²⁵ This fishery was known as the Jack Mackerel Fishery, and it was jointly managed by the Tasmanian government and AFMA. Since December 2001, the fishery has been known as the Small Pelagic Fishery, and it became managed solely by AFMA in 2005.²⁶

1.35 In the early 2000s, mid-water trawling was introduced to the SPF. Dr Jeremy Lyle from the Institute for Marine and Antarctic Studies (IMAS) explained that this 'was largely linked to the fact that the purse seine operators were having difficulty locating surface schools of fish'.²⁷ Dr Lyle advised that the 'jury is out...to some extent' on what issues in the fishery caused the decline of the purse seine industry. However, Dr Lyle offered the following observations:

We have looked at the structure of the population, and there is certainly no strong indication that it was overfishing that caused the demise of the purse seine fishery. It was certainly economics...It is a trade-off. They were small vessels or relatively small vessels, but they were taking very large quantities of fish which were then used for fish meal. They were quite restricted in where they could operate, so that was an issue there. Also at that time there were a number of environmental changes. There has been a suggestion that the reason we are not seeing a lot of surface schools of jack mackerel, which is what that fishery was targeting, is related to general oceanographic changes and a kind of disappearance or a reduction in the krill, which was the primary feed for the fish. So they have actually switched and are feeding more on subsurface rather than surface species.²⁸

1.36 Following the shift to mid-water trawling, between 2002 and 2010 a single vessel—the FV *Ellidi*—was dedicated to operating in the fishery.²⁹ Seafish Tasmania explained that the vessel ultimately stopped operating in the SPF and was sold because its operations were unsustainable. It provided the following explanation of the financial pressures that the operation of the *Ellidi*:

25 During the *Margiris* controversy, the then government established an expert panel to consider the environmental impacts of the mid-water trawl freezer vessels with storage capacity greater than 2000 tonnes in the SPF. The 2014 report of that expert panel noted: 'by the mid-1980s the purse seine fishery off the east coast of Tasmania, based out of Triabunna and fishing surface schools of jack mackerel, was the largest fishery in Australia (by weight)'. Annual production peaked at almost 42,000 tonnes in the 1986–87 season. M Lack, P Harrison, S Goldworthy and C Bulman, *Report of the Expert Panel on a Declared Commercial Fishing Activity: Final (Small Pelagic Fishery) Declaration 2012*, October 2014, p. 18.

26 AFMA, Answer to question on notice, No. 37, Senate Rural and Regional Affairs and Transport Legislation Committee, Additional Estimates 2015–16, February 2016.

27 Dr Jeremy Lyle, Senior Research Scientist, Institute for Marine and Antarctic Studies (IMAS), *Committee Hansard*, 15 April 2016, p. 47.

28 Dr Jeremy Lyle, IMAS, *Committee Hansard*, 15 April 2016, p. 42.

29 Seafish Tasmania, *Submission 22*, pp. 1–2, 3 and 12.

Although catches with this vessel were substantial, peaking at around 13,000t in 2005, the business struggled to operate profitably. The low returns from onshore fishmeal production and from supply of onshore frozen fish for bait or tuna feed undermined the potential viability of the fishery.

At this time, it was clear that financially viable operations in the fishery would depend on two factors: the ability to supply the market for human consumption; and to be able to flexibly move throughout the range of the fishery to take advantage of seasonal abundance of the target species, and conversely to avoid dependence on local availability of fish in fishing grounds adjacent to a home port.³⁰

1.37 It is clear that there is some disagreement about what occurred in the jack mackerel purse seine fishery and the Tasmanian mid-water trawl redbait fishery. The Tasmanian Conservation Trust submitted that both of these fisheries 'failed in less than 5 years in two separate events'. It added:

Supporters of the *Geelong Star* and AFMA's current management of the SPF claim that the failure of jack mackerel and redbait fisheries had nothing to do with fishing and were the result of (unspecified) environmental factors. In fact, while there is some evidence to suggest climate change did impact the jack mackerel fisher[y], age size data from catch records suggests that fishing was having an impact...

Even if one was to accept that fishing had no impacts on the failure of the jack mackerel and redbait fisheries, and was solely due to environmental factors, this raises another issue that...has been ignored by AFMA: we do not know or understand what those environmental factors might be. Climate change is having a significant impact on the marine environment off southern Australia and may have impacts on SPF species.³¹

1.38 Mr Jonathan Bryan, who has served on various advisory committees and groups relating to the regulation of the SPF and is the marine spokesperson for the Tasmanian Conservation Trust, subsequently told the committee:

There is a lot to say about the jack mackerel fishery. I think it is reasonable to assume that climate change or some other environmental change was largely responsible for that collapse, but there is no denying that age, size and structure of the stock indicated that fishing was having some sort of impact.³²

1.39 AFMA, however, rejected the description that the redbait fishery 'failed'. It informed the committee that it is not aware of 'any scientific basis for stating that the redbait fishery "failed" or that an apparent failure was caused by overfishing'. In relation to both the redbait and jack mackerel stocks, AFMA added:

30 Seafish Tasmania, *Submission 22*, pp. 1–2.

31 Tasmanian Conservation Trust (TCT), *Submission 143*, p. 5.

32 Mr Jonathan Bryan, Marine Spokesperson, TCT, *Committee Hansard*, 15 April 2016, p. 19.

For example, the *Commonwealth Small Pelagic Fishery: Fishery Assessment Report 2011*...states that 'Recent low catches of Redbait East have been attributed to reductions in local abundance associated with increased water temperatures off eastern Tasmania'. This is supported by more recent advice from the SPF Expert Panel in relation to jack mackerel.³³

Unsuccessful plans to bring factory freezer vessels to fish the SPF

1.40 Although this inquiry focuses on the *Geelong Star*, it follows public debate as to whether other large trawlers should be permitted to fish in Australian waters, such as the debates about the FV *Veronica* (2004) and the FV *Margiris* (2012), then known as the FV *Abel Tasman*.

1.41 The *Veronica* is a 106-metre factory freezer vessel that an Irish company sought to bring to the SPF. A statutory management plan was not in place for the SPF at the time; consequently, AFMA froze boat nominations in the fishery while management arrangements were enhanced. This 2004 decision 'effectively precluded the entry of the FV *Veronica* since the vessel could not be nominated against an SPF fishing permit'.³⁴

1.42 The next factory freezer vessel that was proposed was the *Margiris*, a 143-metre factory trawler with a freezer capacity of 6200 tonnes. As part of a joint venture between Seafish Tasmania and the Dutch fishing company Parlevliet & Van der Plas BV, it was planned that the *Margiris* would fish Seafish Tasmania's quota fishing rights in the SPF. The *Margiris* arrived at Port Lincoln in August 2012. On 5 September 2012, the *Margiris* was registered as an Australian-flagged vessel and renamed the *Abel Tasman*.³⁵

1.43 Broad public concerns about the proposal for the *Margiris* to fish in the SPF resulted in legislative changes and ministerial decisions that prevented the ship from fishing in Australian waters. In September 2012, the *Environment Protection and Biodiversity Conservation Amendment (Declared Commercial Fishing Activities) Act 2012* was passed. The Act gave the Minister for the Environment the power to establish an independent expert panel to conduct an assessment into the potential environmental impacts of a declared commercial fishing activity and to prohibit the declared commercial fishing activity while the assessment is undertaken.

1.44 In November 2012, then Minister for the Environment, the Hon Tony Burke MP, declared that large-scale mid-water trawl freezer vessels, such as the *Margiris*, could not fish in the SPF for two years while an independent expert panel considered

33 AFMA, Response to *Submission 143*, Attachment A, p. 3.

34 M Lack et al, *Report of the Expert Panel on a Declared Commercial Fishing Activity: Final (Small Pelagic Fishery) Declaration 2012*, p. 20.

35 M Lack et al, *Report of the Expert Panel on a Declared Commercial Fishing Activity: Final (Small Pelagic Fishery) Declaration 2012*, p. 21.

the impact its activities would have on fisheries and the environment.³⁶ Following this determination, the *Margiris* left Australian waters in March 2013.³⁷ Seafish Tasmania unsuccessfully sought judicial review of the Minister's decisions.³⁸

1.45 Industrial-scale fishing activity in the SPF was not proposed again until the *Geelong Star*. At present, only the *Geelong Star* and two other purse seine vessels are active in the fishery.³⁹

The FV *Geelong Star*

1.46 The FV *Geelong Star* commenced fishing in the SPF on 2 April 2015.⁴⁰ The *Geelong Star* is a 3181 tonne factory freezer vessel with a hold capacity of 1061 tonnes. At 95.18 metres, the *Geelong Star* is the longest fishing vessel in the AFZ.⁴¹

Figure 1.3: The FV Geelong Star



Source: AFMA, *Submission 18*, Attachment 5, p. 1.

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- 36 The Hon Tony Burke MP (Minister for Sustainability, Environment, Water, Population and Communities), 'Super trawler banned while expert assessment is carried out', *Media Release*, 19 November 2012.
- 37 ABC News, 'Super trawler sails off from controversy', 6 March 2013, www.abc.net.au/news/2013-03-06/super-trawler-sails-off-from-controversy/4556560 (accessed 20 January 2016).
- 38 *Seafish Tasmania Pelagic Pty Ltd v Burke, Minister for Sustainability, Environment, Water, Population and Communities (No 2)* [2014] FCA 117.
- 39 ABARES, *Fishery status reports 2016*, September 2016, p. 98.
- 40 Department of Agriculture and Water Resources, *Submission 12*, p. 12; AFMA, 'Geelong Star meets AFMA requirements on arrival into Australia', *Media Release*, 1 April 2015.
- 41 Department of Agriculture and Water Resources, *Submission 12*, p. 3.

1.47 The operation of the *Geelong Star* in the SPF is a joint enterprise between Seafish Tasmania and Dutch company Parlevliet & Van der Plas BV and its Australian subsidiary, Seafish Tasmania Pelagic Pty Ltd.⁴² The fish caught by the *Geelong Star* is shipped to export markets, usually in West Africa.⁴³

1.48 AFMA was notified that Seafish Tasmania had nominated the *Geelong Star* to fish its concessions in the SPF on 12 February 2015. Following registration of the *Geelong Star* as an Australian-flagged boat by the Australian Maritime Safety Authority,⁴⁴ AFMA confirmed that the vessel met its requirements. The *Geelong Star* commenced fishing in the SPF on 2 April 2015. As the *Geelong Star* is less than 130 metres in length, it is not affected by the ban introduced by the government in April 2015.

1.49 The following timeline (Figure 1.4) outlines key events following the arrival of the *Geelong Star*, some of which will be elaborated on elsewhere in the report.

Figure 1.4: Timeline of key events relating to the Geelong Star

<i>Date</i>	<i>Event</i>
12/02/2015	AFMA is notified that Seafish Tasmania Pty Ltd had nominated the <i>Geelong Star</i> to fish its concessions in the SPF.
2/04/2015	The <i>Geelong Star</i> commences fishing in the SPF after AFMA confirms that the vessel met its requirements. The nomination followed registration of the <i>Geelong Star</i> as an Australian-flagged boat by the Australian Maritime Safety Authority.
21/04/2015	AFMA announces that the operators of the <i>Geelong Star</i> had notified it of two seal mortalities and four dolphin mortalities.
8/05/2015	AFMA bans night-time fishing by the <i>Geelong Star</i> and implements a requirement that, if a dolphin mortality occurs in a management zone within the fishery (there are seven zones), that zone will be closed to fishing by mid-water trawl method for six months. The explanatory material that accompanied the instrument imposing the ban noted that, in two trips since 19 April 2015, eight common dolphin mortalities during night-time fishing were reported by the operators of the <i>Geelong Star</i> .
17/06/2015	Following a dolphin mortality, AFMA closes a management zone (zone 6, which is off the coast of southern New South Wales and eastern Victoria) for six months.
17/09/2015	AFMA ends the night-time fishing ban.
25/11/2015	The Senate negatives a motion to disallow the legislative instrument that ended the night-time fishing ban.

42 Small Pelagic Fishery Industry Association, *Submission 27*, p. 22.

43 Seafish Tasmania, *Submission 22*, p. 12.

44 Previous names for the vessel were the FV *Naeraberg* and the FV *Dirk Dirk*. Dr James Findlay, Chief Executive Officer, AFMA, *Senate Rural and Regional Affairs and Transport Legislation Committee Hansard*, Estimates, 23 February 2015, p. 78.

27/11/2015	The government announces that the commercial and recreational fishing sectors had recommenced negotiations on fishing operations in the SPF.
17/12/2015	Zone 6, which was closed on 17 June 2015, re-opens. AFMA confirms that there have been no dolphin mortalities in the SPF since the closure of zone 6.
1/12/2015	As part of the negotiations between the commercial and recreational fishing sectors, Seafish Tasmania voluntarily agrees that the <i>Geelong Star</i> will not fish in SPF management zone 7 until the end of the season on 30 April 2016.
29/01/2016	AFMA announces that the <i>Geelong Star</i> will not fish again until additional mitigation measures to minimise any further interactions with seabirds are agreed to by AFMA. The decision follows 'a higher than expected level of albatross mortalities' on the vessel's previous fishing trip in the SPF.
1/02/2016	The additional mitigation measures relating to seabirds are announced by AFMA. The <i>Geelong Star</i> recommences fishing.
11/02/2016	A whale shark ran into the outside of the vessel's net and became caught by two of its fins. On 19 February, AFMA issues a statement noting that its scientific observer on board the <i>Geelong Star</i> reported that the whale shark was subsequently freed from the net and swam away without difficulty. AFMA later advises (on 24 February and 17 March) that the whale shark spent an estimated 3 minutes, 35 seconds out of the water while, with the use of a crane, it was brought onto the boat, freed and released into the water.
25/02/2016	The government indicates progress has been made in negotiations between recreational and commercial fishing interests about the operations of the <i>Geelong Star</i> , with Seafish Tasmania offering voluntary undertakings about areas where and dates when the vessel will not fish. However, by April the Australian Recreational Fishing Foundation had decided not to participate in further discussions.
20/04/2016	AFMA announces that more than one million square kilometres of additional offshore waters near southern and eastern Australia will open to mid-water trawling in the SPF, allowing the <i>Geelong Star</i> to catch its fishing quota in a greater area.
1/05/2016	The voluntary offer made by Seafish Tasmania in February 2016 comes into effect. At Seafish Tasmania's request, AFMA will monitor and report on compliance with the agreement and will report on bycatch of gamefish.
31/10/2016	AFMA releases a revised vessel management plan for the <i>Geelong Star</i> .

Sources: Department of Agriculture and Water Resources, *Submission 12*, p. 12; Mr Allan Hansard, Managing Director, Australian Recreational Fishing Foundation, *Committee Hansard*, 15 April 2016; various AFMA media releases and website statements (www.afma.gov.au); and media releases issued by Senator the Hon Anne Ruston, Assistant Minister for Agriculture and Water Resources on 27 November 2015, 1 December 2015 and 25 February 2016.

Key stakeholder positions on the *Geelong Star*

1.50 Since it commenced operating, AFMA has initiated various regulatory measures in response to mortalities of protected species caused by the operations of the *Geelong Star*. Various stakeholders are also concerned about the effect of the trawler's operations on other commercial fishing operations and recreational fishing activities. Both the fishing activities of the *Geelong Star* and the regulatory approach taken by AFMA have attracted controversy.

1.51 Environmental non-government organisations expressed opposition to the activities of the *Geelong Star* and the approach taken to managing the SPF. Environment Tasmania and the Australian Marine Conservation Society both called on the government to 'enact a permanent ban on the operation of factory freezer trawlers in the Small Pelagic Fishery'.⁴⁵ The Conservation Council SA provided a list of recommendations regarding potential localised depletion, adverse environmental effects, how to minimise impacts on protected species and the presence of AFMA observers on the vessel. The Conservation Council SA called for vessels such as the *Geelong Star* to be banned from the fishery 'until management strategies', including the recommendations outlined in its submission, 'are in place to effectively minimise impacts on protected species'.⁴⁶

1.52 Recreational fishing interests are another key stakeholder group. Submitters in this group expressed concern about potential repercussions for the Australian recreational fishing sector from the operations of the *Geelong Star*. The Australian Recreational Fishing Foundation (ARFF) called for a moratorium on 'industry scale' fishing in areas of the SPF that are of concern to the recreational fishing sector. The ARFF argued that this moratorium should remain in place 'until a comprehensive assessment has been conducted to determine whether industrial scale fishing of the SPF is the highest and best use of the SPF, in our nation's interest and whether the small pelagic fishery should be commercially fished at all'.⁴⁷

1.53 Seafish Tasmania, the operator of the *Geelong Star*, argued that the use of a factory freezer trawler such as the *Geelong Star* is the only way that operations in the SPF can be commercially viable. Seafish Tasmania also advised that, over 11 years, it has worked within the regulatory arrangements to assist in developing management plans and strategies 'that support the sustainable management of the SPF'.⁴⁸ Seafish Tasmania added:

The current management regime in the SPF, and in particular the conditions applied to the *Geelong Star*, are extremely strict. Clearly, they are designed

45 Environment Tasmania, *Submission 145*, p. 2; Australian Marine Conservation Society, *Submission 146*, p. 2.

46 Conservation Council SA, *Submission 148*, p. [7].

47 Australian Recreational Fishing Foundation, *Submission 134*, p. 2.

48 Seafish Tasmania, *Submission 22*, p. 15.

to provide a high degree of public confidence that the operations of the vessel are being closely monitored and managed.⁴⁹

1.54 Seafish Tasmania concluded:

The company has made substantial investments in supporting scientific surveys and more recently in bringing freezer trawlers from Europe to catch our quota and to produce high quality fish for human consumption. It is time to let us get on with the job of catching our quota.⁵⁰

1.55 Seafish Tasmania and the Small Pelagic Fishery Industry Association (SPFIA) also argued that the science-based management of the fishery and the statutory fishing rights associated with the vessel should be respected. For example, the SPFIA submitted:

The impact of the continued political interventions in the management of the Small Pelagic Fishery is being felt well beyond the confines of this Association. Although SPF quota holders are effectively the primary target of the political attacks, there is widespread erosion of industry confidence in the ability of AFMA to manage fisheries in an independent, non-political and science based manner. Consequently, industry confidence in the quality and security of their Statutory Fishing Rights is being steadily undermined.

In these destabilising circumstances, it should not be surprising if industry were to take a shorter term view of their investments reflecting the increased political risk being faced. This is exactly the situation that Government sought to avoid by providing the fishing industry with well defined, long term secure fishing rights to inspire operators to take economically responsible decisions and to look after the marine resources on which their businesses depend.⁵¹

1.56 Other commercial fishing interests urged the committee and other interested stakeholders to separate concerns about factory freezer vessels operating in the SPF, where resource sharing issues involving recreational fishers are important, and the operation of factory freezer trawlers in other fisheries. Petuna Sealord Deepwater Fishing, which has operated a factory freezer vessel in the blue grenadier fishery since 1988, urged the committee to separate 'what we see are two dissimilar issues', namely concerns about 'super trawlers' in the SPF and the operation of factory freezer trawlers elsewhere. It explained:

The current community concern which has led to this inquiry is not necessary driven by the size or freezing capacity of the vessel or the science of the fishery, as evidenced in the blue grenadier fishery, but centres around resource sharing and access to a fish species that recreational fishers

49 Seafish Tasmania, *Submission 22*, p. 14.

50 Seafish Tasmania, *Submission 22*, p. 15.

51 Small Pelagic Fishery Industry Association, *Submission 27*, p. 35.

consider is a significant driver in maintaining healthy populations of key recreational species.⁵²

1.57 The positions held by various stakeholders and the various arguments they presented to the committee to substantiate their positions will be expounded in the following chapters. The final section of this chapter discusses the meaning of the commonly-used term 'super trawler' and the implications of the term for policy debate.

Meaning of 'super trawler'

1.58 The terms of reference for this inquiry uses the term 'large-capacity fishing vessels' to indicate the types of vessels that the inquiry is to target. The terms of reference also note that these vessels are commonly known as 'super trawlers'. Neither term, however, is defined.

1.59 The lack of a definition is useful in that the scope of the inquiry can be as broad as the committee considers is necessary. The term 'super trawler', however, is vague and some stakeholders questioned what trawlers are actually included in the scope of this term. Although it appears to be accepted that factory freezer trawlers greater than 130 metres in length are 'super trawlers', it is less clear whether it is appropriate to apply this term to other factory trawlers that are smaller than this size.

1.60 The CSIRO noted that the term 'super trawler' has only been used in Australia since the debate regarding the *Margiris*, despite factory fishing vessels having operated in Australian waters for almost 20 years.⁵³ Although the term was commonly used in public debate, including in government announcements, the initial declaration that prohibited the *Margiris* from operating in the SPF did not use the term.⁵⁴

1.61 The first use of the term 'super trawler' in a legislative sense occurred in April 2015, when the government made the Fisheries Management Amendment (Super Trawlers) Regulation 2015. This regulation banned all boats over 130 metres

52 Petuna Sealord Deepwater Fishing, *Submission 11*, pp. 2, 11. 2.27 Similarly, Austral Fisheries outlined the various freezer vessels it currently operates, and has operated previously, in the sub-Antarctic toothfish and icefish fisheries, in the Northern Prawn Fishery and on the high seas (in the Indian Ocean). The largest of these vessels was 87 metres long. Austral argued that the freezer vessels it operates or has operated previously were 'essential from an efficiency, sustainability, safety, and commercial viability perspective'. See Austral Fisheries, *Submission 14*, p. 6.

53 CSIRO, *Submission 23*, p. 6.

54 In November 2012, then Environment Minister, the Hon Tony Burke MP issued the Final (Small Pelagic Fishery) Declaration 2012, which prohibited commercial fishing activities that: (a) occur in the SPF; (b) use the mid-water trawl method; and (c) use a vessel which is greater than 130 metres in length, has an on board fish-processing facility and has storage capacity for fish or fish products in excess of 2000 tonnes. Although the term super trawler was used when the ministerial declaration was announced, the declaration and the explanatory statement did not use the term (the explanatory statement for the declaration used 'large mid-water trawl freezer vessel').

in length from undertaking fishing related activities within the Australian fishing zone.⁵⁵ In a media release announcing the government's intention to impose the ban, it was explained that the definition was based on that used by the previous government and environmental non-governmental organisations.⁵⁶ Then Parliamentary Secretary to the Minister for Agriculture, Senator the Hon Richard Colbeck, subsequently added that the decision:

...was based on the definition of 'supertrawler' that was effectively in the public arena at that time and the broader debate around what the definition of supertrawler might be.⁵⁷

1.62 The *Geelong Star* is 95 metres long and, therefore, is not covered by the 130-metre definition of super trawler used for the ban. Nevertheless, the *Geelong Star* has commonly been referred to as a super trawler, including by the media and state governments.⁵⁸ In addition, some of the concerns expressed by groups that opposed the *Margiris* have similarly been applied to the *Geelong Star*. Some submitters also argued that there is only a marginal difference in the quota allocated to the *Abel Tasman*, which was banned, and vessels such as the *Geelong Star* that are not.⁵⁹ Other submitters, however, maintain that 'there is no correlation between vessel size and fishing power'.⁶⁰

1.63 On this issue, Mr Allan Hansard, Managing Director, Australian Recreational Fishing Foundation, commented: 'It is not necessarily the size of the boat; it is that intensity that we need to really focus on in this case'.⁶¹

1.64 From the perspective of the Stop the Trawler Alliance, which is an alliance of environment, fishing and tourism organisations established in 2012 in response to the *Margiris*, the principal issue is that a factory freezer vessel is operating in the SPF, not that a vessel of a certain size is operating.⁶²

55 Fisheries Management Amendment (Super Trawlers) Regulation 2015.

56 Senator the Hon Richard Colbeck, 'Supertrawlers to be banned from Australian waters', *Media Release*, 24 December 2014.

57 Senator the Hon Richard Colbeck, *Senate Rural and Regional Affairs and Transport Legislation Committee Hansard*, Budget Estimates 2015–16, 26 May 2015, p. 55.

58 The Hon Leon Bignell MP (SA Minister for Agriculture, Food and Fisheries), 'Serious concerns about super trawler near SA waters', *Media Release*, 24 June 2015, http://pir.sa.gov.au/alerts_news_events/news/fisheries_and_aquaculture/serious_concerns_about_super_trawler_near_sa_waters (accessed 6 November 2015).

59 Name withheld, *Submission 52*, p. 1.

60 Western Australian Fishing Industry Council, *Submission 7*, p. 1.

61 Mr Allan Hansard, Managing Director, Australian Recreational Fishing Foundation, *Committee Hansard*, 15 April 2016, p. 32.

62 Mr Adrian Meder, Marine Campaigns Officer, Australian Marine Conservation Society, *Committee Hansard*, 15 April 2016, p. 15.

1.65 In their evidence to this inquiry, key stakeholders differed in their preferred terminology.

1.66 Mr Malcolm McNeill, the Chief Executive Officer of Petuna Sealord Deepwater Fishing, which operates a factory freezer trawler in the Southern and Eastern Scalefish and Shark Fishery, suggested that the term 'super trawler' is emblematic of a debate that is not well informed. He explained:

The terminology of 'supertrawler'—the word itself—is quite damaging. I do not believe that it gives a real indication of what is really happening out there and what big boats are about et cetera. Personally, I think there is misinformation out there and utilising the word 'supertrawler' is quite emotive. There is nothing really that super about bigger boats; they are just bigger.⁶³

1.67 The Northern Territory Department of Primary Industry and Fisheries commented on the term 'large capacity', which is used in the terms of reference. The department submitted:

The operational power of the vessel, the size and design of the gear permitted for use and the skill and experience of the crew operating the vessel all influence fishing capability and environmental risk. This needs to be differentiated from the seafaring capability and interior design of a vessel and its ability to process and store catch.⁶⁴

1.68 The CSIRO used the term 'factory fishing vessel', which it defined as follows:

...large fishing vessels, usually stern trawlers, equipped for processing and freezing fish at sea. They differ from standard trawlers in their capacity to process and freeze the catch on board, typically to improve quality and thus value of the product (unloading finished product ready to be shipped to market or be exported worldwide).⁶⁵

1.69 The submission from AFMA used 'factory freezer mid-water trawler' to describe the *Geelong Star*. The term refers to both the processing and freezing capabilities of the ship and the fishing method used.⁶⁶

1.70 To avoid confusion with the definition of super trawler provided by the Fisheries Management Amendment (Super Trawlers) Regulation 2015, this report will not use the term super trawler to collectively refer to vessels such as the *Margiris* and the *Geelong Star*. This report uses the term 'factory freezer trawler', based on the CSIRO's description of a factory fishing vessel outlined above.

63 Mr Malcolm McNeill, Chief Executive Officer, Petuna Sealord Deepwater Fishing, *Committee Hansard*, 15 April 2016, p. 38.

64 Northern Territory Department of Primary Industry and Fisheries, *Submission 73*, pp. 3–4.

65 CSIRO, *Submission 23*, p. 6.

66 AFMA, *Submission 18*, p. 5.

Chapter 2

Overview of management arrangements for the Small Pelagic Fishery

2.1 This chapter describes management arrangements and techniques applied to the SPF that are relevant when examining the specific concerns stakeholders and members of the public have about the operations of the *Geelong Star*. Information is provided on the overall management approach, strategies and policies governing fishing activities in the SPF that are relevant to the *Geelong Star*.

2.2 The SPF is managed by AFMA in accordance with a management plan (currently the Small Pelagic Fishery Management Plan 2009). Two fishing methods are permitted in the SPF: purse seine and mid-water trawl.¹ As the following paragraphs explain, AFMA manages activity in the fishery through the use of output controls based on individually transferable quotas and a 'total allowable catch' that is determined for each quota species for each fishing season.² AFMA also develops strategies to mitigate catches of non-quota species and interactions between fishing vessels and protected species.

Output controls

2.3 In managing fisheries, policymakers and regulators are faced with a choice between 'input' controls and 'output' controls. As the Northern Territory Department of Primary Industry and Fisheries explained in its submission, input controls 'are used to restrict the size, type and mode of use of fishing equipment to limit catching power as a means of managing impact on fishery resources and other components of the marine environment'. Output controls 'limit the amount of any particular stock that can be harvested (typically as allowable catch quotas) by any given fishing sector or fisher irrespective of any input regulations'.³

2.4 The ban introduced by the government in April 2015 on all boats over 130 metres in length from undertaking fishing-related activities within the AFZ is an example of an input control. The 'super trawler' ban notwithstanding, in most of the fisheries AFMA manages, including the SPF, output controls form the basis of the management framework. These output controls are based on total allowable catches

1 Australian Fisheries Management Authority (AFMA), *Small Pelagic Fishery: Management arrangements booklet 2015–16*, www.afma.gov.au/wp-content/uploads/2014/08/SPF-Management-Arrangements-Booklet-2015-16.pdf (accessed 4 April 2016), p. 7.

2 The fishing season in the SPF lasts for 12 months, beginning on 1 May.

3 Northern Territory Department of Primary Industry and Fisheries, *Submission 73*, p. 4.

(TACs) and individual transferable quotas (ITQs).⁴ That is, AFMA imposes a quota system for each species in the fishery that limits individual fishers to the amount of quota they hold and the entire fishery to the TAC set for each season. ITQs are granted as statutory fishing rights (SFRs); to fish in the SPF, an operator must hold quota SFRs for all target species in the fishery.⁵

2.5 The ITQ is based on a proportion of the TAC; that is, if the TAC increases, the 'proportion that one SFR entitles the holder to remains the same but the quantity (in kilograms) they can take increases'.⁶ If a vessel is in excess of its quota, it can seek to lease quota from another party to cover the excess fish.⁷

2.6 The determination of the TAC is informed by the 2007 *Commonwealth Fisheries Harvest Strategy Policy* (HSP).⁸ The objective of the HSP is 'the sustainable and profitable utilisation of Australia's Commonwealth fisheries in perpetuity through the implementation of harvest strategies that maintain key commercial stocks at ecologically sustainable levels and within this context, maximise the economic returns to the Australian community'.⁹ The CSIRO explained that the HSP:

...attempts to explicitly address the economic and ecological sustainability of the fish stocks by achieving a biomass that delivers Maximum Economic Yield (MEY) target...with 48% of the unfished biomass as the default, rather than maximum sustainable yield (often set at 40% of unfished biomass). Moreover, fisheries are closed, or targeting and catch bans are imposed, once the estimated stock biomass drops below 20% of the unfished biomass.¹⁰

2.7 The Small Pelagic Fishery Management Plan 2009 requires a TAC for each quota species in each sub-area of the SPF for each season.¹¹ The TAC is determined by taking the total mortality from fishing by all sources (the recommended biological

4 AFMA advised that all major fisheries it manages 'are under TAC/ITQ management with the exception of the Northern Prawn Fishery'. AFMA, *Submission 18*, Attachment 9, p. 2.

5 AFMA, 'Small Pelagic Fishery', www.afma.gov.au/fisheries/small-pelagic-fishery (accessed 4 April 2016); AFMA, *Submission 18*, Attachment 9, p. 3.

6 Similarly, the quantity in kilograms allowed by the SFR decreases if the TAC decreases. AFMA, *Submission 18*, Attachment 9, p. 3.

7 Dr Nick Rayns, Acting Chief Executive Officer, AFMA, *Senate Rural and Regional Affairs and Transport Legislation Committee Hansard*, Estimates, 26 May 2015, p. 59.

8 As noted in Chapter 1, the HSP arises from the Ministerial Direction to AFMA of 2005. AFMA, *Submission 18*, Attachment 9, p. 1.

9 Australian Government, *Commonwealth fisheries harvest strategy: policy and guidelines*, September 2007, p. 4.

10 CSIRO, *Submission 23*, p. 15 (citation omitted).

11 Small Pelagic Fishery Management Plan 2009, s. 17.

catch, or RBC) and subtracting other known sources of fishing mortality, such as the catch taken by state fishers.¹²

2.8 In setting the TAC, and in managing the fishery more generally, AFMA must undertake consultation with the management advisory committee for the SPF established under the *Fisheries Administration Act 1991*,¹³ which is currently the South East Management Advisory Committee (SEMAC).¹⁴ AFMA must also take into account:

- advice from the resource assessment group for the SPF about the stock status of the quota species (that is, the resource assessment group provides advice on the RBC);¹⁵
- the harvest strategy for the quota species AFMA has developed;
- all fishing mortality of the quota species, from all sub-areas within the fishery and overlapping or adjacent fisheries for the species;
- the ecological implications of taking the amount of the species;
- the distribution, population and structure of the species; and
- the precautionary principle.¹⁶

2.9 AFMA may also consider the views of any other interested person.¹⁷

2.10 The harvest strategy for the SPF utilises a tiered system of assessment for setting TACs for each quota species. The Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES), in the submission from the Department of Agriculture and Water Resources, explained that the tiered frameworks comprises four tier levels, with each level having different information requirements and harvest control rules. The tier levels are as follows:

- Tier 1 is the highest level of assessment and provides the 'greatest certainty in RBC setting and allows the highest potential harvest rate'. Tier 1 is based on 'a quantitative stock assessment and an Annual Fishery Assessment'.

12 Small Pelagic Fishery Total Allowable Catch (Quota Species) Determination 2016, Explanatory Statement; AFMA, Response to *Submission 166*, Attachment A, p. 3; FRDC, 'Glossary', <http://fish.gov.au/glossary> (accessed 25 July 2016).

13 *Fisheries Administration Act 1991*, ss. 54 and 56.

14 Consultation with SEMAC is required by paragraphs 13(1)(h) and 18(a).

15 AFMA, *Submission 18*, p. 4. For the SPF, AFMA is trialling an SPF Scientific Panel and stakeholder forums to provide scientific and economic advice to SEMAC and the Commission. The decision to replace the SPF resource assessment group with these arrangements is discussed in Chapter 5.

16 Small Pelagic Fishery Management Plan 2009, s. 18.

17 Small Pelagic Fishery Management Plan 2009, s. 18.

- Tier 2 'provides a medium level of assessment based on an Annual Fishery Assessment and allows a lower potential harvest rate'.
- Tier 2(b) – Atlantis, provides a lower levels of assessment based on an Annual Fishery Assessment and estimates from an ecosystem model known as 'Atlantis'.
- Tier 3 'is the lowest level of assessment and applies when the requirements of other tier levels are not met'.¹⁸

2.11 In its *Fishery status reports 2015*, ABARES provided the following explanation of how the harvest control rules for the different tiers operate, and the quality of the information needed to qualify for a particular tier:

Maximum exploitation rates of 20 to 25 per cent of current biomass are internationally recommended to ensure that a high proportion of fish remain in the ecosystem...As a result, the SPF tier 1 harvest control rules use a maximum exploitation rate of 20 per cent of estimated spawning biomass from a recent DEPM survey as the basis for setting RBCs. This is more conservative than the internationally recommended 20 to 25 per cent of current biomass. If there are no further DEPM surveys, the RBC is reduced from 20 to 10 per cent over five years, from the year the spawning biomass estimate was last determined using the DEPM surveys. This reduction accounts for increasing uncertainty in stock status since the last survey.¹⁹

2.12 ABARES submitted that the tiered harvest strategy framework used in the April 2015 revision of the SPF harvest strategy 'is appropriate for the SPF because it accommodates growth of the fishery and the consequent collection of additional information to support stock assessment'. ABARES added:

Underpinning the tiered approach is the need to balance risk with knowledge by establishing exploitation rates that are initially very conservative and which increase (but remain conservative) as additional information (i.e. quantitative measures of spawning biomass) becomes available.²⁰

2.13 Figures for the catch limits in the SPF in recent seasons are at Table 2.1. AFMA reports that the TACs for the 2015–16 season 'leave 92.4 per cent of the combined estimated biomass of SPF stocks in the water for the marine environment and other uses such as recreational fishing'.²¹ ABARES submitted that the TACs 'are

18 Department of Agriculture and Water Resources, *Submission 12*, p. 30.

19 Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES), *Fishery status reports 2015*, October 2015, http://data.daff.gov.au/data/warehouse/9aam/fsrXXd9abm/fsr15d9abm_20151030/00_FishStatus2015_1.1.0.pdf (accessed 25 July 2016), p. 92.

20 Department of Agriculture and Water Resources, *Submission 12*, p. 30.

21 AFMA, 'Small Pelagic Fishery – FAQs', www.afma.gov.au/fisheries/small-pelagic-fishery-faqs (accessed 12 February 2016).

set at precautionary and sustainable levels, taking broader ecosystem impacts into consideration'.²² Stakeholders' concerns about the TACs are discussed in Chapter 3.

Table 2.1: Recent TAC and catch history for the small pelagic fishery (tonnes)

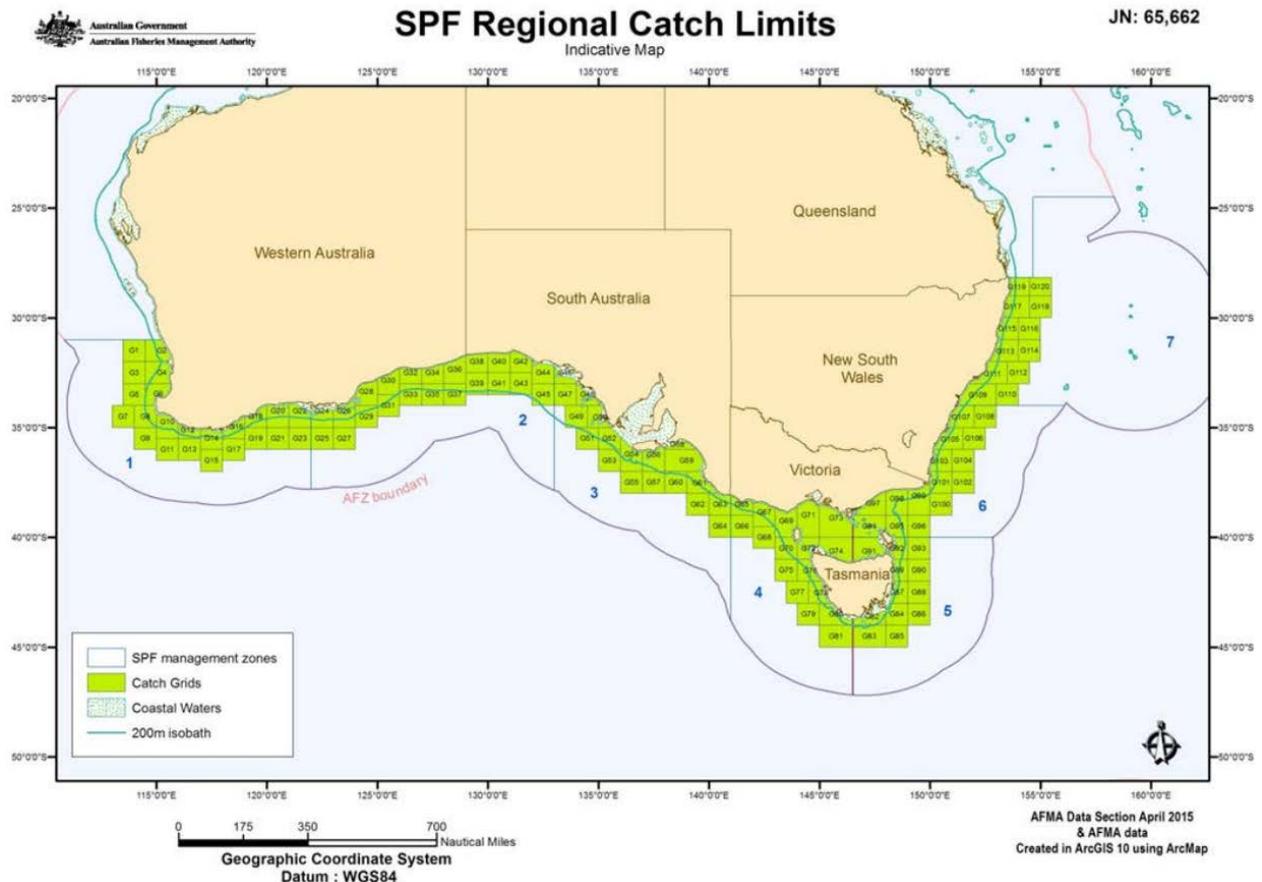
<i>Species</i>	<i>2014–15 TAC⁽¹⁾</i>	<i>2014–15 catch⁽¹⁾</i>	<i>2015–16 TAC⁽¹⁾</i>	<i>2015–16 catch⁽³⁾</i>	<i>2016–17 TAC⁽²⁾</i>	<i>Total estimated stock⁽¹⁾</i>
Blue mackerel east	2660	209	2630	2164	2630	40,000 (at 2008)
Blue mackerel west	6500	0	6200	1007	6200	86,500 (at 2005)
Jack mackerel east	10,230	272	18,670	6585	18,670	157,805 (at 2014)
Jack mackerel west	5000	0	3600	631	3600	n/a
Redbait east	5000	2	3310	289	3310	68,886 (at 2005–06)
Redbait west	5000	0	2880	1210	2880	n/a
Australian sardine	560	161	1880	118	1880	40,000 (at 2004)

Sources: (1) AFMA, *Submission 18*, Attachment 3; (2) AFMA, 'Total allowable catch and catches in the Small Pelagic Fishery' (tabled by AFMA on 1 November 2016).

2.14 As noted in Chapter 1, the SPF is divided into east and west sub-areas. In addition, AFMA divides the SPF into seven management zones. Zones 1 to 4 are contained in the west sub-area and zones 5 to 7 are located in the east sub-area. AFMA further divides part of the fishery into 120 grids. The regional catch limits referenced to these grid areas are relevant to concerns about localised depletion, which are discussed in Chapter 3.

2.15 The map at Figure 2.1 depicts the management zones and grid areas.

Figure 2.1: SPF management zones and catch grids



Source: AFMA, Answer to question on notice, no. 67, Senate Rural and Regional Affairs and Transport Legislation Committee, Budget Estimates 2015–16, May 2015.

Bycatch of non-target species and interactions with protected species

2.16 Under the *Fisheries Management Act 1991*, AFMA must have regard to the impact of fishing activities on non-target species and the long-term sustainability of the marine environment.²³ In addition to the pursuit of the Fisheries Management Act objectives, the management of Commonwealth fisheries is also assessed against EPBC Act requirements, including the measures for minimising interactions with species protected under the EPBC Act.²⁴ This section discusses the regulatory approach to the bycatch of non-quota species and the harm commercial fishing causes to protected species.

23 *Fisheries Management Act 1991*, s. 3(1)(b).

24 Department of Agriculture and Water Resources, *Submission 12*, p. 2.

2.17 Bycatch include species that are not usually kept by commercial fishers for either commercial or regulatory reasons. For the SPF, AFMA defines bycatch as being:

- catch other than the four target species in the SPF;
- the part of the catch that 'does not reach the deck of the fishing vessel but is affected by interaction with fishing gear'; and
- catch (of target species or bycatch) that is discarded 'because either it has low commercial value or because regulation precludes it from being retained'.²⁵

2.18 The approach to bycatch in the SPF is also informed by:

- the Ministerial Direction to AFMA of 2005 (see Chapter 1); and
- the *Commonwealth Policy on Fisheries Bycatch* (2000), which 'commits all Commonwealth fisheries to bycatch reduction, improved protection for protected species and minimising any adverse impacts of bycatch on the marine environment'. Under the Policy, a bycatch action plan is required for each fishery.²⁶ The current plan for the SPF is *AFMA's Small Pelagic Fishery: Bycatch and Discarding Workplan 2014–2016*.

2.19 A vessel management plan (VMP), which is enforced through SFR conditions, can also provide 'individually tailored mitigation measures'. The measures included in VMPs are designed to minimise seabird, seal and dolphin interactions.²⁷ The VMP for the *Geelong Star* contains bycatch mitigation requirements that include 'the use of a seal excluder device or barrier net, marine mammal observation and move-on measures, bird scaring devices, offal management measures, marine mammal and seabird handling practices and a comprehensive network of spatial closures to reduce the likelihood of interactions with Australian sea lions'.²⁸

2.20 The latest VMP for the *Geelong Star* is version 2.0. This VMP was released by AFMA and came into effect on 31 October 2016.²⁹

2.21 The Department of Agriculture and Water Resources also noted that, under Part 13 of the EPBC Act, it is an offence to harm protected species, other than conservation dependant species, in Commonwealth waters 'unless fishers have a

25 AFMA, *Small Pelagic Fishery: Bycatch and discarding workplan 2014–2016*, www.afma.gov.au/wp-content/uploads/2014/11/Bycatch-and-Discard-Work-Plan-SPF-2016.pdf (accessed 19 November 2015), p. 5.

26 AFMA, *AFMA's Program for addressing bycatch and discarding in Commonwealth fisheries: an implementation strategy* (2008), www.afma.gov.au/wp-content/uploads/2014/11/Bycatch-and-Discarding-Implementation-Strategy-feb-08.pdf (accessed 4 April 2016), p. 4.

27 Department of Agriculture and Water Resources, *Submission 12*, p. 12.

28 AFMA, *Submission 18*, p. 4.

29 The VMP may be viewed here: www.afma.gov.au/revised-geelong-star-vessel-management-plan.

permit or the management arrangements for the fishery are accredited by the Environment Minister'.³⁰ The department added that Part 13 accreditation for the SPF requires that mid-water trawl boats:

...must have in place effective mitigation approaches and devices to minimise interactions with seabirds, seals and dolphins. This condition is being addressed through AFMA's management, primarily the development and implementation of VMPs for all SPF mid-water trawl boats.³¹

Compliance and monitoring

2.22 AFMA oversees fishing activity in the SPF through the use of:

- GPS-based vessel monitoring systems, which are compulsory for all fishing vessels in the Commonwealth's jurisdiction;
- observer coverage, with the level of coverage dependent on the fishery;
- daily logbooks; and
- electronic monitoring, such as cameras, which is used to verify logbooks and is compulsory in various fisheries and for the *Geelong Star*—AFMA submitted that the use of these monitoring systems 'enables AFMA to know where every fishing boat is, what they have caught and where they have caught it'.³²

2.23 For the *Geelong Star*, initially an AFMA observer was required to be on board the vessel for the first ten trips, or the first 12 months, whichever is longer, and then as directed by AFMA.³³ The latest VMP released in October 2016 requires that the *Geelong Star* now carry an AFMA observer 'at all times'.³⁴ Although not a requirement, an additional bycatch officer was on board the vessel to monitor bycatch mitigation 'in the initial stage of this vessel's development'. At the November 2016 public hearing, AFMA advised that the bycatch officer is no longer present on the vessel's fishing trips.³⁵

30 Department of Agriculture and Water Resources, *Submission 12*, p. 4.

31 Department of Agriculture and Water Resources, *Submission 12*, p. 12.

32 AFMA, *Submission 18*, p. 6.

33 AFMA, *Vessel management plan: Small Pelagic Fishery – Geelong Star*, Version 1.5, September 2015, p. 5; provided as *Submission 18*, Attachment 5.

34 AFMA, *Vessel management plan for the FV Geelong Star: Version 2.0 – updated October 2016*, www.afma.gov.au/revise-geelong-star-vessel-management-plan (accessed 2 November 2016), p. 4.

35 Dr James Findlay, Chief Executive Officer, AFMA, *Committee Hansard*, 1 November 2016, p. 15. See also Department of Agriculture and Water Resources, *Submission 12*, p. 13.

2.24 Some of these compliance arrangements are informed by requirements imposed by authorities other than AFMA. Accreditation by the Environment Minister of the Small Pelagic Fishery Management Plan 2009 under Part 13 of the EPBC Act was conditional on measures to mitigate interactions with protected species and 'for new mid-water trawl vessels in the fishery to have observer coverage for the first 10 trips'.³⁶

2.25 The following chapters outline the evidence received about the consequences of the activities of the *Geelong Star*. Concerns about the vessel's impact on the marine environment will be examined first, followed by social and economic effects. Although these issues are separated in this report, it is acknowledged they are interrelated to some extent.

36 Department of Agriculture and Water Resources, *Submission 12*, p. 29.

Chapter 3

Concerns about the impact of the FV *Geelong Star* on the marine environment

3.1 There is a significant amount of concern shared by fishers, conservationists and within the community generally about the effects and potential effects of the *Geelong Star* operating in the SPF. Regarding the marine environment, these concerns include whether the total allowable catch that the *Geelong Star* can access is appropriate, whether there are consequences for predators dependent on SPF species, potential localised depletion, bycatch of higher value fish species, and mortalities and injuries of species protected under the EPBC Act. This chapter examines these issues.

General concerns about the utilisation of the fishery and the current knowledge about stock assessments

3.2 One of the key areas of concern for some stakeholders is based on the trophic level of the small pelagic fish that the *Geelong Star* targets. These stakeholders are concerned that the depletion of small pelagic fish could negatively affect species higher up the food chain. Reinforcing these claims is concern among these stakeholders that the total allowable catches determined by AFMA and other aspects of the management regime are based on out-of-date and/or inadequate scientific information.

Trophic level concerns

3.3 The Australian National Sportfishing Association (ANSA) argued that the fish targeted by the factory freezer trawlers are low value small pelagic fish that 'form the basis for the food web for larger fish species, marine mammals and seabirds'. Of particular concern to ANSA is what it considers are 'possible impacts upon high value fish species such as Southern and Yellowfin tuna etc which are of significant economic value to the nation and which are also highly targeted iconic recreational fish species'. ANSA argued that 'the commercial take of vital food chain species such as SPF species does not represent the best use of a natural resource and that these species would be better left in the wild'.¹

3.4 The Stop the Trawler Alliance made a similar point. Ms Rebecca Hubbard, Marine Coordinator, Environment Tasmania and a representative the Stop the Trawler Alliance, stated that the Alliance believes that factory freezer trawlers in the SPF:

...pose large threats to very important populations which are valuable as feed and valuable in the ecosystem to those species but also to other sectors

1 Australian National Sportfishing Association (ANSA), *Submission 127*, p. 3.

such as recreational fishing, tourism and, indeed, commercial fishing industries.²

3.5 The CSIRO, however, submitted that the 'role of small pelagic fish targeted by the SPF is not strictly analogous to that of the large biomasses of prey fish in upwelling ecosystems elsewhere in the world'. In the CSIRO's view:

The current SPF catches are unlikely to negatively impact predators, which are typically not completely dependent on SPF target species and have the capacity to switch to other prey species.

Some species, which are central place foragers, may be more dependent on SPF species.³

3.6 IMAS advised that ecosystem modelling indicates fishing undertaken within the SPF Harvest Strategy Framework would 'have minor impacts on the pelagic ecosystem and that the food web in southern and eastern Australia is not highly dependent on SPF species'. IMAS added that research indicates that 'none of the higher trophic level predators have a high dietary dependency on these species'.⁴

Total allowable catches and stock assessments

3.7 As noted in Chapter 2, AFMA uses output controls in managing the SPF. A total allowable catch (TAC) is determined for each quota species in each sub-area of the SPF for each season.

3.8 The operator of the *Geelong Star* emphasised that its activities and the amount of fish it can take is regulated by AFMA's quota system. Mr Peter Simunovich, a director of Seafish Tasmania, stated that 'the highly conservative harvest strategy for the fishery only allows a small percentage of the stock to be harvested'. When asked to provide figures on the amount of the total allowable catch that is actually fished each year, Mr Simunovich stated that, as at April 2016, the *Geelong Star* had caught approximately five per cent of the total allowable catch. Mr Simunovich elaborated:

Currently, we are sitting at about five per cent, but the maximums you can allow are: for redbait, 10 per cent; for jack mackerel, 12 per cent; for blue mackerel, 15 per cent; and for sardines, 20 per cent.⁵

3.9 Mr Simunovich also stated that, based on fisheries in California, the 'international benchmark at a conservative setting rate is 25 per cent'. Accordingly, Mr Simunovich argued that 'we are below half the international conservative

2 Ms Rebecca Hubbard, Marine Coordinator, Environment Tasmania, *Committee Hansard*, 15 April 2016, p. 15.

3 CSIRO, *Submission 23*, p. 4.

4 Institute for Marine and Antarctic Studies (IMAS), *Submission 19*, p. 6 (citation omitted).

5 Mr Peter Simunovich, Director, Seafish Tasmania; and Member, Small Pelagic Fishery Industry Association (SPFIA), *Committee Hansard*, 15 April 2016, p. 9.

benchmark'.⁶ Similarly, the CSIRO observed that 'none of the SPF stocks are classified as overfished and the current management rules and harvest rates are considered conservative by global standards'.⁷

3.10 The most recent fishery status reports prepared by the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) reaffirm this evidence, as the Department of Agriculture and Water Resources explained in its October 2016 supplementary submission:

The ABARES Fishery status reports 2016, reporting on the 2014–15 and 2015–16 fishing seasons, classified all seven SPF stocks (sardine, blue mackerel east and west, jack mackerel east and west and redbait east and west) as not overfished and not subject to overfishing. Redbait west was previously classified as uncertain with respect to biomass status due to a lack of formal stock assessment. The latest status reports draw on recent ecosystem modelling and it was assessed that the low level of exploitation on the stock over the last decade was unlikely to have reduced biomass to below the limit reference point.⁸

3.11 Throughout the inquiry, however, environmental organisations and recreational fishing groups raised questions about the science that underpins this aspect of the management arrangements for the SPF, with a common concern being that particular stock assessments were lacking or out-of-date. For example, Environment Tasmania submitted:

Supporters of the *Geelong Star* and AFMA's management of the SPF suggest that fisheries management is 'supported by the science'. In fact, much of the information about SPF stocks is very old and gaps in the science mean that concerns about sustainability and localised impacts of fishing cannot be addressed.⁹

3.12 In support of this argument, Environment Tasmania stated that the assessment of ecosystem effects from factory trawlers in the SPF 'that has been done' was based on modelling 'that may not be accurate given the known, already existing impacts of climate change and fishing pressure on target stocks and pelagic community structure in the south east of the fishery'.¹⁰ It added that 'only three of the four' stocks in the eastern zone have been assessed in the last nine years, and that stocks in the western zone 'have never been assessed using best-practice survey methods'.¹¹

6 Mr Peter Simunovich, Director, Seafish Tasmania; and Member, SPFIA, *Committee Hansard*, 15 April 2016, p. 9.

7 CSIRO, *Submission 23*, p. 4.

8 Department of Agriculture and Water Resources, *Submission 169.1*, p. 2.

9 Environment Tasmania, *Submission 145*, p. 5.

10 Environment Tasmania, *Submission 145*, p. 2.

11 Environment Tasmania, *Submission 145*, p. 5.

3.13 The Western Australian Game Fishing Association (WAGFA) expressed concern that fish stock estimates on the south-west coast may be inaccurate as it is of the understanding that 'there is very limited scientific knowledge about baitfish species' in that area.¹²

3.14 Various submissions commented on the use of spawning biomass surveys based on the daily egg production method (DEPM). The DEPM is a 'method of estimating the spawning biomass of a fish population from the abundance and distribution of eggs and/or larvae'.¹³ The Chief Executive Officer of AFMA, Dr James Findlay, provided the following description of DEPM surveys:

Daily egg production surveys use the level of egg production to estimate the population of adult fish in much the same way that the minimum number of chickens could be estimated by the number of eggs produced or a human population could be estimated by the number of children attending nearby schools. Such surveys are valuable tools in assessing small pelagic fish stocks, because the biology of these species greatly reduces the reliability of catch-per-unit-effort indices traditionally used for many other species. It is well-known that the high mobility of small pelagic fish can lead to CPUE [catch per unit effort] based analyses overestimating stock abundance. This is why we do not use them.¹⁴

3.15 IMAS advised that DEPM surveys conducted in 2014 provide 'up-to-date biomass assessment for three of the four main target stocks in the Eastern zone (i.e. Jack Mackerel, Blue Mackerel and Australian Sardine)'. However, IMAS acknowledged that 'stock status information for the remaining SPF stocks (Redbait east, Redbait west, Jack Mackerel west and Blue Mackerel west) is either over 10 years old or unassessed using the DEPM approach and thus less certain'. IMAS explained that, in relation to these stocks, 'a more conservative approach to recommending catch limits is taken (at least half the maximum recommended harvest rate)'.¹⁵

3.16 The Tasmanian Conservation Trust argued that the lack of up-to-date DEPM stock assessments is a key weakness of the current approach to managing the SPF. Mr Jon Bryan, who was a member of AFMA's SPF Resource Assessment Group (SPFRAG)¹⁶ and who represented the Trust during the inquiry, explained:

The concerns about the fishing operation of the *Geelong Star* and the management of AFMA relate more to the lack of stock assessment data.

12 Western Australian Game Fishing Association, *Submission 60*, p. 2.

13 Fisheries Research and Development Corporation (FRDC), 'Glossary', <http://fish.gov.au/glossary> (accessed 25 July 2016).

14 Dr James Findlay, Chief Executive Officer, AFMA, *Committee Hansard*, 1 November 2016, pp. 10–11.

15 IMAS, *Submission 19*, p. 5.

16 The SPFRAG is discussed in further detail in Chapter 5.

There is a whole series of stocks which do not have any...[DEPM] data at all. There is old data which is being used to justify current catches...[T]here is no future commitment to ongoing...[DEPM] assessments, which would give us confidence that these stock assessments will be accurate into the future.¹⁷

3.17 Mr Bryan argued that stocks which have not been subject to a DEPM survey should, according to AFMA's Harvest Strategy guidelines, have TAC limits of 500 tonnes. Mr Bryan noted that the current TACs 'are far higher and in my view have been set to ensure the economic viability of super trawlers such as *Geelong Star*'.¹⁸

3.18 Mr Bryan also pointed to two previous collapses in Australia's SPF in the jack mackerel fishery and the redbait fishery. Mr Bryan stated:

Small pelagic fish species are a problem to manage because they fluctuate under normal environmental conditions. If you add a down fluctuation with a high fishing pressure you suddenly get a crash in the stock and that is where these crashed fisheries often come from.¹⁹

3.19 Regarding the jack mackerel fishery, Mr Bryan argued:

There is a lot to say about the jack mackerel fishery. I think it is reasonable to assume that climate change or some other environmental change was largely responsible for that collapse, but there is no denying that age, size and structure of the stock indicated that fishing was having some sort of impact.²⁰

3.20 Mr Bryan added that, if one assumed for the sake of argument that fishing activity was not involved in the collapses, then this means 'there is some environmental issue that is going on that we are not aware of' and which is not being managed.²¹

3.21 Mr Graham Pike, who was also a member of AFMA's former SPFRAG, similarly expressed concern about the status of DEPM stock assessments. Mr Pike submitted:

Practically all of the proposed new SPF Harvest Strategy document and the 2016–2017 catch quotas for the super trawler which it has been used to calculate, is based not on scientific small pelagic fish population counts or other on-water scientific research in the Small Pelagic Fishery, but on a theoretical mathematical model produced last year on a federal government computer. As any reader of AFMA's documentation will see, this

17 Mr Jonathan Bryan, Marine Spokesperson, Tasmanian Conservation Trust (TCT), *Committee Hansard*, 15 April 2016, p. 19.

18 TCT, *Submission 143*, pp. 4–5. Mr Bryan authored the Trust's submission.

19 Mr Jonathan Bryan, TCT, *Committee Hansard*, 15 April 2016, p. 19.

20 Mr Jonathan Bryan, TCT, *Committee Hansard*, 15 April 2016, p. 19.

21 Mr Jonathan Bryan, TCT, *Committee Hansard*, 15 April 2016, p. 19.

theoretical model, called Atlantis-SPF, (apparently named after a sunken civilisation), is cited almost exclusively as the basis for setting the vital small pelagic catch rates in the harvest strategy and also the super trawler catch rates for 2016–2017.²²

3.22 Mr Pike argued that 'there is no substitute for the scientific assessment of the SPF small pelagic fish stocks using DEPM surveys'. He added:

The use of a computer model without the input of recent (no earlier than five years) DEPM survey data on all SPF commercially targeted species means that no-one, not even the best scientists in the world with the best intentions in the world using the most advanced computer model mankind can devise, can know with any accuracy how many fish there are. And if you don't know how many fish there are to start with, how can you manage them or set super trawler catch quotas for them with any of the precaution required by the "precautionary principle" of AFMA's legislation?²³

3.23 Mr Pike also submitted that AFMA 'is planning to replace scientific DEPM-based stock assessments with very low cost theoretical computer modelling' because 'the commercial fishing industry and the super trawler operators do not want to pay the higher costs of DEPM surveys'. Mr Pike added:

It is AFMA policy that if the commercial fishing industry wants to develop or expand a fishery, as it is doing in the Small Pelagic Fishery, then the industry must pay for the scientific research and scientific assessments of fish stocks which are necessary for the fishery to be properly managed and developed/expanded without risk of overfishing (as has happened so frequently in the past with-Commonwealth-managed fisheries). However, in the past few years, coinciding with the period since February 2012 when it became evident that a super trawler would attempt entry to the SPF, the commercial fishing industry has not invested in DEPM assessments of SPF fish stocks in the SPF and has declined to establish and support a program of regular DEPM assessments in the SPF which are necessary to maintain the scientific rigour of SPF Harvest Strategies. The owners and operators of the super trawler have also not provided any research or stock assessment funding. Instead, Australian taxpayers alone funded the last DEPM survey in the SPF two years ago.²⁴

22 Mr Graham Pike, *Submission 166*, p. 2.

23 Mr Graham Pike, *Submission 166*, pp. 2–3.

24 Mr Graham Pike, *Submission 166*, p. 5.

Response to concerns about the methodology of total allowable catch determinations

3.24 AFMA responded to Mr Bryan's evidence by emphasising that commercial fish stocks in the SPF are 'assessed by ABARES as not subject to overfishing and not overfished, with the exception of redbait (western stock) whose uncertain biomass status is due to insufficient data'. AFMA noted that where information about fish stocks 'is lacking', AFMA determines a TAC that is 'more conservative'.²⁵

3.25 In response to the claim from Mr Pike that DEPM stock assessments are being replaced by modelling because the industry does not want to pay the higher cost associated with DEPM surveys, AFMA stated that this 'is not correct'. AFMA advised:

AFMA has for at least 20 years relied on fisheries modelling to assist in the management of Commonwealth fisheries. These models use the data we have on a particular fish stock and more latterly on entire ecosystems so are not 'theoretical' as stated. While the human mind is a wonderful thing, computer models are able to assimilate and process large amounts of data (that we cannot) to assist with our decision making, including testing the sustainability of various harvest levels. Moreover, DEPM based stock assessments are not being abandoned and are under consideration as a future research priority by the Scientific Panel.²⁶

3.26 AFMA submitted that the current harvest strategy for the SPF requires DEPM assessments 'to be undertaken on an ongoing basis to remain at Tier 2'.²⁷ Relevantly, in its November 2015 submission, the Department of Agriculture and Water Resources also advised that:

Surveys have currently been funded for all SPF species on the east coast except for redbait. By completing a DEPM survey for redbait on the east coast, all east coast SPF quota species will be able to be managed at Tier 1 under the SPF Harvest Strategy. The timeframe for this research is 2014–2016.²⁸

3.27 The most up-to-date information available to the committee about the status of DEPM surveys is at Table 3.1.

25 AFMA, *Submission 18*, p. 4.

26 AFMA, Response to *Submission 166*, pp. 1–2.

27 AFMA, Response to *Submission 143*, Attachment A, p. 2.

28 Department of Agriculture and Water Resources, *Submission 12*, p. 24.

Table 3.1: Schedule of DEPM surveys for SPF quota species

Species	Fishery season (1 May to 30 April)									
	2004 – 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Australian sardine	DEPM (2004)				DEPM					
Blue mackerel east					DEPM					
Blue mackerel west	DEPM (2005)									DEPM
Jack mackerel east					DEPM					
Jack mackerel west					A		DEPM			
Redbait east	DEPM (2005; 2006)								DEPM	
Redbait west						A		DEPM		

Source: AFMA, 'Schedule of daily egg production (DEPM) surveys for SPF quota species and Small Pelagic Fishery research projects (tabled by AFMA on 1 November 2016).

Note: 'A' indicates Atlantis modelling, which is discussed at paragraphs 3.23 and 3.25.

Localised depletion

3.28 Although the previous section has indicated that there are fundamental concerns about overfishing generally and the SPF being accessed for commercial fishing activity at all, much of the stakeholder concern about factory freezer trawlers operating in the SPF is based on the risk of localised depletion.

3.29 Before outlining the evidence received about localised depletion, it is useful to consider what is meant by the term. Some debate about its meaning is evident. Dr Jeremy Lyle, a senior research scientist at IMAS, advised that 'it is very difficult to actually measure and attribute causality to it'. He explained:

...if a school of fish moves out of the area, is that localised depletion? These are dynamic systems and fish are pelagic; they are actually mobile.²⁹

3.30 Professor Caleb Gardner, also from IMAS, noted that 'when talking about localised depletion, people can mean on any one day if you go out fishing'. He commented that the meaning of the term can differ between the scientific community and other stakeholders, such as recreational fishers:

As a recreational fisher, if you want to go to an area where a boat has been the day before, then on a personal level you can feel that that is localised depletion.³⁰

29 Dr Jeremy Lyle, Senior Research Scientist, IMAS, *Committee Hansard*, 15 April 2016, p. 46.

3.31 This difference was effectively acknowledged by Mr Mark Nikolai, Chief Executive Officer, Tasmanian Association for Recreational Fishing. In his evidence to the committee, Mr Nikolai presented the recreational fishing argument as follows:

I have heard all the arguments presented by various parties—for example, 'If you go and catch one fish, there is a degree of localised depletion.' From a recreational fishing perspective, where there is a marked impact on the fish species that you are targeting in a particular area then that is localised depletion. I have seen others try to come up with different definitions and, as is always the case when you try to define something, there is not any universal acceptance about what localised depletion is, but I can tell you that from a recreational fishing perspective it is really clear.³¹

3.32 Localised depletion was considered in detail by the Expert Panel on a Declared Commercial Fishing Activity, which was established in February 2013 in response to the *Margiris* and the uncertainties surrounding the use of large mid-water trawl freezer vessels in the SPF. The interpretation of localised depletion adopted by the Panel was 'a spatial and temporal reduction in the abundance of a targeted fish species that results from fishing'. The Panel observed that there are many interpretations of localised depletion, and noted that the term 'has been used in the context of the debate about the introduction of a large mid-water trawl freezer vessel into the...SPF in ways that may confuse localised depletion, as defined by the panel, with overall stock depletion or with overfishing'.³²

Concerns about the risk of localised depletion

3.33 The risk of localised depletion occurring in the SPF is noted in the harvest strategy for the fishery. The relevant extract is below:

...there is potential for localised depletion should a persistent reduction in fish abundance in a limited area, caused by fishing activity, over spatial and temporal scales that causes a negative impact on predatory species and/or other fisheries occur.³³

3.34 Several stakeholders involved in this inquiry expressed concerns about the potential for localised depletion as a result the activities of the *Geelong Star*. These stakeholders questioned the scientific knowledge about the ecosystem impacts of fishing in the SPF. Mr Jonathan Bryan, Marine Spokesperson, Tasmanian

30 Professor Caleb Gardner, Fisheries Scientist, IMAS *Committee Hansard*, 15 April 2016, p. 46.

31 Mr Mark Nikolai, Chief Executive Officer, Tasmanian Association for Recreational Fishing (TARFish), *Committee Hansard*, 15 April 2016, pp. 51–52

32 M Lack, P Harrison, S Goldworthy and C Bulman, *Report of the Expert Panel on a Declared Commercial Fishing Activity: Final (Small Pelagic Fishery) Declaration 2012*, October 2014, p. 169.

33 AFMA, *Small Pelagic Fishery Harvest Strategy*, April 2015, www.afma.gov.au/wp-content/uploads/2014/11/SPF-Harvest-Strategy-20152.pdf (accessed 25 July 2016), p. 2.

Conservation Trust stated that the 'issue of localised depletion is key to this fishery'. Notwithstanding his evidence regarding the fish stocks and the stock assessments used to determine quotas discussed above, Mr Bryan stated:

...let us for the sake of argument assume that there are lots of fish out there, the key is, what is happening at local areas. AFMA has no mechanism in place to identify localised depletion. It has no modelling to guarantee that localised depletion will not occur. The CSIRO modelling which is used to justify a lot of the fisheries management decisions does not operate at a scale which can inform us about localised depletion. That is a very serious problem.³⁴

3.35 As the *Geelong Star* has been operating for a relatively short period, instances of poor fishing experiences in the SPF in past seasons were drawn to the committee's attention. Mr Bryan referred to a 2004 annual fishing competition operating by a game fishing club with 50 years' of records and the *Ellidi*, which was the boat operated by Seafish Tasmania until 2009. Although Mr Bryan acknowledged that the figures are 'pretty rubbery', nonetheless he considers there is a 'concerning correlation' between the operation of the *Ellidi* and the decline in catches during the competition. Mr Bryan concluded:

It is not as though we have small pelagic fisheries which are operating with no apparent issues. There are correlations with disturbing events. We have the disappearance of surface schools of jack mackerel in the late eighties. We have the disappearance of the redbait. We have the disappearance of game fish available to a tuna competition. So these are issues.³⁵

3.36 Seafish Tasmania argued that concerns about local depletion from the use of a freezer trawler have 'been found to have no basis by leading Australian fisheries scientists from CSIRO...IMAS and the South Australian Research and Development Institute'.³⁶ Seafish Tasmania contended that the use of smaller boats would have a greater potential for localised depletion of target species. It suggested that, because of the 'oily nature of the SPF species and their rapid spoilage', the use of refrigerated storage on smaller boats would result in the 'concentration of fishing activities on near

34 Mr Jonathan Bryan, TCT, *Committee Hansard*, 15 April 2016, p. 20. The Trust's submission also commented on localised depletion; it stated: 'Gaps in existing scientific knowledge make it impossible for localised impacts of fishing to be managed to protect other species, particularly central place foragers. Modelling used to assess the impacts of the SPF does not operate at a scale that allows it to address concerns about localised depletion, and does not take into account climate change or population changes in alternate food species such as lanternfish. The argument is made that even if SPF species are reduced, lanternfish will be an alternate food source, so we don't have to worry. There is no suggestion that lanternfish populations will be monitored to ensure that the alternative remains available'. TCT, *Submission 143*, p. 3.

35 Mr Jonathan Bryan, TCT, *Committee Hansard*, 15 April 2016, p. 23.

36 Seafish Tasmania, *Submission 22*, p. 4.

port fishing grounds increasing the risk of local depletion...[and] disruptions to fish supplies when fish move away from local fishing grounds'.³⁷

3.37 Seafish Tasmania further noted the Expert Panel's observation that a factory freezer trawler would, as a result of economic pressure from declining short term catch rates in a particular location, move away 'to other fishing grounds to seek higher catch rates rather than simply sticking to the original area'. Seafish Tasmania commented:

This suggestion is borne out in practice in the operations of the *Geelong Star* that has fished a number of geographically distinct areas between April and November. Catches have been widely spread out, with catches having been taken in 5 of the 7 sub-zones of the fishery, reducing the already remote prospect of local depletions.³⁸

3.38 Professor Caleb Gardner from IMAS advised that, for the SPF, 'the evidence of an impact of localised depletion is very thin'. Accordingly, IMAS has studied other small pelagic fisheries globally where 'localised depletion is or is not a concern'. Professor Gardner highlighted the Australian sardine fishery, which he explained is one of the 'best examples' of a fishery managed without evidence of localised depletion. Professor Gardner stated:

There are 30,000 tonnes in that fishery harvested from a very tiny area. There is very good scientific research there about the trophic interactions and localised depletion—and no evidence of found. It is a big deal for that fishery because Australian sea lions are in the vicinity, a protected species which has got some real problems, and, quite reasonably, there has been a lot of effort put in there and, despite that high level of scientific research, no evidence of localised depletion found.³⁹

3.39 The CSIRO submitted that 'uncertainty remains over localised depletion' as 'no documented evidence exists for localised depletion for small pelagic fishes'.⁴⁰ It elaborated on this evidence as follows:

While individual characteristics should not be ignored, the type of fishing vessel does not automatically dictate that there will be deleterious (or otherwise) stock impacts. There is no available information indicating that a single large vessel, under the current management rules, inherently puts more pressure on the target fish stocks (or the broader ecosystem) than a fleet of smaller vessels that cumulatively have the same fishing power (or obtains the same catch). There are many mechanisms whereby the activity of many small vessels may increase exposure for target species and ecosystems due to having a larger spatial footprint than a single large vessel. However, no study comparing the overall performance of a single

37 Seafish Tasmania, *Submission 12*, p. 4.

38 Seafish Tasmania, *Submission 12*, p. 5.

39 Professor Caleb Gardner, IMAS, *Committee Hansard*, 15 April 2016, p. 45.

40 CSIRO, *Submission 23*, p. 5.

large vessel versus many small vessels has been completed and a definitive statement on this aspect of the issue is not possible.⁴¹

Response to localised depletion concerns and management techniques used to minimise the risk of localised depletion

3.40 In its submission, AFMA noted that '[m]ost commercial and recreational fishing can cause some form of localised depletion', although it considers 'the risk is lower for mobile species with conservative catch limits and spatial management as in the SPF'.⁴²

3.41 An overall framework for assessing localised depletion was outlined by Dr Simon Nicol from ABARES. Dr Nicol emphasised that local depletion concerns need to be assessed over time. He explained:

If localised depletion exists and it persists for a longer time frame, then we would start to see stock structure—so, within the genetics and the structuring of the populations, you would start to see differences. That is an indicator that the animals are not moving back into areas that have been harvested. To date, there is not a lot of information to suggest that there is complex stock structuring in the small pelagic fisheries. There is some evidence to suggest some broad scale structuring, but not at the level of being off the localised scale.⁴³

3.42 Dr Nicol continued:

...if it is not persistently occurring, it is a matter of: if I have a boat come in and take a proportion of fish then I know in that particular area there are going to be fewer fish. It is no different to you taking a shovel to your garden and digging a bit of dirt out. There will be a hole, but eventually wind and erosion will fill it back in again. As I say, it is about the time frame that happens in.⁴⁴

3.43 Dr Nicol added that AFMA's management approach seeks to avoid the circumstances where the localised depletion outlined at paragraph 3.42 might occur.⁴⁵ As AFMA explained, to manage any localised depletion risk AFMA 'has in place both fine-scale and broader spatial catch limits'.⁴⁶ IMAS noted that specific measures taken

41 CSIRO, *Submission 23*, p. 8.

42 AFMA, *Submission 18*, p. 5.

43 Dr Simon Nicol, Director, Domestic Fisheries and Marine Environments, Fisheries, Forestry and Quantitative Sciences, Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES), Department of Agriculture and Water Resources, *Committee Hansard*, 1 November 2016, p. 6.

44 Dr Simon Nicol, ABARES, Department of Agriculture and Water Resources, *Committee Hansard*, 1 November 2016, p. 6.

45 Dr Simon Nicol, ABARES, Department of Agriculture and Water Resources, *Committee Hansard*, 1 November 2016, p. 6.

46 AFMA, *Submission 18*, p. 5.

include restrictions on 'the size of catches that can be taken from limited areas (grids) over specific timeframes'. Under this system, catches in any of the SPF's 120 catch grid cells 'must not exceed 2000 tonnes within a 30 day period'.⁴⁷

3.44 Dr Jeremy Lyle from IMAS noted that the closure of certain areas of the fishery is another management tool used to reduce the potential for localised depletion. In particular, he advised that the closures, particularly in South Australia and Western Australia, attempt to 'reduce the impacts on the central place foragers—those animals that are dependent on the small pelagics but are not able to range over wide areas'.⁴⁸

3.45 The science on localised depletion of small pelagic species was also examined.⁴⁹ In relation to the potential for localised depletion outlined in the gardening analogy he provided (see paragraph 3.42), Dr Nicol acknowledged that 'the level of scientific assessment on that fine-scale effect has been very minimal globally', which prevents 'a definitive answer as to whether it occurs or whether it does not'.⁵⁰ AFMA's Chief Executive Officer, Dr Findlay, added that although AFMA considers the risk of localised depletion in the SPF is low, 'given the importance of small pelagic fish in the marine ecosystem, AFMA is working closely with scientists in efforts to identify any localised depletion that may be occurring in the SPF'. Dr Findlay advised that at the end of the 2016–17 fishing season, the SPF scientific panel 'is scheduled to review all the available data...looking for any evidence of localised depletion'.⁵¹

3.46 One of the issues that submitters highlighted in the context of localised depletion was the large area of the SPF that was closed to mid-water trawl. It was argued that the closure of areas in the SPF places heightened pressure on fish stocks in the areas that the *Geelong Star* is permitted to operate in, potentially enabling localised depletion in those areas. On this issue, various submitters advised that, in December 2015, AFMA provided stakeholders with a map indicating a significant area of the east zone of the SPF is closed to the mid-water trawl method of fishing (Figure 3.1).⁵²

47 IMAS, *Submission 19*, p. 6.

48 Dr Jeremy Lyle, IMAS, *Committee Hansard*, 15 April 2016, p. 46.

49 This is also discussed in Chapter 5.

50 Dr Simon Nicol, Director, Domestic Fisheries and Marine Environments, Fisheries, Forestry and Quantitative Sciences, Australian Bureau of Agricultural and Resource Economics and Sciences, Department of Agriculture and Water Resources, *Committee Hansard*, 1 November 2016, p. 6.

51 Dr James Findlay, AFMA, *Committee Hansard*, 1 November 2016, p. 11.

52 Australian Recreational Fishing Foundation (ARFF), *Submission 134*, p. 19; ANSA, *Submission 127*, pp. 10–11; TARFish, *Submission 128*, pp. 3–4.

Figure 3.1: Areas in the SPF closed to midwater trawl, November 2015



Source: AFMA; provided in ARFF, *Submission 134*, p. 8.

3.47 The Australian Recreational Fishing Foundation (ARFF) argued that, if the *Geelong Star* is to obtain its quota, the east zone of the SPF 'is now facing a heightened risk of localised depletion because of the increased intensity of fishing created by the closures and other factors that discount the fishable area'.⁵³ In addition, the ARFF suggested that the allowable fishable areas could be even smaller than the map indicates. It submitted:

We understand that a proportion of the coastal area of Zone 7 is under the jurisdiction of the NSW Government and the vessel owners would require a permit to fish an 80 nautical mile wide coastal strip, running north of Sydney to the NSW border. The Vessel owners have also indicated they will not fish management area 7 this fishing season to the end of April 2016.⁵⁴

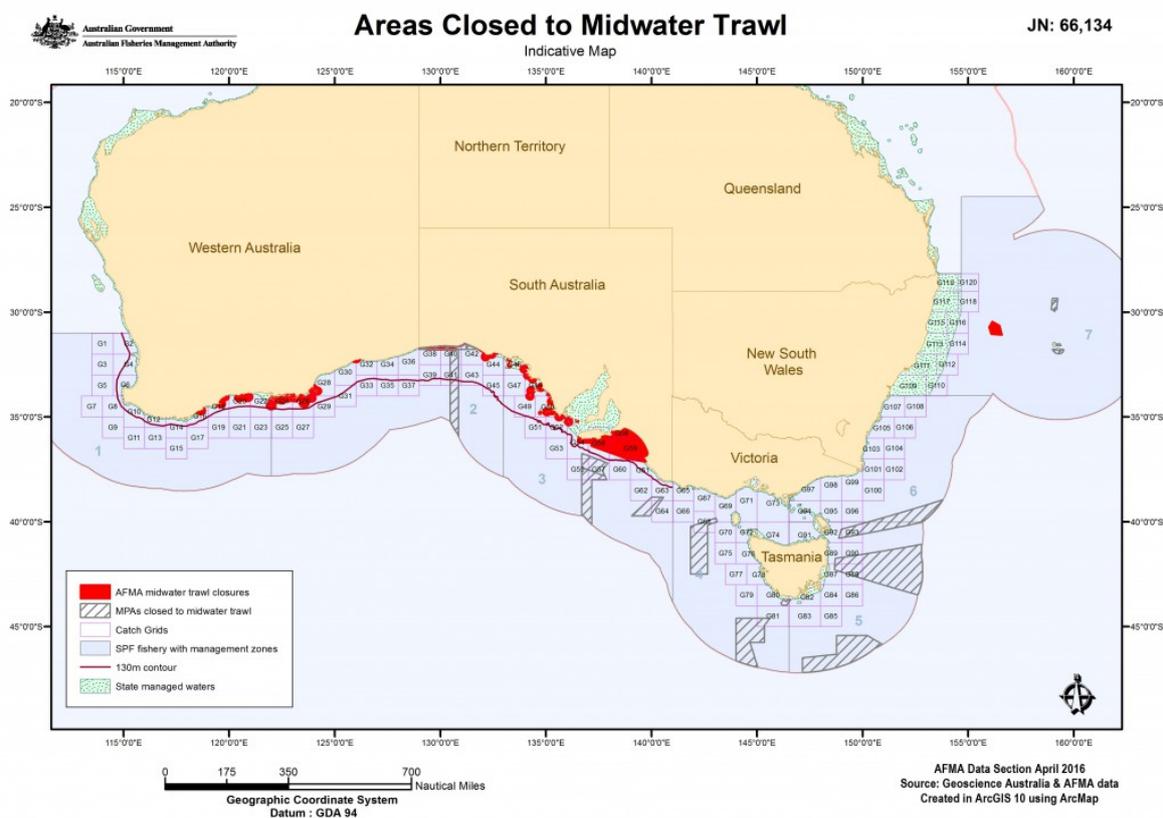
3.48 Since the map was provided to stakeholders, however, AFMA opened more of the SPF to mid-water trawling. On 20 April 2016, AFMA announced that over one million square kilometres of additional offshore waters near southern and eastern Australia will open to mid-water trawling in the SPF, which has the effect of allowing

⁵³ ARFF, *Submission 134*, p. 11.

⁵⁴ ARFF, *Submission 134*, pp. 5–6.

the *Geelong Star* to catch its fishing quota in a greater area.⁵⁵ A map indicating the effect of the reduced closures is at Figure 3.2.

Figure 3.2: Areas in the SPF closed to mid-water trawl, 1 May 2016



Source: AFMA, 'Small Pelagic Fishery', www.afma.gov.au/fisheries/small-pelagic-fishery (accessed 1 September 2016).

3.49 Further changes are also possible. The IMAS scientists who gave evidence to the committee noted that the fishery is in a 'development stage'; however, Dr Lyle noted that as the fishery has operated for at least one season, data are becoming available that assists 'to try to understand how...[the fishery] is operating'. As a result, in April 2016 the committee was advised that changes 'are being proposed to the vessel management plan to try to reflect the reality of a fishing operation of this scale'.⁵⁶ Professor Caleb Gardner noted that the vessel management plan would also likely be amended to respond to developments in where the *Geelong Star* fishes. He explained:

The scientific panel has defined what we believe is localised depletion and we have tried to build a response to that into the vessel management plan, and so there are move-on provisions. But that is an evolving process and, like the way a lot of these fishery things happen, you put a plan in place and

55 AFMA, 'More offshore waters opening in Small Pelagic Fishery', *Media Release*, 20 April 2016.

56 Dr Jeremy Lyle, IMAS, *Committee Hansard*, 15 April 2016, p. 46.

the fishery has developed perhaps differently to what we expected. One example of that is there has been more fishing off New South Wales than we would have anticipated. So I think there will be tweaking—our advice will likely be that we need tweaking—of those rules to change the way that the vessels should be moved on.⁵⁷

Bycatch of non-quota species

3.50 Some submissions expressed concern about the potential for bycatch of non-target species, such as marlin, shark and tuna, which the ARFF explained 'interact with SPF schools and are likely to have a high probability of interacting with the *Geelong Star*'. The ARFF submitted it understands that non-quota species caught by the *Geelong Star* are recorded in a logbook and discarded. As the logbook information is not publicly available, the ARFF observed that it is 'impossible to determine the potential impact of the *Geelong Star*'s activities on key recreational species that are non-target species'. The ARFF added that, in areas known for these high value species, 'it could be that the *Geelong Star* is catching, killing and discarding species that potentially exceed the value of the small pelagic fish it is catching for sale'.⁵⁸

3.51 The submission from the Environment and Planning Law Committee and the International Law Committee of NSW Young Lawyers noted that neither the *Commonwealth Fisheries Harvest Strategy Policy* (2007) nor the *Commonwealth Policy on Fisheries Bycatch* (2000) address the issue of 'super trawlers'. The submission argued that '[t]he capacity of supertrawlers and the absence of mechanisms to monitor and review bycatch poses a significant threat to marine biodiversity'.⁵⁹ The submission recommended that:

...these issues be specifically addressed in an updated Bycatch Policy and other domestic strategies relating to marine biodiversity to incorporate stringent observation and monitoring measures. As it stands, the current Bycatch Policy does not have all the strategies of monitoring requirements, data inputs and assessments, review and feedback mechanisms.⁶⁰

3.52 As IMAS observed, bycatch is 'a feature of virtually all commercial and recreational fisheries'.⁶¹ In relation to the use of the mid-water trawling method in the SPF, the CSIRO submitted:

...there is a very low risk of damage to bottom habitats due to fishing activities in the SPF. However, this kind of fishing gear does present higher risk of interactions with species such as seals, seabirds, and non-target fish. The ways in which fish interact with gear, such as gillnets or trawl gear,

57 Professor Caleb Gardner, IMAS, *Committee Hansard*, 15 April 2016, p. 46.

58 ARFF, *Submission 134*, pp. 13–14.

59 NSW Young Lawyers, *Submission 25*, p. [9].

60 NSW Young Lawyers, *Submission 25*, p. [9].

61 IMAS, *Submission 19*, p. 8.

means that multiple species will potentially be captured and it can be difficult to exclude all but the specific species of interest. For example, seals, seabirds and toothed whales are known to target fish caught in fishing gear, and in some instances these animals become entangled and drown.⁶²

3.53 The FRDC explained that many factors affect the risk of bycatch, including the 'size of vessel, type of gear used, time of day, season and area of operation'.⁶³

3.54 In its November 2015 submission, Seafish Tasmania advised that during the seven months of fishing operations that had been conducted to date, the level of fish bycatch was less than one per cent of total catch.⁶⁴ In April 2016, the figure for non-target species bycatch was 0.62 per cent.⁶⁵

3.55 At the committee's November 2016 public hearing, AFMA's Chief Executive Officer provided the following assessment of the amount of game fish bycatch taken by *Geelong Star*:

Data from the first 18 months of its operations confirms that the *Geelong Star* has not had any significant catch of game fish species targeted by recreational fishers. While these species occur in close association with small pelagic fish, bycatch of game fish during Small Pelagic Fishery operations is very low. This discredits claims by some that these vessels, such as *Geelong Star*, essentially act as vacuum cleaners of the sea, catching everything in their path indiscriminately or unselectively. While there is limited data on which to assess the performance of recreational fisheries, anecdotal reports suggest that 2015–16 was one of the best marlin seasons on the New South Wales South Coast in recent memory, despite the fact that *Geelong Star* spent a lot of time fishing there.⁶⁶

3.56 The Department of Agriculture and Water Resources advised that it is updating the *Commonwealth Policy on Fisheries Bycatch*. The department noted that the review aims 'to ensure the management of our marine environment continues to reflect best international practice, including for the minimisation of marine mammal interactions and mortalities'.⁶⁷

62 CSIRO, *Submission 23*, p. 10.

63 FRDC, *Submission 20*, p. 4.

64 Seafish Tasmania, *Submission 22*, p. 6.

65 Mr Peter Simunovich, Director, Seafish Tasmania; and Member, SPFIA, *Committee Hansard*, 15 April 2016, p. 10.

66 Dr James Findlay, Chief Executive Officer, AFMA, *Committee Hansard*, 1 November 2016, p. 11.

67 Department of Agriculture and Water Resources, *Submission 12*, p. 14.

Interactions with protected species

3.57 Part 13 of the EPBC Act includes provisions to protect and manage threatened species and ecological communities,⁶⁸ migratory species and marine species.⁶⁹ The potential for interactions⁷⁰ between the *Geelong Star* and species protected under the EPBC Act, such as Australian fur seals, dolphins and seabirds, attracted significant attention in submissions.

3.58 The CSIRO advised the committee that, in general, interactions are 'rare', although it added that they 'could potentially be significant for species whose populations are critically low'.⁷¹ Regarding marine mammals, for example, the CSIRO submitted:

While the Australian sea lion is potentially the most at risk, due to its small and declining population size, they are not highly dependent on small pelagic species and spatially are unlikely to interact with the fishery. The more abundant (and rapidly recovering) fur seals do encounter fishing vessels in the SPF. An interest in the same prey and a high degree of spatial overlap with the activity regions of fishing vessels means that it is likely that incidences of fisheries interactions with fur seals will continue as these populations increase in number. There is no evidence that interactions are greater for one large vessel compared to a fleet of smaller ones.⁷²

3.59 In the calendar year before the *Geelong Star* arrived (2014), no interactions with protected species were recorded for the SPF. In the first quarter the *Geelong Star* operated in the SPF (1 April to 30 June 2015), 26 protected species were killed.⁷³

68 Threatened species are categorised as follows: divided into the following categories: (a) extinct; (b) extinct in the wild; (c) critically endangered; (d) endangered; (e) vulnerable; and (f) conservation dependent. EPBC Act, s. 178(1).

69 It is an offence to undertake an activity in a Commonwealth area that results in the death, injury, trading, taking, keeping or moving of a species listed under the EPBC Act. Certain actions are not offences, however, including an action provided for by, and taken in accordance with, a plan or regime that is accredited under section 265 of the EPBC Act, which includes management plans under the *Fisheries Management Act 1991*. See, EPBC Act, Part 13. See also Chapter 2, paragraph 2.21.

70 'Interaction' is defined in the September 2015 version of the vessel management plan for the *Geelong Star* as 'any physical contact an individual has with a protected species. This includes all catching (hooked, netted, entangled) and collisions with an individual of these species'. AFMA, *Submission 18*, Attachment 5, p. 4.

71 CSIRO, *Submission 23*, p. 10.

72 CSIRO, *Submission 23*, pp. 10–11.

73 AFMA, *Protected species interactions reported in Commonwealth Fishery logbooks for the period 1 April to 30 June 2015: Final report*, www.afma.gov.au/wp-content/uploads/2014/12/Quarter-2-2015-final-report.pdf (accessed 21 October 2016), p. 4.

The 51 reported interactions that occurred during the 2015 calendar year included 40 mortalities.⁷⁴

3.60 The most up-to-date figures available to the committee on interactions between the *Geelong Star* and protected species were provided by AFMA in September 2016. These data are presented in Table 3.2.

Table 3.2: Protected species mortalities and other interactions involving the FV Geelong Star since it commenced operations in the SPF, as at 27 September 2016

<i>Species/group</i>	<i>Wildlife logbook identification</i>	<i>Dead</i>	<i>Alive</i>
Dolphin	Common dolphin	9	
Albatross	Shy albatross, 'albatrosses'	11	
Seal	Australian Fur Seals, New Zealand Fur seals, and 'Seals'	47	2
Shortfin mako		16	14
Whale shark			1
Total		83	17

Source: AFMA, *Submission 170*, p. 1.

3.61 In its November 2015 submission, Seafish Tasmania provided figures and comments on the interactions the *Geelong Star* has had with protected species. Although this information is now dated, it provides some insight into the company's perspective on protected species interactions and mitigation techniques:

- Dolphins—between the commencement of fishing operations and November 2015, three incidents involved the incidental capture of nine dolphins in total. However, since AFMA closed 'a large area off NSW and extending south to Flinders Island for a period of 6 months from 17 June 2015' in response to these interactions, the *Geelong Star* 'has made more than 100 trawls without further dolphin interactions, reflecting the success of major mitigation efforts being undertaken'.⁷⁵
- Australian fur seals—the first three trips up to mid-June 2015 resulted in 12 mortalities. Between that time and the date of the submission, two mortalities were recorded.⁷⁶
- Shy albatrosses—two mortalities occurred during the first three trips.
- Shortfin mako sharks—the submission refers to 'incidental captures' of this listed migratory species.⁷⁷

74 ABARES, *Fishery status reports 2016*, September 2016, p. 113.

75 Seafish Tasmania, *Submission 22*, p. 8.

76 Seafish Tasmania, *Submission 22*, p. 8.

77 Seafish Tasmania, *Submission 22*, p. 8.

3.62 The February 2016 interaction between the *Geelong Star* and a whale shark attracted significant attention in submissions and correspondence to the committee. Whale sharks are listed as both a vulnerable species and a migratory marine species for the purposes of Part 13 of the EPBC Act.⁷⁸ The incident occurred on 11 February 2016 when a whale shark ran into the outside of the vessel's net and two of its fins became caught. According to AFMA, the whale shark spent an estimated 3 minutes, 35 seconds out of the water while, with the use of a crane, it was brought onto the boat. AFMA has stated that, after the whale shark was freed and released into the water, the whale shark swam away without difficulty.⁷⁹

Criticism of the approach taken to minimising interactions with protected species

3.63 Submitters expressed concern about the number of protected species mortalities associated with the *Geelong Star* and the measures taken to reduce the potential for these mortalities. For example, the Tasmanian Conservation Trust submitted:

Protected marine species such as seals and dolphins are attracted to the same fish aggregations that super trawlers target. There is a very high risk of interactions between marine mammals, in particular, and vessels such as *Geelong Star*. AFMA has repeatedly ignored warnings that its strategies to protect marine mammals were and are inadequate and untested, and that large factory freezer trawlers would kill dolphins and seals. As a result at least nine dolphins and twelve seals died on the first three trips made by the *Geelong Star*. This is a very high level of impact compared to other Australian fisheries and is unacceptable to the Australian public.⁸⁰

3.64 Environment Tasmania argued that 'many of the outstanding concerns' expressed by the Expert Panel's report following the *Margiris* 'were not addressed before the *Geelong Star* started fishing in the SPF, and as a result nine dolphins and twelve seals were killed in the first three fishing trips'. Environment Tasmania added that the issues 'have still not been addressed'.⁸¹

78 AFMA, Answers to questions on notice, 1 November 2016, p. 4.

79 AFMA, 'Whale shark interaction with Geelong Star', *Media Release*, 19 February 2016, www.afma.gov.au/whale-shark-interaction-geelong-star (accessed 22 February 2016); 'Whale shark interaction – video footage consistent with observer report', *Media Release*, 24 February 2016, www.afma.gov.au/whale-shark-interaction-video-footage-consistent-observer-report (accessed 18 July 2016); 'Whale shark interaction – observer report', *Media Release*, www.afma.gov.au/whale-shark-interaction-observer-report (accessed 18 July 2016).

80 TCT, *Submission 143*, pp. 3–4.

81 Environment Tasmania, *Submission 145*, p. 3. Many of Environment Tasmania's arguments were repeated in the submission from Conservation Council SA (*Submission 148*).

3.65 The interaction of the *Geelong Star* with a whale shark in February 2016 was also noted. Environment Tasmania stated:

A highly protected whale shark has recently been caught by the super trawler *Geelong Star*, however there has been no report from AFMA or the operators of the vessel on how this occurred, what exactly happened, and how it will be avoided in future. Whale sharks are of course the largest fish in the sea and as far as we can be sure, have never been caught by a fishing vessel in Australia before.⁸²

3.66 Submissions criticised the approach taken by AFMA to mitigate interactions with protected species, particularly with respect to observer coverage and underwater monitoring. Environment Tasmania noted that the Expert Panel recommended 100 per cent observer coverage for large freezer factory trawler fishing operations in the SPF.⁸³ The vessel management plan in place in 2015 for the *Geelong Star*, however, required an AFMA observer to be on board for the first ten fishing trips (or the first 12 months, whichever is longest), and 'as directed by AFMA thereafter'.⁸⁴

3.67 In relation to underwater monitoring, Environment Tasmania submitted:

The Expert Panel emphasized the necessity of using underwater video monitoring to ensure seal and dolphin drop-outs are observed. Drop-outs are a significant issues in other trawl fisheries, and result in under-reporting of species killed during fishing activity.

There is no requirement for underwater monitoring of nets and excluder devices to ensure that they are working and that dead and injured animals are disappearing before they are brought aboard where they can be seen. There should be 100% underwater video coverage, until it can be demonstrated that there are no ongoing problems.⁸⁵

3.68 Furthermore, Environment Tasmania argued that the methods to mitigate interactions with protected species are not effective. According to Environment Tasmania, the devices used in fishing nets have not been demonstrated 'to be consistently effective at mitigating dolphin bycatch in trawl fisheries'. In relation to seals, it added:

We understand there have been seal deaths when the barrier net has been in operation, indicating it's not an effective bycatch mitigation option. There is also no evidence to suggest that they will work in the future—particular[ly] given that even less/no testing of the barrier net aimed at by catch reduction appears to have occurred before its implementation in fishing activity.⁸⁶

82 Environment Tasmania, *Submission 145*, p. 3.

83 Environment Tasmania, *Submission 145*, p. 3.

84 AFMA, *Submission 18*, Attachment 5, p. 5.

85 Environment Tasmania, *Submission 145*, p. 3.

86 Environment Tasmania, *Submission 145*, p. 4.

3.69 A similar concern was expressed by Mr Jonathan Bryan, who argued there 'is a failure of anyone to test and validate the...seal excluder device or the barrier net'. He added:

We do not know whether they work or whether they are simply dumping dead animals into sea before they can be brought aboard. There is no underwater video-monitoring requirement for these excluder devices, so we do not have any guarantee that the fishing gear is not killing animals and just dumping them before they can be seen.⁸⁷

3.70 Environment Tasmania also submitted that albatross mortalities, including seven that occurred during one fishing trip at the beginning of 2016, occurred 'as a result of the use of a sonde cable'. Environment Tasmania submitted that the use of sonde cable 'has long been prohibited under the Commission for Conservation of Antarctic Living Marine Resources...[which is] observed by countries under the convention such as Russia, and by domestic bans such as in New Zealand'.⁸⁸

3.71 The September 2015 decision to remove the night-fishing ban imposed in May 2015 following several seal and dolphin mortalities was also questioned. Environment Tasmania submitted that the ban was lifted 'on the premise that the vessel cannot profitably target one of its target species under the existing conditions'. However, it argued that:

Allowing night fishing will make it practically impossible for the *Geelong Star* to avoid these animals when setting gear, and will make the deaths of many more dolphins and seals inevitable. This suggests that AFMA is putting the profits of a company ahead of the protection of our marine environment, which is not in line with their regulatory objectives.⁸⁹

3.72 Furthermore, the Tasmanian Conservation Trust asserted that AFMA's management of these deaths 'is suspect' as 'there is no requirement for photos or tissues samples of dead marine mammals that would allow positive identifications of dolphin or seal species to occur'.⁹⁰

3.73 Industry stakeholders also objected to AFMA's decisions taken in response to protected species interactions. Seafish Tasmania submitted that the trigger of a management zone closure for six months following a dolphin mortality 'is harsh'. It submitted:

Other AFMA managed fisheries that also experience incidental bycatches of dolphins are not subject to these harsh conditions. This Closure Direction

87 Mr Jonathan Bryan, TCT, *Committee Hansard*, 15 April 2016, p. 20. See also TCT, *Submission 143*, p. 4.

88 Environment Tasmania provided a detailed overview of sonde cable and the concerns associated with its use. See Environment Tasmania, *Submission 145*, pp. 4–5.

89 Environment Tasmania, *Submission 145*, p. 4.

90 TCT, *Submission 143*, p. 4.

should be based on science. That is, the trigger number of dolphin mortalities should be set based on an assessment of a safe level of incidental catch relative to the size of the dolphin population.

The practical effect of this Direction is to stifle testing of new or modified mitigation devices because of concern that if they do not work perfectly on the first occasion and a single dolphin dies then the outcome is a large area closure that will have a large negative economic impact on the company.⁹¹

Responses to concerns about protected species interactions

3.74 In its submission, AFMA provided further detail about the species protected under the EPBC Act and its approach to minimising protected species interactions. AFMA noted that all native marine reptiles, birds and mammals are protected, including species that 'are not of conservation concern', such as Australian fur seals and common dolphins. AFMA explained that it gives priority to higher conservation categories (vulnerable, endangered, or critically endangered), such as Australian sea lions, sea turtles and shy albatross, in working to minimise interactions with protected species 'while enabling sustainable commercial fishing to take place'.⁹²

3.75 AFMA submitted that the *Geelong Star* 'has some of the most up to date and innovative protected species mitigation equipment, and strict mitigation requirements of any fishing boat operating in the Australian fishing zone'.⁹³ AFMA submitted that it:

...drew on the best advice available from marine mammal experts and a Fisheries Research and Development Corporation workshop held to identify, among other things, any additional measures that could be adopted to protect marine mammals. The measures adopted in the SPF are among the most stringent in Australia and overseas and have led to interaction rates being significantly below a number of other fisheries that have marine mammal bycatch.⁹⁴

3.76 In addition to the AFMA observer required by the vessel management plan (VMP), Dr Findlay advised that a second officer had been deployed to the vessel 'to specifically to look at the bycatch arrangements and to deal quickly with any further additional bycatch measures that need to be taken at sea'. The second officer, was removed following a decision by AFMA that bycatch issues had stabilised.

91 Seafish Tasmania, *Submission 22*, p. 15.

92 AFMA, *Submission 18*, p. 3.

93 As noted in Chapter 2, the vessel management plan for the *Geelong Star* contains bycatch mitigation requirements that include 'the use of a seal excluder device or barrier net, marine mammal observation and move-on measures, bird scaring devices, offal management measures, marine mammal and seabird handling practices and a comprehensive network of spatial closures to reduce the likelihood of interactions with Australian sea lions'. AFMA, *Submission 18*, p. 4.

94 AFMA, Response to *Submission 143*, Attachment A, p. 2.

Dr Findlay emphasised, however, that 24/7 monitoring of the *Geelong Star* continues through the camera system, which is supplemented by the AFMA observer on board.⁹⁵

3.77 In evidence taken during Senate estimates in February 2016, AFMA responded to concerns about the use of a sonde cable. Dr Findlay, AFMA's Chief Executive Officer, explained that bottom or demersal trawlers have less of a need for netsonde cables than midwater trawlers. Dr Findlay explained:

...the netsonde cable attaches real-time information back to the vessel—acoustic information about the geometry of the net, and in particular how close it is to the bottom. For midwater trawlers, including vessels like the *Geelong Star*, netsonde information is very valuable to minimise the risk of contact to the bottom. It also gives them information about how much fish is in the net. That is important in minimising wastage. Once the net becomes full, there is potential wastage outside the net...We have also found that it provides information about the proximity of dolphins and seals around the net. It is a useful piece of equipment to the vessel and to us for monitoring.⁹⁶

3.78 Based on the evidence outlined above, Dr Findlay advised that AFMA intends to permit the use of the netsonde cable on the *Geelong Star*, but it will reassess this decision if it considers the disadvantages associated with its use outweigh the benefits.⁹⁷

3.79 In response to concerns about bycatch mortalities not being recorded and the lack of underwater video monitoring, AFMA advised that the VMP for the *Geelong Star*:

...requires the use of marine mammal excluder devices that retain dead or incapacitated bycatch in the net. The VMP also requires the vessel to have an underwater camera available on board and, when directed by AFMA, to use the camera to assess the efficacy of the marine mammal excluder device in excluding large animals and retaining dead or incapacitated animals.⁹⁸

3.80 On underwater video monitoring, Dr Findlay informed the committee that underwater video on the *Geelong Star* has been used 'from time to time...to monitor the performance of bycatch mitigation devices'. Dr Findlay provided the following explanation of AFMA's approach:

Sometimes to work out how best to modify them or otherwise use them in the most effective way you need to get that footage. That is when we have a requirement in place that obliges the vessel to go about installing those

95 Dr James Findlay, AFMA, *Committee Hansard*, 1 November 2016, p. 13.

96 Dr James Findlay, AFMA, *Senate Rural and Regional Affairs and Transport Legislation Committee Hansard*, Additional Estimates 2015–16, 9 February 2016, p. 80.

97 Dr James Findlay, AFMA, *Senate Rural and Regional Affairs and Transport Legislation Committee Hansard*, Additional Estimates 2015–16, 9 February 2016, p. 80.

98 AFMA, Response to *Submission 143*, Attachment A, p. 2.

cameras, and we review the footage at sea to make sure that those devices are working the way they should. It is not a routine requirement because...it is not an easy thing to do.⁹⁹

3.81 Mr Peter Simunovich, who represented Seafish Tasmania—the operator of the *Geelong Star*—acknowledged 'the fact that the vessel has interactions with marine mammals'. However, he stated that 'we are working hard with AFMA to ensure that these incidents are minimised'. Mr Simunovich further stated:

The operators of the vessel are constantly reviewing and making the necessary changes to the net as well as the barrier and excluder devices to ensure the interactions are minimised...[T]hese reviews and changes are being conducted in close consultation with AFMA. There is no doubt the *Geelong Star* is raising the bar on marine mammal mitigation in Australia and probably worldwide.¹⁰⁰

3.82 Mr Simunovich added that 'we would also respectfully ask that we are measured with the same yardstick as other commercial and recreational fisheries when it comes to marine mammal interactions'.¹⁰¹ In this respect, in November 2015 AFMA provided data contrasting the rates of interactions large boats have with protected species compared to smaller boats. AFMA advised that, for Commonwealth fisheries, 'the evidence is that larger boats (> 60m length) have lower protected species interaction rates/mortalities and have a higher level of monitoring (usually 100%) than smaller boats (< 60m length)'.¹⁰² An updated version of the data, which AFMA provided in November 2016, is at Table 3.3.

99 Dr James Findlay, AFMA, *Committee Hansard*, 1 November 2016, p. 22.

100 Mr Peter Simunovich, Director, Seafish Tasmania; and Member, SPFIA, *Committee Hansard*, 15 April 2016, p. 2.

101 *Committee Hansard*, 15 April 2016, p. 2.

102 AFMA, *Submission 18*, p. 2 (emphasis omitted).

Table 3.3: Interactions with threatened, endangered and protected species by vessels of different lengths (July 2010 to June 2016 for all Commonwealth fisheries⁽¹⁾)

Vessel length ⁽²⁾	Total number of fishing days ⁽³⁾	Total number of interactions ⁽⁴⁾	Interactions per 1000 fishing days ⁽⁴⁾	Total number of mortalities ⁽⁵⁾	Mortalities per 1000 fishing days ⁽⁵⁾
0–20 m	95,416 (298 vessels)	16,546 (127 vessels)	173.4	8,587	90.0
20–40 m	92,772 (152 vessels)	55,449 (117 vessels)	597.7	23,029	248.2
40–60 m	2348 (10 vessels)	82 (6 vessels)	34.9	31	13.2
60–80 m	1051 (5 vessels)	69 (4 vessels)	65.7	57	54.2
80–100 m	1145 (3 vessels)	102 (3 vessels)	89.1	85	74.2
Totals	192,732	72,248	374.9	31,789	164.9

Notes: (1) Including Heard Island and Macquarie Island Fisheries; (2) data for boats of unknown length are excluded; (3) number of unique vessels that went fishing during the period; (4) all categories of interactions, including alive, dead, injured and unknown; (5) includes dead, injured and unknown; (6) all sawfishes and silky sharks are included in data from 2015–16 following changes to their protection status.

Source: AFMA, Answers to questions on notice, 1 November 2016, p. 3.

3.83 Evidence from the operators of a factory freezer trawler in the blue grenadier fishery supports the conclusions drawn by AFMA from these data. Mr Malcolm McNeill, who represented Petuna Sealord Deepwater Fishing, told the committee that:

Often with the bigger boats, you can put more mitigation into it, whether it is seabirds or marine mammals. So...with a larger vessel you do have an opportunity to reduce the number of interactions with wildlife.¹⁰³

3.84 When asked about the earlier version of the AFMA data,¹⁰⁴ Mr Bryan from the Tasmanian Conservation Trust reiterated his concern that it is unknown 'how much damage is going unreported because we do not have underwater video monitoring of the gear'.¹⁰⁵ Like the Stop the Trawler Alliance, Mr Bryan also noted that the data relating to the *Geelong Star* was collected over a relatively short period and 'is hardly statistically significant'. Finally, Mr Bryan argued that:

...the issue is that we are adding another threat to the environment, which is already under threat. We are adding a huge boat into a fishery, which will

103 Mr Malcolm McNeill, Chief Executive Officer, Petuna Sealord Deepwater Fishing, *Committee Hansard*, 15 April 2016, p. 38.

104 AFMA initially provided data on the number of interactions with threatened, endangered and protected species by vessels of different lengths for the period July 2010 to June 2015 in its submission: see AFMA, *Submission 18*, Attachment 2.

105 Mr Jonathan Bryan, TCT, *Committee Hansard*, 15 April 2016, p. 22.

exacerbate the issues of fisheries management—the shortcomings of fisheries management in the Small Pelagic Fishery—that are occurring under AFMA's current management regime. Why add to the problems when we do not have to? Why not sort out the problems before? If industry and AFMA are so confident that this vessel is not going to cause problems with deaths of marine mammals, why not have a strategy in place to demonstrate to the public that that is actually what is going to occur?¹⁰⁶

3.85 The next chapter discusses evidence received regarding the economic and social consequences from the *Geelong Star*.

106 Mr Jonathan Bryan, TCT, *Committee Hansard*, 15 April 2016, p. 22.

Chapter 4

Concerns about the economic and social consequences of the *Geelong Star*

4.1 As the previous chapter demonstrated, it is evident that there are significant public and stakeholder concerns about the risk to the marine ecosystem presented by the operations of the *Geelong Star*. This chapter will consider the evidence received about the social and economic consequences of the activities of the *Geelong Star*.

4.2 The committee received evidence that outlined the economic benefits that factory freezer trawlers such as the *Geelong Star* provide. Other submitters, however, questioned the claims made about these benefits and argued that the *Geelong Star* negatively affects other areas of economic activity. For those stakeholders, the purported economic benefits arising from the *Geelong Star* do not appear to outweigh the potential environmental, social and economic costs. This chapter outlines and discusses the different views received about these matters.

Advantages of factory freezer trawlers for fishing operations

4.3 Before outlining the claims and counterclaims received in evidence regarding the economic benefits and costs associated with the *Geelong Star*, it is helpful to discuss why holders of statutory fishing rights for the SPF seek to bring factory freezer trawlers to the fishery.

4.4 The key advantages that a factory freezer trawler presents for the operator of the vessel relate to the quality of the fish product and the trawler's ability to stay at sea for longer periods than other fishing vessels. The ability to process, freeze and store the fish that is caught can optimise the quality and value of perishable product, particularly for the SPF, which is 'characterised by small oily fish that are easily damaged and readily decompose'.¹ On board freezer storage and processing ensures the product 'remains at its premium quality for consumption'.² The frozen product is shipped to export markets, usually in West Africa.³

4.5 Evidence from Professor Caleb Gardner of IMAS confirmed that, based on experience prior to the *Geelong Star*, it was not financially viable to access the fishery without the ability to process and freeze the fish on board. On this matter, Professor Gardner made the following observations on the market dynamics for fish:

It is a competitive marketplace for fish. Fish is traded globally. Surprisingly, to a lot of people, the price of most of our fish species

1 Department of Agriculture and Water Resources, *Submission 12*, p. 27.

2 Commonwealth Fisheries Association (CFA), *Submission 15*, p. 2.

3 Seafish Tasmania, *Submission 22*, p. 12.

globally has been declining. There is a perception that the world is running out of fish, which you do not see reflected in the price of most of the fish species. The price of prawns globally has been declining. The price of salmon has been and also the price of a lot of the white-fish fillets. That is simply that the supply of fish has been increasing faster than global population and that is because aquaculture has been so effective in the last 20 years.⁴

4.6 ABARES noted that in recent history, net economic returns in the SPF 'are likely to have been low, reflecting low levels of effort and high latency (uncaught quota) in the fishery'. ABARES added that the closure of a processing factory in Eden in 2010 is also considered to have contributed to the low net economic returns in the SPF. However, ABARES stated that:

Catches and gross value of production (GVP) are expected to substantially increase as a result of the entry of the *Geelong Star* in the 2014–15 season.⁵

4.7 It was suggested that the SPF is a valuable fishery, although prior to the *Geelong Star* the value of the fishery was not realised. AFMA submitted:

AFMA understands that if all TACs in the SPF were caught, the value of the fishery would be in the range of \$50 million – \$70 million, making it one of Australia's more valuable fisheries.⁶

4.8 The Commonwealth Fisheries Association (CFA) argued that ABARES data indicates that all Commonwealth fisheries generated a gross value of production (GVP) of around \$338 million in 2013–14, with four fisheries, which did not include the SPF, accounting for 76 per cent of total fishery GVP.⁷ The CFA argued that:

It is important to note that these high valued fisheries that provide an economic return to the community all operate with fishing vessels that have the capacity to either store, process or freeze product on board.⁸

4.9 The CFA also advised the committee that several other fisheries have freezer processing vessels.⁹

4 Professor Caleb Gardner, Fisheries Scientist, Institute for Marine and Antarctic Studies (IMAS), *Committee Hansard*, 15 April 2016, p. 47.

5 Department of Agriculture and Water Resources, *Submission 12*, p. 29.

6 Australian Fisheries Management Authority (AFMA), Response to *Submission 143*, Attachment A, p. 3.

7 The fisheries were the Northern Prawn Fishery, South Eastern Shark and Scalefish Fishery, the wild-catch sector of the Southern Bluefin Tuna Fishery and the Eastern Tuna fishery. CFA, *Submission 15*, pp. 5–6.

8 CFA, *Submission 15*, pp. 5–6 (emphasis omitted).

9 The fisheries referred to were the Great Australian Bight Trawl Fishery, Western Tuna and Billfish Fishery, East Coast Deepwater Trawl Sector, Heard Island and McDonald Islands Fishery and the Macquarie Island Toothfish Fishery. CFA, *Submission 15*, p. 6.

4.10 The Northern Territory Department of Primary Industry and Fisheries warned against limiting the 'cold-storage capacity of commercial fishing vessels' on the basis of the diminished economic return or limited range of operation of the fishery that such action would cause. The department explained:

From a resource access and optimisation perspective, providing capacity for commercial fisheries to fish in areas remote from recreationally important or customary fishing grounds diminishes conflicts, competition for resources and the risk of localized depletion that may be caused by heavy use or the 'race to catch the fish'.¹⁰

4.11 The Small Pelagic Fishery Industry Association (SPFIA) also argued that the use of a factory freezer trawler follows fisheries policies pursued by the Australian government to encourage operations that are more efficient. The SPFIA submitted:

The use of larger vessels with fish processing capacity that take advantage of scale economies to produce higher value products at low per unit cost are a direct response to the incentives purposefully created by the Commonwealth Government for industry to operate efficiently.¹¹

Employment and effects on other economic activities

4.12 The key economic benefits from the *Geelong Star* include direct and indirect employment and income generated from activities in the SPF that would not otherwise have been undertaken. AFMA argued that Australia benefits from large freezer trawlers operating in the AFZ as a result of employment, the supply of provisions and fuel, the carrying out of repairs and maintenance, supplying transport, and potentially in wholesale and retail markets. AFMA argued that such benefits are 'a positive contribution to Australia's rural and regional exports, and is consistent with the government's economic policy'.¹²

Overall economic contribution of the Geelong Star

4.13 In its November 2015 submission, Seafish Tasmania advised that, over a year, 'the *Geelong Star* is expected to generate around \$15 million of income for the regional economy'.¹³ Regarding employment, Seafish Tasmania stated that the crew of the *Geelong Star* 'comprises 31 people, of which 24 crew members are locally recruited, many using employment agencies in the Geelong area where unemployment is relatively high following the closure of several large manufacturing plants'. With the use of crew rotation, '48 locally recruited crew members in total...are

10 Northern Territory Department of Primary Industry and Fisheries, *Submission 73*, pp. 5–6.

11 Small Pelagic Fishery Industry Association (SPFIA), *Submission 27*, p. 5.

12 AFMA, *Submission 18*, p. 5.

13 Seafish Tasmania, *Submission 22*, p. 12.

employed on the vessel on a month on month off basis'. The main officers on the vessel, such as the captain, are Europeans who hold subclass 457 visas.¹⁴

4.14 The SPFIA argued that the regional economic benefits for the trawler's current home port, Geelong, 'are considerable'. It explained:

There is a large range of services provided to the vessel and substantial quantities of goods such as provisions and fuel that are sourced from local suppliers. There is direct employment on the vessel with almost 50 jobs for locally recruited crewmembers, and indirect support for people employed by the providers of services to the vessel.¹⁵

4.15 Non-industry stakeholders, however, were sceptical of the benefits arising from the direct employment offered by the operator of the *Geelong Star*. For example, Environment Tasmania offered a contrary perspective on the jobs figures provided by Seafish Tasmania. It submitted:

The social and employment benefits of having a factory freezer vessel operating in Australian waters are very small. The total number of jobs associated with this fishery, including crew and related land-based jobs, is likely to be less than 55, with the most skilled crew positions such as captain, engineers and deck officers, which come with the vessel from overseas.¹⁶

4.16 The frustration shared by a variety of stakeholders regarding the economic contribution of the *Geelong Star* was clearly articulated by Mr Jon Bryan from the Tasmanian Conservation Trust, who made the following pithy observation:

It is interesting that this whole process and all the kerfuffle about the small pelagic industry and the *Geelong Star* is going on, because we are talking about a business operation which employs fewer than the average McDonald's restaurant and has very marginal economic benefits with great economic risks to regional economies.¹⁷

4.17 Mr Bryan also argued that AFMA will face pressure from commercial interests to allow a greater amount of quota species to be caught as the fish species in the SPF is 'a low-value, high-volume commodity—the more you can catch, the more you make'. Based on experiences in foreign jurisdictions, Mr Bryan noted that

14 Seafish Tasmania, *Submission 22*, p. 12. Subclass 457 visas enable employers to sponsor overseas skilled workers to work in Australia on a temporary basis if an appropriately skilled Australian worker cannot be found. Holders of a subclass 457 visa may work in Australia in a skilled occupation for up to four years. Department of Immigration and Border Protection, *Temporary Work (Skilled) (subclass 457) visa*, www.border.gov.au/Forms/Documents/1154.pdf (accessed 19 September 2016), p. 3.

15 SPFIA, *Submission 27*, p. 19.

16 Environment Tasmania, *Submission 145*, p. 6.

17 Mr Jonathan Bryan, Marine Spokesperson, Tasmanian Conservation Trust, *Committee Hansard*, 15 April 2016, p. 21.

whether such increased fishing activity is sustainable 'may or may not be relevant to people involved'. Mr Bryan commented:

There are many fisheries around the world where people have treated them as mining operations where you get in, get as much as you can out as quickly as possible and, if the fishery collapses, then that is the way it goes. Hopefully Australia can manage its fisheries better, and I would hope that that is not a situation that would be allowed to develop here.¹⁸

Employment arrangements

4.18 The committee explored the use of subclass 457 visas for the key positions on the vessel. Mr Peter Simunovich, Director, Seafish Tasmania, confirmed that the *Geelong Star* uses seven 457 visa holders, with 'usually...three or four' on board at any one time. The visa holders occupy the senior positions in the operation, including 'chief engineer, captain, deck boss and factory manager'. When asked why the *Geelong Star* uses 457 visa holders given there are Australian seafarers out of work, Mr Simunovich replied:

Our intention is to be fully Australian operated. We do not want to be sending crews backwards and forwards to Europe, but that will take time. These are not jobs that people just step into. The more general jobs on board, and even the mates on board and the second engineers, are all Australian recruited, but these are complex operations and—pardon my French—you really have to be careful of screw-ups.¹⁹

4.19 Mr Simunovich added that training individuals for these key positions on the *Geelong Star* would take an estimated one to two years. He further added that the operators of the vessel:

...are learning as well. Every trip we do, we are learning as we go. We are in a very different environment and different fishery. There is learning all around. But our intention is to have a fully Australian-sourced crew.²⁰

4.20 AFMA acknowledged that fishing vessel crewing arrangements for fishing vessels 'has been a concern for some members of the public'. AFMA advised that the Department of Agriculture and Water Resources is 'undertaking a review of the policy on the use of foreign fishing vessels which is relevant to this matter'.²¹

18 Mr Jonathan Bryan, Marine Spokesperson, Tasmanian Conservation Trust, *Committee Hansard*, 15 April 2016, p. 25.

19 Mr Peter Simunovich, Director, Seafish Tasmania; and Member, SPFIA, *Committee Hansard*, 15 April 2016, p. 4.

20 *Committee Hansard*, 15 April 2016, p. 4.

21 AFMA, *Submission 18*, p. 7.

Foreign ownership

4.21 In addition to the use of subclass 457 visas, the foreign ownership of the vessel and the implications of this for the benefits for the Australian economy were noted. Environment Tasmania argued that, compared to other Australian fisheries, the SPF is a 'low value fishery' and that the economic benefits to Australia are further reduced due to foreign ownership of the vessel and fishing entitlements.²² Similarly, the Western Australian Game Fishing Association (WAGFA) provided the following perspective on the economic benefits and financial position of the *Geelong Star*:

WAGFA believes the economic benefit of the 'Supertrawler' would be significantly smaller than the headline amount of \$30m revenue based on a quota of say 16000tpa at \$2/kg. A back of the envelope figure would take out \$15m as ship charter, \$5m for processing and transport costs for exporting product and a further \$5m as operating expenses in foreign currencies. This leaves perhaps \$5m remaining in Australia. Likely much less than the destroyed economic benefit lost through the recreational fishing and tourism sectors.²³

4.22 IMAS scientists also recognised that a trade-off exists between potential economic benefits and foreign ownership. Professor Craig Johnson from IMAS observed that there are 'economic and environmental grounds for using a factory trawler to catch small pelagics' because it ensures the fish caught is suitable for human consumption. Nevertheless, if the trawler:

...is foreign owned then a lot of that revenue ends up going offshore. It is an Australian resource, but the revenue ends up somewhere else. That is a significant trade-off, and people have to make judgements about that as a policy.²⁴

4.23 Seafish Tasmania countered that foreign involvement is necessary for the SPF to be utilised and for an Australian industry to develop. Mr Simunovich stated:

One of the main issues of operating and why we need the foreign involvement is that we can learn how to fish here, but we are a very small part of the world—small pelagic—but still, these are large tonnages. The infrastructure required to move this product in some of those places I talked about is very difficult. You need the infrastructure, you need to set up. You cannot just do it in isolation. You are not selling a little—I am not trying to be rude, but a few cases of a prime product. This is a large volume product.²⁵

22 Environment Tasmania, *Submission 145*, p. 6.

23 Western Australian Game Fishing Association (WAGFA), *Submission 60*, p. 2.

24 Professor Craig Johnson, Head, Ecology and Biodiversity Centre, and Assistant Director, IMAS, *Committee Hansard*, 15 April 2016, p. 41.

25 Mr Peter Simunovich, Director, Seafish Tasmania; and Member, SPFIA, *Committee Hansard*, 15 April 2016, p. 10.

Concerns about the impact on other fishing activities

4.24 The optimism about the contribution of the *Geelong Star* to the Australian and local economies expressed by the vessel's operator was not shared by most submitters. Several submitters who doubt that there are net economic benefits from the *Geelong Star* contrasted the economic contribution of the *Geelong Star* with potential losses other fisheries or industries may experience.

4.25 Environment Tasmania argued that, if the operations of the *Geelong Star* negatively affect other fishing activities, the jobs that could be at risk should be taken into account. It submitted that the SA sardine fishery supports 'around 170 local jobs' and there 'has been ongoing concern from the SA sardine industry that factory freezer trawlers in the SPF will impact on the health of the sardine fishery due to unintended bycatch of sardines'.²⁶

4.26 However, the validity of concerns about the sardine industry was questioned by AFMA. AFMA made the following observation:

The FV *Geelong Star* has taken less than ten tonnes of sardine bycatch in waters off South Australia. As the South Australian Sardine Fishery TAC is 35,000 tonnes, there could have been no practical impact on the sardine fishery by the fishing activity of the *Geelong Star*.²⁷

4.27 The ARFF expressed concerns about possible consequences for recreational fishing activity, which it suggested could offset any economic benefits directly attributable to the *Geelong Star*. It submitted:

Expenditure on recreational fishing injected into local businesses on the south coast of NSW is estimated at \$395 million a year...Recreational fishing also generates an estimated 1808 jobs in the region. The potential impact of the *Geelong Star* on recreational fishing or other resource users on the south coast of NSW has not been assessed. However, if the *Geelong Star* were to have a 5 percent negative impact on recreational fishing on the south coast alone (without considering the impact on other resource user groups), the economic loss will exceed the total value the *Geelong Star* brings to the Australian economy (anecdotally estimated at \$20 million a year) and lead to the loss of over 90 jobs in the region.²⁸

26 Environment Tasmania added that AFMA has 'failed to address this concern and sardines have been caught and dumped since the *Geelong Star* has been operating'. *Submission 145*, p. 6.

27 AFMA, Response to *Submission 143*, Attachment A, p. 3.

28 Australian Recreational Fishing Foundation (ARFF), *Submission 134*, p. 16. The potential effects for recreational fisheries were also noted by the Conservation Council SA (see *Submission 148*, p. 5) and WAGFA (*Submission 60*, pp. 2–3).

4.28 Submitters explained that these are difficult to quantify as there are varying estimates regarding the value of the sector. As Mr Allan Hansard from the ARFF noted:

This is the trouble with recreational fishing; there are a lot of estimates out there. We would like to work with the government to get some good estimates. If you refer to the estimates that are around, I think the government has put estimates of \$10 billion on it.²⁹

4.29 Mr Hansard added:

To give you an idea of how variable this is, there was a recent study in Victoria that estimated the value in Victoria alone to be around \$7.3 billion. I think the point here is that it is quite large. What we do know from some other studies is that in certain areas, particularly where the SPF is being fished, the values are quite high, even at a local level. There was a study done in New South Wales on the value of fisheries on the south coast...the output value for the south coast of New South Wales is \$395 million a year and employment is about 1,800 people.³⁰

4.30 Mr Hansard commented that these figures only consider recreational fishing, and do not include 'tourism and other uses, so it is a partial assessment of the value' that could be linked to recreational fishing and tourism overall. These potential wider effects notwithstanding, Mr Hansard argued that the economic consequences of any negative effects from the *Geelong Star* for the recreational fishing sector alone are likely to be significant. Mr Hansard stated:

...even if that vessel [the *Geelong Star*] has a small percentage impact on the returns to recreational fishing, you can see that it would quite quickly be larger than the actual value we are receiving from the full effort of the commercial fishing right around Australia.³¹

4.31 Mr Hansard concluded that, if the implications of the *Geelong Star* across all fishing activities in Australia are taken into account, 'we are pretty confident that...the value of the impact on recreational fishing could be quite a stage larger than the commercial value that we are receiving from that fishery'.³²

4.32 The size of the recreational fishing sector was recently noted by the Productivity Commission, which in an August 2016 draft inquiry report on marine fisheries and aquaculture observed that there are 'millions of recreational fishers' in Australia.³³ Moreover, the Commission noted that studies in most state and territories

29 Mr Allan Hansard, Managing Director, ARFF, *Committee Hansard*, 15 April 2016, p. 30.

30 *Committee Hansard*, 15 April 2016, pp. 30–31.

31 *Committee Hansard*, 15 April 2016, p. 31.

32 *Committee Hansard*, 15 April 2016, p. 31.

33 Productivity Commission, *Marine fisheries and aquaculture*, Draft report, August 2016, p. 105.

indicate a recreational fishing participation rate of around 20 per cent of the population considered.³⁴

4.33 The Productivity Commission's draft report stated:

Recreational fishing is sometimes, but inaccurately, seen as an inconsequential adjunct to commercial fishing. This neglects the scale of recreational activity and its large social value to the community, with millions of Australians fishing each year. There is also a local economic flow-on effect in servicing this recreational activity, from accommodation and boat servicing to bait supply. Recreational catches also now rival or exceed commercial catches for some species, and recreational fishing practices can have adverse effects on non-target species (bycatch) and ecosystems. The rising sophistication and affordability of scanning technology and vessels has particularly increased fishers' ability to fish further from shore and more intensively.³⁵

4.34 Of relevance to some of the issues integral to this inquiry, the Productivity Commission further noted:

The demand for access to certain fishing areas or species by the recreational fishing sector has contributed to significant tension in some jurisdictions. The extent of competition for resources is hard to assess as there is relatively little information on shifts in activity and catch. This limits the current scope to objectively reflect demand for recreational fishing in decisions on access to marine resources, and/or in the provision of additional services for recreational fishers.³⁶

34 Productivity Commission, *Marine fisheries and aquaculture*, Draft report, p. 107.

35 Productivity Commission, *Marine fisheries and aquaculture*, Draft report, p. 16.

36 Productivity Commission, *Marine fisheries and aquaculture*, Draft report, p. 16.

Chapter 5

Views on the Small Pelagic Fishery management framework and AFMA's standing among stakeholders

5.1 For a regulatory regime to be successful, it is important that stakeholders and the public have confidence in the performance of the regulator. Likewise, it should be acknowledged that a regulatory agency's task is not easy. Criticisms of the regulator need to be evaluated carefully, with the information asymmetries they encounter, the risk-based environment they operate in and the judgements they necessarily make about how to use their limited resources most effectively all taken into account. As AFMA's Chief Executive Officer, Dr James Findlay, remarked:

Can we address all concerns for all people all the time and make everyone happy? No. That is the nature of natural resource management. It is not dissimilar to forestry issues, farming issues, other land-use management issues—or urban development, climate change or any number of issues—where everyone's concerns cannot be addressed all the time. So, no, I cannot make everyone happy—as much as I would love to.¹

5.2 This chapter explores the evidence received regarding the credibility of the SPF management framework and AFMA. In addressing this topic, the chapter considers two often-interrelated matters: the scientific information and advice relied on in managing the SPF and how AFMA undertakes its responsibilities in ensuring the SPF is used sustainably. The first part of the chapter considers the scientific research programs that support the management of the fishery. The second part considers views on the overall management framework and the approach taken by AFMA when performing its functions. Matters discussed in that part include AFMA's role in informing the public about the fishery and the *Geelong Star*, how recreational fishing interests are taken into account and how AFMA's advisory groups are managed.

Science relied on for the management of the SPF

5.3 It is clear that quality scientific information and advice is needed to support risk-based decisions about the exploitation of Australia's fisheries. As the Department of Agriculture and Water Resources noted, the need for a science-based approach to fisheries management was expressed in the 2005 Ministerial Direction to AFMA. The department explained:

The 2005 Ministerial Direction was issued due to the poor biological and economic status of a number of Commonwealth fisheries and long recovery times facing many stocks. It directed AFMA to take a more strategic, science based approach to setting fisheries catch and effort levels through a

1 Dr James Findlay, Chief Executive Officer, AFMA, *Committee Hansard*, 1 November 2016, p. 22.

'world's best practice Commonwealth Harvest Strategy Policy'. The aim was to manage fish stocks sustainably and profitably, end overfishing and ensure that already overfished stocks were rebuilt within reasonable timeframes.²

5.4 AFMA's submission emphasised that its management approach is science-based: for example, regarding the total allowable catches it determines for each quota species, AFMA submitted that they 'are set consistent with the Commonwealth Harvest Strategy Policy (HSP) under fisheries-specific harvest strategies that utilize the best available science'.³

5.5 AFMA also highlighted the amount of scientific research involving the fisheries it manages, including the SPF. AFMA submitted:

AFMA administers an annual research program of about \$4 million. All major commercial fisheries have a five year research plan to assist in prioritising research; minimising overfishing risks for commercial target species and setting TACs at levels which pursue maximum net economic returns to the Australian community. Also, ecological risk assessment and management are significant and growing components of AFMA's research program. Further, the Commonwealth government and fishing industry have either directly, or through the FRDC, funded a wide range of fisheries research including, reducing uncertainty in stock status, determining stock boundaries and the habitat impacts of commercial fisheries.⁴

5.6 AFMA argued that this 'ongoing investment in science' has resulted in 'a comparatively high level of information about Commonwealth fish stocks and ecosystems than for other jurisdictions in Australia and overseas'.⁵ Attachment 6 to AFMA's submission provides a list of research projects in the SPF for years 2010 to 2015. In November 2016, AFMA provided the committee with an updated list of SPF research projects.⁶

5.7 More generally, AFMA responded to direct and indirect claims made that it does not have sufficient knowledge to manage the SPF well. AFMA submitted:

...based on what we do know a reasonable assessment of the status of Commonwealth commercial fisheries can be made. This has been undertaken almost each year for more than 20 years by the Australian Bureau of Agriculture and Resource Economics and Sciences (ABARES). During this time the science base on which fish stocks are assessed has steadily improved. In the last two assessments ABARES concluded that no

2 Department of Agriculture and Water Resources, *Submission 12*, p. 5.

3 AFMA, *Submission 18*, p. 2.

4 AFMA, *Submission 18*, p. 4.

5 AFMA, *Submission 18*, p. 4.

6 See AFMA, 'Schedule of daily egg production (DEPM) surveys for SPF quota species and Small Pelagic Fishery research projects (tabled by AFMA on 1 November 2016).

fishery solely managed by AFMA was subject to overfishing, including the SPF. Further, five AFMA fisheries have Marine Stewardship Council accreditation—regarded by many as a high standard of independent fishery certification. While there remains work to be done, the independent evidence is that Commonwealth fisheries are comparatively well researched and well managed.⁷

Views of scientific organisations

5.8 Various scientific organisations contribute to research and improving the scientific understanding of the SPF. The committee received evidence from the CSIRO, the Fisheries Research and Development Corporation (FRDC), the Institute for Marine and Antarctic Studies (IMAS) and ABARES on their efforts in this regard.

5.9 The CSIRO, which is the Commonwealth's major research agency, advised that it has a body of work on:

- marine ecosystems;
- the harvest control rules and other management considerations applied in the SPF;
- the economic and ecological performance of Australian fisheries that large fishing vessels operate in; and
- general fisheries and ecosystem-based fisheries management research.⁸

5.10 The FRDC is a Commonwealth statutory corporation that plans and invests in fisheries research, development and extension (RD&E) activities.⁹ Its detailed submission provided 'an overview of FRDC funded or co-funded research used to inform the sustainable use and management of fisheries for small pelagic stocks', as well as fish stocks in other Australian fisheries where large fishing vessels are currently used.¹⁰ The FRDC advised that its RD&E investment 'is largely priority driven'. It explained:

As gaps in research across the four sectors are identified, funds are sourced to address high priority research needs; successful projects are managed by a project team and a FRDC project manager; final reports/papers are peer reviewed; new knowledge is made public to stakeholders; and this information is used by the appropriate end-users to inform management decisions. Knowledge adoption using evidence-based science underpins the effective management of Australian fisheries.¹¹

7 AFMA, Response to *Submission 166*, p. 2.

8 CSIRO, *Submission 23*, p. 6.

9 Fisheries Research and Development Corporation (FRDC), 'About us', www.frdc.com.au/about_frdc/about_us/Pages/default.aspx (accessed 20 July 2016); FRDC, *Submission 20*, p. 2.

10 FRDC, *Submission 20*, p. 2.

11 FRDC, *Submission 20*, p. 2.

5.11 IMAS, which is at the University of Tasmania, is a 'centre of excellence for marine and Antarctic research'. Fisheries and aquaculture is one of the Institute's three core research programs.¹² Professor Craig Johnson, an assistant director at IMAS, stated:

The fisheries science that we do underpins management for both recreational and commercial fisheries. We are also engaged in aquaculture, ecology and ecological dynamics, biogeochemistry, marine physics and oceanography. We do this across all latitudes in both hemispheres, although most of our work is focused on temperate Australia and Southern Ocean and Antarctica. We have quite a unique position among Australian universities in marine science in that sense.¹³

5.12 The committee received evidence indicating that scientific research has resulted in improved practices. For example, the CSIRO advised that the FRDC:

...funded research in 2001 to identify and implement effective measures to reduce interactions and mitigate the risk of injury and mortality. Subsequent implementation of a Code of Fishing Practice and installation of seal exclusion devices on trawl nets halved the incidence of seal bycatch per trawl shot. Seal mitigation measures continue to be improved to further reduce fishery-related injury or mortality to seals. In addition to the Code of Conduct, educational resources were produced to assist fishers to identify seals species and provide guidelines to reporting interactions with seals.¹⁴

5.13 The CSIRO added that a 'significant body of work exists on the ecosystem impacts of fishing in the SPF region', and 'modelling simulations indicate that under current management arrangements any trophic impacts of the SPF on...[Southern Bluefin Tuna] would be small'. However, the CSIRO advised that a 'better understanding of current diets and how they have shifted through time is required in order to increase confidence in past predictions and improve robustness of current and future models and their predictions'.¹⁵ The CSIRO submitted:

The collective knowledge amassed from a range of empirical diet studies of fishes and higher predators in the southern Australian marine ecosystem means that the predator-prey interactions involving SPF target species are generally well-known. However, these trophic data (particularly in the Eastern Zone of the SPF) are more than 20 years old and there is uncertainty around how well they represent current diet connections...Recent small scale studies of fish diets in the region suggest there has been a change in diet...and studies on Australian fur seals and

12 Institute for Marine and Antarctic Studies (IMAS), 'Research', www.imas.utas.edu.au/research (accessed 20 July 2016).

13 Professor Craig Johnson, Head, Ecology and Biodiversity Centre, and Assistant Director, IMAS, *Committee Hansard*, 15 April 2016, p. 41.

14 FRDC, *Submission 20*, p. 5.

15 CSIRO, *Submission 23*, pp. 4, 5 and 12.

little penguins also suggest that diet shifts have occurred in response to environmental changes...¹⁶

5.14 In relation to long-term localised depletion, which the CSIRO explained was 'extremely difficult' to detect in small pelagic species, the CSIRO noted that 'overall, there is little information for predicting with any certainty what patterns of fishing would lead to localised depletion at a level great enough to cause adverse outcomes'.¹⁷ The CSIRO submitted that new observational and modelling approaches would be required to clarify whether small pelagic species have a localised stock structure. In addition, new models would be needed to explore 'the multispecies dynamics of localised depletion', as suitable models do not exist at present.¹⁸

5.15 Scientific organisations also commented on DEPM stock assessments. In its submission, the FRDC noted that DEPM stock assessments 'have been found to provide robust and reliable estimates of stock size for the four main pelagic target species'. The FRDC noted that results from DEPM estimates 'have been used to estimate alternative sustainable annual harvest rates, depending on how much information is available and how current the most recent DEPM estimates are'. The FRDC added that the 'precision and reliability of DEPM estimates has been improved, and current projects continue to pursue options for further improvement'.¹⁹

5.16 As noted in Chapter 3, IMAS advised that DEPM surveys conducted in 2014 provide 'up-to-date biomass assessment for three of the four main target stocks in the Eastern zone (i.e. Jack Mackerel, Blue Mackerel and Australian Sardine)'. However, IMAS acknowledged that 'stock status information for the remaining SPF stocks (Redbait east, Redbait west, Jack Mackerel west and Blue Mackerel west) is either over 10 years old or unassessed using the DEPM approach and thus less certain'. IMAS explained that, in relation to these stocks, 'a more conservative approach to recommending catch limits is taken (at least half the maximum recommended harvest rate)'. It added that biomass surveys for the western zone stocks 'represent a high research priority for the SPF'.²⁰

5.17 In its contribution to the submission from the Department of Agriculture and Water Resources, ABARES similarly noted that the estimated biomass for the redbait west stock 'is currently uncertain due to insufficient availability of information for stock assessment'.²¹ ABARES advised that scientific knowledge for the SPF 'could be strengthened by analysing and improving the precision of biomass estimates'. ABARES stated:

16 CSIRO, *Submission 23*, p. 9 (citations omitted).

17 CSIRO, *Submission 23*, p. 12.

18 CSIRO, *Submission 23*, pp. 5, 12.

19 FRDC, *Submission 20*, p. 3.

20 IMAS, *Submission 19*, p. 5.

21 Department of Agriculture and Water Resources, *Submission 12*, p. 29.

It will be important to consider interannual variability if recommended biological catches are used to set multi-year total allowable catches. For example, a multi-year total allowable catch that represents 5 per cent of total biomass of the stock in year one could represent a larger percentage of the biomass in year two if the biomass in year two is proportionally lower than it was in year one. This highlights the importance of a harvest strategy that can be reactive to stocks that can exhibit substantial interannual variability. The tiered framework in the harvest strategy appears to be sufficiently precautionary to account for this variability, as well as adequately considering the level of uncertainty around the quality of data or the age of stock assessments.²²

5.18 Updated evidence regarding the status of DEPM survey results was provided by AFMA in September and November 2016. AFMA advised that DEPM survey results for east coast stocks of blue mackerel and sardine were published in December 2015. AFMA added that a new DEPM survey of jack mackerel west is planned for 2016–17. AFMA further added:

Research to inform changes to the SPF Harvest Strategy is being undertaken by CSIRO and will be reviewed by the SPF Scientific Panel and stakeholders in late 2016. The work includes a stock assessment for eastern Jack Mackerel and robustness testing to ensure the SPF Harvest Strategy continues to meet sustainability objectives.

AFMA is working with CSIRO to update the Ecological Risk Assessments (ERA) for all major Commonwealth fisheries. The methodology has been revised and two fisheries, the SPF and Eastern Tuna and Billfish Fishery are being put through the revised method to test the new ERA process. The results are expected to be finalised late in 2016.²³

5.19 Overall, Professor Johnson from IMAS observed that 'investment in the science of fishery management is vital'. Professor Johnson stated:

Is it possible to manage fisheries sustainably, robustly and with confidence? That is absolutely the case. The scientists know what to do. It is all very tractable, but it does require some investment.²⁴

22 Department of Agriculture and Water Resources, *Submission 12*, p. 29.

23 AFMA, *Submission 170*, p. 2.

24 Professor Craig Johnson, IMAS, *Committee Hansard*, 15 April 2016, p. 41.

Views of industry stakeholders

5.20 The submissions from Seafish Tasmania, the SPFIA and the Tasmanian Seafood Industry Council provided further insights into how scientific understanding of the SPF has developed.

5.21 The SPFIA provided a list of scientific studies undertaken in 2014 and 2015 that examined the SPF. It argued that the list 'represents a large investment in science' compared to other Commonwealth and state-managed fisheries. The SPFIA added that '[d]espite some inevitable gaps in knowledge that will be progressively closed, the SPF should be looked at as one of our most heavily researched and well understood fisheries'.²⁵

5.22 The submission from Seafish Tasmania—the operator of the *Geelong Star*—acknowledged that in some areas of the SPF 'there is a limited amount of scientific information on distribution and abundance of some species' because these areas have 'experienced little or no fishing effort in the past'.²⁶ However, its submission highlighted how the operations of the *Geelong Star* inform the scientific studies underpinning the management of the fishery. For example, Seafish Tasmania explained how the AFMA observer on board the vessel collects fish samples. These samples:

...will start to reveal important information about location and timing of spawning of the various target species, particularly in the western zone of the fishery, that will enable scientists to pinpoint when and where to carry out egg surveys to estimate the size of the spawning stocks. This is essential information for the effective implementation of egg surveys.²⁷

5.23 Other information collected as a result of the fishing operations will, Seafish Tasmania argued, help 'to build up a more comprehensive picture of the biology, distribution and movements of SPF target species'. From this, scientists and AFMA can 'continue to refine the harvest strategy and other management rules to support the sustainability of the fishery'.²⁸

5.24 Industry stakeholders also demonstrated how vessel operations enable mitigation measures to be tested and refined. In relation to excluder devices for marine mammals such as seals, Seafish Tasmania explained that:

Off the shelf solutions to marine mammal interaction issues are rare. More commonly, industry working with scientists has to develop and

25 Small Pelagic Fishery Industry Association (SPFIA), *Submission 27*, p. 17. Similarly, the Tasmanian Seafood Industry Council outlined the principal research priorities for the SPF and the key research tasks undertaken between 2002 and 2014 to inform these priorities: see *Submission 16*, pp. 6–7.

26 Seafish Tasmania, *Submission 22*, pp. 8–9.

27 Seafish Tasmania, *Submission 22*, p. 9.

28 Seafish Tasmania, *Submission 22*, p. 9.

implement new procedures or devices that have potential to reduce interaction rates. Typically this process of development and testing takes years before an effective and proven method emerges.²⁹

5.25 Seafish Tasmania highlighted how research and technical development since the late 1990s in the blue grenadier fishery off the west coast of Tasmania has resulted in what was a high incidental capture of seals reduced to 'close to zero'. Seafish Tasmania argued:

The point is that it takes years to develop and refine mitigation methods to the point where they are effective and reliable. Although exceptional progress in mitigation methods has been achieved in the SPF in recent months, it is unrealistic to expect that no dolphin or seal mortalities will occur. There is much more work to do and there needs to be scope for research and development and recognition that there are bound to be mortalities while this is in progress.³⁰

5.26 In relation to the *Geelong Star*, Seafish Tasmania explained that an 'underwater camera is being used to monitor the performance of the excluder device and trials of a barrier net situated within the trawl'. The footage from this camera is 'expected, over time, to provide insights into seal and dolphin behaviours in relation to these devices that will help to further modify them to improve their effectiveness'. More generally, Seafish Tasmania noted that information collected as a result of the activities of the *Geelong Star* will help to improve scientific knowledge about the SPF.³¹

5.27 Seafish Tasmania also identified an area it considers requires further research. Seafish Tasmania submitted that there 'is little information on common dolphin abundance in some areas of the fishery'. It suggested that efforts to improve the amount of information on common dolphin abundance 'would help scientists to assess the size of the dolphin populations that would, in turn, provide a scientific basis for the setting of sustainable dolphin mortality triggers for the fishery'.³² Industry concerns about the dolphin mortality trigger were discussed in Chapter 3.

5.28 In September 2016, the FRDC released a report that may be of some relevance to this issue. The report considered knowledge gaps about the number of mortalities linked to human activity that populations of marine mammals in the SPF such as seals, sea lions and dolphins can sustain while still allowing that population to reach or maintain its optimum sustainable population. AFMA advised that it 'will be considering this report consistent with its use of the latest available science to inform decision making about Commonwealth fisheries'. AFMA added:

29 SPFIA, *Submission 27*, p. 15.

30 SPFIA, *Submission 27*, p. 15.

31 Seafish Tasmania, *Submission 22*, p. 9.

32 Seafish Tasmania, *Submission 22*, p. 9.

In particular, AFMA will seek advice from its Marine Mammal Working Group on the outcomes from the report, and how to continue to minimise and avoid Commonwealth fisheries interactions with marine mammals.³³

Views of environmental organisations and recreational fishing groups

5.29 Although scientific and industry stakeholders were generally positive about the science underpinning the management of the SPF, environmental organisations and recreational fishing groups raised questions about it, with a common concern being that particular scientific assessments were lacking or out-of-date. This issue was discussed in Chapter 3, however, it is instructive to revisit it here. For example, Environment Tasmania submitted:

Supporters of the *Geelong Star* and AFMA's management of the SPF suggest that fisheries management is "supported by the science". In fact, much of the information about SPF stocks is very old and gaps in the science mean that concerns about sustainability and localised impacts of fishing cannot be addressed.³⁴

5.30 In support of this argument, Environment Tasmania stated that the assessment of ecosystem effects from factory trawlers in the SPF 'that has been done' was based on modelling 'that may not be accurate given the known, already existing impacts of climate change and fishing pressure on target stocks and pelagic community structure in the south east of the fishery'.³⁵ It added that 'only three of the four' stocks in the eastern zone have been assessed in the last nine years, and that stocks in the western zone 'have never been assessed using best-practice survey methods'.³⁶

5.31 The Western Australian Game Fishing Association expressed concern that fish stock estimates on the south-west coast may be inaccurate as it is of the understanding that 'there is very limited scientific knowledge about baitfish species' in that area.³⁷

5.32 The ARFF argued that the small pelagic fish 'play a critical role in marine food webs'. Given this, the ARFF called for 'further research on the economic, social and environmental characteristics of the Australian SPF' to be undertaken before 'any decisions are made about...if and how it is fished'. Specifically, the ARFF considers more information is required about: the size of the stock; whether there are sub-stocks and movement of the stock spatially and temporally; how long it takes a school to recover from various spatial and temporal intensities of industrial scale

33 AFMA, *Submission 170*, p. 2.

34 Environment Tasmania, *Submission 145*, p. 5.

35 Environment Tasmania, *Submission 145*, p. 2.

36 Environment Tasmania, *Submission 145*, p. 5.

37 Western Australian Game Fishing Association, *Submission 60*, p. 2.

fishing; and the impacts of industrial scale fishing on recreational fishing and other marine use activities.³⁸

Funding arrangements

5.33 The funding arrangements underpinning the science were also examined. Figures provided by AFMA indicate that, in recent years, research projects relating to the SPF totalling approximately \$2.4 million have been contracted by AFMA and the FRDC.³⁹ Mr Ian Thompson, a first assistant secretary at the Department of Agriculture and Water Resources provided the following evidence regarding how the research is funded:

A lot of the research is funded by the Fisheries R&D Corporation. The Fisheries R&D Corporation is predominantly government funded. It receives industry levies and industry voluntary contributions for some of its work; however, I think around 75 per cent is government funded. Some of the research has been funded by the department, so that is government funded.⁴⁰

5.34 Despite the significant proportion of government funding for the research, another departmental officer noted that 'now...the fishery is operational, the advice that I have received is that in fact industry is now investing in the research'. He added:

Clearly, when there was no fishing, there was no capacity for the then auditor to progress the research that was called for. The government did most of the heavy lifting in the beginning but...industry is now beginning to invest in that research as well now that there is actually a viable fishery—or what we believe is a viable fishery.⁴¹

38 Australian Recreational Fishing Foundation (ARFF), *Submission 134*, pp. 3–4.

39 AFMA, 'Schedule of daily egg production (DEPM) surveys for SPF quota species and Small Pelagic Fishery research projects (tabled by AFMA on 1 November 2016).

40 Mr Ian Thompson, First Assistant Secretary, Sustainable Agriculture, Fisheries and Forestry Division, Department of Agriculture and Water Resources, *Committee Hansard*, 1 November 2016, p. 5.

41 Mr Gordon Neil, Assistant Secretary, Fisheries Branch, Sustainable Agriculture, Fisheries and Forestry Division, Department of Agriculture and Water Resources, *Committee Hansard*, 1 November 2016, p. 5.

Evidence regarding the overall regulatory framework

5.35 Some submitters highlighted the precautionary approach taken to fisheries regulation in Australia, such as the CSIRO which argued that Australian regulations are 'amongst the most precautionary globally'.⁴² Nevertheless, as demonstrated in the previous chapters, submissions from environment groups, recreational fishing bodies and members of the public raised various general and specific concerns about AFMA's approach to managing the SPF.

5.36 This section considers evidence received about whether the overall management framework and approach taken to managing the SPF is appropriate. Although this section is limited to the evidence received during this inquiry, it is instructive to note here that the Productivity Commission is currently undertaking an inquiry into the regulatory burden imposed on the Australian marine fisheries and aquaculture sectors. This inquiry is focusing on 'the frameworks for determining access to fishery resources and managing each fishing sector, given that it is these higher-level policies that will influence day-to-day management and have the most significant bearing on outcomes'.⁴³ The Productivity Commission has released a draft report, and is due to present its final report by December 2016.

5.37 The Commonwealth Ombudsman has also examined aspects of AFMA's approach. In correspondence to the committee, AFMA discussed a 2012 investigation by the Ombudsman regarding AFMA's processes, including how conflicts of interest are managed. AFMA provided the committee with the following summary:

The Ombudsman found that the South East Management Advisory Committee had not managed declared conflicts of interest strictly in accordance with the...[*Fisheries Administration Act 1991*], but that this had no effect on the AFMA Commission's decisions regarding the SPF. In concluding the investigation, the Ombudsman noted that 'as a result of this investigation, AFMA has reminded its advisory groups and committees of the correct procedures in relation to handling conflict of interests and reflecting dissenting opinions in meeting summaries' and concluded that, in its view, AFMA's responses have been both necessary and appropriate. Since then, AFMA has further reviewed its policies to clarify and reinforced the conflict of interest procedures and has held a number of MAC/RAG workshops, with specific focus on managing conflicts of interests.⁴⁴

5.38 Another Commonwealth Ombudsman investigation into AFMA's administration of the resource assessment group for the SPF was completed in August 2016. As that review directly examined matters also raised in particular submissions to this inquiry, it is discussed below where relevant.

42 CSIRO, *Submission 23*, p. 15.

43 Productivity Commission, *Marine fisheries and aquaculture: Draft report*, August 2016, p. 7.

44 AFMA, Response to *Submission 143*, p. 2.

Overall regulatory framework and approach

5.39 As discussed in Chapter 1, AFMA's Commission is responsible for decision-making in relation to domestic fisheries management functions and powers. AFMA's Commission receives advice on the management of the fishery from the South East Management Advisory Committee (SEMAC).⁴⁵ AFMA must also take into account advice from the relevant resource assessment group about the stock status of the quota species.

5.40 AFMA's consultation and decision-making framework has undergone changes over time:

- Prior to 2008, the decision-making body for AFMA was a board, which had 'membership along with other experts'. The board was replaced with the Commission following the 2003 review of the corporate governance of statutory authorities and office holders conducted by Mr John Uhrig AC.⁴⁶
- The ability for AFMA to appoint management advisory committees, such as SEMAC, has existed since the *Fisheries Management Act 1991* was enacted. Prior to July 2010, a management committee specifically for the SPF existed; however, after a rationalisation of the various management advisory committees and resource assessment groups, SEMAC was established to provide management advice on the SPF as well as the Southern and Eastern Scalefish and Shark Fishery and the Southern Squid Jig Fishery.⁴⁷
- Changes to the resource assessment group for the SPF have also occurred. AFMA and SEMAC previously received advice from the Small Pelagic Fishery Resource Assessment Group (SPFRAG); however, after the membership terms of the SPFRAG expired on 30 June 2015, AFMA replaced the SPFRAG with a scientific advisory panel and stakeholder forums, a system to be trialled for two years.⁴⁸

45 SEMAC comprises a chairperson, an AFMA officer and up to seven other members. As at June 2016, the other members included one research member, one environment/conservation member, four industry members and one recreational member. An additional four invited participants comprise two industry participants, one scientific participant and one state government participant. AFMA, 'South East Management Advisory Committee', www.afma.gov.au/fisheries/committees/south-east-management-advisory-committee-semac (accessed 29 June 2016); *Fisheries Administration Act 1991*, s. 60; AFMA, *Submission 18*, Attachment 9, p. 3.

46 AFMA, *Submission 18*, Attachment 9, p. 2.

47 M Lack, P Harrison, S Goldworthy and C Bulman, *Report of the Expert Panel on a Declared Commercial Fishing Activity: Final (Small Pelagic Fishery) Declaration 2012*, October 2014, p. 21.

48 AFMA, 'SPFRAG members complete their term', Statement dated 18 June 2015, www.afma.gov.au/spfrag-members-complete-term (accessed 22 July 2016); AFMA, *Submission 18*, Attachment 9, p. 4.

5.41 As noted in Chapter 2, AFMA manages the SPF using output controls based on total allowable catches (TACs) for each quota species and individual transferrable quotas. As also noted in Chapter 2, AFMA implements strategies for minimising the amount of bycatch and the numbers of interactions between vessels and species protected under the EPBC Act. AFMA also oversees fishing activities in the SPF through a variety of compliance and monitoring measures.

5.42 Evidence from state and territory governments supported AFMA's overall approach and the management framework that is in place. The New South Wales government informed the committee that it:

...supports the continued efforts by the relevant Federal Minister and the Australian Fisheries Management Authority to develop and refine measures designed to manage the harvest of fisheries resources on a sustainable basis and reduce the impacts of fishing activities on other components of the ecosystem (including bycatch of non-targeted fish or marine mammals).⁴⁹

5.43 The Northern Territory Department of Primary Industry and Fisheries (NTDPIF) advised that it:

...is of the opinion that effective management frameworks, by definition, consider and address the risks covered by the specific points of reference and that the work of the CSIRO, Australian Department of Agriculture and Water Resources and...AFMA...is transparent and clearly demonstrates that an effective and adaptive management framework is in place.⁵⁰

5.44 The NTDPIF elaborated:

Australia has a comprehensive and detailed framework of management for fisheries resource use. Fisheries management in Australia is ecosystem based and broadly recognised as world class, and in some instances, world leading. The basis for that recognition is Australia's commitment to frameworks for evidence based decision making, adaptation and systemic improvement across the science-management continuum. The national approach to fisheries management is informed by sophisticated scientific programs that are also recognised as being world class.⁵¹

5.45 In addition, the NTDPIF explained why it considers that fishery management based on output controls, which are predominantly used for fisheries management in Commonwealth fisheries, is preferable to input controls. It submitted that 'input controls are generally considered a blunt tool; especially for large scale fisheries based on dynamic stock characteristics'. On the other hand, management frameworks based on output controls 'are sophisticated, economically rational and effective at maintaining harvest at sustainable levels'. The department added:

49 The Hon Niall Blair MLC (New South Wales Minister for Primary Industries; and Minister for Lands and Water), *Submission 26*, p. 2.

50 Northern Territory Department of Primary Industry and Fisheries, *Submission 73*, p. 2.

51 Northern Territory Department of Primary Industry and Fisheries, *Submission 73*, pp. 2–3.

The scientific standards used to inform allowable catch determinations in Australia are world class and often world leading. The science and management strategies used to determine output-based catch allocations are articulate and precautionary in how they handle broader ecosystem impacts such as trophic impact.⁵²

5.46 Industry representatives also expressed overall support for Australia's system of fisheries management and the approach taken by AFMA. The Commonwealth Fisheries Association (CFA) advised that it is 'highly supportive of AFMA's management and compliance arrangements'. The CFA explained:

As evidenced by the ABARES stock status report the great majority of fished stocks are in very good shape and, even more importantly, the outlook for long-term sustainability is extremely positive. AFMA's compliance programs are underpinned by strong fisheries legislation, including strict rules and regulations with clear penalties and sanctions. In the rare event where fishers (and fish buyers) are caught breaking rules, they are subject to on-the-spot fines, suspension of licences to fish or, in the more serious cases, AFMA may prosecute them, have their catch seized, or remove (suspend or cancel) the concession altogether.⁵³

5.47 The CFA also submitted that, over the last decade, the performance of Commonwealth fisheries has improved. The CFA explained it is 'widely acknowledged' that a key driver of these improvements is the *Commonwealth Fisheries Harvest Strategy Policy and Guidelines*. The CFA submitted that this policy framework:

...has cultivated transparent, evidence and risk based approach to setting target and limit reference points for assessing a wide range of species along with decision rules for generating advice for managing key commercial species in Commonwealth fisheries. It is considered an example of world's best practice for managing fisheries, and has nothing to do with the capacity of a vessel.⁵⁴

5.48 The SPFIA also submitted that 'Commonwealth fisheries are well managed by AFMA, which has a proven track record'.⁵⁵

5.49 Austral Fisheries advised that it supports the current regulatory framework. Austral considers the model of AFMA as a regulator headed by a Commission, with policy responsibility within the fisheries division of the Department of Agriculture and Water Resources 'is a demonstrably successful one at ensuring scientifically, and environmentally robust outcomes within an effective management system'. Austral added:

52 Northern Territory Department of Primary Industry and Fisheries, *Submission 73*, p. 4.

53 Commonwealth Fisheries Association (CFA), *Submission 15*, p. 7.

54 CFA, *Submission 15*, p. 6.

55 SPFIA, *Submission 27*, p. 27.

The single example of community concern over the small pelagic fishery and use of a (genuine) super trawler, does not demonstrate a failing of the effectiveness of the current regulatory framework, nor compliance arrangements. Rather, we believe it demonstrates a need to consider how Government should most appropriately respond to community concerns.⁵⁶

5.50 Nevertheless, SPF industry stakeholders expressed some apparent disquiet over aspects of the management arrangements. The operator of the *Geelong Star*, Seafish Tasmania, for example, described the management of the SPF and the conditions applied to the *Geelong Star* as 'extremely strict'.⁵⁷ The SPFIA also remarked that the management arrangements 'are extremely costly, and these costs are largely borne by SPF quota holders'. It explained:

Over the past five years, AFMA's cost recovery levy on SPF quota holders has totaled \$3.06m while catches and revenues from the fishery have been minimal. It is estimated that the gross value of catches has been less than \$1.4m over this period, forcing SPF quota holders to fund their AFMA levies out of earnings from other fisheries or non-fishing sources, rather than from profits derived from fishing in the SPF. This has caused significant economic distress for many quota holders.⁵⁸

5.51 Finally, AFMA's regulatory approach and the outcomes achieved in recent years appears to be supported by evidence from its portfolio department—the Department of Agriculture and Water Resources—which indicated that outcomes have significantly improved in the fishery. The department submitted:

Since 2005, there has been a significant reduction in the number of fish stocks that have been assessed as subject to overfishing (i.e. current levels of harvest are likely to reduce the population below acceptable levels) and/or are overfished (that is, the populations have been reduced below acceptable levels). There has also been a significant decline in the number of fish stocks whose status is uncertain (that is for which there is not enough information to assess whether the stock is overfished or subject to overfishing).⁵⁹

5.52 A contrary perspective was put forward by the Australian Marine Conservation Society (AMCS), which argued that, by allowing vessels such as the *Geelong Star* to operate, the management framework is 'disempowering' key stakeholders, including the general public. The AMCS submitted:

The Australian public owns, and is the key stakeholder in, our fishery resources, which are managed by government on our behalf. We pay for one third of the management costs of our Commonwealth fisheries, and are

56 Austral Fisheries, *Submission 14*, p. 1.

57 Seafish Tasmania, *Submission 22*, p. 14.

58 SPFIA, *Submission 27*, p. 36.

59 Department of Agriculture and Water Resources, *Submission 12*, p. 5.

called upon to underwrite major fishing industry reforms when fisheries management has failed.

It is important to respect the public's expectations of how our marine environment and resources are managed. Australia's strong cultural connection to our oceans has enabled us to gain a strong international reputation for our marine and fisheries management.

Australians expect sustainable, well-managed fisheries that do not damage the marine environment and do not impact on other users of our oceans. The *Geelong Star* does not meet these expectations.⁶⁰

5.53 The AMCS concluded that:

Any move to introduce more environmentally marginal fishing operations and/or reduce transparency of management for fisheries of community concern threatens to erode the wider fishing industry's reputation and the community's likely willingness to pay to support fisheries management.⁶¹

Recreational fishing interests

5.54 Although there is general support for the overall regulatory framework, there is a perception that the current arrangements do not adequately account for recreational fishing interests. As noted in Chapter 4, various groups highlighted the economic activity related to recreational fishing and argued that concerns of the recreational fishing sector are not adequately considered.

5.55 TARFish, for example, is of the view that many of its concerns regarding the management of the *Geelong Star* stem from 'a narrow focus and conflicting objectives for AFMA within its controlling fisheries Acts'. Furthermore, this legislation does not require the government or AFMA to recognise recreational fishing or other key stakeholders groups when making managing fisheries.⁶²

5.56 Similarly, the Victorian Recreational Fishing Peak Body argued that AFMA's objective 'to manage its fisheries in a way that achieves maximum economic returns to the Australian community' is an objective that is 'vague, poorly defined and...open to interpretation'. The Peak Body continued:

The lack of explicit recognition of recreational fishing values prevents AFMA from managing its fisheries to the satisfaction of recreational fisheries. This is not a criticism of AFMA, rather it highlights the policy void and the need for amendments to Commonwealth fisheries legislation.⁶³

60 Australian Marine Conservation Society, *Submission 146*, p. [3].

61 Australian Marine Conservation Society, *Submission 146*, p. [3].

62 Tasmanian Association for Recreational Fishing (TARFish), *Submission 128*, p. 7.

63 Victorian Recreational Fishing Peak Body, *Submission 33*, p. 2.

5.57 The ARFF also highlighted the lack of a legislative requirement for AFMA to recognise recreational fishing (or other key user stakeholder groups) when performing its tasks. The ARFF noted previous calls for this to be addressed. In particular, the ARFF cited the report of the 2012 review of Commonwealth fisheries legislation, policy and management undertaken by Mr David Borthwick AO PSM. Relevantly, that report stated:

...the Review considers that the fisheries Acts should give explicit acknowledgement to the need for AFMA to give consideration to the interests of recreational anglers. They contribute a lot to the economic and social life of our country, all the more so in regional areas.⁶⁴

5.58 During the 2016 election campaign, the Coalition committed to amending the Fisheries Management Act to ensure that AFMA takes into account the interests of all fisheries users, including commercial, recreational and Indigenous fishers. Officers of the Department of Agriculture and Water Resources could not advise when this legislation would be introduced or if draft legislation would be released for consultation. However, they confirmed that 'as it is an election commitment we are working on a priority basis to develop appropriate amendments and have them introduced as soon as possible, and to undertake the necessary consultation around them'.⁶⁵

5.59 Another proposal to enhance consultation with recreational fishing interests is the establishment of a National Recreational Fishing Council. This proposal was an election commitment of the government for the 2013 election.⁶⁶ In July 2015, Senator the Hon Richard Colbeck, then Parliamentary Secretary to the Minister for Agriculture, indicated that the government was 'in the process of finalising the terms of reference and membership' for the Council.⁶⁷ As at 1 November 2016, however, the Council had not been formed.

5.60 Departmental officers were asked why the National Recreational Fishing Council is yet to be established. Mr Ian Thompson, a first assistant secretary, provided the following update regarding developments since the former minister's July 2015 statement:

There have been some changes with how the recreational sector represent themselves and there was discussion with the sector and others. One of the models that was being pursued at that time was to have the council run by

64 D Borthwick, *Review of Commonwealth fisheries: Legislation, policy and management*, December 2012, p. x; cited in ARFF, *Submission 134*, p. 18.

65 Mr Ian Thompson, Department of Agriculture and Water Resources, *Committee Hansard*, 1 November 2016, p. 4.

66 The Council is intended to 'reinvigorate the lines of communication between recreational fishers and government'. *The Coalition's policy for a more competitive and sustainable fisheries sector*, August 2013, p. 7.

67 Senator the Hon Richard Colbeck (Parliamentary Secretary to the Minister for Agriculture), 'Recognising the value of recreational fishing in Australia', *Media Release*, 24 July 2015.

the recreational sector itself, but then that would require money. An alternative model is to have one that is supported by government, which means the government would pay for support, but then funding is not unlimited. So there has been a lot of discussion about the best way of having a council that is able to provide the right sort of advice but still be financially viable.⁶⁸

5.61 In the absence of a formal consultation process, informal negotiations regarding the *Geelong Star* between industry and recreational fishing groups have occurred. Initially, these discussions were brought about following the efforts of recreational fishing groups, as the ARFF explained in its submission:

The *Geelong Star* was approved to fish the SPF by the Commonwealth Government early in 2015. It commenced fishing in March 2015. Noting that the Government did not consult with ARFF or other key stakeholder user groups about the potential impacts of the fishing operations on recreational fishing prior to the vessel gaining approval, ARFF sought to try and limit potential impacts of these operations through discussions with the vessel operators. These discussions commenced in April 2015.⁶⁹

5.62 The ARFF advised that during these initial discussions, the ARFF proposed that the vessel operator would avoid fishing ARFF-identified 'areas of concern' for recreational fishers and the coastal communities recreational fishing activities support 'until more was known about the economic, social and environmental characteristics of the fishery'. However, the ARFF's proposal 'was rejected by the vessel operators and due to a lack of progress, the discussions collapsed'.⁷⁰

5.63 The next phase of negotiations occurred at the invitation of the Assistant Minister for Agriculture and Water Resources, Senator the Hon Anne Ruston. The first meeting occurred on 1 December 2015. At this meeting, Seafish Tasmania voluntarily agreed that the *Geelong Star* would not fish in SPF management zone 7 until the end of the season on 30 April 2016.⁷¹

5.64 In February 2016, the government indicated further progress had been made in negotiations between recreational and commercial fishing interests about the operations of the *Geelong Star*, with voluntary undertakings offered by Seafish Tasmania.⁷² However, by the committee's April 2016 public hearing, negotiations had

68 It was also noted that the possible arrangements will be revisited in a meeting of recreational fishing representatives on 24 November 2016. Mr Ian Thompson, Department of Agriculture and Water Resources, *Committee Hansard*, 1 November 2016, pp. 3–4.

69 ARFF, *Submission 134*, p. [19].

70 ARFF, *Submission 134*, p. [19].

71 Senator the Hon Anne Ruston (Assistant Minister for Agriculture and Water Resources), 'Progress made on Geelong Star negotiations', *Media Release*, 1 December 2015.

72 Senator the Hon Anne Ruston, 'Progress made on Geelong Star negotiations', *Media Release*, 25 February 2016.

again collapsed with the recreational fishing groups deciding to withdraw from further discussions.⁷³ Mr Hansard from the ARFF explained that the recreational fishing groups withdrew from the process as they have 'deeper concerns and issues here in relation to the management of the fishery and the value of the fishery'. Mr Hansard added that the negotiations were 'a bandaid solution to a deeper problem'.⁷⁴

Specific concerns about the management of the SPF by AFMA

5.65 This section follows on from the previous general discussion about the overall regulatory regime that AFMA operates within by examining the specific concerns put forward about matters that appear to be within AFMA's control.

Transparency and accountability of activities in the SPF

5.66 A significant area of concern for various stakeholders is the amount of information about the activities of the *Geelong Star* and the management of the SPF that is released to the public, and the timeliness and quality of the information that is released. The principal concern is the volume of material that is classified as commercial-in-confidence and, therefore, is not available to other stakeholders or the public more generally. When describing its concerns, TARFish drew the committee's attention to the '5 boat rule' used by AFMA. TARFish explained:

There is a significant degree of a lack of transparency and what is perceived to be secrecy surrounding industrial scale fishing in the SPF by the Australian community and this is largely caused by what is known as the 'AFMA 5 boat rule'. This rule precludes the communication by AFMA of a lot of key information that fuels public disquiet and conjecture about the operations of industrial scale fishing operations in the SPF. Whilst TARFish understands the premise of 'commercial and in confidence' the 5 boat rule is much more relevant for a fleet of smaller vessels rather than a fishery where there may be one large vessel that replaces a fleet of smaller vessels.⁷⁵

5.67 Particularly troubling for some environmental groups is the inability of members of the public to monitor where and when the vessel operates, and where and when interactions with protected species occurred.⁷⁶ For example, Environment Tasmania submitted:

There is a high level of secrecy surrounding the small pelagic fishery and freezer factory trawler operations, with no ability for public scrutiny. The public is not being told where or when the vessel has been operating, or

73 See Mr Peter Simunovich, Director, Seafish Tasmania; and Member, SPFIA, *Committee Hansard*, 15 April 2016, p. 2; Mr Allan Hansard, Managing Director, ARFF, *Committee Hansard*, 15 April 2016, p. 28.

74 Mr Allan Hansard, ARFF, *Committee Hansard*, 15 April 2016, p. 28.

75 TARFish, *Submission 128*, p. 8.

76 Environment Tasmania, *Submission 145*, p. 6.

what is being caught. Despite repeated written requests for information, we still do not even know exactly where or when the deaths of seals and dolphins occurred. The recent whale shark incident and an unwillingness to release information have further exacerbated distrust between stakeholders and the AFMA.⁷⁷

5.68 The Tasmanian Conservation Trust also claimed that AFMA provided misleading information to the public when it published 'frequently asked questions' about the management of the SPF. Specifically, the Trust raised concerns about published statements regarding the involvement of recreational fishers and conservationists in the development of the SPF Harvest Strategy and with respect to how a particular recommended biological catch and total allowable catch was set. In addition, in the Tasmanian Conservation Trust's view, AFMA's website 'implied that continuing concerns about past and future localised stock depletions had been addressed when this was not the case'.⁷⁸

5.69 The limited amount of information available about the economic viability of the fishery was also highlighted. The ARFF argued that 'the fact that AFMA does not make publicly available estimates of the gross value of the fishery adds to the doubts about their rationale in justifying that they are indeed "maximising the net economic returns to the Australian community"', as required by the Fisheries Management Act.⁷⁹

5.70 The ARFF also questioned why the amount of bycatch recorded in the logbooks of the *Geelong Star* is not made publicly available. The ARFF submitted that not publicising this information:

...makes it impossible to determine the potential impact of the *Geelong Star's* activities on key recreational species that are non-target species. As these species are high value species for recreational fishing, it could be that the *Geelong Star* is catching, killing and discarding species that potentially exceed the value of the small pelagic fish it is catching for sale from these areas.⁸⁰

5.71 The ARFF recommended that 'all discarded fish species caught in the SPF is recorded for species and weight and that this information is made public'. The ARFF argued that this would inform discussions about the opportunity cost of the vessel's activities with respect to recreational fishers and local communities.⁸¹

77 Environment Tasmania, *Submission 145*, p. 6.

78 Tasmanian Conservation Trust (TCT), *Submission 143*, pp. 22–23. These allegations are outlined in further detail in the TCT's submission.

79 ARFF, *Submission 134*, p. 16. See *Fisheries Management Act 1991*, s. 6.

80 ARFF, *Submission 134*, pp. 13–14.

81 ARFF, *Submission 134*, pp. 13–14.

5.72 Recreational fishing groups also expressed surprise that a map indicating large areas of the east zone of the fishery are closed to the *Geelong Star* was only released to stakeholders in December 2015.⁸² The ARFF explained that the map was provided at a meeting it attended on 1 December 2015 with the vessel operator, AFMA and government representatives at the invitation of the Assistant Minister for Agriculture and Water Resources. Despite what the ARFF described as a 'close association with AFMA over the past 12 months on the small pelagic fishery issue', which included an AFMA officer seconded to the ARFF, this was 'the first time ARFF had been made aware of the mid water trawl closures and their impact on the fishable area of the SPF'.⁸³

5.73 The ARFF questioned why AFMA did not explain the closures clearly prior to 1 December 2015 and why the closures are not explicitly reflected in the vessel management plan for the *Geelong Star*.⁸⁴ Similarly, TARFish questioned why it took AFMA 'over 3 years to present a map of the areas closed to mid-water trawl in the SPF to recreational fishing stakeholders'.⁸⁵

5.74 In correspondence to the committee, AFMA noted that the majority of the closures 'have been in place for many years (and publically available on AFMA's website) as a result of requirement for SPF concession holders to also hold concessions in overlapping fisheries'.⁸⁶ Nevertheless, it is apparent that the inaccessibility of this information has led to stakeholders doubting the basis for other regulatory decisions made by AFMA. Based on the map not being released and not reflected in the vessel management plan, the ARFF questioned whether AFMA has assessed the implications of the closures for potential localised depletion.⁸⁷ Mr Hansard told the committee that the provision of the mid-water trawl maps in December 2015:

...was quite a surprise and did definitely change our perspective in relation to the nature of the fishery.⁸⁸

5.75 Although industry stakeholders did not comment on commercial-in-confidence issues, it is evident that there is industry concern about the quality of the public debate regarding the *Geelong Star* and the information that is circulated to members of the public. The SPFIA submitted:

In recent years the increasing use of social media has led to rapid dissemination of information and, often, misinformation. This has provided

82 This map is also discussed in Chapter 3.

83 ARFF, *Submission 134*, p. 19.

84 ARFF, *Submission 134*, p. 19.

85 TARFish, *Submission 128*, pp. 3–4.

86 AFMA, Response to *Submission 166*, p. 2.

87 ARFF, *Submission 134*, p. 19.

88 Mr Allan Hansard, ARFF, *Committee Hansard*, 15 April 2016, p. 28.

a mechanism for environmental and recreational activists to spread alarmist views about the effects of freezer trawlers to a generally poorly informed public, creating confusion and mistrust of the fishing industry and AFMA as the industry regulator.⁸⁹

5.76 As the above discussion regarding the December 2015 maps illustrating where in the SPF the *Geelong Star* cannot fish indicates, recreational fishing groups were among the most vocal stakeholders with respect to the quality of information made accessible and the timeliness of the release of this information. Potentially, however, evidence from industry stakeholders supports an argument that it would have been beneficial if AFMA explained clearly from the outset where the *Geelong Star* is permitted to fish. Although the SPFIA highlighted several instances of what it considers to be widely distributed misinformation, of particular relevance here is a social media post referred to in its submission. The SPFIA submitted:

The post includes seven regional towns that the *Geelong Star* cannot fish anywhere near because they are in NSW's extended trawl zone from Sydney to the Queensland border. Posts like these (there are several every week) are alarmist, misleading and whip up concern among communities that will never see an SPF freezer trawler because they are nowhere near the Commonwealth SPF.⁹⁰

AFMA's response to concerns about transparency

5.77 Representatives of AFMA commented on a range of matters regarding the transparency of its actions and keeping the public informed at the committee's 1 November 2016 public hearing.

5.78 On the 5 boat rule, AFMA advised that it applies the rule as a policy, not due to a legislative requirement. In explaining the rationale for the rule, AFMA's Chief Executive Officer noted that the information AFMA collects can be 'very useful commercially'. The confidentiality AFMA offers encourages fishers to report accurate information on the understanding that the information 'is not being shared widely in a form that can actually cause them economic or commercial damage'. In turn, this helps to reduce AFMA's costs. Dr Findlay explained that the policy seeks to ensure that AFMA has the information it needs for decision-making while balancing the public interest with individual commercial interests.⁹¹

5.79 Dr Findlay illustrated AFMA's position by using an analogy between AFMA's approach and the privacy and the confidentiality of medical information patients provide to a doctor:

...fishers are required by law to report their catches accurately to AFMA, and we put in various systems and we spend about \$5 million a year making

89 SPFIA, *Submission 27*, p. 19.

90 SPFIA, *Submission 27*, p. 28.

91 Dr James Findlay, AFMA, *Committee Hansard*, 1 November 2016, p. 18.

sure those figures are correct. The issue is that sometimes fishers will not report correctly, and to actually get accurate information from every boat is enormously expensive.

To encourage them to report accurately—it is a bit like...people's medical records. You want them to provide accurate information when they walk into the GP clinic. They may not do so if they thought that information about their medical history was going to be posted by the clinic on their website that afternoon.⁹²

5.80 Dr Findlay noted that AFMA deviates from its 5 boat policy occasionally, such as when international treaty requirements require AFMA to report Australia's catch.⁹³

5.81 AFMA also commented on the information available to the public about the SPF. Dr Findlay stated that, in proportion to other fisheries AFMA manages 'there is a lot more information available about the Small Pelagic Fishery than there is about others'.⁹⁴ Some issues with the quality of the information exist, however. In relation to the February 2016 whale shark incident discussed in Chapter 3, Dr Findlay remarked that the SPFIA 'made a statement which was not consistent with statements made by AFMA'.⁹⁵ As noted in Chapter 3, the whale shark interaction triggered public concern, with questions raised about the accuracy and timeliness of the information made available.

5.82 On the information AFMA releases to the public, Dr Findlay told the committee that he is 'always keen to put out as much information as we can'. The use of AFMA observers on board vessels, however, raises work health and safety issues that can affect when information is disclosed. Dr Findlay explained:

This is a dangerous working environment. One of the reasons we are moving towards cameras and away from human observers is because the operating environment in which these observers operate is not a safe place to be on a daily basis, and some of that risk on some of our boats comes from crew members or skippers. I will be very clear here: we do not put observers into positions where they are, for compliance purposes or other purposes, being seen to be contradicting crews publicly while they are still at sea on board the same boat. That is not a nice place for anyone. If you think about that sort of operating environment, it is not a nice place to be when you have to spend the next number of weeks with these people.⁹⁶

92 Dr James Findlay, AFMA, *Committee Hansard*, 1 November 2016, p. 18.

93 Dr James Findlay, AFMA, *Committee Hansard*, 1 November 2016, p. 18.

94 Dr James Findlay, AFMA, *Committee Hansard*, 1 November 2016, p. 19.

95 Dr James Findlay, AFMA, *Committee Hansard*, 1 November 2016, p. 20.

96 Dr James Findlay, AFMA, *Committee Hansard*, 1 November 2016, p. 21.

5.83 Notwithstanding the above limitations, AFMA has been considering how it communicates information to the public and whether improvements are possible. As a result, Dr Findlay advised that AFMA will soon have a social media presence. Up until now, AFMA was 'reluctant' to use social media as it is a small organisation that regularly dealt with 'a small pool' of people in the commercial fishing industry, scientists, recreational fishers and conservation groups. However, Dr Findlay recognised that various stories 'can spiral very quickly out of control', and as a result AFMA needs 'to get involved in providing information in an accurate and timely way'.⁹⁷

5.84 In addition to participating in social media, Dr Findlay noted the importance of 'a good website'. Dr Findlay stated that AFMA has been 'putting a lot more information up on our website about the facts and realities of some of our fisheries management systems and also the results they deliver'.⁹⁸

Management of the former Small Pelagic Fishery Resource Assessment Group

5.85 As noted in Chapter 2, in setting the TAC, and in managing the fishery more generally, AFMA must undertake consultation with the management advisory committee for the SPF established under the *Fisheries Administration Act 1991*, which is currently SEMAC. AFMA must also take into account, among other things, advice from the resource assessment group for the SPF about the stock status of the quota species.

5.86 Prior to 1 July 2015, the SPFRAG provided advice and recommendations to SEMAC, AFMA management and the AFMA Commission on the status of target stocks, harvest rates and TACs, and the impact of fishing on the marine environment.⁹⁹ The SPFRAG comprised an independent chair, scientific members, industry members, an environment/conservation member, a recreational/charter fishing member and an AFMA member. Observers from Commonwealth and state government departments and agencies also participated.¹⁰⁰

5.87 In October 2015, AFMA announced that a scientific advisory panel and stakeholder forums (at least two per year) would replace the SPFRAG. These arrangements would be trialled for two years.¹⁰¹

97 Dr James Findlay, AFMA, *Committee Hansard*, 1 November 2016, p. 23.

98 Dr James Findlay, AFMA, *Committee Hansard*, 1 November 2016, p. 23.

99 AFMA, 'Small Pelagic Fishery Resource Assessment Group past meetings', www.afma.gov.au/small-pelagic-fishery-resource-assessment-group-past-meetings (accessed 5 April 2016).

100 See, for example, the list of meeting attendees for the 12 February 2015 SPFRAG meeting as recorded in the minutes at: www.afma.gov.au/wp-content/uploads/2015/01/SPFRAG-February-2015-meeting-minutes-PDF-554-KB.pdf (accessed 30 August 2016).

101 AFMA, 'Scientific & economic advice procedures for the Small Pelagic Fishery', www.afma.gov.au/scientific-economic-advice-procedures-small-pelagic-fishery (accessed 5 April 2016).

Concerns about the SPFRAG

5.88 Evidence presented to the committee indicates a degree of dysfunction within the SPFRAG. Much of the controversy stems from the membership on the SPFRAG of Mr Gerry Geen, a director of Seafish Tasmania, the operator of the *Geelong Star*. The clearest example of the controversy is the January 2015 decision of the then chair of the SPFRAG, Dr Kirsten Davies, to resign. In her letter of resignation, Dr Davies explained that her decision is due to 'the different views AFMA and I hold pertaining to the pecuniary interest of one of the current industry members of the RAG'. Dr Davies wrote:

Due to the level of his company's significant quota holding in the Small Pelagic Fishery, I do not believe he should participate in the majority of RAG discussions and the development of recommendations that are referred to SEMAC and the Commission.

While the RAG is an advisory body and not a decision making entity, it does influence policy and activities, such as providing advice on the Total Allowable Catch (TAC). From my perspective as Chair, and, in my interpretation of the guidelines as described in FAP 12 [*Fisheries Administration Paper 12*], this industry member's perceived and/ or actual influence in providing advice on aspects of the management of the Fishery, given his company's quota holding, presents a situation of an unacceptable level of pecuniary interest and conflict. As a result, I do not believe he should hold a position as a SPF RAG member.¹⁰²

5.89 Dr Davies described her position as 'precautionary'.¹⁰³ Furthermore, in a letter to the committee, Dr Davies stressed the importance of industry representatives on government advisory groups and boards; however, Dr Davies called for AFMA to develop 'an objective and quantifiable measure' to help answer questions such as the following:

'When does the level of pecuniary conflict become so high that a members involvement and influence, perceived or real, be deemed to be unacceptable, thus excluding their membership of the group/board?'¹⁰⁴

5.90 Two members of the SPFRAG raised issues related to the operation of the former group: Mr Jon Bryan (through the evidence given on behalf of the Tasmanian Conservation Trust) and Mr Graham Pike. The Tasmanian Conservation Trust in particular devoted much of its submission to the following matters:

102 Dr Kirsten Davies, Letter of resignation to AFMA dated 8 January 2015, included in her response to *Submission 143*, p. [3].

103 Dr Kirsten Davies, Letter of resignation to AFMA dated 8 January 2015, included in her response to *Submission 143*, p. [3].

104 Dr Kirsten Davies, Response to *Submission 143*, p. [2].

- the alleged conflicts of interest within the SPFRAG due to the membership of a Seafish Tasmania director as noted above, including that a chair of the SPFRAG resigned because of concerns about the conflict of interest;
- claims that published minutes of the SPFRAG meetings are inaccurate (as the minutes indicate consensus exists when it does not);
- a claim that 'the TAC setting process in 2015 was...carried out in the SPFRAG without having a formal harvest strategy in place', which was described as 'bizarre';¹⁰⁵ and
- concerns about the confidentiality provisions imposed on SPFRAG members and how this limited the ability of the members to fulfil their role.¹⁰⁶

5.91 Mr Pike also described a situation where, in his opinion, AFMA hindered the SPFRAG's operations by not providing sufficient meeting time to develop a harvest strategy.¹⁰⁷

5.92 AFMA refuted the various claims that were made. Regarding conflicts of interest, AFMA submitted that:

...it is not a question of members having declared conflicts of interests, but how those interests are then managed. It is clear that the rules enable the remaining members to make decisions on, for example, whether conflicted members may or may not be involved in discussions or actually be excluded from discussions of certain matters and the procedures involved to achieve this, if considered appropriate.¹⁰⁸

5.93 On the status of the advice provided by the SPFRAG and how it fed into decision-making, it was emphasised that the AFMA Commission is the decision-making body, and that other groups provide advice to it. Relevantly, AFMA's policy document on the role, functions and administration of the resource assessment groups states:

While RAGs have broad stakeholder membership, their primary role is to provide sound technical advice on an issue, not an outcome based on a majority or unanimous vote. The AFMA Commission considers scientific advice to be paramount when making such decisions. However, the AFMA Commission is not required to make a decision consistent with the advice of the RAG (or MAC or AFMA Management).¹⁰⁹

105 TCT, *Submission 143*, pp. 4–5.

106 See Environment Tasmania, *Submission 145*, p. 7. AFMA provided a written response to this evidence, which the committee has published.

107 Mr Graham Pike, *Submission 166*, p. 14.

108 AFMA, Response to *Submission 143*, p. 2.

109 AFMA, *Fisheries Administration Paper 12: Resource Assessment Groups*, October 2015, p. 10; provided in *Submission 143*, p. [21].

5.94 In a letter to the committee, AFMA added:

...the AFMA Commission must make decisions that pursue AFMA's objectives based on available information, even where it has received conflicting advice from experts and stakeholders (which is often the case). Nowhere is there a requirement for consensus, or resolution to the satisfaction of all stakeholders, which is an impossible standard to achieve.¹¹⁰

5.95 AFMA also specifically refuted Mr Bryan's claim that the TAC setting process was carried out by the SPFRAG without a formal harvest strategy in place. AFMA submitted:

There has been a harvest strategy in place at all times, since 2009. The Commission approved a revised harvest strategy in April 2015, before it set the current fishing season TACs.¹¹¹

5.96 The remainder of AFMA's comments regarding the operation of the SPFRAG can be found in its responses to submissions 143 and 166, which the committee has published alongside the submissions.

5.97 Ultimately, after considering claims about a lack of transparency and conflicts of interest within the SPFRAG, AFMA advised that it decided to trial the aforementioned scientific panel and stakeholder forums as a replacement for the SPFRAG. AFMA submitted that the new system:

...enables a wider range of stakeholders to participate in the advisory process and lessens the possibility of negative perceptions about conflict of interest.¹¹²

5.98 Since these submissions and AFMA's responses were provided to the committee, the Commonwealth Ombudsman has investigated these claims about the SPFRAG. The Ombudsman did not make adverse findings against AFMA. Instead, its report outlined matters for AFMA to consider about how it could assist chairs of these advisory committees to manage meetings better.¹¹³ The Ombudsman also supported AFMA's conclusion that a harvest strategy was in place at all times since 2009—the Ombudsman's report stated it 'is not accurate to say that the fishery ever operated with an incorrect Harvest Strategy'.¹¹⁴

110 AFMA, Response to *Submission 143*, Attachment A, p. 1.

111 AFMA, Response to *Submission 143*, Attachment A, p. 2.

112 AFMA, *Submission 18*, p. 7.

113 Commonwealth Ombudsman, *Investigation into the management of the Small Pelagic Fishery Resource Assessment Group (SPFRAG): A report regarding AFMA's administration from 2012 to 2015*, August 2016, www.ombudsman.gov.au/_data/assets/pdf_file/0015/40326/August-2016-Published-AFMA-Final-Report.pdf (accessed 30 August 2016).

114 Commonwealth Ombudsman, *Investigation into the management of the SPFRAG*, p. 7.

5.99 Among the other matters that the Ombudsman discussed in its report is that it may be useful for AFMA to clarify to members of resource assessment groups 'what it means to be on a committee that is advisory only'. The Ombudsman observed:

It appears to be the case that some members have a view that their input is perhaps more fundamental and determinative than it in fact is. For example, responsibility for revision of the Harvest Strategy and setting the TAC lies with the AFMA Commission not the RAG. The RAG provides commentary and advice and makes decisions on what recommendations to put forward to the AFMA Commission, who then ultimately decides. The RAG was an important advisory body, but it was not a decision-making body.¹¹⁵

5.100 The Ombudsman also suggested that it was 'curious' that the resource assessment groups are described by AFMA as being scientific bodies when they 'are staffed by many more non-scientists than scientists (i.e. industry, recreational, conservation, and AFMA members)'. The Ombudsman added:

It is interesting that AFMA has chosen, after identifying a level of dysfunction in the SPFRAG, to replace it with a panel of experts that are exclusively qualified in a scientific or economic discipline. It would seem that this new model is more consistent with the label 'scientific committee' and in that sense it is not an unsurprising change.¹¹⁶

5.101 The Ombudsman concluded:

We have not found instances of defective administration by AFMA. If anything, we have observed AFMA employees making every effort to assist the RAG to resolve concerns, to ensure that everyone is given a fair hearing, and that there was accurate representation of discussion and what was agreed in the minutes of meetings. The decision by the Commission to discontinue the SPFRAG in June 2015, was a decision that was open to it and not unreasonable in the circumstances because all RAGs are creatures of AFMA policy.¹¹⁷

115 Commonwealth Ombudsman, *Investigation into the management of the SPFRAG*, p. 10.

116 Commonwealth Ombudsman, *Investigation into the management of the SPFRAG*, p. 10.

117 Commonwealth Ombudsman, *Investigation into the management of the SPFRAG*, p. 9.

Chapter 6

Committee view and recommendations

6.1 The use of factory freezer trawlers in the Commonwealth Small Pelagic Fishery (SPF) has been the subject of protracted controversy. This inquiry follows the arrival of the FV *Geelong Star* in the SPF in 2015; however, the origin of the debate about large factory freezer trawlers predates that vessel. It is clear that recent memory of the unsuccessful plan to bring the FV *Margiris* (also known as the *Abel Tasman*) to exploit the fishery still resonate and influence the views held by many regarding the purposes for which the SPF should be used and how effectively the fishery is being managed.

Analytical framework used for the inquiry

6.2 In undertaking this inquiry, the committee's key objective was to ensure the SPF is managed in a sustainable way that meets the needs of current users and future generations. The inquiry has provided an opportunity to air concerns and test evidence regarding a resource managed by the government on behalf of the entire Australian community, not just a few commercial interests.

6.3 As previous attempts to bring factory freezer trawlers to fish the SPF were unsuccessful, evidence about the effects of such vessels is limited to the operations of the *Geelong Star* during the 2015–16 season and part of the 2016–17 season. Although the committee received detailed evidence regarding operations and management arrangements in the fishery, the limited period during which the *Geelong Star* has operated presents difficulties when assessing claims regarding environmental, social and economic impacts. Nevertheless, fisheries management will encounter unknowns, such as scientific uncertainty and yet to be realised economic impacts. The likelihood of incomplete information is recognised by the precautionary principle, which is applied to fisheries management. Accordingly, decisions taken regarding the SPF can be assessed against the precautionary principle.

Principal concerns

6.4 Before outlining the committee's views, it is useful to note that, to some extent, the Australian government shares concerns about the operation of large factory freezer trawlers. In April 2015, the government banned all boats over 130 metres in length from undertaking fishing related activities in the Australian Fishing Zone. This ban prevents vessels such as the *Margiris* from operating in Australia. The *Geelong Star*, however, is not affected. This is despite the similar risks that the *Geelong Star* presents to protected marine life and the populations of other non-quota species.

6.5 In conducting this inquiry, the committee has identified the following key issues.

Deaths of protected species

6.6 The threat that the *Geelong Star* presents to species protected under the EPBC Act is an issue that is of significant concern to members of the public and the committee. According to AFMA's records, no protected species were recorded as injured or killed in the SPF in the year before the *Geelong Star* arrived. In the first quarter the *Geelong Star* operated (1 April to 30 June 2015), 26 protected species were killed. Over the 18 months since the *Geelong Star* commenced operating, 83 protected species were killed in the SPF.¹

6.7 The disquiet about the deaths and other interactions with protected species among conservationists and others who care deeply about Australia's marine life has not lessened, as the anger in February 2016 over the temporary capture of a whale shark demonstrates. The use of excluder devices and other mitigation techniques cannot address the fundamental problem; namely, that the massive net towed by the *Geelong Star* means the vessel cannot target its quota species selectively. Avoiding mortalities of protected species and the bycatch of other species, including species highly valued by other fishing interests, is impossible.

State of scientific knowledge underpinning management decisions

6.8 Of particular interest to the committee are the total allowable catches set for the fishery and the risk of localised depletion arising from the activities of the *Geelong Star*.

6.9 The committee was advised that the biomass of some quota species in the SPF is highly variable between years and that this has implications for obtaining reliable biomass estimates. Yet the science underpinning the total allowable catch set for many quota species is out-of-date. In the period from the 2004 fishing season to date, the SPF was managed without DEPM surveys for jack mackerel and redbait in the western sub-area of the SPF—the first surveys will occur in the current season (for jack mackerel west) and in the 2017–18 season for redbait west. For blue mackerel west, the last DEPM survey occurred in the 2005 season and the next survey is not scheduled until 2019–20. Similarly, for redbait in the eastern sub-area, the last DEPM surveys occurred in 2005 and 2006—an update is not scheduled until 2018–19.

6.10 The status of the science underpinning management decisions in the SPF is concerning as the outdated DEPM surveys means that AFMA cannot know the stock status of each of the species targeted by the vessel when making decisions about total allowable catch. Furthermore, with climate change having a significant and ongoing effect on fisheries and the marine environment more generally, up-to-date science is particularly essential for AFMA to make informed decisions about the sustainable

1 AFMA, *Submission 170*, p. 1.

management of Australia's fisheries. Rigorous scientific stock status assessments will likely be needed more frequently than in the past to ensure that fisheries management decisions and techniques are appropriate for a changing climate.

6.11 Unfortunately, the committee is also not satisfied that there are effective measures in place for detecting localised depletion or managing the risk that it presents. Despite the vast size of the SPF, it is curious why AFMA allowed the *Geelong Star* to focus on operating in a relatively small section of the fishery. In particular, the area off the south-east coast of NSW appears to be frequented by the vessel. Communities near this area depend on economic activity from recreational fishing and tourism. The committee considers that AFMA and the operator of the *Geelong Star* are risking the reputation of the fishing grounds in this area. It is acknowledged that more of the fishery is now open for mid-water trawling compared to when the *Geelong Star* commenced operating; nonetheless, the committee has not been presented with evidence to suggest that the *Geelong Star* is now distributing its operations throughout the fishery.

Key information is kept from the public

6.12 A shroud of secrecy surrounds many aspects of the vessel's operations. The public are prohibited from knowing the location of the vessel when it is in the fishery, what is being caught and exactly where the deaths of protected species are occurring. The total value of the fishery and of the fish caught is deemed confidential.

6.13 When information about the *Geelong Star* is released, it is also difficult for the public to trust it. As AFMA acknowledged, the industry has spread false information about incidents involving the vessel.² In addition, unlike other Commonwealth fisheries, the SPF is being managed in a way that sidelines recreational fishers, conservationists and the public from the decision-making process.

6.14 The Australian public is the key stakeholder in the fishery. The public owns the fishery resources, help funds the regulation of the fisheries and will be left with the consequences of any mismanagement that occurs. The excessive confidentiality and approach to consultation threatens the legitimacy of the management regime.

Overall approach to managing the Geelong Star and the Small Pelagic Fishery

6.15 The committee acknowledges the challenges AFMA faces in managing Commonwealth fisheries. Overall, AFMA appears to have a good record—its Chief Executive Officer, Dr James Findlay, told the committee that no fish stocks solely managed by AFMA are considered to be overfished and the economic benefits from fishing activity are increasing.³ It must be said, however, that AFMA has a poor

2 Dr James Findlay, Chief Executive Officer, Australian Fisheries Management Authority (AFMA), *Committee Hansard*, 1 November 2016, p. 21.

3 Dr James Findlay, AFMA, *Committee Hansard*, 1 November 2016, p. 10.

record with respect to managing the *Geelong Star*. It is difficult to believe that AFMA is undertaking a precautionary approach to managing the SPF when AFMA has, on multiple occasions, needed to react to various events involving the vessel by implementing further measures.

6.16 For example, after the first month of fishing by the *Geelong Star*, AFMA was forced to respond to what it recognised was an unacceptable number of dolphin mortalities. The additional regulatory measures implemented included a short-lived night-time fishing ban and the closure of a management zone for six months. In January 2016, this responsive approach was repeated when AFMA required additional mitigation measures for seabirds following a high number of albatross mortalities. What will be next? It is clear that the *Geelong Star* will continue to kill protected species. Effective mitigation measures should have been in place before the *Geelong Star* was allowed to start fishing.

6.17 The *Geelong Star* has also exposed flaws in the overall regulatory framework governing Commonwealth fisheries. In the face of significant stakeholder pressure, the Assistant Minister for Agriculture and Water Resources found it necessary to convene meetings with recreational fishing interests outside of any meetings or consultation arrangements managed by AFMA. Furthermore, rather than resource sharing issues being addressed by formal management arrangements, a voluntary undertaking lasting one season is being used. The committee does not believe this arrangement will be maintained.

6.18 It is also noteworthy that AFMA has confirmed that the vessel's operator promptly breached its own voluntary undertaking by fishing within 20 nautical miles of Bermagui on the 13 May 2016, one day before the Canberra Game Fishing Club's annual yellowfin tournament.⁴ The arguments presented by industry and AFMA that the *Geelong Star* is subject to strict management arrangements and is strongly monitored were already questionable. However, the committee considers that the impression of a rigorous compliance regime such claims are intended to convey collapse entirely when it is evident that the vessel's operators do not even comply with their own voluntary offers. In addition, such lines of argument merely raise questions about the effectiveness of the monitoring arrangements in place for vessels operating in other fisheries.

4 AFMA, 'Seafish Tasmania voluntary offer', www.afma.gov.au/fisheries/small-pelagic-fishery/seafish-tasmania-voluntary-offer/ (accessed 21 October 2016).

Negligible economic benefits

6.19 All the issues outlined above exist while it is clear that the economic benefits achieved from allowing the *Geelong Star* to operate are marginal. Few Australians are employed on the vessel and the key positions are performed by subclass 457 visa holders. Although the total value of the fish caught is kept confidential, the fish targeted are of low value. The vessel is foreign-owned, meaning profits from the extraction of an Australian resource are distributed overseas. Yet, significant expense is incurred to allow the vessel to fish here—both in terms of the investment in science required to inform decisions about the SPF and the direct costs associated with regulating the fishery.

6.20 Given the limited financial benefits the operator of the *Geelong Star* likely enjoys at present, the committee considers it is inevitable that the operator will push for the total allowable catch in the SPF to be increased significantly, along with the removal of key regulatory restrictions. Perhaps more vessels will be brought to exploit the fishery. The committee questions whether AFMA will cope with pressure from industry to allow for more intensive operations.

Recommendations

6.21 The fishing industry tried and failed to bring two large factory freezer trawlers to the SPF in the past—first the FV *Veronica* in 2004 and then the FV *Margiris* in 2012. Like the previous vessels, the *Geelong Star* does not have a social licence to operate in Australian waters. The Australian government should act to protect the marine environment and the interests of other fishers by ejecting the *Geelong Star* from Australia's SPF.

Recommendation 1

6.22 The committee recommends that the Australian government ban all factory freezer mid-water trawlers from operating in the Commonwealth Small Pelagic Fishery.

6.23 To ensure lessons are learnt from the inadequate consultation undertaken with key fishing interests about the management arrangements for the *Geelong Star*, the committee makes the following two additional recommendations.

6.24 The committee notes that the government has yet to act on its 2013 election commitment to establish a National Recreational Fishing Council, despite a public statement in July 2015 indicating that the process was being finalised. The committee also considers that the government should expedite its 2016 election commitment to introduce legislation requiring AFMA to consider the interest of all users of fisheries, so the Parliament and stakeholders can begin to scrutinise this proposal and consider what outcomes it will achieve.

Recommendation 2

6.25 The committee recommends that the Australian government expedite its 2013 election commitment to appoint a National Recreational Fishing Council. An Agriculture and Water Resources portfolio minister should chair the Council.

Recommendation 3

6.26 The committee recommends that the government expedite its 2016 election commitment to amend the *Fisheries Management Act 1991* to specify that the Australian Fisheries Management Authority is required to consider the interests of all users of fisheries including recreational, Indigenous and commercial fishers.

6.27 In recognition of the need for a legal and orderly implementation of a ban on factory freezer trawlers from operating in the SPF, the committee makes the following recommendations with a mind to immediate implementation.

Recommendation 4

6.28 To enhance public confidence in the management of Australian fisheries, the committee recommends that the Australian Fisheries Management Authority publish, on a regular basis, further information about fishing activity in the Small Pelagic Fishery. This information should include:

- the total value of the fishery;
- quantity of catch (by species);
- the amount of bycatch caught and discarded by species; and
- the areas where fishing activity is taking place.

6.29 Publication of this information should occur:

- despite any claims from industry that particular information is commercially sensitive or should not be disclosed, although a short delay in publication may be appropriate to accommodate concerns about the commercial sensitivity of particular information; and
- regardless of any additional disclosures the operator of the FV *Geelong Star* may provide as part of a voluntary undertaking.

Recommendation 5

6.30 As the visual identification of protected species is critical for their protection, the committee recommends that the Australian Fisheries Management Authority restrict mid-water trawling in the Small Pelagic Fishery to daylight hours.

Recommendation 6

6.31 The committee recommends that the Australian Fisheries Management Authority require estimates of spawning biomass based on the daily egg production method to be obtained for all quota fish populations in the Small Pelagic Fishery more frequently than the current arrangements. The cost of these surveys is to be recovered from industry.

**Senator Larissa Waters
Chair**

Coalition Senators' dissenting report

1.1 Coalition Senators note the substantial amount of work contained in the Chair's Report and the factual information it contains. However, Coalition Senators do not accept all of that report and consequently make the following observations.

1.2 Australia has a reputation as a supplier of safe, environmentally sustainable, high-quality seafood. Coalition Senators want to see the industry remain strong and sustainable, and ensure Commonwealth fisheries management practices follow or exceed internationally recognised best practice.

1.3 Coalition Senators note the committee's key objective in undertaking this inquiry was to ensure that the Small Pelagic Fishery (SPF) is managed in a sustainable way that meets the needs of current users and future generations.

1.4 Coalition Senators consider the Australian Government is committed to maintaining a balanced and science-based approach to all decisions regarding access to Commonwealth fisheries.

1.5 The FV *Geelong Star* is the most heavily regulated and closely monitored vessel currently fishing in the Australian Fishing Zone.

1.6 No substantiated, validated scientific or economic evidence was presented to the committee to indicate that either the management of the SPF fishery, or the operations of the FV *Geelong Star*, were not sustainable.

1.7 The size of the boat used to take the catch is immaterial to the long-term sustainable management of the SPF.

1.8 The latest status reports demonstrate that fisheries management based on the best available science and strong compliance will deliver sustainable fisheries for current and future generations to enjoy. Consumers should have confidence that buying Australian seafood from a Commonwealth managed fishery means that you are making a sustainable choice.

1.9 Coalition Senators unambiguously support the commercial fishing industry and understand its importance in supplying Australian seafood, creating jobs in regional communities and generating valuable export revenue.

1.10 The commercial fishing industry is an important contributor to the Australian economy and many local communities across Australia. As shown in the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) report, Commonwealth fisheries contribute a gross value of production of around \$348 million in 2014–15 up from \$338 million in 2013–14.¹

1 ABARES, *Fishery status reports 2016*.

1.11 Indeed, there is an obligation for Australia to maximise the gross value of production (GVP) from the management of its Commonwealth fisheries and to provide an alternate source of protein to a growing world population.

1.12 Australia's fisheries are internationally recognised as among the best managed in the world and the latest Commonwealth fish stocks report, released by ABARES, shows that for the third year in a row, no fishery solely managed by the Commonwealth has been subject to overfishing.

1.13 Coalition Senators have confidence in the independent, science-based statutory regulator, the Australian Fisheries Management Authority (AFMA), as the regulator of our fisheries and in its consultations with industry and stakeholders.

1.14 All boats operating in Commonwealth fisheries, including the SPF, are subject to Australia's strict fisheries laws.

1.15 AFMA manages Commonwealth fisheries using 'output' controls, which are direct limits on how many fish can be taken in a fishing season. This ensures that the fish stocks remain within sustainable levels regardless of the number or size of fishing boats.

1.16 Placing a restriction on the number or size of vessels is known as an 'input' control. Input controls are a less certain method of ensuring a sustainable level of fishing because they do not necessarily manage the amount of fish harvested. In poorly regulated fisheries, particularly those that rely on input controls rather than quota, very large fishing vessels can do significant damage in a short time. This is why 'super trawlers' have a poor reputation worldwide.

1.17 In its evidence, AFMA stated that since May 2012, the harvesting of fish in the Small Pelagic Fishery (SPF) has been governed by a quota management regime.² The total allowable catch (TAC) for these SPF species is allocated among operators based on their quota holdings. Any catch of the target species must be covered by quota.

1.18 Furthermore, it is worth noting that where information is lacking, AFMA sets a more conservative TAC. In the case of the SPF, the committee was advised that '...the TACs leave more than 90% of fish in the water, even if all the TAC is caught'.³

1.19 As stated in AFMA's submission, the impact of the FV *Geelong Star* was described in the following manner:

- the vessel utilises a natural resource that is sustainably harvested and provides economic benefits to Australia;
- the mid-water trawl fishing method results in a low by-catch rate;

2 Australian Fisheries Management Authority (AFMA), *Submission 18*, Attachment 4.

3 AFMA, *Submission 18*.

-
- there has been a steady reduction in marine mammal interactions; and
 - there has been no substantiated evidence of negative impact from the vessels fishing activity on other commercial fisheries or the recreational fishing sector.⁴

1.20 In its evidence, the Department of Agriculture and Water Resources noted that the SPF is characterised as a large volume, low per-unit value fishery, with small oily fish that readily decompose. Historically, there had been limited fishing activity in the SPF, primarily driven by economic constraints, including lack of processing capacity.

1.21 Larger vessels are primarily used for their additional processing, freezing and storage capabilities, which can contribute to the economic viability of fishing.

1.22 On-board processing and freezing capability optimises the quality and therefore the value of the fish product, allowing it to be used for human consumption rather than lower value uses such as fish meal.

1.23 Currently there are 298 boats operating in our Commonwealth fisheries, of this, around 88 boats have freezer capacity (of which some have processing capabilities) and 5 boats are factory freezers.

1.24 Factory freezer vessels have been used extensively in Australia for more than 30 years, including in the blue grenadier fishery, Heard and McDonald Island fishery and Northern Prawn Fishery.

Coalition Senators' Recommendations

Recommendation 1

1.25 The management of Commonwealth fisheries continues to be based on the best available science and a strong compliance regime.

1.26 Coalition Senators take seriously the Australian government's responsibility to protect the environment and to sustainably manage fisheries for the enjoyment of all Australians into the future.

1.27 Hearsay, anecdotes and unsubstantiated claims are no basis for sound policy and fisheries management.

1.28 Coalition Senators support a management framework that places significant emphasis on scientific research, has a strong legislative and policy framework for managing fisheries and, to ensure compliance, has an independent regulator.

4 AFMA, *Submission 18*.

1.29 Research and advice from CSIRO, the Department of Environment and Energy, AFMA, the Fisheries Research and Development Corporation, the Institute of Marine and Antarctic Studies/University of Tasmania, and the South Australian Research and Development Institute all ensure that the SPF is being sustainably managed.

Recommendation 2

1.30 There should be on-going dialogue and discussion between the commercial and recreational fishing sectors in relation to the management of Commonwealth fisheries.

1.31 Coalition Senators note that mid-water trawling and recreational fishers can co-exist. Indeed, it is disappointing that environmental activists have been able to create and then exploit differences between the commercial and recreational fishing sectors in this country.

Chair's Report Recommendations

1.32 Other than as set out below, Coalition Senators make no comment on the recommendations included in the Chair's Report.

1.33 Chair's Report Recommendation 1: Coalition Senators do not support this recommendation.

1.34 Coalition Senators note that on-board processing and freezing capability optimises the quality and therefore the value of the fish product, allowing it to be used for human consumption rather than lower value uses such as fish meal.

1.35 Factory freezer vessels have been used extensively in Australia for more than 30 years, including in the blue grenadier fishery, Heard and McDonald Island fishery and Northern Prawn Fishery.

1.36 Coalition Senators consider that an estimated \$15 million⁵ annual injection into regional economies is not a 'marginal' economic benefit as described in paragraph 6.19.

1.37 Chair's Report Recommendation 4: Coalition Senators give qualified support to this recommendation in the committee's report.

1.38 Coalition Senators note that information regarding the total value of the fishery and the quantity of the catch (by species) is already disseminated by ABARES and AFMA.

5 Seafish Australia, *Submission 22*, p. 12.

1.39 Coalition Senators noted AFMA's ongoing commitment to openness and transparency in fisheries management was balanced with the need to protect information that was deemed to be commercial-in-confidence.

1.40 Chair's Report Recommendation 5: Coalition Senators do not support this recommendation in the committee's report.

1.41 Coalition Senators believe that placing an arbitrary ban on fishing to daylight hours will result in un-necessary regulatory burden, yet provide no level of certainty as to the effectiveness of this measure.

1.42 Noting that AFMA does not report protected species interactions on a boat by boat basis but by fishery, during the 2015–16 fishing season, of the total protected species interactions in the SPF, only 15.4 per cent occurred at night (logbook reported time of 8 pm to 8 am).

1.43 Coalition Senators note that Commonwealth fisheries management and industry has demonstrated its ability to respond quickly and effectively to bycatch issues in fisheries, particularly for listed species and effectively reduce and where possible, eliminate interactions.

1.44 Coalition Senators note that since AFMA put in place physical mitigation measures and a dolphin mortality trigger for mid-water trawling (June 2015) to close management areas of the SPF fishery, there have been no dolphin mortalities. Furthermore, since additional seabird mitigation measures were implemented in February 2016, only one seabird has been killed during fishing operations.

1.45 Chair's Report Recommendation 6: Coalition Senators do not support this recommendation in the committee's report.

1.46 Coalition Senators believe there is no basis for this recommendation given that AFMA has already in train a forward work program for the SPF of spawning biomass based on the daily egg production method.

1.47 Coalition Senators noted the evidence presented by AFMA that catch limits are reduced depending on the information available for a specific fishery. In particular, where there is no daily egg production information, AFMA adopts very conservative catch limits, as guided by the SPF Harvest Strategy.

Senator David Bushby
Deputy Chair
Senator for Tasmania

Senator Jonathon Duniam
Senator for Tasmania

Labor Senators' additional comments

1.1 Labor listened to the ongoing concerns from the Tasmanian community and across the country and proposed this inquiry in August 2015 to examine the environmental, social and economic impacts of large-capacity factory trawlers in Australia's marine jurisdiction. The reference was opposed by Liberal and National Coalition Senators.

1.2 In government, Labor ensured appropriate consideration was given to the impact of large-capacity factory trawlers on Australia's fisheries by amending the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Our amendment guaranteed Australia's waters were adequately protected from risks associated with the use of large-capacity factory trawlers.

1.3 In September 2012, the then Labor Government used these powers to ban the operation of the FV *Margiris*, while an assessment of its impact was undertaken. Labor established an independent expert panel to provide an objective judgment of the environmental impacts of this trawling activity. This ban applied to vessels of similar size and capacity to the original large-capacity factory trawler only, and included vessels that received or processed fish, not just trawler vessels. The ban was opposed by the Liberal and National Coalition when in Opposition.

1.4 A sunset clause in the original amendments enacted in 2012 means that no further bans can be placed on new large-capacity factory trawlers hoping to fish Australian waters. To ensure that further bans are possible, in early 2014, Labor introduced legislation into the Senate to remove the sunset clause. Under Labor's plan, all future large-capacity factory trawlers could be thoroughly assessed using the most up-to-date science, thereby protecting our oceans and our recreational fishing spots. To date, the Abbott and Turnbull Liberal National Coalition Governments have refused to work with Labor on this important issue.

1.5 Labor is particularly concerned about the potential for localised depletion and its environmental and recreational impact. Labor recognises the importance of Australian waters to recreational fishers, the commercial fishing industry and the tourism industry, and for its conservation value. Labor is committed to adequately protecting Australian waters from the risks of overfishing and from the use of large-capacity factory trawlers.

1.6 Labor remains committed to preventing the operation of all large-capacity factory trawlers in Australian waters, unless a thorough assessment against the most up-to-date science can verify such operations will not undermine small pelagic fisheries and recreational fishing spots.

Senator Anne Urquhart
Senator for Tasmania

Senator Carol Brown
Senator for Tasmania

Senator Anthony Chisholm
Senator for Queensland

Senator Sam Dastyari
Senator for New South Wales

Appendix 1

Submissions, tabled documents and answers to questions on notice

Submissions

Received during the 44th Parliament

1	Mrs Virginia Landon-Lane
2	Amateur Fishermens Association of the NT
3	Regional Development Australia – Tasmania
4	Mr Johnathan Maxwell
5	Ms Estelle Ross
6	Ms Eve Lamb
7	Western Australia Fishing Industry Council
8	Mr Geoff McPherson
9	Mr Robert Kearney
10	Department of the Environment
11	Petuna Sealord Deepwater Fishing
12	Department of Agriculture and Water Resources
13	Northern Territory Seafood Council
14	Austral Fisheries
15	Commonwealth Fisheries Association
16	Tasmanian Seafood Industry Council
17	Marine Stewardship Council
18	Australian Fisheries Management Authority
19	Institute for Marine and Antarctic Studies
20	Fisheries Research and Development Corporation
21	Stop the Trawler Alliance
22	Seafish Tasmania
23	CSIRO
24	Ms Anne Layton-Bennett
25	NSW Young Lawyers
26	NSW Government
27	Small Pelagic Fishery Industry Association
28	Dr Ute Vollmer-Conna
29	Ms Leonie Stubbs
30	Ms Eunice McAllister
31	Mr Kim Lynch
32	Ms Karen Milligan
33	Victorian Recreational Fishing Peak Body
34	Ms Lenore Keough
35	Mr Tjoan Lie
36	Ms Kim Davies
37	Ms Helen Dolden
38	Mr John Millane
39	Name Withheld
40	Miss Julie Emery

41	Mrs Judi Storer
42	Mr Peter Sainsbury
43	Ms Julie Tatton
44	Mr Brian Barnes
45	Mr Christopher Edwards
46	Ms Summer Dow
47	Mr Wolfgang Edwards
48	Mr Bill Grove
49	Mr James Knight
50	Ms Lindy Davies
51	Reverend Canon Peter W Patterson
52	Name Withheld
53	Mr John Schreuders
54	Mr Richard Sephton
55	Mr Simon Paplos
56	Ms Vivian Parish
57	Ms Sandra John
58	Dr Lindy Orthia
59	Mr Ryan Airs
60	Western Australian Game Fishing Association
61	Dr Leonie Crennan
62	Ms Deborah Knott
63	Mr Ivan Ballin
64	Ms Belinda Kittel
65	Mr Mike Van Emmerik
66	Ms Pamela Reeves
67	Ms Nora Preston
67.1	Ms Nora Preston, supplementary submission
68	Ms Maureen Gardner
69	Mr Anthony Cornwell
70	International Game Fish Association
71	Mr Tim Skinner
72	Mr Dean Martin
73	NT Department of Primary Industry and Fisheries
74	Ms Gillianne Tedder
75	Name Withheld
76	Ms Michelle Fleming
77	Ms Sue Gould
78	Ms Ellie Robertson
79	Mrs Robyn Bagnall
80	Mr Philip Vaughan, Ms Lynette Easton and Ms Sandra Easton
81	Name Withheld
82	Name Withheld
83	Mr Don Kenyon
84	Ms Simone Cull
85	Ms Catherine Nolan
86	Mr Clive Riseam
87	Mr John Wells
88	Mr Tim Booth
89	Mr Malcolm Wicks

90	Ms Lisa McDermott
91	Mr Andrew Cortis
92	Mr Michael D'Andrea
93	Ms Sylvia Cooper
94	Ms Lucinda Marty
95	Ms Antoinette Brooks
96	Ms Loise Dyer
97	Mr Brian Watson-Will and Mrs Cheryl Watson-Will
98	Mr Simon Thomas
99	Ms Barbara Tuckerman
100	Name Withheld
101	Name Withheld
102	Name Withheld
103	Name Withheld
104	Ms Heather Beattie
105	Dr Margaret Lorang
106	Ms Caroline Ceylon Bugden
107	Mr Jason Redburn
108	Ms Heidi Trudinger
109	Ms Linda Kay Cocoran
110	Mr Graeme Tychsen
111	Name Withheld
112	Mr Glen Todd and Mrs Jennifer Todd
113	Ms Marianne Kambouridis
114	Mrs Ann Schole and Mr John Schole
115	Ms Judith McKinnon
116	Mr Johnathan Peter
117	Mr Michael Wright
118	Mr Ti Coleing
119	Ms Stephanie Davis
120	Ms Gemma Prior
121	Name Withheld
122	Ms Maria Somodevilla Torres
123	Mr Michael Jakob
124	Ms Irene Callahan
125	Ms Linley Grant
126	Ms Kay Schieren
127	Australian National Sportfishing Association
128	Tasmanian Association for Recreational Fishing
129	Stop the Supertrawler
130	Ms Robyn Venn
131	Ms Brenda Bacon
132	Mr Alan Kruger
133	Sunfish Queensland
134	Australian Recreational Fishing Foundation
135	Surfers' Environmental Alliance
136	Ms Nadia O'Carroll
137	Ms Kerry O'Carroll
138	Mr Ross McKinney
139	Ms Josephine Velte

140	Ms Elizabeth McLeay
141	Mr David Karpeles
142	Dr Giles Watson
143	Tasmanian Conservation Trust
144	Ms Janet Allan
145	Environment Tasmania
146	Australian Marine Conservation Society Inc.
147	Dr Simon Allen
148	Conservation Council SA
149	Mr Scott Murray
150	Ms Pam Thorley
151	Mr David Warren
152	Ms Tiana Nairn
153	Mr Bill Radley
154	Mr John Stanfield
155	Name Withheld
156	Ms Sarah Ludowici
157	Mr Peter Young
158	Dr Jan Wegner
159	Mr Luke Whykes
160	Mr Nick Hopkins
161	Ms Margaret Moorhouse
162	Ms Sandy McCathie
163	Ms Margaret Clinch
164	Ms Judi Storer
165	Name Withheld
166	Mr Graham Pike
167	Confidential

Received during the 45th Parliament

168	Commonwealth Fisheries Association
169	Department of Agriculture and Water Resources
169.1	Department of Agriculture and Water Resources, supplementary submission
170	Australian Fisheries Management Authority
171	Mr Geoff McPherson
172	Department of Environment and Energy
173	Environment Tasmania
174	Fisheries Research and Development Corporation

Form letters

Form letter type 1: received from 6 individuals

Form letter type 2: received from 2 individuals

Form letter type 3: received from 9,600 individuals

Form letter type 4: received from 1,225 individuals

Tabled documents

Received during the 44th Parliament

Australian Recreational Fishing Foundation – Small Pelagic Fishery closures and zones: areas closed to midwater trawl (public hearing, Hobart, 15 April 2016)

Australian Recreational Fishing Foundation – Small Pelagic Fishery closures and catch limit grids: areas closed to midwater trawl (public hearing, Hobart, 15 April 2016)

Australian Recreational Fishing Foundation – Objectives of the *Fisheries Management Act 1991* (public hearing, Hobart, 15 April 2016)

Australian Recreational Fishing Foundation – Intensity of fishing within selected catch limit grids, (public hearing, Hobart, 15 April 2016)

Australian Recreational Fishing Foundation – Total net benefits from allocation of quota between commercial and recreational fisheries (public hearing, Hobart, 15 April 2016)

Tasmanian Association for Recreational Fishing – Submission to the Expert Panel on a Declared Fishing Activity in the Small Pelagic Fishery (public hearing, Hobart, 15 April 2016)

Tasmanian Association for Recreational Fishing – Associated Press, 'Feds make West Coast ban on new forage fisheries official', 4 April 2016 (public hearing, Hobart, 15 April 2016)

Received during the 45th Parliament

Australian Fisheries Management Authority – Opening statement (public hearing, Canberra, 1 November 2016)

Australian Fisheries Management Authority – Areas of the Small Pelagic Fishery (public hearing, Canberra, 1 November 2016)

Australian Fisheries Management Authority – Total allowable catch and catches in Small Pelagic Fishery (public hearing, Canberra, 1 November 2016)

Australian Fisheries Management Authority – Small Pelagic Fishery quota species and research projects (public hearing, Canberra, 1 November 2016)

Australian Fisheries Management Authority – Information relating to Seafish Tasmania voluntary offer regarding recreational fishing (public hearing, Canberra, 1 November 2016)

Australian Fisheries Management Authority – Report by the Commonwealth Ombudsman, *Investigation into the management of the Small Pelagic Fishery Resource Assessment Group (SPFRAG)* (public hearing, Canberra, 1 November 2016)

Australian Fisheries Management Authority – Status of the Small Pelagic Fishery (public hearing, Canberra, 1 November 2016)

Australian Fisheries Management Authority – *Geelong Star* VMS Activity 14–23 December 2015 (Inclusive) (public hearing, Canberra, 1 November 2016)

Australian Fisheries Management Authority – Information relating to Small Pelagic Fishery (public hearing, Canberra, 1 November 2016)

Answers to questions on notice

Received during the 45th Parliament

Petuna Sealord Deepwater Fishing – Answer to question taken on notice (public hearing, Hobart, 15 April 2016)

Seafish Tasmania – Answer to question taken on notice (public hearing, Hobart, 15 April 2016)

Department of Agriculture and Water Resources – Answer to question taken on notice (public hearing, Canberra, 1 November 2016)

Appendix 2

Public hearings

Friday, 15 April 2016 – Hobart

Seafish Tasmania

Mr Peter Simunovich, Director

Mr Dominic Pirello, SPF Researcher

Stop the Trawler Alliance

Ms Rebecca Hubbard, Marine Coordinator, Environment Tasmania

Mr Neil Clark, Spokesman, Tasmanian Game Fish Sports Fishing Club

Mr Adrian Meder, Marine Campaigns Officer, Australian Marine Conservation Society

Tasmanian Conservation Trust

Mr Peter McGlone, Director

Mr Jonathan Bryan, Marine Spokesperson

Australian Recreational Fishing Foundation

Mr Allan Hansard, Managing Director

Petuna Sealord Deepwater Fishing

Mr Malcolm McNeill, Chief Executive Officer

Institute for Marine and Antarctic Studies

Professor Craig Johnson, Head of the Ecology and Biodiversity Centre

Professor Caleb Gardener, Fisheries Scientist

Dr Jeremy Lyle, Senior Research Scientist

Tasmanian Recreational Fishing Group

Mr Mark Nikolai, Chief Executive Officer

Tuesday, 1 November 2016 – Canberra

Department of Agriculture and Water Resources

Mr Ian Thompson, First Assistant Secretary, Sustainable Agriculture, Fisheries and Forestry Division

Mr Gordon Neil, Assistant Secretary, Fisheries Branch

Mr Steve Auld, A/g Director, Commercial Fisheries Policy Section

Dr Simon Nicol, Director, Domestic Fisheries and Marine Environments Section

Australian Fisheries Management Authority

Dr James Findlay, Chief Executive Officer

Professor Keith Sainsbury, Commissioner

Dr Nick Rayns, General Manager, Fisheries Management Branch

Mr George Day, Manager, Fisheries Management Branch