



Australian Government

Department of Sustainability, Environment, Water, Population and Communities

Assessment of the
**SOUTHERN AND EASTERN SCALEFISH AND
SHARK FISHERY**

FEBRUARY 2013

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Disclaimer

This document is an assessment carried out by the Department of Sustainability, Environment, Water, Population and Communities of a commercial fishery against the Australian Government 'Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition'. It forms part of the advice provided to the Minister for Sustainability, Environment, Water, Population and Communities on the fishery in relation to decisions under Parts 13 and 13A of the *Environment Protection and Biodiversity Conservation Act 1999*. The views expressed do not necessarily reflect those of the Minister for Sustainability, Environment, Water, Population and Communities or the Australian Government.

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Contents

Table 1: Summary of the Southern and Eastern Scalefish and Shark Fishery ... 1

Table 1 contains a brief overview of the operation of the fishery including: the gear used, species targeted, byproduct species, bycatch species, annual catch, management plan and ecosystem impacts.

Table 2: Progress in implementation of conditions and recommendations made in the 2010 assessment of the Southern and Eastern Scalefish and Shark Fishery 10

Table 2 contains an update on the progress that has been made by the fishery's management agency in implementing the conditions and recommendations that formed part of the fishery's previous approved wildlife trade operation declaration in 2010.

Table 3: The Department of Sustainability, Environment, Water, Population and Communities' assessment of the Southern and Eastern Scalefish and Shark Fishery against the requirements of the EPBC Act related to decisions made under Parts 13 and 13A. 19

Table 3 contains the department's assessment of the Southern and Eastern Scalefish and Shark Fishery management arrangements against all the relevant parts of the *Environment Protection and Biodiversity Conservation Act 1999* that the minister must consider before making a decision.

The Department of Sustainability, Environment, Water, Population and Communities' final conditions and recommendations to the Australian Fisheries Management Authority for the Southern and Eastern Scalefish and Shark Fishery 37

This section contains the department's assessment of the Southern and Eastern Scalefish and Shark Fishery performance against the Australian Government's 'Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition' and outlines the reasons why the department recommends that the fishery be declared an approved wildlife trade operation.

Table 4: Southern and Eastern Scalefish and Shark Fishery Assessment – Summary of Issues, Conditions and Recommendations, February 2013 38

Table 4 contains a description of the issues identified by the department with the current management regime for the Southern and Eastern Scalefish and Shark Fishery and outlines the proposed conditions and recommendations that would form part of the minister's decision to declare the fishery an approved wildlife trade operation.

References 48

Table 1: Summary of the Southern and Eastern Scalefish and Shark Fishery

Key public documents relevant to the fishery	<ul style="list-style-type: none">• <i>Fisheries Management Act 1991</i>• Fisheries Management Regulations 1992• Commonwealth Fisheries Harvest Strategy Policy 2007• Southern and Eastern Scalefish and Shark Fishery Management Plan 2003• Guide to the 2012 Southern and Eastern Scalefish and Shark Fishery Management Arrangements• Harvest Strategy Framework for the Southern and Eastern Scalefish and Shark Fishery, September 2009• Australian Fisheries Management Authority's submission – 'EPBC Act Reassessment of the Southern and Eastern Scalefish and Shark Fishery, May 2012'• Australian Fisheries Management Authority total allowable catch recommendations (annual)• Australian Sea Lion Management Strategy• Stock rebuilding strategies for conservation dependent species<ul style="list-style-type: none">○ Orange roughy conservation programme○ Eastern gemfish rebuilding strategy○ School shark rebuilding strategy○ Upper Slope Dogfish Management Strategy• Ecological risk management reports for each sector of the fishery• Bycatch and discarding work plans for each sector of the fishery• Australian Bureau of Agricultural and Resource Economics and Sciences Fishery Status reports (annual)• Marine bioregional plan for the Temperate East Marine Region 2012• Marine bioregional plan for the South-west Marine Region 2012
Area	The Southern and Eastern Scalefish and Shark Fishery covers almost half of the Australian Fishing Zone. The area of the fishery extends south from Fraser Island in southern Queensland, around New South Wales, Victoria, Tasmania and South Australia, to Cape Leeuwin in southern Western Australia (Figure 1). The fishery operates in both Commonwealth and state waters, under Offshore Constitutional Settlement arrangements with the different state governments.

Area of the Southern and Eastern Scalefish and Shark Fishery

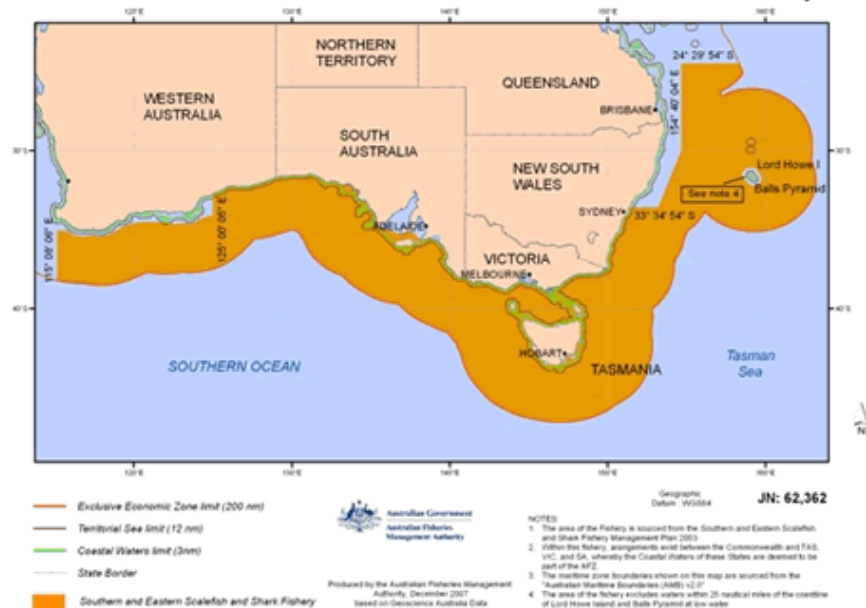


Figure 1. Map of the area covered by the Southern and Eastern Scalefish and Shark Fishery (source Australian Fisheries Management Authority website, October 2012).

The fishery is comprised of four main sectors, which operate in areas shown in Figure 2. These sectors are:

- **Commonwealth Trawl Sector** - represents the majority of effort in the fishery and extends from Sydney southwards around Tasmania to Cape Jervis in South Australia.
- **East Coast Deepwater Trawl Sector** - extends northwards from Sydney up to Fraser Island, including eastwards to waters surrounding Lord Howe Island, however a Trawl Exclusion Zone restricts fishing in the western part of this sector.
- **Gillnet, Hook and Trap Sector** - which comprises four subsectors:
 - **Scalefish Hook Sector** - extends from Sydney southwards around Tasmania to the border of South Australia and Western Australia, although offshore of New South Wales this sector is excluded for 80 nautical miles from the coast.
 - **Shark Gillnet and Shark Hook Sectors** - extend from the New South Wales/Victoria border to the South Australia/Western Australia border.
 - **Trap Sector** - within the Shark Hook Sector, in waters north of 42° 20' South.
- **Great Australian Bight Trawl Sector** - extends westwards from Cape Jervis in South Australia to Cape Leeuwin in Western Australia.

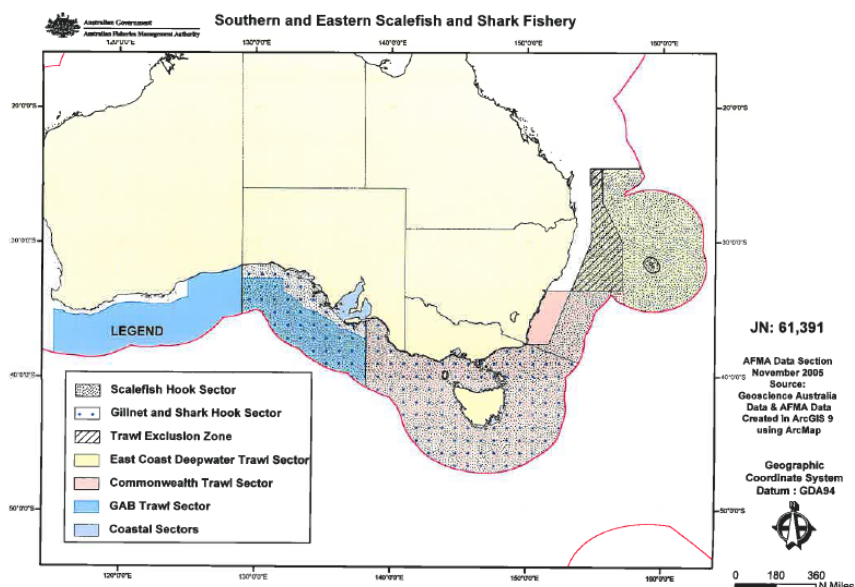


Figure 2. Map of the areas of operation for the four main sectors of the Southern and Eastern Scalefish and Shark Fishery (source AFMA 2012).

In addition, there are a number of smaller sectors which include coastal waters in South Australia, Tasmania and Victoria.

Part of the fishery's operation occurs in the *Temperate East Marine Region*, the *South-east Marine Region* and the *South-west Marine Region*.

Target Species

As a complex, multi-sector, multi-species fishery, the Southern and Eastern Scalefish and Shark Fishery targets 28 species that are managed through annual quotas, listed below:

- alfonsino (*Beryx splendens*)
- Bight redfish (*Centroberyx gerrardi*)
- blue grenadier (*Macruronus novaezelandiae*)
- blue warehou (*Seriola lalandi*)
- blue-eye trevalla (*Hyperoglyphe antarctica*)
- deepwater flathead (*Neoplatycephalus conatus*)
- deepwater sharks (various species)
- eastern school whiting (*Sillago flindersi*)
- elephantfish (*Callirhynchus milii*)
- flathead (five species)
- western gemfish (*Rexea solandri*)
- eastern gemfish (*Rexea solandri*)
- gummy shark (*Mustelus antarcticus*)
- jackass morwong (*Nemadactylus macropterus*)
- john dory (*Zeus faber*)
- mirror dory (*Zenopsis nebulosa*)
- orange roughy (*Hoplostethus atlanticus*)
- oreos (various species)
- pink ling (*Genypterus blacodes*)
- redfish (*Centroberyx affinis*)
- reef ocean perch (*Helicolenus* species)
- ribaldo (*Mora moro*)

	<ul style="list-style-type: none"> • royal red prawn (<i>Haliporoides sibogae</i>) • sawsharks (<i>Pristiophorus</i> species) • school shark (<i>Galeorhinus galeus</i>) • silver trevally (<i>Pseudocaranx georgianus</i>) • silver warehou (<i>Seriotelella punctata</i>) • smooth oreo (<i>Pseudocyttus maculatus</i>) <p>Key target species for each sector are:</p> <ul style="list-style-type: none"> • Commonwealth Trawl Sector - tiger flathead, pink ling, blue grenadier and silver warehou. • East Coast Deepwater Trawl Sector - alfonsino. • Gillnet, Hook and Trap Sector - gummy shark, blue-eye trevally and pink ling. • Great Australian Bight Trawl Sector - deepwater flathead, Bight redfish and orange roughy.
Fishery status	<p>The Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) 'Fishery status reports 2011' (Woodhams et al., 2012) provides an assessment of fish stocks in Commonwealth fisheries, including the Southern and Eastern Scalefish and Shark Fishery, using data to the end of the 2011 fishing year.</p> <p>Of the 28 target stocks in the fishery, ABARES noted no resource concerns for 18 stocks. These stocks were: alfonsino, Bight redfish, blue grenadier, blue-eye trevally, deepwater flathead, eastern school whiting, elephantfish, flathead, western gemfish, gummy shark, jackass morwong, john dory, mirror dory, oreos, royal red prawn, silver trevally, silver warehou and smooth oreo.</p> <p>Seven target stocks were described as having uncertain stock status, where it was uncertain if the stock was overfished and/or uncertain if overfishing was ongoing. These stocks were: blue warehou, deepwater sharks, pink ling, redfish, reef ocean perch, ribaldo and sawsharks.</p> <p>Two target stocks were described as being both overfished and subject to overfishing. These were: eastern gemfish and school shark.</p> <p>There are four target stocks of orange roughy in the fishery. Three stocks (eastern zone, southern zone and western zone) were described as overfished but not subject to overfishing, while the Cascade Plateau stock was described as having no resource concerns.</p> <p>The number of stocks classified as subject to overfishing decreased from seven in 2004 to three in 2011 (Woodhams et al., 2011).</p>

Byproduct Species	<p>Major byproduct species that are not managed under the quota system include:</p> <ul style="list-style-type: none"> • frostfish (<i>Lepidopus caudatus</i>) • Gould's squid (<i>Nototodarus gouldi</i>) • king dory (<i>Cyttus traversi</i>) • latchet (<i>Pterygotrigla polyommata</i>) • leatherjackets (various species) • ocean jacket (<i>Nelusetta ayraudi</i>) • ornate angelshark (<i>Squatina australis</i>) • red gurnard (<i>Chelidonichthys kumu</i>) • snapper (various species) • stargazers (Family Uranoscopidae)
Gear	<p>A variety of fishing methods are used in the different sectors of the Southern and Eastern Scalefish and Shark Fishery, including:</p> <ul style="list-style-type: none"> • demersal otter trawl – trawl nets towed along the seabed, with a heavy otter board attached to each wing of the net to hold it open • pair trawl – two boats each towing a warp (cable) attached to one wing of the net so the mouth of the net is kept open by the distance the two boats are apart • midwater trawl – trawl nets towed in the water column above the seabed, held open by a pair of otter boards on either side attached to the wings of the net • Danish seine – a conical net with two wings and a bag in the middle that collects the fish. Draglines are attached to the wings so a large area can be fished. Similar to a trawl net but without otter boards and often used by two boats where the larger boat uses the warp lines to encircle the fish and herd them into the central net. • demersal longline – long fishing lines with snoods (small branch lines with hooks attached) are set along the bottom of the seafloor with an anchor or weight • demersal gillnet – a fishing net set vertically in the water column that traps fish by their gills in the mesh • dropline – a vertical hanging headline (mainline) with snoods attached that hang horizontally in the water column and a float attached to the top • trotline – a headline that runs horizontally across a channel or section of water with snoods attached that hang down in the water column • handline – a single line with one or more hooks or lures attached, most often held by a person whilst fishing, and • fish traps – a cage made of wires, rods, fishing-net or other suitable materials with the purpose of catching fish alive.
Season	<p>The Southern and Eastern Scalefish and Shark Fishery is open year round. For management purposes, the fishing season commences on 1 May and closes on 30 April each year.</p>

Commercial harvest	<p>Total landings for the whole fishery in 2011 was approximately 19 700 t.</p> <p>Total landings by sector for the 2011-12 fishing season comprised:</p> <ul style="list-style-type: none"> • Commonwealth Trawl Sector - 14 437 t • East Coast Deepwater Trawl Sector - 218 t • Scalefish Hook Sector - 927 t • Shark Gillnet and Shark Hook Sector (combined) - 1 834 t • Great Australian Bight Trawl Sector - 2 280 t
Value of commercial harvest	<p>The gross value of production of the whole fishery in the 2010-11 financial year was \$83.5 million.</p> <p>By sector, the gross value of production in 2010-11 was:</p> <ul style="list-style-type: none"> • Commonwealth Trawl Sector - \$44.0 million • East Coast Deepwater Trawl Sector - n/a* • Scalefish Hook Sector - \$7.1 million • Shark Gillnet and Shark Hook Sectors (combined) - \$16.5 million • Great Australian Bight Trawl Sector - \$11.1 million <p>*Economic data for the East Coast Deepwater Trawl Sector in 2010-11 is confidential, as there were fewer than five vessels operating in the fishery during that period.</p>
Take by other sectors	<p>A number of target stocks in the Southern and Eastern Scalefish and Shark Fishery are also caught in state fisheries. The Commonwealth Fisheries Harvest Strategy Policy 2007 requires that the Australian Fisheries Management Authority take account of state catches (where known) when setting the annual total allowable catch allocations for quota species.</p> <p>Recreational catch is also known to occur for many species caught in the Southern and Eastern Scalefish and Shark Fishery. Popular species include flathead species, school whiting and gummy shark, although total recreational catch is difficult to quantify. State jurisdictions have responsibility for managing recreational fishing, which is generally done through licenses, size limits and bag limit restrictions.</p>
Commercial licences issued	<p>In the 2011-12 fishing season, the following commercial fishing licences were issued in each sector:</p> <ul style="list-style-type: none"> • Commonwealth Trawl Sector - 59 otter trawl, 14 Danish seine • East Coast Deepwater Trawl Sector - 10 • Scalefish Hook Sector - 37 • Shark Gillnet Sector - 62 • Shark Hook Sector - 13 • Great Australian Bight Trawl Sector - 10
Management arrangements	<p>The Southern and Eastern Scalefish and Shark Fishery is managed through the Southern and Eastern Scalefish and Shark Fishery Management Plan 2003.</p> <p>Management of the fishery is primarily through the setting of total allowable catch limits for all quota (target) species and certain non-target species, to cover incidental catch.</p> <p>The setting of total allowable catch limits is governed by decision rules outlined in the Harvest Strategy Framework for the fishery. This framework was first implemented in 2005 and was reviewed in 2007 to</p>

	<p>ensure consistency with the Commonwealth Fisheries Harvest Strategy Policy 2007. The Harvest Strategy Framework includes three tiers developed to accommodate different levels of data quality or knowledge about stocks. The target and limit reference points for each tier are consistent with the Commonwealth Fisheries Harvest Strategy Policy 2007 and all assessments generate a recommended biological catch that should move the biomass of each stock towards its target reference point. Recommended biological catch assessments are translated into total allowable catch limits through prescribed harvest control rules, which include deductions for discarding and catch by state-managed fisheries and recreational fishers.</p> <p>The Harvest Strategy Framework undergoes regular reviews through management strategy evaluations. These reviews have resulted in a series of alterations to the framework to ensure it remains consistent with the Commonwealth Fisheries Harvest Strategy Policy 2007.</p> <p>In 2012 there were 34 species/species groups that were managed under quota, comprising around 80 per cent of the total commercial landed catch. In order to fish in the Southern and Eastern Scalefish and Shark Fishery, operators must hold a relevant fishing license which articulates the area in which they can fish, the method they are allowed to use and quota holdings for relevant species.</p> <p>While total allowable catch quotas are the main management tool in the fishery, a number of other arrangements are also used in the Southern and Eastern Scalefish and Shark Fishery, including:</p> <p><u>Input controls</u></p> <ul style="list-style-type: none"> • Limited entry (no new fishing licences are created, only existing licenses can be used) • Gear restrictions, including mesh size, net length, setting depth, hook limits and trap dimensions • Spatial and temporal closures <p><u>Output controls</u></p> <ul style="list-style-type: none"> • Trip limits for certain species • Incidental catch limits • Prohibition of take of protected species <p>The fishing industry also implements a number of voluntary measures in co-operation with the Australian Fisheries Management Authority, including voluntary closures, voluntary gear restrictions and industry Codes of Conduct.</p> <p>Parts of the Southern and Eastern Scalefish and Shark Fishery operate within the Commonwealth Marine Reserve Network of the Temperate East Marine Region, the South-east Marine Region and the South-west Marine Region.</p>
Export	<p>The majority of catch in the Southern and Eastern Scalefish and Shark Fishery is sold to domestic markets in Sydney, Melbourne and Perth. Export products include blue grenadier, orange roughy and shark fin.</p>
Bycatch	<p>Over 300 different species are caught in the Southern and Eastern Scalefish and Shark Fishery. These include bycatch species that are non-marketable or of low value, which are generally discarded at sea.</p>

	<p>Trawling is the fishing method with the highest rates of discarding. While accurately quantifying discarded bycatch is difficult, it has been estimated to comprise 40 per cent of the weight of the total haul in some trawl sectors.</p> <p>The Australian Fisheries Management Authority develops and implements Bycatch and Discard Work plans for the four major sectors of the fishery. The plans address bycatch and discarding issues for species identified as high risk in the fishery's Ecological Risk Assessment and are reviewed on a biennial basis.</p>
Interaction with Protected Species¹	<p>Interactions with protected species are reported in logbooks by fishers and by independent observers. Quarterly reports of protected species interactions are published on the Australian Fisheries Management Authority website. Protected species that are known to interact with the fishery include Australian sea lions, Australian and New Zealand fur seals, dolphins, seabirds, syngnathids and some shark species. These interactions are generally rare, however they can be significant for some species. Determining accurate estimates of interaction rates can sometimes be difficult, particularly where levels of observer coverage are low.</p> <p>Data recorded on numbers of protected species interactions from 2009-2011 are reported in Tables 12 - 15 of the Australian Fisheries Management Authority's submission. Reported interactions for a number of species over this three year period have increased, however this may be due to improved reporting rather than increased interactions, following a series of education programs and training courses during 2010 and 2011 aimed at improving logbook reporting.</p> <p>Management measures to reduce interactions with protected species, such as fishing gear modifications, bycatch reduction devices and prescribed handling techniques, are under continual review, primarily through the Bycatch and Discard Work plan for each sector of the fishery. In addition to sectoral measures outlined in these work plans, species specific management strategies have been developed where required. These include the Australian Sea Lion Management Strategy and mandatory Seabird Management Plans for otter trawl vessels. A number of spatial closures have also been implemented for the explicit protection of some species, including:</p> <ul style="list-style-type: none"> • closures around Australian sea lion colonies • closures around identified important remnant dogfish populations • closures in areas where dolphin interactions were high, and • depth closures to protect orange roughy and school shark. <p>Under sections 199, 214, 232 and 256 of the EPBC Act, persons who interact with a protected species must report that interaction within seven days of the incident occurring to the department.</p> <p>A Memorandum of Understanding between the Australian Fisheries Management Authority and the department for the Reporting of Fisheries Interactions with Protected Species (Reporting MOU) is in place. This MOU streamlines reporting requirements for interactions with protected species, assisting fishers in meeting their requirements under the EPBC Act. As such, the MOU reduces the administrative</p>

¹ 'Protected species' means all species listed under Part 13 of the EPBC Act, including whales and other cetaceans and threatened, marine and migratory species.

	reporting burden on individual fishers and provides for regular reporting of protected species interactions.
Ecosystem Impacts	<p>The Marine Bioregional Plan for the Temperate East Marine Region 2012 and the Marine Bioregional Plan for the South-west Marine Region 2012 identify a number of key ecological features present in the area of the Southern and Eastern Scalefish and Shark Fishery. The extraction of living resources and bycatch by commercial fisheries have been identified as pressures of potential concern to some of these key ecological features. However, the plans also note that these assessments are conservative in the context of active fisheries management, particularly when fisheries are managed at an ecosystem level, as in the Southern and Eastern Scalefish and Shark Fishery.</p> <p>The marine bioregional plans also list physical habitat modification as being of potential concern in some key ecological features that are found within the area of the Southern and Eastern Scalefish and Shark Fishery. This is a concern where these features are either subject to bottom trawl activities or are inherently vulnerable to habitat disturbance, including shelf rocky reefs and the canyons on the eastern continental slope. Demersal trawling in the fishery has the potential to modify benthic habitats because it involves the removal, modification or disturbance of seabed flora and fauna.</p> <p>The risks that the Southern and Eastern Scalefish and Shark Fishery poses to the sustainability of the marine ecosystems in which it operates have been investigated through a series of Ecological Risk Assessments. Actions to address these risks are described in Ecological Risk Management reports for each sector, which are published on the Australian Fisheries Management Authority's website. While the majority of ecological risk management actions implemented to date have been species based, future reviews of the Ecological Risk Assessment and Ecological Risk Management process are expected to expand in focus to include impact on marine habitats and communities that may be impacted by fishing.</p>

Table 2: Progress in implementation of conditions and recommendations made in the previous assessment of the Southern and Eastern Scalefish and Shark Fishery

Condition	Progress	Recommended Action
<p>1. Operation of the fishery will be carried out in accordance with the management arrangements for the Southern and Eastern Scalefish and Shark Fishery (SESSF) in force under the <i>Fisheries Management Act 1991</i>.</p>	<p>The Southern and Eastern Scalefish and Shark Fishery has operated in accordance with the legislated management regime since the last assessment of the fishery in 2010, as reported in annual reports provided to the department by the Australian Fisheries Management Authority.</p>	<p>The Department of Sustainability, Environment, Water, Population and Communities (the department) considers that this condition has been met.</p> <p>The department considers that a new approved wildlife trade operation declaration for the Southern and Eastern Scalefish and Shark Fishery specify a similar condition (see Condition 1, Table 4).</p>
<p>2. AFMA will inform the Department of the Environment, Water, Heritage and the Arts (DEWHA) of any intended amendments to the SESSF management arrangements that may affect the assessment of the fishery against the criteria on which the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) decisions are based.</p>	<p>There have been no changes made to the Southern and Eastern Scalefish and Shark Fishery Management Plan 2003 since the last assessment of the fishery in 2010.</p> <p>Changes to management arrangements within the existing framework of the management plan have been reported to the department by the Australian Fisheries Management Authority. These include changes to total allowable catch quotas and the development and implementation of specific measures to mitigate the impact of fishing on protected species.</p>	<p>The department considers that this condition has been met.</p> <p>The department considers that a new approved wildlife trade operation declaration for the Southern and Eastern Scalefish and Shark Fishery specify a similar condition (see Condition 2, Table 4).</p>
<p>3. AFMA to produce and present reports to DEWHA annually as per Appendix B to the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i>, that include a report of progress in completing the work plans contained within the SESSF Bycatch and Discard Workplans.</p>	<p>Annual reports for the Southern and Eastern Scalefish and Shark Fishery, including progress reports on the implementation of Bycatch and Discard Work plans for the fishery, have been provided to the department.</p>	<p>The department considers that this condition has been met.</p> <p>The department considers that a new approved wildlife trade operation declaration for the Southern and Eastern Scalefish and Shark Fishery specify a similar condition (see Condition 3, Table 4).</p>

Condition	Progress	Recommended Action
<p>4. AFMA to provide final copies of the Ecological Risk Assessment (ERA) and Ecological Risk Management (ERM) reports for all SESSF sectors by 1 December 2010.</p>	<p>Final copies of the Ecological Risk Assessment and Ecological Risk Management reports for all sectors of the Southern and Eastern Scalefish and Shark Fishery were provided to the department in May 2010.</p>	<p>The department considers that this condition has been met.</p> <p>The department recommends that the Australian Fisheries Management Authority continue to provide updated Ecological Risk Assessment and Ecological Risk Management reports as these documents are reviewed and updated (see Recommendation 2, Table 4).</p>

Condition	Progress	Recommended Action
<p>5. AFMA to:</p> <p>a) by 1 November 2010, outline a new work plan to reduce bycatch and discards in the Great Australia Bight Trawl sector of the SESSF;</p> <p>b) provide the results of the formal two-year review of the Great Australia Bight Trawl Fishery Bycatch and Discard Work plan to DEWHA by 1 March 2011;</p> <p>c) by 1 July 2011, outline new work plans to reduce bycatch and discards in the Shark Gillnet, Commonwealth Trawl Sector (formerly South East Trawl), and Automatic Longline sectors of the SESSF; and</p> <p>d) provide the results of the formal two-year review of the Shark Gillnet, Commonwealth Trawl Sector (formerly South East Trawl), and Automatic Longline Bycatch and Discard Work plans to DEWHA by 1 November 2011.</p>	<p>a) A new work plan for the Great Australian Bight Trawl Sector was provided in November 2010.</p> <p>b) Results for the two year review of the Great Australian Bight Trawl Sector work plan were provided in December 2010.</p> <p>c) A new work plan for the Commonwealth Trawl Sector was implemented in July 2011. Updated work plans for the Shark Gillnet Sector and the Automatic Longline Sector were also drafted in mid-2011, however clearance through the Shark Resource Assessment Group was delayed due to competing high priority bycatch issues. The updated work plans were finalised in April 2012 and were provided to the department in May 2012.</p> <p>d) A finalised work plan review for the Commonwealth Trawl Sector was provided to the department in December 2011. Clearance of work plan reviews for the Automatic Longline sector and the Shark Gillnet Sector by the Shark Resource Assessment Group was delayed due to competing bycatch management issues. These work plan reviews were finalised in April 2012 and provided to the department in May 2012.</p>	<p>The department considers that this condition has been met.</p> <p>The department recommends that the Australian Fisheries Management Authority continue to regularly review and update Bycatch and Discard Work plans for each sector and provide revised work plans to the department as they arise (see Recommendation 3, Table 4).</p>
<p>6. In accord with the precautionary principle, as outlined in section 391(2) of the <i>Environment Protection and Biodiversity Conservation Act 1999</i>;</p> <p>a) AFMA to continue to implement interim management measures, which will include voluntary fishery closures, increased observer coverage in areas adjacent to</p>	<p>a) Voluntary closures were implemented in the fishery in December 2009.</p> <p>b) A series of larger formal closures to protect Australian sea lions and increasing independent observer coverage was implemented by the Australian Fisheries Management Authority from June 2010 through implementation of the Australian Sea Lion</p>	<p>The department considers that this condition has been met, although the issues covered by this condition are ongoing.</p> <p>The department considers that a similar condition should be specified for a new Part 13 accreditation for the Southern and Eastern Scalefish and Shark Fishery (see</p>

Condition	Progress	Recommended Action
<p>Australian sea lion colonies and other actions, designed to mitigate the impact of fishing activity on Australian sea lions;</p> <p>b) by 30 June 2010, taking into account current information and in consultation with marine mammal experts, AFMA to implement long-term management measures, including formal fisheries closures and other actions, that will lead to a significant reduction of the impact of fishing activity on Australian sea lions. These measures will be clearly directed towards enabling recovery of the species, including all sub-populations; and</p> <p>c) AFMA, in consultation with marine mammal experts, will continue to monitor and review the adequacy of management measures towards the objective of avoiding mortality of, or injuries to, Australian Sea Lions so as to enable the recovery of Australian Sea Lion populations, including all sub-populations.</p>	<p>Management Strategy. This strategy was reviewed in 2010 and 2011, with the additional management arrangements being implemented in November 2011.</p> <p>Management measures currently in force under the Australian Sea Lion Management Strategy include:</p> <ul style="list-style-type: none"> • area closures of 18 500 km² to gillnet fishing around Australian sea lion colonies • requirement for one hundred per cent coverage of independent monitoring (such as observers or cameras) for gillnet fishing offshore of South Australia • requirement for ten per cent coverage of observers for gillnet fishing elsewhere in the fishery • provisions to allow some gillnet fishers to switch to using hooks off South Australia, including in areas now closed to gillnets • requirement for ten per cent coverage of observers for shark hook fishing, and • prohibition to discharge offal from vessels while gillnets are being set and requirement for nets to be cleaned of biological material before being set. <p>Under the strategy, an Australian Sea Lion Management Zone has been described within the fishery, which has been divided into seven subzones for management purposes. An Australian sea lion bycatch trigger limit has been identified for each subzone, with a total bycatch trigger limit across the whole fishery set at 15 animals. When a subzone reaches its prescribed trigger limit, the zone is closed to gillnet fishing for a period of 18 months, equivalent to a full breeding cycle of Australian sea lions.</p> <p>c) The Australian Sea Lion Working Group met quarterly from October 2010 until February 2012, at which time</p>	<p>Condition A, Table 4).</p>

Condition	Progress	Recommended Action
	<p>it expanded to include discussion of interactions with other protected species and is now known as the Marine Mammal Working Group. This group includes marine mammal experts and provides ongoing oversight of the suitability of management measures to provide adequate protection for Australian sea lions.</p>	
<p>7. AFMA to:</p> <p>a) evaluate the effectiveness of strategies used to mitigate against seabird interactions in the SESSF, using evidence-based criteria to measure performance. The outcome of this evaluation is to be included as part of the annual reporting to DEWHA prescribed in Condition 3; and</p> <p>b) develop and implement appropriate management responses to address the outcomes of each evaluation within 10 months of issues having been identified as part of the annual reporting to DEWHA prescribed in Condition 3.</p>	<p>The Australian Fisheries Management Authority has continued to enforce measures to protect seabirds from interactions with long line fishing activity in the fishery consistent with the <i>Threat Abatement Plan for the incidental catch (or bycatch) of seabirds during oceanic longlining operations</i>.</p> <p>In 2011, the Australian Fisheries Management Authority required all otter trawl vessels in the fishery to implement Seabird Management Plans, to mitigate seabird mortality in the trawl sectors.</p> <p>Evaluation of the effectiveness of these strategies is ongoing. The Australian Fisheries Management Authority has provided the outcomes of relevant evaluations to the department as these arise and through annual reports.</p>	<p>The department considers that this condition has been met, although the issues covered by this condition are ongoing.</p> <p>The department considers that a new approved wildlife trade operation declaration for the Southern and Eastern Scalefish and Shark Fishery specify a similar condition (see Condition D, Table 4).</p>

Condition	Progress	Recommended Action
<p>8. By July 2010, AFMA to:</p> <p>a) ensure statistically robust levels of ongoing observer effort (or other reliable method) to validate the nature and level of interactions with, and to facilitate a quantification of the effects of fishing on: species that are identified as high risk through ecological risk assessment processes, species listed under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> and any other species identified by DEWHA to be of concern; ensuring that scientific observer coverage is representative of each sector of the SESSF, by vessel types, areas and months;</p> <p>b) report on the level of scientific observer coverage by gear-specific effort as part of the annual reporting to DEWHA prescribed in Condition 3, and make this observer coverage level publicly available; and</p> <p>c) annually compare observer reports with logbook records for species listed under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> and put measures in place to address any inconsistencies.</p>	<p>a) The Australian Fisheries Management Authority made substantial progress in developing a robust fishery independent monitoring strategy, through commissioning the <i>Revised Sampling Regime for the SESSF - Final Report 2009</i> and using this report to determine appropriate observer levels to detect high-risk species and threatened, endangered and protected species identified in the ecological risk assessment for the fishery.</p> <p>b) Annual reports of observer coverage by gear-specific effort have been provided annually to the department and published on the Australian Fisheries Management Authority's website.</p> <p>c) Logbook data have been periodically compared with observer data and inconsistencies have been followed up. In 2011-12, the Australian Fisheries Management Authority's Compliance Program focused on compliance with reporting requirements for threatened, endangered and protected species in logbooks, in order to improve reporting rates and instigate appropriate compliance action where necessary.</p>	<p>The department considers that this condition has been met, although the issues covered by this condition are ongoing.</p> <p>The department considers that a new approved wildlife trade operation declaration for the Southern and Eastern Scalefish and Shark Fishery specify a similar condition (see Condition 4, Table 4).</p>
<p>9. Taking into consideration any recommendations made by the Threatened Species Scientific Committee or listings decisions made by the Minister for the Environment, Heritage and the Arts under Part 13 of the <i>Environment Protection and Biodiversity Conservation Act 1999</i>:</p> <p>a) by 30 June 2010, AFMA to implement</p>	<p>Over the course of 2010 and 2011, the Australian Fisheries Management Authority developed and progressively implemented the Upper-slope Dogfish Management Strategy, with input from the Threatened Species Scientific Committee, CSIRO and other scientific experts.</p> <p>a) Stage 1 of the strategy was implemented by 30 June 2010, and included revised catch limits, an industry Code of Conduct to release all live dogfish</p>	<p>The department considers that this condition has been met, although the issues covered by this condition are ongoing.</p> <p>The department considers that a new approved wildlife trade operation declaration for the Southern and Eastern Scalefish and Shark Fishery specify a similar condition (see Condition 5,</p>

Condition	Progress	Recommended Action
<p>interim management measures, which may include and are not limited to, more precautionary catch limits, fisheries closures, monitoring of improved handling practices, training of AFMA observers and SESSF fishers, improved observer coverage, constraining the expansion of fishing effort and other actions, designed to mitigate the impact of fishing activity on Harrison's Dogfish, Southern Dogfish, Endeavour Dogfish, and Greeneye Spurdog;</p> <p>b) by 17 December 2010, taking into account current information and in consultation with relevant experts, AFMA to implement long-term management measures, including fisheries closures and other actions, that will lead to a significant reduction of the impact of fishing activity on Harrison's dogfish, southern dogfish, endeavour dogfish, and greeneye spurdog.</p> <p>These measures will be clearly directed towards stopping the decline of, and supporting the recovery of each species; and</p> <p>c) AFMA, in consultation with relevant experts, will continue to monitor and review the adequacy of management measures towards the objective of stopping the decline of, and supporting the recovery of Harrison's dogfish, southern dogfish, endeavour dogfish, and greeneye spurdog.</p>	<p>and a range of closures to protect identified upper-slope dogfish populations.</p> <p>b) Stage 2 of the strategy was implemented on 17 December 2010 and included:</p> <ul style="list-style-type: none"> • a larger network of spatial closures • a research zone • catch limits • industry initiatives including skipper training and a code of conduct for handling dogfish • research and monitoring, and • rebuilding targets for closed and managed areas. <p>c) The Upper-slope Dogfish Management Strategy has been further developed and refined over 2011 and 2012, in consultation with relevant experts. The revised strategy aims to halt the decline and support the recovery of Harrison's and southern dogfish. New measures developed over 2012 include prohibiting all take of Harrison's and southern dogfish, more spatial closures, the development of limit and target reference points and development of recovery timeframe estimates.</p> <p>While the Upper-slope Dogfish Management Strategy is focused particularly on Harrison's and southern dogfish, the management measures prescribed by the strategy will also provide protection from fishing activity for endeavour dogfish and greeneye spurdog, through spatial closures, catch limits and industry codes of conduct for the handling of all dogfish species. Recovery objectives for endeavour dogfish and greeneye spurdog have not been specified, as these species have not been demonstrated to meet eligibility criteria for listing as threatened species under the EPBC Act.</p>	<p>Table 4).</p>

Recommendation	Progress	Recommended Action
<p>1. AFMA to:</p> <p>a) report on the implementation and success of existing rebuilding strategies for SESSF species that are below their limit reference point (B_{Lim}) as part of the annual reporting to DEWHA prescribed in Condition 3. This report should include an assessment of the effectiveness of the rebuilding strategy in meeting its objectives; and</p> <p>b) advise DEWHA of any species/stock or stocks of species identified as potentially being below their limit reference point (B_{Lim}), and therefore possibly requiring the development of a rebuilding strategy consistent with the <i>Commonwealth Fisheries Harvest Strategy Policy</i>. DEWHA to be advised as soon as the relevant SESSF Research Assessment Group raises such concerns.</p>	<p>a) The Australian Fisheries Management Authority has included reports on the progress of rebuilding strategies for conservation dependent listed species in its annual reports to the department. Similar reports have provided to the Threatened Species Scientific Committee on request.</p> <p>b) There have been no stocks in the Southern and Eastern Scalefish and Shark Fishery that have been identified as falling below limit reference points for the first time since the last assessment of the fishery in 2009.</p>	<p>The department considers that this recommendation has been met, although the issues covered by this recommendation are ongoing.</p> <p>The department considers that this recommendation should continue in a modified form, with particular attention to reporting on the effectiveness of rebuilding strategies in meeting their objectives (see Condition 6, Table 4).</p>
<p>2. AFMA to continue to implement appropriate management responses to address and mitigate risks and impacts for species that are identified as high risk through ERA processes. A review of the effectiveness of management responses to mitigate the interactions outlined in the ERAs should be undertaken at appropriate intervals. Measures to mitigate interactions should be incorporated into AFMA's management arrangements for the relevant sectors of the fishery.</p>	<p>The Australian Fisheries Management Authority developed and implemented an ecological risk assessment and management framework for all sectors of the Southern and Eastern Scalefish and Shark Fishery. These assessments have been periodically reviewed, with Ecological Risk Management reports released in 2010 for the Danish seine, otter trawl, auto longline, gillnet, hook and trap sectors. A list of priority species to be addressed, and management measures in response, is included in Table 16 of the Australian Fisheries Management Authority's submission.</p> <p>The Australian Fisheries Management Authority is currently facilitating an update of the Ecological Risk Assessments for the Southern and Eastern Scalefish and Shark Fishery sectors.</p>	<p>The department considers that this recommendation has been met, although the issues covered by this recommendation are ongoing.</p> <p>The department considers that this recommendation should continue in a modified form (see Recommendation 2, Table 4).</p>

Recommendation	Progress	Recommended Action
3. AFMA to ensure Vessel Management Plans are in place for all SESSF trawl licensed boats by 31 December 2011.	Approved Seabird Management Plans were implemented on all otter trawl vessels in the fishery by November 2011.	<p>The department considers that this recommendation has been met, although the issues covered by this recommendation are ongoing.</p> <p>The department considers that this recommendation should continue in a modified form, with particular attention to ensuring effective management measures are in place to minimise seabird mortality in all sectors of the fishery (see Condition D, Table 4).</p>
4. AFMA to investigate methods for improving data collection on seabird interactions for vessels that use trawl gear in the SESSF, including the ability or necessity to collect data by means other than logbooks and the SESSF observer program.	The Australian Fisheries Management Authority has liaised with Birdlife International and the department's Australian Antarctic Division to seek advice on effective ways to mitigate interactions of seabirds with trawl gear and to improve data collection. In 2011, new observer protocols were introduced to improve data collection on seabird warp strike interactions. Investigations are still underway to determine whether e-monitoring through on board cameras may also be effective at detecting seabird interactions.	<p>The department considers that this recommendation has been met, although the issues covered by this recommendation are ongoing.</p> <p>The department considers that this recommendation should continue in a modified form (see Condition D, Table 4).</p>
5. AFMA is encouraged to maintain ongoing liaison and joint stock assessments with bordering jurisdictions to ensure resources are managed on a whole of fishery basis. AFMA to advise DEWHA of the outcomes of these deliberations as they occur.	The Australian Fisheries Management Authority has liaised with relevant jurisdictions as appropriate for the management of joint stocks. In accordance with the requirements of the Commonwealth Fisheries Harvest Strategy Policy 2007, the Australian Fisheries Management Authority has taken account of state catches (where known) when setting the annual total allowable catch allocations for quota species.	<p>The department considers that this recommendation has been met, although the issues covered by this recommendation are ongoing.</p> <p>The department considers that this recommendation should continue in a modified form (see Recommendation 4, Table 4).</p>

Table 3: The Department of Sustainability, Environment, Water, Population and Communities' assessment of the Southern and Eastern Scalefish and Shark Fishery against the requirements of the EPBC Act related to decisions made under Parts 13 and 13A.

Please Note – the table below is not a complete or exact representation of the EPBC Act. It is intended as a summary of relevant sections and components of the EPBC Act to provide advice on the fishery in relation to decisions under Parts 13 and 13A. A complete version of the EPBC Act can be found on the department's website.

Part 13

Division 1 Listed threatened species Section 208A Minister may accredit plans or regimes	The department's assessment of the Southern and Eastern Scalefish and Shark Fishery
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(a) a plan of management within the meaning of section 17 of the <i>Fisheries Management Act 1991</i>;</p> <p>if satisfied that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed threatened species (other than conservation dependent species) are not killed or injured as a result of the fishing; and</p> <p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the survival or recovery in nature of the species.</p>	<p>The Southern and Eastern Scalefish and Shark Fishery will be managed under the Southern and Eastern Scalefish and Shark Fishery Management Plan 2003 (the Management Plan), in force under the <i>Fisheries Management Act 1991</i>.</p> <p>The Management Plan was last accredited in August 2010. The management arrangements relating to mitigating the impact of fishing on threatened species in the fishery have significantly improved since this accreditation was granted.</p> <p>Management measures to protect listed threatened species are continually being refined. Current measures are listed in Table 1 and include the Australian Sea Lion Management Strategy and mandatory Seabird Management Plans on trawl vessels.</p> <p>Subject to these measures remaining in place, as required by proposed Conditions A and D (Table 4), the department considers that the fishery's Management Plan continues to require persons fishing in accordance with the plan to take all reasonable steps to ensure listed threatened species are not killed or injured as a result of fishing.</p> <p>While the Southern and Eastern Scalefish and Shark Fishery is known to interact with some listed threatened species (including Australian sea lions, grey nurse sharks, white sharks and seabird species)</p>

	<p>evidence suggests that these interactions are low under the current arrangements.</p> <p>The Australian Fisheries Management Authority has in place management strategies, including the Australian Sea Lion Management Strategy, which has objectives to support the recovery of listed threatened species.</p> <p>Therefore, the department considers the operation of the fishery is not likely to adversely affect the survival or recovery in nature of any listed threatened species as long as the current, effective management measures remain in place, as required by proposed Conditions A and D (Table 4).</p>
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Part 13 (cont.)

Division 2 Migratory species Section 222A Minister may accredit plans or regimes	The department's assessment of the Southern and Eastern Scalefish and Shark Fishery
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(a) a plan of management within the meaning of section 17 of the <i>Fisheries Management Act 1991</i>;</p> <p>if satisfied that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed migratory species are not killed or injured as a result of the fishing; and</p> <p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a listed migratory species or a population of that species.</p>	<p>The Southern and Eastern Scalefish and Shark Fishery will be managed under the Southern and Eastern Scalefish and Shark Fishery Management Plan 2003 (the Management Plan), in force under the <i>Fisheries Management Act 1991</i>.</p> <p>The Management Plan was last accredited in August 2010. The management arrangements relating to mitigating the impact of fishing on listed migratory species in the fishery have improved since this accreditation was granted.</p> <p>Management measures to protect listed migratory species are continually being refined. Current measures are listed in Table 1 and include mandatory Seabird Management Plans on trawl vessels and the actions articulated in the Bycatch and Discard Work Plans for each sector of the fishery.</p> <p>Subject to these measures remaining in place, as required by proposed Condition D (Table 4), the department considers that the fishery's Management Plan continues to require persons fishing in accordance with the plan to take all reasonable steps to ensure listed migratory species are not killed or injured as a result of fishing.</p> <p>While the Southern and Eastern Scalefish and Shark Fishery is known to interact with some listed migratory species (including white sharks, porbeagle sharks, shortfin mako sharks and seabird species) evidence suggests that these interactions are low under the current arrangements. Therefore, the department considers the operation of the fishery is not likely to adversely affect the conservation status of a listed migratory species or a population of that species as long as the current, effective management measures remain in place, as required by proposed Condition D (Table 4).</p>

Part 13 (cont.)

Division 3 Whales and other cetaceans Section 245 Minister may accredit plans or regimes	The department's assessment of the Southern and Eastern Scalefish and Shark Fishery
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(a) a plan of management within the meaning of section 17 of the <i>Fisheries Management Act 1991</i>;</p> <p>if satisfied that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that cetaceans are not killed or injured as a result of the fishing; and</p> <p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a species of cetacean or a population of that species.</p>	<p>The Southern and Eastern Scalefish and Shark Fishery will be managed under the Southern and Eastern Scalefish and Shark Fishery Management Plan 2003 (the Management Plan), in force under the <i>Fisheries Management Act 1991</i>.</p> <p>The Management Plan was last accredited in August 2010. The management arrangements relating to mitigating the impact of fishing on cetaceans in the fishery have improved since this accreditation was granted.</p> <p>Management measures to protect cetacean species are continually being refined. Current measures are listed in Table 1 and Table 4 and include large closures to protect dolphins from interactions with gillnets and a Dolphin Observation Zone to ensure interactions are accurately monitored, as well as relevant actions articulated in the Bycatch and Discard Work Plans for each sector of the fishery.</p> <p>Subject to these measures remaining in place, as required by proposed Condition B (Table 4), the department considers that the fishery's Management Plan continues to require persons fishing in accordance with the plan to take all reasonable steps to ensure cetaceans are not killed or injured as a result of fishing.</p> <p>While some sectors of the Southern and Eastern Scalefish and Shark Fishery are known to interact with cetaceans (dolphin species) evidence suggests that these interactions are low under the current arrangements. Therefore, the department considers the operation of the fishery is not likely to adversely affect the conservation status of a cetacean or a population of that species as long as the current, effective management measures remain in place, as required by proposed Condition B (Table 4).</p>

Part 13 (cont.)

Division 4 Listed marine species Section 265 Minister may accredit plans or regimes	The department's assessment of the Southern and Eastern Scalefish and Shark Fishery
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(a) a plan of management within the meaning of section 17 of the <i>Fisheries Management Act 1991</i>;</p> <p>if satisfied that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed marine species are not killed or injured as a result of the fishing; and</p> <p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a listed marine species or a population of that species.</p>	<p>The Southern and Eastern Scalefish and Shark Fishery will be managed under the Southern and Eastern Scalefish and Shark Fishery Management Plan 2003 (the Management Plan), in force under the <i>Fisheries Management Act 1991</i>.</p> <p>The Management Plan was last accredited in August 2010. The management arrangements relating to mitigating the impact of fishing on listed marine species in the fishery have improved since this accreditation was granted.</p> <p>Management measures to protect listed marine species are continually being refined. Current measures are listed in Table 1 and Table 4 and include mandatory Seabird Management Plans on trawl vessels, bycatch reduction devices, and additional actions articulated in the Bycatch and Discard Work Plans for each sector of the fishery.</p> <p>Subject to these measures remaining in place, as required by proposed Conditions C and D (Table 4), the department considers that the fishery's Management Plan continues to require persons fishing in accordance with the plan to take all reasonable steps to ensure listed marine species are not killed or injured as a result of fishing.</p> <p>While the Southern and Eastern Scalefish and Shark Fishery is known to interact with some listed marine species (including pinnipeds, syngnathids and seabird species) evidence suggests that these interactions are low under the current arrangements. Therefore, the department considers the operation of the fishery is not likely to adversely affect the conservation status of a listed marine species or a population of that species as long as the current, effective management measures remain in place, as required by proposed Conditions C and D (Table 4)</p>

Part 13 (cont.)

Section 303AA Conditions relating to accreditation of plans, regimes and policies	The department's assessment of the Southern and Eastern Scalefish and Shark Fishery
(1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.	The department recommends that the management plan for the Southern and Eastern Scalefish and Shark Fishery be accredited under sections 208A, 222A, 245 and 265.
(2) The Minister may accredit a plan, regime or policy under that section even though he or she considers that the plan, regime or policy should be accredited only: <ul style="list-style-type: none">(a) during a particular period; or(b) while certain circumstances exist; or(c) while a certain condition is complied with. In such a case, the instrument of accreditation is to specify the period, circumstances or condition.	To satisfy the requirements of section 208A, 222A, 245 and 265 we recommend that the Southern and Eastern Scalefish and Shark Fishery be accredited under Part 13 subject to four conditions that requires the Australian Fisheries Management Authority to: <ul style="list-style-type: none">1. a) Maintain management measures clearly directed toward limiting the impact of fishing activity on Australian sea lions to levels which will assist in enabling the recovery of the species, including all subpopulations. b) In consultation with marine mammal experts, continue to monitor and review on an annual basis the adequacy of its Australian sea lion management measures.2. Determine the extent of the impact of fishing on dolphins, including identifying the species impacted, and develop appropriate management measures to minimise the impact. This should include ongoing monitoring and appropriate review of these measures, in consultation with marine mammal experts.3. Continue to develop and implement management measures to minimise mortality of seals in the Commonwealth Trawl Sector of the fishery.4. a) ensure efficient and effective Seabird Management Plans remain in place for vessels in the fishery using otter trawl gear b) consider the introduction of Seabird Management Plans for other methods of fishing to reduce the risk of seabird interactions c) continue to investigate methods for improving data collection on seabird interactions, particularly interactions with trawl gear

	<p>and longlines, and</p> <p>d) implement management measures to ensure seabird mortality in all sectors of the fishery is minimised. Where appropriate, this should include implementing offal management measures that have been demonstrated to be highly effective in reducing seabird mortality.</p> <p>The Part 13 instrument for the Southern and Eastern Scalefish and Shark Fishery specifies these conditions.</p>
(7) The Minister must, in writing, revoke an accreditation if he or she is satisfied that a condition of the accreditation has been contravened.	

Part 13A

Section 303BA Objects of Part 13A

(1) The objects of this Part are as follows:

- (a) to ensure that Australia complies with its obligations under CITES² and the Biodiversity Convention;
- (b) to protect wildlife that may be adversely affected by trade
- (c) to promote the conservation of biodiversity in Australia and other countries
- (d) to ensure that any commercial utilisation of Australian native wildlife for the purposes of export is managed in an ecologically sustainable way
- (e) to promote the humane treatment of wildlife
- (f) to ensure ethical conduct during any research associated with the utilisation of wildlife, and
- (h) to ensure the precautionary principle is taken into account in making decisions relating to the utilisation of wildlife.

² Convention on International Trade in Endangered Species of Wild Fauna and Flora

Part 13A

Section 303 CG Minister may issue permits (CITES species)	The department's assessment of the Southern and Eastern Scalefish and Shark Fishery
<p>(3) The Minister must not issue a permit unless the Minister is satisfied that:</p> <p>(a) the action or actions specified in the permit will not be detrimental to, or contribute to trade which is detrimental to:</p> <ul style="list-style-type: none"> i. the survival of any taxon to which the specimen belongs; or ii. the recovery in nature of any taxon to which the specimen belongs; or iii. any relevant ecosystem (for example, detriment to habitat or biodiversity). 	<p>Catch of shark species listed on the Convention on International Trade In Endangered Species of Wild Fauna and Flora (CITES) is infrequent and incidental in the Southern and Eastern Scalefish and Shark Fishery. Given the fishery's management arrangements in place to monitor and limit the level of harvest of CITES species and noting the minimal level of CITES species being exported from the fishery, the department considers that the Southern and Eastern Scalefish and Shark Fishery will not be detrimental to the survival of any taxon to which the CITES specimen belongs in the short to medium term. A condition on the wildlife trade operation declaration for the Southern and Eastern Scalefish and Shark Fishery includes annual reporting requirements for protected species, which will allow the department to monitor the status of CITES specimens harvested in the fishery.</p> <p>Recognising that harvest of CITES listed species in the Southern and Eastern Scalefish and Shark Fishery is only incidental and there are management measures in place to mitigate interactions with these species where possible, the potential for the harvest of these species to impact unacceptably and unsustainably on any relevant ecosystem generally is considered quite low.</p>

Section 303DC Minister may amend list	The department's assessment of the Southern and Eastern Scalefish and Shark Fishery
<p>(1) Minister may, by instrument published in the Gazette, amend the list referred to in section 303DB (list of exempt native specimens) by:</p> <ul style="list-style-type: none"> (a) including items in the list; (b) deleting items from the list; or (c) imposing a condition or restriction to which the inclusion of a specimen in the list is subject; or (d) varying or revoking a condition or restriction to which the inclusion of a specimen in the list is subject; or (e) correcting an inaccuracy or updating the name of a species. 	<p>The department recommends that specimens derived from species harvested in the Southern and Eastern Scalefish and Shark Fishery, other than specimens that belong to species listed under Part 13 of the EPBC Act, be included in the list of exempt native specimens while the Southern and Eastern Scalefish and Shark Fishery is subject to a declaration as an approved wildlife trade operation.</p>
<p>(1A) In deciding whether to amend the list referred to in section 303DB (list of exempt native specimens) to include a specimen derived from a commercial fishery, the Minister must rely primarily on the outcomes of any assessment in relation to the fishery carried out for the purposes of Division 1 or 2 of Part 10.</p>	<p>The impacts of actions under the operations of the Southern and Eastern Scalefish and Shark Fishery were assessed under Part 10 of the EPBC Act in May 2007. That assessment concluded that actions approved or taken in accordance with the Southern and Eastern Scalefish and Shark Fishery Management Plan 2003, as amended by the Southern and Eastern Scalefish and Shark Fishery Management Plan Amendment 2006 (No. 2), would not have an unacceptable or unsustainable impact on the environment in a Commonwealth marine area. Consequently, the Southern and Eastern Scalefish and Shark Fishery Management Plan 2003, as amended by the Southern and Eastern Scalefish and Shark Fishery Management Plan Amendment 2006 (No. 2), was accredited under section 33 of the EPBC Act.</p>
<p>(1C) The above does not limit the matters that may be taken into account in deciding whether to amend the list referred to in section 303DB (list of exempt native specimens) to include a specimen derived from a commercial fishery.</p>	<p>It is not possible to list exhaustively the factors that you may take into account in amending the list of exempt native specimens. The objects of Part 13A, which are set out above this table, provide general guidance in determining factors that might be taken into account. A matter that is relevant to determining whether an amendment to the list is consistent with those objects is likely to be a relevant factor.</p> <p>The department considers that the amendment of the list of exempt native specimens to include product taken in accordance with the Southern and Eastern Scalefish and Shark Fishery wildlife trade operation would be consistent with the provisions of Part 13A (listed above) as:</p> <ul style="list-style-type: none"> ▪ there are management arrangements in place to ensure that the

	<p>resource is being managed in an ecologically sustainable way (see Table 1)</p> <ul style="list-style-type: none"> the operation of the Southern and Eastern Scalefish and Shark Fishery is unlikely to be unsustainable and threaten biodiversity within the next three years, and the Environment Protection and Biodiversity Conservation Regulations 2000 do not specify fish as a class of animal in relation to the welfare of live specimens.
<p>(3) Before amending the list referred to in section 303DB (list of exempt native specimens), the Minister:</p> <p>(a) must consult such other Minister or Ministers as the Minister considers appropriate; and</p> <p>(b) must consult such other Minister or Ministers of each State and self-governing Territory as the Minister considers appropriate; and</p> <p>(c) may consult such other persons and organisations as the Minister considers appropriate.</p>	<p>The department considers that the consultation requirements have been met. The application from the Australian Fisheries Management Authority was released for public comment from 23 December 2011 to 23 February 2012. The public comment period sought comment on:</p> <ul style="list-style-type: none"> the proposal to amend the list of exempt native specimens to include product derived from the Southern and Eastern Scalefish and Shark Fishery, and the Australian Fisheries Management Authority's application for the Southern and Eastern Scalefish and Shark Fishery. <p>Five comments were received.</p>
<p>(5) A copy of an instrument made under section 303DC is to be made available for inspection on the Internet.</p>	<p>The instrument for the Southern and Eastern Scalefish and Shark Fishery made under section 303DC will be gazetted and made available on the department's website.</p>

Section 303FN Approved wildlife trade operation	The department's assessment of the Southern and Eastern Scalefish and Shark Fishery
<p>(2) The Minister may, by instrument published in the <i>Gazette</i>, declare that a specified wildlife trade operation is an approved wildlife trade operation for the purposes of this section.</p>	
<p>(3) The Minister must not declare an operation as an approved wildlife trade operation unless the Minister is satisfied that:</p> <p>(a) the operation is consistent with the objects of Part 13A of the Act; and</p>	<p>The department considers that the operation of the Southern and Eastern Scalefish and Shark Fishery is consistent with the objects of Part 13A (listed above) as:</p>

<p>(b) the operation will not be detrimental to:</p> <ol style="list-style-type: none"> i. the survival of a taxon to which the operation relates; or ii. the conservation status of a taxon to which the operation relates; and <p>(ba) the operation will not be likely to threaten any relevant ecosystem including (but not limited to) any habitat or biodiversity; and</p> <p>(c) if the operation relates to the taking of live specimens that belong to a taxon specified in the regulations – the conditions that, under the regulations, are applicable to the welfare of the specimens are likely to be complied with; and</p> <p>(d) such other conditions (if any) as are specified in the regulations have been, or are likely to be, satisfied.</p>	<ul style="list-style-type: none"> ▪ there are management arrangements in place to ensure that the resource is being managed in an ecologically sustainable way (see Table 1), and ▪ the operation of the Southern and Eastern Scalefish and Shark Fishery is unlikely to be unsustainable and threaten biodiversity within the next three years. <p>The department considers that the Southern and Eastern Scalefish and Shark Fishery will not be detrimental to the survival or conservation status of a taxon to which it relates within the next three years, or threaten any relevant ecosystem, given the management measures currently in place (see Table 1), which include:</p> <ul style="list-style-type: none"> ▪ total allowable catch limits informed by regular stock assessments and subject to a Harvest Strategy Framework that functions in accordance with the Commonwealth Fisheries Harvest Strategy Policy Framework 2007 ▪ spatial and temporal closures to reduce fishing pressure where required on target and non-target stocks (including protected species) ▪ limited entry to the fishery ▪ vessel and gear restrictions ▪ statistically robust levels of observer coverage ▪ regular ecological risk assessments and management responses to address any identified risks, and ▪ rebuilding strategies for stocks listed as conservation dependent or assessed as overfished. <p>The Environment Protection and Biodiversity Conservation Regulations 2000 (EPBC Regulations) do not specify fish as a class of animal in relation to the welfare of live specimens.</p> <p>No other conditions are specified in relation to commercial fisheries in the EPBC Regulations.</p>
<p>(4) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have regard to:</p>	

<p>(a) the significance of the impact of the operation on an ecosystem (for example, an impact on habitat or biodiversity); and</p>	<p>The marine bioregional plans for the Temperate East Marine Region and South-west Marine Region note that extraction of living resources, bycatch and physical modification of habitat by trawling have been identified as pressures on key ecological features in areas of the Commonwealth marine environment in which the fishery operates.</p> <p>However, these pressures have been assessed as being ‘of potential concern’ only. The plans also note that these assessments are conservative in the context of active fisheries management, particularly when fisheries are managed at an ecosystem level, as in the Southern and Eastern Scalefish and Shark Fishery.</p> <p>The department considers that the Southern and Eastern Scalefish and Shark Fishery will not have a significant impact on an ecosystem, given the management measures currently in place (see Table 1), which include:</p> <ul style="list-style-type: none"> ▪ total allowable catch limits informed by regular stock assessments and subject to a Harvest Strategy Framework that functions in accordance with the Commonwealth Fisheries Harvest Strategy Policy Framework 2007 ▪ spatial and temporal closures to reduce fishing pressure where required on target and non-target stocks (including protected species) ▪ limited entry to the fishery ▪ vessel and gear restrictions ▪ statistically robust levels of observer coverage ▪ regular ecological risk assessments and management responses to address any identified risks, and ▪ rebuilding strategies for stocks listed as conservation dependent or assessed as overfished.
<p>(b) the effectiveness of the management arrangements for the operation (including monitoring procedures).</p>	<p>The management arrangements that will be employed for the Southern and Eastern Scalefish and Shark Fishery are likely to be effective. All target species and significant non-target byproduct species are managed under total allowable catch quotas, which are informed by scientifically determined recommended biological catch limits, in accordance with the Commonwealth Fisheries Harvest Strategy Policy. There are management strategies in place to mitigate the impact of the fishery on protected species and rebuilding</p>

	strategies in place to recover overfished stocks. Statistically robust monitoring programs are also in place. In addition, gear restrictions are employed as well as spatial and temporal restrictions, to further mitigate the impact of fishing on particular target and non-target species, including protected species.
<p>(5) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have regard to:</p> <p>(a) whether legislation relating to the protection, conservation or management of the specimens to which the operation relates is in force in the State or Territory concerned; and</p> <p>(b) whether the legislation applies throughout the State or Territory concerned; and</p> <p>(c) whether, in the opinion of the Minister, the legislation is effective.</p>	<p>The Southern and Eastern Scalefish and Shark Fishery will be managed under the Southern and Eastern Scalefish and Shark Fishery Management Plan 2003 (the Management Plan), in force under the <i>Fisheries Management Act 1991</i>.</p> <p>The Commonwealth <i>Fisheries Management Act 1991</i> applies throughout Commonwealth waters.</p> <p>After evaluation of the fishery management measures in place for this fishery, summarised in Table 1, the department considers that the legislation enforcing these measures throughout the fishery is likely to be effective.</p>
<p>(10) For the purposes of section 303FN, an operation is a wildlife trade operation if, and only if, the operation is an operation for the taking of specimens and:</p> <p>(d) the operation is a commercial fishery.</p>	<p>The Southern and Eastern Scalefish and Shark Fishery is a commercial fishery.</p>
<p>(10A) In deciding whether to declare that a commercial fishery is an approved wildlife trade operation for the purposes of this section, the Minister must rely primarily on the outcomes of any assessment in relation to the fishery carried out for the purposes of Division 1 or 2 of Part 10.</p>	<p>The impacts of actions under the operations of the Southern and Eastern Scalefish and Shark Fishery were assessed under Part 10 of the EPBC Act in May 2007. That assessment concluded that actions approved or taken in accordance with the Southern and Eastern Scalefish and Shark Fishery Management Plan 2003, as amended by the Southern and Eastern Scalefish and Shark Fishery Management Plan Amendment 2006 (No. 2), would not have an unacceptable or unsustainable impact on the environment in a Commonwealth marine area. Consequently, the Southern and Eastern Scalefish and Shark Fishery Management Plan 2003, as amended by the Southern and</p>

	Eastern Scalefish and Shark Fishery Management Plan Amendment 2006 (No. 2), was accredited under section 33 of the EPBC Act.
(10B) Subsection (10A) does not limit the matters that may be taken into account in deciding whether to declare that a fishery is an approved wildlife trade operation for the purposes of this section.	

Section 303FR Public consultation	The department's assessment of the Southern and Eastern Scalefish and Shark Fishery
<p>(1) Before making a declaration under section 303FN, the Minister must cause to be published on the Internet a notice:</p> <ul style="list-style-type: none"> (a) setting out the proposal to make the declaration; and (b) setting out sufficient information to enable persons and organisations to consider adequately the merits of the proposal; and (c) inviting persons and organisations to give the Minister, within the period specified in the notice, written comments about the proposal. 	<p>The department considers that the consultation requirements of the EPBC Act for declaring a fishery an approved wildlife trade operation have been met. A public notice, which set out the proposal to declare the Southern and Eastern Scalefish and Shark Fishery an approved wildlife trade operation and included the Australian Fisheries Management Authority's submission, was released for public comment which closed on 23 February 2012 with five submissions received.</p>
<p>(2) A period specified in the notice must not be shorter than 20 business days after the date on which the notice was published on the Internet.</p>	<p>A public notice, which set out the proposal to declare the Southern and Eastern Scalefish and Shark Fishery an approved wildlife trade operation and included the Australian Fisheries Management Authority's submission was released for public comment on 23 December 2011 and closed on 23 February 2012, a total of 41 business days.</p>
<p>(3) In making a decision about whether to make a declaration under section 303FN, the Minister must consider any comments about the proposal to make the declaration that were given in response to the invitation in the notice.</p>	<p>The public comments received on the Australian Fisheries Management Authority's submission are included at <u>Attachment D</u> of the brief. The department's assessment has considered the public comments received on the submission.</p>

Section 303FT Additional provisions relating to declarations	The department's assessment of the Southern and Eastern Scalefish and Shark Fishery
(1) This section applies to a declaration made under section 303FN, 303FO or 303FP.	A declaration for the Southern and Eastern Scalefish and Shark Fishery will be made under section 303FN.
<p>(4) The Minister may make a declaration about a plan or operation even though he or she considers that the plan or operation should be the subject of the declaration only:</p> <p>(a) during a particular period; or</p> <p>(b) while certain circumstances exist; or</p> <p>(c) while a certain condition is complied with.</p> <p>In such a case, the instrument of declaration is to specify the period, circumstances or condition.</p>	<p>The standard conditions applied to a commercial fishery wildlife trade operation include:</p> <ul style="list-style-type: none"> • operation in accordance with the management plan • notifying the department of changes to the management regime, and • annual reporting in accordance with the requirements of the Australian Government 'Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition'. <p>The wildlife trade operation instrument for the Southern and Eastern Scalefish and Shark Fishery specifies the standard and any additional conditions applied.</p>
(8) A condition may relate to reporting or monitoring.	One of the standard conditions relates to reporting.
(9) The Minister must, by instrument published in the <i>Gazette</i> , revoke a declaration if he or she is satisfied that a condition of the declaration has been contravened.	
(11) A copy of an instrument under section 303FN, 303FO or 303FP or this section is to be made available for inspection on the Internet.	The instrument for the Southern and Eastern Scalefish and Shark Fishery made under section 303FN and the conditions under section 303FT will be gazetted and made available on the department's website.

Part 16

Section 391 Minister must consider precautionary principle in making decisions	The department's assessment of the Southern and Eastern Scalefish and Shark Fishery
(1) The Minister must take account of the precautionary principle in making a decision under section 303DC and/or section 303FN, to the extent he or she can do so consistently with the other provisions of this Act.	<p>Having regard to:</p> <ul style="list-style-type: none"> the precautionary management measures in place in the fishery (summarised in Table 1) the requirement under the Fisheries Management Act 1991 for all Commonwealth fisheries to be managed consistent with the precautionary principle, and the proposed conditions that would form part of any future approved wildlife trade operation declaration, <p>the department considers that the precautionary principle has been accounted for in the preparation of advice in relation to a decision under section 303DC and section 303FN.</p>
(2) The precautionary principle is that lack of full scientific certainty should not be used as a reason for postponing a measure to prevent degradation of the environment where there are threats of serious or irreversible environmental damage.	

Part 12

Section 176 Bioregional Plans	The department's assessment of the Southern and Eastern Scalefish and Shark Fishery
(5) Subject to this Act, the Minister must have regard to a bioregional plan in making any decision under this Act to which the plan is relevant.	<p>The marine bioregional plans for the Temperate East Marine Region and South-west Marine Region have been considered in the preparation of advice in relation to decisions under section 303DC and section 303FN. Extraction of living resources, bycatch and physical modification of habitat by trawling have been identified as pressures operating within these marine bioregional planning areas in which the Southern and Eastern Scalefish and Shark Fishery operates.</p> <p>However, these pressures have been identified as being 'of potential concern' only. The plans also note that these assessments are conservative in the context of active fisheries management, particularly when fisheries are managed at an ecosystem level, as in the Southern and Eastern Scalefish and Shark Fishery.</p>

The Department of Sustainability, Environment, Water, Population and Communities' final conditions and recommendations to the Australian Fisheries Management Authority for the Southern and Eastern Scalefish and Shark Fishery

The material submitted by the Australian Fisheries Management Authority demonstrates that the management arrangements for the Southern and Eastern Scalefish and Shark Fishery continue to meet most of the requirements of the Australian Government 'Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition'.

Stock Status and Recovery

The department considers that overall the management regime for the Southern and Eastern Scalefish and Shark Fishery aims to ensure that fishing is conducted in a manner that does not lead to overfishing.

The Australian Bureau of Agricultural and Resource Economics and Sciences has identified no significant resource concerns for the majority of the target stocks in the fishery, although a low number of stocks are classified as uncertain or overfished (Woodhams et al., 2012).

For the small number of stocks classified as overfished or below prescribed limit reference points, species specific management strategies are in place to support the recovery of these stocks.

Management measures in place in the fishery include:

- total allowable catch limits for target and key non-target stocks
- limited entry and gear restrictions
- spatial and temporal closures, and
- annual reviews of the performance of the fishery.

Ecosystem Impacts

Taking into account the management measures described above, the department considers that the management regime for the Southern and Eastern Scalefish and Shark Fishery provides for fishing operations to be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.

While the fishery is relatively well managed, the department has identified a number of risks and uncertainties that must be managed to ensure that impacts are minimised, including:

- interactions with protected species (mainly pinnipeds, dolphins, seabirds and some sharks), and
- the need to recover overfished stocks.

The key challenges for this fishery will be:

- further understanding and addressing interactions with protected species
- determining the extent of impact of the fishery on non-target shark species, and
- reviewing and updating ecological risk assessments and ecological risk management reports for each sector.

The department considers that, until it can be demonstrated that these issues have been adequately addressed, declaration of the harvest operations of the Southern and Eastern Scalefish and Shark Fishery as an approved wildlife trade operation for three years, until 25 February 2016, is appropriate. The department considers that the declaration should be subject to the conditions listed in Table 4. To contain and minimise the risks in the longer term the recommendations outlined in Table 4 have been made.

Unless a specific time frame is provided, each condition and recommendation must be addressed within the period of the approved wildlife trade operation declaration for the fishery.

Table 4: Southern and Eastern Scalefish and Shark Fishery Assessment – Summary of Issues, Conditions and Recommendations, February 2013

	Issue	Part 13A Conditions
1	<p><u>General Management</u></p> <p>Export decisions relate to the arrangements in force at the time of the decision. To ensure that these decisions remain valid and export approval continues uninterrupted, the Department of Sustainability, Environment, Water, Population and Communities needs to be advised of any changes that are made to the management regime and make an assessment that the new arrangements are equivalent or better, in terms of ecological sustainability, than those in place at the time of the original decision. This includes operational and legislated amendments that may affect sustainability of the target species or negatively impact on byproduct, bycatch, protected species or the ecosystem.</p>	<p>Condition 1:</p> <p>Operation of the Southern and Eastern Scalefish and Shark Fishery will be carried out in accordance with the management arrangements in force under the <i>Fisheries Management Act 1991</i>.</p> <p>Condition 2:</p> <p>The Australian Fisheries Management Authority to inform the Department of Sustainability, Environment, Water, Population and Communities (the department) of any proposed substantive changes to the Southern and Eastern Scalefish and Shark Fishery management arrangements that may affect the assessment against which <i>Environment Protection and Biodiversity Conservation Act 1999</i> decisions are made.</p>
2	<p><u>Annual reporting</u></p> <p>It is important that reports be produced and presented to the Department of Sustainability, Environment, Water, Population and Communities annually in order for the performance of the fishery and progress in implementing the conditions and recommendations in this report and other managerial commitments to be monitored and assessed throughout the life of the declaration.</p> <p>Annual reports should include: a description of the fishery, management arrangements in place, research and monitoring outcomes, recent catch data for all sectors of the fishery, status of target stock, interactions with protected species, impacts of the fishery on the ecosystem in which it operates and information outlining progress in implementing the conditions and recommendations resulting from the previous accreditation of the fishery (for a complete description of annual reporting requirements, see Appendix B of the 'Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition' available from the department's website at http://www.environment.gov.au/coasts/fisheries/publications/guidelines.html).</p>	<p>Condition 3:</p> <p>The Australian Fisheries Management Authority to produce and present reports to the department annually, as per Appendix B to the Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition.</p>

3	<p><u>Fishery independent monitoring</u></p> <p>The Australian Fisheries Management Authority has made substantial progress in developing a robust fishery independent monitoring strategy, through commissioning the 'Revised Sampling Regime for the SESSF - Final Report 2009' and using this report to determine appropriate observer levels to detect high-risk species and threatened, endangered and protected species identified in the ecological risk assessment for the fishery. Annual reports of observer coverage by gear-specific effort are provided annually to the department and published on AFMA's website.</p> <p>The Australian Fisheries Management Authority periodically compares logbook data with observer data and follows up discrepancies. In 2011-12, the Australian Fisheries Management Authority's Compliance Program focused on compliance with reporting requirements for threatened, endangered and protected species in logbooks, in order to improve reporting rates and instigate appropriate compliance action where necessary.</p> <p>The department notes that fishery independent monitoring has significantly increased in areas of the fishery where risk of interactions with protected species has been identified as high. The department considers it important that the Australian Fisheries Management Authority continue to evaluate levels of fishery independent monitoring across all areas and sectors, to ensure that the impact of fishing on threatened and protected species is well understood across the fishery. This may require adaptation of monitoring programs as circumstances in the fishery change over time, including changes in fishing effort and gear type.</p>	<p>Condition 4:</p> <p>The Australian Fisheries Management Authority to ensure that there is sufficient ongoing fishery independent monitoring effort to reliably understand and evaluate the nature and level of impacts of fishing on threatened and protected species. Monitoring effort must be representative of each sector of the fishery across all gear and vessel types, with particular focus on locations where fishing effort is increasing or new gear types are being used.</p>
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4	<p><u>Gulper sharks</u></p> <p>Two species of gulper shark (Harrison's dogfish and southern dogfish) experienced significant declines in areas of the Southern and Eastern Scalefish and Shark Fishery. These species, along with the greeneye spurdog, are identified in the Australian Fisheries Management Authority's Ecological Risk Assessment of the fishery as being at high risk from fishing. Over the course of 2011 and 2012, the Australian Fisheries Management Authority developed and implemented the Upper-slope Dogfish Management Strategy, with input from the Threatened Species Scientific Committee, CSIRO and other scientific experts. The strategy aims to halt the decline and support the recovery of the two species.</p> <p>The department considers that recovery of these species will be dependent on the Australian Fisheries Management Authority implementing the actions described in the strategy, which include spatial closures and improved handling practises outside closed areas. Ongoing monitoring and review of the adequacy of the management measures to support gulper sharks will also be important, given the slow maturation and longevity of these species.</p>	<p>Condition 5:</p> <p>The Australian Fisheries Management Authority to:</p> <ul style="list-style-type: none"> a) implement long-term management measures, including fisheries closures and other actions, that are clearly directed towards stopping the decline and supporting the recovery of Harrison's dogfish and southern dogfish, and b) continue, in consultation with relevant experts, to monitor and review the adequacy of management measures designed to stop the decline and support the recovery of Harrison's dogfish and southern dogfish.
5	<p><u>Conservation dependent species</u></p> <p>A number of species listed as conservation dependent under the EPBC Act are caught as bycatch or byproduct within the Southern and Eastern Scalefish and Shark Fishery. These species include orange roughy, eastern gemfish and school shark. The Australian Fisheries Management Authority has developed and implemented rebuilding strategies for stocks of these species that occur within the fishery, in accordance with the Commonwealth Fisheries Harvest Strategy Policy.</p> <p>Key objectives for rebuilding strategies are to rebuild stocks within the area of the fishery to limit reference points in the first instance and then to target reference points within biologically reasonable timeframes. These reference points and timeframes are established within each species specific strategy. As rebuilding strategies are periodically reviewed within the longer timeframes required for recovery of the conservation dependent species, the Australian Fisheries Management Authority's management measures should also be reviewed to ensure that the most appropriate measures are in place to enable the rebuilding objectives to be met. An annual evaluation of the effectiveness of the strategies and the status of the conservation dependent stocks should be provided to the department.</p>	<p>Condition 6:</p> <p>The Australian Fisheries Management Authority to:</p> <ul style="list-style-type: none"> a) ensure that management measures are in place to meet the objectives of the rebuilding strategies for species listed as conservation dependent under the <i>Environment Protection and Biodiversity Conservation Act 1999</i>, and b) continue to evaluate and report to the department on the effectiveness of rebuilding strategies for conservation dependent listed species.

	Issue	Part 13 Conditions
6	<p><u>Australian sea lions</u></p> <p>The area of the Shark Gillnet and Shark Hook Sector of the Southern and Eastern Scalefish and Shark Fishery overlaps extensively with the foraging range of Australian sea lion populations offshore of South Australia. Australian sea lions are listed as vulnerable under the EPBC Act and are considered highly susceptible to fatal interactions with gillnets, based on research conducted in the fishery from 2007 - 2010.</p> <p>Voluntary closures were implemented in the fishery in December 2009, followed by a series of larger formal closures and increasing independent observer coverage from June 2010, through the implementation of AFMA's Australian Sea Lion Management Strategy. This strategy was reviewed in 2010 and 2011, with the final suite of management arrangements being implemented in November 2011.</p> <p>Management measures currently in force under the Australian Sea Lion Management Strategy include:</p> <ul style="list-style-type: none"> • area closures of 18 500 km² to gillnet fishing around Australian sea lion colonies • requirement for one hundred per cent coverage of independent monitoring (such as observers) for gillnet fishing offshore of South Australia • requirement for ten per cent coverage of observers for gillnet fishing elsewhere in the fishery • provisions to allow some gillnet fishers to switch to using hooks off South Australia, including in areas now closed to gillnets • requirement for ten per cent coverage of observers for shark hook fishing, and • prohibition to discharge offal from vessels while gillnets are being set and requirement for nets to be cleaned of biological material before being set. <p>Under the strategy, an Australian Sea Lion Management Zone has been described within the fishery, which has been divided into seven subzones for management purposes. An Australian sea lion bycatch trigger limit has been identified for each subzone, with a total bycatch trigger limit across the whole fishery set at 15 animals. When a subzone reaches its prescribed trigger limit, the zone is closed to gillnet fishing for a period of 18 months, equivalent to a full breeding cycle of Australian sea lions.</p> <p>The department considers that the Australian Fisheries Management Authority has made substantial progress in reducing the impact of fishing activity on Australian sea</p>	<p>Condition A</p> <p>The Australian Fisheries Management Authority to:</p> <ul style="list-style-type: none"> a) maintain management measures clearly directed toward limiting the impact of fishing activity on Australian sea lions to levels which will assist in enabling the recovery of the species, including all subpopulations. b) In consultation with marine mammal experts, continue to monitor and review on an annual basis the adequacy of its Australian sea lion management measures.

	<p>lions in the fishery. The department considers it important that these improved management measures remain in place, with continuing consultation with marine mammal experts to ensure the adequacy of ongoing Australian sea lion management measures.</p>	
7	<p><u>Dolphins</u></p> <p>A significant rise in reported entanglements of dolphins with gillnets in the Shark Gillnet and Shark Hook Sector of the Southern and Eastern Scalefish and Shark Fishery was observed in 2011, with 45 interactions recorded. This sector recorded only two dolphin interactions in 2009 and seven interactions in 2010.</p> <p>The rise in reported interactions followed increased observer coverage in the sector following the introduction of the Australian Sea Lion Management Strategy.</p> <p>In response to the increased reported interactions in 2011, the Australian Fisheries Management Authority closed an area of approximately 27 340 km² to the use of gillnets where the majority of dolphin interactions occurred, in an area offshore of the mouth of the Murray River in South Australia. Adjacent to this area, the Australian Fisheries Management Authority imposed a Dolphin Observation Zone, where all gillnet vessels are required to have one hundred percent coverage of independent scientific observers or cameras. Observed interaction rates in the fishery decreased following the implementation of these measures, with 16 dolphin interactions recorded in 2012.</p> <p>The department considers that the Australian Fisheries Management Authority's response of closing areas of the fishery to gillnet fishing where high numbers of dolphin interactions were occurring was timely and appropriate. The department considers it important that the Australian Fisheries Management Authority now determine the extent of the likely ongoing impact of gillnet fishing on dolphins in the fishery, including work to identify which species are being impacted, and ensure appropriate management measures are in place to minimise the impact.</p>	<p>Condition B</p> <p>The Australian Fisheries Management Authority to determine the extent of the impact of fishing on dolphins, including identifying the species impacted, and develop appropriate management measures to minimise the impact. This should include ongoing monitoring and appropriate review of these measures, in consultation with marine mammal experts.</p>

8	<p><u>Seals</u></p> <p>Interactions with seals (Australian fur seals and New Zealand fur seals) in the Commonwealth Trawl Sector of the Southern and Eastern Scalefish and Shark Fishery have been steadily increasing over recent years. In 2009 there were 70 interactions recorded, in 2010 there were 135 interactions, in 2011 there were 138 interactions and in 2012 there were 217 interactions. Interactions generally occur when seals enter trawl nets to obtain food. A high proportion of interactions end in mortality, when the seal fails to swim back out of the net before becoming exhausted and drowning. The department understands that the rise in interactions is believed to be largely attributed to increases in the abundance of fur seals in Australian waters, including expansions of range as fur seals recolonise new areas where populations were historically extirpated by commercial sealing.</p> <p>The Australian Fisheries Management Authority has developed mitigation measures to reduce the bycatch of seals, including seal excluder devices to attach within the nets, and using shorter codends at the end of the net to lessen the distance seals must swim to escape. Trials of these measures are currently underway in different sectors of the fishery. The department considers it important that the Australian Fisheries Management Authority continue to develop and implement effective measures to minimise mortality of seals in the fishery.</p>	<p>Condition C:</p> <p>The Australian Fisheries Management Authority to continue to develop and implement management measures to minimise mortality of seals in the Commonwealth Trawl Sector of the fishery.</p>
9	<p><u>Seabirds</u></p> <p>Seabirds can be attracted to fishing vessels at sea by discarded offal and baits. Seabirds have been known to ingest baited hooks during the setting or hauling of longlines and can also interact with trawl vessels where they collide with parts of the trawl gear. Mortalities of seabirds from interactions with commercial fishing activities have caused significant declines in a number of species worldwide.</p> <p>Vessels in the longline and trawl sectors of the Southern and Eastern Scalefish and Shark Fishery have been identified by the Australian Fisheries Management Authority as those most likely to interact with seabirds. However, the impacts of longline fishing activity on seabirds have been substantially reduced through the implementation of measures articulated in the 'Threat Abatement Plan for the incidental catch of seabirds during oceanic longline fishing operations'.</p> <p>Mortality to seabirds caused by interactions with trawl gear was not well known before 2010. From October 2011, the Australian Fisheries Management Authority mandated Seabird Management Plans for all otter trawl vessels in the Commonwealth Trawl Sector of the fishery. These plans seek to reduce the risk of interactions with seabirds</p>	<p>Condition D:</p> <p>The Australian Fisheries Management Authority to:</p> <ul style="list-style-type: none"> a) ensure efficient and effective Seabird Management Plans remain in place for vessels in the fishery using otter trawl gear b) consider the introduction of Seabird Management Plans for other methods of fishing to reduce the risk of seabird interactions c) continue to investigate methods for improving data collection on seabird interactions, particularly interactions with

	<p>by requiring vessels to minimise, and avoid where possible, the discharge of biological material, including offal, while fishing gear is in the water, and to use equipment to deter seabirds from interacting with fishing gear.</p> <p>The department considers it important that effective Seabird Management Plans remain in place for all trawl vessels and that the Australian Fisheries Management Authority also consider introducing these plans to vessels that use other fishing methods. The Australian Fisheries Management Authority should continue to investigate methods for improving data collection on seabird interactions in all sectors of the fishery and should implement management measures to ensure that seabird mortality throughout the fishery is minimised. The department recommends that offal management measures that have been demonstrated as highly effective in reducing seabird mortalities in other fisheries be implemented in this fishery where appropriate.</p>	<p>trawl gear and longlines, and</p> <p>d) implement management measures to ensure seabird mortality in all sectors of the fishery is minimised. Where appropriate, this should include implementing offal management measures that have been demonstrated to be highly effective in reducing seabird mortality.</p>
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	Issue	Recommendations
1	<p><u>Non-target sharks</u></p> <p>Australia has a high diversity of shark species, which has generated national and international interest in the conservation and long term management of Australian sharks. Sharks worldwide are generally considered more vulnerable to fisheries' impacts than bony fish, due to their slow growth, late maturation and lower reproductive output. A number of shark (and ray) species have been included on international threatened species lists in recent years, such as the Bonn Convention on Migratory Species and the Convention on International Trade in Endangered Species of Fauna and Flora, and this trend appears likely to continue.</p> <p>Within the Southern and Eastern Scalefish and Shark Fishery, some shark species are targeted while others are caught incidentally during fishing for other species. Targeted species are subject to formal management arrangements, complemented by monitoring and research. However, many more species are caught incidentally and either kept and sold or discarded at sea. For these species, there is generally less known about the status of the stock or the full extent of the catch.</p> <p>In 2012, Australia articulated its priorities for actions to improve shark management through Shark-Plan 2, the National Plan of Action for Shark Conservation and Management 2012. Consistent with Shark-Plan 2, and to assist with international efforts to manage globally threatened shark stocks, the department recommends that the Australian Fisheries Management Authority ensure that species of non-target sharks caught in the Southern and Eastern Scalefish and Shark Fishery are accurately recorded, to enable the extent of impact to be determined. This should inform the implementation of appropriate management measures for shark species identified through protected species listing processes and the Australian Fisheries Management Authority's Ecological Risk Assessment process. Improved information and management of these species will contribute to mitigating impact on Australian populations of shark species that are potentially at risk internationally.</p>	<p>Recommendation 1:</p> <p>The Australian Fisheries Management Authority to determine the extent of the impact of fishing on non target shark species, including seeking to identify the species impacted, and develop appropriate management measures to mitigate the impact for shark species that are identified through the Ecological Risk Assessment process and protected species listing processes.</p>
2	<p><u>Ecological Risk Assessments/Ecological Risk Management</u></p> <p>The Australian Fisheries Management Authority has developed and implemented an ecological risk assessment and management framework for all Commonwealth fisheries. This framework describes a process for assessing and progressively addressing the impacts that fisheries activities have on five aspects of the marine ecosystem:</p>	<p>Recommendation 2:</p> <p>The Australian Fisheries Management Authority to continue to undertake Ecological Risk Assessments and implement appropriate management responses to address and mitigate risks and impacts for species that are identified as high risk. Following reviews of the Ecological</p>

	<ul style="list-style-type: none"> • target species • byproduct and discard species • threatened, endangered and protected (TEP) species • habitats, and • communities. <p>A progression of ecological risk assessments have been completed for all major Commonwealth fisheries, including each sector of the Southern and Eastern Scalefish and Shark Fishery. As these assessments are periodically reviewed, the Australian Fisheries Management Authority's management measures should also be reviewed to ensure that the most appropriate measures are in place to address the risks identified. Following reviews of the framework, updated Ecological Risk Assessment and Ecological Risk Management reports should be provided to the department.</p>	<p>Risk Assessments and Ecological Risk Management frameworks for all sectors in the fishery in 2012, the Australian Fisheries Management Authority to provide updated ERA and ERM reports to the department.</p>
3	<p><u>Bycatch and Discard Workplans</u></p> <p>The Australian Fisheries Management Authority develops and implements Bycatch and Discard Work plans for the four major sectors of the Southern and Eastern Scalefish and Shark Fishery. The plans address bycatch and discarding issues for species identified as high risk in the fishery's Ecological Risk Assessment and are reviewed on a two yearly basis.</p> <p>The department considers that these plans are important for identifying key bycatch and discarding issues in each sector, as well as developing strategies to respond to identified high ecological risks, avoid interactions with EPBC Act listed species, reduce discarding of target species to as close to zero as possible, and quantify and minimise overall bycatch in the long term. The department therefore recommends that new Bycatch and Discard Work plans continue to be developed and implemented for each sector of the fishery, with the Australian Fisheries Management Authority providing evaluations of the performance of each plan after it expires.</p>	<p>Recommendation 3:</p> <p>At the expiry of the Bycatch and Discard Work plan in place for each sector of the fishery, The Australian Fisheries Management Authority to:</p> <ol style="list-style-type: none"> a) implement new work plans to reduce bycatch and discards in each sector, and b) provide an evaluation of the performance of each plan to the department within six months of expiry.
4	<p><u>Shared stocks</u></p> <p>A number of stocks in the Southern and Eastern Scalefish and Shark Fishery have ranges that extend beyond the boundaries of the fishery into fisheries managed by state jurisdictions. The effectiveness of management measures for these shared stocks is enhanced when management arrangements are complementary across the range of the stock. The department recommends that the Australian Fisheries Management Authority continues to work collaboratively with other relevant fishery management agencies to pursue complementary management arrangements for shared stocks.</p>	<p>Recommendation 4:</p> <p>The Australian Fisheries Management Authority to continue to pursue and report on collaborative and complementary management of shared Southern and Eastern Scalefish and Shark Fishery stocks with relevant fisheries management agencies.</p>

References

Woodhams, J, Vieira, S & Stobutzki, I (eds) 2012, Fishery status reports 2011, Australian Bureau of Agricultural and Resources Economics and Sciences, Canberra.