



**Australian Government**

**Australian Fisheries Management Authority**


# **ANNUAL STATUS REPORT**

## **Southern Bluefin Tuna Fishery**

**2010**

This report has been prepared by AFMA for consideration by the Department of the Environment, Water, Heritage and the Arts (DEWHA) in relation to the export approval of the Southern Bluefin Tuna Fishery under the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*.

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Box 7051, Canberra Business Centre, ACT 2610 Tel (02) 6225 5555 Fax (02) 6225 5500

AFMA Direct 1300 723 621

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# Introduction

## 1. Description of the Fishery

The Southern Bluefin Tuna Fishery (SBTF) is managed through a system of output controls in the form of individually transferable quotas which are allocated as statutory fishing rights (SFRs) under the *Southern Bluefin Tuna Management Plan 1995*. Prior to the commencement of each season (1 December to 30 November) AFMA determines a total allowable catch (TAC) of SBT for the domestic fishery based upon Australia's national allocation from the Commission for the Conservation of Southern Bluefin Tuna (CCSBT). Each SFR entitles the holder to receive an equal portion of the TAC set by AFMA for this period.

At its sixteenth annual meeting CCSBT agreed that a reduction in the global TAC was necessary in order to rebuild the stock. CCSBT set Australia's national catch allocation for the next two years at 4,015 tonnes per year. The AFMA Commission met on 30 October 2009 and agreed to set a single total TAC of 8,030 tonnes for the next two years, of which a maximum of 5,265 tonnes can be taken in the first year. Industry subsequently advised AFMA that it would target to catch a maximum 4,015 tonnes in 2009/10.

<b>Principal Species:</b>	Southern Bluefin Tuna ( <i>Thunnus maccoyii</i> ).
<b>No of SFR holders at start of SBT season 2010 (1 December 2009):</b>	95
<b>Estimated catch and value for 2006/07, 2007/08 and 2008/09:</b>	<p>The Australian catches for the 2006/07, 2007/08 and 2008/09 seasons were 5234 t, 5234 t, and 5242 t respectively.</p> <p>Approximate AUD values for the SBT fishery (financial years) were: 2006/07 42.4 million, 2007/08 44.6 million, 2008/09 45.3 million.</p> <p>Total Gross Value of Production, including value added by ranching, was (calendar years) 2007 \$142.3million and 2008 \$186.7million respectively.</p>
<b>Fishing Season:</b>	For this period the SBT fishing season runs from 1 December 2009 to 30 November 2011. For the purse seine fishery, fishing for grow out ranching occurs from December – March. Longlining for SBT occurs primarily in winter months off Southern NSW.
<b>Main markets:</b>	Japan. Small markets in USA, EU and Republic of Korea.
<b>Fishing techniques:</b>	Around 98% of Australia's SBT quota is taken by 5-10 purse seine vessels fishing in the GAB for 13-25 kg SBT. These are towed alive back to static grow out pontoons off Port Lincoln and grown out for

	<p>up to 6 months before harvest and export largely to Japan. SBT is also a valuable and partly incidental catch for longline vessels operating in southern Australian waters. They are also taken in small amounts by pole and line, and trolling.</p>
<b>Stock Status:</b>	<p>At its Sixteenth annual meeting, the CCSBT agreed that the status of the SBT stock was of concern and that a meaningful reduction in the TAC was necessary in order to recover the stock and work toward reaching an interim rebuilding target reference point of 20% of the original spawning stock. Consequently, the CCSBT reduced the SBT global TAC for 2010 and 2011 to an average level over the two years of 80% of the previously allocated global TAC of 11,810 tonnes. Accordingly, the average global TAC for each of the 2010 and 2011 fishing seasons was set at 9,449 tonnes.</p>
<b>Management Plan:</b>	<p>The <i>SBT Management Plan 1995</i> (as amended) is in place and was reviewed in 2008 to ensure reflection of current fishing practices and best risk management strategies.</p> <p>The <i>SBT Management Plan 1995</i> is the instrument through which Australia implements the resolutions of CCSBT in the domestic fishery.</p>
<b>Management Method:</b>	<p>Output controls comprising Individual Transferable Quotas (ITQs). National catch allocations for member countries were determined and set by the CCSBT at its October 2009 meeting. Australia received a combined allocation for the 2010 and 2011 seasons of 8030t. The AFMA Commission met on 30 October 2009 and agreed to set a single TAC of 8,030 tonnes for the 2010 and 2011 seasons, of which a maximum of 5,265 tonnes can be taken in the first year. This represents a 23.7 % reduction on the previous season's total allowable catch reflecting CCSBT catch allocations.</p>
<b>International Management:</b>	<p>CCSBT member countries are engaged in a Scientific Research Program (SRP). The core components of SRP are catch characterisation, CPUE standardisation, scientific observers and conventional tagging. Member countries are continuing efforts to ensure membership of the Commission includes all countries that catch SBT in significant quantities.</p> <p>In October 2009 the CCSBT reduced the average global TAC for each of the 2010 and 2011 fishing seasons to 9,449 tonnes. CCSBT also decided that it would work toward implementing a management procedure (MP) in 2011 as the basis for TAC setting in 2012 and beyond.</p>
<b>Bycatch Action</b>	<p>The <i>Southern Bluefin Tuna Fishery Management Plan 1995</i> states that AFMA must implement a Bycatch Action Plan/s for the SBTF.</p>

<p><b>Plan:</b></p>	<p>For the purse seine sector of the SBT AFMA will be utilising the Ecological Risk Management (ERM) report to implement the Management Plan requirement for Bycatch Action Plan/s. The ERM report details the species that have been classified through the Ecological Risk Assessment (ERA) process as being at ecological risk to the effects of fishing and the strategies AFMA will be taking to manage these risks. A separate bycatch and discarding workplan has been developed for all Australian pelagic longline fisheries which will apply to longlining for SBT.</p>
<p><b>Major management issues over the next 12 months:</b></p>	<p>AFMA will be working with DAFF, SBTMAC, industry and relevant suppliers to deliver the 10 % commercial trial of stereo video in 2011 season as agreed by CCSBT in 2009. This will include amendments to the <i>Southern Bluefin Tuna (SBT) Fishery Management Plan 1995</i> to remove the prescribed procedures for undertaking a verified count (section 22B.2) and to allow AFMA to prescribe the verified count procedures in a notice which may be varied from time to time. This will allow AFMA the flexibility to investigate the use of stereo video cameras or other new technologies to complement or replace the 40 fish sample and meet recommendation 2 of the wildlife trade operation to investigate technology for improving catch monitoring procedures.</p> <p>A review of the recently introduced CCSBT Catch Documentation Scheme is also scheduled to ensure the new arrangements match logistical realities of the fishery and compliance with the new system is maximized.</p>

### **1.1 Target and byproduct species**

The Southern Bluefin Tuna Management Plan 1995 (SBT Plan), establishes a framework for management of Australia’s domestic Southern Bluefin Tuna fishery.

The SBT Plan does not allow for the take of any species other than SBT. If an SBT SFR holder incidentally captures another species when fishing for SBT, they must hold the relevant concession that permits the take of that species.

### **1.2 Management arrangements**

The SBT is managed under the *Fisheries Management Act 1991* and the *Southern Bluefin Tuna Fishery Management Plan 1995*. These legislative instruments have a supporting framework of regulations, SFR conditions, fishing permits and directions.

In summary the SBTF is managed by the use of output controls. These take the form of individually transferable quotas allocated as SFRs under the plan. Each season AFMA determines a national catch allocation for the Australian domestic SBT fishery, operators are entitled to a share of this national allocation based on their SFR holding and they catch against these holdings.

Operators catch against these holdings is monitored through a series of logbooks and catch disposal documents and a paper trail of fish receivers and fishers. These records are provided to AFMA within legislative timeframes to enable AFMA to monitor catch against quota holdings.

The management mechanisms within the Plan and supporting legislative instruments are summarised in the following table.

**Table 1. The structure of the SBTF Management Plan**

Management Plan	Supporting instruments
<ul style="list-style-type: none"> <li>• Bycatch Action Plan requirements</li> <li>• Research plan requirements</li> <li>• Data plan requirements</li> <li>• Bycatch observer programme requirements</li> <li>• Catch monitoring requirements</li> <li>• Fisheries assessment plan requirements</li> <li>• Granting of SFRs</li> <li>• Requirement to have VMS</li> <li>• Quantity of fish that may be taken</li> <li>• Requirement to carry observers</li> <li>• Boat nomination</li> <li>• Determination of national catch allocation and actual live weight calculations</li> <li>• Obligations on holders of SFRs               <ul style="list-style-type: none"> <li>- to minimise bycatch</li> <li>- carriage of observers</li> <li>- requirement to comply with regulations and fisheries assessment plan.</li> <li>- requirement to provide information</li> <li>- monitoring arrangements for verified count</li> </ul> </li> <li>• Transferring of fishing rights</li> <li>• Obligations of permit holders</li> <li>• Obligations relating to interaction with certain species and marine organisms</li> <li>• Power to make directions</li> <li>• Requirements when transferring a SFR</li> </ul>	<p><b>Regulations</b></p> <ul style="list-style-type: none"> <li>• Sets the season for the fishery</li> <li>• Requirements for disposal of SBT to Ranching operations</li> <li>• Details of the SFR register</li> <li>• Conversion factor</li> </ul> <p><b>Directions</b></p> <ul style="list-style-type: none"> <li>• None</li> </ul> <p><b>Conditions of SFRs</b></p> <p>carrier boat requirements including</p> <ul style="list-style-type: none"> <li>- reporting requirement for tow pontoons</li> <li>- -VMS requirements</li> <li>- Pre departure reports and daily reporting requirements</li> <li>- CDS requirements</li> </ul>

### **1.3 International context**

SBT is a highly migratory species fished throughout its range. Japan, Australia, New Zealand, the Republic of Korea, the Fishing Entity of Taiwan, South Africa and Indonesia account for the large majority of the catch.

In the mid 1980s it was apparent that the SBT stock was at risk and management and conservation was required. From 1985 the three main nations fishing for SBT, Japan, Australia and New Zealand, began to apply quotas as a management and conservation measure. In 1994, these voluntary arrangements were formalised with the signing of the Convention for the Conservation of Southern Bluefin Tuna (CCSBT). Since then the CCSBT has managed the fishery internationally. Australia is a founding member of the CCSBT and is active in this Regional Fishery Management Organisation (RFMO). Australia's international obligations under the Convention are implemented through the *Southern Bluefin Tuna Management plan 1995*.

The CCSBT's objective is to ensure, through appropriate management, the conservation and optimum utilisation of the global SBT Fishery. In pursuit of this objective the CCSBT performs a number of functions. It:

- is responsible for setting a total allowable catch and its allocation among the members;
- considers regulatory measures to meet Convention objectives;
- coordinates a scientific research program aimed at providing information to support the CCSBT's management objectives (the program is a mixture of member managed activities and activities managed directly by the CCSBT Secretariat);
- takes decisions to support and implement fishery management;
- provides a forum for the discussion of issues relevant to the conservation objectives of the Convention;
- acts as a coordination mechanism for members' activities in relation to the SBT Fishery;
- fosters activities directed towards the conservation of ecologically related species (living marine species which are associated with the SBT Fishery) and bycatch species;
- encourages non members engaged in the fishery to join or participate as observers in Commission activities; and
- cooperates and liaises with other regional tuna fishery management organizations in areas of mutual interest.

When the Convention came into force in May 1994, CCSBT set a TAC of 11 750 tonnes, with national allocations of 6,065 tonnes, 5,265 tonnes and 420 tonnes to Japan, Australia and New Zealand respectively. For the period 1997 to 2003, there was an inability within the CCSBT to agree on a TAC or national quotas, and in the absence of a decision by

CCSBT to set a TAC, Australia and New Zealand maintained their catches at the pre-agreed levels. However, Japan sought a quota increase, either as an additional commercial catch, or an ‘experimental fishing program’ (EFP), or a combination of these.

Australia and New Zealand opposed any increase, and no agreement was reached despite numerous and extensive meetings. In 1998, Japan undertook an EFP without CCSBT endorsement, and increased its total catch to 7,052 tonnes. In 1999, Japan again proceeded unilaterally to increase its quota through an EFP, and increased its total catch of 7,552 tonnes. Australia and New Zealand took legal action against Japan through the international legal system including the International Tribunal on the Law of the Sea (ITLOS) on this issue. The Republic of Korea became a member in 2001 and in 2002 Taiwan became a member of an extended Commission (as the Fishing Entity of Taiwan).

In September 2005 Australia formally raised concerns about information suggesting that sales of SBT in Japanese markets over many years had far exceeded those expected from the reported global catch. At the Commission meeting later that year the CCSBT agreed to undertake an independent review of the Japanese market data. By July 2006 it was clear that there had been significant levels of unreported catch over at least 20 years. Estimates of the total amount of unreported catch were as high as 178,000 t<sup>1</sup>. In October 2006 CCSBT reduced the global international TAC for participating nations of the Commission to 11,500 tonnes per annum. CCSBT agreed to cut Japan’s national allocation to 3000 t (previously 6065t) for five years (2007-2011). The TAC reduction was aimed at stabilising the SBT stock while a new stock assessment taking account of the over-catch and related uncertainties was undertaken. Indonesia, a significant catching nation and as noted below the location of the only known SBT spawning grounds, became a full member of the Extended Commission on 8 April 2008.

In October 2009 the CCSBT reduced the average global TAC for each of the 2010 and 2011 fishing seasons to 9,449 tonnes. In addition to the reduced TAC, the CCSBT decided that it would work toward implementing a management procedure (MP) in 2011 and that the MP would be the basis for TAC setting in 2012 and beyond.

## **1.4 Fishing methods**

Australian operators predominantly use purse seine nets to target surface schools of pelagic fish such as SBT and skipjack tuna. Fish are often located with fish-spotting aircraft, or from a crow’s-nest aboard a purse seine or pole vessel. At times, support vessels assist in maintaining schools at the surface while the purse seiner sets its net around the school. Because specific schools of fish are targeted, the purse seine method is generally size and species selective. Minimal habitat impacts occur during tuna purse seine operations, as contact with the substrate is very rare.

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<sup>1</sup> Larcombe, J. and McLoughlin, K. (eds) (2007) Fishery status reports 2006: status of fish stocks managed by the Australian Government. Bureau of Rural Sciences, Canberra.

A purse seine operation begins by shooting the bunt end of the net from the stern of the vessel by either attaching a large dan buoy or by using a skiff. The vessel then encircles the school of fish and recovers the first end of the net. The purse line that runs through purse rings attached to the footrope of the net is winched in, enclosing the bottom of the net. A proportion of the net is hauled back onto the vessel with the use of a power block to concentrate the fish into a smaller area beside the vessel. The fish are then transferred to an adjacent towing pontoon which is subsequently towed back to the sea pontoons off Port Lincoln. These SBT are then grown out and harvested largely for the sashimi tuna market in Japan. Approximately 96% of Australia's total catch of SBT is taken by purse seiners operating in conjunction with the SBT farming sector. Figure 1 shows the purse seining process.

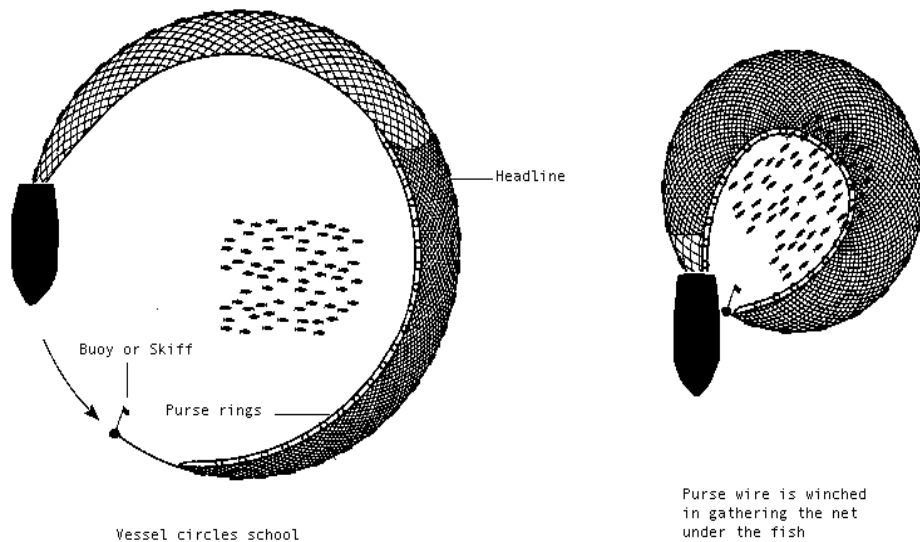


Fig 1 – Purse seine method

SBT are also partly taken incidentally by pelagic longline vessels operating in the Eastern Tuna and Billfish Fishery (ETBF) and the Western Tuna and Billfish Fishery (WTBF). The catch taken by the pelagic longline sector represents approximately 4% of the total catch by Australia. In 2009 some fish were taken by poling and purse seine on the east coast.

## 1.5 Fishing areas

Internationally, Southern Bluefin Tuna (SBT) has been fished throughout its range by 20 nations although Japan, Australia, New Zealand, Taiwan, Korea, South Africa, the Philippines and Indonesia account for the majority of catches.

The Australian SBTF encompasses SBT fishing operations inside the Australian Fishing Zone (AFZ) (ie 200 nautical miles around Australia) and on the high seas. Under an Offshore Constitutional Settlement (OCS) agreement has been reached which gives AFMA jurisdictional management over SBT in all waters inside the AFZ except in New South Wales state waters. In New South Wales, the State Government has banned the take of SBT inside three nautical miles.

Around 96% of the SBT taken by Australian operators are caught in the Great Australian Bight by purse seiners servicing the tuna ranching operations in Port Lincoln. The remainder of the catch is partly taken incidentally by pelagic longline vessels operating in the Eastern Tuna and Billfish Fishery (ETBF) and to a lesser extent, the Western Tuna and Billfish Fishery (WTBF). However in 2009 there was some small amount of purse seine take of SBT on the east coast. Figure 2 shows the general movement patterns of SBT.

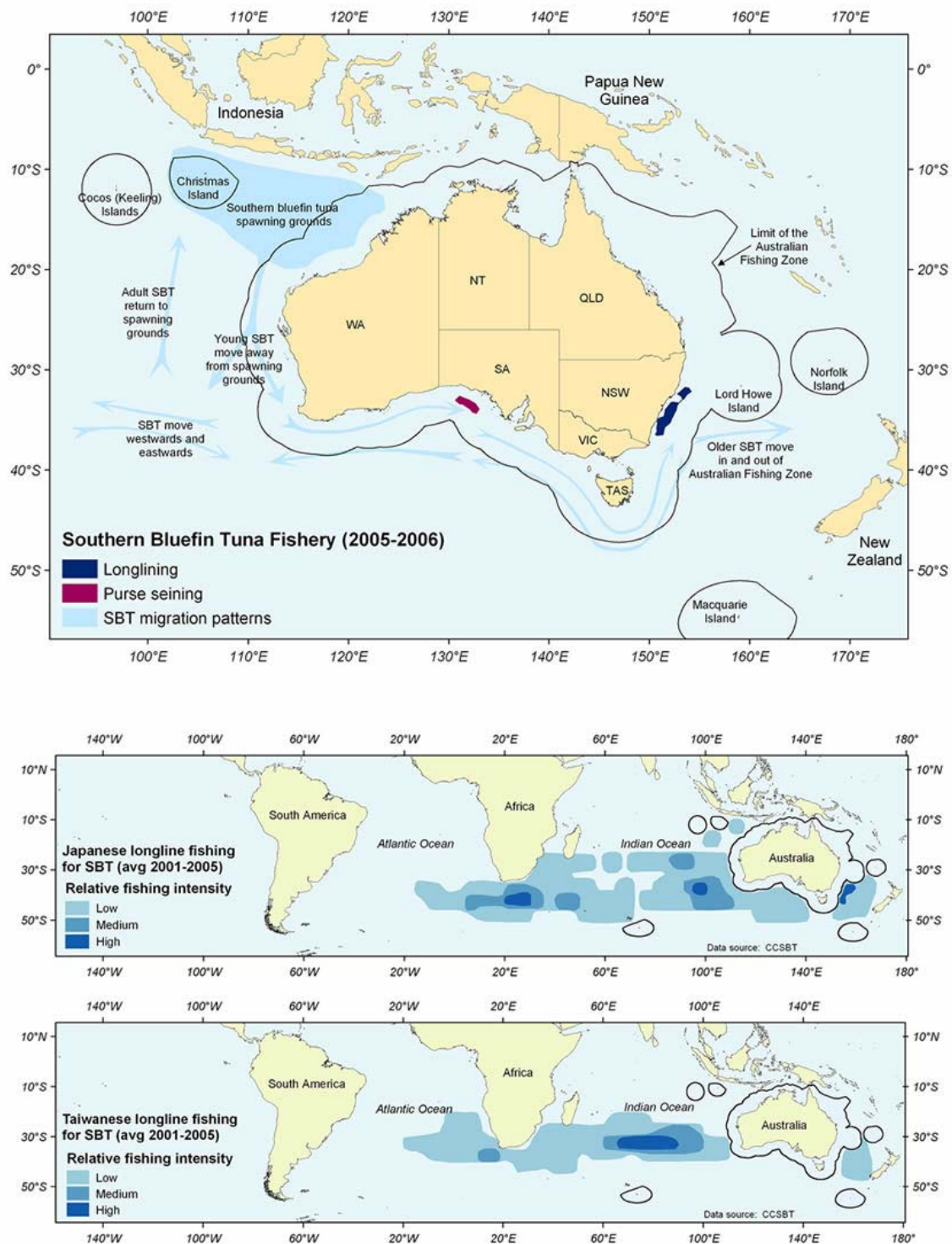


Figure 2: Map depicting the general movement patterns of SBT and main Australian fishing grounds<sup>2</sup>

<sup>2</sup> Larcombe, J. and McLoughlin, K. (eds) (2007) Fishery status reports 2006: status of fish stocks managed by the Australian Government. Bureau of Rural Sciences, Canberra.

## **1.6 Allocation between sectors**

There is no allocation between sectors in the SBTF. SFR holders can choose to take their share of the total allowable catch by purse seine, longline or any of the minor line (trolling, polling, rod and reel or hand line) fishing methods. All commercial take of SBT is required to be covered by quota.

The management of recreational fishing is the responsibility of State governments. While recreational take of SBT is known to occur, there is insufficient data to quantify the total level of catches by this sector in recent years. Indicative estimates submitted to CCSBT<sup>3</sup> by Australia are provided below:

<b>Year</b>	<b>Recreational Catch (t)</b>
1994	16
1995	1997 insufficient data
1998	38
1999	3
2000	10
2001	60
2002	85
2003-2008	insufficient data

## **1.7 Governing legislation/fishing authority**

The SBTF is managed under the *Fisheries Management Act 1991* and the *Southern Bluefin Tuna Management Plan 1995* with operators granted access to the fishery through the issue of statutory fishing rights. Australian commitments and obligations under the CCSBT are implemented through the *Southern Bluefin Tuna Management Plan 1995*.

## **1.8 Status of export approval under the Environment Protection and Biodiversity Conservation Act 1999**

The SBTF was previously assessed and accredited for the purposes of Part 10, 13 and 13 A of the EPBC Act. This accreditation took effect on 21 February 2008 and the accreditation under Part 13A will expire on 25 June 2010. This accreditation was subject to number of recommendations the outcomes of which are discussed in **Attachment A**.

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<sup>3</sup> Hobsbawn, P. I., Phillips, J., Andersen, J. and Begg, G. (2009). Australia's annual review of the southern bluefin tuna fishery. Bureau of Rural Sciences. CCSBT-EC/0910/SBT

## **2. Socio-economic environment**

### **2.1 Value of the fishery**

Approximate AUD values for the SBT fishery (financial years) were: 2006/07 \$42.4 million, 2007/08 \$44.6 million, 2008/09 \$45.3 million. Total Gross Value of Production including the value added by ranching, was (calendar years) 2007 \$142.3million and 2008 \$186.7million respectively.

### **2.2 Economic assessment**

The ABARE Fishery Economic Status Report brings together available indicators of the economic performance of each of the diverse fisheries managed by the Australian Fisheries Management Authority including the SBTF. A copy of the report is available at [http://www.abareconomics.com/publications\\_html/fisheries/fisheries\\_07/fishstatus.pdf](http://www.abareconomics.com/publications_html/fisheries/fisheries_07/fishstatus.pdf)

### **2.3 Quality assurance and control**

Australian seafood destined for export is subject to Commonwealth regulation under the *Export Control Act 1982* and Export Control (processed food) Orders to ensure compliance with food safety and trade description requirements. All land based processing establishments and vessels which process on board are required to be registered by the Australian Quarantine and Inspection Service (AQIS).

## **3. Management**

### **3.1 Changes to management**

In setting the TAC for the 2010 and 2011 seasons the AFMA Commission recognised that the reduction in the global SBT TAC came at a time when planning for the 09/10 Australian SBT fishing season was well advanced and as such the setting of a two year TAC would provide flexibility for individual business to adjust their fishing arrangements.

In order to give effect to the TAC decision AFMA made the following legislative changes:

- amending the *Fisheries Management (Southern Bluefin Tuna Fishery) Regulations 1995* to set the next fishing season as the period from 1 December 2009 to 30 November 2011;
- amending sub-section 18.3 of the SBTF Plan using a Temporary Order to stipulate that on or before 1 December 2009, AFMA must calculate the actual live weight value for the season and specify in a public notice the details of the TAC for Australia, the total number of SFR's and the actual live weight value of an SFR; and

- using a Temporary Order to provide a mechanism for AFMA to release the quota in two installments during the two year season to ensure that catch in the first year does not exceed 5,265 tonnes.

In keeping with AFMA's obligations under Condition 2 of the Wildlife Trade Operation declaration for the SBTF, DEWHA was informed of the proposed changes on 5 November 2009. DEWHA advised in writing on 18 November 2009 that they considered the decisions were based on the best available science and appropriate consultation with relevant stakeholders, to bring into effect Australia's reduced allocation for the next two years and accordingly did not require a reassessment of the fishery under the *Environment Protection and Biodiversity Conservation ACT 1999*.

### **3.2 Performance of the fishery against objectives, performance indicators and performance measures**

A statement of the performance of the SBTF against its objectives, performance indicators and performance measures is made annually in AFMA's Annual Report. A copy of the current statement can be found at: <http://www.afma.gov.au/information/publications/corporate/annual/default.htm>

### **3.3 Compliance risks present in the fishery and actions taken to reduce these risks**

#### **Compliance risks**

AFMA has adopted a risk based compliance approach that enables AFMA to target compliance and enforcement activity in areas most needed and therefore most effectively use AFMA's resources. It involves a series of steps to identify and assess non-compliance risks and then apply tailored compliance measures to control these risks.

The Plan and associated legislation outline measures which ensure there is a high level of compliance with management arrangements for the SBTF. The measures in place to monitor compliance with arrangements include:

- the requirement to carry an Integrated Computerised Vessel Monitoring System (ICVMS), which enables monitoring of the movement of vessels within the fishery. Information provided through the ICVMS includes the vessel's location, course and speed;
- the observers on board aim to cover at least 10 per cent of catch in line with the CCSBT requirement which allows for monitoring and recording of all the observed catch by an independent person. Observers are also able to monitor an operator's compliance with management arrangements and interaction with bycatch and protected species, in particular environmental management measures;

- a formal process through which observers may raise any compliance related issues with the master of the vessel to ensure operators are aware of and comply with management measures;
- provisional at sea estimates and bounds on under or overestimates in case of a serious incident during towing;
- detailed verification and count requirements for transfer of SBT between purse seine, tow and growout pontoons to ensure compliance with quotas;
- requirement to complete Catch Documentation Record (CDR) and Catch documentation Scheme (CDS) paperwork for SBT product;
- completion of shot-by-shot daily logbooks and provision of that data to AFMA and relevant researchers;
- at sea and in port inspection by fisheries compliance officers; and
- audit based systems including reconciliation of catch, sales and export statistics by company.

The issue of whether or not there is or is not bias in the current SBT 40 fish sampling monitoring process remains unresolved. Potential improvements in this process are being pursued through the development of stereo video technology. At the 16<sup>th</sup> meeting CCSBT, in October 2009, it was agreed that Australia would commence a ten per cent commercial trial of stereo video by the 2011 season. AFMA is currently preparing a call for proposals to source appropriate stereo video equipment to deliver the trial. AFMA is also developing procedures and updating relevant legislation to facilitate the trial. If the trial proves successful, Australia has committed at CCSBT to full commercial implementation of stereo video in the following season.

### **3.4 Consultation processes**

The Southern Bluefin Tuna Management Advisory Committee (SBTMAC) is the key advisory committee for management of the domestic SBT fishery. The SBTMAC membership is drawn from AFMA (1), scientific agencies (1), a conservation NGO (1), and industry (4). Representatives from the pelagic longline sector, State Fisheries agencies and the recreational/charter fishing sector attend meetings as permanent observers. SBTMAC membership is about to expire, and membership will be renewed through a public call for expression of interest.

The Scientific Committee of CCSBT is the key scientific assessment group for the SBTF and includes representation from member countries of the Commission and nominated scientists including CSIRO, BRS and other expertise-based scientists. Representatives from the fishing industry and fisheries management also attend Scientific Committee meetings. This committee provides advice to the Commission regarding SBT stocks and the global annual catch of SBT. Australia's SBT research sub-committee generally meets only when there is a need to review decisions in a domestic context.

The CCSBT holds its annual meeting in October to agree management measures and members' national allocations. In normal circumstances this would occur before the Australian fishing season (1 December – 30 November) commences. This information is then provided to the AFMA Commission. The AFMA Commission then considers the CCSBT allocation for the domestic fishery, and sets a live weight value for SFRs allocated to the domestic fishery together with other relevant factors such as the Commonwealth Harvest Strategy Policy and advice on status of the stocks. Under the terms of the *Southern Bluefin Tuna Management Plan 1995*, AFMA may set catch limits at a level lower than that set by CCSBT if this is deemed necessary, but cannot exceed the national allocation from the CCSBT.

### **3.5 Description of cross-jurisdictional management arrangements**

The Australian SBTf encompasses SBT fishing operations inside the AFZ and on the high seas. Under an Offshore Constitutional Settlement (OCS) agreement has been reached which gives the Commonwealth jurisdictional management over SBT in all waters inside the AFZ except in New South Wales state waters. In New South Wales, the State Government has banned the take of SBT inside three nautical miles.

### **3.6 Compliance with threat abatement plans, recovery plans and domestic and international agreements**

The SBT Plan and supporting instruments have been drafted to take account of relevant international and national plans and agreements and ensure that the fishery is compliant. Reports from the AFMA observer program and logbook information together with other intelligence are used to gauge the fishery's compliance with management measures.

## **4. Research and monitoring**

### **4.1 Research**

AFMA calls annually for research applications to address research priorities and gaps in knowledge, as identified in the AFMA Five Year Strategic Research Plan. The SBTMAC Research Sub Committee, SBTMAC and the Commonwealth Fisheries Research Advisory Board (ComFRAB) assess these applications for funding from the AFMA Research Fund, Fisheries Research and Development Corporation (FRDC), and Fisheries Resources Research Fund (FRRF). Additionally projects are also funded from other sources such as industry or CCSBT.

### **4.2 Monitoring programs used to gather information on the fishery**

A comprehensive information and data collection system is in place to ascertain the status of fish stocks in the SBTf. Due to the global SBT management arrangements that are in place, Australia has international research and data reporting obligations through CCSBT.

As part of the international research effort under the CCSBT, the information collection systems in place in Australia that contribute to international and domestic SBT data collection and monitoring obligations include:

### **Scientific surveys - currently funded**

- i) the GAB aerial survey project – managed by CSIRO
- ii) the Archiving of hard parts for routine ageing and developing age-length keys for the Australian SBT surface fishery 2010/11 – managed by CSIRO
- iii) A method for estimating the absolute spawning stock size of SBT, using close-kin genetics – managed by CSIRO
- iv) Intersessional supporting science to CCSBT scientific Committees
- v) Migration paths of juvenile SBT in WA – managed by CSIRO and Japan

### **Daily Fishing Logs**

A number of log books are used in the SBTF. The data collected on these logs includes:

- |  |   |
|--|---|
| <input type="checkbox"/> Boat/gear details                       | <input type="checkbox"/> Net/Pole details                             |
| <input type="checkbox"/> Vessel masters details                  | <input type="checkbox"/> Fishing details (inc. temp, lat/longs, time) |
| <input type="checkbox"/> Bait types                              | <input type="checkbox"/> Search details                               |
| <input type="checkbox"/> Estimated catch weight per shot         | <input type="checkbox"/> Towing details                               |
| <input type="checkbox"/> Wildlife Interactions                   | <input type="checkbox"/> Concession holder declaration                |
| <input type="checkbox"/> Carrier boat details                    | <input type="checkbox"/> Fishing method                               |
| <input type="checkbox"/> Catcher to tow pontoon transfer details | <input type="checkbox"/> Area fished                                  |
| <input type="checkbox"/> Estimate of fish weight                 | <input type="checkbox"/> Record of all SBT mortalities                |
| <input type="checkbox"/> Declaration confirming accuracy of data |   |

The Farm Transit Log is completed by the holder of the SBT carrier boat permit or representative, and provided to the monitoring company which undertakes the fish count when fish are transferred from tow pontoons to ranching pontoons. The Australian Pelagic Longline Daily Fishing Log (AL06) is required to be completed by fishers when using pelagic longlining or when fishing with minor line methods. The Australian Purse Seine and Pole Daily Fishing Log (TPB03) is completed by the master of the purse seine vessel and is used for ranched SBT only. The Farm Transit Log (SBT03B) is completed by the holder of the SBT carrier boat permit or representative, and provided to the monitoring company which undertakes the fish count when fish are transferred from tow pontoons to ranching pontoons. All mortalities that occur during the capture and towing operations must be recorded on the appropriate forms and must be available for inspection if requested by an AFMA officer.

## **Catch Disposal Records - longline**

Catch disposal records for SBT were introduced in September 1985. The recording details have since been modified to reflect changes in the nature of the SBT industry. Catch disposal records (or CR4) are for recording SBT taken by fishers for purposes other than ranching and are signed by the fishing concession holder and the first fish receiver immediately after unloading the catch. Catch disposal records also provide a means to verify logbook data. A copy of the completed catch disposal form must be submitted to AFMA within 24 hours of dispatch of a consignment from the place of unloading.

## **Catch Disposal Records – Farmed fish**

Catcher boats must complete the Southern Bluefin Tuna Fishery Farm Catch Disposal Record – Purse Seine Boat (SBT02). This form is designed to meet the requirement that operators provide a catch estimate at the start of the tow operation.

In the case of farming operations when SBT are transferred from tow pontoons to the ranching pontoons, a video record must be carried out by the AFMA contracted monitoring company. The video recording is then used to undertake a count of the fish that are transferred into the ranching pontoons. This count of captured fish will be multiplied by the average fish weight (derived from a 40 fish sample all of which must be 10 kg or over) and decremented from quota using the Farm Disposal Record (SBT04).

## **Catch Documentation Scheme**

In 2008 CCSBT adopted a resolution instituting a catch documentation scheme (CDS). The resolution came into force as of 1 January 2010. The CDS replaced the export based Trade Information Scheme (TIS). The aim of the CDS is to prevent SBT caught by illegal, unregulated and unreported (IUU) means from entering the market.

The CDS applies to all SBT domestically sold or exported. Under the CDS, each whole fish will need to be tagged, weighed and measured, and have the correct accompanying documentation. From 1 January 2010 no SBT can be sent for domestic sale, export or accepted for import, without the correct accompanying CDS documentation. Copies of all documents issued and received will be provided to the CCSBT Secretariat on a quarterly basis for compiling to an electronic database, analysis, identification of discrepancies, reconciliation and reporting.

## **Hatchery SBT Product**

It is possible that hatchery bred SBT may start to be sold in 2010. DAFF and AFMA are currently considering options to take account of hatchery bred SBT.

### **4.3 Observer program**

An independent observer program has been in place in the purse seine sector since 2002/03. The program aims to meet all domestic observer requirements and the CCSBT requirement to observe at least 10 percent of the catch of both purse seine and longline sectors. The principal objectives of the observer program are to:

- Monitor and record the day-to-day fishing operations;
- Observe, record and report catch, effort, bycatch and fate of purse seine caught SBT including monitoring tow operations;
- Collect information on the vessel details including search gear and methods, and fishing gear;
- Collect biological data from fishing operations; and
- Record all interactions and sightings of marine mammals, cetaceans and birds.

## **5. Catch data**

### **5.1 Total catch of target species**

The total catch of SBT by the Australian farm sector in the 2008 – 09 SBT season was 5,014,893kg. This was taken by 7 vessels utilizing the purse seine method.

### **5.2 Total catch of target species taken in other fisheries**

A total of 227,025kg of SBT was taken by pelagic longline in the 2008-09 SBT season by 23 vessels operating in the Eastern Tuna and Billfish Fishery. No catch of SBT was recorded in the Western Tuna and Billfish Fishery.

### **5.3 Total catch of target, byproduct and bycatch species**

Logbook data, observer data and anecdotal evidence from industry outline that the purse seine method of fishing, in the area currently fished, is a relatively clean and targeted technique that results in limited byproduct or bycatch. Historical logbook records detail interactions with mako and hammerhead sharks. The only bycatch of other fish species recorded in SBT logbooks and in the observer data are small quantities of skipjack tuna.

### **5.4 Observer data**

Details of observer activities over the life of the program are included in the following table.

**Observer program details**

<b>Year</b>	<b>Sector</b>	<b>Sea days</b>	<b>Sets/tows observer</b>	<b>Observed effort (%units)</b>	<b>Observer Catch (%)</b>
2002-03	Purse Seine	47	24	11% (sets)	11% (est total weight)
2002-03	towing	19	1	2.6% (tows)	(included above)
2002	long line	323	198	14.4% (hooks)	35.5% (no. retained catch)
2003-04	Purse seine	27	21	13% (sets)	12.8% (est total weight)
2003-04	towing	30	2	5.6% (tows)	Included above
2003	long line	242	168	14.9% (hooks)	55.2% (no retained catch)
2004-05	Purse seine	36	15	11.2% (sets)	8.5% (est total weight)
2004-05	towing	24	2	5.7% (tows)	Included above
2004	long line		68	11.7% (hooks)	5.4% (no retained catch)
2005-06	Purse seine	47	14	9.2% (sets)	10.1% (est total weight)
2005	long line		128	37.5% (hooks)	62.8 % (no retained catch)
2006-07	Purse seine	50	9	5.6% 9sets)	12.1% (est total weight)
2006-07	towing	41	2	6.5%	
2006	long line		138	22.1% (hooks)	88.9% (no. retained catch)
2007-08	Purse	19	16	11.8	5.6% (est total

Year	Sector	Sea days	Sets/tows observer	Observed effort (%units)	Observer Catch (%)
	seine			%(sets)	weight)
2007-08	towing	38	2	6.0% (tows)	Included above
2007	long line		156	30.2% (hooks)	23.2% (no. retained catch)
2008-09	Purse seine	27	11	7.9 %(sets)	15.3% (est total weight)
2008-09	towing	15	1	3.2%	Included above
2008	long line		676	47.9% (hooks)	34% (no. retained catch)
2009-10	Purse seine and long line	In progress at time of reporting			

**Observed bycatch data from the SBTF. The data is pooled for all years 2003-2008 in line with confidentiality obligations.**

Species	Amount	Comments
Shearwater (unidentified sp.)	2	One found floating dead on water, one entangled in the net and released alive.
Storm petrel	1	flew into vessel and died
Yellow-nosed albatross	1	hooked, freed itself, released alive
Mako shark	1	released alive
Hammerhead shark	1	released alive
Australian Sea Lion	3	Three seals chasing/diving for skipjack
	2	Two seals interacting lightly with net
Skipjack Tuna	3,325 kg	
Leatherjackets	206 kg	
Albacore tuna	14 individuals	released alive

## **5.5 Spatial issues/trends**

The vast majority (96%) of the SBT TAC continues to be taken by the purse seine sector in the Great Australian Bight for subsequent grow out by the farming sector. In recent years the remainder of the catch has been taken mainly by pelagic longline vessels operating in the Eastern Tuna and Billfish Fishery (ETBF) although in 2008/09, some was also caught by purse seine on the east coast.

During the winter months when SBT are present off the east coast of Australia, AFMA institutes restricted access zones to ensure that all incidental catch of SBT by pelagic longliners operating in the ETBF can be covered by quota. These arrangements include the institution of 'core' and 'buffer' zones which are established based upon the outputs of the CSIRO SBT Habitat Preference Model and additional information from industry and various other sources. In order to access these areas, ETBF operators are subject to minimum quota holding requirements (equivalent to 500kg live weight) and high levels of observer coverage. In the 2008-09 SBT fishing season 23 ETBF vessels operated in the zones taking a total catch of 227 tonnes of SBT.

## **5.6 Purse seine Effort data**

<b>Season</b>	<b>Estimated Kgs/log catch</b>	<b>Actual catch/ landing catch</b>	<b>No of Boats</b>	<b>Vessel search hours</b>	<b>No. Sets</b>
2008 - 2009	4,377,206	5,014,893	7	2,640	139

## **6. Status of target stock**

### **6.1 Resource concerns**

At its Sixteenth annual meeting in 2009, the CCSBT agreed that the status of the Southern Bluefin Tuna (SBT) stock was of concern and that a meaningful reduction in the total allowable catch (TAC) was necessary in order to recover the stock and work toward reaching an interim rebuilding target reference point of 20% of the original spawning stock. Consequently, the CCSBT reduced the SBT global total allowable catch (TAC) for 2010 and 2011 to an average level over the two years of 80% of the previously allocated global TAC of 11,810 tonnes. Accordingly, the average global TAC for each of the 2010 and 2011 fishing seasons was set at 9,449 tonnes. Australia received a combined allocation for the 2010 and 2011 seasons of 8,030t. The AFMA Commission met on 30 October 2009 and agreed to set a single Total Allowable Catch (TAC) of 8,030 tonnes for the 2010 and 2011 seasons, of which a maximum of 5,265 tonnes can be taken in the first year.

A full report of the Sixteenth annual meeting of the CCSBT is available at [http://www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_16/report\\_of\\_CCSBT16.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_16/report_of_CCSBT16.pdf)

## **6.2 Stock assessments and recovery strategies**

The following text is taken from the CCSBT scientific committee report and summarizes outcomes from the 2009 scientific assessment group meeting and provides an understanding of the stock status based on comprehensive scenario modeling:

- During 2009, the SBT operating model used in 2008 was revised and run under a number of scenarios to project future stock status under different constant annual catches. The scenarios all indicated that the spawning stock biomass remains at a very low level: typically about 5% or less of the original spawning stock biomass.
- Recruitments during the last two decades were estimated to be well below the levels over 1950-1980. Recruitment in the 1990s fluctuated at a low level without any overall trend, but recruitments for 2000 to 2002 were poor. The two following year classes were somewhat stronger, though still below the average 1990s level. Recruitments since 2005 cannot be estimated precisely as yet. Although some data gave positive signals, it remained probable that at least some of these year classes were as weak as in 2000-2002. As the weak year classes in 2000-2002 move into the spawning stock over the next few years, there will be a negative impact on the spawning stock biomass.
- The median projections under the 2007-2009 TAC (of 11810t) for the base case scenario showed a decline in spawning stock biomass in the short term (to 2013), and remain below the current level in the longer term (to at least 2025). The same was true for nearly all of the other plausible scenarios considered. To rebuild the spawning stock and thereby also reduce the risk in the short term of further poor recruitments, a reduction to the 2007-2009 TAC is required.
- The CCSBT Scientific Committee is currently reviewing revised CPUE data from Japan for the most recent catching season. Australia will be using these data to update the operating model accordingly. Outcome from these analyses will be reviewed and discussed at upcoming CCSBT meetings.

While rebuilding of the spawning stock would almost certainly increase sustainable yield, the risks that this rebuilding might be jeopardised by further poor recruitments have probably increased since the last assessment. Because the spawning stock biomass is very low, it may not provide security against adverse environmental effects leading to a few years of poor recruitment. Short-term projections for the spawning stock biomass are relatively reliable because the year classes that will shortly join the spawning stock have already been observed in the fishery. However, longer term projections are more uncertain as they depend on future recruitments whose levels have to be determined by use of an estimated stock-recruitment relationship, and so should be treated with greater caution in terms of their implications for appropriate future catch limits.

## **Management Procedure**

The CCSBT agreed in May 2000 that a procedure should be developed as a set of rules, agreed in advance, to dictate how a Total Allowable Catch for the SBT fishery would be adjusted as data become available. The management procedure (another name for a harvest strategy) would have three components: (1) a list of data as inputs, (2) an algorithm or model to process data and (3) rules to translate the algorithm output into a Total Allowable Catch.

From March 2002 to September 2005, the CCSBT developed an operating model for the SBT fishery, tested several candidate decision rules and finally selected a management procedure for the fishery. However, reviews of SBT data during 2006 suggested that southern bluefin tuna catches may have been substantially under-reported over the previous 10-20 years. The impact of unreported catches on the estimates of past total catch and CPUE meant that it was not possible to proceed with the chosen management procedure, and that the management procedure needed to be re-evaluated.

Work has recommenced on developing a management procedure and it is planned that the management procedure be finalised in 2010 for implementation in 2011 and that it be the basis for TAC setting from 2012 and beyond.

Full details of the latest biomass assessment conducted for SBT can be found in the report of the Fourteenth Meeting of the CCSBT Extended Scientific Committee (ESC 2009) at:

[http://www.ccsbt.org/docs/pdf/meeting\\_reports/ccsbt\\_16/Report\\_of\\_SC14%20-%20Public.pdf](http://www.ccsbt.org/docs/pdf/meeting_reports/ccsbt_16/Report_of_SC14%20-%20Public.pdf)

## **7. Interactions with protected species**

### ***7.1 Frequency and nature of interactions***

There are some protected species listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) that may interact with the tuna purse seine fisheries.

**Marine Turtles** – There are no recorded (logbook or observer) interactions with marine turtles for tuna purse seine operations within the AFZ.

**Seabirds** – While seabirds may commonly be present during tuna purse seine operations, to date there have been few records of interactions. Observer records in the SBT fishery for the years 2003-2008, detail four interactions with seabirds, two of which were fatal. The two fatal observations were of an unidentified shearwater (observed floating dead on the water) and a storm petrel (flew into the boat and died).

**Sharks** – Great white sharks (*Carcharodon carcharias*) are protected in Commonwealth waters under the EPBC Act. They are present in the area of the SBT surface fishery, and

there are anecdotal reports that cite interactions in Commonwealth waters (for example white sharks entering tow pontoons or harassing SBT during transport operations)<sup>4</sup>. To date there have not been any verified reports of great white sharks interacting with either SBT purse seine nets or tow nets.

**Cetaceans and other marine mammals** – There have been no logbook or observer reports of purse seine interactions with cetaceans in the Southern Bluefin Tuna purse seine fishery. There have been some anecdotal reports of seals interacting with tow pontoons and lightly with the purse seine net however to date there have been no observed fatalities or injuries associated with fishing operations. Based on current information the level of marine mammal interaction with Australian tuna purse seine operations is considered low.

## ***7.2 Management action taken to reduce interactions***

Fishers are required to submit detailed reports of each wildlife interaction within 24 hours of the occurrence. Each report must also include a detailed response to the wildlife interaction which must be implemented immediately by the fisher to minimise the likelihood of similar interactions. The reports are submitted by AFMA to the Protected Species Unit at DEWHA.

# **8. Impacts of the fishery on the ecosystem**

## ***8.1 Results of the Ecological Risk Assessments***

A key component in AFMA's move towards Ecosystem Based Fisheries Management (EBFM) has been the undertaking of ecological risk assessments (ERA) for all AFMA-managed fisheries. By assessing the impacts of fishing on all parts of the marine environment, the ERAs encompass an ecosystem-based assessment approach. The ERAs will help to prioritise research, data collection monitoring needs and management actions for fisheries and ensure that they are managed both sustainably and efficiently.

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<sup>4</sup> Environment Australia, 2000b, White Shark (*Carcharodon carcharias*) Recovery Plan, Environment Australia, Canberra.

## Risk Assessment Hierarchy

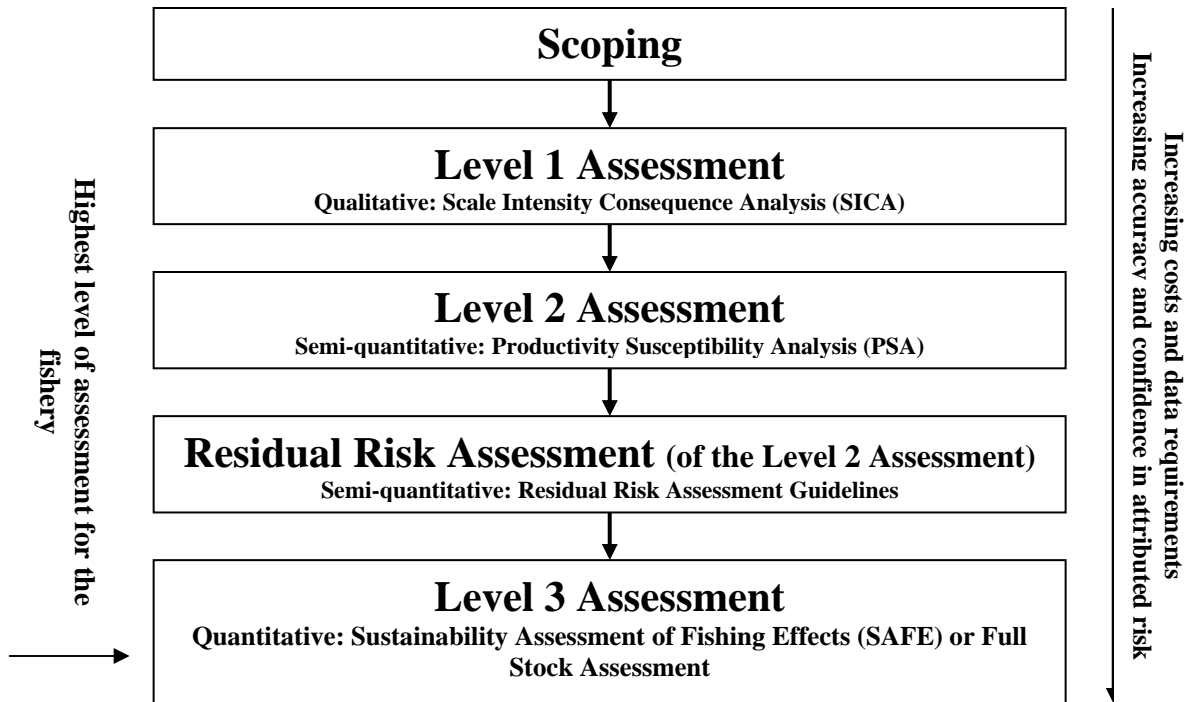


Figure 4: Risk assessment hierarchy

### Level 2 ERA Results

A total of 193 target, byproduct and TEP species in the SBTf were assessed at Level 2 using the PSA analysis. Of these, 3 were assessed to be at high risk, including the target species Southern Bluefin Tuna a bycatch species (Dusky shark) and one TEP species (White Shark). The remaining species were at medium or low risk. A copy of the level 2 SBTf ERA document can be found at **Attachment B**.

### Level 2 ERA Residual Risk Results

Due to the semi-quantitative nature of the risk assessment, the Level 2 PSA results do not directly account for all management measures, resulting in an over-estimation of the actual risk for some species. To better encompass this, the Level 2 PSA analysis has undergone further refinement by applying a set of residual risk guidelines.

In early 2007, the residual risk guidelines were developed in consultation with CSIRO and stakeholders to assist AFMA managers in refining the Level 2 PSA results. They have been developed to maintain the key features of objectivity and consistency from the ERA process, and to ensure a repeatable and transparent assessment process. These guidelines take into account methodology related matters and the most current management arrangements. To assist managers, a clear set of decision rules are outlined that are to be applied to individual species.

For the Southern Bluefin Tuna Purse Seine Fishery, the results from the Level 2 PSA table are used here to determine the residual risk at this level of assessment. Overall three high risk species were assessed of which none remained at high risk after applying the residual risk guidelines. The SBTF Residual Risk document can be found at **Attachment C**.

### **Level 3 Quantitative Assessment results**

AFMA commissioned CSIRO to conduct a comprehensive rapid quantitative assessment (Sustainability Assessment of Fishing Effects SAFE) for all chondrichthyan and teleost species in several Commonwealth Fisheries including the SBTF. The project extended the methodology of the previous level 2 PSA to provide quantitative estimates of risk for a large number of fish species. Classifications of risk were divided into: low, medium, high and extreme high with each category having a corresponding precautionary criterion to take into account uncertainty.

The results of research under this project directly feed into AFMA's Ecological Risk Management (ERM) process. It provides direct measures of risk from direct impacts of fishing for a large number of species from both individual and the cumulative effects resulting from all Commonwealth managed fisheries examined so far. This will more clearly define the level of risk that fishing poses to particular species – and directly facilitate more informed decision making. To avoid being impacted by any possible false negative results from ERA Level 2, CSIRO included not only those species identified at risk but all non-target fish species identified by the ERA process as likely to interact with fishing operations in the SBTF.

The SAFE assessment covered 83 species (6 chondrichthyans and 77 teleosts) in the SBTF and concluded the current fishing intensity imposes low risk to all non-target species assessed in the fishery. It should be noted that SBT were not included in the SAFE assessment of the SBTF as the global TAC for the species is determined, by CCSBT, based on a quantitative stock assessment. The SBT SAFE document can be found at **Attachment D**.

### ***8.2 Nature of impacts on the ecosystem***

The completed Phase II ERA for the fishery details that the method of purse seining is highly species and size selective and further more, although purse seining is an active fishing method, minimal habitat impact occurs as no contact is made with the substrate. Impact on the associated ecosystem was eliminated at phase 1 of the risk assessment process.

### ***8.3 Management action taken to reduce impacts***

The Ecological Risk Assessment (ERA) process was designed to assess and rank the ecological effects of fishing in Commonwealth fisheries. The process provided a list of species, habitats and ecological communities that are at risk of ecological damage from

the effects of fishing. The SBTf Ecological Risk Management (ERM) report provides how AFMA will respond to these high risk environmental components.

The risks that the SBTf poses to the sustainability of the marine ecosystem have been assessed through the application of a progression of risk assessment methodologies as listed below:

- a Level 2 PSA Risk Assessment completed in June 2007;
- a Level 2 PSA Residual Risk assessment completed in August 2009 for all species occurring in the fishery; and
- a rapid quantitative risk assessment completed in April 2009 for teleost and chondrichthyan species.

The results of these risk assessments have been consolidated and there are no species listed as being a priority for management from the ERA process.

The risk assessment identified 182 TEP species occur within the area of the fishery (Level 2 PSA). There have been little to no interactions reported with protected species in the SBT fishery. Of the TEP species; 56 are teleosts, 3 are reptiles, 47 marine mammals, 73 are seabirds and 3 are chondrichthyans. No TEP species were found to be at high risk through the ERA process, however consistent with AFMA's objectives and good fisheries management practices all steps will be taken to minimise interactions between these species and the fishery.

The priority for the ERM is to maintain monitoring of the fishery and respond to any interactions with TEP species that occur. A copy of the the SBTf Ecological Risk Management (ERM) report is available at **Attachment E**.

## **9. Progress in implementation of recommendations and conditions resulting from the previous assessment of the fishery**

### ***9.1 Progress in implementing each recommendation and condition***

Details of AFMA's progress on meeting the recommendations and condition of the previous assessment are detailed in **Attachment A**.

## Attachment A

### Conditions on the Wildlife Trade Operation declaration for the Southern Bluefin Tuna (SBT) fishery

Performance Criteria	Level of achievement as at 2 February 2010	Deadline
<p>Condition 1:</p> <p>Operation of the fishery will be carried out in accordance with the Southern Bluefin Tuna Fishery Management Plan 1995 made under the Fisheries Management Act 1991.</p>	<p>AFMA continues to manage the southern bluefin tuna fishery consistent with the provisions of the Southern Bluefin Tuna Fishery Management Plan 1995.</p>	<p>Achieved.</p>
<p>Condition 2:</p> <p>The Australian Fisheries Management Authority (AFMA) to inform the Department of Environment, Water, Heritage and Arts (DEWHA) of any intended amendments to the management arrangements that may affect the criteria on which EPBC Act decisions are based.</p>	<p>AFMA wrote to DEWHA on 13 October 2009 and again on 5 November 2009 regarding proposed management changes to the Southern Bluefin Tuna Fishery Management Plan 1995 and the Fisheries Management (SBTF) Regulations 1995. DEWHA considered the proposed amendments did not require a reassessment of the fishery under the Environment Protection and Biodiversity ACT 1999. A copy of the relevant correspondence is at Attachment F and G</p>	<p>Achieved.</p>
<p>Condition 3:</p> <p>AFMA to produce and present reports to DEWHA annually as per Appendix B to the Guidelines for the Ecologically Sustainable</p>	<p>AFMA provided a copy of the Southern Bluefin Tuna Annual Status Report 2009 to DEWHA on 27 May 2009.</p>	<p>Achieved</p>

<p>Management of Fisheries – 2<sup>nd</sup> Edition.</p>		
<p>AFMA to take all practical steps to ensure that 100% observer coverage is met during the release process of the trial of the release of live fish.</p>	<p>AFMA officers observed all phases of the 2007-08 live release trial.</p> <p>No releases were conducted in 2008-09.</p>	<p>Achieved.</p>
<p>Within 12 months of the commencement of the trial of the release of live fish, AFMA to review the outcomes and provide a report to DEWHA.</p>	<p>AFMA provided a report to DEWHA on the live release trial conducted at the conclusion of the 2007-08 SBT season.</p> <p>As there have been no further releases no further reports have been prepared.</p>	<p>Achieved.</p>

## Recommendations to the Australian Fisheries Management Authority on the ecologically sustainable management of the harvest of product from the Southern Bluefin Tuna (SBT) fishery

NOTE: Recommendations 1, 3, 4 and 7 are recommendations to the Department of Agriculture, Fisheries and Forestry (DAFF) only, and AFMA is not responsible for the delivery of these. Details of DAFF's progress on meeting recommendations 1, 2, 3, 4 and 7 of the previous assessment are detailed in **Attachment H**.

Performance Criteria	Level of achievement as at 2 February 2010	Deadline
<p>Recommendation 1:</p> <p>The Department of Agriculture, Fisheries and Forestry (DAFF) to continue to pursue Australian Government objectives to incorporate an ecosystem approach to fisheries management and rebuild the SBT stock to ecologically sustainable levels. This is to include working within the CCSBT to:</p> <p>Restore confidence in catch data, including through the collection of fishery independent data;</p> <p>Establish effective monitoring, control and surveillance measures (e.g. Catch Documentation Scheme, International Observer Program, Vessel Monitoring System, transshipment) to ensure compliance with the global total allowable catch and ensure that unreported catches</p>	<p>N/A<sup>5</sup></p>	

<sup>5</sup> See note above

<p>are eliminated;</p> <p>Ensure that total allowable catch levels are sustainable through the continued development of a Management Procedure. In this regard, Australia should advocate a position consistent with the Harvest Strategy Policy;</p> <p>Ensure that decisions regarding the global TAC take into account all take of SBT;</p> <p>Monitor the SBT spawning stock and implement appropriate management measures to ensure protection if required; and</p> <p>Pursue the development of measures to mitigate impacts on ecologically related species.</p>		
<p>Recommendation 2:</p> <p>DAFF and AFMA to continue to investigate appropriate catch monitoring technologies that ensures the highest level of confidence in the estimates of SBT catch in the purse seine sector.</p>	<p>In 2007 and 2008 a number of field trials were undertaken to assess stereo video's ability to monitor southern bluefin tuna transfers. The research indicated that stereo video cameras provide accurate and precise length measurements of SBT during transfers between pontoons and that they were physically robust and suitable for use in a commercial environment. The work identified the need for more work on determination of an acceptable length weight conversion factor for</p>	<p>Ongoing</p>

	<p>estimating SBT weight from stereo video length measurements.</p> <p>At the 16<sup>th</sup> meeting of Commission for the Conservation of Southern Bluefin Tuna (CCSBT) it was agreed that Australia would commence a ten per cent commercial trial of stereo video by the 2011 season. AFMA is currently preparing a call for proposals to source appropriate stereo video equipment to deliver the trial. In addition AFMA is developing procedures and updating relevant legislation to deliver the trial. If the trial proves successful a commitment has been made for full commercial implementation of stereo video in the following season.</p>	
<p>Recommendation 3:</p> <p>Within 2 years, DAFF in conjunction with relevant State governments, to collect data and information on the recreational and charter catches of SBT, and provide relevant information to CCSBT16.</p>	N/A	
<p>Recommendation 4:</p> <p>DAFF to ensure that the management of SBT takes account of all take of SBT, including recreational and</p>	N/A	

charter take within Australia.		
<p>Recommendation 5:</p> <p>AFMA to ensure that the observer program, implemented to meet domestic and international data and management needs, is capable of providing statistically robust information in both the tow and purse seine operations. The observer program should at a minimum provide validation of commercial catch information including:</p> <ul style="list-style-type: none"> <li>- SBT Catch;</li> <li>- SBT mortalities occurring during purse seine fishing operations;</li> <li>- SBT mortalities occurring during tow operations and final transfer into ‘grow out’ cages;</li> <li>- The incidence of high-grading and overcatch;</li> <li>- Interactions with bycatch and protected species.</li> </ul>	<p>Since 2003 AFMA has conducted an observer program in both the pelagic longline and purse seine/farming sectors of the fishery. The principal objectives of the SBT observer program in both sectors are to:</p> <ul style="list-style-type: none"> <li>• Monitor and record the day-to-day fishing operations;</li> <li>• Observe, record and report catch, effort, bycatch and fate of purse seine caught SBT;</li> <li>• Collect information on the vessel details including search gear and methods, and fishing gear;</li> <li>• Collect biological data from fishing operations; and</li> <li>• Record all interactions and sightings of marine mammals, cetaceans and birds.</li> </ul> <p>AFMA has not undertaken direct observation of tow cages.</p>	Ongoing
<p>Recommendation 6:</p> <p>AFMA to monitor interactions with Great White Sharks and implement appropriate management measures to minimize interactions if</p>	<p>AFMA continues to monitor the SBTF for interactions with great white sharks. No interactions with this species have been reported by AFMA observers or in operators daily fishing logs</p>	Achieved.

required.	to date.	
Recommendation 7:  DAFF to ensure DEWHA is kept informed of any significant change in the CCSBT's management of SBT.	N/A	