



Australian Government

Department of Sustainability, Environment, Water, Population and Communities

Assessment of the
Commonwealth Skipjack Tuna Fishery

January 2012

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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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Table 4 contains a description of the issues identified by the department with the current management regime for the Skipjack Tuna Fishery and outlines the proposed recommendations that would form part of the delegate's decision to include product derived from the fishery in the list of exempt native specimens for a five year period.

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Table 1: Summary of the Commonwealth Skipjack Tuna Fishery

<p>Publicly available information relevant to the fishery</p>	<ul style="list-style-type: none"> • <i>Fisheries Management Act 1991</i>; • <i>Fisheries Management Regulations 1992</i>; • Annual Status Report: Skipjack Tuna Fishery - May 2010; • Fishery Status Reports 2010 - Chapter 23 Skipjack Tuna Fisheries (Australian Bureau of Agricultural and Resource Economics and Sciences); • Skipjack Tuna Fisheries Statement of Management Arrangements 2009; • Australian Fisheries Management Authority (AFMA) Submission for Reassessment of the Skipjack Tuna Fishery 2011; and • Department of the Environment and Heritage assessment report 2005.
<p>Area</p>	<p>The Skipjack Tuna Fishery comprises two sub-fisheries, the Western and Eastern Skipjack Tuna Fisheries. The fishery as a whole extends throughout the Australian Fishing Zone, including waters surrounding Norfolk, Christmas and Cocos (Keeling) Islands. The fishery encompasses areas of the Western Tuna and Billfish Fishery (WTBF) and the Eastern Tuna and Billfish Fishery (ETBF), with an exception of an area of the ETBF off northern Queensland.</p> <p>Although skipjack tuna occurs throughout most of the Australian Fishing Zone, the main historical fishing grounds in Australia have been in the south east and in the Great Australian Bight. However, with canneries now closed in both Eden and Port Lincoln, vessels are no longer actively targeting skipjack tuna from these ports.</p>
<p>Fishery status</p>	<p>Skipjack tuna (<i>Katsuwonus pelamis</i>) are not considered overfished in either the Western or Eastern Skipjack Tuna Fisheries (Marton <i>et al</i>, 2011).</p> <p>There is no formal stock assessment of skipjack tuna in the Western Skipjack Tuna Fishery, due to very low effort by Australian vessels. Skipjack tuna is regarded as a highly productive species that is robust to fishing pressure (Marton <i>et al</i>, 2011). While the broader stock in the Indian Ocean has not been assessed as overfished or subject to overfishing, there is uncertainty around the status of this stock due to a lack of an accepted stock assessment or indices of abundance. The overfished status of the Western Skipjack Tuna Fishery was therefore assessed to be uncertain in 2010. It is also uncertain if skipjack tuna is subject to ongoing overfishing in the Indian Ocean.</p> <p>There is no formal stock assessment of skipjack tuna in the Eastern Skipjack Tuna Fishery, due to very low effort by Australian vessels. However, a 2010 stock assessment for the Western and Central Pacific Fisheries Commission found that the spawning biomass of skipjack tuna was at 72 per cent of unfished levels. This is higher than the Australian government's target reference point, therefore skipjack tuna in the Eastern Skipjack Tuna Fishery has been assessed as not overfished. Fishing mortality was estimated to be within sustainable levels, with high recent recruitment, therefore the stock was also assessed as not being subject to overfishing.</p> <p>There are no resource concerns for this species in the Eastern Skipjack Tuna Fishery.</p>

Target Species	<p>Skipjack tuna is the only target species in the fishery. Skipjack tuna are highly migratory and are found in nearly all tropical and subtropical waters around the world, except the Mediterranean Sea and the Black Sea. Skipjack tuna reach maturity at one to two years of age, with an expected longevity of 12 years (Marton <i>et al</i>, 2011). The species spawns opportunistically throughout the year and is considered to be highly fecund.</p>
Byproduct Species	<p>Bigeye tuna (<i>Thunnus obesus</i>), yellowfin tuna (<i>Thunnus albacores</i>) and mahi mahi (<i>Coryphaena hippurus</i>) are the main byproduct species caught in the Skipjack Tuna Fishery. However, take of byproduct species in the fishery is generally considered low, as purse seine vessels only target free-swimming schools dominated by skipjack tuna. There has been no byproduct or bycatch reported since 2008.</p> <p>Take of bigeye and yellowfin tuna is limited to 2% of the total weight of a vessel's seasonal skipjack tuna catch.</p> <p>Take of mahi mahi is limited to 10 fish per trip (alone or in combination with a range of other finfish, such as frigate mackerel) in the waters of Queensland, Western Australia and the Northern Territory under Offshore Constitutional Settlement agreements with these states.</p>
Gear	<p>The principal method used to commercially take skipjack tuna is purse seine fishing, where a large net towed by a vessel is used to encircle surface schools of pelagic fish.</p> <p>A small part of the total effort is undertaken using pole and line fishing, where fish are captured individually using short poles with a line and baited barbless hook or lure.</p>
Season	<p>There are no seasonal closures imposed on the Skipjack Tuna Fishery. The fishing season is managed by the financial year calendar.</p>

Commercial harvest	<p>Prior to the 2004-05 fishing season, the Eastern and Western Skipjack Tuna Fisheries formed part of the Eastern and Western Tuna and Billfish Fisheries respectively. Catches for the Eastern and Western Skipjack Tuna Fisheries from 2006-2010 is shown in Table 1.</p> <p>Table 1. Annual domestic catch of skipjack tuna in the Skipjack Tuna Fishery in kilograms (source: AFMA logbooks, in AFMA submission 2011).</p> <table><tr><th>Sub-fishery</th><th>2006</th><th>2007</th><th>2008</th><th>2009</th><th>2010</th></tr><tr><td>Eastern Skipjack</td><td>44 000</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Western Skipjack</td><td>446 000</td><td>0</td><td>877 000</td><td>855 000</td><td>0</td></tr><tr><td>Total</td><td>490 000</td><td>0</td><td>877 000</td><td>855 000</td><td>0</td></tr></table> <p>The Australian Fishing Zone is at the edge of the range of skipjack tuna, availability of the species is highly variable. In 2010, no vessels were active in the Skipjack Tuna Fishery. A combined total of 3 620 kg of skipjack tuna was taken in 2010 in other commercial Australian fisheries, primarily in the Eastern Tuna and Billfish Fishery.</p> <p>Regionally, the estimated total catch of skipjack tuna in the Western and Central Pacific Ocean in 2010 was 1 706 166 tonnes, with an estimated total of 417 353 tonnes taken in the Indian Ocean.</p>	Sub-fishery	2006	2007	2008	2009	2010	Eastern Skipjack	44 000	0	0	0	0	Western Skipjack	446 000	0	877 000	855 000	0	Total	490 000	0	877 000	855 000	0
Sub-fishery	2006	2007	2008	2009	2010																				
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Western Skipjack	446 000	0	877 000	855 000	0																				
Total	490 000	0	877 000	855 000	0																				
Value of commercial harvest	<p>The value of the Skipjack Tuna Fishery is low and variable. Since 2000 the total annual value of the fishery has ranged between \$0 - 8.1 million.</p> <p>There were no vessels active in the fishery in the 2009-10 fishing season and few vessels have fished in either the Eastern or Western Tuna and Billfish Fishery since 2003-04. This represents a high level of latent effort, which indicates low profitability (Marton <i>et al</i>, 2011). With no tuna canneries in Australia since 2010, there is no longer a domestic market for skipjack tuna.</p>																								
Take by other sectors	<p>Indigenous and recreational take of skipjack tuna in Australian waters is not well known, however catch is unlikely to be significant compared to the Skipjack Tuna Fishery.</p> <p>The main sources of data used to estimate recreational catch are gamefish tournament monitoring, gamefish tagging, state charter fisheries management arrangements and a national survey of recreational and Indigenous fishing undertaken in 2003 (AFMA submission, 2011).</p>																								
Commercial licences issued	<p>There are currently 32 Commonwealth tuna purse seine permits in the Skipjack Tuna Fishery. These comprise 18 holders of Eastern Skipjack Tuna Fishery permits and 14 holders of Western Skipjack Tuna Fishery permits.</p> <p>In recent years, there has been very little effort in the fishery with no active vessels in the Eastern Skipjack Tuna Fishery since 2006. In the Western Skipjack Tuna Fishery there were three vessels active in 2006, one vessel active in 2007 and two vessels active in both 2008 and 2009. There were no vessels active anywhere in the fishery in 2010.</p>																								

Management arrangements	<p>The Skipjack Tuna Fishery is managed by AFMA under the <i>Fisheries Management Act 1991</i>, through a permit system. Permits are issued to operators on an annual basis.</p> <p>Management arrangements applied through permits include:</p> <ul style="list-style-type: none"> • limited entry; • limited access to identified fishing zones; • gear restrictions (purse seine only, with specified dimensions); • restriction of target species; • bycatch limits; and • restrictions on fishing around Fish Aggregating Device (FAD). <p>There are currently no catch or effort limits for skipjack tuna as the resource is considered to be under-fished in Australian waters at current fishing levels.</p> <p>A number of cross-jurisdictional arrangements apply in areas of the fishery outside Commonwealth waters, such as in state waters and the high seas. Further information on these cross-jurisdictional management arrangements is provided in Section 2.5 of the 2011 AFMA submission.</p>
Export	<p>Skipjack tuna taken in Australian waters was supplied almost exclusively to the cannery at Port Lincoln. This cannery has been closed since May 2010.</p> <p>The main international markets for skipjack tuna caught beyond the Australian Fishing Zone are Thailand and Japan (Marton <i>et al</i>, 2011).</p>
Bycatch	<p>The Skipjack Tuna Fishery operates under <i>Australia's tuna purse seine fisheries bycatch action plan</i> (AFMA, 2005). A copy of this bycatch action plan is available on the AFMA website at www.afma.gov.au</p> <p>Bycatch in the fishery is low, as Australian purse seiners target free-swimming schools of skipjack tuna. Bycatch species recorded in AFMA logbooks from 2000 - 2010 include blue mackerel, yellowfin tuna, striped marlin and jack mackerel. These species have been reported in low numbers and occurring sporadically.</p> <p>Operators in the Skipjack Tuna Fishery are required to return all blue and black marlin to the sea, as well as being subject to trip limits for catch of sharks, dolphinfish, mackerel and a range of other finfish.</p> <p>Catch limits are in force for yellowfin and bigeye tuna, where the total combined live weight of these species may not exceed 50 per cent of the purse seine catch in any one trip and must not exceed 2 per cent of the vessel's seasonal skipjack tuna catch.</p>
Interaction with Protected Species¹	<p>There have been no recorded interactions with marine mammals, turtles or sharks in the Skipjack Tuna Fishery. While seabirds are often present during purse seining operations, there have been few recorded interactions. The extent and impact of interactions is difficult to determine due to a lack of verified data (low observer coverage), however the very limited fishing effort indicates that the number of interactions is likely to be low.</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.

Ecosystem Impacts	<p>Operations of the Skipjack Tuna Fishery do not significantly impact on physical habitat or water quality. Fishing methods are pelagic and have no direct interaction with the benthos.</p> <p>Operators in the fishery are required to adhere to the International Convention for the Prevention of Pollution from Ships (MARPOL). These regulations prohibit the disposal of garbage from ships and boats and require vessels to make every effort to retrieve all lost and damaged fishing gear.</p> <p>FADs can have detrimental impacts on the broader ecosystem, through the entanglement of non-target species and the creation of marine debris. However, FADs are not currently deployed in the Skipjack Tuna Fishery and AFMA has banned the use of FADs in waters north of 20°S in the eastern sector of the fishery, in accordance with requirements of the Western and Central Pacific Fisheries Commission.</p>
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Table 2: Progress in implementation of conditions and recommendations made in the 2008 assessment of the Commonwealth Skipjack Tuna Fishery

Condition	Progress	Recommended Action
<p>Condition 1: Operation of the STF will be carried out in accordance with the management arrangements in force under the <i>Fisheries Management Act 1991</i>.</p>	<p>The Skipjack Tuna Fishery has been managed through input controls under annual permits, in accordance with the <i>Fisheries Management Act 1991</i>.</p>	<p>The Department of Sustainability, Environment, Water, Population and Communities considers that this condition has been met.</p> <p>The department recommends that this action be continued (see Recommendation 1, Table 4).</p>
<p>Condition 2: The Australian Fisheries Management Authority (AFMA) to advise the Department of Environment, Water, Heritage and the Arts (DEWHA) of any intended change to the STF management arrangements that may affect the assessment of the fishery against the criteria of which the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) decisions are based.</p>	<p>AFMA revised the permit conditions for the Skipjack Tuna Fishery in 2010 in accordance with requirements of the Western and Central Pacific Fisheries Commission. AFMA informed the department of these changes in 2010.</p> <p>In 2011, AFMA added new conditions to the permits in both the eastern and western sectors of the fishery, consistent with measures under the Indian Ocean Tuna Commission and the Western and Central Pacific Fisheries Commissions respectively. The department was advised of these changes through AFMA's submission for the reassessment of the fishery, received in September 2011. The 2011 revisions did not affect the existing accreditation under the EPBC Act.</p>	<p>The department considers that this condition has been met.</p> <p>The department recommends that this action be continued (see Recommendation 2, Table 4).</p>
<p>Condition 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>.</p>	<p>AFMA has submitted annual reports for the Skipjack Tuna Fishery as per Appendix B of the <i>Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition</i>.</p>	<p>The department considers that this condition has been met.</p> <p>The department recommends that this action be continued (see Recommendation 3, Table 4).</p>

Condition	Progress	Recommended Action
<p>Condition 4: By December 31 2009, AFMA to make publicly available a statement of management arrangements for the STF, which provides an overarching framework articulating the key management tools of the fishery.</p>	<p>AFMA prepared and published a Statement of Management Arrangements for the Skipjack Tuna Fishery in 2009. This document is publicly available on the AFMA website and clearly articulates the key management tools used to manage the fishery.</p>	<p>The department considers that this condition has been met.</p>

Recommendation	Progress	Recommended Action
<p>Recommendation 1: AFMA to establish appropriate consultative arrangements for the STF to ensure that all interested and affected parties have the opportunity to provide input into the management of the fishery.</p>	<p>In 2010, AFMA established the Tropical Tuna Management Advisory Committee. This group comprises representatives from AFMA, industry, scientists, environmental non-government organisations, the recreational fishing sector and state governments. This consultative forum provides a suitable and practical mechanism for interested parties to provide input into the management of the Skipjack Tuna Fishery, as well as the Eastern and Western Tuna and Billfish Fisheries.</p>	<p>The department considers that this recommendation has been met.</p> <p>The department recommends that AFMA continue to consult with all interested and affected parties as appropriate.</p>
<p>Recommendation 2: As part of the STF Harvest Strategy review, AFMA to consider amending the Harvest Strategy to articulate the circumstances under which the “Limit trigger/stop rule (Level 3)” in the STF Harvest Strategy would be applied.</p>	<p>The <i>Skipjack Tuna Fishery Harvest Strategy</i> consists of a series of catch-level triggers that invoke control rules. Management action is initiated where there is clear evidence of significant expansion in catches, with the principal management response leading to further monitoring and revision of trigger levels. While acknowledging that effort in the fishery is currently low, the department remains concerned that if effort were to increase, there could be a substantial lag time in implementing a reduction in effort if required.</p> <p>AFMA has advised that the <i>Skipjack Tuna Fishery Harvest Strategy</i> will be reviewed in 2012.</p>	<p>The department considers that this recommendation has been partially met.</p> <p>The department recommends that during the 2012 review, AFMA amend the <i>Skipjack Tuna Fishery Harvest Strategy</i> to refine the decision rules to implement management responses when trigger levels are exceeded (see Recommendation 4, Table 4).</p>
<p>Recommendation 3: In reviewing the STF Harvest Strategy, AFMA will examine the data collection and validation requirements of the fishery to ensure the objectives of the harvest strategy are met.</p>	<p>AFMA has continued to collect information required to manage the Skipjack Tuna Fishery effectively under its harvest strategy and to meet international obligations under the Indian Ocean Tuna Commission and the Western and Central Pacific Fisheries Commission.</p> <p>AFMA has advised that it will review the data collection and validation requirements during the 2012 review of the <i>Skipjack Tuna Fishery Harvest Strategy</i>.</p>	<p>The department considers that this recommendation has been met.</p>

<p>Recommendation 4: The Department of Agriculture, Fisheries and Forestry (DAFF) to:</p> <ul style="list-style-type: none"> a) In consultation with AFMA, DEWHA and other relevant government agencies, continue to take a proactive role in the WCPFC and the IOTC to improve the effectiveness of both organisations in managing target, byproduct, bycatch (including protected) species. b) Consider the STF Harvest Strategy in developing the whole of government position for negotiations related to the skipjack fishery in both the WCPFC and IOTC, and to advocate the Commonwealth Fisheries Harvest Strategy Policy as an example of best practice in setting sustainable catch levels. 	<p>The Australian Government, led by the Department of Agriculture, Fisheries and Forestry, has taken a proactive role in the Western and Central Pacific Fisheries Commission and the Indian Ocean Tuna Commission to improve the effectiveness of both organisations. This has included advocating the Commonwealth Harvest Strategy Policy as an example of best practise in setting sustainable catch levels.</p>	<p>The department considers that this recommendation has been met.</p> <p>While noting the progress made by Australia to improve the effectiveness of the Western and Central Pacific Fisheries Commission and the Indian Ocean Tuna Commission, the department remains concerned that current conservation and management measures in either Commission do not fully reflect a precautionary or ecosystem based approach to management (see Recommendation 7, Table 4).</p>
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<p>Recommendation 5: By 30 June 2009, AFMA to complete the STF Bycatch and Discarding Workplan to implement appropriate management responses to address and mitigate risks and impacts identified in the STF Level 2 and Rapid Level 3 Ecological Risk Assessments, including the development and implementation of an appropriate data collection and validation framework for the fishery.</p>	<p>AFMA's Ecological Risk Assessment process found a number of species that potentially interact with the Skipjack Tuna Fishery were assessed to be at high risk to the effects of fishing. However, due to the very low level of fishing effort in the fishery in recent years, AFMA considered that the development of a Bycatch and Discarding Workplan was no longer a priority. Bycatch species taken in the fishery are instead managed in accordance with the Ecological Risk Management document that is in place for the fishery.</p>	<p>The department accepts that developing a full Bycatch and Discarding Workplan for the Skipjack Tuna Fishery is not a priority while fishing activity is so low. The department accepts that the Ecological Risk Management document in place for the fishery contains a suitable level of guidance for the current levels of likely bycatch. However, the department notes that this should be reviewed if fishing effort increases substantially in the fishery.</p>
<p>Recommendation 6: AFMA to develop and implement a program to identify long-term trends in byproduct and bycatch composition and quantity in the STF.</p>	<p>There has been insufficient effort in the Skipjack Tuna Fishery to develop a program to identify long-term trends in bycatch and product composition and quantity. AFMA has advised that it has continued to monitor the catch of bycatch species, to ensure that if fishing effort increases in the fishery, long-term trends can be identified and addressed if required.</p>	<p>The department accepts that there is insufficient effort in the Skipjack Tuna Fishery to justify the development of a program to monitor long-term trends in bycatch and byproduct composition and quantity. The department commends and supports AFMA's ongoing collection of available bycatch and byproduct data, to underpin a future program should effort in the fishery increase.</p>
<p>Recommendation 7: AFMA to ensure that the STF is included in its annual compliance risk assessment for Australian fisheries and implement appropriate measures to address identified risks in the fishery.</p>	<p>Given the very low levels of effort in the Skipjack Tuna Fishery in recent years, a formal compliance risk assessment has not been undertaken for the fishery, although AFMA has advised that a formal assessment will be undertaken if effort increases.</p> <p>In the absence of a formal compliance risk assessment, AFMA has been undertaking routine surveillance, such as with Integrated Computer Vessel Monitoring Systems, fish receiver records and vessel inspections, and considers that this is adequate to monitor the current effort in the fishery.</p>	<p>The department accepts that undertaking a formal compliance risk assessment for the Skipjack Tuna Fishery is not a priority while fishing activity is so low. The department accepts that the routine surveillance activities being undertaken in the fishery are adequate to monitor current fishing effort. However, the department agrees that this should be reviewed if fishing effort increases substantially in the fishery.</p>

Table 3: The Department of Sustainability, Environment, Water, Population and Communities' assessment of the Commonwealth Skipjack Tuna 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 Commonwealth Skipjack Tuna Fishery
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(f) a regime determined in writing by the Australian Fisheries Management Authority under the <i>Fisheries Administration Act 1991</i> for managing a fishery for which a plan of management (within the meaning of section 17 of the <i>Fisheries Management Act 1991</i>) is not in force;</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 Skipjack Tuna Fishery will be managed under the <i>Fisheries Management Act 1991</i>.</p> <p>The management regime for the Skipjack Tuna Fishery was accredited in November 2005. The department considers that the management regime for the Skipjack Tuna Fishery still requires operators to take all reasonable steps to ensure that listed threatened species are not killed or injured as a result of the fishing.</p> <p>Currently, evidence suggests that the Skipjack Tuna Fishery only has minimal interactions with listed threatened species. Therefore, the department considers the current operation of the Skipjack Tuna Fishery is not likely to adversely affect the survival or recovery in nature of any listed threatened species.</p>

Part 13 (cont.)

Division 2 Migratory species Section 222A Minister may accredit plans or regimes	The department's assessment of the Commonwealth Skipjack Tuna Fishery
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(d) a regime determined in writing by the Australian Fisheries Management Authority under the <i>Fisheries Administration Act 1991</i> for managing a fishery for which a plan of management (within the meaning of section 17 of the <i>Fisheries Management Act 1991</i>) is not in force;</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 Skipjack Tuna Fishery will be managed under the <i>Fisheries Management Act 1991</i>.</p> <p>The management regime for the Skipjack Tuna Fishery was accredited in November 2005. The department considers that the management regime for the Skipjack Tuna Fishery still requires operators to take all reasonable steps to ensure that listed migratory species are not killed or injured as a result of the fishing.</p> <p>The report provided by AFMA indicates that there may be interactions between seabirds and purse seine fishing in the Skipjack Tuna Fishery, which may include listed migratory species. However, interaction levels have been very low. There have been no recorded interactions with other listed migratory species. Therefore, the department considers the current operation of the Skipjack Tuna Fishery is not likely to adversely affect the conservation status of a listed migratory species or a population of that species.</p>

Part 13 (cont.)

Division 3 Whales and other cetaceans Section 245 Minister may accredit plans or regimes	The department's assessment of the Commonwealth Skipjack Tuna Fishery
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(d) a regime determined in writing by the Australian Fisheries Management Authority under the <i>Fisheries Administration Act 1991</i> for managing a fishery for which a plan of management (within the meaning of section 17 of the <i>Fisheries Management Act 1991</i>) is not in force;</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 Skipjack Tuna Fishery will be managed under the <i>Fisheries Management Act 1991</i>.</p> <p>The management regime for the Skipjack Tuna Fishery was accredited in November 2005. The department considers that the management regime for the Skipjack Tuna Fishery still requires operators to take all reasonable steps to ensure that cetaceans are not killed or injured as a result of the fishing.</p> <p>The report provided by AFMA indicates that there have been no interactions with cetaceans in the Skipjack Tuna Fishery. Therefore, the department considers the current operation of the Skipjack Tuna Fishery is not likely to adversely affect the conservation status of a species of cetacean or a population of that species.</p>

Part 13 (cont.)

Division 4 Listed marine species Section 265 Minister may accredit plans or regimes	The department's assessment of the Commonwealth Skipjack Tuna Fishery
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(d) a regime determined in writing by the Australian Fisheries Management Authority under the <i>Fisheries Administration Act 1991</i> for managing a fishery for which a plan of management (within the meaning of section 17 of the <i>Fisheries Management Act 1991</i>) is not in force;</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 Skipjack Tuna Fishery will be managed under the <i>Fisheries Management Act 1991</i>.</p> <p>The management regime for the Skipjack Tuna Fishery was accredited in November 2005. The department considers that the management regime for the Skipjack Tuna Fishery still requires operators to take all reasonable steps to ensure that listed marine species are not killed or injured as a result of the fishing.</p> <p>The report provided by AFMA indicates that there have been no interactions with listed marine species in the Skipjack Tuna Fishery. Therefore, the department considers the current operation of the Skipjack Tuna Fishery is not likely to adversely affect the conservation status of a listed marine species or a population of that species.</p>

Part 13 (*cont.*)

Section 303AA Conditions relating to accreditation of plans, regimes and policies	The department's assessment of the Commonwealth Skipjack Tuna 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 Skipjack Tuna 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: (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.	The department considers that no condition need be specified for the recommended accreditation of the Skipjack Tuna Fishery to satisfy sections 208A, 222A, 245 and 265.
(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
- (g) 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 303DC Minister may amend list	The department's assessment of the Commonwealth Skipjack Tuna 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 of 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>(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 Skipjack Tuna Fishery was assessed under Part 10 of the EPBC Act in November 2005. As a result of that assessment, the department considered that actions taken under the Skipjack Tuna Fishery management regime would not have an unacceptable or unsustainable impact on the environment in a Commonwealth marine area.</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 the Skipjack Tuna Fishery would be consistent with the provisions of Part 13A as:</p> <ul style="list-style-type: none"> ▪ the fishery will not harvest any Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) listed species; ▪ the operation of the Skipjack Tuna Fishery is unlikely to be unsustainable and threaten biodiversity within the next 5 years; and ▪ the EPBC 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 public comment period on the Australian Fisheries Management Authority's submission sought comment on the submission for the Skipjack Tuna Fishery and provided sufficient opportunity for consultation with other persons and organisations.</p> <p>A letter to the Hon Joe Ludwig advises him of the intention to declare the fishery exempt from the export provisions of the EPBC Act.</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 Skipjack Tuna Fishery made under section 303DC will be gazetted and made available on the department's website.</p>

Part 16

Section 391 Minister must consider precautionary principle in making decisions	The department's assessment of the Commonwealth Skipjack Tuna Fishery
<p>(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>	<p>The precautionary principle has been considered in the preparation of advice in relation to decisions under section 303DC and section 303FN.</p>
<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.</p>	

**The Department of Sustainability, Environment, Water, Population
and Communities' final recommendations to the Australian Fisheries
Management Authority for the Commonwealth Skipjack Tuna Fishery**

The material submitted by the Australian Fisheries Management Authority (AFMA) demonstrates that the management arrangements for the Skipjack Tuna Fishery continue to meet most of the requirements of the Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition*.

Stock Status

The Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC) considers that overall, the management regime for the Skipjack Tuna Fishery aims to ensure that fishing is conducted in a manner that does not lead to overfishing. Management measures in place in the fishery include;

- limited entry;
- fishing gear restrictions;
- operations limited to fishing zones as specified on permits;
- trip limits for bycatch species; and
- mandatory log books.

Ecosystem Impacts

Taking into account management measures for the fishery and the comprehensive ecological risk assessment undertaken in the fishery, DSEWPaC considers that the management regime for the Skipjack Tuna 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 an ongoing need to understand the risks and uncertainties relating to target and bycatch species that should be managed to ensure that impacts are minimised. To contain and minimise these risks in the longer term, the recommendations listed in Table 4 have been made. Unless a specific time frame is provided in the recommendation, each recommendation should be addressed during a five year period.

The department considers that product taken in the fishery should be included in the list of exempt native specimens under Part 13A of the *Environment Protection and Biodiversity Conservation Act 1999* for a period of five years.

Table 4: Commonwealth Skipjack Tuna Fishery Assessment – Summary of Issues and Recommendations January 2012.

	Issue	Recommendation
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 (DSEWPaC) 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>Recommendation 1:</p> <p>Operation of the Skipjack Tuna Fishery will be carried out in accordance with the management arrangements in force under the <i>Fisheries Management Act 1991</i>.</p> <p>Recommendation 2:</p> <p>The Australian Fisheries Management Authority (AFMA) to inform the Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC) of any proposed substantive changes to the Skipjack Tuna Fishery management arrangements that may affect the criteria on 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 DSEWPaC annually in order for the performance of the fishery and progress in implementing the recommendations in this report and other managerial commitments to be monitored and assessed throughout the life of the declaration. Annual reports should follow Appendix B to the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i> and 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 progress in implementing the department's recommendations. Electronic copies of the guidelines are available from the department's website at http://www.environment.gov.au/coasts/fisheries/publications/guidelines.html</p>	<p>Recommendation 3:</p> <p>AFMA to produce and present reports to DSEWPaC annually, as per Appendix B to the <i>Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition</i>.</p>

3	<p><u>Management arrangements</u></p> <p>DSEWPaC commends AFMA for the development and implementation of the <i>Skipjack Tuna Fishery Harvest Strategy</i> and for publicly articulating the key management tools of the fishery in the <i>2009 Skipjack Tuna Fishery Management Arrangements</i>.</p> <p>The <i>Skipjack Tuna Fishery Harvest Strategy</i> consists of a series of catch-level triggers that invoke control rules. Management action is initiated when there is clear evidence of significant expansion in catches, with the principal management response leading to further monitoring and revision of trigger levels. While acknowledging that effort in the fishery is currently low, DSEWPaC is concerned that if effort were to increase, there could be substantial lag time in implementing a reduction in effort if required.</p> <p>AFMA has advised that the <i>Skipjack Tuna Fishery Harvest Strategy</i> will be reviewed in 2012. DSEWPaC recommends that this review be used to refine the decision rules to implement management responses when trigger levels are exceeded, for example through restricting fishing effort.</p>	<p>Recommendation 4:</p> <p>Following the 2012 review, AFMA to amend the <i>Skipjack Tuna Fishery Harvest Strategy</i> to refine the decision rules to implement management responses when trigger levels are exceeded.</p>
4	<p><u>Fish Aggregation Devices</u></p> <p>Fish Aggregation Devices (FADs) can be natural or artificial objects which attract schools of fish to gather around the shelter provided by the device. FADs are effective in attracting schools of skipjack and other tunas, so are utilised by purse seine vessels targeting these species. However, purse seine nets set around FADs deployed to attract skipjack tuna are known to have significant bycatch of juvenile bigeye and yellowfin tuna and may also impact other bycatch species, such as turtles and cetaceans.</p> <p>In the Skipjack Tuna Fishery, AFMA manages bycatch of juvenile bigeye and yellowfin tuna through imposing catch limits on these species. AFMA has also banned the use of FADs in waters north of 20°S in the Eastern sector of the fishery, in accordance with requirements of the Western and Central Pacific Fisheries Commission.</p> <p>The use of FADs is not banned in the remainder of the fishery, however Skipjack Tuna Fishery operators are not currently deploying FADs anywhere in the fishery. Should the use of FADs commence in the fishery following this assessment, AFMA should advise DSEWPaC of this change in fishing methodology. AFMA should also ensure that any future use of FADs in the fishery is managed and controlled to ensure their use does not negatively impact on bycatch species or the broader ecosystem.</p>	<p>Recommendation 5:</p> <p>AFMA to advise DSEWPaC if use of Fish Aggregation Devices commences in the fishery. Prior to any future use of these devices in the fishery, AFMA to ensure that appropriate management arrangements are in place to ensure their sustainable use.</p>

	<p>These arrangements could include, for example, specifications for FAD design to minimise bycatch, appropriate handling of bycatch to maximise post release survivorship, appropriate observer coverage, requirements for FAD retrieval outside of the operational fishing season to minimise ghost fishing, appropriate tracking of deployed FADs (e.g. numbering and registering) for compliance purposes, and crew training.</p>	
5	<p><u>Bycatch and protected species interactions</u></p> <p>DSEWPaC acknowledges that effort in the Skipjack Tuna Fishery is currently very low and that there has been no byproduct, bycatch or interactions with protected species recorded in recent years. However, in the event of future expansion of effort, DSEWPaC recommends that the <i>Ecological Risk Management Report for the Skipjack Tuna Fishery</i> be revised to include triggers for implementing appropriate management measures for bycatch, byproduct and threatened species.</p> <p>AFMA has advised that it will consider an appropriate catch or effort trigger for implementing management responses to address bycatch issues in 2012, as part of the <i>Skipjack Tuna Fishery Harvest Strategy</i> review. AFMA will consider whether the Level 1 trigger for skipjack tuna in the harvest strategy may also be an appropriate trigger for bycatch and discarding issues.</p> <p>DSEWPaC agrees that it would be practical to consider the harvest and bycatch triggers together, and considers that relevant experts should be included in assessing the appropriateness of applying the harvest strategy trigger to bycatch and discarding issues.</p> <p>The WCPFC Conservation and Management Measure 2007-01 (<i>Conservation and Management Measure for the Regional Observer Programme</i>) requires “no later than 30 June 2012, CCMs shall achieve 5% coverage of the effort in each fishery under the jurisdiction of the Commission (except for vessels provided for in paras 9 and 10)”. DSEWPaC further therefore supports the Action articulated in the <i>Ecological Risk Management Report for the Skipjack Tuna Fishery</i>, that AFMA will achieve an initial base observer coverage level of 5 per cent. By monitoring the fishery through this required level of observer coverage (at a minimum), AFMA will be able to implement management responses should issues with bycatch or discarding arise.</p>	<p>Recommendation 6:</p> <p>Following the 2012 review of the <i>Skipjack Tuna Harvest Strategy</i>, AFMA to revise the <i>Ecological Risk Management Report for the Skipjack Tuna Fishery</i>, to include an appropriate catch or effort level trigger, above which management responses, including a review of interactions and the development of a bycatch and discard workplan for the fishery, will be implemented.</p>

6	<p><u>International obligations</u></p> <p>DSEWPaC notes the progress Australia has made to improve the effectiveness of the Western and Central Pacific Fishing Commission (WCPFC) and the Indian Ocean Tuna Commission (IOTC). However, DSEWPaC is concerned that the current conservation and management measures in either Commission do not fully reflect a precautionary or ecosystem based approach to management, which could jeopardise the future sustainability of the fisheries and ecosystems.</p> <p>For IOTC, there appears to be a lack of comprehensive catch, effort and species composition data from some Members of the Commission, which compromises the robustness of stock assessments or analyses of the impact of fishing practices on byproduct or bycatch species. Additionally, fishery independent data is required to verify the fishery dependent data submitted by Members.</p> <p>In the WCPFC, the skipjack stock assessment is more robust and recent catches are considered by the WCPFC Scientific Committee as being sustainable.</p> <p>The impact of skipjack fishing worldwide on byproduct and bycatch species has not been addressed. The WCPFC is considering a range of conservation and management measures to address unintentional fishing mortality for byproduct species, such as juvenile bigeye and yellowfin tunas, along with measures to reduce unintentional fishing mortality of bycatch species such as sharks and cetaceans.</p> <p>DSEWPaC's recommendations and priorities for engagement in WCPFC and IOTC include:</p> <ul style="list-style-type: none"> • pursuing the establishment of management strategies and catch limits for target and byproduct species in line with the advice from each organisation's Scientific Committee; promoting accurate recording of information on byproduct and bycatch species (particularly sharks and cetaceans), and pursuing the adoption of measures to protect these species from unsustainable fishing pressures; • ensuring that fishing practices and technologies that involve a higher catch of bycatch species, such as the use of FADs, are managed and controlled to ensure their sustainable use; and • improving understanding of the relationship between the populations of skipjack in Australian waters and other regional populations of skipjack in either the Indian or Pacific Ocean. 	<p>Recommendation 7: The Department of Agriculture, Fisheries and Forestry (DAFF) to:</p> <ol style="list-style-type: none"> a) in consultation with AFMA, DSEWPaC and other relevant government agencies, continue to take a proactive role in the Western and Central Pacific Fisheries Commission (WCPFC) and the Indian Ocean Tuna Commission (IOTC) to improve the effectiveness of both organisations in managing target, byproduct, bycatch (including protected) species; b) encourage appropriate conservation and management measures to maintain healthy skipjack stocks; and c) consider the <i>Skipjack Tuna Fishery Harvest Strategy</i> in developing the whole of government position for negotiations related to the skipjack fishery in both the WCPFC and IOTC, and to advocate the <i>Commonwealth Fisheries Harvest Strategy Policy</i> as an example of best practice in setting sustainable catch levels.
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References

Australian Fisheries Management Authority (2005) Australia's Tuna Purse Seine Fisheries Bycatch Action Plan 2005, Canberra.

Marton N, Summerson R, Larcombe J and Hormis M (2011) Skipjack Tuna Fisheries. In: Woodhams J, Stobutzki I, Vieira S, Curtotti R and Begg G.A (eds) 2011, Fishery status reports 2010: Status of Fish Stocks and Fisheries Managed by the Australian Government, Australian Bureau of Agricultural and Resource Economics and Sciences, pp 349-358, Canberra.

Acronyms

AFMA	Australian Fisheries Management Authority
DAFF	Department of Agriculture, Fisheries and Forestry
DEWHA	Department of Environment, Water, Heritage and the Arts
DSEWPac	Department of Sustainability, Environment, Water, Population and Communities
ETBF	Eastern Tuna and Billfish Fishery
FAD	Fish Aggregating Devices
IOTC	Indian Ocean Tuna Commission
MARPOL	International Convention for the Prevention of Pollution from Ships
STF	Skipjack Tuna Fishery
WCPFC	Western and Central Pacific Fishing Commission
WTBF	Western Tuna and Billfish Fishery