



Australian Government

Department of the Environment

Assessment of the

**WESTERN AUSTRALIAN ABALONE MANAGED
FISHERY**

September 2014

© Copyright Commonwealth of Australia, 2014.



Assessment of the Western Australian Abalone Managed Fishery September 2014 is licensed by the Commonwealth of Australia for use under a Creative Commons By Attribution 3.0 Australia licence with the exception of the Coat of Arms of the Commonwealth of Australia, the logo of the agency responsible for publishing the report, content supplied by third parties, and any images depicting people. For licence conditions see: <http://creativecommons.org/licenses/by/3.0/au/>.

This report should be attributed as '*Assessment of the Western Australian Abalone Managed Fishery September 2014*, Commonwealth of Australia 2014'.

Disclaimer

This document is an assessment carried out by the Department of the Environment 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 the Environment 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 the Environment or the Australian Government.

While reasonable efforts have been made to ensure that the contents of this report are factually correct, the Australian Government does not accept responsibility for the accuracy or completeness of the contents, and shall not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on, the contents of this report. You should not rely solely on the information presented in the report when making a commercial or other decision.

CONTENTS

Table 1: Summary of the Western Australian (WA) Abalone Managed Fishery	1
--	----------

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

Table 2: Progress in implementation of recommendations made in the 2009 assessment of the WA Abalone Managed Fishery	8
---	----------

Table 2 contains an update on the progress that has been made by the WA Department of Fisheries in implementing the recommendations made in the 2009 assessment.

Table 3: The Department of the Environment's' assessment of the WA Abalone Managed Fishery against the requirements of the EPBC Act related to decisions made under Part 13 and Part 13A	14
---	-----------

Table 3 contains the Department's assessment of the fishery's management arrangements against all the relevant parts of the *Environment Protection and Biodiversity Conservation Act 1999* that the delegate must consider before making a decision.

The Department of the Environment's final recommendations to the WA Department of Fisheries for the WA Abalone Managed Fishery	23
---	-----------

This section contains the Department's assessment of the fishery's performance against the Australian Government's *Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition* and outlines the reasons the Department recommends that the fishery be included in the list of exempt native specimens.

Table 4: The WA Abalone Managed Fishery Assessment – Summary of Issues and Recommendations, September 2014	24
---	-----------

Table 4 contains a description of the issues identified by the Department with the current management regime for the 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.

References and Acronyms	26
--------------------------------	-----------

TABLE 1: SUMMARY OF THE WESTERN AUSTRALIAN (WA) ABALONE MANAGED FISHERY

<p>Key documents relevant to the fishery</p>	<ul style="list-style-type: none"> ▪ Application to the Department of the Environment on the Western Australian Abalone Managed Fishery – 2014 ▪ Fisheries Research Report No. 241, 2013 ▪ Status reports of the fisheries and aquatic resources of Western Australia 2012/2013, 2011/2012, 2010/2011 ▪ <i>Marine Bioregional Plan for the South-West Marine Region 2012</i> ▪ <i>Western Australian Fish Resources Management Act 1994</i> ▪ <i>Western Australian Fish Resources Management Regulations 1995</i>
<p>Area</p>	<p>The area of the WA Abalone Managed Fishery encompasses the shallow southern and western coastal waters off WA.</p> <p><u>Roe’s abalone commercial fishery:</u></p> <p>The commercial fishery for Roe’s abalone is managed within six regions, named Areas 1, 2, 5, 6, 7 and 8. The commercial fishing boundary extends west from the South Australian border to Busselton Jetty on the west coast (Figure 1).</p> <div data-bbox="587 949 1259 1626" data-label="Figure"> </div> <p>Figure 1. Roe’s abalone commercial fishery zones (source: Status reports of the fisheries and aquatic resources of Western Australia 2012/2013)</p> <p><u>Greenlip/brownlip abalone commercial fishery:</u></p> <p>The commercial fishery for greenlip/brownlip abalone is managed within three areas along WA coastal waters. There is currently no quota allocated in Area 4 (see Figure 2).</p>

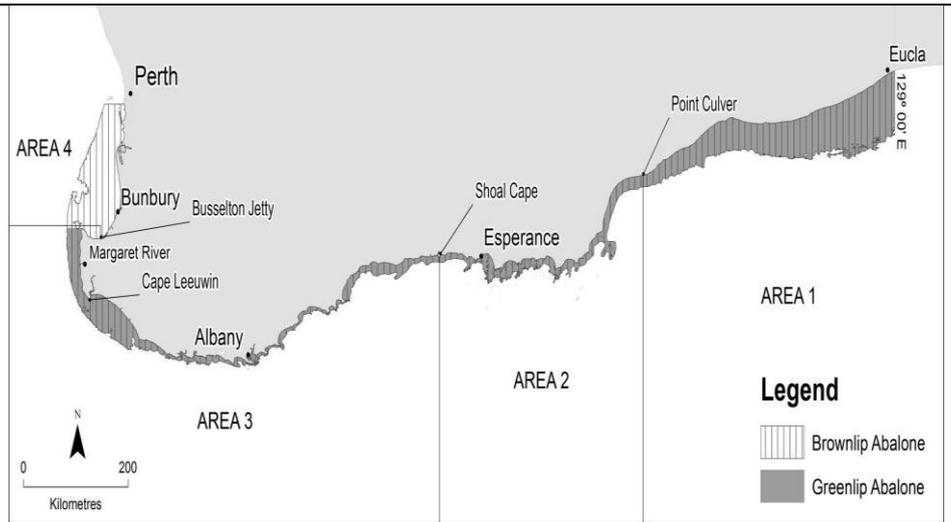


Figure 2. Greenlip/brownlip abalone areas of commercial fishery (source: Status reports of the fisheries and aquatic resources of Western Australia 2012/2013)

WA Abalone recreational fishery:

The recreational fishery is managed in three zones which extend from Greenough River mouth to the Northern Territory border (the northern zone), Busselton Jetty to Greenough River mouth (west coast zone), and Busselton Jetty to the South Australian border (the southern zone).

Fishery regulations apply to all three zones. Fishing for greenlip/brownlip abalone only occurs within the southern zone (see Figure 3).

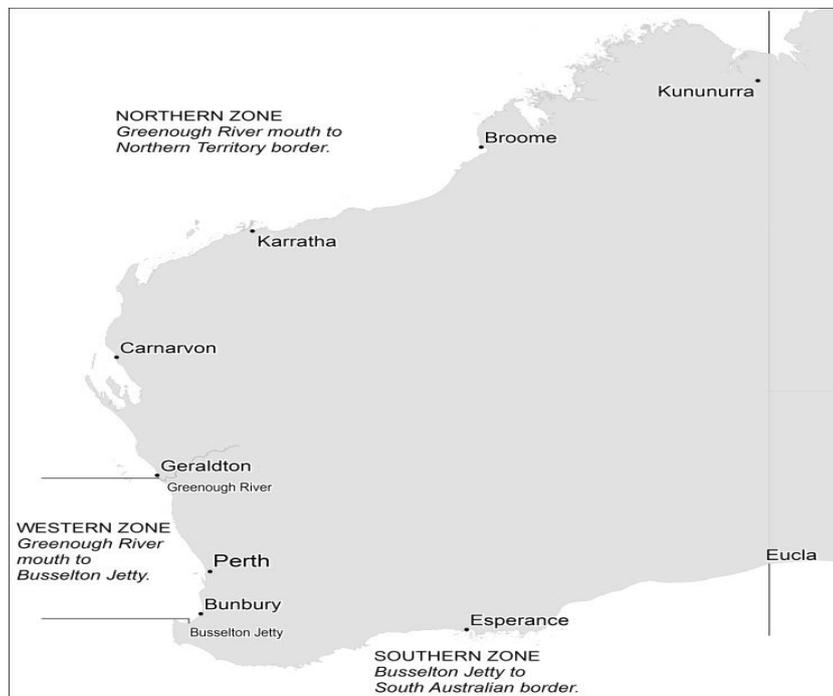


Figure 3. WA abalone recreational fishing boundaries (source: Status reports of the fisheries and aquatic resources of Western Australia 2012/2013)

<p>Target Species</p>	<p>The fishery targets Roe's abalone (<i>Haliotis roei</i>), greenlip abalone (<i>H. laevigata</i>) and brownlip abalone (<i>H. conicopora</i>).</p> <p>The size of Roe's abalone varies between populations, with maximum shell sizes ranging from 73 mm to 89 mm.</p> <p>The average size of greenlip/brownlip abalone ranges from 125 mm to 175 mm shell length. The variations in size largely depend on the location of the abalone population within WA.</p> <p>The age of maturity for all three species of abalone is considered to be approximately three years.</p>
<p>Fishery status</p>	<p>The WA Department of Fisheries has assessed the stock levels (spawning stocks) of the target stocks as being 'adequate' and the fishing levels as 'acceptable' and 'sustainable', as indicated in the 2012/2013 Annual Status Report.</p> <p>That assessment indicates that any annual variations in recruitment to parental biomass are due to environmental impacts, rather than fishing pressure and that parental biomass is sufficient for ongoing successful spawning.</p> <p>During February and March 2011, a marine heatwave in WA severely impacted marine life on the west coast of the state, resulting in high abalone mortalities in some areas of the Roe's abalone fishery, particularly the northern area of the fishery at Area 8.</p> <p>As a result, the fishery for Roe's abalone was closed, and remains closed to commercial fishing in some areas, due to the reduction of abalone populations. The area north of Moore River is also currently closed to recreational fishing.</p> <p>The 2012/2013 Roe's abalone fishery status report notes that densities of sub-legal sized abalone (<60 mm shell length) decreased from 2012 to 2013. The significance of the decrease varies with habitat, indicative of environmentally related mortality.</p> <p>However, legal sized abalone densities (>60 mm shell length) increased from 2012 to 2013, indicating that legal sized densities are recovering towards historical levels.</p> <p>These figures suggest that although some stocks have declined, most likely as a result of the marine heatwave, stock densities overall remain comparable with those recorded in 2009, supporting the 'adequate' and 'acceptable' stock status ratings in the latest status report. This is consistent with the status reports ratings recorded since the 2009 fishery assessment.</p>

	<p>To assist in investigating the impact of the marine heatwave and the future recovery of the abalone stocks, the WA Department of Fisheries has commenced a research project ('CRC project 2011/762 Recovering a collapsed abalone stock through translocation'). This project is funded by the Australian Seafood Cooperative Research Centre (Australian Seafood CRC) and will investigate the rebuilding of Roe's abalone populations where large mortalities occurred, whilst also assessing genetic data and recovery rates working towards stock recovery.</p>
Byproduct Species	<p>Due to the highly selective fishing methods used (hand collection while diving and wading), there are no byproduct species taken.</p>
Gear	<p>Collection by divers using a 'hookah' (surface-supplied breathing apparatus) and an abalone iron are used to harvest abalone in the commercial fishery.</p> <p>Hand collection while wading/snorkelling (with no surface breathing apparatus) is the main method employed in the recreational sector of the fishery.</p>
Season	<p>The commercial fishing season runs from 1 April until 31 March the following year. Area 8 of the commercial abalone fishery is currently closed.</p> <p>Since the last assessment in 2009, a change to the recreational fishing season has been applied to the West Coast Zone to allow for maintaining the notional Total Allowable Recreational Catch (TARC).</p> <p>The current abalone recreational fishing seasons in WA are:</p> <ul style="list-style-type: none"> ▪ West Coast Zone (extending from Busselton Jetty and the Greenough River mouth): Open 7:00 am until 8:00am, first Sunday of each month, November until March (inclusive) the following year. <p>The area north of Moore River is closed until further notice</p> <ul style="list-style-type: none"> ▪ Northern Zone (Greenough River mouth to the Northern Territory Border): Closed until further notice ▪ Southern Zone (Busselton Jetty to South Australian border): Open 1 October to 15 May the following year.
Commercial harvest	<p>The commercial catch for 2012 was:</p> <ul style="list-style-type: none"> ▪ Roe's abalone = 87 tonnes (t) ▪ Greenlip/brownlip abalone = 202 t <p>The total catch of Roe's abalone in 2012 was approximately 70 % of the Total Allowable Commercial Catch (TACC), and 14 t lower than the catch in 2010.</p> <p>The total catch of greenlip/brownlip abalone has remained stable since 2011 (also 202 t).</p>

Value of commercial harvest	<p>The commercial value of the WA commercial abalone catch for 2012 was:</p> <ul style="list-style-type: none"> ▪ Roe's abalone = \$2 million ▪ Greenlip/brownlip abalone = \$ 8 million
Take by other sectors	<p>The 2012/2013 annual status reports indicate the recreational catch was:</p> <ul style="list-style-type: none"> ▪ Roe's abalone = 32 t ▪ Greenlip/brownlip abalone = 3 - 4 % of total catch (figure not available) <p>The 2013 Fisheries Research Report (No. 241) estimates that approximately three tonnes of (mainly) greenlip abalone is illegally harvested and sold along the south coast annually.</p>
Commercial licences issued	<p>40 fishing vessels operated in the commercial fishery in 2012/2013 (Roe's and greenlip/brownlip fisheries).</p>
Management arrangements	<p>The fishery is managed in accordance with the WA Abalone Managed Fishery Management Plan 1992, in force under the WA <i>Fish Resources Management Act 1994</i> and the WA Fish Resources Management Regulations 1995.</p> <p>The commercial fishery is managed primarily through output controls, in the form of TACCs set annually for each Area and allocated to licence holders through individual transferable quotas.</p> <p>Within the TACCs, the following input controls also apply:</p> <p>Roe's fishery (commercial fishery)</p> <ul style="list-style-type: none"> ▪ legal minimum length = 60 mm shell length (applies to most of fishery) ▪ Areas 1 and 7 = 70 mm minimum shell length. <p>Greenlip/brownlip (commercial fishery)</p> <ul style="list-style-type: none"> ▪ temporal restrictions (licensing period is 1 April to 31 March) ▪ legal minimum length = 140 mm shell length ▪ special exemptions apply (via strictly pre-arranged catch and effort levels), to areas known to have 'stunted stocks' of greenlip abalone which can be fished from 120 mm in length. <p>The recreational fishery is also managed through a combination of input and output controls, enforced through mandatory purchase of dedicated abalone recreational fishing licences.</p> <p>Roe's fishery (recreational component)</p> <ul style="list-style-type: none"> ▪ west coast zone has TARC of 40 t ▪ fishing time per day allowed is 60 minutes ▪ minimum legal size limit = 60 mm shell length ▪ daily bag limit = 20 per fisher ▪ household possession limit = 80

	<p>Greenlip/brownlip fishery (recreational component)</p> <ul style="list-style-type: none"> ▪ no restriction to licence numbers ▪ season limited to 7.5 months (1 October to 15 May) ▪ bag limit = 5 per fisher ▪ household possession limit = 20 <p>Part of the fishery operates within the Commonwealth bioregional planning area of the South-west Marine Region.</p>
Export	The majority of commercial catch is exported frozen or canned to Japan, China and other South East Asian countries. Small amounts are exported live.
Bycatch	Due to the targeted method of harvesting of abalone (hand collection by divers) the incidence of bycatch is negligible.
Interaction with Protected Species¹	<p>The 2012/2013 fishery status report states the risk of interaction with protected species as being 'negligible'.</p> <p>There is the potential for interaction with white sharks (<i>Carcharodon carcharias</i>), protected under the EPBC Act as a listed threatened species and a migratory species. However, this risk is considered low and generally only presents as a risk when fishing in the more open water areas of the fishery. Diving cages or 'Shark Shield' technology is adopted by divers for personal protection to assist in reducing the likelihood of contact with white sharks.</p> <p>There have been no recorded interactions with species listed as marine or migratory under the EPBC Act, nor have there been any interactions recorded with cetaceans.</p>
Ecosystem Impacts	<p>An Ecological Risk Assessment (ERA) was undertaken for the fishery during the last assessment in 2009 and ratings have largely remained unchanged since then.</p> <p>However, as a result of the 2011 marine heatwave impact to the fish and abalone stocks on the west coast of WA, the addition of an external risk of 'heatwave events' has been applied. An informed risk rating has also been added relating to stock enhancement, following research and development to date. These two additional risk ratings have been included in the 'General Environment' section of the risk ratings.</p> <p>The ERA assessment investigated the potential impacts of the fishery on the surrounding ecosystem by considering the removal and discarding of abalone and habitat disturbance. The ERA risk rating re-assessment (2009) determined the impacts of these processes on the ecosystem as 'low'.</p>

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

	<p>The Commonwealth Bioregional plan for the South-west Marine Region 2012 identifies key ecological features present in the area of the fishery. These include demersal slope and associated fish communities of the Central Western Province, Cape Mentelle upwelling, the Albany Canyons group and adjacent shelf break, meso-scale eddies, Commonwealth marine environment (around Recherche Archipelago), and ancient coastline.</p> <p>While noting the presence of these key ecological features in the area of the fishery, given the benign harvesting method used in the WA Abalone Fishery (hand collection), the Department considers that impacts to the physical ecosystem are likely to be low.</p>
<p>Impacts on CITES species</p>	<p>No specimens listed under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) are permitted to be harvested in the fishery. Therefore no assessment of the fishery's impact on specimens listed under CITES has been conducted.</p>
<p>Impacts on World Heritage property/RAMSAR site</p>	<p>There are no World Heritage or RAMSAR Convention sites within the area of the fishery therefore no assessment has been conducted.</p>

Table 2: Progress in implementation of the recommendations made in the previous assessment of the Western Australian (WA) Abalone Managed Fishery

Recommendation	Progress	Recommended Action
<p>1. Operation of the fishery will be carried out in accordance with the management arrangements for the WA Abalone Fishery in force under the <i>WA Fish Resources Management Act 1994</i>.</p>	<p>The WA Department of Fisheries has advised that the WA Abalone Managed Fishery has operated in accordance with the <i>Abalone Managed Fishery Management Plan 1992</i> and the <i>WA Fish Resources Management Act 1994</i>.</p>	<p>The Department considers that this recommendation has been met.</p> <p>The Department recommends that this action be continued.</p> <p>(see Recommendation 1, Table 4).</p>
<p>2. The Department of Fisheries Western Australia (DFWA) to inform the DEWHA of any intended amendments to the WA Abalone Fishery's management arrangements that may affect the assessment of the fishery against the criteria on which the <i>Environment Protection and Biodiversity Conservation Act 1999 Act</i> (EPBC Act) decisions are based.</p>	<p>The WA Department of Fisheries has advised the Department of changes to the management arrangements, including:</p> <ul style="list-style-type: none"> ▪ In 2011, the commercial fishing prohibition in Area 7 was removed, due to changes made to the recreational fishing season (West Coast Zone of the Roe's abalone recreational sector of the fishery). ▪ The introduction of the 'Fisheye' online data collection system. The management plan has been amended to reflect this option for fishers. ▪ Due to the 2011 marine heatwave, closures to commercial fishing (Area 8) and recreational fishing (north of Moore river) are in place until further notice, to allow for population recovery. <p>The changes are considered unlikely to affect the assessment of the fishery against the criteria on which EPBC Act decisions are based.</p>	<p>The Department considers that this recommendation has been met.</p> <p>The Department recommends that this action be continued.</p> <p>(see Recommendation 2, Table 4).</p>

Recommendation	Progress	Recommended Action
<p>3. DFWA 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>The WA Department of Fisheries has provided annual reports through the <i>Status Reports of the Fisheries and Aquatic Resources of Western Australia</i>. These reports are a recognised format for the reporting requirements of this recommendation.</p>	<p>The Department considers that this recommendation has been met.</p> <p>The Department recommends that this action be continued (see Recommendation 3, Table 4).</p>
<p>4. DFWA to conduct a comprehensive review of risk levels for target species, byproduct, bycatch (including protected species) and impacts on the environment for the Abalone Fishery. DFWA to implement appropriate measures to ensure identified risks are addressed and minimised.</p>	<p>The WA Department of Fisheries has advised that the risks identified in the 2009 risk assessment remain unchanged.</p> <p>However, as a result of the 2011 marine heatwave impact to the fish and abalone stocks in the area, the addition of an external risk of 'heatwave events' has been applied. An informed risk rating has also been added relating to stock enhancement, following research and development to date. These two additional risk ratings have been included in the 'General Environment' section of the risk ratings.</p> <p>The WA Department of Fisheries is continuing to monitor the risks and implement further appropriate response measures as needed.</p>	<p>The Department considers that this recommendation has been met.</p>

Recommendation	Progress	Recommended Action
<p>5. DFWA to continue to progress the current and intended 'future directions' research areas indicated in the Performance indicators, biological reference points, and decision rules for Western Australian abalone fisheries report, to enable the fishery to continue to improve its ecological sustainability.</p>	<p>In February 2009, the WA Department of Fisheries published the 'Fisheries Research Report 185' which provides a summary, analysis and development of performance indicators, biological reference points and decision rules for the setting of TACCs within the abalone fisheries.</p> <p>Since the 2009 assessment, the WA Department of Fisheries has conducted further research into performance indicators, biological reference points and decision rules for setting annual TACCs. This work remains ongoing, with further research and development underway including:</p> <ul style="list-style-type: none"> ▪ stock predictions and TACC assessment through the use of fishing mortality and independent survey data, and ▪ harvest control rules and performance indicators (preparations towards Marine Stewardship Council certification for Roe's and greenlip/brownlip abalone fisheries). This is expected to be finalised by early 2015. 	<p>The Department considers that this recommendation has been met.</p>
<p>6. DFWA to continue to consult with other fisheries agencies to pursue a national process for developing, adopting and reviewing appropriate biological parameters and reference points</p>	<p>The WA Department of Fisheries has advised of the development of performance indicators, and of input to a research project (FRDC 2007/020) focusing on the identification and evaluation of biological performance indicators for abalone fisheries.</p> <p>This project remains ongoing and is expected to result in a national process for the improvement and development of biological parameters and reference points in the abalone fisheries.</p>	<p>The Department considers that this recommendation has been met.</p>

Recommendation	Progress	Recommended Action
<p>7. DFWA to develop an appropriate performance measure(s) which provides the basis for monitoring and responding to future ecosystem changes in the fishery.</p>	<p>The WA Department of Fisheries has considered important changes to the ecosystem, resulting from physical influences including water temperature, salinity and wind, in its management of the fishery.</p> <p>For example, the recent 2011 marine heatwave in WA had a significant impact on the abalone populations in WA, causing extensive mortalities within some abalone populations, leading to closure of parts the fishery in 2012. While some stock populations declined due the heatwave, stock densities now appear to be recovering towards historical levels, indicating that the management response was appropriate.</p> <p>To investigate this further, the WA Department of Fisheries was involved in a 2011 FRDC funded project (2011/754) to assess the effects of changes in climate on fisheries in WA. This project determined that brownlip, greenlip and Roe’s abalone are amongst the most highly at risk species (out of 35 assessed), to adverse affects through climate changes.</p> <p>As a continuation of this project, the WA Department of Fisheries is currently developing/finalising appropriate performance measures, intended as a basis for monitoring and responding to future ecosystem changes in the fishery.</p> <p>These revised performance measures will be incorporated into the recommendations of the FRDC report.</p>	<p>The Department considers that this recommendation has been met.</p>

Recommendation	Progress	Recommended Action
<p>8. DFWA to continue to ensure that any relevant community, conservation and recreational interests in the fishery are considered through appropriate consultative mechanisms.</p>	<p>The WA Department of Fisheries is continuing to consult with relevant stakeholders and fishing and conservation bodies, when considering fishery management issues and proposed changes in the fishery.</p>	<p>The Department considers that this recommendation has been met.</p>
<p>9. DFWA to continue to implement strategies to more accurately quantify the extent of catch from other sectors, to better inform the stock Assessment process.</p>	<p>To date, the WA Department of Fisheries has been conducting recreational fishery catch assessments through on-ground catch data surveys, and before and after in-water abundance estimates.</p> <p>The WA Department of Fisheries continues to participate in the cross-jurisdictional operations on an ongoing basis, to ensure the development and implementation of strategies and response measures to reduce illegal take of abalone in WA.</p>	<p>The Department considers that this recommendation has been met.</p>

Recommendation	Progress	Recommended Action
<p>10. DFWA to continue to work with other jurisdictions to develop and implement effective strategies and response measures to reduce the extent of illegal take of Abalone in Western Australia.</p>	<p>The WA Department of Fisheries participates in various joint operational arrangements to maximise efforts to detect the illegal harvest of abalone, including with the WA Police, Australian Customs and the National Fisheries Compliance Committee (NFCC). A Memorandum of Understanding (MOU) is also being developed with all states and territories for the purpose of further and improved joint operational activities within the various compliance agencies, to investigate the tracking of illegal fishing activities.</p> <p>An MOU is also in place with the Department of Primary Industry and Resources South Australia to cross authorise selected Fisheries Officers across the neighbouring jurisdictions.</p> <p>In addition to membership on the NFCC, authorities from all abalone producing states have formed an NFCC intelligence sub-committee. This subcommittee meets annually to review compliance and intelligence strategies across the jurisdictions and facilitate cross-jurisdictional operations.</p> <p>The WA Department of Fisheries is continuing to participate in these cross-jurisdictional operations on an ongoing basis, to ensure the development and implementation of strategies and response measures to reduce illegal take of abalone in WA.</p>	<p>The Department considers that this recommendation has been met.</p>

Table 3: The Department of the Environment’s assessment of the Western Australia (WA) Abalone Managed Fishery against the requirements of the EPBC Act related to decisions made under Part 13 and Part 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 Part 13 and Part 13A. A complete version of the EPBC Act can be found at <http://www.comlaw.gov.au/>.

Part 13

<p>Division 1 Listed threatened species</p> <p>Section 208A Minister may accredit plans or regimes</p>	<p>The Department’s assessment of the Western Australia (WA) Abalone Managed Fishery</p>
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <p>i. made by a State or self-governing Territory; and</p> <p>ii. in force under a law of the State or self-governing Territory;</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 WA Abalone Managed Fishery will be managed under the WA Abalone Managed Fishery Management Plan 1992, in force under the Western Australia <i>Fish Resources Management Act 1994</i> and the Western Australia Fish Resources Management Regulations 1995.</p> <p>The management plan for the WA Abalone Managed Fishery was accredited in August 2009. The management arrangements for the fishery have not significantly changed since the June 2009 assessment, and given the targeted fishing method employed in the abalone fishery, interactions with listed threatened species are considered negligible, as described in Table 1.</p> <p>As such the Department considers that all reasonable steps are being taken to prevent the killing or injuring of listed threatened species in the WA Abalone Managed Fishery.</p> <p>Therefore, the Department considers the current operation of the WA Abalone Managed Fishery is not likely to adversely affect the survival or recovery in nature of any listed threatened species.</p>

Part 13 (cont.)

<p>Division 2 Migratory species</p> <p>Section 222A Minister may accredit plans or regimes</p>	<p>The Department's assessment of the WA Abalone Managed Fishery</p>
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <ul style="list-style-type: none"> i. made by a State or self-governing Territory; and ii. in force under a law of the State or self-governing Territory; <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 WA Abalone Managed Fishery will be managed under the WA Abalone Managed Fishery Management Plan 1992, in force under the Western Australia <i>Fish Resources Management Act 1994</i> and the Western Australia Fish Resources Management Regulations 1995.</p> <p>The management plan for the WA Abalone Managed Fishery was accredited in August 2009. The management arrangements for the fishery have not significantly changed since the June 2009 assessment, and given the targeted fishing method employed in the abalone fishery, interactions with listed migratory species is considered negligible, as described in Table 1.</p> <p>As such the department considers that all reasonable steps are being taken to prevent the killing or injuring of listed migratory species in the WA Abalone Managed Fishery.</p> <p>Therefore, the Department considers the current operation of the WA Abalone Managed 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 WA Abalone Managed Fishery
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <ul style="list-style-type: none">i. made by a State or self-governing Territory; andii. in force under a law of the State or self-governing Territory; <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 WA Abalone Managed Fishery will be managed under the WA Abalone Managed Fishery Management Plan 1992, in force under the Western Australia <i>Fish Resources Management Act 1994</i> and the Western Australia Fish Resources Management Regulations 1995.</p> <p>The management plan for the WA Abalone Managed Fishery was accredited in August 2009. The management arrangements for the fishery have not significantly changed since the June 2009 assessment, and given the targeted fishing method employed in the abalone fishery, interactions with whales and other cetaceans are considered minimal, with none recorded, as described in Table 1.</p> <p>As such the Department considers that all reasonable steps are being taken to prevent the killing or injuring of whales and other cetaceans in the WA Abalone Managed Fishery.</p> <p>Therefore, the Department considers the current operation of the WA Abalone Managed Fishery is not likely to adversely affect the conservation status of a species of cetacean or a cetacean population.</p>

Part 13 (cont.)

<p>Division 4 Listed marine species</p> <p>Section 265 Minister may accredit plans or regimes</p>	<p>The Department's assessment of the WA Abalone Managed Fishery</p>
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <p style="margin-left: 20px;">i. made by a State or self-governing Territory; and</p> <p style="margin-left: 20px;">ii. in force under a law of the State or self-governing Territory;</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 WA Abalone Managed Fishery will be managed under the Abalone Managed Fishery Management Plan 1992, in force under the Western Australia <i>Fish Resources Management Act 1994</i> and the Western Australia Fish Resources Management Regulations 1995.</p> <p>The management plan for the WA Abalone Managed Fishery was accredited in August 2009. The management arrangements for the fishery have not significantly changed since the June 2009 accreditation was granted and, given the targeted fishing method employed in the abalone fishery, interactions with listed marine species are considered negligible, as described in Table 1.</p> <p>As such the Department considers that all reasonable steps are being taken to prevent the killing or injuring of listed marine species in the WA Abalone Managed Fishery.</p> <p>Therefore, the Department considers the current operation of the WA Abalone Managed Fishery is not likely to adversely affect the conservation status of a listed marine species or a population of a listed marine species.</p>

Part 13A

Section 303BA Objects of Part 13A

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

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

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

Part 13A

Section 303DC Minister may amend list	The Department's assessment of the WA Abalone Managed Fishery
<p>(1) Minister may, by instrument published in the Gazette, amend the list referred to in section 303DB (list of exempt native specimens) by:</p> <ul style="list-style-type: none"> (a) including items in the list; (b) deleting items from the list; or (c) imposing a condition or restriction to which the inclusion of a specimen in the list is subject; or (d) varying or revoking a condition or restriction to which the inclusion of a specimen in the list is subject; or (e) correcting an inaccuracy or updating the name of a species. 	<p>The Department recommends that product derived from the WA Abalone Managed Fishery be included in the list of exempt native specimens until 12 September 2019.</p>
<p>(1A) In deciding whether to amend the list referred to in section 303DB (list of exempt native specimens) to include a specimen derived from a commercial fishery, the Minister must rely primarily on the outcomes of any assessment in relation to the fishery carried out for the purposes of Division 1 or 2 of Part 10.</p>	<p>No assessment of the WA Abalone Managed Fishery has been carried out under Part 10 of the EPBC Act.</p>
<p>(1C) The above does not limit the matters that may be taken into account in deciding whether to amend the list referred to in section 303DB (list of exempt native specimens) to include a specimen derived from a commercial fishery.</p>	<p>It is not possible to list exhaustively the factors that you may take into account in amending the list of exempt native specimens. The objects of Part 13A, which are set out above this table, provide general guidance in determining factors that might be taken into account. A matter that is relevant to determining whether an amendment to the list is consistent with those objects is likely to be a relevant factor.</p>

	<p>The Department considers that the amendment of the list of exempt native specimens to include product taken in the WA Abalone Managed Fishery until 12 September 2019 would be consistent with the provisions of Part 13A (listed above) 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 ▪ there are management arrangements in place to ensure that the resource is being managed in an ecologically sustainable way (see Table 1) ▪ the operation of the WA Abalone Managed Fishery is unlikely to be unsustainable and threaten biodiversity within the next five years, and ▪ the Environment Protection and Biodiversity Conservation Regulations 2000 do not specify abalone 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> <ul style="list-style-type: none"> (a) must consult such other Minister or Ministers as the Minister considers appropriate; and (b) must consult such other Minister or Ministers of each State and self-governing Territory as the Minister considers appropriate; and (c) may consult such other persons and organisations as the Minister considers appropriate. 	<p>The Department considers that the consultation requirements have been met.</p> <p>The application from the WA Department of Fisheries was released for public comment from 18 June 2014 to 17 July 2014. The public comment period sought comment on:</p> <ul style="list-style-type: none"> ▪ the proposal to amend the list of exempt native specimens to include product derived from the WA Abalone Managed Fishery, and ▪ the WA Department of Fisheries' application for the WA Abalone Managed Fishery. <p>No comments were received.</p>

<p>(5) A copy of an instrument made under section 303DC is to be made available for inspection on the Internet.</p>	<p>The instrument for the WA Abalone Managed Fishery made under section 303DC will be gazetted and made available through the Department's website.</p>
---	---

Part 12

<p>Section 176 Bioregional Plans</p>	<p>The Department's assessment of the WA Abalone Managed Fishery</p>
<p>(5) Subject to this Act, the Minister must have regard to a bioregional plan in making any decision under this Act to which the plan is relevant.</p>	<p>The <i>Bioregional plan for the South-west Marine Region 2012</i> has been considered in the preparation of advice in relation to decisions under section 303DC. Extraction of living resources has been identified as a pressure operating within the South-west Marine Bioregional planning area in which the WA Abalone Fishery operates. Bycatch of turtles, sea snakes, seabirds and seahorses is also a recognised pressure of potential concern.</p> <p>There have been no recorded interactions of this fishery with any of the species identified as being of potential concern. Further, the WA re-assessment of the 2009 Ecological Risk Assessment risk ratings assessed impacts of the fishery to the physical ecosystem as negligible to moderate, due to the benign harvesting method used in the fishery (hand harvesting).</p> <p>In addition, an annually reviewed total allowable commercial catch restricts the removal of abalone from the ecosystem to sustainable levels.</p>

Part 16

Section 391 Minister must consider precautionary principle in making decisions	The Department's assessment of the WA Abalone Managed Fishery
(1) The Minister must take account of the precautionary principle in making a decision under section 303DC and/or section 303FN, to the extent he or she can do so consistently with the other provisions of this Act.	Having regard to the precautionary management measures in place in the fishery, summarised in Table 1, the Department considers that the precautionary principle has been accounted for in the preparation of advice in relation to a decision under section 303DC.
(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.	

The Department of the Environment's final recommendations to the Western Australian (WA) Department of Fisheries for the WA Abalone Managed Fishery

The material submitted by the WA Department of Fisheries indicates that the WA Abalone Managed Fishery operates in accordance with the Australian Government '*Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition*'.

The Department notes that the 2012/2013 Annual Status Report indicates that overall the target stock and fishing levels are 'adequate' and 'acceptable' (respectively) for the Roe's and greenlip/brownlip abalone fisheries.

The Department considers that the management measures in place in the WA Abalone Managed Fishery are sufficient to ensure that the fishery is conducted in a manner that does not lead to over-fishing and that stocks are not currently overfished. These measures include:

- limited entry
- area and seasonal closures
- total allowable commercial catches
- total allowable recreational catches
- minimum legal size limits, and
- individual transferable quotas.

Taking into account the management measures for the target species, and the benign fishing method (hand harvesting), the Department considers that fishing operations are managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.

Given these management measures the Department considers that product taken in the WA Abalone Managed Fishery should be included in the list of exempt native specimens under Part 13A of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) until 12 September 2019. To ensure that the decisions for the WA Abalone Managed Fishery under the EPBC Act continue to be valid, the recommendations listed in Table 4 have been made.

Table 4: WA Abalone Managed Fishery Assessment – Summary of Issues and Recommendations September 2014

Issue	Recommendation
<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 the Environment 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, EPBC Act protected species or the ecosystem.</p>	<p>Recommendation 1:</p> <p>Operation of the fishery will be carried out in accordance with the management regime under the Western Australian <i>Fish Resources Management Act 1994</i> and the Western Australian Fish Resources Management Regulations 1995.</p> <p>Recommendation 2:</p> <p>The WA Department of Fisheries to inform the Department of the Environment of any intended material changes to the Western Australian Abalone Managed Fishery management arrangements that may affect the assessment against which <i>Environment Protection and Biodiversity Conservation Act 1999</i> decisions are made.</p>
<p><u>Annual Reporting</u></p> <p>It is important that reports be produced and presented to the Department 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.</p>	<p>Recommendation 3:</p> <p>The WA Department of Fisheries to produce and present reports to the Department of the Environment annually as per Appendix B of the '<i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i>'.</p>

Issue	Recommendation
<p>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 EPBC Act 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/resource/guidelines-ecologically-sustainable-management-fisheries</p>	

REFERENCES

Fletcher, W. J. And Santoro, K. (eds). (2013) *Status reports of the fisheries and aquatic resources for Western Australia 2012/13: The State of the Fisheries*. Department of Fisheries, Western Australia.

The Department of Sustainability, Environment, Water, Population and Communities (2012), *Marine bioregional plan for the Temperate East Marine Region*, <http://www.environment.gov.au/system/files/pages/a73fb726-8572-4d64-9e33-1d320dd6109c/files/south-west-marine-plan.pdf>

ACRONYMS

CITES	Convention on International Trade in Endangered Species
EPBC	Environment Protection and Biodiversity Conservation Act 1999
ERA	Ecological Risk Assessment
ITQ	Individual Transferable Quotas
NFCC	National Fisheries Compliance Committee
TACC	Total Allowable Commercial Catch
TARC	Total Allowable Recreational Catch

