
South Australian Fisheries Management Series

Ecological Assessment of the South Australian Specimen Shell Fishery Reassessment Report

Prepared for the Department of Environment, Water, Heritage,
and the Arts

For the purposes of Part 13 and 13(A) of the *Environment Protection and
Biodiversity Conservation Act 1999*

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1. Purpose

This report has been prepared by the Fisheries Division of the Department of Primary Industries and Resources, South Australia (PIRSA).

The purpose of this report is to provide a revised assessment of the management arrangements in place for the South Australian Specimen Shell Fishery (SASSF). This report updates information provided to DEWHA in 2004 for assessment against the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The report has been prepared in accordance with the *Guidelines for the Ecologically Sustainable Management of Fisheries, 2nd Edition*, and particularly addresses the level of change that has occurred in the fishery since the 2004 assessment.

2. Background

The export of Specimen Shell is controlled under the wildlife protection provisions of the Commonwealth EPBC Act 1999. Specimen Shells are declared as controlled specimens, and have been granted a five year exemption that allows for the product from the SASSF to be exported until 20 May 2010.

Since the fishery's last assessment and subsequent updates to DEWHA, there have been no changes to the management arrangements of the SASSF that PIRSA considers will affect the criteria on which the EPBC Act 1999, exemption status is based.

The regulations that govern the management of the SASSF are; *Fisheries Management Act (2007)* the *Fisheries Management (General) Regulations 2007*, and the *Fisheries Management (Miscellaneous) Regulations 2007*.

3. Level of Assessment

The SASSF was assessed and exempted in 2004. Since the last assessment there have not been significant changes in most areas of interest or particular issues as outlined in page 5 of the *Guidelines for the Ecologically Sustainable Management of Fisheries –second edition*.

Table 1: Level of assessment required by the SASSF

Issue	Area of Interest	Yes	No
Fishery	Has there been any change to management arrangements, and/ or fishing practices?		X
External Influences	Has there been any change to an environmental issue/influence outside of the fishery management agencies control?		X
Interaction with protected species	Has there been any change in the nature, scale, intensity of impact, and/or management response?		X
Ecosystem impact	Has there been any change in nature, scale, or intensity of impact, and/or management response?		X
Target Stock Status	Has there been any change in the target stock status? Eg. Increase or decrease in number of overfished or uncertain stocks, limit reference points or performance indicators have been triggered.		X
By-product/ by-catch status.	Has there been any change in the by-product and/or by-catch stock status? eg. Performance indicators triggered or risk assessment outcomes show risk levels have changed.		X

Considering the above, the level of submission requirement for the SASSF is standard.

However, it is important to note that all changes and progress concerning DEWHA's recommendations or conditions have been communicated through annual reports provided for all South Australian managed fisheries.

4. Fishery

The SASSF is based on the capture of multiple species from the following families: Cassidae, Olividae, Spondylidae, Cardiidae, Mactridae, Conidae, Solenidae, Clavagellidae, Carditidae, Marginellidae, Cypraeidae, Cymatiidae, Chitonidae, Naticidae, Neritidae, Harpidae, Turridae, Nassaridae,

Columbellidae, Patellidae, Voluntidae, Vasidae, Eulimidae, Muricidae, Scalidae, Fascioliariidae, Phasianellidae, Buccinidae, Acmaeidae, Fissurellidae, Siphonariidae, Mitridae, Cancellariidae, Liotiidae, Tellinidae, Thaididae, Triviidae, Trochidae and Veneridae.

The South Australian commercial Specimen Shell Fishery is a limited entry fishery with licences issued under the *Fisheries Management (Miscellaneous) Regulations 2007*. Currently only one person is licensed to operate in the fishery the licence holder exerts minimal fishing effort, resulting in little biological, environmental, economic or social impact.

South Australian waters do not accommodate a number of high value specimen shell species as previously thought in the late 1980s and early 1990s. The remaining licence holder retains his permit for “hobby” purposes as much as to be profitable. PIRSA Fisheries will continue to manage the Specimen Shell Fishery as a limited entry fishery and has no reason to believe that future interest in the fishery will proliferate to the levels seen in the early 1990s.

The following licence conditions regulate the single licence holder in the fishery:

- Fish may only be taken in that area of waters defined as ‘coastal waters’ in the *Fisheries Management (General) Regulations 2007*.
- Only fish of the following families may be taken pursuant to this licence: Cassidae, Olividae, Spondylidae, Cardiidae, Mactridae, Conidae, Solenidae, Clavagellidae, Carditidae, Marginellidae, Cypraeidae, Cymatidae, Chitonidae, Naticidae, Neritidae, Harpidae, Turridae, Nassaridae, Columbellidae, Patellidae, Voluntidae, Vasidae, Eulimidae, Muricidae, Scalidae, Fascioliariidae, Siphonariidae, Mitridae, Cancellariidae, Liotiidae, Tellinidae, Thaididae, Triviidae, Trochidae, Veneridae.
- Black cowrie (*Zoila friendii thersites*) may not be taken in excess of the bag limit prescribed in the *Fisheries Management (General) Regulations 2007* of 1 per person per day.

5.1 Harvest of specimen shells

Specimen Shells are harvested by hand whilst diving to minimise the potential for damage and thereby maintaining the value of the Shells. The licensee is not entitled to take specimens by dredge as this is not considered to be a practice in keeping with the nature of their access.

There is no indication that stocks of any specimen shells in South Australia are overexploited or will be in the near future. The commercial fishery exerts an extremely small amount of pressure on stocks and, as entry to the fishery is limited, this fishing effort has considerably declined in the last year. The decision of the licence holder is to maintain the licence whilst dedicating the majority of his time to Abalone harvesting (under another licence).

The single licence holder in the fishery is required to provide the South Australian Research and Development Institute (SARDI) with all fishery dependent data from a compulsory catch/effort logbook program. The following information is requested from the licence holder monthly:

- the date the fishing activity took place;
- the Port of Landing of the vessel involved in the fishing activity;
- the area fished;
- the species targeted;
- the name and number of each species taken;
- the method used to process the resource;
- the use made of the resource; and
- live or dead collection.

PIRSA policy restricts the release of catch/effort data for a fishery where there is a licence count less than 5, unless written permission is provided to the Director of Fisheries from those licence holders permitting data to be released. Data gathered from the SASSF is therefore classified as confidential. For the purposes of this report the single licence holder has permitted that catch/effort data be released.

Catch and effort data for the SASSF is represented in Figure 1. Please note that catch was significantly lower in 2009.

Figure 1: Harvest of Specimen Shells per Year

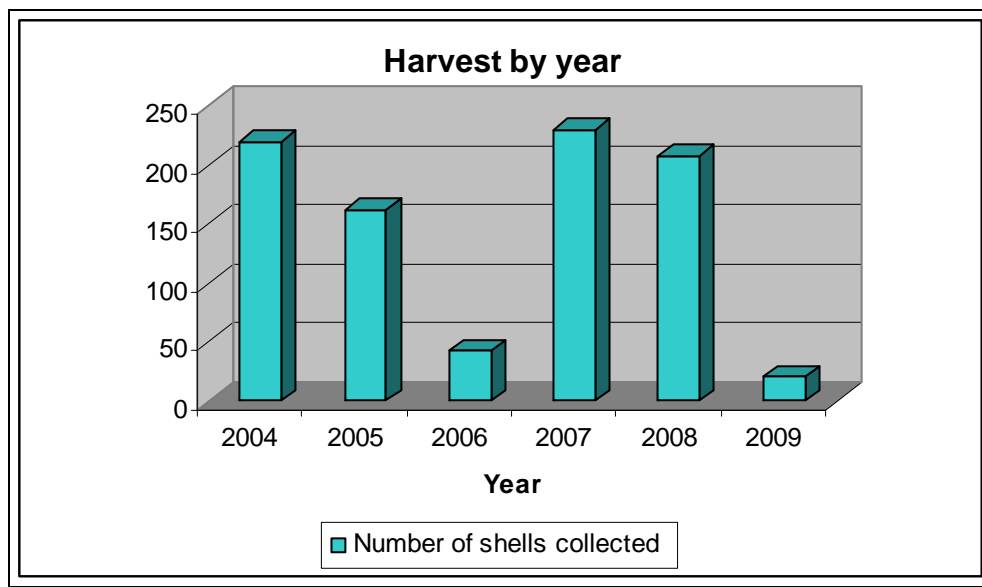


Table 2. Summary of management measures for the commercial South Australian Specimen Shell Fishery.

Table 1: Summary of the South Australian Specimen Shell Fishery

Target Species	Marine shellfish from the Phylum Mollusca; specified families only.
Gear	Hand harvest while diving (SCUBA and hookah gear is permitted) and hand collection of beach washed shells.
Season	Shells can be collected year round.
Commercial licences issued	Limited entry fishery – only 1 license issued currently.
Management arrangements	<p><u>Commercial fishery</u>: Limited entry, spatial restrictions, species restrictions, bag limit (1 per day) on take of Black Cowrie, species <i>Cypraea</i>, prohibition on the removal of specimens from egg masses and of those depositing eggs.</p> <p><u>Recreational fishery</u>: Spatial restrictions, bag limit (1 per day) on take of black cowrie, species <i>Cypraea</i>.</p> <p>No take (including shells) from intertidal rocky reef areas for both, recreational and commercial sectors.</p>
Export status	Currently no export but will consider in the future.

5. External Influences

None know.

6. Interaction with Protected Species

The Fisheries Management Act 2007 in Section 7 sets out the objects of the Act. Ecologically sustainable development is established as the overall object of the Act. A number of biological, social and economic factors are identified that must be balanced in pursuing ecologically sustainable development. Object 7(a), relating to the avoidance of over-exploitation, is specified as the primary consideration.

The SASSF, due to extremely low fishing effort, has little to no impact on endangered, threatened or protected species and ecological communities.

All commercial fishers must report any wildlife interaction to PIRSA Fisheries and the DEWHA. Interactions include: collision or capture (hooked, netted or entangled), all interaction as well as those that relate to a species actually being landed onboard a vessel during a fishing operation are required to be reported. To assist fishers in this task, PIRSA and SARDI have produced a “Wildlife Interaction” identification guide and logbook and provided it to all fishers. However, the SASSF has not reported any interactions with Threatened, Endangered or Protected Species.

A yearly report which includes major South Australian fisheries interactions with Threatened and Protected Species will be produced. The first report will be completed and available on the SARDI website within the next two months.

7. Ecosystem impact

None known.

8. By-product and by-catch stock status

The South Australian Specimen Shell Fishery is target-specific (i.e. hand selected harvesting) and therefore has no bycatch. The shell is the commodity fished and the commercial diver is extremely particular with the species targeted. Damaged shells have a considerably lower market value than those in pristine condition and are more often than not passed over by the commercial diver.

There is the unavoidable removal of commensal organisms attached or within shells at the time of harvest. However, the extremely low catch rates ensure that these species are not threatened.

The majority (approximately 90%) of shells taken by the commercial diver are living, hence containing mollusc flesh. The commercial diver freezes the living shells for periods of up to a week to kill the shell and enable the successful removal of the mollusc flesh with limited damage to the structure of the shell. The mollusc flesh is discarded.

9. Recommendations

The following recommendations were made in 2004 to further strengthen the effectiveness of the management arrangements for the fishery and minimise environmental risks in the medium to longer term.

1. The Department of Primary Industries and Resources, South Australia to advise DEH of any material change to the South Australian Specimen Shell Fishery's management arrangements that could affect the criteria on which EPBC decisions are based, within 3 months of that change being made.

Reports have been submitted on an annual basis to DEWHA updating the progress attained in each of the recommendations.

2. PIRSA to implement the recording of specimen shell status (alive/dead) in logbook returns.

Included in returns, results included in the report.

3. PIRSA to ensure that reliable estimates of recreational harvest of specimen shells is obtained and factored into the assessment and management of the South Australian Specimen Shell Fishery.

No collection of Specimen Shells was reported by recreational fishers in the recently published “2007/08 South Australian Recreational Fishing Survey” available from PIRSA Fisheries’ website.

10.1. Recommendations by DEWHA, Progress Summary.

Table 3. Specimen Shell - Recommendation Summary

No	Recommendation	Progress	Target date
1	The Department of Primary Industries and Resources, South Australia to advise DEH of any material change to the South Australian Specimen Shell Fishery's management arrangements that could affect the criteria on which EPBC decisions are based, within 3 months of that change being made.	Ongoing	2010
2	PIRSA to implement the recording of specimen shell status (alive/dead) in logbook returns.	Substantial	2010
3	PIRSA to ensure that reliable estimates of recreational harvest of specimen shells is obtained and factored into the assessment and management of the South Australian Specimen Shell Fishery.	Substantial	2010