

Technical information supporting the 2018 fish stocks (proportion of stocks sustainable) trend and condition report card

DEW Technical note 2018/38



Government of South Australia

Department for Environment
and Water

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Department for Environment and Water

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Summary

This document describes the indicators, data sources, analysis methods and results used to develop this report and the associated report card. The reliability of data sources for their use in this context are also described.

1 Introduction

1.1 Fisheries in South Australia

Fishing forms an important part of South Australia's economy providing over 3000 jobs to regional South Australia and contributing over 45,000 tonnes of seafood, valued at \$245 million. In addition, fishing is an important recreational activity for around 277,000 – or one in six – South Australians.

Managing fisheries is inherently difficult. Productivity of a fishery is limited by biological production, which is influenced by natural and human induced changes in the environment as well as social and economic priorities/pressures. The human demands on this finite resource are high and current technology is more than sufficient to harvest a fishery at a rate that exceeds its ability to repopulate (Cochrane, 2000). Therefore adequate and active management of fishing activity is necessary.

Primary Industries and Regions South Australia (PIRSA) manage South Australia's fisheries in partnership with key stakeholder groups. PIRSA do this through the development of fishery management plans and a range of formal policies including the South Australian Fisheries Harvest Strategy Policy. The primary objective under the *Fisheries Management Act 2007* is to protect, manage, use and develop the aquatic resources of the State in a manner that is consistent with ecologically sustainable development.

The South Australian Research and Development Institute (SARDI) – PIRSA's research division and the State Government's principal research institute – conducts regular stock assessments and allocates a stock status classification based on the following categories and definitions (Stewardson et al. 2016):

Sustainable stock – Biomass (or biomass proxy) is at a level sufficient to ensure that, on average, future levels of recruitment are adequate (i.e. not recruitment overfished) and that fishing pressure is adequately controlled to avoid the stock becoming recruitment overfished.

Transitional-depleting stock – A deteriorating stock – biomass is not yet recruitment overfished, but fishing pressure is too high and moving the stock or management unit in the direction of becoming recruitment overfished.

Overfished stock – Spawning stock biomass has been reduced through catch, so that average recruitment levels are significantly reduced (i.e. recruitment overfished). Current management is not adequate to recover the stock, or adequate management measures have been put in place but have not yet resulted in measurable improvements.

Transitional-recovering stock – A recovering stock – biomass is recruitment overfished, but management measures are in place to promote stock recovery, and recovery is occurring.

Environmentally limited stock – Spawning stock biomass has been reduced to the point where average recruitment levels are significantly reduced, primarily as a result of substantial environmental changes or disease outbreaks (i.e. stock is not recruitment overfished). Fisheries management has responded appropriately to the environmental change in productivity.

Undefined stock – Insufficient information exists to determine stock status.

The status for all South Australian fish stocks will be updated in December 2018 as part of the National Fish Stock Status Reports. This will include a revised classification framework.

This report outlines the methods used to generate the content of the recreational and commercial fisheries report card for 2018 and provides a snapshot in time related to the proportion of fish stocks classified as sustainable.

1.2 Natural resources management trend and condition reporting

The Minister for Environment and Water under the [Natural Resources Management Act 2004](#) is required 'to keep the state and condition of the natural resources of the State under review'. Natural resource management report cards are produced as a primary means for undertaking this review. Previous Natural Resources Management (NRM) trend and condition report card [releases](#) reported against the targets in the [South Australian Natural Resources Management Plan](#) (Government of South Australia 2012b) using the broad process outlined in the [NRM State and Condition Reporting Framework](#) (Government of South Australia 2012a).

As the State NRM Plan is currently under [review](#), NRM Report cards in early 2018 will instead inform the next [South Australian State of the Environment Report \(SOE\)](#) due out in 2018. Again, there is a legislative driver to guide the development of SOE reporting. The [Environment Protection Act 1993](#), which is the legislative driver to guide the development of SOE reporting, states that the SOE must:

- Include an assessment of the condition of the major environmental resources of South Australia 112(3(a))
- Include a specific assessment of the state of the River Murray, especially taking into account the Objectives for a Healthy River Murray under the [River Murray Act 2003](#) 112(3(ab))
- Identify significant trends in environmental quality based on an analysis of indicators of environmental quality 112(3(b)).

NRM Trend and Condition report cards will be used as the primary means to address these SOE requirements.

1.2.1 NRM Trend and Condition Report Card Continual improvement

Key documents guiding the content of South Australian NRM Trend and Condition report cards are:

- [Trend and Condition Report Cards Summary Paper](#) (DEWNR 2017)
- [NRM State and Condition Reporting Framework](#) (Government of South Australia 2012a).

Both of these documents reference a process of continual improvement in the way NRM Trend and Condition report cards are produced and communicated. A review based on key stakeholder feedback ([O'Connor NRM 2015](#)) indicated five key learnings ([DEWNR 2017](#)):

1. Trend and Condition Report Cards are acknowledged as a useful communication tool. There is support for them to continue to be produced to highlight data gaps and reliability issues to a broad audience including: policy makers and investors; environmental managers; and the community.
2. There are issues with data availability, access, consistency and transparency, which will need to be addressed and improved over time in future Trend and Condition Report Cards
3. Indicators or measures reported on were based on those outlined in the State NRM Plan. Not all of these are considered to be the most appropriate or relevant for those assets. These will be reviewed as part of the current State NRM Plan review and a set of agreed measures will be determined for future Trend and Condition Report Cards.
4. Greater alignment of reporting relevant to project, regional, state, program and State of the Environment is seen as imperative
5. Better clarity is needed around target evaluation reporting, which should measure the impact or outcome of an investment at a project, regional, state or program scale. However the trend and condition reporting reflects the status of an environmental resource and its change based on impacts that affect its condition. In some cases, the same reporting can be used for both (e.g. soil erosion), and in others it cannot (e.g. threatened species).

As the process by which the NRM Trend and Condition report cards are produced evolves, there is an increased emphasis, in keeping with the Premier's [digital by default declaration](#), on the use of open data and reproducibility. This is one key response to help address the second key learning outlined above. The report cards being produced to inform the 2018 State of the Environment Report are at varying stages along this route to open data and reproducibility.

2 Methods

2.1 Indicator

The indicators used for the recreational and commercial fisheries report card are:

1. Percentage of stocks with a stock status classification that are sustainable
2. Number of stocks overfished.

2.2 Data sources and collection

Data relating to trends in fish stock classification (as per introduction definitions) are taken from assessments published by PIRSA/SARDI and [FRDC](#) (Steer et al. 2018, Ward et al. 2017, Earl et al. 2016, Burnell and Mayfield 2017, Ferguson et al. 2017, Stobart et al. 2017, Beckmann and Hooper 2017, McLeay 2015, Ferguson and Hooper 2017, FRDC 2017, Linnane et al. 2017, Earl and Ye 2016).

Data relating to commercial fisheries' catch and value are taken from published summary reports prepared by EconSearch Pty Ltd for PIRSA (Econsearch 2016). Data relating to recreational fisheries are taken from the latest survey undertaken in 2013–14 (Giri and Hall 2015).

2.3 Analysis

2.3.1 General methods

Individual stock status are taken directly from published reports. The most recent stock status Marine Scalefish Fishery report (Steer et al. 2018) provides the bulk of information in conjunction with a number of other individual stock status reports as listed in Table 2.1. This table also indicates the species, the year for which the information is relevant, and source of status information.

Table 2.1. Information source and year of latest assessment for individual species

Species	Source	Year of latest assessment
Western Australian Salmon	Steer et al. 2018	2016
Australian Sardine	Ward et al. 2017	2016
Black Bream	Earl et al. 2016 Steer et al. 2018	Coorong 2014/15 State 2016
Blacklip Abalone	Burnell and Mayfield 2017 Ferguson et al. 2017 Stobart et al. 2017	Central Zone 2016 Southern Zone 2015/16 Western Zone 2016
Blue Swimmer Crab	Beckman and Hooper 2017	2015/16
Southern Garfish	Steer et al. 2018	2016
Giant Crab	McLeay 2015	2014
Pipi (Goolwa cockle)	Ferguson and Hooper 2017	2016/17
Greenlip Abalone	Burnell and Mayfield 2017 Ferguson et al. 2017 Stobart et al. 2017	Central zone 2016 Southern Zone 2015/16 Western Zone 2016
King George Whiting	Steer et al. 2018	2016
Mulloway	FRDC 2017 Steer et al. 2018	Coorong 2014/15 State 2016
Western King Prawn	Steer et al. 2018	State 2016
Southern Rock Lobster	Linnane et al. 2017	2016/17
Snapper	Steer et al. 2018	2016
Southern Calamari	Steer et al. 2018	2016
Yelloweye Mullet	Steer et al. 2018	2016
Vongole (Mud cockle)	Steer et al. 2018	2016
Snook	Steer et al. 2018	2016
Greenback Flounder	Earl and Ye 2016	2014/15
Yellowfin Whiting	Steer et al. 2018	2016
Australian Herring	Steer et al. 2018	2016
Sand Crab	Steer et al. 2018	2016
Ocean Jacket	Steer et al. 2018	2016
Bluethroat Wrasse	Steer et al. 2018	2016
Silver Trevally	Steer et al. 2018	2016
Leatherjackets	Steer et al. 2018	2016
Rays and Skates	Steer et al. 2018	2016
Cuttlefish	Steer et al. 2018	2016

2.3.2 Trend

The trend allocation for this card is not a true trend over time, but instead is a snapshot of two points in time (2012 and 2018). The delineation of some fish stocks and the terminology used for stock status classification have changed since 2006. Methods of classification have been relatively consistent since 2012. However as reporting progresses over time, more species are allocated stock statuses, and a better picture of the state of South Australia’s fisheries is acquired. Therefore it is not appropriate to make direct comparisons between years as the addition of new species will impact the percentages of species allocated to classification levels. This report card uses the indicator for trend as “the proportion of stocks classified as stable” and the “number of stocks classed as overfished”. These two classifications should remain consistent throughout time. However, variables between reporting years in the number of stocks assessed, and the naming conventions used to describe stock status and fishery stocks, will impact the overall percentage of sustainable stocks until sufficient time has passed with a consistent amount of stocks being assessed. For example, if 8 out of 10 (80%) stocks are sustainable, and three more species that weren’t previously assessed are added to the list in the following year with a sustainable category, then the percentage of stocks sustainable will increase to 85%. This increase from 80% to 85% does not represent an increase in stocks improving from recovering to sustainable. Therefore, the trend does not give a complete indication as to the status of South Australia’s fisheries. For further analysis of the status of fisheries, the trend should be read in conjunction with the information used to calculate condition (Section 2.3.3).

2.3.3 Condition

For this report card, the condition was assigned based the trend indicator (percentage of stocks classed “sustainable”), in conjunction with changes in stock status to meet the condition definitions presented in Table 2.2. This involves assessing the direction of stocks that have changed classification (e.g. changed from sustainable to depleting, depleting to sustainable, depleting to overfished, recovering to sustainable) in combination with a comparison of stock status classifications for stocks between two points in time (2012 and 2018). The combination of these two factors determines the condition classification based on the parameters set out in Table 2.3.

Table 2.2. Condition definitions

Condition	Condition Definition	Thresholds
Very good	The natural resource is in a state that meets all environmental, economic and social expectations, based on this indicator. Thus, desirable function can be expected for all processes/services expected of this resource, now and into the future, even during times of stress (e.g. prolonged drought)	See Table 2.3
Good	The natural resource is in a state that meets most environmental, economic and social expectations, based on this indicator. Thus, desirable function can be expected for only some processes/services expected of this resource, now and into the future, even during times of stress (e.g. prolonged drought)	See Table 2.3
Fair	The natural resource is in a state that does not meet some environmental, economic and social expectations, based on this indicator. Thus, desirable function cannot be expected from many processes/services expected of this resource, now and into the future, particularly during times of stress (e.g. prolonged drought)	See Table 2.3
Poor	The natural resource is in a state that does not meet most environmental, economic and social expectations, based on this indicator. Thus, desirable function cannot be expected from most processes/services expected of this resource, now and into the future, particularly during times of stress (e.g. prolonged drought)	See Table 2.3
Unknown	Data are not available to determine the state of this natural resource, based on this indicator	
Not applicable	This indicator of the natural resource does not lend itself to being classified into one of the above condition classes	

Table 2.3. Condition calculation

Percent stocks sustainable	Between 2 comparison points (i.e 2012 & 2018 -excluding stocks that have remained sustainable throughout this period) the:	
	Number of stocks returning to sustainable > Number of stocks moving into a worse category	Number of stocks moving to a worse category > number of stocks returning to sustainable
95-100	Very good	Very good
90-95	Very good	Good
85-90	Good	Good
80-85	Good	Good
75-80	Good	Good
70-75	Good	Fair
65-70	Fair	Fair
60-65	Fair	Poor
55-60	Poor	Poor
50-55	Poor	Poor
< 50	Poor	Poor

2.3.4 Reliability

Information is scored for reliability based on the average of subjective scores (1 [worst] to 5 [best]) given for information currency, applicability, level of spatial representation and accuracy. Definitions guiding the application of these scores are provided in Table 2.4 for currency, Table 2.5 for applicability and Table 2.6 for spatial representation.

Table 2.4. Guides for applying information currency

Currency score	Criteria
1	Most recent information >10 years old
2	Most recent information up to 10 years old
3	Most recent information up to 7 years old
4	Most recent information up to 5 years old
5	Most recent information up to 3 years old

Table 2.5. Guides for applying information applicability

Applicability score	Criteria
1	Data are based on expert opinion of the measure
2	All data based on indirect indicators of the measure
3	Most data based on indirect indicators of the measure
4	Most data based on direct indicators of the measure
5	All data based on direct indicators of the measure

Table 2.6. Guides for applying spatial representation of information (sampling design)

Spatial score	Criteria
1	From an area that represents less than 5% the spatial distribution of the asset within the region/state or spatial representation unknown
2	From an area that represents less than 25% the spatial distribution of the asset within the region/state
3	From an area that represents less than half the spatial distribution of the asset within the region/state
4	From across the whole region/state (or whole distribution of asset within the region/state) using a sampling design that is not stratified
5	From across the whole region/state (or whole distribution of asset within the region/state) using a stratified sampling design

3 Results

3.1 Trend and condition

As described in section 2.3.2, the assessment of this report compares two points in time and is not a true trend as the number of stocks with a classification has increased therefore not allowing direct comparison. For the 2018 report, 49 stocks from 28 species have been assessed to calculate trend and condition (Table 3.1). Based on the most current stock assessments, three stocks are undefined, 37 are sustainable, three are overfished, one is transitional recovering, and seven are transitional depleting (Table 3.2).

Between 2012 and 2018, six stocks changed to a worse category while two stocks have improved their status (Table 3.3). There are 24 previously unclassified stocks which now have assigned classifications and the number of "undefined" stocks has reduced from 9 to 3 (Appendix Table 6.1). The number of sustainable stocks has increased from 19 in 2012 to 37 in 2018; this has effectively doubled the number of stocks classified as sustainable, although given the increased number of all stocks classified, the proportion of sustainable stocks has remained at 76 per cent. Based on the categories listed in Table 3.4, the condition was allocated the score of "good", with 76 percent of stocks sustainable but more stocks moving into a worse classification (6) than returning to sustainable (1).

There are three stocks which have remained stable since being classified as transitional depleting or overfished in 2012 (Appendix Table 6.1).

Table 3.1. 2017 summary of South Australia's fisheries stock status based on latest available stock status reports

Sustainable		Transitional depleting
Western Australian Salmon (SA)	Yelloweye Mullet (Lakes and Coorong, SA)	Blacklip Abalone (Western, Central and Southern Zone)
Australian Sardine (SA)	Vongole - Mud cockle (Coffin Bay, West Coast)	Greenlip Abalone (Central Zone)
Black Bream (SA)	Snook (SA)	King George Whiting (Gulf St. Vincent/Kangaroo Island)
Blue Swimmer Crab (Gulf St. Vincent, Spencer Gulf)	Yellowfin Whiting (Northern Gulf St. Vincent, Northern Spencer Gulf)	Southern Rock Lobster (Northern Zone)
Southern Garfish (Southern Spencer Gulf, Southern Gulf St. Vincent, West Coast, South East)	Australian Herring (Western-Southern Australia)	Snapper (Spencer Gulf/West Coast)
Pipi - Goolwa cockle (Lakes and Coorong)	Sand Crabs (SA)	Overfished
Greenlip Abalone (Western Zone)	Ocean Jacket (SA)	Black Bream (Lakes and Coorong)
King George Whiting (Spencer Gulf, West Coast)	Bluethroat Wrasse (SA)	Southern Garfish (Northern Gulf St. Vincent)
Mulloway (Lakes and Coorong, SA)	Silver Trevally (SA)	Vongole - Mud cockle (Port river)
Western King Prawn (Spencer Gulf, Gulf St. Vincent, West Coast)	Leatherjackets (SA)	Transitional recovering
Southern Rock Lobster (Southern Zone)	Rays and Skates (SA)	Southern Garfish (Northern Spencer gulf)
Snapper (Gulf St. Vincent, Western Victoria)	Cuttlefish (SA)	Environmentally limited
Southern Calamari (SA)		Greenback Flounder (Lakes and Coorong)

Table 3.2. Summary of stock classifications in 2012 and 2018

2012			2018		
TOTAL_ALL	Number	Percentage	TOTAL_ALL	Number	Percentage
Total with classification	25		Total with classification	49	
Total sustainable	19	76	Total sustainable	37	76
Total transitional depleting	2	8	Total transitional depleting	7	14
Total transitional recovering	1	4	Total transitional recovering	1	2
Total overfished	3	12	Total overfished	3	6
Total environmentally limited	0	0	Total environmentally limited	1	2
Total undefined	9		Total undefined	3	

Table 3.3. Fish species and stocks that have changed categories since 2012.

Species	Zone	FRDC 2012 fishery assessment	2018 report card assessment
Blacklip Abalone	Western zone	Sustainable	Transitional-depleting
Blacklip Abalone	Central zone	Sustainable	Transitional-depleting
Blacklip Abalone	Southern zone	Sustainable	Transitional-depleting
Southern Garfish	Northern Spencer Gulf	Overfished	Transitional-recovering
Greenlip Abalone	Central zone	Sustainable	Transitional-depleting
King George Whiting	Gulf St. Vincent	Sustainable	Transitional-depleting
Western King Prawn	West Coast	Transitional-recovering	Sustainable
Southern rock lobster	Northern Zone	Sustainable	Transitional-depleting

Table 3.4. Condition calculation

Percent stocks sustainable	Between 2 comparison points (i.e 2012 & 2018 -excluding stocks that have remained sustainable throughout this period) the:	
	Number of stocks returning to sustainable > Number of stocks moving into a worse category	Number of stocks moving to a worse category > number of stocks returning to sustainable
95-100	Very good	Very good
90-95	Very good	Good
85-90	Good	Good
80-85	Good	Good
75-80	Good	Good
70-75	Good	Fair
65-70	Fair	Fair
60-65	Fair	Poor
55-60	Poor	Poor
50-55	Poor	Poor

3.2 Reliability

The overall reliability score for this report card is 4.7 (rounded to 5), based on Table 3.5.

Table 3.5. Information reliability scores for fish stocks:

Indicator	Applicability	Currency	Spatial	Accuracy	Reliability
Status of fish stocks	5	5	4	NA	4.7
Overall	-	-	-	-	4.7

4 Discussion

4.1 Trend

There is increasing interest in the state of fish stocks, the sustainability of fisheries and the marine environment, from fishers, seafood consumers, policy makers and the broader community (Stewardson et al. 2016). Fish stocks are impacted by fishing pressure, environmental degradation, environmental variations and changing global climate patterns. These pressures impact fish abundance, distribution and recruitment, and can cause changes to production capacity (PIRSA 2015).

Globally there is a declining trend in fish stocks (Costello et al. 2016, Pauly & Zellar 2017); however, at a national level, Australia's fisheries generally perform well due to robust fisheries management arrangements embedded in legislation which aims to ensure fish stocks are maintained at sustainable levels. Of the Australian catch reported in the [Status of Australian fish stocks reports 2016](#), approximately 85 per cent is from sustainable stocks, 3 per cent is from transitional–depleting stocks, 1 per cent is from transitional–recovering stocks, 6 per cent is from overfished stocks, 0.02 per cent from environmentally limited stocks, 4 per cent is from undefined stocks and 0.01 per cent is from the stocks classed as negligible (Stewardson et al. 2016).

The State Government's commitment to provide a transparent and consistent reference for stakeholder groups and the wider community on the trends in stock status for all major fisheries in South Australian waters has increased the number of stocks assessed consistent with the national reporting framework from 25 in 2012 to 49 in 2018. Between 2012 and 2018 the number of fish stocks classified as sustainable has increased from 19 to 37, while the proportion (about 76%) has remained stable. The number of stocks classified as overfished (3 stocks) has remained stable while the proportion has halved from 12 per cent in 2012 to 6 per cent in 2018 (Table 3.2). Two of the three overfished stocks, (Northern Gulf St. Vincent Southern Garfish, and Port Adelaide Vongole) have the same status in 2018 as in 2012 suggesting limited recovery of these stocks despite significant fishery management changes implemented during this time (Appendix Table 6.1). Northern Spencer Gulf Southern Garfish stocks were classified as overfished in 2012 but have since been assessed as "transitional recovering" indicating long-term fishery management changes to promote stock recovery have been effective (Steer et al. 2018) (Appendix Table 6.1). Black Bream in the Coorong estuary were classified as overfished in 2016 (Appendix Table 6.1). To address this, a number of management arrangements have been put in place for the commercial and recreational sectors, including spatial and temporal restrictions and reviewed catch limits to aid stocks in recovery.

4.2 Condition

There were 28 species (29 minus Giant Crab which is undefined) and 49 stocks (52 stocks minus 3 undefined stocks (Appendix Table 6.1)) used to assess the condition of South Australia's fisheries.

Most stocks were classified as sustainable (37 stocks or 76%) or transitional depleting (seven stocks) in 2018 (Table 3.2, 3.3). One stock was classified as transitional recovering, three as overfished and one as environmentally limited (Appendix Table 6.1). Six South Australian stocks transitioned to a worse category between 2012 and 2018 (Blacklip Abalone – western, central and southern zone, Greenlip Abalone – central zone, King George Whiting – Gulf St. Vincent, Southern Rock Lobster – Northern zone) while two stocks transitioned to a better category (Southern Garfish – Northern Spencer Gulf (Overfished to recovering), Western King Prawns – west coast (returned to sustainable), Table 3.3). There are three stocks (Spencer Gulf Snapper, Port River Vongole (mud cockle) and northern Gulf St Vincent Southern Garfish) which have remained stable since being classified as transitional depleting or overfished in 2012.

The condition was allocated the classification of good (Table 3.4).

4.3 Limitations

It should be noted that some changes in stock structure have occurred, e.g. northern and southern Gulf St. Vincent Snapper stocks have been changed to one Gulf St. Vincent stock (currently sustainable with previous classification being sustainable for northern Gulf St. Vincent, and transitional depleting for southern Gulf St Vincent). This change in status was not included with the trend or condition calculations. The northern and southern Spencer Gulf and the West Coast Snapper fishery are now considered one biological stock. The use of consistent methods, universal terminology, and the allocation of a fisheries status to fisheries that are currently unclassified will provide clearer and more reliable assessments on stock status in the future.

4.4 Further management

The seven fish stocks classified as depleting are being managed to promote their recovery. For example, commercial licence reductions, gear controls, spatial and temporal fishing closures and reduced recreational limits have been used to improve Southern Garfish stocks, and an annual spatial spawning closure for King George Whiting was implemented in May 2017. The Western Zone Abalone fishery licence holders have voluntarily cut their Blacklip Abalone harvest since 2015.

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6 Appendix

Table 6.1. Stock assessment summaries for 2012 and 2018

2012 assigned stock status			2018 assigned stock status		
Species	Stock	stock status	Species	Stock	stock status
Western Australian Salmon	Western Australia	Sustainable	Western Australian Salmon	Western Australia	Sustainable
Australian Sardine	Southern Australian	Sustainable	Australian Sardine	Southern Australia	Sustainable
			Black Bream	South Australia	Sustainable
Black Bream	Lakes and Coorong	Undefined	Black Bream	Lakes and Coorong	Overfished
Blacklip Abalone	Western Zone	Sustainable	Blacklip Abalone	Western Zone	Transitional-depleting
Blacklip Abalone	Central Zone	Sustainable	Blacklip Abalone	Central Zone	Transitional-depleting
Blacklip Abalone	Southern Zone	Sustainable	Blacklip Abalone	Southern Zone	Transitional-depleting
Blue Swimmer Crab	Gulf St. Vincent	Sustainable	Blue Swimmer Crab	Gulf St. Vincent	Sustainable
Blue Swimmer Crab	Spencer Gulf	Sustainable	Blue Swimmer Crab	Spencer Gulf	Sustainable
Blue Swimmer Crab	West Coast	Undefined	Blue Swimmer Crab	West Coast	Undefined
Southern Garfish	Northern Spencer Gulf (B)	Overfished	Southern Garfish	Northern Spencer Gulf	Transitional-recovering
			Southern Garfish	Southern Spencer Gulf	Sustainable
Southern Garfish	Northern Gulf St Vincent (B)	Overfished	Southern Garfish	Northern Gulf St. Vincent	Overfished
			Southern Garfish	Southern Gulf St. Vincent	Sustainable
			Southern Garfish	West Coast	Sustainable
			Southern Garfish	South East	Sustainable
Giant Crab	South Australia	Sustainable	Giant Crab	South Australia	Undefined
Pipi (Goolwa cockle)	Lakes and Coorong	Undefined	Pipi (Goolwa cockle)	Lakes and Coorong	Sustainable

2012 assigned stock status			2018 assigned stock status		
Greenlip Abalone	Western Zone	Sustainable	Greenlip Abalone	Western Zone	Sustainable
Greenlip Abalone	Central Zone	Sustainable	Greenlip Abalone	Central Zone	Transitional-depleting
Greenlip Abalone	Southern zone	Sustainable	Greenlip Abalone	Southern Zone	Undefined
King George Whiting	Gulf St. Vincent	Sustainable	King George Whiting	Gulf St. Vincent/Kangaroo Island	Transitional-depleting
King George Whiting	Spencer Gulf	Sustainable	King George Whiting	Spencer Gulf	Sustainable
King George Whiting	West Coast	Sustainable	King George Whiting	West Coast	Sustainable
Mulloway	Lakes and Coorong	Undefined	Mulloway	Lakes and Coorong	Sustainable
			Mulloway	South Australia	Sustainable
Western King Prawn	Gulf St. Vincent	Sustainable	Western King Prawn	Gulf St. Vincent	Sustainable
Western King Prawn	Spencer Gulf	Sustainable	Western King Prawn	Spencer Gulf	Sustainable
Western King Prawn	West Coast	Transitional-recovering	Western King Prawn	West Coast	Sustainable
Southern Rock Lobster	Northern Zone	Sustainable	Southern Rock Lobster	Northern Zone	Transitional-depleting
Southern Rock Lobster	Southern Zone	Sustainable	Southern Rock Lobster	Southern Zone	Sustainable
Snapper	Southern Gulf St. Vincent	Undefined	Snapper	Gulf St Vincent	Sustainable
Snapper	Northern Gulf St. Vincent	Sustainable			
Snapper	Southern Spencer Gulf	Transitional-depleting	Snapper	Spencer Gulf/West Coast	Transitional-depleting
Snapper	Northern Spencer Gulf	Transitional-depleting			
Snapper	South East	Undefined	Snapper	South East/Western Victoria	Sustainable
Snapper	West Coast	Undefined			
Southern Calamari	South Australia	Undefined	Southern Calamari	South Australia	Sustainable
Yelloweye Mullet	Lakes and Coorong	Undefined	Yelloweye Mullet	Lakes and Coorong	Sustainable
			Yelloweye Mullet	South Australia	Sustainable

2012 assigned stock status			2018 assigned stock status		
			Vongole (Mud cockle)	West Coast	Sustainable
			Vongole (Mud cockle)	Coffin Bay	Sustainable
Vongole (Mud cockle)	Port River	Overfished	Vongole (Mud cockle)	Port River	Overfished
			Snook	South Australia	Sustainable
			Greenback Flounder	Lakes and Coorong	Environmentally limited
			Yellowfin Whiting	Northern Gulf St. Vincent	Sustainable
			Yellowfin Whiting	Northern Spencer Gulf	Sustainable
			Australian Herring	South Australian	Sustainable
			Sand Crab	South Australia	Sustainable
			Ocean jacket	South Australia	Sustainable
			Bluethroat Wrasse	South Australia	Sustainable
			Silver Trevally	South Australia	Sustainable
			Leatherjackets	South Australia	Sustainable
			Rays and Skates	South Australia	Sustainable
			Cuttlefish	South Australia	Sustainable

