

Providing legislative powers to the commercial fishing industry to set management arrangements

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Abstract

In November 2017, the Minister for Fisheries provided legislative powers to commercial fishing industry representatives in the Spencer Gulf Prawn Fishery (SGPF) to set the management arrangements for a one-year trial period. The legislative powers allow industry representatives to sign the legal instruments that set the area and period of a fishing run (prawn fishing between the quarters of the lunar cycle that include a new moon). The legislative powers have been provided under terms and conditions that require the commercial fishing industry representatives to adhere to the requirements of the harvest strategy for the fishery when setting the management arrangements. The harvest strategy sets Total Allowable Catch (TAC) and areas to be fished based on the results of Fishery Independent Surveys (FIS), which ensures fishing is undertaken at sustainable levels. This is the only example in Australia where the commercial fishing industry had been provided legislative powers to regulate the management of a fishery. The delegation of legislative powers to manage the SGPF is an acknowledgement of the strong history of collaboration between industry and government on co-management of the fishery. By providing industry more ownership of the management, they have become more invested in ensuring the sustainability of the fishery. A review of the powers provided will be undertaken in October 2018. Following the results of the review, consideration will be given to how to improve the arrangements. As a result of this work, other fisheries in Australia are now examining how they can move to a model providing powers to the commercial industry to set management arrangements.

1. INTRODUCTION

1.1 Description of the Fishery

1.1.1 Overview

There are three commercial prawn trawl fisheries in South Australia: the Spencer Gulf Prawn Fishery (SGPF), the Gulf St Vincent Prawn Fishery and the West Coast Prawn Fishery (Figure 1). The SGPF is the largest in terms of production and number of licence holders. It is a single-species prawn fishery, based on the capture of the King Prawn (*Melicertus latisulcatus*). In addition to prawns, licence holders in the fishery are permitted to retain and sell Slipper Lobster (*Ibacus spp*), and Southern Calamari (*Sepioteuthis australis*) caught incidentally when targeting prawns. The fishing season is from November to June, with a pre-Christmas (1 November to 31 December) and post-Christmas (1 March to 30 June) fishing period. The major home ports for vessels in the fleet are Port Lincoln and Wallaroo, with minor activity at Port Adelaide and Port Pirie (Figure 1).

The SGPF was officially established in 1968 when forty permits were offered to fish a number of different management zones across South Australian waters. Initially, twenty-five prawn trawling permits were taken up and, when fishers operating in zones on the West Coast of South Australia were offered the opportunity to fish in Spencer Gulf in 1976, the total number of licenses in the SGPF was set at 39. Fishing is permitted in all waters of Spencer Gulf greater than 10 m (Figure 1). In addition to a restriction on the number of licenses in the fishery, which are able to operate one vessel each, vessels are restricted to an overall length of 22 m, an engine restriction of 336 Kw horsepower, a net mesh size of 4.5 cm and a maximum of two trawl nets, which are restricted to a headline length of 29.26 m.

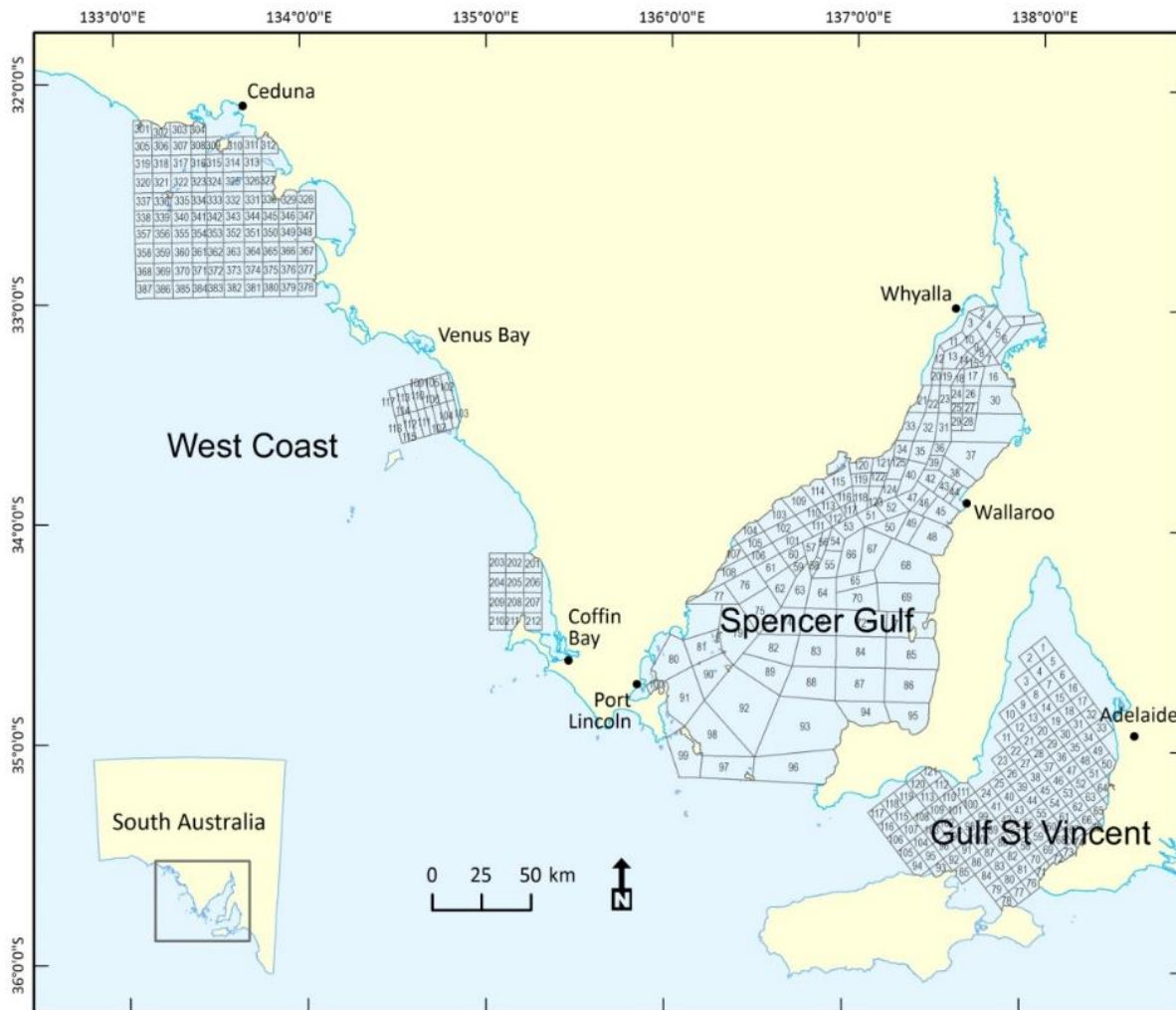


Figure 1. Map of the area and fishing blocks in the three commercial prawn fisheries in South Australia.

Source: PIRSA 2014.

On 25 July 2011, the SGPF became the first prawn fishery in Australia to gain independent third-party certification from the Marine Stewardship Council (MSC). The fishery was recertified in 2016. In gaining this certification, the SGPF has established itself as one that demonstrates best-practice ecologically sustainable fisheries management. As part of gaining the MSC certification, a number of conditions were placed on the SGPF. Progress towards meeting these conditions are assessed through the annual MSC audit of fishing operations.

1.1.2 Fishing Activity

Commercial fishing is undertaken using the demersal otter trawl technique, which involves towing a funnel-shaped net leading into a bag (a 'cod end') over the seafloor (Figure 2 and Figure 3). A separate large meshed bag ('crab bag') is held within the cod end and acts to retain Blue Crabs and megafauna such as sharks and rays, while prawns flow through to the cod end. The crab bag reduces crab mortality, and incidental damage to prawns, and allows crabs and other species not permitted to be retained to be returned promptly to the sea. Otter and bison boards are used to keep the trawl nets open horizontally whilst being towed (Figure 3).

Trawling is undertaken during the night between sunset and sunrise, and generally between the last quarter of the moon – through the phase of the new moon to the first quarter. Trawl shots are of short duration relative to other prawn fisheries, averaging between 30 to 60 minutes. All vessels in the SGPF are fitted with a grid and hopper, into which the contents of the cod ends are spilt (Figure 2). The grid separates out the megafauna, which is immediately returned to the water to maximise species' survival. The hopper is flooded with water to increase the survival of by-catch. The contents of the hopper trickle onto a conveyer-belt system where the retained catch is sorted from the by-catch and discarded by-catch is returned directly to the water (Figure 2). The prawn catch is then placed through a commercial grading machine that sorts the prawn catch into weight categories. The graded catch is then usually packed and frozen immediately, either cooked or green, into 5 kg or 10 kg cartons.

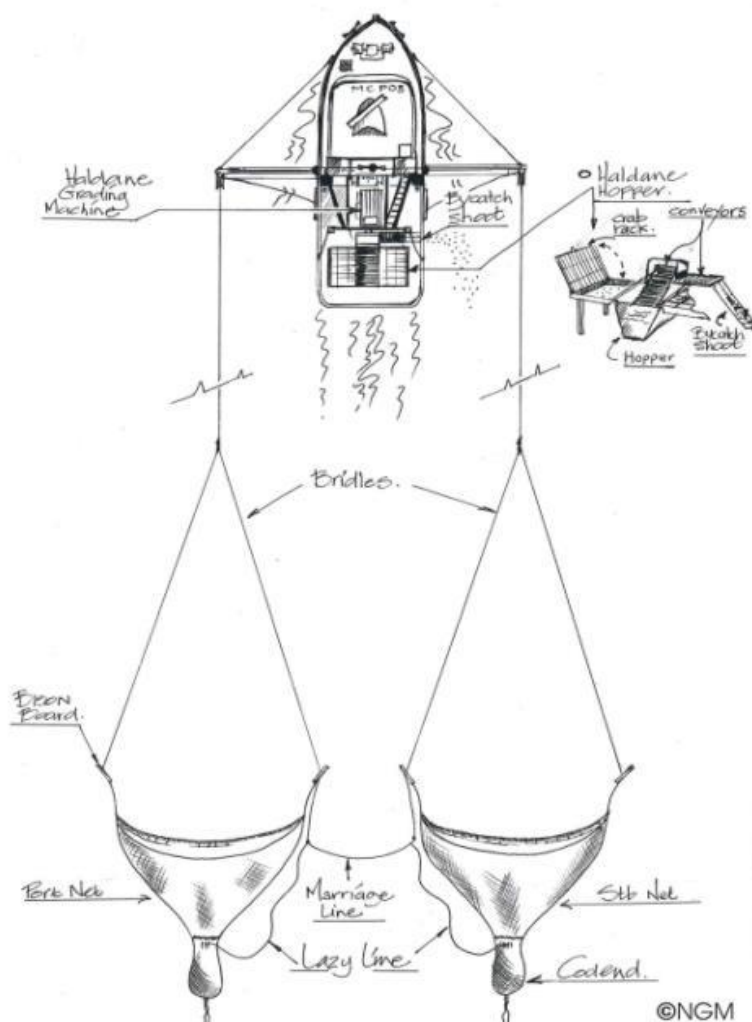


Figure 2. Double rig trawl gear and location of hopper sorting and prawn grading systems used in the SGPF.

Source: PIRSA, 2014.

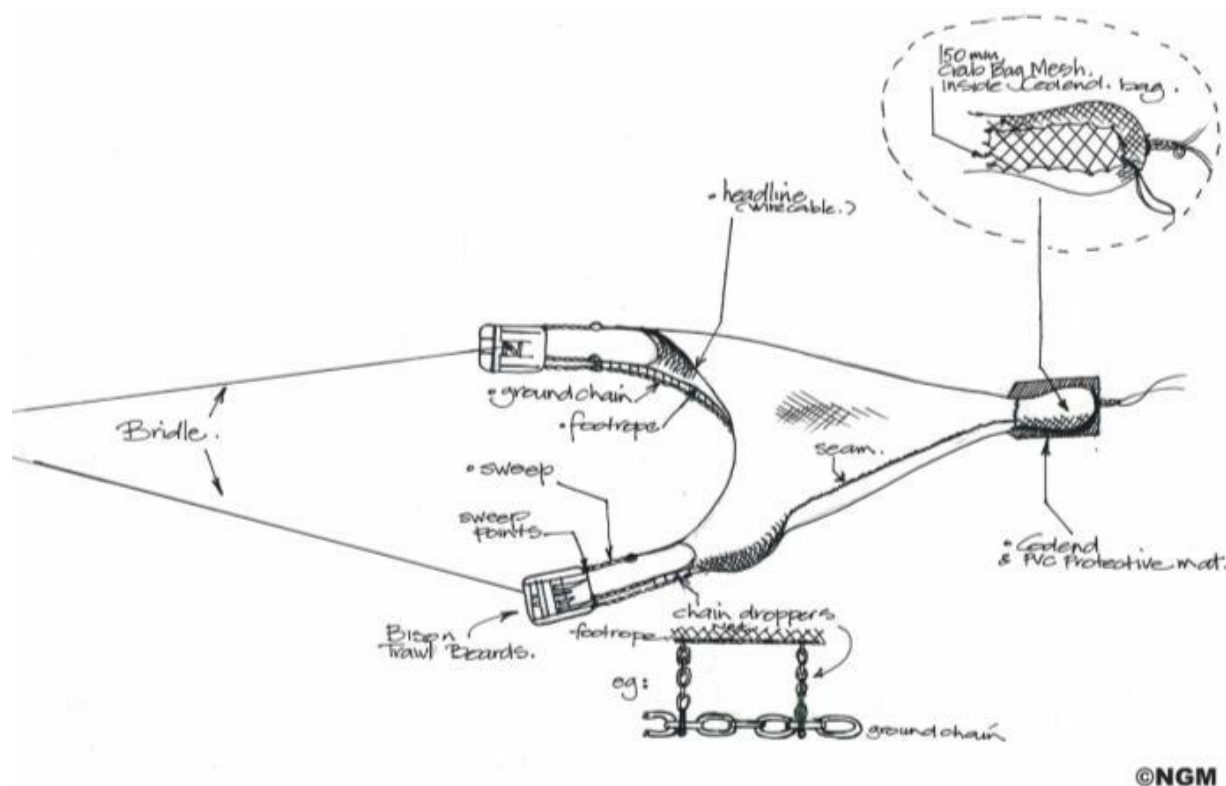


Figure 3. Trawl net configuration showing trawl boards, head rope, ground chain and cod end with crab bag.

Source: PIRSA, 2014.

1.1.3 The Spencer Gulf and West Coast Prawn Fishermen's Association (SGWCPFA)

The fishing industry body representing all 39 licence holders in the SGPF is the Spencer Gulf and West Coast Prawn Fishermen's Association (SGWCPFA). The SGWCPFA is a non-profit Primary Resources Development Corporation formed in 1968 and incorporated in 1984.

The Association is actively involved in activities ranging from the management of the fishery through to marketing and promotion and public relations. However, the core function of the Association is engaged in the management of the fishery.

Since the initial development of the SGPF in 1968, license holders have worked together managing the fishery in collaboration with government. The Association's initial work involved restricting the number of nights fished in the early 1970s, 300 nights were fished by the fleet annually thereafter. Since 1981, the SGPF has halved its total effort while maintaining stable catches (Figure 3) (PIRSA, 2014).

Again in the mid-1980s, when catches declined despite significant reductions in fishing effort, the Association worked closely with government scientists to develop solutions to enable the stock to recover. The result was self-regulated management by the Association to prevent the harvesting of small prawns. This management measure increased recruitment in the fishery resulting in increased catches and catch rates (Figure 4).

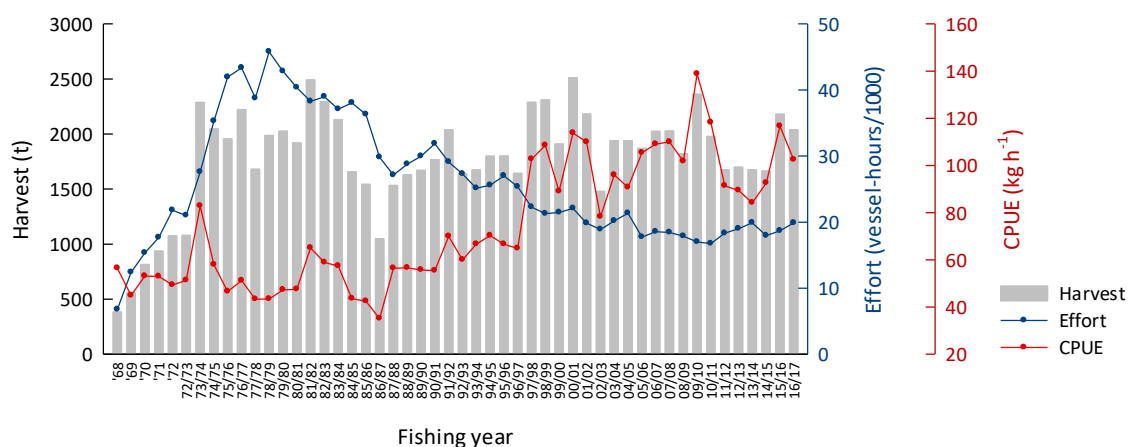


Figure 4. Historical catch, effort and catch per unit effort in the SGPF.

1.2 Economic contribution and social implications of the fishing activity

1.2.1 Overview

The management plan for the SGPF has the high-level economic objective to “ensure optimal utilisation and equitable distribution” (PIRSA 2014). Under this high-level objective, the following economic performance indicators that are reported on annually in an economic report have been developed (Econsearch 2018).

- Trend in Gross Value of Production (GVP) of commercial fishery;
- Trend in Gross Operating Surplus (GOS) of commercial fishery;
- Trend in Return of Investment (ROI) of commercial fishery; and
- Number of FTEs directly and indirectly employed.

These performance indicators provide an overview of the economic contribution and social implications of the fishing activity. Table 1 shows the most recent four years reporting against these performance indicators and other key economic and social information in the fishery.

Table 1. Comparison of key economic and social information in the SGPF over the period 2013/14 to 2016/17.

Indicator	2013/14	2014/15	2015/16	2016/17
Catch	1 805t	1 848t	2 357t	2 205t
Gross value of production (GVP)	USD 29.8m	USD 31.4m	USD 41.4m	USD 41.9m
Fee/licence	USD 26 781	USD 27 161	USD 23 396	USD 26 675
Fee/GVP	3.6%	3.5%	2.3%	2.7%
Return on total capital	3.4%	4.6%	3.6%	3.5%
Licence Value	USD 3.2m	USD 3.3m	USD 3.7m	USD 3.7m
Gross state product ^b	USD 68m	USD 76m	USD 103m	USD 113m
Employment ^b	507 fte	567 fte	763 fte	839 fte
Rent/GVP	7%	15%	4%	5%

Source: Econsearch 2018.

- ^a Dollar values in this table are in real 2016/17 dollars. Note that economic contribution measures include the West Coast Prawn Fishery for 2016/17 but excludes it for the period 2013/14 to 2015/16.
- ^b Note that economic contribution measures include the West Coast Prawn fishery for 2016/17 but exclude it for the period 2013/14 to 2015/16.

1.2.2 Catch and Gross Value of Production

Total catch in the SGPF has been relatively constant from 2002/03 to 2016/17, with some annual fluctuations. The most significant fluctuation occurred in the late 2000s. Catch peaked at over 2 400 tonnes in 2009/10 before falling to around 1 800 tonnes in 2011/12 (Figure 4). The catch in 2016/17 was 2 205 tonnes (Table 1).

The real value of the SGPF catch increased by seven percent from 2002/03 to 2016/17 (Table 1). This slight increase in value was a result of a significant increase in catch (despite year-to-year fluctuations) offsetting a real price reduction (27%) (Econsearch, 2018).

Both the nominal and real price decreased significantly through to 2009/10 but have followed an increasing trend since. The average nominal price of SGPF prawns was two percent higher in 2016/17 (\$19.00/kg) than in 2002/03 (\$18.71/kg), which equates to a 27 percent real price decline (Econsearch, 2018).

1.2.3 Contribution to South Australian economy

Fluctuations in total output and gross state product (GSP) contributions are generally related to changes in price and fishery catch. The total employment contribution of the fishery has fluctuated over the 15 years but followed an increasing trend overall. In 2016/17, the estimated total contribution to GSP (directly and indirectly) was estimated to be USD 113 million, and the total employment contribution was estimated to be 839 fte jobs (Econsearch, 2018).

Employment in the fishery is in and around the townships of Port Lincoln and Wallaroo (Figure 1). The fleet is based in Port Lincoln and operates out of Wallaroo when fishing the northern part of Spencer Gulf.

All the catch in the fishery is supplied to domestic markets. In the mid-1980s to the early 2000s when the Australian dollar was weaker against the US dollar up to 50 percent of the catch was exported. Should the Australian dollar weaken against foreign currencies or the landed price increase, the incentive may be created to again export.

1. MANAGEMENT OF THE FISHERY AND RIGHTS-BASED APPROACH

2.1 Management of the fishery

2.1.1 Legislation managing the fishery

All fisheries under South Australian jurisdiction operate under the *Fisheries Management Act 2007* (the Act). Unless otherwise defined in an Offshore Constitutional Settlement (OCS) arrangement between South Australia and the Australian Commonwealth government South Australia has management jurisdiction for all fish resources from the high water mark out to the three nautical mile baseline adjacent to the coast.

The Act provides the overarching legislative framework for the SGPF. Underneath the Act, the *Fisheries Management (General) Regulations 2007* and the *Fisheries Management (Prawn Fisheries) Regulations 2007* provide the specific legislation for the management of the SGPF. Section 5 of the Act states that each commercial fishery must have a management plan, containing a harvest strategy clearly detailing the linkages of research to the application of management for the purpose of maintaining fishing activities at

sustainable levels. Consequently, the management plan for the SGPF is the principal legislative instrument used to manage the fishery.

Under the Act, management plans must be comprehensively reviewed every five years. The purpose of reviewing the document every five years is to ensure the most effective research and management are applied in a fishery.

2.1.2 Application of research to the management of the fishery

The harvest strategy in the management plan for the fishery has regulated and applied strict decision-making rules for catch rates and size of prawns that were previously self-regulated by the SGWCPFA. The first harvest strategy was applied in the 2007 management plan and in the 2014 management plan, the harvest strategy was refined.

The 2007 harvest strategy was developed in collaboration with the SGWCPFA. Consistent with the techniques already applied by the SGWCPFA, the 2007 management plan sought to ensure biological sustainability and promote economic efficiency, through the application of spatial and temporal closures to manage the fishing effort.

The harvest strategy for the SGPF provides a structured framework for decision-making that specifies pre-determined management actions necessary for the fishery to achieve the ecologically sustainable development (ESD) objectives of the Act. The Harvest Strategy brings together all of the key scientific monitoring, assessment and management elements to form an integrated package to make decisions about the level of fishing intensity that should be applied to the stock (PIRSA, 2014).

The 2014 management plan, and subsequent harvest strategy applies research monitoring of the fishery through three fishery-independent stock assessment surveys (SAS) as well as industry at-sea monitoring of catch and effort. The three fishery-independent SAS are undertaken in February, April and November annually and provide an estimate of catch per unit effort in kilograms per hour (kg/hour) or pounds per minute (lb/min), which is used to determine the stock classification of the fishery (Figure 5). The stock classification, in turn, sets the management arrangements and level of effort within those management arrangements for the pre-Christmas fishing period (1 November to 31 December) and the post-Christmas fishing period (1 March to 30 June) (Figure 6).

The terminology of the stock classifications overfished, transitional and sustainable comes from the 'Status of key Australian fish stocks reports' (Flood et al., 2012), which was written to provide clear definition around the classification of all Australian fish stocks.

- Sustainable: stock for which 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 for which fishing pressure is adequately controlled to avoid the stock becoming recruitment overfished.
- Transitional recovering: biomass is recruitment overfished, but management measures are in place to promote stock recovery, and recovery is occurring, or Transitional depleting: biomass is not yet recruitment overfished, but fishing pressure is too high and moving the stock in the direction of becoming recruitment overfished.

- Overfished: the stock is recruitment overfished, and 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.

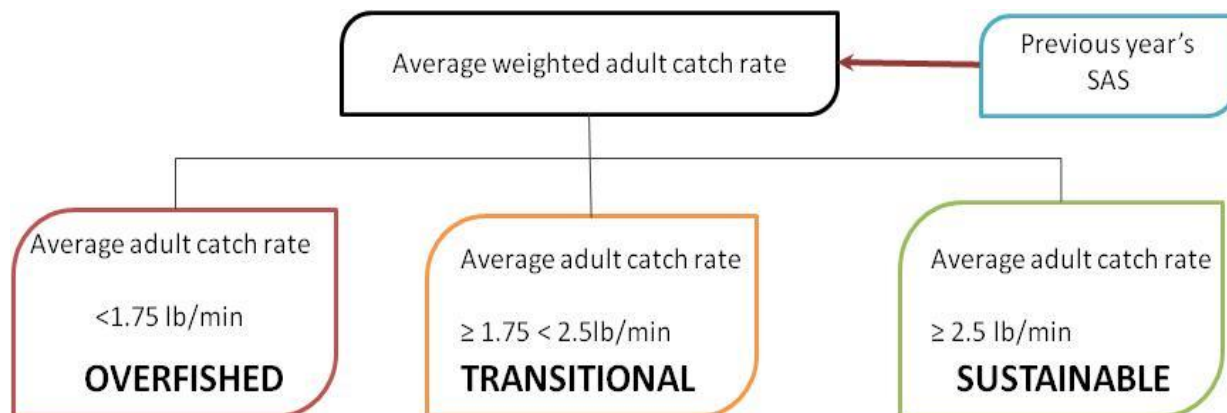


Figure 5. Flow diagram describing how catch rate as pounds per minute determines stock classification in the SGPF for the season.

Figure 6 shows the setting of the management arrangements for the season based on the stock classification for the pre-Christmas and post-Christmas fishing periods.

The stock status classification from the SAS in the previous season determines the management arrangements for the upcoming season. These management arrangements are broken down into two pre-Christmas and post-Christmas fishing periods (Figure 6).

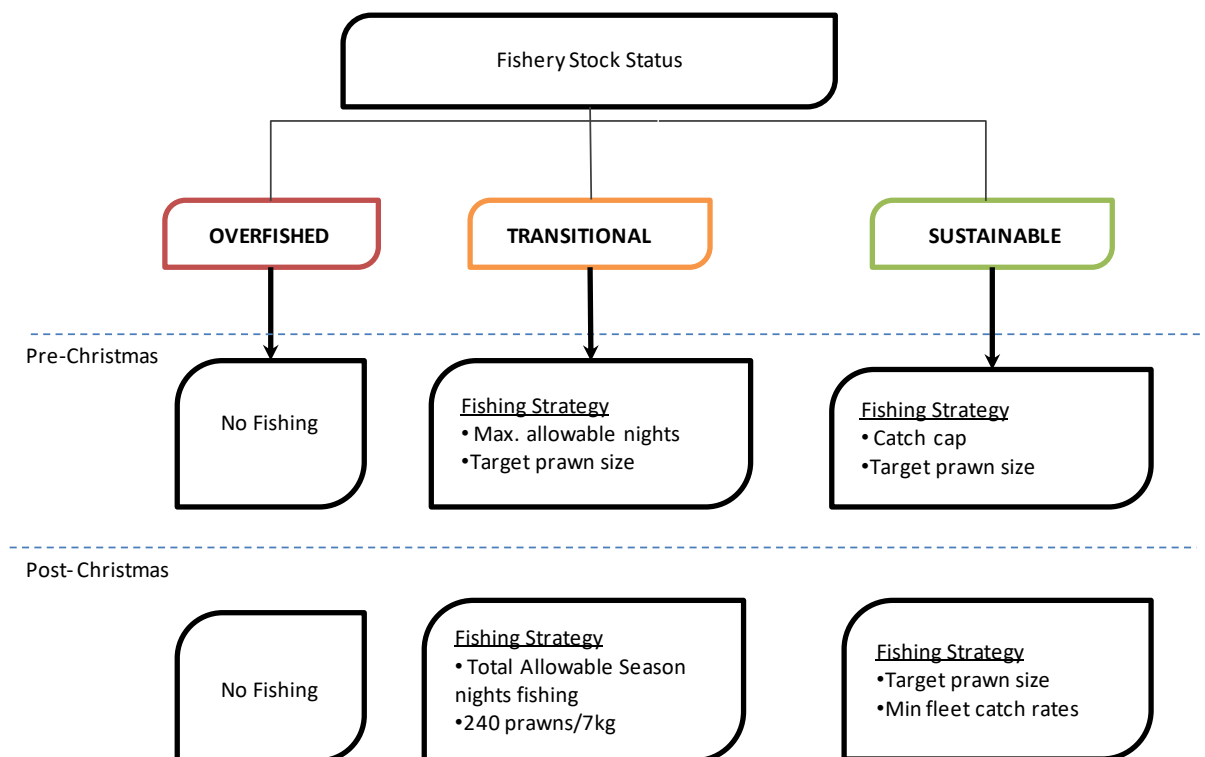


Figure 6. Application of seasonal management arrangements set following the determination of the stock status classification.

Since the establishment of the current SGPF management plan, in October 2014, the SAS have only ever resulted in the fishery achieving a sustainable stock status classification. Under a sustainable classification, the area and periods of fishing runs, prawn fishing between the quarters of the lunar cycle that include a new moon, are set for both the pre-Christmas and post-Christmas fishing periods.

The SGWCPFA management committee meets to discuss and make a recommendation for each fishing run in the pre-Christmas and post-Christmas periods. The SGWCPFA management committee is made up of seven commercial industry representatives, who can be either licence holders or skippers in the fishery, the Primary Industries and Regions South Australia (PIRSA) Fisheries Manager and the government scientist from the South Australian Research Development Institute (SARDI). The management committee makes decisions or recommendations by consensus where possible and, where consensus cannot be reached, the voting members of the committee, the seven commercial industry representatives, cast a vote.

Under a sustainable classification, the management committee determines the area to fish based on the size of prawns caught in each survey shot undertaken in the most recent SAS. The number of prawns in a seven-kilogram bucket or bucket count is recorded in the locations surveyed (November survey 182 surveys shot locations and February and April 207 survey shot locations) in each of the three SAS throughout Spencer Gulf (Figure 1). Only areas where the most recent SAS has recorded survey shot bucket counts above the criteria specified in the harvest strategy within the management plan can then

be fished within a fishing run¹. Should the size of prawns drop below the harvest strategy criteria in an area then the fleet is moved on to other areas designated for fishing in the fishing run.

In addition to the bucket count criteria, a total allowable catch limit, set across the fleet, is applied to pre-Christmas fishing when the stock status classification of the fishery is sustainable. The total allowable catch limit applied is based on the November SAS catch per unit effort results (kg/hour) (Table 2).

Table 2. Pre-Christmas total allowable catch limits based on November SAS catch per unit effort.

Adult catch rate (kg/hr)	Adult catch rate (lb/min)	Total allowable pre-Christmas catch
<28.4	<1.04	0
28.4	1.04	120 t
37.5	1.38	200 t
46.9	1.72	300 t
52.6	1.93	350 t
58.2	2.13	375 t
64.8	2.37	400 t
73.2	2.68	425 t
81.6	2.99	450 t
90.1	3.30	475 t
98.5	3.61	500 t
107.0	3.92	525 t
115.4	4.23	550 t

If the fishery is classified as transitional, each vessel in the fishery is restricted to a maximum number of fishing nights for the pre-Christmas and post-Christmas fishing periods (Table 3), as well as fishing in areas where the bucket count from the most recent SAS is 240 prawns per bucket or less. The catch per unit effort (kg/hour or lb/min) of recruits from the three SAS combined is used to determine the reference point (Table 4), which is then used to set the number of fishing nights for the season and the pre-Christmas period (Table 3).

Table 3. Total allowable fishing nights for a Transitional Fishery, and maximum nights for fishing pre-Christmas.

Recent juvenile abundance level as determined Table 4	Maximum allowable season fishing nights	Maximum allowable fishing nights pre-Christmas
High	37	11
Medium	31	9
Low	25	7

¹ Pages 48 and 49 of the harvest strategy in the 'Management Plan for the South Australian Commercial Spencer Gulf Prawn Fishery' show the bucket count criteria for setting areas that can be fished.

Table 4. Reference points for recent recruit prawn abundance from weighted annual average recruit catch rates from the previous season's SAS.

Reference point	Recruit catch rate
High	≥ 2.4 lb/min (≥ 65.5 kg/hr)
Medium	$\geq 1.2 < 2.4$ lb/min ($\geq 32.7 < 65.5$ kg/hr)
Low	< 1.2 lb/min (< 32.7 kg/hr)

If the fishery is classified as overfished, the fishery remains closed for the season and is reassessed following the completion of the three SASs during the closed season.

2.1.3 Delegation of powers to set management arrangements

When the fishery is classified as sustainable or transitional a legal instrument is issued under section 10 of the Act to set the number of fishing nights, area and timing of the fishing run depending on the stock status classification of the fishery.

Prior to the Minister for Fisheries providing legislative powers to officers of the SGWCPFA for a one year trial period from November 2017, the PIRSA Fisheries Manager responsible for the management of the fishery would set the fishing run and the terms and conditions of the fishing run under regulation 10 of the *Management (Prawn Fisheries) Regulations 2007*. With the Minister for Fisheries delegating powers to set the fishing runs for a trial period to the Executive Officer and Co-ordinator at Sea, positions within the SGWCPFA industry now have the delegated powers to set the fishing run under regulation 10 of the *Management (Prawn Fisheries) Regulations 2007*. Consultation on each fishing run is still undertaken through the SGWCPFA management committee. The consultation provides the ability for all stakeholders to have input prior to the SGWCPFA Executive Officer or the Co-ordinator at Sea signing and issuing the legal instrument to set the fishing run and the terms and conditions of the fishing run.

2.2 Rights-based approach: allocation and characteristics

The implementation of limited entry in the fishery early in 1968 established the ability to restrict fishing effort and subsequently catch. Once limited entry was in place, other input controls to constrain catches could be applied (see section 1.1.1). The ability to only be able to catch prawns in commercial quantities seven nights either side of the complete dark of the moon has also constrained catches in the fishery.

When the fishery was first established in 1968, up to 300 nights per vessel were fished. By the early 1970s, fishers understood that prawns were only available in commercial quantities seven nights either side of the dark of the moon and that by restricting fishing nights, recruitment in the fishery could be increased and annual catches could be maintained at constant levels (Figure 4). As a result, by 1971 licence holders imposed self-regulated restrictions on the number of nights of operation in the fishery.

This self-regulation around the setting of fishing nights forms the basis of the management arrangements that are applied today in the fishery. From self-regulation, formal rules around the setting of fishing nights have been established in the harvest strategy for the fishery (see section 2.1.2). The setting of fishing nights forms the direct relationship between research and management to maintain the sustainability of the fishery.

In 2013, when a review of the management plan for the fishery was undertaken, consideration was given to the implementation of an Individual Transferable Effort (ITE) or an Individual Transferable Quota (ITQ) management regime. Traditionally, in Australia, ITQ management regimes have not been applied to prawn

fisheries due to the significant fluctuations in stock abundance from year to year, which make the accurate setting TACs difficult. While not making the fishery more sustainable, an ITQ or ITE management regime would address overcapitalisation and increase safety by creating an incentive not to fish in bad weather.

At present, vessels in the fishery race to fish in order to catch the largest share of a finite resource at any given time. Effort creep² in the fishery is not substantial due to the input controls in place, however, the race to fish continues to increase capital investment. Under an ITQ or ITE management regime, the race to fish would be removed, preventing overcapitalisation and subsequently increasing profitability. While fishing continues to be undertaken at sustainable levels and catches are maintained, limited incentive will remain for industry to move to an ITQ or ITE management regime.

The introduction of an ITE or transferable rights management regime in the South Australian Gulf Saint Vincent Prawn Fishery (see Figure 1) has illustrated the considerable economic benefits associated with an output control management regime, including increasing the value of licences and enabling licence holders to restructure their business operations by transferring rights.

3. CONTRIBUTION OF THE RIGHTS-BASED APPROACH TO ACHIEVING SUSTAINABILITY

3.1 Sustainable use of the resources

The restriction on fishing nights and the limited entry management regime are the key management measures that have enabled the fishery to maintain a sustainable stock classification for a prolonged period. Should the stock classification change from sustainable, the application of management measures through the harvest strategy that reduce or remove fishing effort will provide the ability for the stock to recover to a sustainable level (see section 2.1.2).

Based on the manipulation of fishing effort through management measures, over the last 45 years—since the fisheries inception— somewhere between 50 and 55 fishing nights for each vessel per year is considered appropriate to maintain the stock at a sustainable level. Figure 4 shows that since the mid-1990s catch has remained constant when applying this level of effort.

Through co-management mechanisms, fishers have been directly involved in the management of the fishery since its commencement. Government has developed and established mechanisms to enable fishers to better engage in the management of the fishery. The first formal engagement was the *Fisheries (Management Committee) Regulations 1995* that established consultative committees and commercial fishing industry membership on the consultative committees. When the legislation was implemented in 1995, a consultative committee for the SGPF was established. The committee comprised commercial industry representatives, a government scientist, a government fisheries manager and an independent chair. Advice from the committee was provided to the government regulator and the Minister for Fisheries. This consultative committee formalised the consultation undertaken with industry.

In 2013, PIRSA released the document 'Policy for the Co-management of Fisheries in South Australia'. The purpose of this document was to develop and promote co-management³ in South Australian fisheries. The document provided clear guidelines for industry and government on how to progress from a solely

² An increase in fishing efficiency over time due to the adoption of a series of adjustments in fishing practices, through either technology or behaviour, that result in higher catch rates (ISSF website, 2018).

³ Co-management is an arrangement where responsibilities and obligations for sustainable fisheries management are negotiated, shared or delegated between government, the commercial fishing industry, recreational fishers, Aboriginal and Traditional fishers and other key stakeholders such as conservation groups (Neville et al., 2008).

government regulated fishery with little or any industry consultation to a delegated model where industry are delegated management powers (Figure 7).

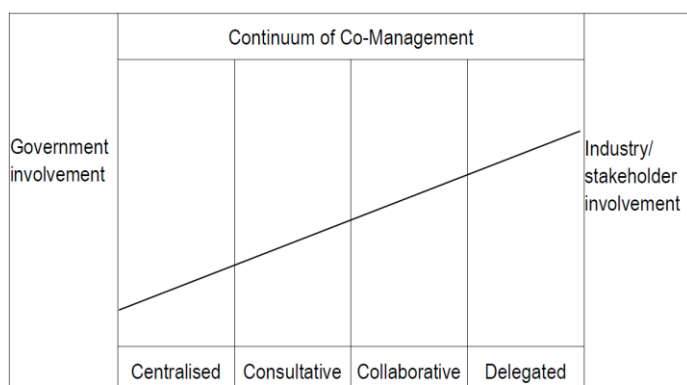


Figure 7. The continuum of co-management showing the four broad stages of co-management and the level of government/industry/stakeholder involvement at each stage of management.

Source: Neville et al., 2008; modified from Pomeroy and Berkes 1997.

Through the application of the co-management policy, the SGWCPFA were able to progress to a model where they had delegated powers to manage the fishery, through fishing runs, in consultation with stakeholders. The fishery was already in a collaborative position on the continuum of co-management and, through engagement with PIRSA, a delegated model was developed (see Figure 7).

The first step in moving to a delegated model was providing the capacity for industry to regulate moving on from fishing areas when catch rate or prawn size decreased to prescribed levels. Under this arrangement, the government set the area and period of fishing and industry determined when fishing was moved within the defined area set by the government. The move on provisions, defined in the harvest strategy for the fishery, outlined set criteria around prawn size and catch rate for the industry to move out of an area. This management is referred to as 'realtime management'. By preventing fishing of small prawns and maintaining catch rates recruitment is upheld, which translates to sustainable fishing practices.

The next step on from this has been a completely delegated management model, where industry set the fishing run (Figure 7). This is the first instance in a South Australian fishery where legal delegation to set management arrangements has been provided to a body outside of government.

The reasons why the SGPF was able to move to a delegated co-management model include:

- Fishers have developed technical knowledge of the fishery over time, which has placed them in the best position to advise on and implement management.
- The input control management regime in the fishery requires management decisions to be made quickly to address changes in catch rate and composition.
- All licence holders in the SGPF are members of the SGWCPFA, which ensures effective consultation and distribution of information.

The unique characteristics associated with the management regime and the application of realtime information to management, have made the fishery a candidate to apply delegated co-management arrangements. There may not be any incentive for other fisheries to move to a delegated co-management model, as the benefits for the industry may not exist. In the case of an ITQ managed fishery with a TAC set prior to the commencement of the season, this is considered to be the case.

4. MAIN CHALLENGES AND WAY FORWARD

4.1 Challengers for the fishery

The Minister advised the SGWCPFA that, prior to the completion of the initial one year trial period of the delegation to industry to set the fishing runs, a review of the arrangement would be undertaken by the government. The purpose of the review is to assess the effectiveness of the delegation, specifically the terms and conditions incorporated in the delegation. At the time of writing this paper, the trial period for the delegation had not concluded, however, the review had commenced.

Feedback from the SGWCPFA, as part of the review process, was that government involvement in reviewing legal instruments to set fishing runs, as specified in the terms and conditions of the delegated arrangements, should be scaled back. This is consistent with the view of industry to set management arrangements in the fishery with limited government involvement.

This position highlights the issue of the management of a common property resource by a body outside of government. Some consider that a common property resource, such as a fish stock, can only be managed or regulated by the government as they are the only party or stakeholder without a vested interest. The view of the industry is that they are invested in the long term sustainability of the resource, as the value of the licence and the ability to make an ongoing financial return from the fishery is directly related to sustainable fishing practices. As a result, the challenge is to maintain a balance between government oversight and capturing industry ownership of management and technical understanding of the fishery. Noting that this issue relates to governance of the resource, which indirectly relates to sustainability through the capacity of stakeholders, including government, to have input into management and monitor its effective application.

The other challenge for the fishery is maximising economic efficiency, specifically increasing profitability and reducing overcapitalization (Kompas, 2005). While the management arrangements applied to ensure the fishery is defined as sustainable (Flood et al., 2013) and high catches are maintained, there will continue to be limited incentive for the introduction of output controls to maximise economic efficiency (see section 2.2).

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