
MSC 1st Annual Surveillance Report
‘Review of Information’
for
Spencer Gulf Prawn Fishery



August 2017

Client Details:

Spencer Gulf and West Coast Prawn Fishermen's Association

MRAG Americas, Inc.

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Certificate No.:

Spencer Gulf Prawn MRAG -F-0058

MSC reference standards:

MSC Standards Version 1.1

MSC Certification Requirements Version 1.3

MSC Guidance for Certification Requirements Version 1.3

MSC Process Certification Requirements Version 2.0

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1 General Information

Fishery name	Spencer Gulf King Prawn Fishery (SGPF)		
Unit(s) of Assessment (UoA)	Western King Prawn (<i>Penaeus latisulcatus</i>); South Australian waters; bottom twin prawn trawl.		
Date certified	21 July 2016	Date of expiry	20 July 2021
Surveillance level and type	Surveillance level 1, review of information [see FCR 7.23.1-7.23.4]. No change in proposed surveillance level		
Date of surveillance audit	28 July 2017		
Surveillance stage	1st Surveillance	X	
	2nd Surveillance		
	3rd Surveillance		
	4th Surveillance		
	Other (expedited etc)		
Surveillance team	Lead assessor: Richard Banks Assessor(s): Kevin McLoughlin, Mihaela Zaharia		
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2 Background

The first MSC assessment for the fishery commenced in 2010 and a certificate was issued on 21 May 2011. A total of 7 conditions applied to the initial certification of the fishery. All of these conditions were closed by the 4th surveillance audit in 2015. A re-assessment was undertaken in 2016 and a new certificate issued on 21 July 2016. No conditions were applied to the re-certification. A total of six recommendations were made.

The fishery is not managed via total allowable catches. The client group takes all commercial catches within pre-set periods. Since 1973/74 the catch has ranged from 1048 t to 2512 t (Noell and Hooper, 2017). Catch data for 2014/15 was 1664 t and for 2015/16 was 2180 t, the highest since 2009/10. In 2015/16, 52 nights were fished at a catch per unit effort of 116.6 kg/h, the third highest on record.

Table 1. TAC and Catch Data

TAC	Year	na	Amount	na
UoA share of TAC	Year	na	Amount	na
UoC share of TAC	Year	na	Amount	na
Total green weight catch by UoC	Year (most recent)	2015/16	Amount	2180 t
	Year (second most recent)	2014/15	Amount	1664 t

3 Assessment Process

Management and science-related information for the fishery is provided on the Primary Industries and Regions South Australia (PIRSA) website (<http://www.pir.sa.gov.au/fishing>). The Spencer Gulf and West Coast Prawn Fishermen's Association (SGWCPFA) also provide information on their website (<http://www.spencergulfkingprawns.com.au/>).

The MRAG Americas surveillance team received relevant documents from the client to assist preparation of the audit report. The fishing year is defined as the 12-month period from 1 October through to 30 September the following year. However, fishing generally only occurs in the months of November and December, and from March to June between the last and first quarter of the moon. This surveillance uses 2014/15 and 2015/16 data. Noell and Hooper (2017) provides information on the status of the fishery and progress against the harvest strategy.

The MRAG Americas surveillance team read the original documents provided by the client to:

- Audit public claims made by the client regarding its certified status;
- Review any potential or actual changes in management systems;
- Review any changes or additions/deletions to regulations;
- Review any personnel changes in science, management or industry to evaluate impact on the management of the fishery;
- Review any potential changes to the scientific base of information, including stock assessments;
- Report on progress against recommendations made in the Public Certification Report;
- Evaluate progress against any conditions placed on the certificate, as well as for continued compliance with the MSC's Principles and Criteria for Sustainable Fishing as specified in the Public Certification Report.

The surveillance team has the responsibility, if it identifies an issue requiring further investigation, to:

- Report and record the existence of the issue, and/or
- Immediately conduct a limited assessment to determine if a full re-assessment of the fishery is warranted to continue the certification status, and/or
- Raise further conditions.

4 Results and Conclusion

The findings of the audit are set out below covering the three separate principles and traceability aspects relating to the fishery. A final conclusion on the findings of the Year 1 Review of Information is also provided.

P1 Update on stock status

The stock assessment and harvest strategy for the SGPF rely on agreed indicators (based on stock assessment surveys, catch rates and length distributions) are evaluated so that pre-agreed management actions can be triggered and guided. The suite of reference points is complex, including a wide range of in-season and annual measures which are used to guide annual harvest strategy setting and in-season, adaptive management. Stock

assessment surveys are conducted three times per fishing year (November, February and April) using industry vessels, skipper and crews, with independent observers on each vessel to collect data on prawn size and catch rates. The current management plan for the SGPF, incorporating the harvest strategy, was released in October 2014 (PIRSA 2014).

Noell and Hooper (2017) provides an updated assessment with information from the 2014/15 and 2015/16 fishing years. Mean catch rates for adult and newly recruited prawns from November, February and April stock assessment surveys were variable through 2014/15 and 2015/16, but all were above their respective lower reference points. As per the harvest strategy, this resulted in the what are termed “standard” fishing strategies immediately after the surveys through both years. An exception to this was for the fishing period between the February and April 2016 surveys, for which the catch rate of adults in the February survey exceeded the upper reference point, resulting in an “increasing” strategy (Noell and Hooper, 2017).

Estimates of egg production from November surveys in 2014 and 2015 remained at a high level following the highest recorded estimate in 2013. The recruitment index from the 2016 February survey was one of the highest (Noell and Hooper, 2017)

The weighted mean catch rate of adult prawns from all three stock assessment surveys is used to define an end-of-year stock status classification, based on historic reference values. The limit and trigger reference points based on the weighted means are 1.75 lb/min and 2.50 lb/min, respectively. The weighted mean survey catch rates of adult prawns for 2014/15 and 2015/16 were 3.34 lb/min and 4.45 lb/min, respectively. Under the harvest strategy western king prawn taken in the SGPF is classified as a “sustainable stock” (Figure 1).

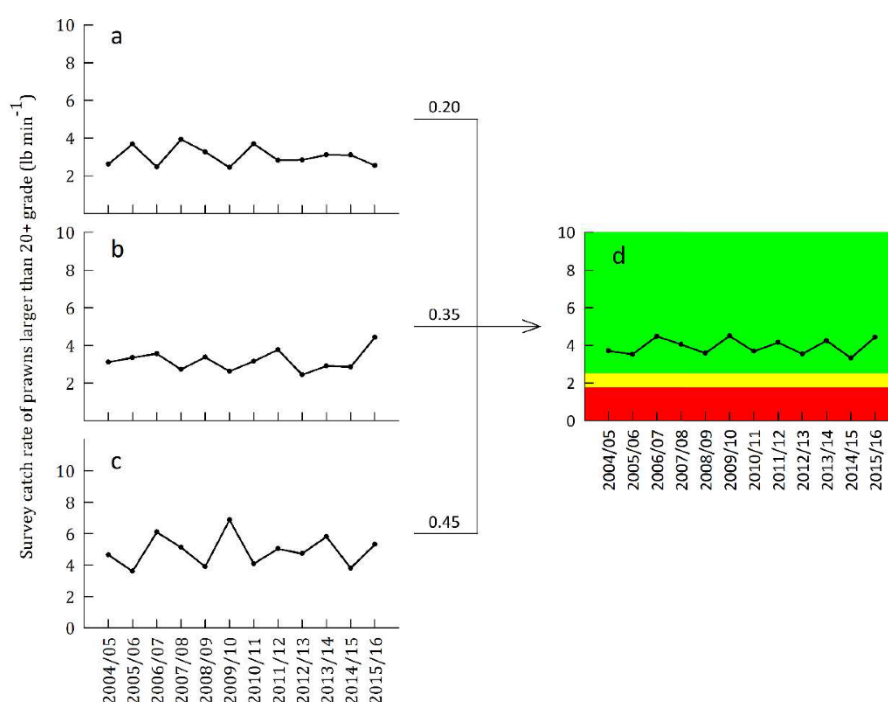


Figure 1. Mean catch rate of prawns larger than 20+ grade for a) November, b) February and c) April stock assessment surveys, and determination of stock status based on d) a weighted mean of the survey results. Stock status categories: green = sustainable stock; yellow = transitional stock; red = overfished stock. (Noell and Hooper, 2017).

P2 Update on environmental issues

No issues have been identified during the past 12 months which would impact the certification of the fishery.

As reported in the Public Certification Report for the SGPF (Banks *et al.*, 2016), an important management measure and performance indicator for mitigating the fishery's impact on the ecosystem, including bycatch species, endangered, threatened or protected (ETP) species and habitat, is to not exceed the historical trawl footprint. Noell (2017) examines the trawl footprint of the fishery. The aims of the study were to (i) describe broad trends in trawl effort in the SGPF and establish a reference period for spatial analysis; (ii) develop two alternative methodologies for estimating the total areas trawled over a given period; (iii) determine trawl footprint and projected footprint using both methods; and (iv) discuss considerations for a spatial threshold to support ecological monitoring (Noell 2017).

Information on trawl midpoints was available for the period 2003-2016 for approximately 40% of all shots. These data revealed three main hotspots for fishing activity and were seen to establish 2003-2016 as an appropriate reference period for determining the trawl footprint. The two different approaches to determining the trawl footprint described in Noell (2017) both indicated a trawl footprint of approximately 4200 km². The estimation of trawl footprint is seen as a potential surrogate measure of the impact of trawl effort and cost effective alternative to bycatch surveys (Noell 2017), though the need for ongoing monitoring of individual bycatch species of interest is recognized.

Mackay (2017) summarises the level of interaction of South Australian commercial fisheries with ETP species reported in Wildlife Interactions Reporting Logbook, updating the information presented in Banks *et al.* (2014) which reported on data to 2012/13 (as reported in Tsolos and Boyle, 2014). In 2014/15, there were interactions with 36 ETP species and in 2015/16, 23 ETPs. All interactions were with syngnathids. Mackay (2017) does not provide the same breakdown to the species level for 2015/16 as previous reports. Figure 2 indicates a marked decrease since 2012/13.

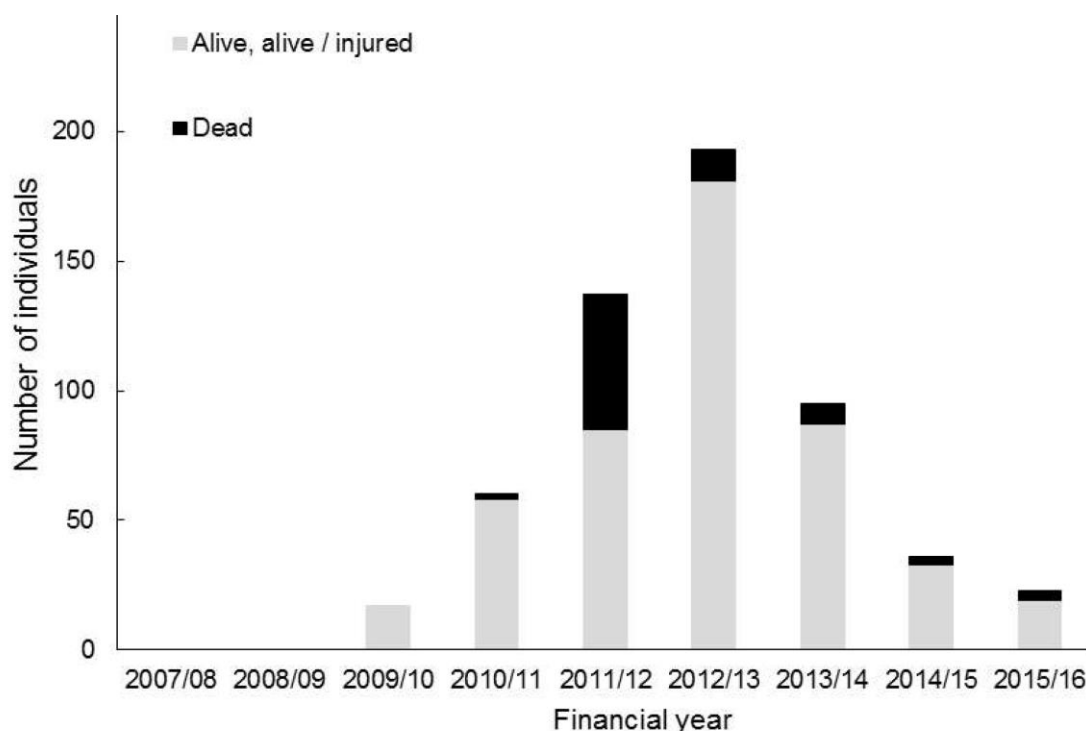


Figure 2. Fate of individual syngnathids after interactions with SPGF (Mackay, 2017).

P3 Update on management issues including enforcement

There have been no changes in management relevant to the certification over the past 12 months. There have been developments in relation to native title and the SGPF research plan.

As indicated in Banks et al. (2016), there are commitments in the *Fisheries Management Act 2007* in relation to native title. In a communication with the surveillance team (email Shane Holland, 31 July 2017), PIRSA Fisheries and Aquaculture reiterated its commitment to working together with the Aboriginal community and other fishing sectors to sustainably manage fish resources in freshwater and saltwater country, with a focus on sustainable fisheries management in collaboration with the Aboriginal Sea Nations. A Traditional Fisheries Manager was appointed in January 2017 to enable PIRSA's Fisheries & Aquaculture division to deliver on the legislative requirements of the *Fisheries Management Act 2007* in relation to the development of Traditional fisheries management arrangements and provide a dedicated position for ongoing engagement with Aboriginal communities regarding their fishing interest and rights. PIRSA also indicated that the processes regarding Indigenous stakeholder representation are being reviewed, and the Native Title Notifications process for the purposes of section 24HA of the *Native Title Act 1993* are also being improved (email Shane Holland, 31 July 2017).

The Spencer Gulf and West Coast Prawn Fishermen's Association (SGWCPFA) Research Subcommittee is responsible for developing and updating a plan to undertake research and development projects for the SGPF. An updated research plan was agreed in March 2017 (SGWCPFA 2017). The plan outlines projects currently committed to and planned in the near future. There are also aspirational projects listed to be considered when funding permits. The updated plan includes a project to address a gap highlighted in the MSC reassessment of the SGPF, i.e. how the fishery will address the vulnerable marine ecosystem (VME) criteria at the next certification process in 2021. The research plan indicates that the Association will continue to work towards understanding how it can quantify its impact, if any, on any VMEs. The projects under the plan are classified under several research areas: ecosystem services, fishery management improvement projects, innovation projects, biosecurity and marketing.

Traceability

There are no changes to the fishery which impact traceability and the ability to segregate MSC from non-MSC products.

Progress on recommendations

There is no progress to report on the recommendation at this surveillance audit. All recommendations have been submitted to the Research Sub-Committee for its consideration. It is noted that in relation to Recommendation 4, further validations were carried out for 2014/15 and 2015/16 (Noell and Hooper, 2017). The validation resulted in some revision of survey catch rates, but not to the extent that the fishing strategies adopted would have been affected.

SPGF Public Certification Report recommendations

Recommendation 1: (PI 1.1.2). Annual stock status is derived from the weighted means of adult (larger than 20+ grade) from the three annual stock assessment surveys. Provision of confidence intervals on these estimates would improve the ability to compare the estimates with the stock status categories.

Recommendation 2: (PI 1.1.2). It is recommended that there should be ongoing development of the bio-economic model of the fishery and examination of its suitability in providing model-based parameters as the basis for further development of reference points and the harvest strategy.

Recommendation 3: (PI 1.2.3). Standardisation of survey data and commercial catch information has been undertaken since the 2011 MSC certification of the SGPF (primarily for its use in the bio-economic model developed for the fishery). Standardised survey catch rate data has not yet been integrated into the reference points in the HS. Although the assessors conclude that the survey nominal catch rates provide an adequate measure of relative biomass for determining seasonal fishing strategies and are appropriate for use in the harvest strategy, further investigation of catch rate standardisation is recommended.

Recommendation 4: (PI 1.2.3). At the end of the 2013/14 fishing year, a series of checks were performed on the survey data to verify their accuracy and resolve potential errors. The validation process resulted in higher catch rates (up to 15% greater) for each survey than those determined immediately after surveys using unvalidated data. Further consideration of this uncertainty and its potential impact on the harvest strategy is recommended.

Recommendation 5: (PI 2.3.3). In order to reduce uncertainty about the status of syngnathid populations it is recommended to further the research on the post-capture survival of syngnathids and syngnathids distribution at species level in areas closed to trawling (<10m), to verify if they indeed support a higher abundance and species richness of syngnathids.

Recommendation 6: (PI 3.1.2). PIRSA should review its list of relevant stakeholders to ensure that all affected parties are encouraged to participate on the policy and management process.

Encouraging participation could be by way of

- Specific fishery specific meetings to discuss issues of joint concern
- Regular newsletters, broadcasts or reports that go out to interested or affected parties or stakeholders.
- Information pages published and distributed.
- The minutes of meetings put on the public record for people to see, electronic mail or e-technologies may be used.

Conclusion

MRAG Americas has reviewed the available information for the SGPF and concluded that none of it impacts on the outcome of the assessment or the MSC status of this fishery. Therefore, MRAG Americas concludes that this fishery should remain certified for another year.

The next audit due is the Year 2 Surveillance audit which shall take place on or around the anniversary date of the 21 July 2018.

5 References

Banks, R., McLoughlin, K. and Zaharia, M. (2016). Spencer Gulf Prawn Fishery MSC Public Certification Report. Prepared for Spencer Gulf and West Coast Prawn Fishermen's Association. <https://fisheries.msc.org/en/fisheries/spencer-gulf-king-prawn/@assessments>.

Fowler, A.J., McGarvey, R., Steer, M.A. and Feenstra, J.E. (2016). Fishery statistics for the South Australian Marine Scalefish Fishery: 1983/84-2015/16. Report to PIRSA Fisheries and Aquaculture. SARDI Publication No. F2007/000565-11. SARDI Research Report Series No. 935. 48pp.

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SGWCPFA (2017). Spencer Gulf and West Coast Prawn Fishermen's Association research plan. March 2017.

Tsolos, A. and Boyle, M. (2014). Interactions with Threatened, Endangered or Protected Species in South Australian Managed Fisheries – 2012/13. Report to PIRSA Fisheries and Aquaculture. South Australian Research and Development Institute (Aquatic Sciences), Adelaide. SARDI Publication No. F2009/000544-4. SARDI Research Report Series No. 755. 70pp.

Appendices

Appendix 1. Stakeholder submissions (if any)

No stakeholder comments were received.

Appendix 2. Revised Surveillance Program (if necessary)

No change is proposed to the surveillance program.

Table 2.3: Fishery Surveillance Program

Surveillance Level	Year 1	Year 2	Year 3	Year 4
Level 1	Review of information	Off-site surveillance audit	Review of information	On-site surveillance audit & re-certification site visit.