

Marine Scalefish Fishery Management Advisory Committee

Meeting #2– 8 April 2022

The Marine Scalefish Fishery Management Advisory Committee (MSFMAC or 'the Committee') held its second meeting on 8 April 2022 at PIRSA, West Beach, and via online video conference call.

The MSFMAC noted that the MSFMAC Science Subcommittee (Science Subcommittee) had been established to provide advice to the MSFMAC on matters it determines need technical scientific analysis and evaluation.

A focus of this MSFMAC meeting was to prepare recommendations for catch limits for 1 July 2022 to 30 June 2023 for the Tier 1 species in the Marine Scalefish Fishery (MSF) – Snapper, King George Whiting, Southern Garfish and Southern Calamari. To support this process the Committee considered the approach applied to the setting of catch limits for the 2021/22 season could be applied to 2022/23. Members noted the catch limits set for 2021/22 were based on the previous five-year average catches, which considered that the current harvest strategies for the relevant species needed updating.

An exception to the use of 5-year average catch was Snapper in the South East (SE) where the Total Allowable Catch (TAC) was based on a 30% total harvest fraction derived from the 2020 stock assessment. The other exception was West Coast King George Whiting, where a Total Allowable Commercial Catch (TACC) was based on a 28% total harvest fraction outlined in the *Management Plan for the Commercial Marine Scalefish Fishery* (the Management Plan). In both of these cases, a regional distribution of the statewide sector allocation had been applied to determine the proportionate TACCs and Total Allowable Recreational Catch (TARC) (in the case of SE Snapper). These regional/sector shares of the allowable catch had been calculated using the recorded catches in the fishing zones for the same catch history period (2007/2008) as was used to calculate the statewide shares in the Management Plan. The MSFMAC noted that wider and more permanent application of this approach would benefit from dedicated discussion and consultation. The MSFMAC agreed to initially consider the various options for appropriate sharing of TAC within regions and issues associated with these shares out-of-session.

Recommended catch limits

The Science Subcommittee had met and provided recommended catch levels for each stock of the Tier 1 species to the MSFMAC, after considering the latest available catch statistics and scientific information, including species/stock summary sheets prepared by the South Australian Research and Development Institute (SARDI). The stock summary sheets are provided as attachments to this report.

The Independent Scientist and SARDI provided the Committee members with an overview of the stock summaries and the Science Subcommittee recommendations for each of the stocks.

The Committee noted there were no changes to stock status information and no updated harvest strategies available for these species. Recent catch statistics indicated positive or stable trends for all stocks. When compared against the various catch options, the MSFMAC agreed there was no basis from which to suggest changes to the catch limits set for the 2021/22 season for all the stocks except for King George Whiting in the West Coast Fishing Zone. In this case, the Committee considered a harvest fraction of 12.5% relating to 2/3 natural mortality was more appropriate for King George Whiting (as a proxy for the level of fishing mortality that gives Maximum Sustainable Yield). This would equate to a TACC of 183t compared to the 2021/22 TACC of 473t. Whilst a substantial reduction, this recommended TACC was double the five-year average catch. TACCs for other species, and TARC for SE Snapper were recommended to be maintained at the 2021/22 level.

Following the meeting, it was noted that in February 2022, 304kg had been added to the initial 2021/22 King George Whiting TACC in the Spencer Gulf Fishing Zone of 111t to account for the outcomes of internal reviews pursuant to s111 of the *Fisheries Management Act 2007* that were finalised after the start of the quota period. MSFMAC members were consulted out-of-session and considered whether to reflect this increase in its recommendation for the 2022/23 period. The Committee agreed to retain its original recommendation, acknowledging that the TACC was able to be increased by the Minister to accommodate outcomes of applications for exceptional circumstances and that further adjustments could be made.

The MSFMAC recommended the catch limits outlined in table 1 be applied for 2022/23. These recommendations are further outlined in the attached stock summaries.

Table 1. MSFMAC recommended catch limits for 1 July 2022 to 30 June 2023

Fishing Zone	King George Whiting TACC (T)	Southern Garfish TACC (T)	Calamari TACC (T)	Snapper TACC / TARC (T)
West Coast	183	N/A	N/A	0
Spencer Gulf	111	100	204	0
Gulf St Vincent / Kangaroo Island	46	71	162	0
South East	N/A	N/A	N/A	36 / 12

The Committee noted that a new stock assessment for Snapper was expected to be available in December 2022. The MSFMAC was planning to meet as soon as possible after the release of the assessment to develop related recommendations for the management of the Snapper stocks.

The MSFMAC discussed processes for industry and sector peak bodies to input into the development of catch limit recommendations. Members considered it was important for the various organisations to be able to provide informed comments on future catch limits noting time constraints between the publishing of stock assessments/reports and providing recommendations to the Minister in sufficient time to implement decisions. The Committee agreed that stock summaries should be made publicly available to the MSFMAC as soon as they are released and SARDI would consider whether other resources, such as videos, would be feasible to develop to help inform stakeholders of stock assessment outputs and processes. The MSFMAC agreed to further consider options out-of-session to improve the process for industry and sector peak bodies to input.

Proposed changes to the Charter Boat Fishery

The MSFMAC had been invited to provide comment on proposed changes to the Charter Boat Fishery in relation to the taking of MSF species for bait. MSFMAC members had considered the consultation and the MSFMAC agreed to submit a response, summarising member's feedback.

Forward agenda and workplan

Members noted the updated workplan outlining key issues the Committee was planning to provide advice on, including:

- Approval and application of the draft Tiered Management Framework (TMF) – to be progressed in the coming months
- Report on the review of the MSF Management Plan - to be progressed in the coming months
- Harvest strategy development - The Subcommittee was planning to commence work in the coming months and to meet in July 2022
- Research priorities - The MSFMAC had noted several emerging research needs and would be working to prioritise and further explore these in the coming months
- Commence development of new commercial MSF Management Plan – work would commence after the report on the review of the Management Plan was approved by the Minister.
- Review arrangements to minimise bycatch/waste in the fishery – late 2022
- New Snapper stock assessment - expected in December 2022
- Results of the recreational fishing survey – expected late 2022

The Committee considered a discussion paper which had been tabled by one of the MSF representatives, suggesting a need to better quantify the total catch on stocks, particularly where there was concern for the sustainability of a stock. An example of this was the mandatory reporting of catches for all sectors taking SE Snapper. It was noted that the current recreational fishing survey project included a trial and evaluation of the use of a smart phone 'app' to support consideration of the matter raised in the discussion paper. There was general support from members to develop better resolution data for recreational catches and the MSFMAC agreed to investigate options for appropriate monitoring of recreational catches out-of-session.

Members raised the issue of additional quota units being allocated for Tier 1 species following the initial quota allocation to licence holders in 2021. It was noted this issue was outside the scope of the MSFMAC and was best progressed directly between PIRSA and industry peak bodies. The MSFMAC agreed to request a copy of future correspondence from PIRSA to the peak bodies on this matter.

The next MSFMAC meeting was expected to be held in September 2022 with a final date to be confirmed out-of-session.

Amanda Vanstone

Chair of the Marine Scalefish Fishery Management Advisory Committee

MSF Species / Stock summaries – 2022

Snapper *Chrysophrys auratus*



South East

Last revised: 14 April 2022

Stock summary					
Stock status	Sustainable (2019)				
Stock assessment	Tier 1 species – last assessment was conducted in 2020 and included data up until 2019 (Fowler et al 2020).				
Fishery/stock trend	Snapper in the South East fishing zone have an increasing fishable biomass driven by recent strong recruitment in Port Philip Bay (PPB), Victoria. The most recent estimate of biomass (2019) was 160t, which was the largest modeled biomass since 2013. Biomass is expected to continue increasing over the next several years.				
Current management measure and catch RBC – recommended biological catch RBCC - recommended biological commercial catch TACC – total allowable commercial catch (determined from model-based assessment) TARC – total allowable recreational catch <u>Sector allocations</u> Allocations in the current management plan are statewide.	Commercial catch and TACC				
	Year	Total commercial catch (t)	RBC (t)	RBCC (t)	TACC/TARC (t)
	2016/17	8	-	-	-
	2017/18	21	-	-	-
	2018/19	21	-	-	-
	2019/20	46	-	-	60.75 (for 2020 calendar year)
	2020/21	43	48	36	21.6 (1 Feb 2021–30 Jun 2021)
	2021/22	-	48	36	36/12
	Sector allocations (State-wide)				
	Commercial		Recreational		Aboriginal traditional
MSF	79%	REC	8%	1%	100%
SZRL	1.45%	CHT	10%		
NZRL	0.55%				
LCF	0.03%				
Current assessment program	<ul style="list-style-type: none"> Weekly length and age structures collected through market sampling in Adelaide. Annual fishery statistics provided through a stock status report Application of a length-and-age-structured population model every three years Recreational data collected every five years through statewide recreational survey No information is available for Aboriginal/Traditional fishing. 				

<p>Assessment summary</p>	<p>The most recent assessment was completed using data up until September 2019 (Fowler et al 2020). Commercial fishery CPUE, and age and length samples collected through market sampling were integrated in a computer stock assessment model (SnapEst) that produced time-series of annual estimates of output parameters that included fishable biomass, recruitment, harvest fraction and egg production. This assessment demonstrated that this stock was sustainable.</p> <p>Snapper in the South East (SE) fishing zone are part of the Western Victorian Stock (WVS) which spawn in Port Phillip Bay (PPB), Victoria. These fish migrate into southeastern SA through density dependent migration. The largest fishable biomass estimated for the SE fishing zone occurred in 2009 and was driven by strong recruitment in PPB in 2001 and 2004. Strong recruitment also occurred in 2014 which has led to increasing biomass between 2016 and 2019. The largest ever recruitment event was recorded in PPB in 2018. Therefore, the fishable biomass in the SE fishing zone is anticipated to increase in coming years.</p> <p>The previous assessment identified that the source and sink dynamic of the WVS allows it to sustain higher exploitation rates in the SE fishing zone than other SA Snapper stocks. The RBC was determined by applying an exploitation rate of 30% to the 2019 biomass estimating, resulting in 48t.</p>												
<p>RBC / TACC options for 2022/23</p> <p><u>Sector catch shares</u></p> <p>Regional catch shares were calculated according to the PIRSA allocation policy using new MSF zones.</p>	<table border="1" data-bbox="555 772 1321 1019"> <thead> <tr> <th>Sector</th> <th>Commercial sector catch share (%)</th> <th>2021/22 TACC/TARC</th> <th>Five-year average commercial catch (2016/17 – 2020/21)</th> </tr> </thead> <tbody> <tr> <td>RBC</td> <td>100</td> <td>48</td> <td>-</td> </tr> <tr> <td>TACC</td> <td>75</td> <td>36 t / 12 t</td> <td>28 t</td> </tr> </tbody> </table>	Sector	Commercial sector catch share (%)	2021/22 TACC/TARC	Five-year average commercial catch (2016/17 – 2020/21)	RBC	100	48	-	TACC	75	36 t / 12 t	28 t
Sector	Commercial sector catch share (%)	2021/22 TACC/TARC	Five-year average commercial catch (2016/17 – 2020/21)										
RBC	100	48	-										
TACC	75	36 t / 12 t	28 t										
<p>Research needs</p>	<ul style="list-style-type: none"> • Development of harvest strategy with performance indicators, reference points and harvest control rules. • Standardisation of commercial CPUE, using improved measures of fishing effort. • Improved estimates of recreational catch and effort. Current recreational fishing survey project underway to support this. • A current project examining post-release survival of Snapper is underway (FRDC 2019/044). 												
<p>MSFMAC recommendation</p>	<p>There was no new stock status information available for SE Snapper.</p> <p>The stock is considered to be in a sustainable state and expected to increase based on good recent recruitment in Port Phillip Bay (2013/14 and 2018).</p> <p>Noting the above, the MSFMAC considered there was no basis to change the current catch limits and recommended a rollover of the current 2021/22 TAC of 48t, TACC of 36t and TARC of 12t for the 1 July 2022 to 30 June 2023 period.</p>												
<p>References</p>	<p>Fowler, A.J., Smart, J., McGarvey, R., Feenstra, J., Bailleul, F., Buss, J.J., Drew, M., Matthews, D., Matthews, J. and Rogers, T. (2020). Snapper (<i>Chrysophrys auratus</i>) Fishery. Fishery Assessment Report to PIRSA Fisheries and Aquaculture. South Australian Research and Development Institute (Aquatic Sciences), Adelaide. F2007/000523-6. SARDI Research Report Series No. 1072.111pp.</p>												

MSF Species / Stock summaries – 2022

King George Whiting *Sillaginodes punctatus*

West Coast



Last revised: 14 April 2022

Stock summary					
Stock status	Sustainable (2019)				
Stock assessment	Tier 1 species – last assessment was 2019 (Drew et al 2021).				
Fishery/stock trend	Fishable biomass has gradually increased over time, particularly through the two periods of 1984–1999 and 2008–2013 and remained largely stable at 2,221–2,545 t thereafter. This general increasing trend in biomass reflected a long-term increasing trend in recruitment and long-term declining trend in exploitation rate. Harvest fraction was estimated as 10% in 2019. Targeted hand line CPUE has been relatively high and stable over the past decade, reaching its highest level on record in 2019.				
Current management measure and catch RBC – recommended biological catch RBCC - recommended biological commercial catch TACC – total allowable commercial catch (model-based output) <u>Sector allocations</u> Allocations in the current management plan are statewide.	Commercial catch and TACC				
	Year	Total commercial catch (t)	RBC (t)	RBCC (t)	TACC (t)
	2016/17	90	-	-	-
	2017/18	98	-	-	-
	2018/19	91	-	-	-
	2019/20	97	-	-	-
	2020/21	81	-	-	-
	2021/22		-	-	473
	Sector allocations (State-wide)				
	Commercial		Recreational		Aboriginal traditional
MSF	49.5%	REC	45.5%	1%	100%
SZRL	0%	CHT	3%		
NZRL	1%				
Current assessment program	<ul style="list-style-type: none"> Weekly length and age structures collected through market sampling in Adelaide and regional areas. Annual fishery statistics provided through a stock status report Application of a length-and-age-structured population model every three years Recreational data collected every five years through statewide recreational survey Daily egg production methods (DEPM) have been established to estimate spawning biomass but are not undertaken as part of ongoing assessments. No information is available for Aboriginal/Traditional fishing. 				

<p>Assessment summary</p>	<p>The most recent stock assessment was completed for data up until 31 December 2019 using a weight-of-evidence approach (Drew et al. 2021). The primary fishery performance indicators were total catch, targeted handline catch, targeted handline CPUE, and fishery age structure. All datasets pertaining to the fishery were integrated in a computer stock assessment model (WhitEst) that produced time-series of annual estimates of output parameters that included fishable biomass, recruitment, harvest fraction and egg production. This assessment demonstrated that this stock was sustainable.</p> <p>The 2021/22 TACC of 473 t was based on scientific advice from the most current stock assessment at the time (Steer et al. 2018). This considered recent estimates of fishable biomass, the target harvest fraction in the management plan and the commercial catch share of King George Whiting in the WC fishing zone.</p>																		
<p>RBC / TACC options for 2022/23</p> <p><u>Sector catch shares</u></p> <p>Regional catch shares were calculated according to the PIRSA allocation policy using new MSF zones.</p> <p>M = natural mortality</p>	<table border="1" data-bbox="368 584 1385 831"> <thead> <tr> <th>Sector</th> <th>Commercial sector catch share (%)</th> <th>Target H in management plan (0.28)</th> <th>Target H = 2/3M (0.125)</th> <th>2021/22 TACC</th> <th>Five-year average commercial catch (2016/17 – 2020/21)</th> </tr> </thead> <tbody> <tr> <td>RBC</td> <td>100</td> <td>587 t</td> <td>262 t</td> <td>-</td> <td>-</td> </tr> <tr> <td>TACC</td> <td>70</td> <td>411 t</td> <td>183 t</td> <td>473 t</td> <td>91t</td> </tr> </tbody> </table> <p>The RBC's were determined from average five-year biomass estimates from the last assessment (2015-2019). The previous WC model region does not align with the new WC fishing zone as it includes areas (such as Coffin Bay) that are now part of the SG fishing zone. During this period, 11% of the catch occurred outside of the WC fishing zone that were included in the WC assessment model. Therefore, the RBC's have been adjusted by -11%.</p>	Sector	Commercial sector catch share (%)	Target H in management plan (0.28)	Target H = 2/3M (0.125)	2021/22 TACC	Five-year average commercial catch (2016/17 – 2020/21)	RBC	100	587 t	262 t	-	-	TACC	70	411 t	183 t	473 t	91t
Sector	Commercial sector catch share (%)	Target H in management plan (0.28)	Target H = 2/3M (0.125)	2021/22 TACC	Five-year average commercial catch (2016/17 – 2020/21)														
RBC	100	587 t	262 t	-	-														
TACC	70	411 t	183 t	473 t	91t														
<p>Research needs</p>	<ul style="list-style-type: none"> • Development of harvest strategy with performance indicators, reference points and harvest control rules. • Standardisation of commercial CPUE, using improved measures of fishing effort • Improved estimates of recreational catch and effort. Current recreational fishing survey project underway to support this. 																		
<p>MSFMAC recommendation</p>	<p>There is no concern for the stock and it appears to be stable at a relatively high level and is considered lightly exploited. The harvest fraction of 12.5% relating to 2/3M (a proxy for Maximum Sustainable Yield) was considered to be more appropriate for King George Whiting, and it was noted there is assessment uncertainty for the offshore component of the stock. The target harvest fraction of 28% used to inform the current 2021/22 TACC would now generally be considered too high for the species. The harvest fraction of 12.5% equated to an RBC of 262t and a TACC of 183t if the same allocation approach was adopted from the previous year. This MSFMAC noted this was nearly double the 5yr average catch yet was a more appropriate level than the current TACC.</p> <p>Considering these factors the MSFMAC recommended an RBC of 262t and subsequent TACC of 183t for the 1 July 2022 to 30 June 2023 period.</p>																		
<p>References</p>	<p>Drew, M., A. J. Fowler, R. McGarvey, J. E. Feenstra, F. Bailleul, D. Matthews, J. M. Matthews, J. Earl, T. A. Rogers, P. J. Rogers, A. Tsolos and J. Smart (2021). Assessment of the South Australian Marine Scalefish Fishery in 2019. Report for PIRSA Fisheries and Aquaculture. South Australian Research and Development Institute (Aquatic Sciences). SARDI Publication No. F2017/000427-4. SARDI Research Report Series No. 1109. 254 pp.</p> <p>Steer, M. A., A. J. Fowler, R. McGarvey, J. Feenstra, E. Westlake, D. Matthews, M. Drew, P. J. Rogers and J. Earl (2018). Assessment of the South Australian Marine Scalefish Fishery in 2016. Report for PIRSA Fisheries and Aquaculture. South Australian Research and Development Institute (Aquatic Sciences). SARDI Publication No. F2017/000427-1. SARDI Research Report Series No. 974. 250pp.</p>																		

MSF Species / Stock summaries – 2022

King George Whiting *Sillaginodes punctatus*

Spencer Gulf



Last revised: 13 May 2022

Stock summary					
Stock status	Sustainable (2019)				
Stock assessment	Tier 1 species – last assessment was 2019 (Drew et al 2021)				
Fishery/stock trend	<p>Trends in fishable biomass have been cyclical since 1984, reflecting periods of increase and decline, but nevertheless have shown a long-term increase. Biomass has been stable for the past five years at ~1,500 t. The harvest fraction been stable since the early 2000s and was 20% in 2019. Recruitment, which has historically been heavily cyclical in nature, declined steeply from 2016 to 2019. However, the lower recruitment during that period was not reflected in lower fishable biomass, with low exploitation rates in recent years enabling the highest estimated biomass levels in recent years to be retained.</p> <p>Targeted handline Catch Per Unit Effort (CPUE) has shown a long-term increasing trend, although with clear cyclical variation. It increased to a record-high level in 2016, and then marginally declined in the three subsequent years to a moderate–high level in 2019. Catch and targeted handline effort have been stable at low levels since 2010.</p>				
Current management measure and catch	Commercial catch and TACC				
	Year	Total commercial catch (t)	RBC (t)	RBCC (t)	TACC (t)
	2016/17	126	-	-	-
	2017/18	108	-	-	-
	2018/19	103	-	-	-
	2019/20	96	-	-	-
	2020/21	69	-	-	-
	2021/22		-	-	111 ¹
	Sector allocations (State-wide)				
	Commercial		Recreational		Aboriginal traditional
MSF	49.5%	REC	45.5%	1%	100%
SZRL	0%	CHT	3%		
NZRL	1%				

¹ In February 2022, 304kg was added to the initial 2021/22 King George Whiting TACC in the Spencer Gulf Fishing Zone of 111t to account for the outcomes of internal reviews pursuant to s111 of the *Fisheries Management Act 2007* finalised after the start of the quota period.

Current assessment program	<ul style="list-style-type: none"> Weekly length and age structures collected through market sampling in Adelaide and regional areas. Annual fishery statistics provided through a stock status report Application of a length-and-age-structured population model every three years Recreational data collected every five years through statewide recreational survey Daily egg production methods (DEPM) have been established to estimate spawning biomass but are not undertaken as part of ongoing assessments. No information is available for Aboriginal/Traditional fishing. 																		
Assessment summary	<p>The most recent stock assessment was completed for data up until 31 December 2019 using a weight-of-evidence approach (Drew et al. 2021). The primary fishery performance indicators were total catch, targeted handline catch, targeted handline CPUE, and fishery age structure. All datasets pertaining to the fishery were integrated in a computer stock assessment model (WhitEst) that produced time-series of annual estimates of output parameters that included fishable biomass, recruitment, harvest fraction and egg production. This assessment demonstrated that this stock was sustainable.</p> <p>The 2021/22 TACC of 111t¹ was recommended by the SnapperMAC and was calculated based on the average 5-year annual commercial catch from 2015–2019.</p>																		
RBC / TACC options for 2022/23 <u>Sector catch shares</u> Regional catch shares were calculated according to the PIRSA allocation policy using new MSF zones. M = natural mortality	<table border="1" data-bbox="368 853 1388 1104"> <thead> <tr> <th>Sector</th> <th>Commercial sector catch share (%)</th> <th>Target H in management plan (0.28)</th> <th>Target H = 2/3M (0.125)</th> <th>2021/22 TACC</th> <th>Five-year average commercial catch (2016/17 – 2020/21)</th> </tr> </thead> <tbody> <tr> <td>RBC</td> <td>100</td> <td>418 t</td> <td>187 t</td> <td>-</td> <td>-</td> </tr> <tr> <td>TACC</td> <td>44</td> <td>184 t</td> <td>82 t</td> <td>111 t¹</td> <td>100 t</td> </tr> </tbody> </table> <ul style="list-style-type: none"> The RBC's were determined from average five-year biomass estimates from the last assessment (2015-2019). 	Sector	Commercial sector catch share (%)	Target H in management plan (0.28)	Target H = 2/3M (0.125)	2021/22 TACC	Five-year average commercial catch (2016/17 – 2020/21)	RBC	100	418 t	187 t	-	-	TACC	44	184 t	82 t	111 t ¹	100 t
Sector	Commercial sector catch share (%)	Target H in management plan (0.28)	Target H = 2/3M (0.125)	2021/22 TACC	Five-year average commercial catch (2016/17 – 2020/21)														
RBC	100	418 t	187 t	-	-														
TACC	44	184 t	82 t	111 t ¹	100 t														
Research needs	<ul style="list-style-type: none"> Development of harvest strategy with performance indicators, reference points and harvest control rules. Standardisation of commercial CPUE, using improved measures of fishing effort. Improved estimates of recreational catch and effort. Current recreational fishing survey project underway to support this. 																		
MSFMAC recommendation	<p>The stock was classified as sustainable with a stable and increasing biomass and declining harvest fraction. There had been no change in status since the 2021/22 TAC had been set. The harvest fraction of 28% was no longer considered appropriate for King George Whiting. The MSFMAC noted the latest year's catch was below the 5yr average and this was likely due to a combination of the MSF reform, Covid-19 and market-related impacts contributing to less targeting of the species.</p> <p>Considering the above factors the MSFMAC considered there was no basis to change the TACC applied at the start of the 2021/22 year and recommended the same TACC of 111 t for the 1 July 2022 to 30 June 2023 period.</p>																		
References	<p>Drew, M., A. J. Fowler, R. McGarvey, J. E. Feenstra, F. Bailleul, D. Matthews, J. M. Matthews, J. Earl, T. A. Rogers, P. J. Rogers, A. Tsolos and J. Smart (2021). Assessment of the South Australian Marine Scalefish Fishery in 2019. Report for PIRSA Fisheries and Aquaculture. South Australian Research and Development Institute (Aquatic Sciences). SARDI Publication No. F2017/000427-4. SARDI Research Report Series No. 1109. 254 pp.</p>																		

MSF Species / Stock summaries – 2022

King George Whiting *Sillaginodes punctatus*

Gulf St. Vincent / Kangaroo Island



Last revised: 14 April 2022

Stock summary					
Stock status	Sustainable (2019)				
Stock assessment	Tier 1 species – last assessment was 2019 (Drew et al 2021).				
Fishery/stock trend	Fishable biomass has been stable for the past ten years at ~650 t. The harvest fraction has had a decreasing trend during this period and was estimated as 20% in 2019. Targeted hand line CPUE has had an increasing trend over this period which has been driven through consistent annual decreases of commercial catch and effort.				
Current management measure and catch RBC – recommended biological catch RBCC - recommended biological commercial catch TACC – total allowable commercial catch (based on 5-yr average catch from 2015–2019) <u>Sector allocations</u> Allocations in the current management plan are statewide.	Commercial catch and TACC				
	Year	Total commercial catch (t)	RBC (t)	RBCC (t)	TACC (t)
	2016/17	52	-	-	-
	2017/18	37	-	-	-
	2018/19	40	-	-	-
	2019/20	42	-	-	-
	2020/21	31	-	-	-
	2021/22		-	-	46
	Sector allocations (State-wide)				
	Commercial		Recreational		Aboriginal traditional
MSF	49.5%	REC	45.5%	1%	100%
SZRL	0%	CHT	3%		
NZRL	1%				
Current assessment program	<ul style="list-style-type: none"> Weekly length and age structures collected through market sampling in Adelaide and regional areas. Annual fishery statistics provided through a stock status report Application of a length-and-age-structured population model every three years Recreational data collected every five years through statewide recreational survey Daily egg production methods (DEPM) have been established to estimate spawning biomass but are not undertaken as part of ongoing assessments. No information is available for Aboriginal/Traditional fishing. 				

MSF Species / Stock summaries - 2022

Assessment summary	<p>The most recent stock assessment was completed for data up until 31 December 2019 using a weight-of-evidence approach (Drew et al. 2021). The primary fishery performance indicators were total catch, targeted handline catch, targeted handline CPUE, and fishery age structure. All datasets pertaining to the fishery were integrated in a computer stock assessment model (WhitEst) that produced time-series of annual estimates of output parameters that included fishable biomass, recruitment, harvest fraction and egg production. This assessment demonstrated that this stock was sustainable.</p> <p>The 2021/22 TACC of 46 t was recommended by the SnapperMAC and was calculated based on the average 5-year annual commercial catch from 2015–2019.</p>																		
RBC / TACC options for 2022/23 <u>Sector catch shares</u> Regional catch shares were calculated according to the PIRSA allocation policy using new MSF zones. M = natural mortality	<table border="1" data-bbox="368 533 1385 786"> <thead> <tr> <th>Sector</th> <th>Commercial sector catch share (%)</th> <th>Target H in management plan (0.28)</th> <th>Target H = 2/3M (0.125)</th> <th>2021/22 TACC</th> <th>Five-year average commercial catch (2016/17 – 2020/21)</th> </tr> </thead> <tbody> <tr> <td>RBC</td> <td>100</td> <td>184 t</td> <td>82 t</td> <td>-</td> <td>-</td> </tr> <tr> <td>TACC</td> <td>40</td> <td>74 t</td> <td>33 t</td> <td>46 t</td> <td>40 t</td> </tr> </tbody> </table> <p>The RBC's were determined from average five-year biomass estimates from the last assessment (2015-2019).</p>	Sector	Commercial sector catch share (%)	Target H in management plan (0.28)	Target H = 2/3M (0.125)	2021/22 TACC	Five-year average commercial catch (2016/17 – 2020/21)	RBC	100	184 t	82 t	-	-	TACC	40	74 t	33 t	46 t	40 t
Sector	Commercial sector catch share (%)	Target H in management plan (0.28)	Target H = 2/3M (0.125)	2021/22 TACC	Five-year average commercial catch (2016/17 – 2020/21)														
RBC	100	184 t	82 t	-	-														
TACC	40	74 t	33 t	46 t	40 t														
Research needs	<ul style="list-style-type: none"> • Development of harvest strategy with performance indicators, reference points and harvest control rules. • Standardisation of commercial CPUE, using improved measures of fishing effort • Improved estimates of recreational catch and effort. Current recreational fishing survey project underway to support this. 																		
MSFMAC recommendation	<p>The stock was classified as sustainable with a stable and increasing biomass, declining harvest fraction and increasing CPUE. There had been no change in status since the current catch limits had been set. The harvest fraction of 28% provided in the Management Plan was no longer considered appropriate for King George Whiting. The MSFMAC noted the latest year's catch was below the 5yr average and this was likely due to a combination of the reform, covid-19 and market-related impacts contributing to less targeting of the species.</p> <p>Considering the above, the MSFMAC considered there to be no basis to reduce the current catch limit and recommended to rollover the current 2021/22 TACC of 46t for the 1 July 2022 to 30 June 2023 period.</p>																		
References	<p>Drew, M., A. J. Fowler, R. McGarvey, J. E. Feenstra, F. Bailleul, D. Matthews, J. M. Matthews, J. Earl, T. A. Rogers, P. J. Rogers, A. Tsolos and J. Smart (2021). Assessment of the South Australian Marine Scalefish Fishery in 2019. Report for PIRSA Fisheries and Aquaculture. South Australian Research and Development Institute (Aquatic Sciences). SARDI Publication No. F2017/000427-4. SARDI Research Report Series No. 1109. 254 pp.</p>																		

Southern Garfish *Hyporhamphus melanchoir*



Spencer Gulf

Last revised: 14 April 2022

Stock summary					
Stock status	Recovering (2019)				
Stock assessment	Tier 1 species – last assessment was 2017 (Steer et al 2018). Most recent stock status was assigned in 2019 (Drew et al 2021).				
Fishery/stock trend	<p>Southern Garfish in the Spencer Gulf (SG) fishing zone experienced exploitation rates of more than 90% during the 1990's when the population was only sustained through high levels of recruitment. During this period, few fish survived past age two and the population age structure was severely truncated.</p> <p>Management measures implemented since 2005 have allowed stock recovery. Exploitation has been reduced, biomass has been stable and age structures have become less truncated. However, as of the last assessment, biomass has not yet begun to increase and recruitment remains impaired.</p>				
Current management measure and catch	Commercial catch and TACC				
	Year	Total commercial catch (t)	RBC (t)	RBCC (t)	TACC (t)
	2016/17	107	-	-	-
	2017/18	91	-	-	-
	2018/19	110	-	-	-
	2019/20	99	-	-	-
	2020/21	109	-	-	-
	2021/22	-	-	-	100
	Sector allocations (State-wide)				
	Commercial		Recreational	Aboriginal traditional	Total
MSF	79.33%	19.5%	1%	100%	
SZRL	0.13%				
NZRL	0.04%				
Current assessment program	<ul style="list-style-type: none"> Weekly length and age structures collected through market sampling in Adelaide. Annual fishery statistics provided through a stock status report Application of a length-and-age-structured population model every three years Recreational data collected every five years through statewide recreational survey No information is available for Aboriginal/Traditional fishing. 				

MSF Species / Stock summaries - 2022

<p>Assessment summary</p>	<p>There are two biological stocks in the SG fishing zone which occur in the northern and southern regions. The northern Spencer Gulf (NSG) stock constitutes the majority of the biomass and is predominantly fished with haul nets. The southern Spencer Gulf (SSG) stock has a much smaller biomass and is fished with dab nets due to haul netting restrictions in this region. Most of the catch and effort for the SG fishing zone occurs in NSG via the haul net fishery.</p> <p>The most recent stock assessment included data up until September 2017 using a weight-of-evidence approach (Steer et al 2018). The GarEst stock assessment model for the SG fishing zone combines both NSG and SSG stocks as some biological mixing occurs, despite demographic separation. The GarEst model includes data on commercial catch and effort, commercial age and length structures, and recreational and charter boat catch and effort. Numerous management measures have been implemented since 2005 which included licence reduction schemes, spatial and temporal closures, changes to gear restrictions and changes to legal minimum length. This assessment demonstrated that these management measures have been effective and that the stock was recovering.</p> <p>The 2021/22 TACC of 100 t was recommended by the SnapperMAC and was calculated based on the average 5-year annual commercial catch from 2015–2019.</p>																		
<p>RBC / TACC options for 2022/23</p> <p><u>Sector catch shares</u></p> <p>Regional catch shares were calculated according to the PIRSA allocation policy using new MSF zones. M = natural mortality</p>	<table border="1" data-bbox="368 734 1492 981"> <thead> <tr> <th>Sector</th> <th>Commercial sector catch share (%)</th> <th>Target H in management plan (0.3)</th> <th>Target H = 2/3M (0.23)</th> <th>2021/22 TACC</th> <th>Five-year average commercial catch (2016/17 – 2020/21)</th> </tr> </thead> <tbody> <tr> <td>RBC</td> <td>100</td> <td>79 t</td> <td>62 t</td> <td>-</td> <td>-</td> </tr> <tr> <td>TACC</td> <td>78</td> <td>62 t</td> <td>48 t</td> <td>100 t</td> <td>102 t</td> </tr> </tbody> </table> <p>The RBC's were determined from average five-year biomass estimates from the last assessment (2013-2017).</p>	Sector	Commercial sector catch share (%)	Target H in management plan (0.3)	Target H = 2/3M (0.23)	2021/22 TACC	Five-year average commercial catch (2016/17 – 2020/21)	RBC	100	79 t	62 t	-	-	TACC	78	62 t	48 t	100 t	102 t
Sector	Commercial sector catch share (%)	Target H in management plan (0.3)	Target H = 2/3M (0.23)	2021/22 TACC	Five-year average commercial catch (2016/17 – 2020/21)														
RBC	100	79 t	62 t	-	-														
TACC	78	62 t	48 t	100 t	102 t														
<p>Research needs</p>	<ul style="list-style-type: none"> • Development of harvest strategy with performance indicators, reference points and harvest control rules. • Standardisation of commercial CPUE, using improved measures of fishing effort. • Improved estimates of recreational catch and effort. Current recreational fishing survey project underway to support this. 																		
<p>MSFMAC recommendation</p>	<p>A new stock assessment was being finalised and the results still being considered.</p> <p>The target harvest fraction of 30% as provided in the MSF Management Plan was considered appropriate for the species. Whilst the stock has a recovering status, the stable to increasing biomass and reducing harvest fraction indicate that recent catches have been at an appropriate level. It was noted that positive changes have been observed by SARDI in the age structure of the stock.</p> <p>Noting the above factors, the MSFMAC considered there to be no basis to reduce catch limits and recommended a rollover of the current 2021/22 TACC of 100t for the 1 July 2022 to 30 June 2023 period.</p>																		
<p>References</p>	<p>Drew, M., A. J. Fowler, R. McGarvey, J. E. Feenstra, F. Bailleul, D. Matthews, J. M. Matthews, J. Earl, T. A. Rogers, P. J. Rogers, A. Tsolos and J. Smart (2021). Assessment of the South Australian Marine Scalefish Fishery in 2019. Report for PIRSA Fisheries and Aquaculture. South Australian Research and Development Institute (Aquatic Sciences). SARDI Publication No. F2017/000427-4. SARDI Research Report Series No. 1109. 254 pp.</p> <p>Steer, M.A., Fowler, A.J., McGarvey, R., Feenstra, J., Smart, J., Rogers, P.J., Earl, J., Beckmann, C., Drew, M. and Matthews, J. (2018). Assessment of the South Australian Marine Scalefish Fishery in 2017. Report to PIRSA Fisheries and Aquaculture. South Australian Research and Development Institute (Aquatic Sciences), Adelaide. SARDI Publication No. F2017/000427-2. SARDI Research Report Series No. 1002. 230pp.</p>																		

Southern Garfish *Hyporhamphus melanchoir*



Gulf St Vincent/Kangaroo Island

Last revised: 14 April 2022

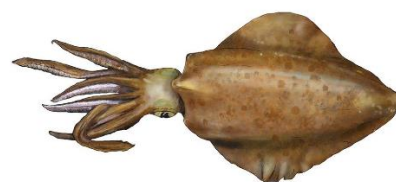
Stock summary					
Stock status	Depleted (2019)				
Stock assessment	Tier 1 species – last assessment was 2017 (Steer et al 2018). Most recent stock status was assigned in 2019 (Drew et al 2021).				
Fishery/stock trend	<p>Southern Garfish in the Gulf St Vincent/Kangaroo Island (GSV/KI) fishing zone experienced exploitation rates of more than 80% during the 1990's when the population was only sustained through high levels of recruitment. During this period, few fish survived past age two and the population age structure was severely truncated.</p> <p>Management measures implemented since 2005 have reduced exploitation rates. However, biomass has not recovered, age structures have remained truncated, and recruitment is impaired. Therefore, this stock was classified as depleted in the last stock assessment (Steer et al 2018).</p>				
Current management measure and catch	Commercial catch and TACC				
	Year	Total commercial catch (t)	RBC (t)	RBCC (t)	TACC (t)
	2016/17	75	-	-	-
	2017/18	81	-	-	-
	2018/19	81	-	-	-
	2019/20	62	-	-	-
	2020/21	67	-	-	-
	2021/22	-	-	-	71
	Sector allocations (State-wide)				
	Commercial		Recreational	Aboriginal traditional	Total
MSF	79.33%	19.5%	1%	100%	
SZRL	0.13%				
NZRL	0.04%				
Current assessment program	<ul style="list-style-type: none"> Weekly length and age structures collected through market sampling in Adelaide. Annual fishery statistics provided through a stock status report Application of a length-and-age-structured population model every three years Recreational data collected every five years through statewide recreational survey No information is available for Aboriginal/Traditional fishing. 				

MSF Species / Stock summaries - 2022

<p>Assessment summary</p>	<p>There are two biological stocks in the GSV/KI fishing zone which occur in the northern and southern regions. The northern Gulf St Vincent (NGSV) stock constitutes the majority of the biomass and is predominantly fished with haul nets. The southern Gulf St Vincent (SGSV) stock has a much smaller biomass and is fished with dab nets due to haul netting restrictions in this region. Most of the catch and effort for the GSV/KI fishing zone occurs in NGSV via the haul net fishery.</p> <p>The most recent stock assessment included data up until September 2017 using a weight-of-evidence approach (Steer et al 2018). The GarEst stock assessment model for the GSV/KI fishing zone combines both NGSV and SGSV stocks as some biological mixing occurs, despite demographic separation. The GarEst model includes data on commercial catch and effort, commercial age and length structures, and recreational and charter boat catch and effort. Numerous management measures have been implemented since 2005 which included licence reduction schemes, spatial and temporal closures, changes to gear restrictions and changes to legal minimum length. This assessment demonstrated that these management measures have not yet allowed the stock recovery to occur. As a result, the stock was classified as depleted.</p> <p>The 2021/22 TACC of 71 t was recommended by the SnapperMAC and was calculated based on the average 5-year annual commercial catch from 2015–2019.</p>																		
<p>RBC / TACC options for 2022/23</p> <p><u>Sector catch shares</u></p> <p>Regional catch shares were calculated according to the PIRSA allocation policy using new MSF zones. M = natural mortality</p>	<table border="1" data-bbox="368 734 1492 981"> <thead> <tr> <th>Sector</th> <th>Commercial sector catch share (%)</th> <th>Target H in management plan (0.3)</th> <th>Target H = 2/3M (0.23)</th> <th>2021/22 TACC</th> <th>Five-year average commercial catch (2016/17 – 2020/21)</th> </tr> </thead> <tbody> <tr> <td>RBC</td> <td>100</td> <td>61 t</td> <td>48 t</td> <td>-</td> <td>-</td> </tr> <tr> <td>TACC</td> <td>82</td> <td>50 t</td> <td>39 t</td> <td>71 t</td> <td>73 t</td> </tr> </tbody> </table> <p>The RBC's were determined from average five-year biomass estimates from the last assessment (2013-2017).</p>	Sector	Commercial sector catch share (%)	Target H in management plan (0.3)	Target H = 2/3M (0.23)	2021/22 TACC	Five-year average commercial catch (2016/17 – 2020/21)	RBC	100	61 t	48 t	-	-	TACC	82	50 t	39 t	71 t	73 t
Sector	Commercial sector catch share (%)	Target H in management plan (0.3)	Target H = 2/3M (0.23)	2021/22 TACC	Five-year average commercial catch (2016/17 – 2020/21)														
RBC	100	61 t	48 t	-	-														
TACC	82	50 t	39 t	71 t	73 t														
<p>Research needs</p>	<ul style="list-style-type: none"> • Development of harvest strategy with performance indicators, reference points and harvest control rules. • Standardisation of commercial CPUE, using improved measures of fishing effort. • Improved estimates of recreational catch and effort. Current recreational fishing survey project underway to support this. 																		
<p>MSFMAC recommendation</p>	<p>A new stock assessment was being finalised and the results still being considered. The previous assessment indicated signs of stock recovery and there are continuing trends of stock recovery in the new assessment.</p> <p>The target harvest fraction of 30% as provided in the MSF Management Plan was considered appropriate for the species. Whilst the stock has a depleted status, the biomass has been stable and there was a significantly reducing harvest fraction. Catches in recent years were below average and this was likely due to a combination of changes to the legal minimum length in addition to MSF reform and covid-19 market related impacts.</p> <p>Noting the above factors, the MSFMAC considered there was no basis to reduce catch limits and recommended a rollover of the current 2021/22 TACC of 71t for the 1 July 2022 to 30 June 2023 period.</p>																		
<p>References</p>	<p>Drew, M., A. J. Fowler, R. McGarvey, J. E. Feenstra, F. Bailleul, D. Matthews, J. M. Matthews, J. Earl, T. A. Rogers, P. J. Rogers, A. Tsolos and J. Smart (2021). Assessment of the South Australian Marine Scalefish Fishery in 2019. Report for PIRSA Fisheries and Aquaculture. South Australian Research and Development Institute (Aquatic Sciences). SARDI Publication No. F2017/000427-4. SARDI Research Report Series No. 1109. 254 pp.</p> <p>Steer, M.A., Fowler, A.J., McGarvey, R., Feenstra, J., Smart, J., Rogers, P.J., Earl, J., Beckmann, C., Drew, M. and Matthews, J. (2018). Assessment of the South Australian Marine Scalefish Fishery in 2017. Report to PIRSA Fisheries and Aquaculture. South Australian Research and Development Institute (Aquatic Sciences), Adelaide. SARDI Publication No. F2017/000427-2. SARDI Research Report Series No. 1002. 230pp.</p>																		

MSF Species / Stock summaries – 2022

Southern Calamari *Sepioteuthis australis*



Spencer Gulf

Last revised: 14 April 2022

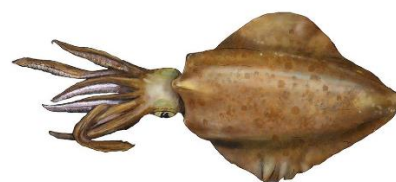
Stock summary						
Stock status	Sustainable (2019)					
Stock assessment	Tier 1 species – no stock assessment has been undertaken. Most recent stock status was assigned in 2019 at the State-wide / biological stock level (Drew et al 2021).					
Fishery/stock trend	There has been evidence of regional depletion in the northern and southern Spencer Gulf over the past ten years. This was particularly evident in southern Spencer Gulf where targeted jig CPUE declined by 31% between 2012 and 2019. Similar declines in targeted jig CPUE had also been occurring over this period in northern Spencer Gulf but with less severity. A sustainable status was assigned at the State-wide/biological stock level.					
Current management measure and catch RBC – recommended biological catch RBCC - recommended biological commercial catch TACC – total allowable commercial catch (based on 5-yr average catch from 2015–2019) <u>Sector allocations</u> Allocations in the current management plan are statewide.	Commercial catch and TACC					
	Year	Total commercial catch (t)	RBC (t)	RBCC (t)	TACC (t)	
	2016/17	218	-	-	-	
	2017/18	235	-	-	-	
	2018/19	164	-	-	-	
	2019/20	185	-	-	-	
	2020/21	206	-	-	-	
	2021/22		-	-	204	
	Sector allocations (State-wide)					
	Commercial		Recreational	Aboriginal / Traditional	Total	
	MSF	56%	37.4%	1%	100%	
	NZRL	0.45%				
GSVPF	0.45%					
SGPF	4.6%					
WCPF	0.1%					
Current assessment program	<ul style="list-style-type: none"> No formal stock assessment. Annual fishery statistics provided through a stock status report. Recreational data collected every five years through statewide recreational survey. No information is available for Aboriginal/Traditional fishing. 					
Assessment summary	The most recent stock assessment was completed for data up until 31 December 2019 using a weight-of-evidence approach (Drew et al. 2021). The primary measure for					

MSF Species / Stock summaries - 2022

	<p>biomass and fishing mortality is targeted jig CPUE. This assessment demonstrated that South Australia's Southern Calamari stock was sustainable.</p> <p>The 2021/22 TACC of 204 t was recommended by the SnapperMAC and was calculated based on the average annual commercial catch from 2015–2019.</p>																		
<p>RBC / TACC options for 2022/23</p> <p><u>Sector catch shares</u></p> <p>Regional catch shares were calculated according to the PIRSA allocation policy using new MSF zones.</p> <p>Hmsy = Harvest fraction corresponding to maximum sustainable yield (MSY)</p>	<table border="1" data-bbox="371 367 1383 613"> <thead> <tr> <th>Sector</th> <th>Commercial sector catch share (%)</th> <th>Target Hmsy (0.39)</th> <th>Target H = 2/3Hmsy (0.26)</th> <th>2021/22 TACC</th> <th>Five-year average commercial catch (2016/17 – 2020/21)</th> </tr> </thead> <tbody> <tr> <td>RBC</td> <td>100</td> <td>400 t</td> <td>267 t</td> <td>-</td> <td>-</td> </tr> <tr> <td>TACC</td> <td>62</td> <td>247 t</td> <td>165 t</td> <td>204 t</td> <td>202 t</td> </tr> </tbody> </table>	Sector	Commercial sector catch share (%)	Target Hmsy (0.39)	Target H = 2/3Hmsy (0.26)	2021/22 TACC	Five-year average commercial catch (2016/17 – 2020/21)	RBC	100	400 t	267 t	-	-	TACC	62	247 t	165 t	204 t	202 t
Sector	Commercial sector catch share (%)	Target Hmsy (0.39)	Target H = 2/3Hmsy (0.26)	2021/22 TACC	Five-year average commercial catch (2016/17 – 2020/21)														
RBC	100	400 t	267 t	-	-														
TACC	62	247 t	165 t	204 t	202 t														
<p>Research needs</p>	<ul style="list-style-type: none"> • Development of a stock assessment program that can be used to assign stock status, estimate RBCs and inform setting of TACCs. • Development of harvest strategy with performance indicators, reference points and harvest control rules. • Standardisation of commercial CPUE, using improved measures of fishing effort • Improved estimates of recreational catch and effort. 																		
<p>MSFMAC recommendation</p>	<p>There is no formal stock assessment for Southern Calamari and it was noted that only commercial catch statistics were available to evaluate. Hmsy figures provided in previous recommendations were based on catch-only models and there was less confidence in the appropriateness of these for Southern Calamari. It was recognised that CPUE had been increasing in recent years.</p> <p>Noting the above, the MSFMAC considered there was no basis to change the current catch limits and recommended a rollover of the current 2021/22 TACC of 204t for the 1 July 2022 to 30 June 2023 period.</p>																		
<p>References</p>	<p>Drew, M., A. J. Fowler, R. McGarvey, J. E. Feenstra, F. Bailleul, D. Matthews, J. M. Matthews, J. Earl, T. A. Rogers, P. J. Rogers, A. Tsolos and J. Smart (2021). Assessment of the South Australian Marine Scalefish Fishery in 2019. Report for PIRSA Fisheries and Aquaculture. South Australian Research and Development Institute (Aquatic Sciences). SARDI Publication No. F2017/000427-4. SARDI Research Report Series No. 1109. 254 pp.</p>																		

MSF Species / Stock summaries – 2022

Southern Calamari *Sepioteuthis australis*



Gulf St Vincent/Kangaroo Island

Last revised: 14 April 2022

Stock summary					
Stock status	Sustainable (2019)				
Stock assessment	Tier 1 species – no stock assessment has been undertaken. Most recent stock status was assigned in 2019 at the State-wide / biological stock level (Drew et al 2021).				
Fishery/stock trend	Annual catches have been relatively stable at moderate levels over the past ten years, consistent with stable targeted jig effort and targeted jig CPUE. In the past 5 years, catch has declined, consistent with a decline in targeted jig effort, while estimates of targeted jig CPUE for northern and southern GSV have been stable at moderate–high levels. This information indicates that biomass is unlikely to be depleted and that recruitment is unlikely to be impaired. The current level of fishing mortality is unlikely to reduce biomass to a recruitment impaired state.				
Current management measure and catch RBC – recommended biological catch RBCC - recommended biological commercial catch TACC – total allowable commercial catch (based on 5-yr average catch from 2015–2019) <u>Sector allocations</u> Allocations in the current management plan are statewide.	Commercial catch and TACC				
	Year	Total commercial catch (t)	RBC (t)	RBCC (t)	TACC (t)
	2016/17	170	-	-	-
	2017/18	176	-	-	-
	2018/19	150	-	-	-
	2019/20	154	-	-	-
	2020/21	129	-	-	-
	2021/22	-	-	-	162
	Sector allocations (State-wide)				
	Commercial		Recreational	Aboriginal / Traditional	Total
	MSF	56%	37.4%	1%	100%
	NZRL	0.45%			
GSVPF	0.45%				
SGPF	4.6%				
WCPF	0.1%				
Current assessment program	<ul style="list-style-type: none"> No formal stock assessment. Annual fishery statistics provided through a stock status report. Recreational data collected every five years through statewide recreational survey. No information is available for Aboriginal/Traditional fishing. 				

MSF Species / Stock summaries - 2022

<p>Assessment summary</p>	<p>The most recent stock assessment was completed for data up until 31 December 2019 using a weight-of-evidence approach (Drew et al. 2021). The primary measure for biomass and fishing mortality is targeted jig CPUE. This assessment demonstrated that South Australia's Southern Calamari stock was sustainable.</p> <p>The 2021/22 TACC of 162 t was recommended by the SnapperMAC and was calculated based on the average annual commercial catch from 2015–2019.</p>																		
<p>RBC / TACC options for 2022/23</p> <p><u>Sector catch shares</u></p> <p>Regional catch shares were calculated according to the PIRSA allocation policy using new MSF zones.</p> <p>Hmsy = Harvest fraction corresponding to maximum sustainable yield (MSY)</p>	<table border="1" data-bbox="371 443 1383 689"> <thead> <tr> <th>Sector</th> <th>Commercial sector catch share (%)</th> <th>Target Hmsy (0.39)</th> <th>Target H = 2/3Hmsy (0.26)</th> <th>2021/22 TACC</th> <th>Five-year average commercial catch (2016/17 – 2020/21)</th> </tr> </thead> <tbody> <tr> <td>RBC</td> <td>100</td> <td>358 t</td> <td>238 t</td> <td>-</td> <td>-</td> </tr> <tr> <td>TACC</td> <td>60</td> <td>216 t</td> <td>143 t</td> <td>162 t</td> <td>156 t</td> </tr> </tbody> </table>	Sector	Commercial sector catch share (%)	Target Hmsy (0.39)	Target H = 2/3Hmsy (0.26)	2021/22 TACC	Five-year average commercial catch (2016/17 – 2020/21)	RBC	100	358 t	238 t	-	-	TACC	60	216 t	143 t	162 t	156 t
Sector	Commercial sector catch share (%)	Target Hmsy (0.39)	Target H = 2/3Hmsy (0.26)	2021/22 TACC	Five-year average commercial catch (2016/17 – 2020/21)														
RBC	100	358 t	238 t	-	-														
TACC	60	216 t	143 t	162 t	156 t														
<p>Research needs</p>	<ul style="list-style-type: none"> • Development of a stock assessment program that can be used to assign stock status, estimate RBCs and inform setting of TACCs. • Development of harvest strategy with performance indicators, reference points and harvest control rules. • Standardisation of commercial CPUE, using improved measures of fishing effort • Improved estimates of recreational catch and effort. Current recreational fishing survey project underway to support this. 																		
<p>MSFMAC recommendation</p>	<p>There is no formal stock assessment for Southern Calamari and it was noted that only commercial catch statistics were available to evaluate. Hmsy figures provided in previous recommendations were based on catch-only models and there was less confidence in the appropriateness of these for Southern Calamari. It was recognised that CPUE had been stable.</p> <p>Noting the above, the MSFMAC considered there was no basis to change the current catch limits and recommended a rollover of the current 2021/22 TACC of 162t for the 1 July 2022 to 30 June 2023 period.</p>																		
<p>References</p>	<p>Drew, M., A. J. Fowler, R. McGarvey, J. E. Feenstra, F. Bailleul, D. Matthews, J. M. Matthews, J. Earl, T. A. Rogers, P. J. Rogers, A. Tsolos and J. Smart (2021). Assessment of the South Australian Marine Scalefish Fishery in 2019. Report for PIRSA Fisheries and Aquaculture. South Australian Research and Development Institute (Aquatic Sciences). SARDI Publication No. F2017/000427-4. SARDI Research Report Series No. 1109. 254 pp.</p>																		