

Fisheries Management Paper No. 288

Protecting breeding stock levels of the blue swimmer crab resource in the south west
A review of management arrangements

Recfishwest

Submission

Executive Summary

Fishing for blue swimmer crabs is an integral part of the Western Australian lifestyle and for years Recfishwest have been calling for changes to the way lower west coast crab fisheries are managed in order to protect this important part of our lifestyle.

The continued closure of the Cockburn Sound Crab Fishery coupled with a decreasing average size of crabs in the Peel-Harvey Estuary has adversely impacted on fishing experiences and called into question the resilience of crab stocks. The decline in fishing experiences in some of our most popular fishing grounds necessitates a significant change in the current management framework. Given the relatively short life-cycle of blue swimmer crabs, Recfishwest believe the benefits from management changes will be realised very quickly and should be long lasting.

Recfishwest believes access to blue swimmer crabs in the lower west coast should be prioritised for recreation and management focused on ensuring an abundance of large crabs and great fishing experiences while still supporting a local provenance seafood supply. Prioritisation for recreation would not reduce the amount of W.A. crabs available in shops as 85 - 90% of the state's commercial crab catch comes from outside the lower west coast region.

Blue swimmer crabs are the quintennial "people's fish" and anything short of a significant change to the current management regime leading to vastly improved protection for crab breeding stocks which underpin fishing experiences will not be acceptable in the eyes of the broader community.

Recfishwest Recommendations

1. Lower west coast crab fisheries prioritised for recreation.
2. Fisheries managed to deliver positive experiences even if that means different arrangements in different fisheries.
3. Male only fisheries are not the preferred method for achieving the level of protection required for breeding crabs as identified in FMP 288.
4. No increase in the minimum legal size of blue swimmer crabs.
5. A broadscale seasonal closure from 1st May – Dec 14th* *(Closure times for the Geographe Bay crab fishery should be determined following further consultation with local fishers)
6. No curfew for lower west coast crab fisheries.
7. Measures implemented to reduce the amount of pre-spawn female crabs taken by the Mandurah to Bunbury Developing Crab fishery.
8. The Hardy Inlet and Blackwood River crab fishery is included in management actions arising from FMP 288.
9. The impact on tourism associated with blue swimmer crabs to be considered when developing preferred management actions.
10. Management arrangements for Cockburn Sound are reviewed with the intention to facilitate a summer recreational crab fishery.

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Introduction

Whether it is scooping in the shallow waters of the Peel Harvey Estuary or pulling drop nets in the Swan River, fishing for Blue Swimmer Crabs is an integral part of the Western Australian life style. Blue swimmer Crabs have always been a favourite species for recreational fishers and the number of crabs caught each year is higher than the combined number of Herring, Skippy, Squid, Dhufish, Pink Snapper, Baldchin Groper, WA Salmon and Black Bream caught each year.

The latest State Of The Fisheries Report [SOTFR 2016/17](#) shows around 550t of blue swimmer crabs were caught in WA in 2016 (494t Commercial , 46t recreational [boat based]) with commercial fisheries catching around 90% of all blue swimmer crabs caught in WA. The Peel/Harvey, Swan River, Leschenault, Cockburn Sound, Mandurah to Bunbury, Geographe Bay, and Warnbro Sound crab fisheries make up the lower west coast crab fisheries. The lower west coast crab fisheries account for 92% of recreational crab catches in Western Australia.

Blue swimmer crabs are the most commonly caught species by recreational fishers and the Peel-Harvey Estuary is the most important recreational crabbing area in Western Australia followed by the Swan River. Given the relative importance of lower west coast blue swimmer crabs to each sector Recfishwest recommend lower west coast crab fisheries are prioritised for recreation.

Following the conversion from gill nets to traps by most of the lower west coast commercial crab fisheries in the late 1990s/early 2000s it became commercially viable to fish in late autumn and winter when for various reasons, gill nets were generally not able to be used. This shift in the nature of the fishing gear and the months and areas in which fishing could occur exposed pre-spawn female crabs to an unprecedented level of fishing mortality.

In 2006 Recfishwest raised concerns over the use of traps to target crabs over the winter months and said *consideration must be given to a winter closure imposed on commercial and recreational fishers in order to protect pre-spawn second year female crabs.*

In 2016 the Department of Fisheries held a workshop which highlighted the urgent need to improve the overall sustainability of the crab stocks by providing better protection to breeding crabs. This workshop resulted in the release of Fisheries Management Paper 288 (FMP 288) *Protecting breeding stock levels of the blue swimmer crab resource in the south west* in October 2018.

Providing our favourite crabs with the protection they deserve is welcome and long overdue. By providing increased protection for breeding crabs the level and quality of eggs produced will increase as will crab numbers. This will allow the quality of our crabbing experiences to return to the level they should be thanks to bigger and more plentiful crab populations. In examining a range of management options for providing increased protection for breeding stock levels of blue swimmer crabs in the lower west coast FMP 288 considered the impacts on the economics of commercial fishers and the recreational fisher experience, compliance costs, the amount of handling and discard of berried and undersize crabs as well as management and recreational rule complexity.

FMP 288 investigated five management options that could be used to increase protection for breeding stocks and identified Broad scale seasonal closures as the most balanced option to achieve increase protection for crab breeding stocks. It is understood the primary objective of FMP 288 is for increased protection of crab breeding stock and that the five options presented are intended to be applied to both commercial and recreational fisheries.

The five options considered in FMP 288 included;

- 1) Male-only fishery.
- 2) Increase in the minimum legal size.
- 3) Limiting the ability to catch crabs for all, or part of, the period when female crabs are more vulnerable to capture.
- 4) Closures in areas where females are aggregated and at times when they are more vulnerable to capture (Patchwork seasonal closures).
- 5) Broad-scale area closures to fishing for all, or part of, the period when females are more vulnerable to capture (Broad-scale seasonal closure).

Recommendation 1
Lower West Coast crab fisheries prioritised for recreation.



Results from Recfishwest consultation

As part of our consultation Recfishwest released a survey, met with recreational fishers, scientists, small business owners, and tourism operators. We also met with community representatives and representative organisations. In addition we promoted FMP288 through our electronic newsletter, radio interviews, newspapers and a range of social media platforms.

This submission is based on the advice we received as a result of our consultation although it should be noted the primary source of consultation feedback was through our online survey which was accessed by 3,961 people and had an 88% completion rate.

Following the release of FMP288 Recfishwest considered the discussion paper and chose not to include option 3 or option 4 in our consultation as these options were considered unworkable and overly complicated.

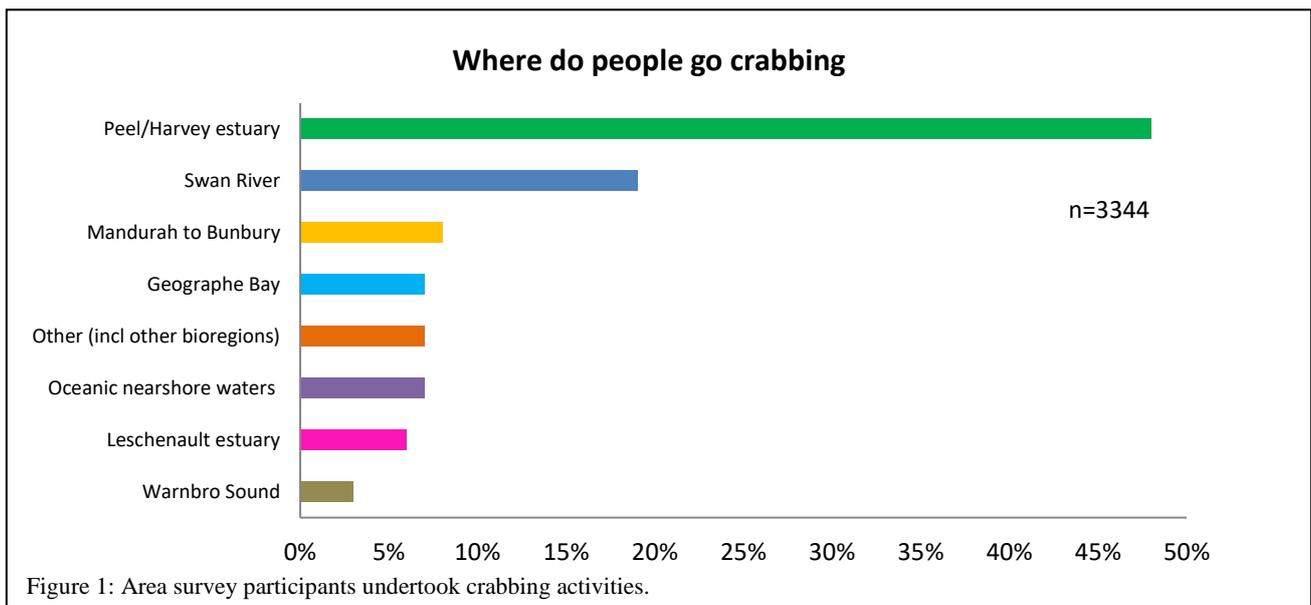
Recfishwest also believe the options provided by Fisheries in the Discussion paper did not reflect all of the available options for protecting breeding crabs and we included a few additional options that we believe would provide additional value to this submission.

Where people catch crabs

Of the thousands of people who completed our survey 97% undertook crabbing activities with 16% mainly only doing crabbing and 81% also doing other fishing activities. The Peel-Harvey estuary was the main area for recreational crabbing activity followed by the Swan-Canning River. The area people went crabbing is shown in Figure 1.

While the Peel-Harvey was the predominant area for crabbing followed by the Swan-Canning River it should be noted there were numerous comments relating to the current status of crabs in Cockburn Sound and the fact that this will be the location of choice for many people once the fishery reopens.

It should also be noted that the spread of fishing activity outside of the Peel-Harvey estuary and Swan-Canning River system was fairly even demonstrating just how universal fishing for crabs is amongst the community.



How people catch crabs

Another interesting finding from our survey is that while drop netting is generally the preferred method of collecting crabs (Figure 2) the way fishers catch crabs in each system can be quite different (Figure 3).

As different methods will have varying success rates during different times of the year it can be seen that recreational fishers are choosing to utilise each fishery in a different way. This suggests a uniform approach to management regimes across all fisheries is likely to impact on fishers differently in each of the systems.

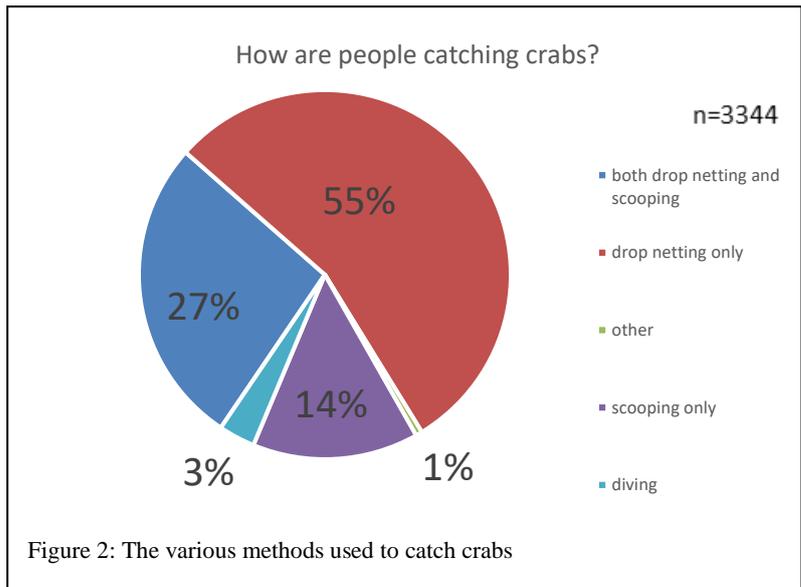


Figure 2: The various methods used to catch crabs

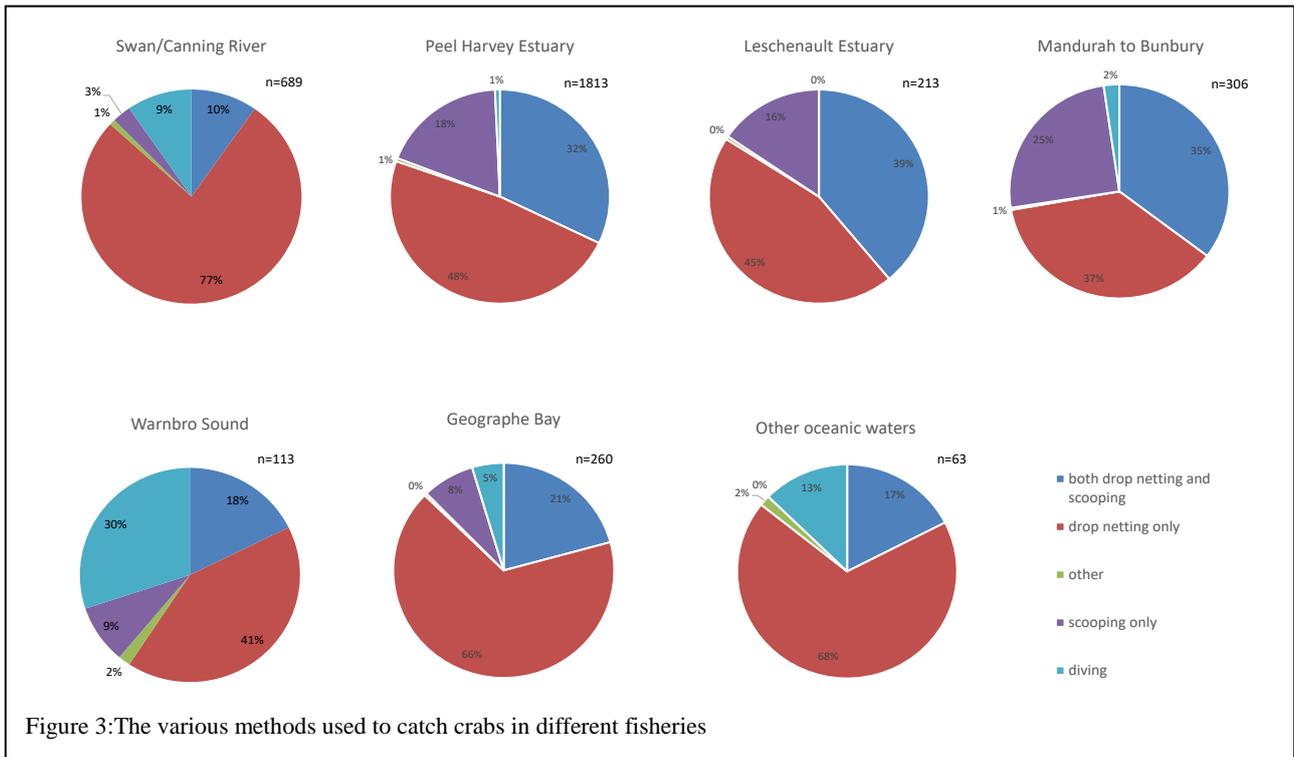


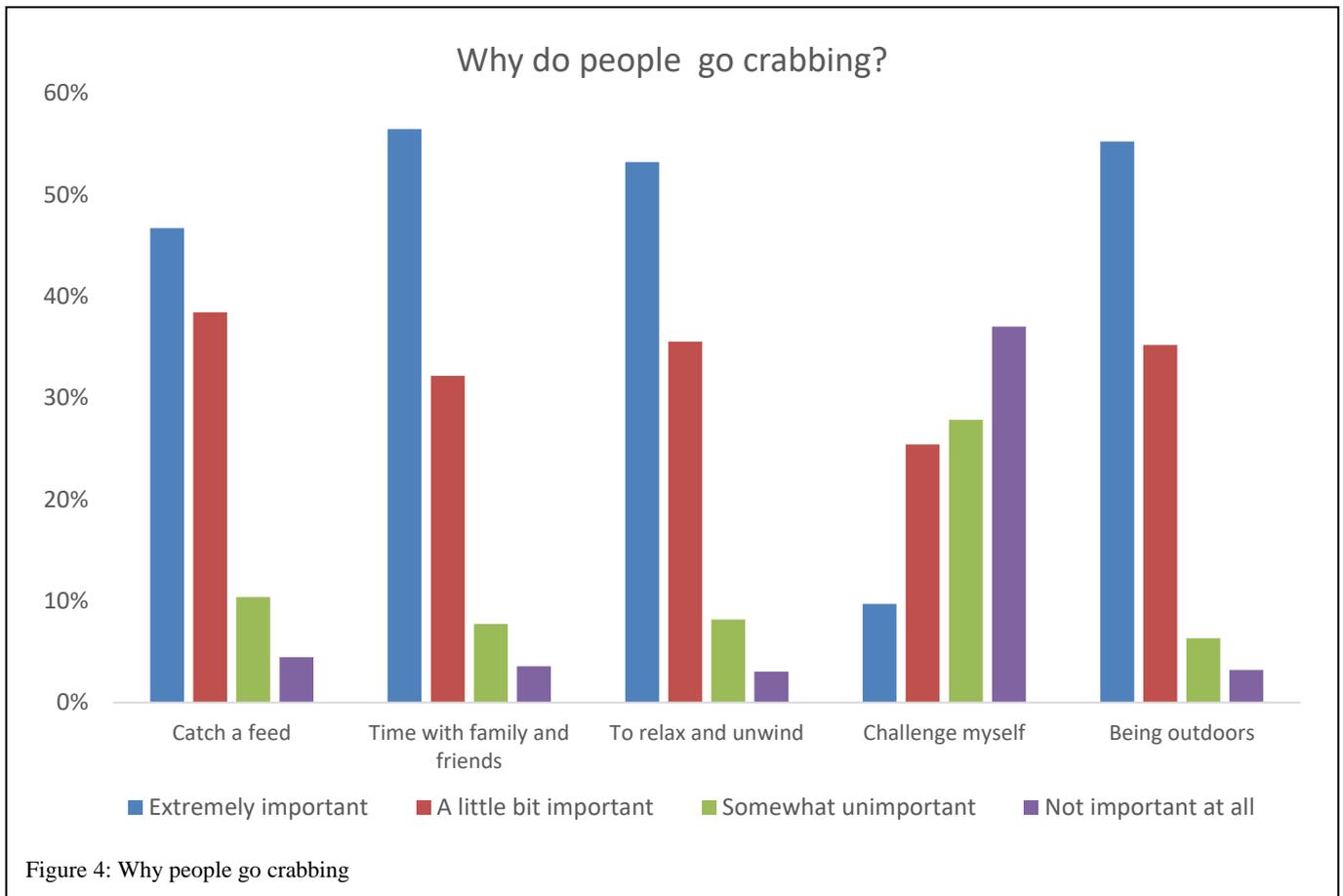
Figure 3: The various methods used to catch crabs in different fisheries

Why people catch crabs

When examining the reasons people go crabbing (Figure 4) the differences across each system (Figure 5) are not as dramatic as they are for fishing methods suggesting no matter how people catch crabs, the reason for catching them is similar across fisheries.

Unsurprisingly people rated catching a feed, spending time with the family, relaxing and being outdoors as important factors in a fishing experience while the challenge of catching a crab was regarded as relatively unimportant. The uniformity of responses shown in Table 1 & Figure 5. should allow social and economic indicators in Harvest Strategies to be fairly uniform across lower west coast crab

fisheries although the differences in catching methods shown in Figure 3 suggest uniform management across these fisheries is inappropriate. These results once again highlight the need to understand the drivers for fishing participation in order to be able to find the most appropriate management regime to achieve the desired biological, social and economic outcomes.



	Catch a feed		Family and friend time		Relax and unwind		Challenge myself		Be outdoors	
	✓	✗	✓	✗	✓	✗	✓	✗	✓	✗
Geographe Bay	84%	16%	84%	16%	87%	13%	29%	71%	89%	11%
Leschenault estuary	79%	21%	90%	10%	90%	10%	33%	67%	92%	8%
Mandurah to Bunbury	80%	20%	87%	13%	88%	12%	41%	59%	92%	8%
Other nearshore waters	79%	21%	80%	20%	81%	19%	45%	55%	87%	13%
Peel/Harvey estuary	87%	13%	90%	10%	89%	11%	33%	67%	90%	10%
Swan River	87%	13%	89%	11%	89%	11%	39%	61%	90%	10%
Warnbro Sound	77%	23%	81%	19%	84%	16%	43%	57%	92%	8%
Total	85%	15%	89%	11%	89%	11%	35%	65%	90%	10%

Table 1: Reasons for crabbing with ✓ representing important and ✗ unimportant.

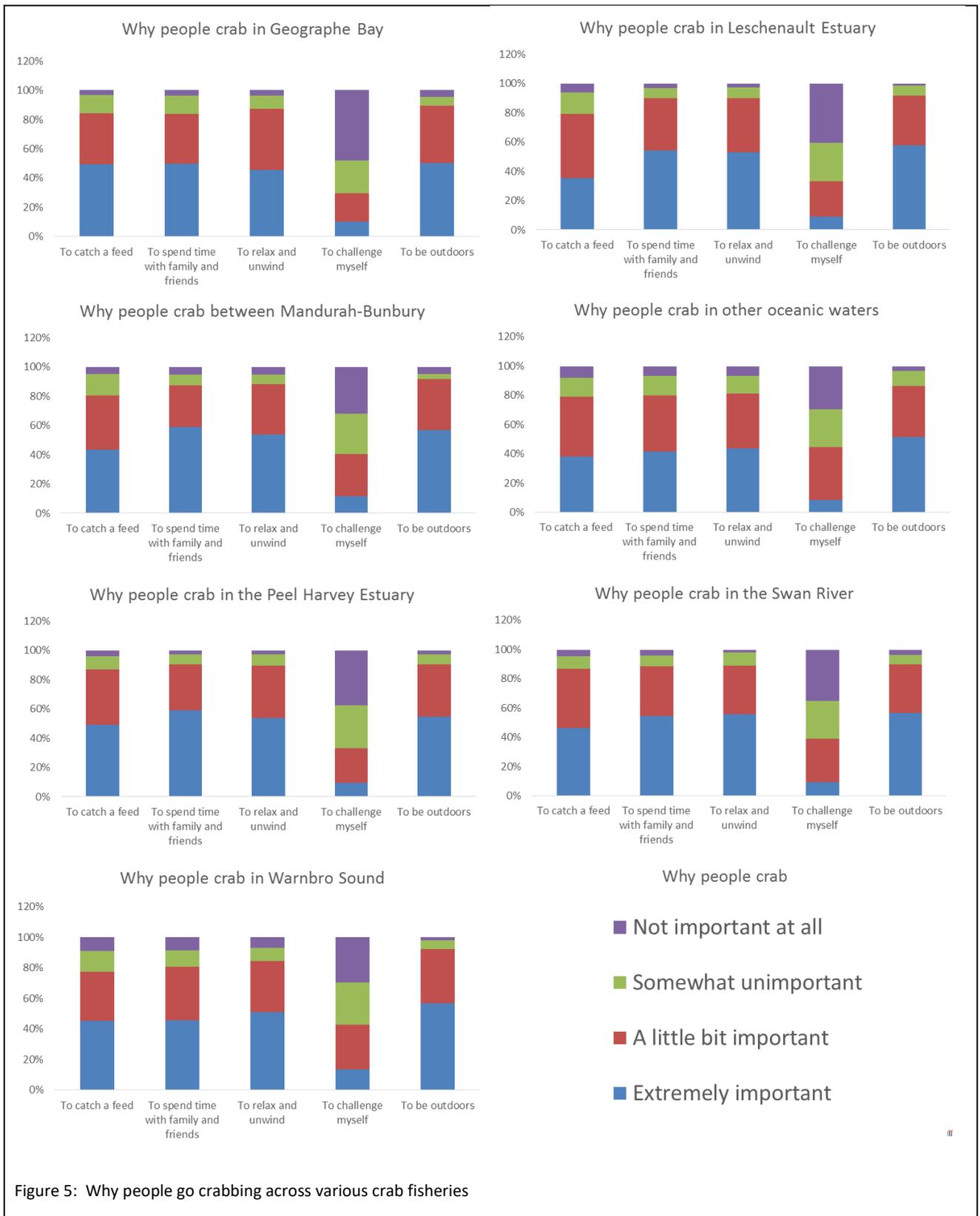
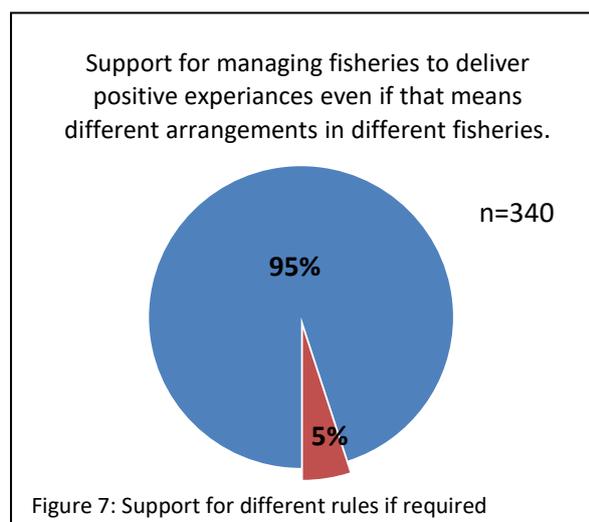
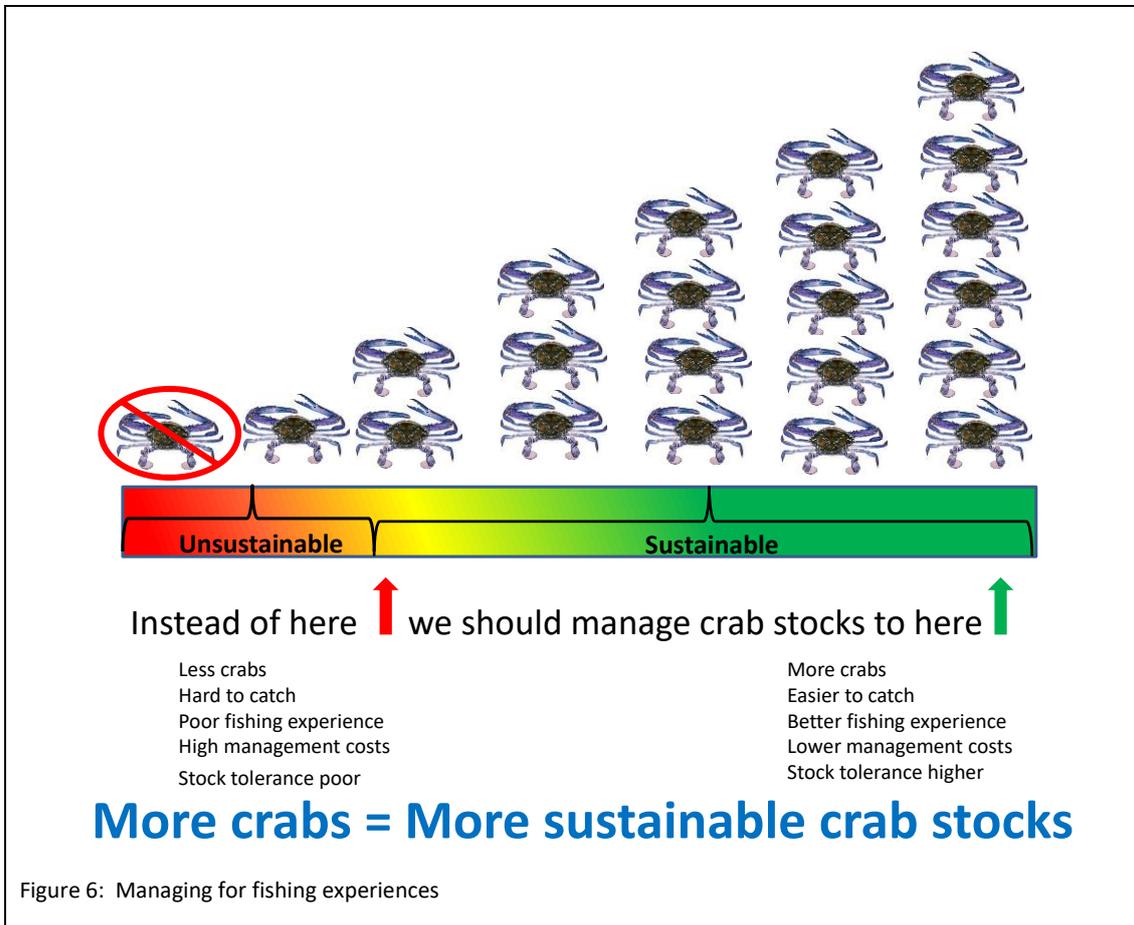


Figure 5: Why people go crabbing across various crab fisheries

Given the good accessibility and relatively uncomplicated nature of catching crabs it is no wonder they are such an important species for recreational fishing in Western Australia. Results shown in Figure 5 suggest managing crab populations for high biomass is more important than managing populations to MSY where the challenge of catching crabs is increased but the experience obtained from fishing is likely to be reduced (Figure 6).



FMP 288 expressed a desire to see uniform implementation of management changes across all lower west coast crab fisheries.

It should be noted our survey showed the vast majority of people supported managing fisheries to deliver positive experiences even if that meant different arrangements in different fisheries (Figure 7).

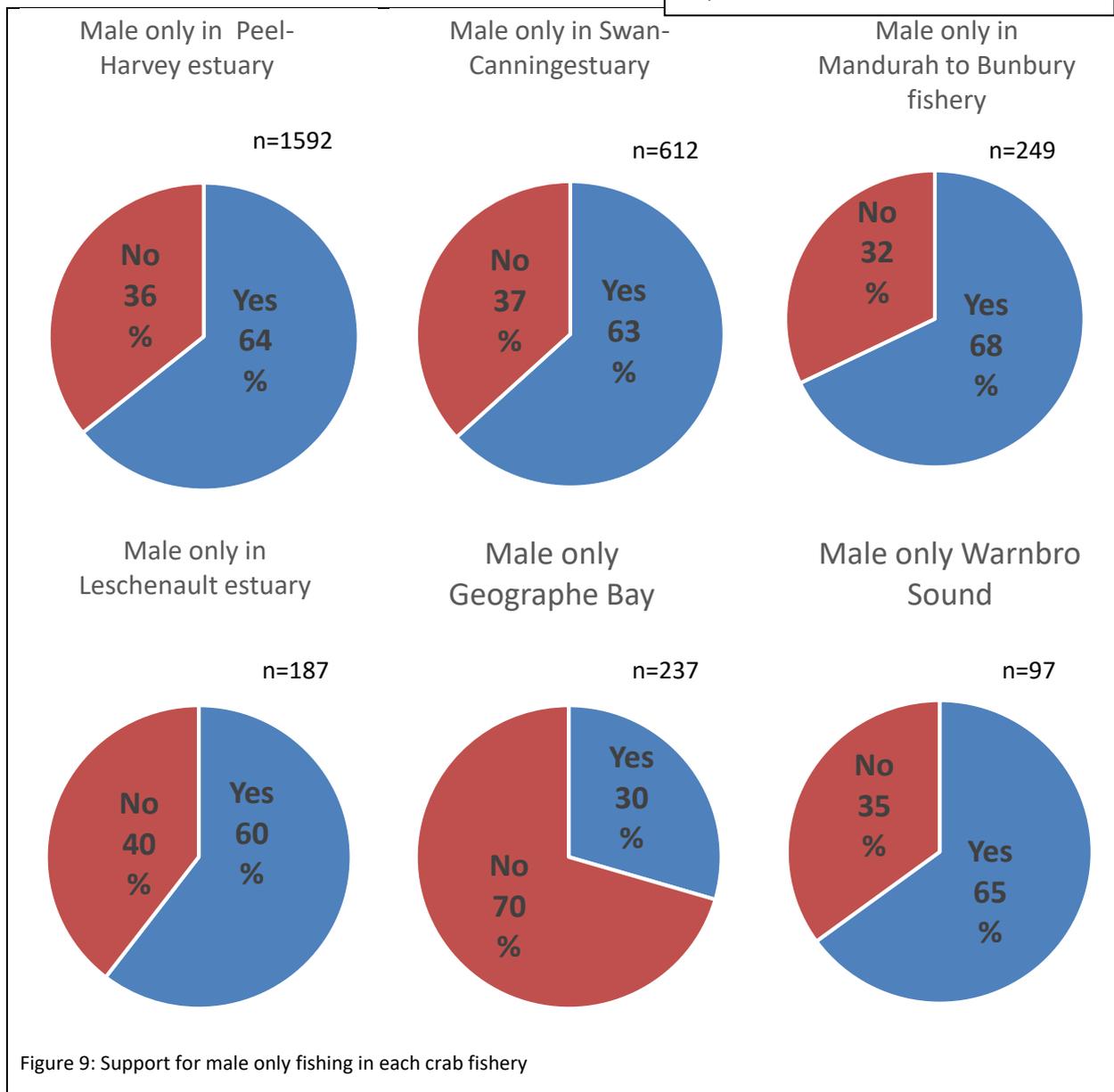
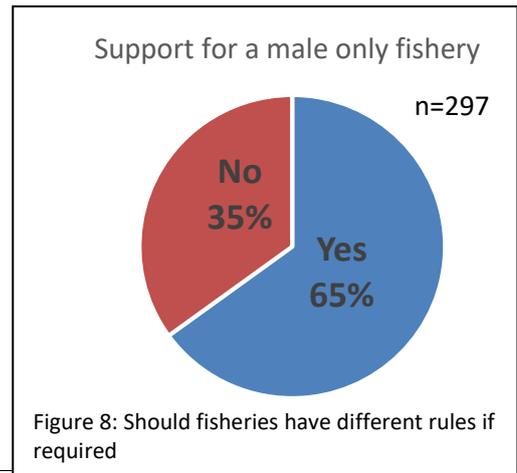
Recommendation 2
Fisheries managed to deliver positive experiences even if that means different arrangements in different fisheries.

Summary of consultation for each proposed option

Option 1: Male-only fishery

Many recreational fishers currently choose to release all female crabs as they believe this provides benefit to the stock. As such, a significant number of female crabs are already released without the need for any further regulation.

Our survey showed strong support for the introduction of male only fisheries for blue swimmer crabs (Figure 8) with 65% of fishers supporting male only fishing across all of the state's lower west coast crab fisheries.



As Peel-Harvey and Swan-Canning Fishers comprised 67% of survey respondents their responses influence the support for male only fisheries in all other lower west coast crab fisheries. In order to determine whether the general support for male only fisheries is universal it is useful to look at whether fishers support this proposal in the areas they fish (Figure 9).

It can be seen fishers are generally in favour of male only fishing rules for the fisheries they fish in with the clear exception of Geographe Bay where 70% of fishers oppose the idea. This is unsurprising as catches of crabs in the Geographe Bay recreational crab fishery consists mainly of female crabs.

On the surface it may seem logical that a male only fishery would provide protection for pre-spawn female crabs. However, given the suite of other options available, a male only fishery is not Recfishwests preference at this time. We believe other measures would provide greater benefit to protecting breeding stock (see below).

Any management arrangements to protect pre-spawn female crabs should be designed to avoid unnecessary handling and out-of-water exposure, as reduced growth and/or increased mortality can be caused by handling. Under a male only fishery people could continue to fish for male crabs at times when females were present in the population in large numbers, resulting in the on-going catching, handling and discard of female crabs.

The movement of crabs into oceanic waters to spawn means oceanic fisheries such as Cockburn Sound, Warnbro Sound and Geographe Bay have a naturally higher proportion of female crab captures than estuarine fisheries and a male only fishery would likely result in effort shift from fisheries where the chance of catching a crab that can be retained is greater. A male only fishery would also result in a de facto closure of the Geographe Bay recreational crab fishery whose catches are predominantly female and whose fishery does not impact on any other fisheries (recreational or commercial) in the lower west coast.

After talking to crab scientists about the likelihood of sperm limitation and investigating the impact male only rules have had on other crab fisheries in Australia, Recfishwest are not convinced male only fisheries is the best management option available to provide breeding crabs with the protection they require. Unlike many aquatic animals male crabs protect females after mating until the female's shell hardens. This protection means there is a limit to the number of females a single male can mate with each season. Recfishwest believe broad scale seasonal closures will provide greater protection for breeding crabs than male only fisheries as both male and female crabs will not be taken during the closed period.

Recfishwest recognise fishers who currently choose not to retain female crabs are already providing a significant form of protection for broodstock crabs and these fishers play a role in influencing the behaviour of other crab fishers. As crab stocks and catches improve it can be expected more fishers will choose not to retain female crabs providing even more protection for breeding stock.

Recommendation 3
Male only fisheries are not the preferred method for achieving the level of protection required for breeding crabs

Option 2: Increase in the minimum legal size

Recfishwest know bigger crabs make better fishing experiences and we would expect management action arising from FMP 288 to result in a return to bigger and better crabs however this does not necessarily mean increasing the minimum legal size (MLS) is the best management option available. Recfishwest are open to changes in the MLS and were very interested in the public response to this management option.

In accordance with standard fishery management practices, the minimum legal size (MLS) of 127mm provides crabs with an opportunity to breed prior to being able to be retained. Nevertheless there is no doubt bigger crabs make for better fishing. There are many fishers who do not consider a 127mm crab to be a “good” crab and who choose not to keep crabs under 130mm. Comments such as “if you have to measure it then it is too small” are commonly heard when fishing and given a choice between a small crab at the start of the season and a large crab at the end of the season most fishers are likely to choose the latter. Despite this, the majority of fishers are opposed to changing the current size limit for crabs (Figure 10).

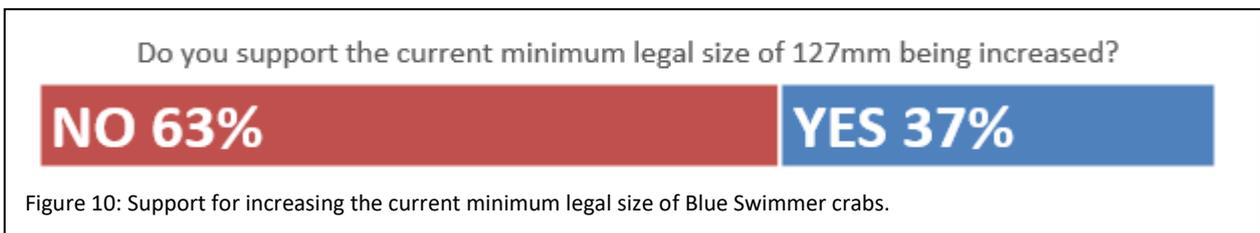


Figure 10: Support for increasing the current minimum legal size of Blue Swimmer crabs.

Any increase in the MLS would not stop breeding crabs from being caught, handled and exposed to the air all of which can result in reduced growth, reduced reproductive success and/or increased handling mortality and it would not provide pre-spawn crabs with increased protection because 1st year mating crabs are already under the existing MLS.

In the Peel-Harvey Estuary the season currently opens when most crabs are below the MLS. Increasing the MLS of crabs would mean even more crabs would be undersize at the start of the season (Figure 11) and if broad scale seasonal closures were implemented and the MLS was increased the same proportion of crabs are likely to be undersize at the start of the season and the same compliance issues would remain.

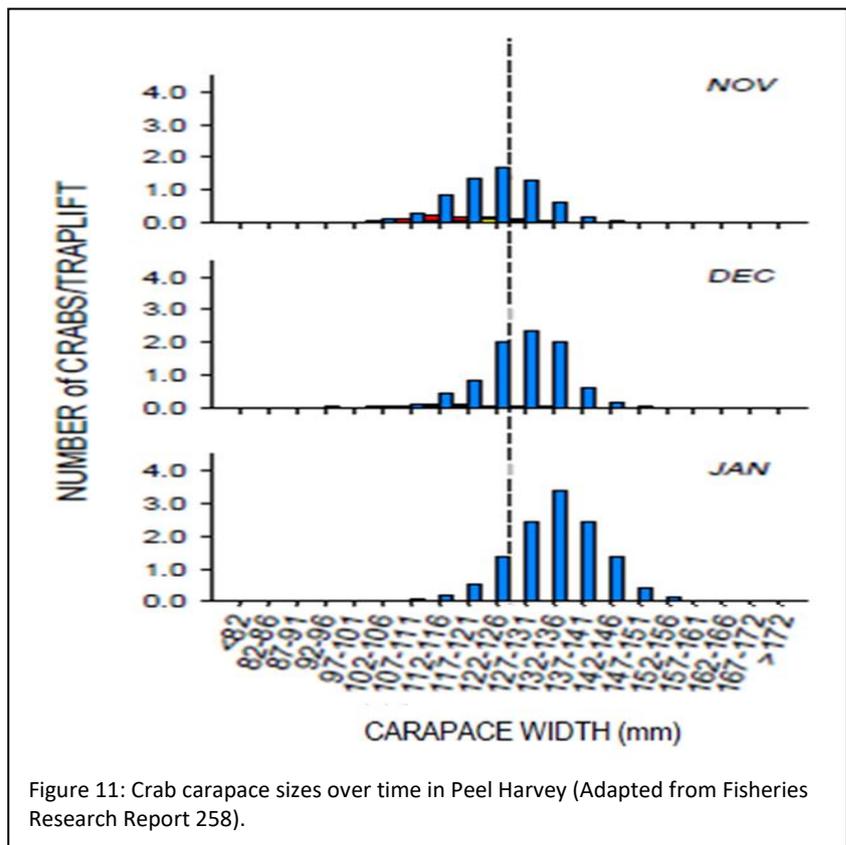


Figure 11: Crab carapace sizes over time in Peel Harvey (Adapted from Fisheries Research Report 258).

Recfishwest believe broad scale seasonal closures are likely to be more effective in protecting breeding crabs and any gains in fishing experiences from these closures would be lost from an increase in the MLS on top of the closures.

Should actions resulting from this discussion paper result in an appropriate level of protection for blue swimmer crabs, crab populations are likely to increase and return to a biomass that we know these systems are capable of supporting. This will, in turn, result in more crabs being left in the system. Once the additional crabs have had another year to breed and grow, we are likely to be in a position where there are enough residual large crabs in the system to allow for an increase in the MLS without impacting on people’s experience.

Although Recfishwest do not support an increase in the MLS of crabs as part of this review, it is something we believe could be re-examined following any substantial increase in biomass. Consequently it is worth understanding what size limit people who supported an increase in the size of crabs prefer (Figure 12).

From our survey it can be seen that there are three main sizes that people support (130mm, 135mm and 140mm), although any decision on future size limit increases should review community aspirations at the time to ensure the fishery is being managed in line with people’s expectations.

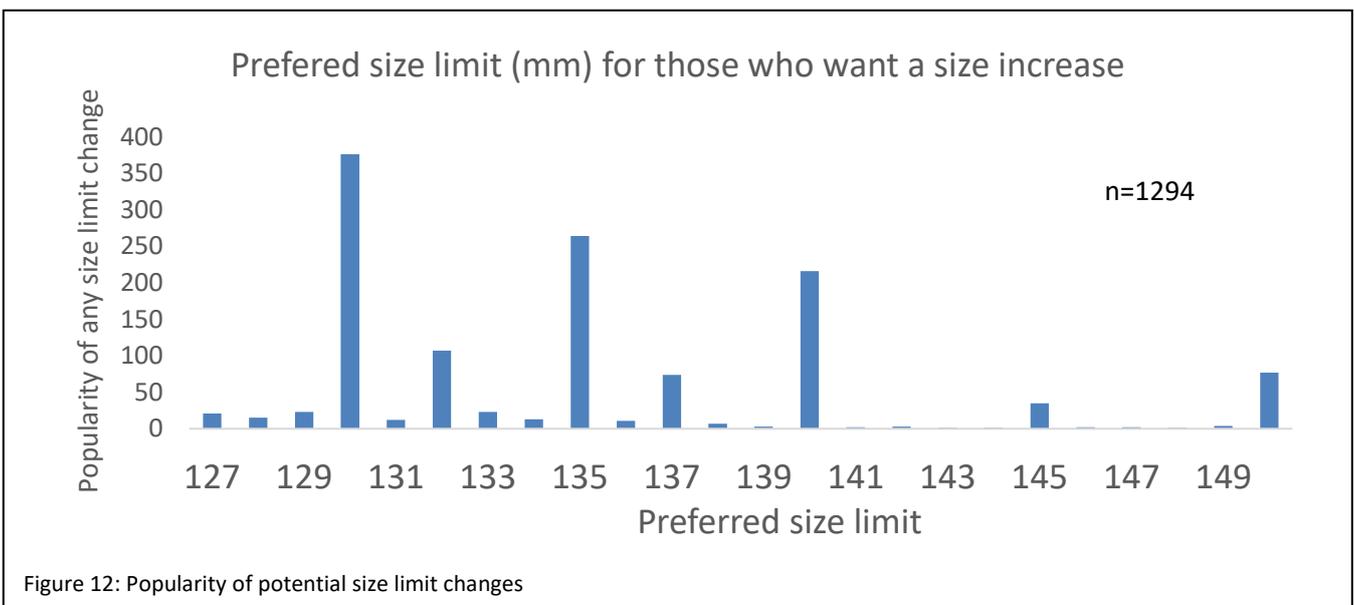


Figure 12: Popularity of potential size limit changes

Recommendation 4
No increase in the minimum legal size of blue swimmer crabs.

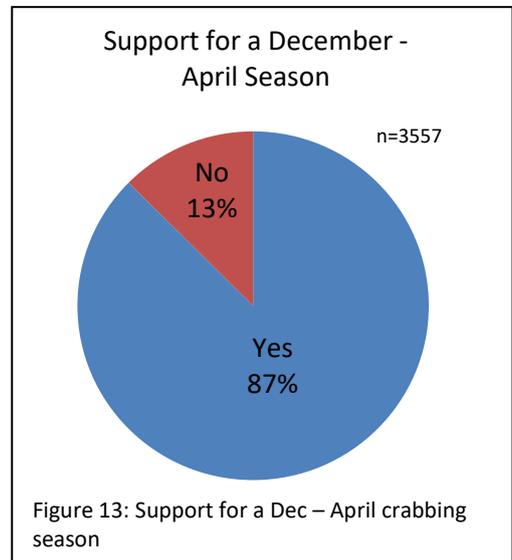
Option 3 & 4

As mentioned earlier Recfishwest did not believe options 3 or 4 in the Discussion paper were workable and chose not to undertake consultation on these options. Recfishwest agrees with the drawbacks of each of these options which were well explained in the Discussion paper.

Option 5: Broad-scale area closures to fishing for all, or part of, the period when females are more vulnerable to capture (Broad-scale seasonal closure)

The Discussion paper has suggested a closure of all lower west coast crab fisheries between May and November (inclusive) as the best way to provide pre-spawn female crabs with the protection they need. As over 80% of recreational crabbing occurs between December and April this option is unlikely to impact greatly on fishing experiences in Peel-Harvey and Swan-Canning estuaries, which are the main recreational crabbing areas in the lower west coast.

Our survey showed strong support for a December – April crab season (Figure 13) with 87% of fishers supporting the proposed May-November closure across all of the state’s lower west coast crab fisheries.



As Peel-Harvey and Swan-Canning Fishers comprised 67% of survey respondents, their responses influence the support for seasonal closures in all other lower west coast crab fisheries. In order to determine whether the general support for a Dec-April crab season is universal it is useful to look at whether fishers support this proposal in the areas they fish (Figure 14).

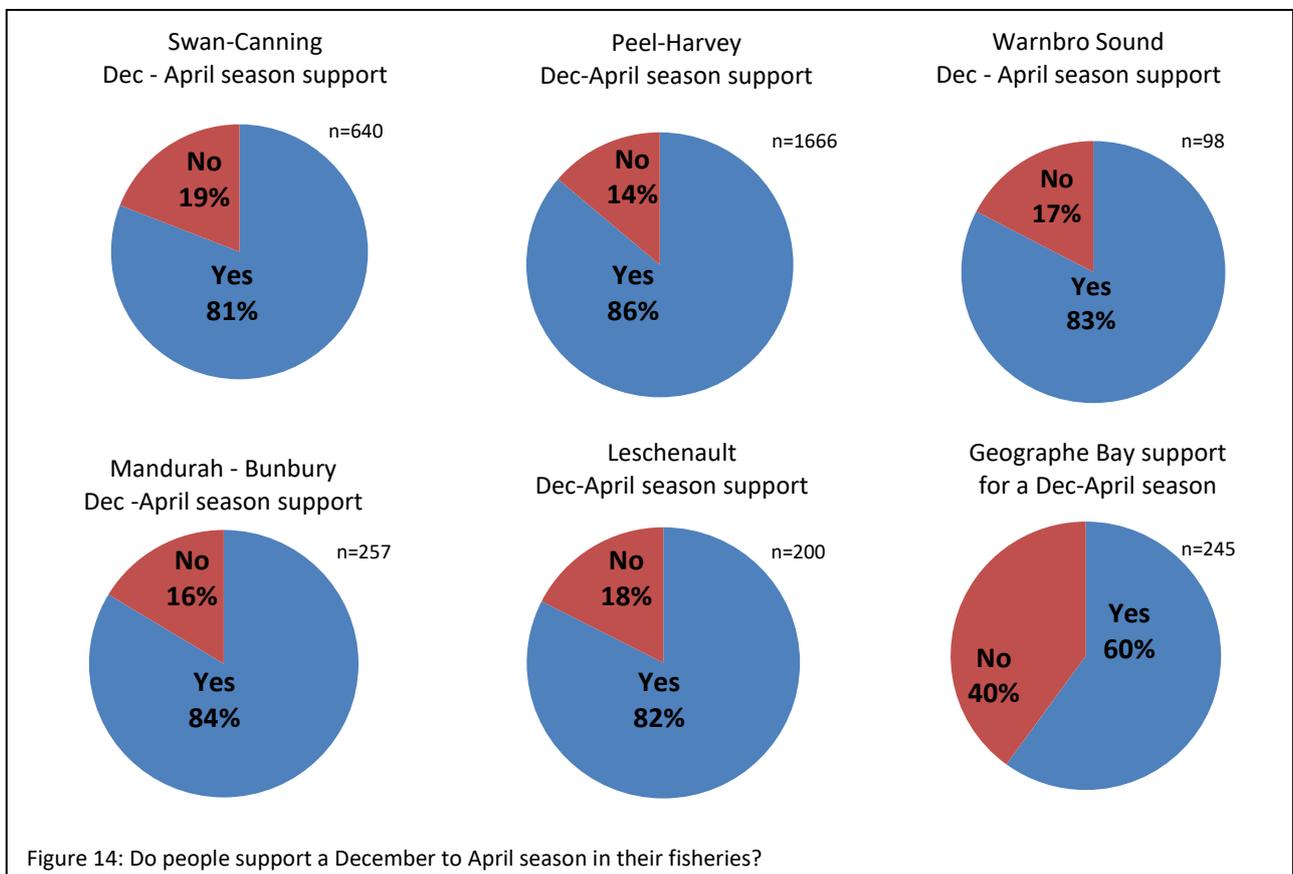


Figure 14 shows that fishers are generally in favour of a December – April season for the fisheries they fish in. It is worth noting the support for this amongst Geographe Bay fishers is significantly less than for other fisheries which isn't surprising given the Winter/Spring nature of the fishery.

There were many comments and suggestions in our survey about the best way to implement a broadscale seasonal closure. Survey respondents suggested almost every possible combination of temporal closures as well as suggesting season openings be based on the proportion of crabs at a certain size, reductions in the number of nets allowed and even a complete closure for several years. There were also several comments supporting a January start to crab seasons as well as several comments supporting restocking of crabs.

Support for restricting access to fishing is not something Recfishwest takes lightly and we are unconvinced this measure should apply to the Geographe Bay fishery for the same duration, as this fishery is predominantly a Winter/Spring fishery that has zero impact on commercial fisheries in the lower west coast and is predominately fed from broodstock migrating south from the Leschenault crab fishery.

Recfishwest are broadly supportive of this management option. We recognise a December – April Season will allow people to catch crabs for Christmas, Boxing Day, Summer and April school holidays and Easter, as well as Australia Day, Labour Day and ANZAC day public holidays.

Recfishwest believe that beginning the season on 15th December will support a better fishing experience by providing access to larger crabs that contain a higher yield of meat.

Recommendation 5
A broadscale seasonal closure from 1st May – Dec 14th*
***(Closure times for the Geographe Bay crab fishery should be determined following further consultation with local fishers)**

Other considerations

Night time curfew

In addition to the five options presented, FMP 288 also raised the prospect of a night time curfew, from 10.30pm until 4.30am. The rationale for this curfew was to make compliance activities easier.

Recfishwest understand the compliance challenges associated with take of undersize crabs in the Peel – Harvey Estuary, however crabbing in the evening and early morning has always been a traditional part of the recreational crab fishery and restricting access in all lower west coast crab fisheries to address a problem in a single fishery is not appropriate.

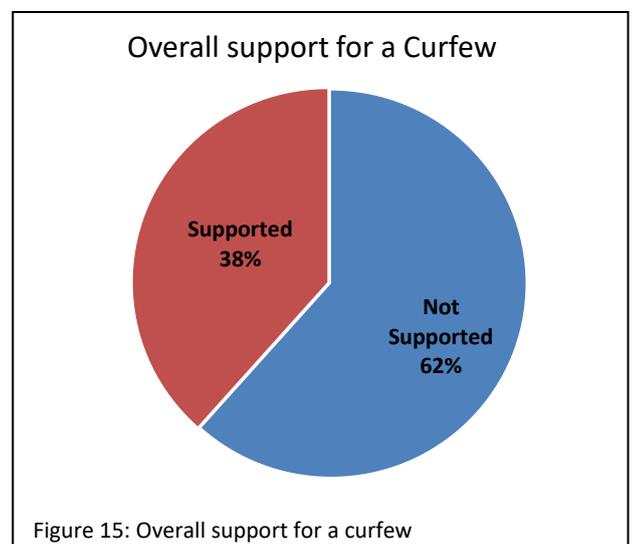


Figure 15: Overall support for a curfew

Recfishwest do not accept the owners of a public resource should be excluded from accessing this resource simply because it makes for easier management. Recfishwest believe that management by exclusion does not maximise the return of the resource back to the community. We do not support a curfew for lower west coast crab fisheries. A curfew was also not supported by survey respondents as can be seen by Figure 15 and Table 2.

Recfishwest believe a December 15th opening for most lower west coast crab fisheries will do more to reduce the take of undersize crabs than a night curfew could ever do.

The latest MSC audit report for the Peel-Harvey estuary crab fishery also showed a very low rate of repeat offenders (<1%) for undersize crabs in the Peel-Harvey recreational crab fishery suggesting education rather than a curfew can have significant compliance benefits.

	Support for a curfew	
	✓	✗
Geographe Bay	32%	68%
Leschenault estuary	31%	69%
Mandurah to Bunbury	38%	62%
Other nearshore waters	39%	61%
Peel/Harvey estuary	40%	60%
Swan River	35%	65%
Warnbro Sound	50%	50%
Total	38%	62%

Table 2: Support for a curfew in each fishery

While Fisheries have cited a desire for a night time curfew in order to assist compliance activities, FMP 288 has failed to adequately present a compelling case for a curfew. Recfishwest believe a targeted compliance campaign resulting in boat and vehicle confiscations similar to Operation Bagana recently undertaken for the Rock Lobster fishery will assist compliance activities more than a curfew.

If Fisheries want to pursue a night time curfew for recreational crab fishing in the Peel Harvey, they will need to build a much stronger case and any future closures may need to be confined to the Peel-Harvey estuary as there is zero compliance activity available to support a curfew in any of the other lower west coast crab fisheries.

Recommendation 6
No curfew for lower west coast crab fisheries.

Mandurah to Bunbury Developing Fishery

In 2002, four exemptions were issued to commercial fishers allowing them to take commercial quantities of blue swimmer crabs in the oceanic waters between Mandurah and Bunbury. Currently there is one active exemption to fish in Area 1 of this fishery and one exemption to fish in Area 2 of this fishery. Catches in this fishery are dominated by female crabs with more than 90% of the crabs caught in this fishery during the December spawning time being female and from May to December females crabs never make up less than 77% of catches.

The crabs being caught in this fishery underpin the Peel-Harvey and Leschenault estuary crab fisheries. Recfishwest believe it is not appropriate to allow vulnerable female crabs that feed our favourite estuary crab fisheries to be targeted to such an extent and we have real concerns about the ongoing operation of this fishery.

In the full assessment report for the Marine Stewardship Council (MSC) it was noted *the observed increase in the proportion of pre-spawned females in the catches of crabs over the past few years in the PHE, should continue to be closely monitored, along with the level of fishing effort in the oceanic waters, to ensure that fishing pressure does not reduce the breeding stock to a point where recruitment becomes impaired.*

Recfishwest share the concerns of the MSC Assessment body as do survey respondents who showed 98% support for reducing the take of pre-spawn female crabs in this fishery (Figure 16).

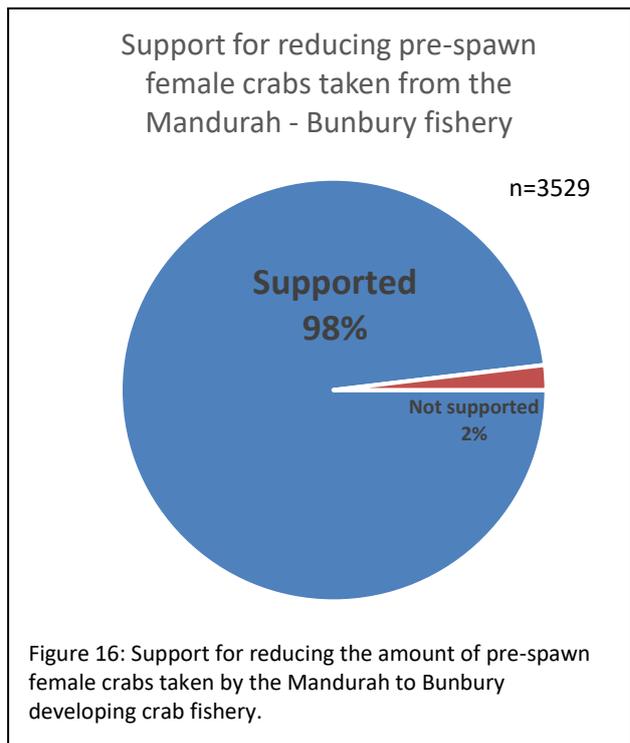
Developing Fisheries are currently governed under Fisheries Management Paper 130. Section 2.2.6 (Implementation and Participation) of this paper states: *The implementation and participation stage occur once authorisations*

have been granted to successful applicants. However, it must be noted that participants in the developmental fishery must conduct their fishing operation in accordance with the operation proposed in their business plan, and in accordance with any conditions imposed by Fisheries WA under the FRMA 1994. The authorisation will be renewable for a three-year period.

The current exemption for this fishery expires on 31/03/2020 and in line with the previous exemptions its stated purpose is to *explore the Mandurah to Bunbury developing crab fishery and fishing technology for commercial purposes.* Given it has been 16 years since the first exemption was issued Recfishwest believe the exemption holders have had ample time to “explore” the potential of this fishery.

Over the 16 years this fishery has been operating Recfishwest have not been made aware of how this fishery has been assessed each time the exemption have been renewed. The continued operation of this fishery jeopardises the viability of commercial operations in the Peel-Harvey, Recreational fishing experiences in both the Peel – Harvey, Leschenault Estuary and Geographe Bay crab fisheries and puts at risk the governments substantial investment in obtaining third party certification for both the professional and recreational Peel-Harvey blue swimmer crab fisheries.

While Recfishwest believe exemptions for this fishery were prematurely issued in 2002 we believe providing breeding blue swimmer crabs in this fishery with increased protection is long overdue.



Recommendation 7

Measures implemented to reduce the amount of pre-spawn female crabs taken by the Mandurah to Bunbury Developing crab fishery

Hardy Inlet and Blackwood River

The Hardy Inlet and Blackwood River comprise Area III of the West Coast Estuarine Managed Fishery Management Plan 2014 and although not in the West Coast Bioregion Recfishwest cannot see why crab fisheries operating in this area have been excluded from FMP 288. All crab fisheries in the West Coast Estuarine Management Plan should be included in management outcomes arising from FMP 288.

Recommendation 8

The Hardy Inlet and Blackwood River crab fishery is included in management actions arising from FMP 288.

Tourism

Any management changes arising from this discussion paper should consider the impact on tourism as a result of management changes. The Government has very clearly articulated the importance of developing Western Australian tourism and blue swimmer crabs have their part to play in this push for increased tourism. The Mandurah and Peel Tourism Organisation (MAPTO) believe the 23% increase in day trippers to the Peel Region in 2018 is due to the increased tourism offerings on offer. MAPTO also credited the 14.5% increase in international travellers visiting the region to activities that have a high appeal to the Asian markets such as “Catch and cook” experiences centred on blue swimmer crabs and rock lobsters. Just like improved recreational experiences, tourism related to blue swimmer crabs will require a high abundance of crabs. It should also be noted the tourism potential of blue swimmer crabs for the Geographe region during Winter and Spring have also been raised several times during our consultation.

Recommendation 9

The impact on tourism associated with blue swimmer crabs to be considered when developing preferred management actions

Cockburn Sound

As the juvenile index remains below the Limit level of 0.4kg/trap lift this fishery is currently closed. A number of survey respondents fish north of Woodman Point in the portion of the fishery that is open to recreational fishing.

Despite not including Cockburn Sound as a specific location in our survey there were a significant number of people who commented on the current state of the Cockburn Sound fishery and who signalled a very strong desire for this fishery to reopen.

Given the significant environmental changes that have occurred in Cockburn Sound over the last several decades Recfishwest is doubtful whether this fishery will ever be able to once again hold enough crabs to satisfy recreational fishing aspirations and the economic aspirations of 12 commercial crabbing operations.

For several years Recfishwest have received reports from recreational fishers about good numbers of crabs in this system, however these reports have not been reflected in the research assessments and the fishery has remained closed.

Although very important to recreational fishers, the numbers of crabs caught by recreational fishers in Cockburn Sound has not been large. As reported in FMP 288 the 1996/7, 2001/02 and 2005/06 recreational fishing surveys estimated recreational catches of blue swimmer crabs in Cockburn Sound at 16-32t, 14-36t and 3-5t respectively. When compared to the commercial catches for this same period it is obvious the impact of recreational fishing in Cockburn Sound is only a fraction of the impact from commercial fishing (Figure 17).

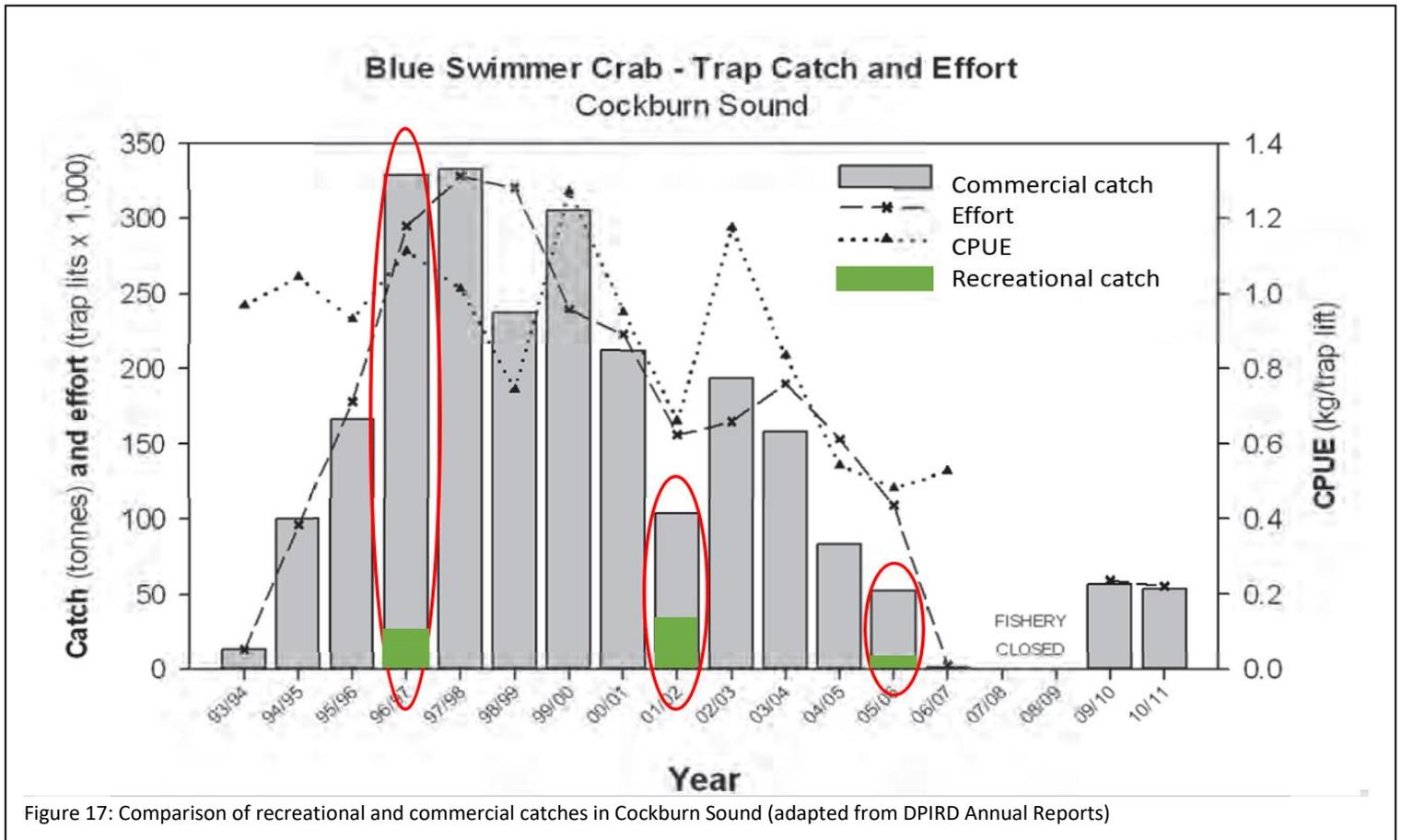


Figure 17: Comparison of recreational and commercial catches in Cockburn Sound (adapted from DPIRD Annual Reports)

Given the aspirations for commercial and recreational fishers are vastly different and the impacts from each sector are at opposite ends of the catch spectrum, Recfishwest believe there needs to be a review of crab management in the Cockburn Sound crab fishery.

Recfishwest believe Cockburn Sound crab populations will reach a level suitable for a summer recreational fishery long before it reaches a level suitable for commercial exploitation. Part of this review should be assessing the suitability of reference levels and the relative impact of each sector with the intention to facilitate a summer recreational crab fishery.

Recommendation 10
Management arrangements for Cockburn Sound are reviewed with the intention to facilitate a summer recreational crab fishery.

Voluntary Fisheries Adjustment Scheme

Recfishwest is conscious of the current Voluntary Fisheries Adjustment Scheme (VFAS) open for the Peel-Harvey estuary that is supported by both commercial and recreational fishers. The discussion paper and the VFAS are linked, with each likely to influence the other. The VFAS is designed to leave a significant amount of crabs in the most popular fishery thereby providing improved resilience and increased protection for breeding crabs. As with Recfishwest's optimistic nature the advice and recommendations contained in this submission are predicated on a good uptake of the VFAS and should the VFAS uptake fail to meet our expectations Recfishwest acknowledge additional management restrictions may need to be considered in order to provide the level of protection for breeding crabs as outlined in FMP 288.

Summary

Fishing for blue swimmer crabs is an integral part of the Western Australian life style and for years Recfishwest have been calling for changes to the way lower west coast crab fisheries are managed in order to protect this important part of our lifestyle.

The continued closure of the Cockburn Sound Crab Fishery coupled with a decreasing average size of crabs in the Peel-Harvey estuary over the last few years has dramatically impacted on fishing experiences and has called into question the resilience of crab stocks. The decline in fishing experiences in some of our most popular fishing grounds necessitates a significant change in the current management framework.

Given the relatively short life-cycle of blue swimmer crabs Recfishwest believe the benefits from management changes will be realised very quickly and should be long lasting. Blue swimmer crabs are a public asset and crab fisheries on the lower west coast should be prioritised for recreation. Blue swimmer crabs are the quintennial "people's fish" and anything short of a significant change to the current management regime leading to vastly improved fishing experiences will not be acceptable in the eyes of the broader community.

Recfishwest believes access to blue swimmer crabs in the lower west coast should be prioritised for recreation purposes. Prioritisation would mean management focused on ensuring an abundance of large crabs and great fishing experiences while still supporting a local provenance seafood supply. Prioritisation would not reduce the amount of W.A. crabs available in shops as 85 - 90% of the state's commercial crab catch comes from outside this West Coast Bioregion.

FMP 288 identified a need to provide breeding crabs with increased protection and Recfishwest are largely supportive of broad scale seasonal closures with uniform regulations across all sectors within a fishery as the preferred option to provide the increased protection required. This support does not extend to uniform implementation rules across all lower west coast crab fisheries.