

Victorian Recreational Rock Lobster Reporting Program Summary Report 2024

November 2023 – September 2024

We're hooked on
SAFETY



© The State of Victoria, Victorian Fisheries Authority, November 2024



This work is licenced under a Creative Commons Attribution 3.0 Australia licence. You are free to re-use the work under that licence, on the condition that you credit the State of Victoria as author. The licence does not apply to any images, photographs or branding, including the Victorian Coat of Arms, the Victorian Government logo and the Victorian Fisheries Authority logo.

To view a copy of this licence, visit <http://creativecommons.org/licences/by/3.0/au/deed.en>

Preferred way to cite this publication:

VFA (2024) Victorian Recreational Rock Lobster Reporting Program Summary Report 2024. Victorian Fisheries Authority Report Series No. 50.

ISBN 978-1-7635685-5-6 (Print)

ISBN 978-1-7635685-4-9 (Online) For more information, contact the Customer Service Centre on 136 186.

Accessibility

If you would like to receive this publication in an alternative format, please telephone the Customer Service Centre on 136 186, email customer.service@ecodev.vic.gov.au, or via the National Relay Service on 133 677, www.relayservice.com.au.

This document is also available on the internet at www.vfa.vic.gov.au

Disclaimer

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

Table of Contents

Executive Summary	1
Introduction	2
Program History.....	2
Results	3
Recreational Fisher Participation	3
Total catch	5
Monthly Catch Distribution	5
Length-Weight application.....	6
Size Class Distribution.....	8
Sex Distribution.....	8
Discussion	9
Appendix 1: Annual Data Summary	11

Executive Summary

The 2023/24 season marks the seventh year of the Victorian Recreational Reporting Program. The program provides a valuable assessment of the total recreational catch for the Victorian Rock Lobster Fishery and improves understanding of the overall stock assessment. At the commencement of this season, the Victorian Fisheries Authority (VFA) introduced a new reporting app that aimed to simplify the process for reporting recreationally caught rock lobster.

The results from the 2023/24 season recorded 2,734 registered participants in the program, increasing by 80% from the 2022/23 season. Despite this increase, participation remains significantly lower than the first four seasons of the program. Total catch reported in 2023/24 has followed a similar trend, increasing by approximately 60% from 2022/23, with 1,948 lobsters landed. Utilising an updated length-to-weight conversion ratio, the total weight of retained rock lobster equated to 1.31 tonnes in the Eastern Zone and 1.64 tonnes in the Western Zone. Comparatively, the initial two seasons of the program recorded approximately 6 tonnes of catch in each zone.

Generally, other recorded catch data has remained consistent with previous seasons. Recreationally harvested rock lobsters are most commonly recorded with a carapace length between 11cm and 15cm, with the Eastern Zone recording a greater proportion of larger size lobsters over 18cm. Similarly, the sex distribution remained heavily in favour of males, accounting for 72% of the total recorded catch. Reflecting on the monthly catch distribution, December and January continued to be the most prominent months with catch then tapering away across the remainder of the season. This trend reflects the species association with Christmas, as well as the higher rate of diving for lobsters across the summer period.

While the program has shown improvements in the 2023/24 season, the reported catch remains considerably lower than the first four seasons. There have been several contributing factors to the decrease in reported catch, however, the move from a physical tagging program to an entirely digital platform is considered the most influential.

Introduction

The Victorian Rock Lobster Fishery primarily harvests Southern Rock Lobster, *Jasus edwardsii*, which is a high value and iconic species. The fishery spans the length of the Victorian coastline and supports both commercial and recreational rock lobster fisheries. It is one of the most valuable commercial fisheries in Victoria, making it an important contributor to the State's economy.

Recreational rock lobster fishing is an important activity for many Victorians who commonly harvest whilst snorkelling, diving on SCUBA or hookah, or using hoop nets. Unless exempt, a fisher must hold a Victorian Recreational Fishing Licence to take rock lobsters. The recreational catch is managed using daily bag limits and possession limits, as well as minimum size limits and closed seasons that are consistent with the commercial fishery.

The total number of rock lobster harvested annually by the recreational sector was identified in the *Victorian Rock Lobster Fishery Management Plan 2017* as a significant data gap for this fishery. In response, on the 1 July 2017, the VFA introduced a three-year trial of a recreational tagging and reporting program. After the completion of the trial, the program was approved on an ongoing basis. Following its fourth season, the program transitioned from using plastic tags to an entirely digital reporting platform. Based on key learnings and stakeholder feedback, the reporting app underwent a significant transformation at the commencement of the 2023/24 season.

This summary report presents an overview of the data collected throughout the 2023/24 season and provides a comparison over all seasons of the program. In addition, it also recognises key learnings used to inform the ongoing development of the program.

Program History

The number of rock lobster caught annually by the recreational sector was previously a significant data gap for this fishery. The Victorian Rock Lobster Fishery Management Plan 2017 identifies recreational harvest as an assumed notional catch of 5% and 10% of the total allowable commercial catch in the Western Zone and Eastern Zone respectively. Despite this, the Ecologically Sustainable Development Risk Assessment undertaken to inform this plan identified a high risk that these notional values underrepresented the recreational catch.

In response, on the 1 July 2017, the VFA introduced a three-year trial of a recreational tagging and reporting program. This program required fishers to tag and report details of all lobster caught and retained. The primary objective of this trial was to obtain an estimate of the annual recreational catch and determine whether that estimate aligned with the assumed notional recreational catch. Tags were issued to fishers free of charge and were limited only by the number that could be ordered at any one time. Tags were required to be affixed to rock lobster before leaving the place of landing. Details of all tagged rock lobster were then required to be reported by the conclusion of the recreational season via a webpage.

Following the success of this trial, the program was implemented on an ongoing basis. At this time, based on an assessment of the trial, the program transitioned to an entirely digital reporting platform. This transition aimed to remove the wastage associated with single-use plastic tags, and recognised the opportunities and benefits associated with app-based digital reporting. Fishers were no longer

required to affix a plastic tag prior to leaving the place of landing but were required to report all lobsters caught and retained within seven days. Following this transition, the program experienced a significant reduction in the participation rate of fishers and recorded lobster catches. Stakeholder feedback suggested this was largely due to the complexities in the reporting app, difficulties associated with app functionality and a reduced incentive to report given the seven-day reporting allowance.

At the commencement of the 2023/24 season, a new reporting app was introduced that aimed to address these issues. The new app, GoFishVic RL, focused on a simplified and easy reporting experience. The number of required reporting fields was reduced to sex, length, fishing zone and species, all of which are recorded on a single page. The new app also provided offline capabilities allowing reports to be submitted in areas without mobile reception.

Results

Recreational Fisher Participation

Total annual participation of the program is calculated based on the number of fishers that register their intent to fish for rock lobster during a particular season. The requirement to register intent is legislated in the *Fisheries Regulations 2019*. Registration for a season commences in the month leading up to the season opening, on 16 November, and can be recorded at any time during the season.

During the 2023/24 season, a total of 2,734 Victorian fishers registered their intent to recreationally fish for rock lobster. This is a considerable improvement on the previous season in which only 1,523 participants registered their intent to fish. Despite the increase, this number is still considered to be under representative of the total recreational participation in this fishery. During the initial four years of the program, participants registering their intent to fish remained relatively consistent at approximately 5,500 per year. The significant reduction in participation during the 2021/22 season, of almost 50%, directly correlates to the transition from a plastic tagging program to a digital app-based reporting program. It should also be noted that the requirement to tag rock lobster before leaving the place of landing was replaced with a digital requirement to report within seven days. A comparison of the participation levels across each of the reporting program seasons is outlined in Figure 1.

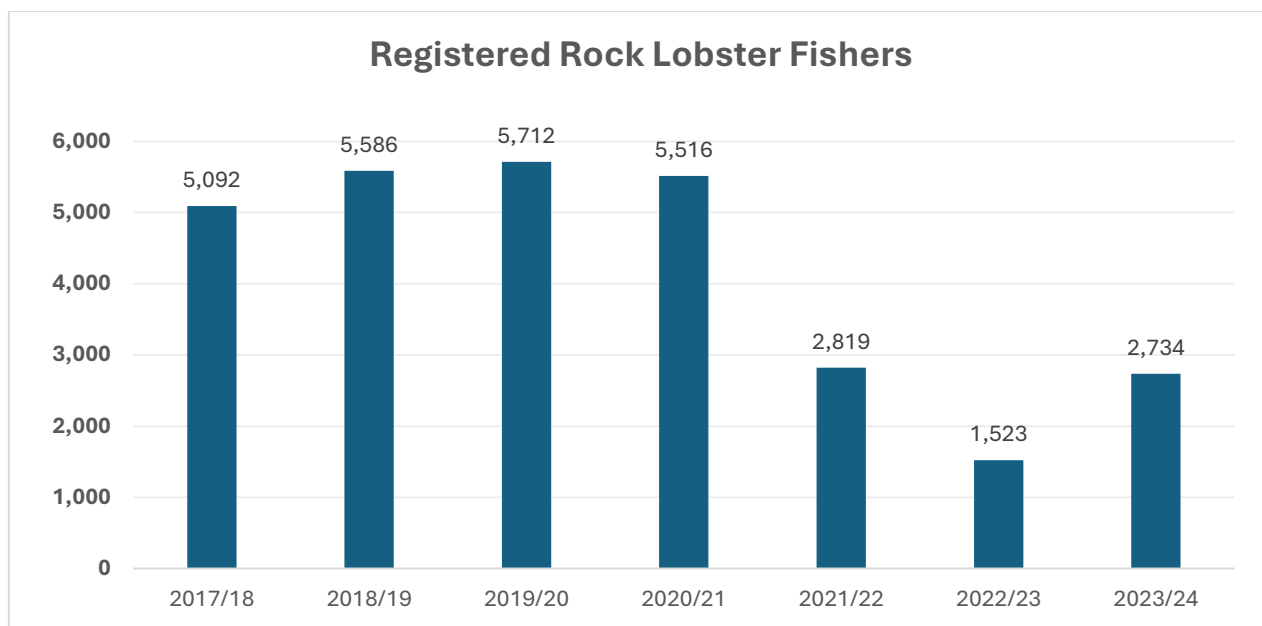


Figure 1: Total fishers to register an intent to fish for rock lobster across each season of the reporting program.

During the 2023/24 season, the total number of fishers to report catch was 427, approximately 16% of total registered users (Figure 2). This percentage has remained relatively consistent since 2019/20, despite the significant decline in total participation over that period. Comparatively, these results remain significantly lower than the first season peak of 1,477 fishers, or 29% of total registered participants reporting catch in that season.

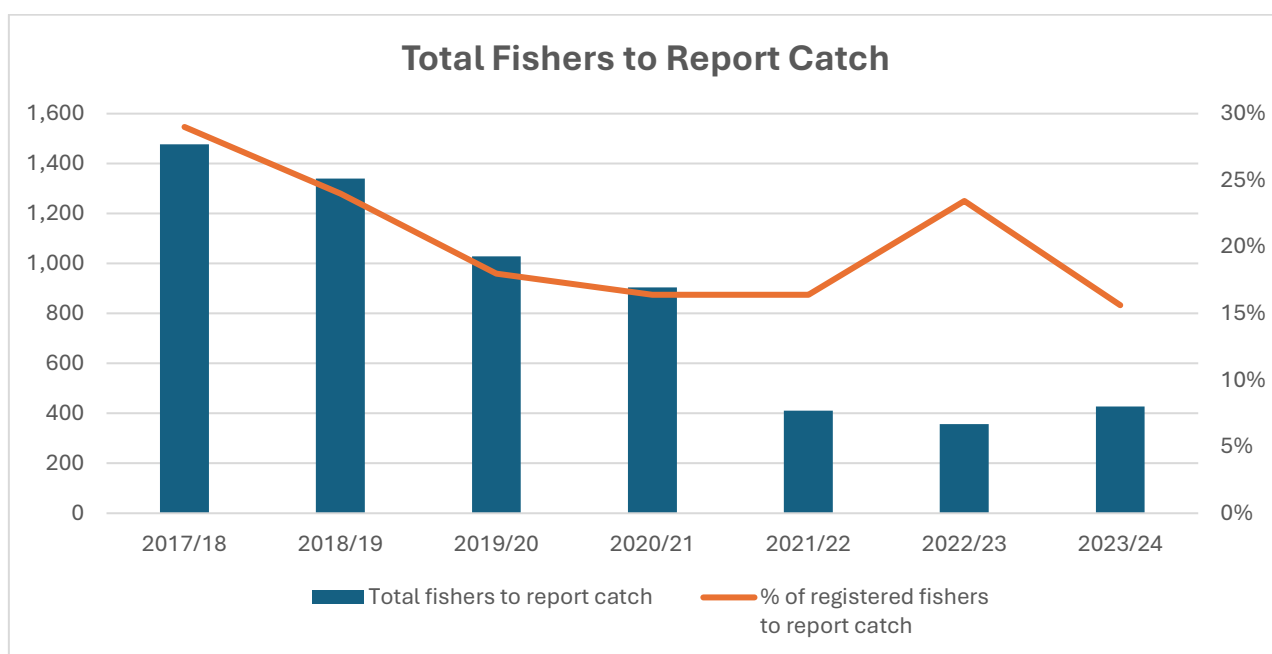


Figure 2: The total number of fishers to report catch (blue bar graph and left y-axis) and the total fishers to report catch as a percentage of total registered fishers (orange line graph and right y-axis).

Total catch

The total reported recreational catch for the 2023/24 season was 1,948 lobsters, of which 831 were caught in the Eastern Zone and 1,117 in the Western Zone (Figure 3). Total catch in each zone increased significantly comparative to the previous two seasons and was approximately 60% greater than 2022/23 across the entire fishery. Despite this, catch remained considerably lower than the annual recorded catch between 2017/18 and 2020/21 (Figure 3).

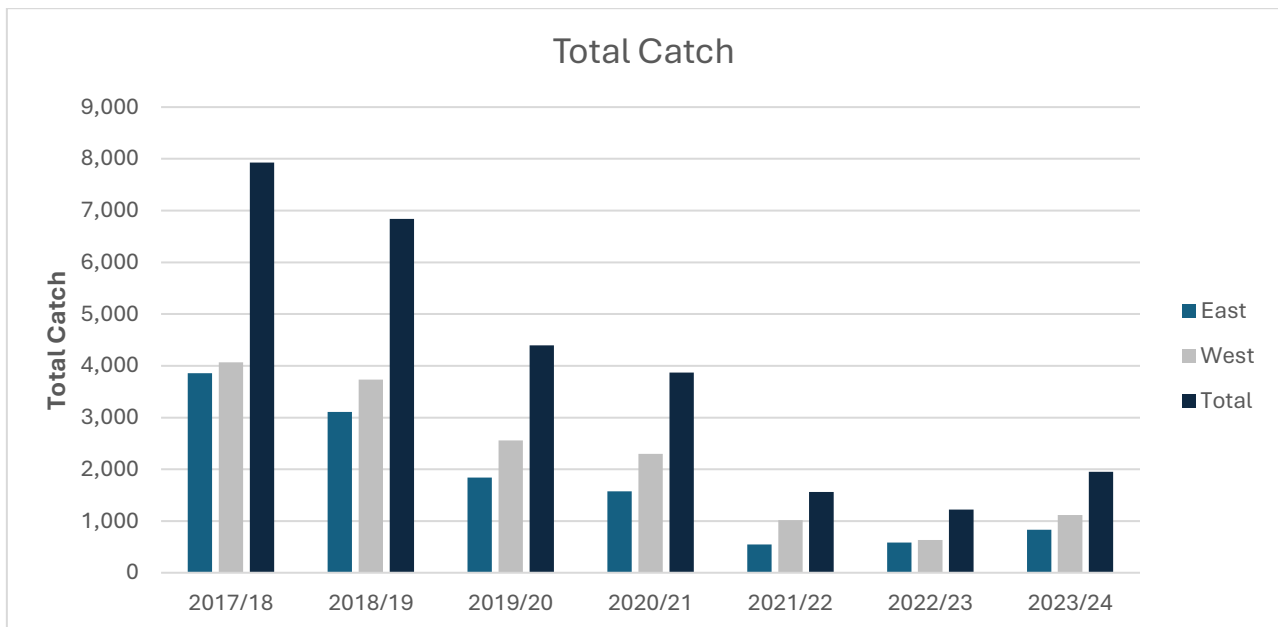


Figure 3: Total annual number of lobsters harvested in each zone and across the fishery.

Monthly Catch Distribution

The results outlining the monthly catch distribution presented very similar trends across the two zones. Recreationally caught rock lobster was primarily harvested during December and January, accounting for 29.6% and 25% respectively of the fishery's total annual reported catch (Figure 4). Catches declined in all subsequent months, with the exception of March which included the Easter long weekend. This trend was generally consistent with all seasons of the reporting program. Consistently, December has recorded the highest monthly catch total.

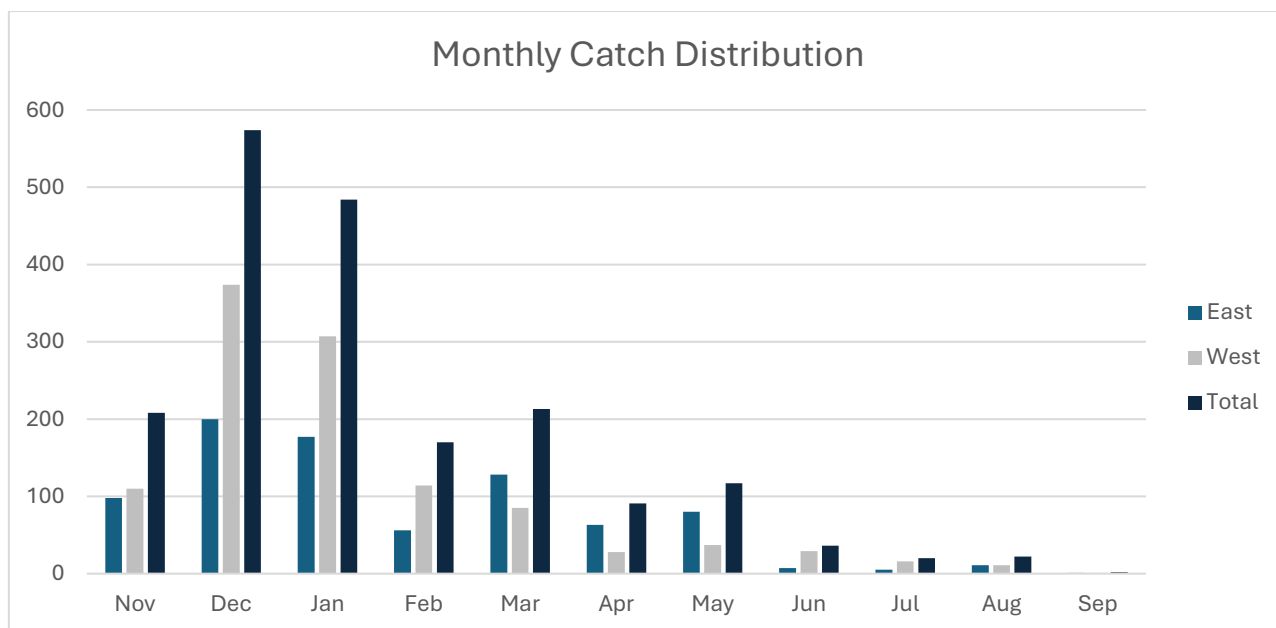


Figure 4: Monthly comparison of lobster harvest during the 2023/24 season.

Length-Weight Application

Individual carapace lengths and weights of more than 165 thousand rock lobsters were recorded from fish processors, mostly in western Victoria between 1995 and 2017. The lengths and weights were log-transformed and a linear regression applied to produce separate length to weight equations for male and female lobsters. These equations enable the individual carapace lengths of lobsters reported by recreational fishers to be converted to weights that, when summed, provide an estimate of total catch.

Applying these length to weight equations to the total reported catch for the 2023/24 season, recreational catch was estimated to be 1.31 tonnes in the Eastern Zone and 1.64 tonnes in the Western Zone. Comparatively, this is significantly less than the initial two seasons of the tagging trial, which estimated an annual harvest above 6 tonnes in each zone (Figure 5). Since the program commenced in 2017/18, reported recreational catch has declined annually with the exception of the 2023/24 which improved on the previous two seasons.

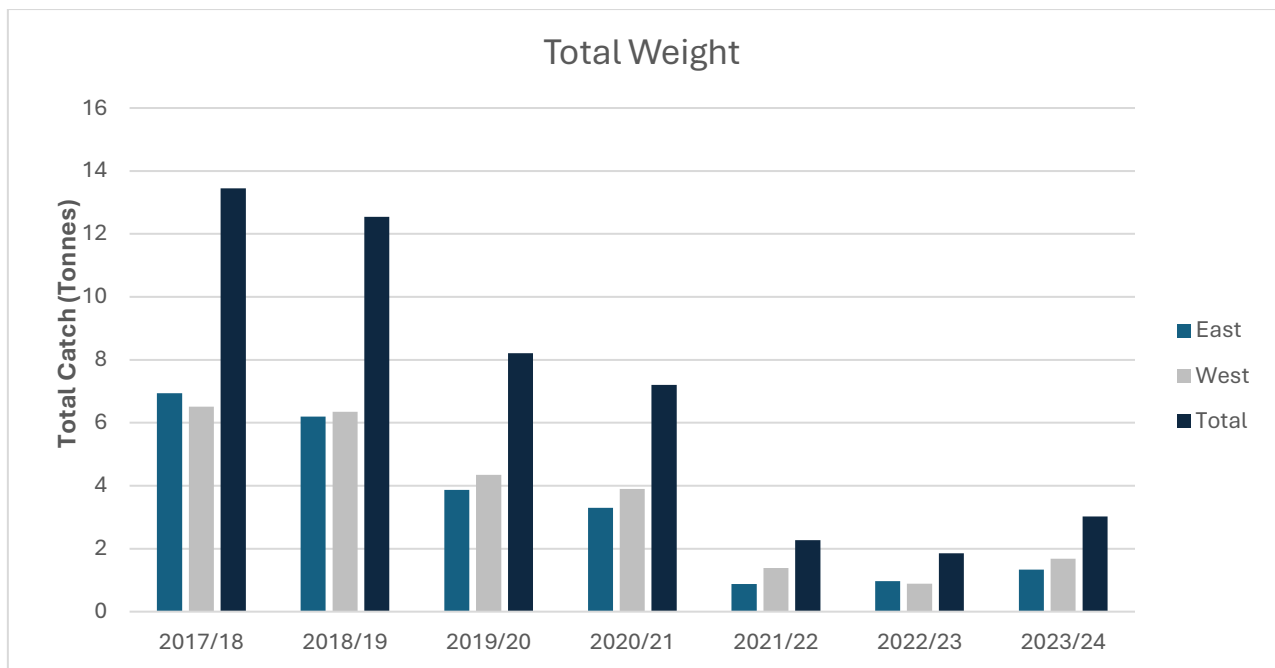


Figure 5: Total weight of recreationally caught rock lobster based on length to weight equations.

As expected with this trend, the reported recreational catch considered as a percentage of the total allowable commercial catch (TACC) has declined over most seasons of the program (Figure 6). The exceptions include season 2 in 2018/19, which experienced an increase from 12% to 16% of TACC in the Eastern Zone and remained consistent in the Western Zone; and the 2023/24 season which increased by 3% in the Eastern Zone and 1% in the Western Zone. It should be noted that the Eastern Zone TACC was reduced from 32 t to 21 t for the 2023/24 season.

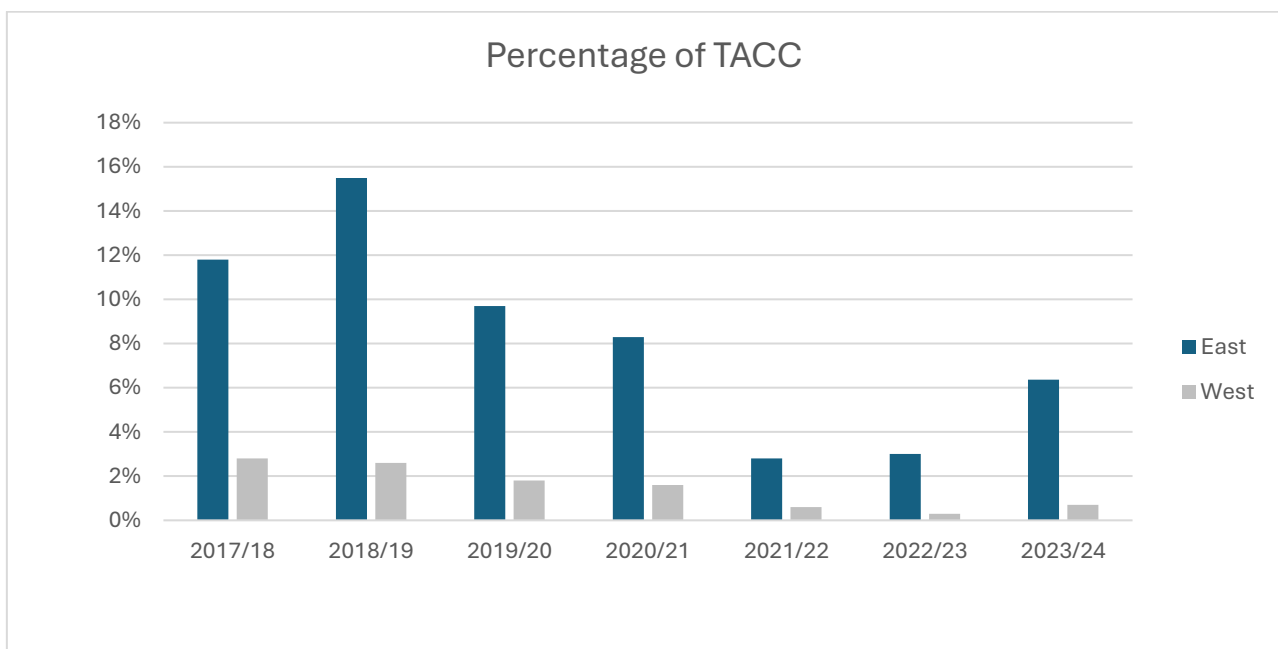


Figure 6: Total weight of recreational catch considered as a percentage of the total allowable commercial catch for the corresponding season.

Size Class Distribution

The trend of length frequency distribution is consistent across both zones with the majority of rock lobster recorded as having a carapace length between 11cm and 15cm (Figure 7). This represents approximately 65% of all lobsters harvested in each zone. Individually, the size class of 11.1-12cm was the largest, recording 18% of the total catch in each zone. This is consistent with the data reported in previous seasons.

Further analysis of the 2023/24 recreational catch data indicates that there is a greater proportion of larger lobster within the Eastern Zone. Of the total lobsters recorded with a carapace length greater than 18cm, 62% were harvested in the Eastern Zone. Comparatively, of those 18cm and less, 41% were harvested in the Eastern Zone. Once again, this data remains consistent with reported catch in previous seasons.

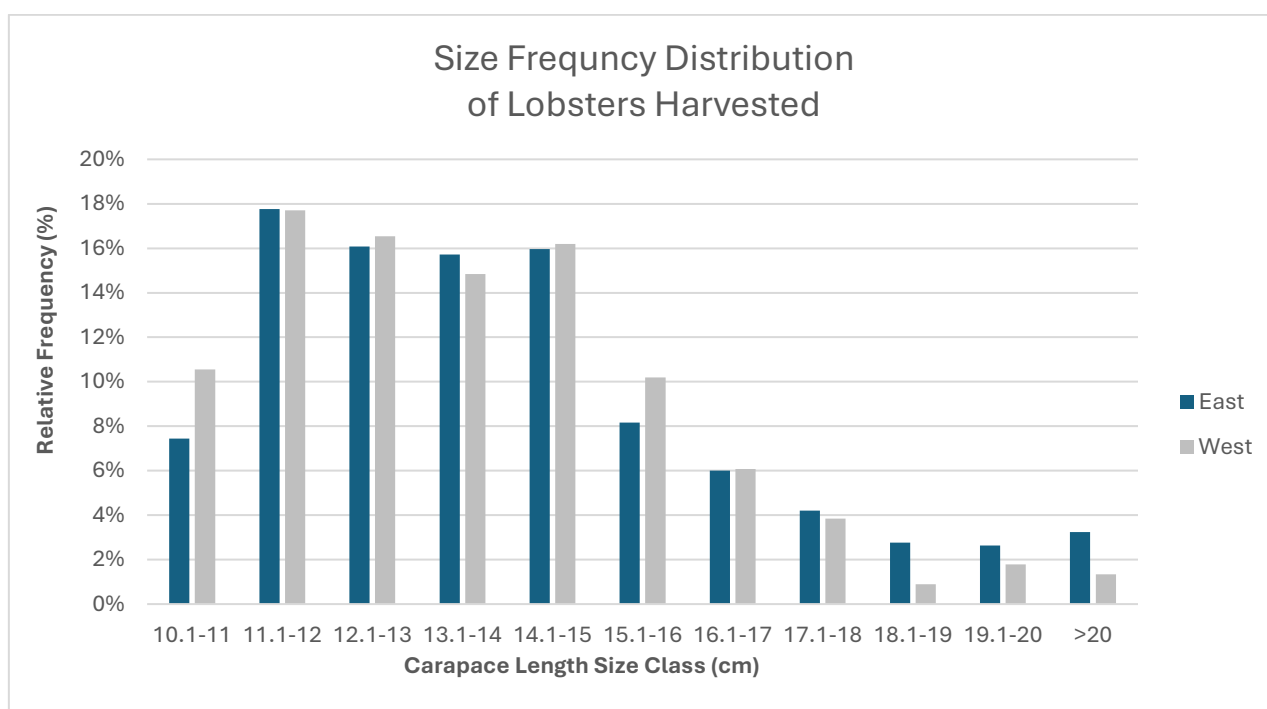


Figure 7: Frequency of size distributions of lobsters across the Eastern Zone (East) and Western Zone (West).

Sex Distribution

Over the life of the program, fishers have consistently been required to report the sex of all lobsters caught and retained. As such, sex distribution is also reviewed on a seasonal basis. During the 2023/24 season, 72% of reported catch across the fishery was male. This is relatively consistent in each zone, with males representing 77% of catch in the Western Zone and 65% of catch in the Eastern Zone. This distribution is further consistent with previous seasons, as outlined in the Annual Data Summary Table (Appendix 1: [Annual Data Summary](#)).

Discussion

The Victorian Rock Lobster Recreational Reporting Program has successfully provided the foundations for determining the total estimated catch of recreationally caught rock lobster in Victoria. Improving the estimation of recreational harvest is critical in understanding the fishery's total mortality and improving the overall stock assessment process.

Based on an internal assessment of the program, the data obtained during the 2018/19 season is considered to be the most accurate representation of total recreational catch within each zone. As such, this data has been utilised to inform the development of the *Victorian Rock Lobster Fishery Management Plan 2024*, replacing notional recreational catch estimates with an informed total harvest. It has further played a pivotal role in developing the rebuilding program underpinning the new harvest strategy in this plan.

Despite its initial success, the decline in reported catch in subsequent seasons remains an ongoing concern. As part of the annual program review, it is critical to assess significant changes in data and the events or influences possibly driving these fluctuations.

During the 2019/20 season, reported catch fell by approximately 36% from the previous year (Figure 2), yet program participation remained relatively consistent (Figure 1). These results remained steady throughout the 2020/21 season. During this period, restrictions relating to the COVID-19 pandemic meant a significant portion of the Victorian population could not travel to coastal areas. As such, it is reasonable to assume that these restrictions greatly affected recreational effort in the rock lobster fishery and overall harvest. Compounding the effects of travel restrictions, the VFA's capacity to conduct stakeholder engagement, through fishing events, forums and in-field inspections, was significantly hampered.

During the 2021/22 season, the program experienced its most significant reductions, both in terms of participation and reported catch. Comparative to the previous season, participation declined by 50% while reported catch declined by 60%. These results directly align with the transition from plastic tagging to a digital app-based reporting system. Stakeholder feedback indicated that the reporting app, GoFishVic, was overly complex, cumbersome to use, and provided little incentive to report. This significant decline highlights the importance in not over complicating mandatory recreational reporting. Factors such as multi-page reporting, glitches associated with required fields and regular login requirements ultimately result in a negative perception of the program.

The introduction of the new reporting app, GoFishVic RL, has shown positive signs in its first season recording increases in participation and reported catch. Stakeholder feedback has further suggested the app is simpler to use and quicker to record catch.

The lack of a requirement to complete a reporting step at the place of landing remains a barrier for this program. Feedback suggests that, if not inspected prior to departing the place of landing, there is a lack of incentive to complete a catch report. Similarly, compliance capabilities are greatly reduced if fishers are not inspected at the place of landing. The GoFishVic RL app allows offline reporting, meaning fishers do not need mobile reception to report catch. Despite the seven-day requirement to report catch, and noting the offline reporting capabilities, it is incumbent on the VFA to encourage at-landing reporting wherever possible.

It has been suggested that another area for improvement with the reporting process would be the requirement to record zero catches. Currently, it is not possible to determine the proportion of

registered participants who have actively fished for rock lobster during the season, only those who have reported catch.

Despite the fluctuations in participation and total reported catch over the seasons, trends in other key areas demonstrate relative consistency across the life of the program. Notably, monthly catch distribution, size distribution and sex distribution in reported catch have provided consistent annual results. Summer remains a heavily targeted time of year for rock lobster fishing, particularly in the lead up to Christmas. This is likely due to favourable diving conditions and longer daylight hours, as well as the species association with Christmas events. The latter can also be applied to the spike in catch recorded in the lead up to the Easter weekend. Size distribution results consistently suggest larger rock lobster can be found in Victoria's Eastern Zone, which is consistent with the data obtained through the commercial stock assessment. The heavy bias towards males is likely the result of multiple contributing factors. Females in berry must be returned to the water immediately; and anecdotal evidence suggests some fishers prefer not to take female lobsters or incorrectly believe all females lobsters must be returned to the water immediately. While the closed season for males is shorter, this is likely to have a small impact on the results given the low levels of catch between June and September.

The VFA is committed to the ongoing improvement of the Rock Lobster Recreational Reporting Program and recognises its significance in understanding the total harvest across the fishery. The data recorded since the commencement of the program has played a pivotal role in replacing the existing notional assumptions of recreational catch with actual numbers of rock lobster harvested. This has improved the accuracy of annual biomass estimates and modelled future fishery trajectories. Continuing to obtain accurate data on the total removal of rock lobster from the stock in Victoria is integral to managing a sustainable and healthy fishery into the future.

Appendix 1: Annual Data Summary

Factor	Participants	Average Weight Fished (kg)		Sex Fished		Length Fished (Carapace, cm)		Number Taken		Weight Taken (kg)		Weight Taken (% of TACC)	
Program Average		East	1.83	Male	68.70%	East	14.02	East	1,763	East	3,356	NA	
		West	1.44	Female	31.30%	West	13.42	West	2,204	West	3,581		
		Mean	1.69			Mean	13.79						
2017/18	5,092	East	1.90	Male	71.50%	East	13.90	East	3,857	East	6,940	East	11.80%
		West	1.40	Female	28.50%	West	13.30	West	4,069	West	6,510	West	2.80%
		Mean	1.70			Mean	13.60						
2018/19	5,586	East	2.00	Male	65.00%	East	13.70	East	3,107	East	6,202	East	15.50%
		West	1.40	Female	35.00%	West	13.20	West	3,734	West	6,346	West	2.60%
		Mean	1.90			Mean	13.50						
2019/20	5,712	East	2.00	Male	71.10%	East	14.00	East	1,840	East	3,864	East	9.70%
		West	1.50	Female	28.90%	West	13.30	West	2,555	West	4,343	West	1.80%
		Mean	1.80			Mean	13.60						
2020/21	5,516	East	1.90	Male	64.10%	East	13.80	East	1,573	East	3,303	East	8.30%
		West	1.40	Female	35.90%	West	13.00	West	2,296	West	3,903	West	1.60%
		Mean	1.65			Mean	13.60						
2021/22	2,819	East	1.81	NA	NA	East		East	546	East	881	East	2.80%
		West	1.48			West	NA	West	1,018	West	1,389	West	0.60%
		Mean	1.61			Mean							
2022/23	1,523	East	1.59	Male	68.50%	East	14.32	East	584	East	965	East	3.00%
		West	1.40	Female	31.50%	West	13.66	West	635	West	891	West	0.30%
		Mean	1.55			Mean	14.23						
2023/24	2,734	East	1.60	Male	72.01%	East	14.38	East	833	East	1,336	East	6.36%
		West	1.51	Female	27.99%	West	14.08	West	1,118	West	1,684	West	0.70%
		Mean	1.55			Mean	14.21						



We're hooked on
SAFETY