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Pilot assessment of Tasmania's mandatory recreational rock lobster reporting

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Executive summary

Southern rock lobster (*Jasus edwardsii*) is an important species in Tasmania, of high value to the commercial fishery and a popular recreational fishery. Over 17,000 recreational fishers hold a licence, with active fishers catching more than 86,000 lobsters on almost 80,000 fishing days in the 2024/25 season.

For the last two decades, the recreational fishery has been monitored using a telephone-diary survey (rock lobster and abalone [RLAB] survey) of a regionally stratified randomised proportion of the licenced recreational participants. This sample of licenced participants is then expanded, based on the rock lobster licence framework, to assess catch and effort state-wide. However, while this survey method is peer reviewed and scientifically robust, estimates are not available until after the survey period has finished and the analysis and reporting completed. Functionally, this does not allow for reactive management based on recreational catch.

While the East Coast Stock Rebuilding Strategy (ECSRS) has recently expired and catch limits with it, the RLAB has identified that this area has experienced significant over catches of the previously recognised notional recreational catch limit in seven of the last 10 years of monitoring. This indicates current management restrictions are not adequately restricting recreational catch to the previous notional catch limit. Real time data monitoring is an alternate approach that may facilitate within season management of the recreational fishery to be targeted to areas like the east coast.

As part of previous research investigating methods to monitor and regulate recreational rock lobster catches in Tasmania, a smartphone application (app) to allow fishers to report their catches in real time was trialled. The method was refined and implemented by the Department of Natural Resources and Environment (NRE) Tasmania in a voluntary capacity for the 2021/22 and 2022/23 recreational rock lobster fishing seasons. In 2023/24, it was implemented as a mandatory catch reporting scheme under the new 'Fishing Tas' app, with telephone reporting as an alternative, continuing into the current 2024/25 season.

Based on preliminary comparisons by NRE Tasmania for the 2023/24 season, catch reporting via the app and telephone was approximately half of the catch and effort estimated in the annual RLAB survey, as well as pot check conducted by Tasmanian Marine Police. Based on this comparison, more work is required to increase reporting rates, as well as validating the catch reporting numbers. Without formal analysis, we cannot be sure of mandatory catch reporting compliance and accuracy of harvest numbers. This is crucial if this method is adopted as a method to assess the recreational catch of the fishery, either in conjunction with, or in replacement of the current annual RLAB survey. Therefore, mandatory catch reporting needs to be compared to other methods of reporting, including the annual RLAB survey, as well as compared to in-field methods such as pot checks. This report aims to investigate the above requirements.

The main objective of this pilot study is to assess mandatory recreational rock lobster catch reporting in Tasmania. The specific objectives are:

- 1) Assess the recreational catch reporting data for the 2024/25 season, including:
 - a) Summaries of mandatory catch reporting data collected using the Fishing Tas app and telephone reporting.
 - b) Comparisons of data between mandatory catch reporting data and the RLAB survey.
 - c) Comparisons of data between mandatory catch reporting data and in-field monitoring of pot effort.
- 2) Evaluate methods to calibrate the catch reporting data using the RLAB survey to expand the catch estimate statewide.

To do this, mandatory catch reporting data from 2024/25 was analysed and compared to the annual RLAB results for the same season. Comparisons included the number of participants, state and regional catch and effort estimates, catch rates by method, spatial analysis of reported fishing locations and number of zero-catch days.

In addition, a limited pilot field study sampling recreational rock lobster pot numbers to see if a catch report had been made was carried out over the 2024/25 season. Sampling conducted over two weekends (Saturday mornings) prior to and including the Easter holiday period to target the second peak of fishing in the season. However, due to inclement weather, the sample sizes were small, resulting in limited data to allow for assessment of compliance. Summaries of on-water compliance checks were also provided by the Tasmania Marine Police via NRE Tas for the previous season (2023/24).

Overall, the catch and effort reported from mandatory reporting methods were significantly lower than those estimated in the RLAB survey. Zero-catch reporting was lower for mandatory reporting indicating there is a lack of awareness of why this information is important to the fishery. Compliance rates were also unable to be estimated due to limited data available for this report. Recommendations for future seasons include further investigations of mandatory reported data compared to the RLAB survey, increased communication around the importance of reporting, including zero catch days and further engagement with Tasmanian Marine Police to determine compliance rates.

Introduction

Southern rock lobster (*Jasus edwardsii*) is a species of spiny lobster endemic to the southern coastline of mainland Australia and around Tasmania and New Zealand. A keystone species on rocky reefs, they also support a valuable commercial fishery and are popular among recreational fishers. In Tasmania, there is an active recreational sector for the species, with over 17,000 recreational rock lobster licences issued each year (Twine et al. 2025). Lobsters are harvested recreationally via three methods: potting, diving and ring harvesting. There are multiple input controls on the recreational fishery, including closed seasons, size limits, gear restrictions and bag, boat and possession limits.

Currently, the recreational rock lobster fishery is monitored via the annual recreational rock lobster and abalone (RLAB) survey (Twine et al. 2025). The survey applies random stratified, probabilistic sampling of the recreational rock lobster licence database. The survey is conducted in two stages. An initial contact and recruitment phase, where phone interviews are conducted on the stratified sample of fishers from the recreational licence database to determine eligibility to participate in the second stage of the survey. If fishers are deemed eligible to participate, they are then recruited (if they wish to participate) for the second stage of the survey. This second stage involves a longitudinal telephone-diary survey from the start of the season (1st November) until the closing of the eastern region of the fishery (30th April). During this phase, fishers record and report all their fishing activities to a team of trained interviewers. These events are then statistically expanded based on the sampling framework (recreational rock lobster licence database) to state-wide estimates of catch and effort for the recreational fishery. This survey has been conducted since the mid-1990's, with monitoring occurring bi-annually since 2000 and annually since 2015. The method has been peer-reviewed and provides a robust estimate of catch and effort for the recreational rock lobster fishery (Pollock 2010).

The rock lobster stock in Tasmania has a long history of monitoring (prior to the 1950's, IMAS 2025). Declines in stocks were identified in the late 2000's, before dropping to historically low levels in 2011/12 (Hartmann et al. 2013). In 2013 an East Coast Stock Rebuilding Strategy (ECSRS) was implemented due to particular concern for the rock lobster stock in this region. The intent was to limit catch to allow stocks to rebuild (DPIPWE 2013). This strategy further restricted the recreational bag, boat and possession limits in the East Coast Stock Rebuilding Zone (ECSRZ), as well as the introduction of a catch cap for the area inclusive of both commercial and recreational harvest. Since its implementation, biomass estimates have increased in the three stock assessment areas it covers, though only two out of three areas are on track to achieve their stock rebuilding targets (IMAS 2025). Coincident with this increase in biomass there has been a significant increase in the recreational catch in this area. Consequently, there has been over-catch of the notional recreational catch limit (21% of the maximum catch allocation, equivalent to 35 tonnes since the 2019/20 season) in most years since the 2014/15 season (Twine et al. 2025). In the last three RLAB surveys, this over-catch has been more than 100% over the notional catch limit, indicating the recreational catch in the area is more than double the previously allocated recreational notional catch limit of 35 tonnes (71.7 tonnes (104% overcatch) in 2022/23, 78.0 tonnes (123% overcatch) in 2023/24, 77.5 tonnes (121% overcatch) in 2024/25, Tracey et al. 2023, Twine et al. 2024, 2025). This has occurred while the commercial catch has been limited to the notional allocation for the sector by the closure of the season once this catch limit is reached (East Coast Catch Cap). This response is well controlled due to the near real-time reporting of commercial catch. A real-time management response is not possible for the recreational sector as the RLAB survey is produced following the conclusion of the season and catch reporting data is not currently being used for this purpose.

As the stock continues to recover, the recreational catch is likely to continue to rise as a result of improved catch rates and likely increased effort due to the realisation of an increasing probability of successful fishing trips in the region that is recognised as a popular area for recreational fishing activity (Tracey & Stark 2024). In response to concerns about the consistent year-on-year recreational over-catch of the notional catch allocation, a study was completed in 2022 investigating other potential monitoring options that could be implemented in the Tasmanian recreational rock lobster fishery to monitor and regulate catch in a more effective way to achieve the stock rebuilding strategy on the east coast (Twinn et al. 2022). It was determined that real-time reporting of recreational catch would be required to achieve this for the ECSRZ. From the review of methods to monitor recreational catch, a smartphone application was chosen to be trialled on a voluntary participation basis to determine its practicality and effectiveness in collecting recreational rock lobster fishing data.

Smartphone apps are increasingly being used in recreational fisheries monitoring globally (Venturelli et al. 2017). Their application is implemented either standalone or in conjunction with current monitoring methods (e.g. Sauls et al. 2017). If the latter, they may be implemented with the intention to either complement or potentially replace traditional methods of recreational fisheries monitoring. These programs offer the potential for real-time data collection, increased coverage of the recreational fishing population and are generally considered to be cheaper to run than traditional fisheries monitoring methods. However, limitations to these apps include multiple forms of reporting bias, inaccurate reporting, underreporting, privacy concerns, and technical barriers (Georgeson et al. 2015, Skov et al. 2021).

The Tasmanian Rock Lobster Catch Monitoring app was rolled out in a voluntary capacity for the Tasmanian recreational rock lobster fishery for the 2021/22 and 2022/23 seasons. In the 2023/24 season it became mandatory to provide recreational rock lobster fishing information, either via the app (now merged with the previous 'Tas Sea Fishing Guide' app into the current Fishing Tas app) or via telephone or paper reporting. Data collected on the app included individual catch and effort by fishing date, method and location. Size and sex of lobster could also be recorded voluntarily by participants.

This report aims to assess the mandatory catch reporting data for the 2024/25 season using summary statistics and compare it to the results of the RLAB survey for the same period and assess compliance rates for mandatory reporting methods.

Methods

Mandatory catch reporting data

Data from mandatory reporting methods was supplied by NRE Tasmania for analysis. These were data reported by fishers via the Fishing Tas smartphone app, a complimentary telephone reporting service for those that did not have access to a smartphone, and via paper recording methods for those unable to complete the other two options and had obtained an exemption. Data provided included all records from November 1 2024 to April 30 2025 (coinciding with the closure of the east coast fishery, to align with the 2024/25 RLAB survey season). Reported data included the date of a fishing event/report, licence number of the individual reporting, fishing method(s), fishing location, and the number of lobsters kept and released. In addition to this mandatory reporting data, voluntarily reported data including trip rating (measured on a scale of 1-5 on the quality of the trip), lobster sex and length/weight information was also provided.

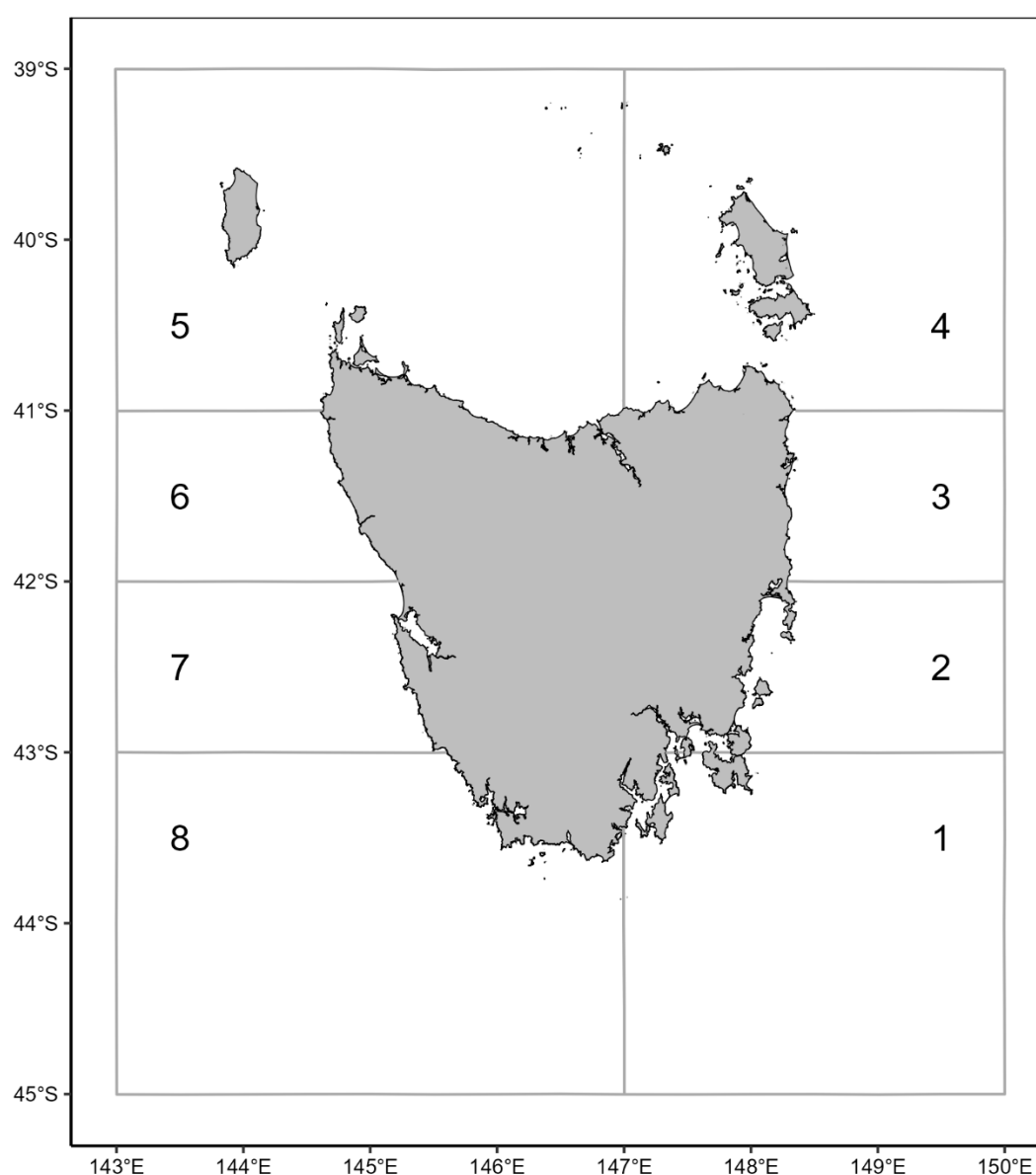


Figure 1. Map of Tasmania showing assessment areas (numbered 1-8), to which reported data was aggregated.

Expanded participation, catch and effort data from the 2024/25 season RLAB survey (Twinn et al. 2025) was used to compare to the mandatory catch reporting data. This included participation, harvest and effort for all of Tasmania as well as by region and fishing method.

In-field pot checks

In-field pot checks were conducted by IMAS in the lead up to the Easter holiday break, traditionally a second peak in fishing activity after the summer peak for the state. Sampling was conducted over two Saturday mornings (05/04/2025 and 19/04/2025), beginning at approximately 10:00-11:00. This time was selected to maximise pot survey coverage, potentially catching those who had set their pots on Friday night and earlier Saturday morning. An IMAS vessel launched from Pirates Bay boat ramp to survey Pirates Bay and surrounding coastline, including south to Waterfall Bay (-43.060°) and north to Flat Rock (-43.001°). Once recreational pots were located by the skipper and/or crew, the vessel pulled up alongside the pot buoy and the buoy ID was recorded along with the date, time and location. This data was then compared to the mandatory reporting data to try and determine compliance. Due to the small sample size, the results gave a limited insight into reporting compliance.

Compliance information provided by Tasmanian Marine Police

Tasmanian Marine Police conducted pot checks in the 2023/24 season and provided a summary of the information to NRE Tasmania. This included pot checks in January 2024 (12 buoy checks) and on-water inspections (140 buoy checks) from March-April 2024. These summaries were used to look at compliance rates in the previous season but were not directly compared to the current season's data.

Analysis

All data curation and analysis were conducted in R via R Studio (R Core Team 2024, Posit Team 2025). R Packages used included 'tidyverse', 'lubridate', 'ggplot' and 'ggpubr' (Grolemund & Wickham 2011, Wickham 2016, Wickham et al. 2019, Kassambara 2023). Mandatory reporting data provided by NRE Tasmania was first cleaned (i.e. test data identified and removed) and standardised between the collection methods. For the telephone and paper reporting data, standardisation of fishing location was required. This was due to general fishing locations or sites being provided by fishers by telephone and paper, rather than GPS coordinates that are collected using the app. Once these were standardised, the identifiable sites were provided with approximate GPS coordinates to allow for regionalisation of the data (i.e. ability to allocate a fishing event to a stock assessment area based on a GPS coordinate). Summary statistics were conducted as per the RLAB survey (total participation, catch and effort, regional breakup of data), to allow for direct comparison of the two data collection methods. Note all 2024/25 season estimate values are provided for the period 1 November 2024 – 30 April 2025.

Results

Participation

During the period from November 1 2024 – 30 April 2025, there were 17,397 individuals who held at least one type of Tasmanian recreational rock lobster licence. A total of 9,039 individuals (52% of the licenced population) reported at least one fishing event using mandatory reporting methods. This was significantly less than the 12,267 (11,494 – 13,039 95% confidence interval [CI], 71% of the licenced population) estimated to have fished for rock lobster during the same period in the RLAB survey.

While the participation rate of active fishers via mandatory reporting methods compared to the RLAB survey may seem high at first glance (74%), this pattern does not hold up under further investigation.

Investigating the number of trips reported per fisher (Figure 2), we see that there is a higher proportion of fishers reporting 1-3 trips in the mandatory reporting data than the RLAB survey. Further, we can see the proportion of fishers reporting 4-10 trips for the season was higher in the RLAB survey than the mandatory reporting data. This indicates that less avid fishers, in this case those who participated in 10 trips or less this season, appear to have experienced some kind of barrier to reporting via the mandatory reporting methods, meaning they likely aren't reporting all their trips. This could be forgetting to report as mandatory reporting is relatively new in the fishery, lack of awareness of reporting zero-catch days, issues with reporting (either via app difficulties or unintentional errors) or it could be intentional non-compliance.

Further research into reasons for low reporting is required before the reason for not reporting all trips becomes clear. Reporting by fishers who are participating in more than 10 trips per season appears to be similar in percentage scope between the methods, though is still lower for mandatory reporting than the RLAB survey in some instances (Figure 2).

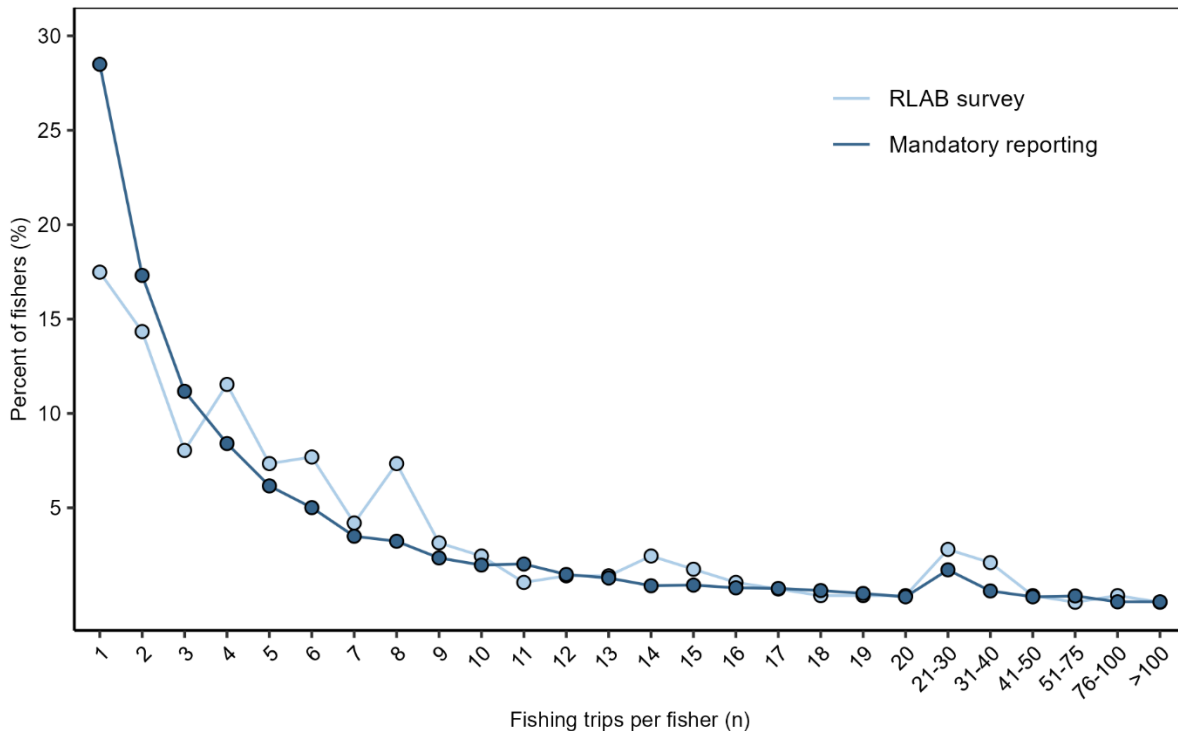


Figure 2. The number of reported fishing trips per fisher for the annual recreational Rock Lobster and Abalone (RLAB) survey (light blue) and mandatory reporting methods (dark blue), for the 2024/25 season to April 30.

Statewide catch and effort

A total of 56,546 lobsters were reported as retained (harvested) via mandatory reporting methods during the season to April 30. This was significantly lower than the estimated 86,039 lobsters retained (70,509 – 100,247 95% CI) during the same period in the RLAB survey. Only 43 reports (91 lobsters kept, 64 released) were made via mandatory reporting methods from 1 May to the full season closure on 1 September 2025, and these results are not included in the summaries below. Please note that all results from here on are provided for the period of season opening (1 November 2024) to April 30 2025.

A total of 46,476 fishing events were reported by the 9,039 individuals using the mandatory reporting methods during the season to April 30. These events were assumed to be the equivalent of 'fishing days' as reported in the RLAB survey. This was also significantly lower than the estimated 78,971 (66,315 – 91,876 95% CI) fishing days reported during the same period in the RLAB survey.

The average harvest rate of lobsters per day was higher for mandatory reporting (1.22) than for the RLAB survey (1.09). Zero-catch days accounted for 31% of mandatory reports and 39% of reports in the RLAB survey.

A total of 42,725 lobsters were reported released via mandatory reporting methods. Reason for release was not required using mandatory reporting methods, therefore analysis was not conducted. Released catch was higher in the RLAB survey (54,363 lobsters released) than the mandatory reporting data.

Regional catch and effort

Regional catch and effort estimates varied between the two data sources. While some patterns were similar between methods, for example Area 1 accounting for the most harvest and effort across both methods, the magnitude of these values differed greatly (Table 1).

Table 1. Recreational rock lobster harvest and effort for all fishing methods pooled by fishing area for 2024/25 as reported via mandatory reporting methods and estimated from the Rock Lobster and Abalone (RLAB) recreational fishing survey. Values in parentheses represent the 95% confidence intervals of the RLAB survey estimates. Yellow indicates that the mandatory reported value was below the 95% confidence for the comparable area in the RLAB survey. Blue indicates that the app reported value was above the 95% confidence interval for the comparable area in the RLAB. Values above or below the 95% confidence intervals indicate a statistically significant difference between the RLAB estimate and the mandatory reported data. Green indicates that the app reported value was within the 95% confidence interval for the comparable area in the RLAB survey, and no statistically significant difference in the estimate.

Area	RLAB estimated harvest (no.)	Mandatory reporting harvest (no.)	RLAB estimated effort (fisher days)	Mandatory reporting effort (no. events)
1	40,865 (30,389–52,096)	21,225	41,892 (31,070–54,208)	18,067
2	12,680 (7,739–18,108)	15,000	12,043 (8,012–16,546)	12,528
3	12,242 (7,950–16,809)	7,305	14,537 (10,534–18,913)	8,009
4	4,415 (2168–7,338)	3,016	3,634 (1,935–5,694)	2,510
5	10,117 (3,474–19,251)	2,047	3,255 (1,388–5,663)	607
6	2,202 (758–4,128)	1,462	1,757 (466–3,319)	672
7	3,089 (1,383–5,190)	3,766	1,428 (816–2,201)	1,314
8	429 (0–1,268)	2,475	424 (0–1,007)	2,577
Unattributable to region	NA	300	NA	192
TOTAL	86,039 (70,509–100,247)	56,546	78,971 (66,315–91,876)	46,476

The comparison between the two data sources shows that overall, the RLAB survey recorded significantly higher levels of catch and effort than those reported through mandatory reporting methods. In the southeast (Area 1), for example, the survey estimated close to twice the harvest and fishing days compared with mandatory reporting, while in the northwest (Area 5) the survey estimates were around five times higher. Some regions, such as Areas 2 and 4, showed much closer agreement between the two data methods. In Area 8 mandatory reporting methods reported higher catch and effort than the RLAB survey. These differences point to under-reporting via mandatory reporting methods in most areas, although the difference is not consistent between areas.

It is also important to consider the uncertainty in survey-based estimates, particularly in areas with fewer licenced participants sampled. Where sample sizes were low in the RLAB survey (e.g. Areas 5, 6 and particularly 8), the survey confidence intervals were broad, meaning the true values could be higher or lower than the central estimate. Even with this uncertainty, the overall pattern is strong: across all regions combined, the RLAB survey estimated around 86,000 lobsters harvested and 79,000 fisher-days, compared to 56,500 lobsters and 46,500 days reported through mandatory reporting methods. This means the survey suggests fishing activity was about 40% higher than indicated by mandatory reporting data. The mandatory reporting data, particularly from the app, therefore provides useful insights into trends and patterns but does not fully capture the total scale of the fishery in terms of catch and effort.

Unattributable to region data accounts for the reports made via telephone or paper reporting where not enough location information was provided. For example, this included data where the fishing location provided by the respondent was 'east coast', and it was not possible to distinguish which area (1,2, 3 or 4) this trip could be attributed to for regional assessment.

Catch and effort by fishing method

Potting was the most common fishing method across both data collection methods, making up most of the harvest and effort. This was followed by diving and then ring fishing. In the mandatory reporting data (and primarily from the smartphone app) there was a proportion of fishers that indicated they participated in multiple fishing methods to catch lobster in the same trip. As it was not clear what catch (if any) was attributable to which method for these trips, the catch and effort for multiple methods was allocated to a fourth 'combined' method group. This group accounted for 4% of the harvest and 2% of the effort from the mandatory reporting method estimate.

Table 2. Recreational rock lobster harvest and effort for all fishing area pooled by fishing method for 2024/25 as reported via mandatory reporting methods and estimated from the Rock Lobster and Abalone (RLAB) recreational fishing survey. Values in parentheses represent the 95% confidence intervals of the RLAB survey estimates. Yellow indicates that the mandatory reported value was below the 95% confidence for the comparable area in the RLAB survey. Values above or below the 95% confidence intervals indicate a statistically significant difference between the RLAB estimate and the mandatory reported data. Green indicates that the app reported value was within the 95% confidence interval for the comparable area in the RLAB survey, and no statistically significant difference in the estimate.

Method	RLAB estimated harvest (no.)	Mandatory reporting harvest (no.)	RLAB estimated effort (fisher days)	Mandatory reporting effort (no. events)
Pot	55,103 (43,364–65,836)	37,492	60,607 (48,868–73,450)	36,852
Dive	30,306 (20,850–41,606)	15,592	17,892 (13,987–23,290)	8,154
Ring	630 (113–1,233)	1,018	472 (113–1,033)	343
Combined	NA	2,444	NA	1,127
TOTAL	86,039 (70,509–100,247)	56,546	78,971 (66,315–91,876)	46,476

Seasonal catch

Seasonal catch followed similar patterns between the two data collection methods (Figure 3). Both methods recorded a peak in effort (days fished, 19,673 for mandatory reporting and 30,974 for the RLAB survey) and harvest (23,623 lobsters for mandatory reporting and 32,027 for the RLAB survey) in December before declining through January and February before remaining relatively stable until the closure of the eastern region at the end of April.

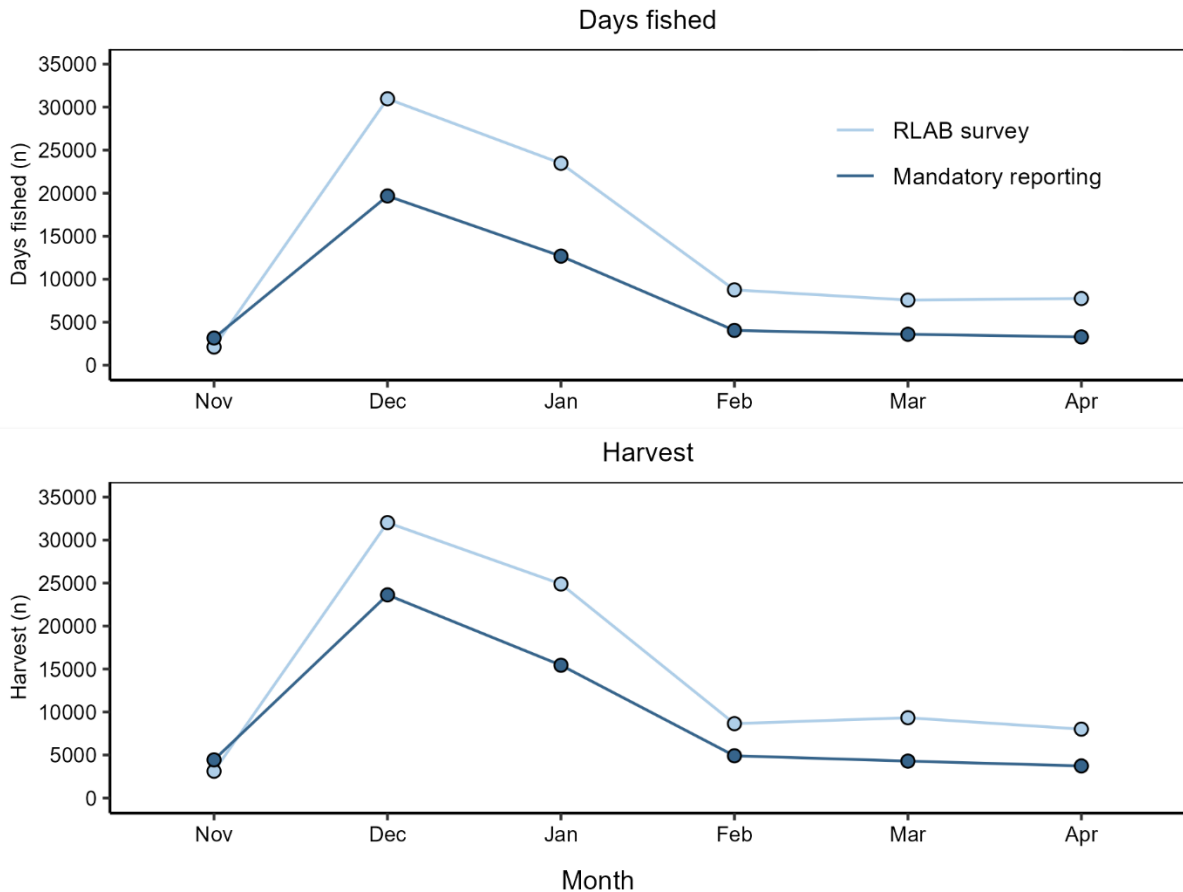


Figure 3. Recreational rock lobster effort (days fished) and harvest (number) by month for the annual recreational Rock Lobster and Abalone (RLAB) survey (light blue) and mandatory reporting methods (dark blue), for the 2024/25 season to April 30.

Daily and seasonal harvest

Daily harvest by method and region (east [Areas 1-4] and west [Areas 5-8]) showed similar patterns (but slightly different magnitudes) between reporting methods (Figure 4). Both methods showed a higher proportion of zero-catch days for pot fishers than dive fishers. While both showed the high proportion of dive fishers in the eastern region taking the bag limit of two lobsters, the proportion was much higher in the mandatory reporting data (78%) compared to the RLAB survey (56%). No comparisons could be made for ring and combined methods as ring methods are not reported at this level in the RLAB survey due to low numbers or participants and no recording of combined methods.

There were more instances of reported over-catch in the mandatory reporting data than the RLAB survey. It is unclear whether these reported over bag limit catches are illegal catch (i.e. actual retained numbers), or if there were errors in when fishers were reporting using the smartphone app (i.e. misunderstanding the reporting requirements and reported total caught lobsters rather than retained ones, or reported all lobsters kept by a fishing party).

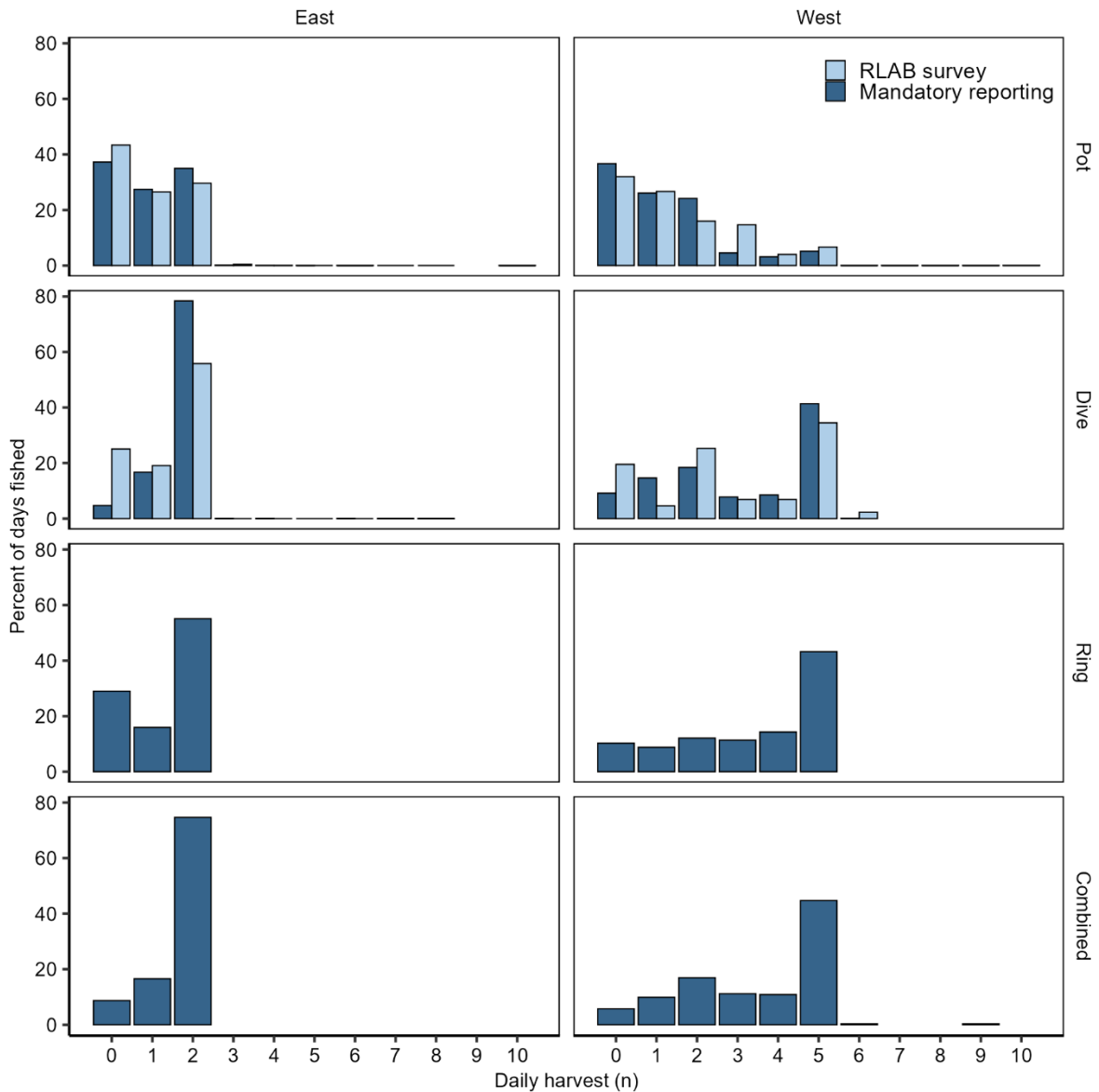


Figure 4. Daily harvest numbers reported by management region and fishing method for the annual recreational Rock Lobster and Abalone (RLAB) survey (light blue) and mandatory reporting methods (dark blue), for the 2024/25 season to April 30.

Individual seasonal harvest followed similar patterns between the two reporting methods, with most participants harvesting 1-5 lobsters in the season before declining numbers of fishers with higher seasonal catch numbers. There was more of a difference in the East Coast breakdown in seasonal catch numbers in the mandatory reporting data than the RLAB survey, particularly for catch over 10 lobsters.

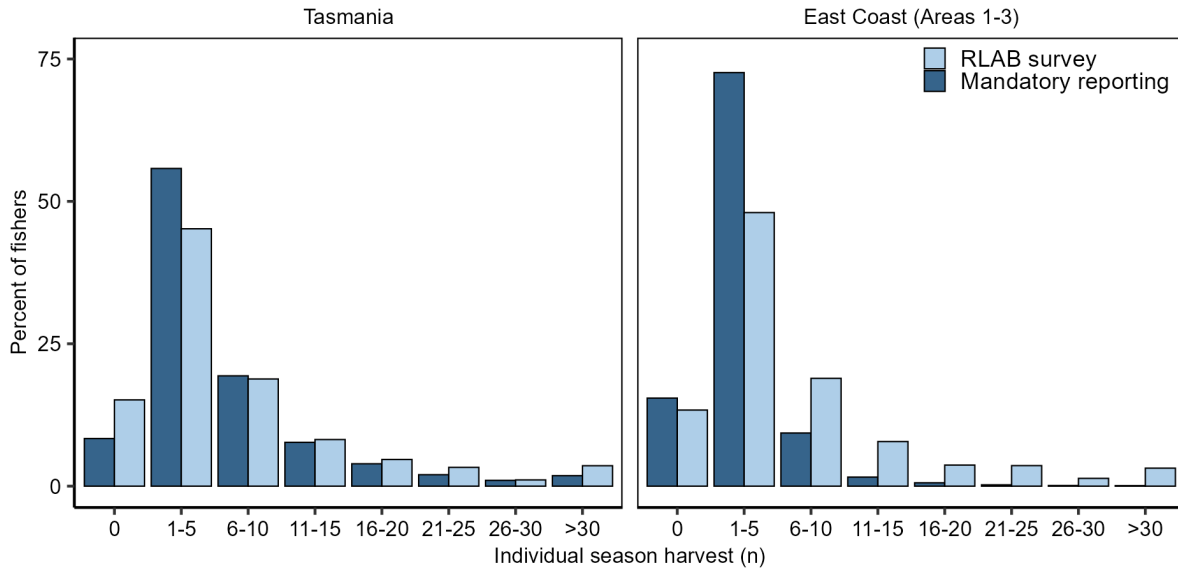


Figure 5. Individual harvest reported for the whole of the state (Tasmania) and the east coast (Areas 1-3) for the annual recreational Rock Lobster and Abalone (RLAB) survey (light blue) and mandatory reporting methods (dark blue), for the 2024/25 season to April 30.

Size composition

Lobster carapace length data was provided by some fishers in the voluntary reporting section of the Fishing Tas app. Due to the limited data provided, these were aggregated across some stock assessment areas (Figure 6). Fewer length measurements were reported in the voluntary section of the mandatory reporting data than in the RLAB survey (816 voluntarily reported lengths, compared to 1,071 reported in RLAB). Due to the limited number of measurements reported, and inability to assess use of accurate measuring devices to collect the carapace length measurements, length frequency information should be interpreted with caution.

Overall, there were similar patterns in size frequency in the areas with the most recorded information (Area 1 and Areas 2 & 3, Figure 6). There was an unusual pattern in the length-frequency data for pot fishers in Area's 2 & 3, with a sharp decline in lobsters with a carapace length over 125 mm. This may be due to fishers being more likely to measure smaller lobsters to determine if they are legal to keep.

Data from Areas 4 & 5 and Areas 6, 7 & 8 should be interpreted with extreme caution due to very low sample numbers.

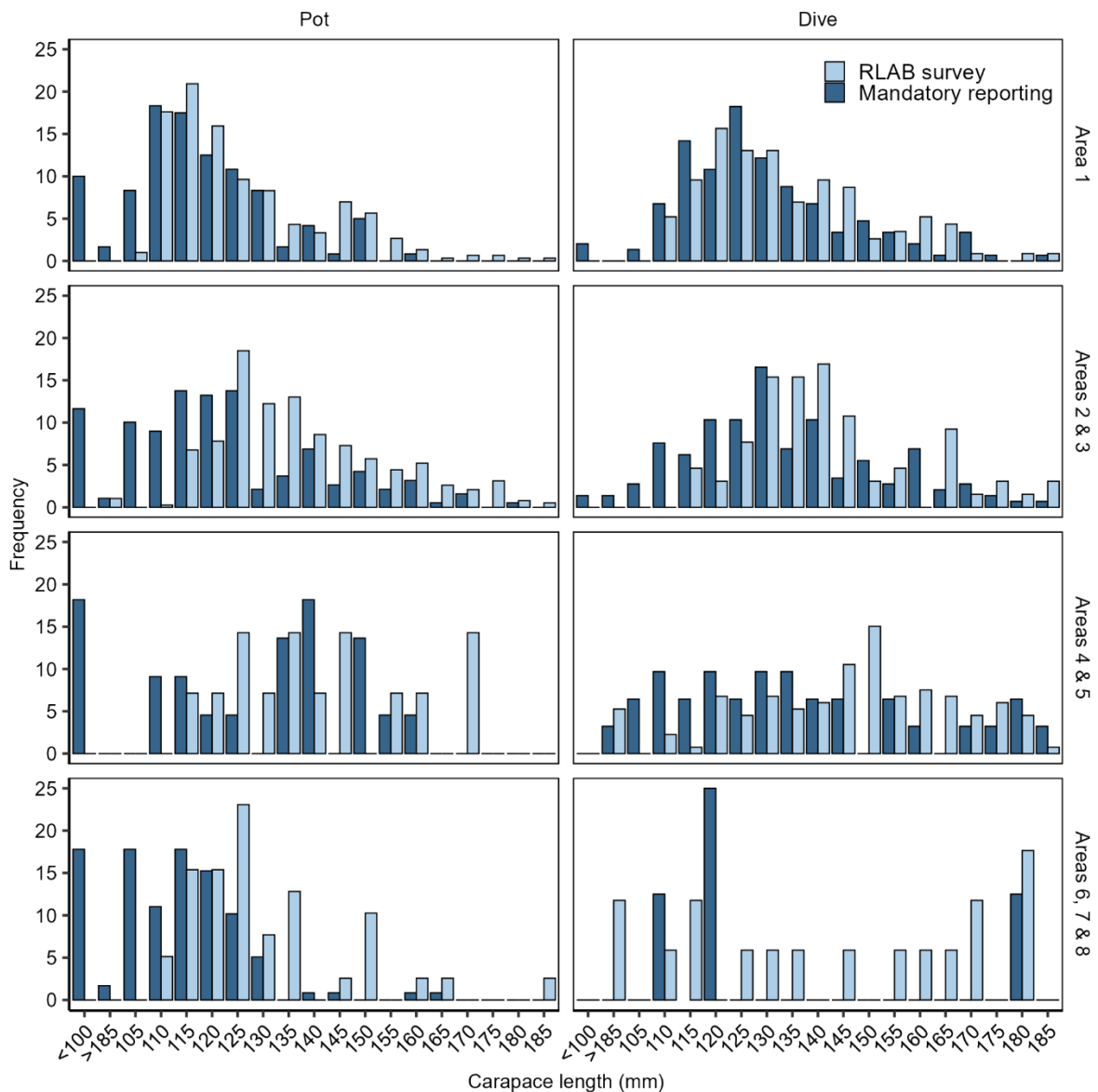


Figure 6. Length frequency data by method (pot or dive) and area (combined stock assessment areas) for the annual recreational Rock Lobster and Abalone (RLAB) survey (light blue) and mandatory reporting methods (dark blue), for the 2024/25 season to April 30.

Harvest weight

Length data provided as part of the voluntary data section in the Fishing Tas app was used to calculate harvest weight by multiplying the average lobster weight per area with the number reported harvested for the same area. While it was previously stated that this data should be interpreted with caution, if this data is intended to be used to calculate harvest estimates in lieu of the RLAB survey data, it has been used here to calculate harvest tonnage in this report.

Average weights of lobsters reported per area varied between reporting methods, from 22 g difference between the same areas (i.e. Area 3) to 426 g difference (Area 4).

Statewide mandatory reported harvest was estimated at 61.5 tonnes, equivalent to 36% of the TARC (170 tonnes). This was just over half of the estimate from the RLAB survey (111.3 tonnes, 65.5% of the TARC). Regional harvest estimates ranged from 20.2 tonnes in Area 1 to 1.5 tonnes in Area 6 for the mandatory reporting data, compared to 43.8 tonnes in Area 1 to 0.4 tonnes in Area 8 for the RLAB survey. The east coast (Areas 1-3) accounted for 74.5% of the total harvest weight for the mandatory reporting methods (69.9% for the RLAB survey), with the north coast (Areas 4-5) accounting for 11.2% (23.4% for the RLAB survey) and the west coast (Areas 6-8) 13.9% (6.7% for the RLAB survey). Unattributable area catch weight was calculated using the overall average weight of lobsters reported, accounting for 0.3 tonnes and 0.5% of the harvest weight for the state (all catch was attributable in the RLAB survey).

The differences in average weight of lobsters per area, along with the different reported numbers of harvest per area also resulted in different harvest weight estimates between the two methods, summarised in Figure 7. While some proportions of the catch were similar (percentages, i.e. in Areas 3 and 4), the catch tonnage was significantly different. This was particularly marked for Area 1, where the harvest weight estimate using mandatory reporting data was less than half of that calculated from the RLAB survey.

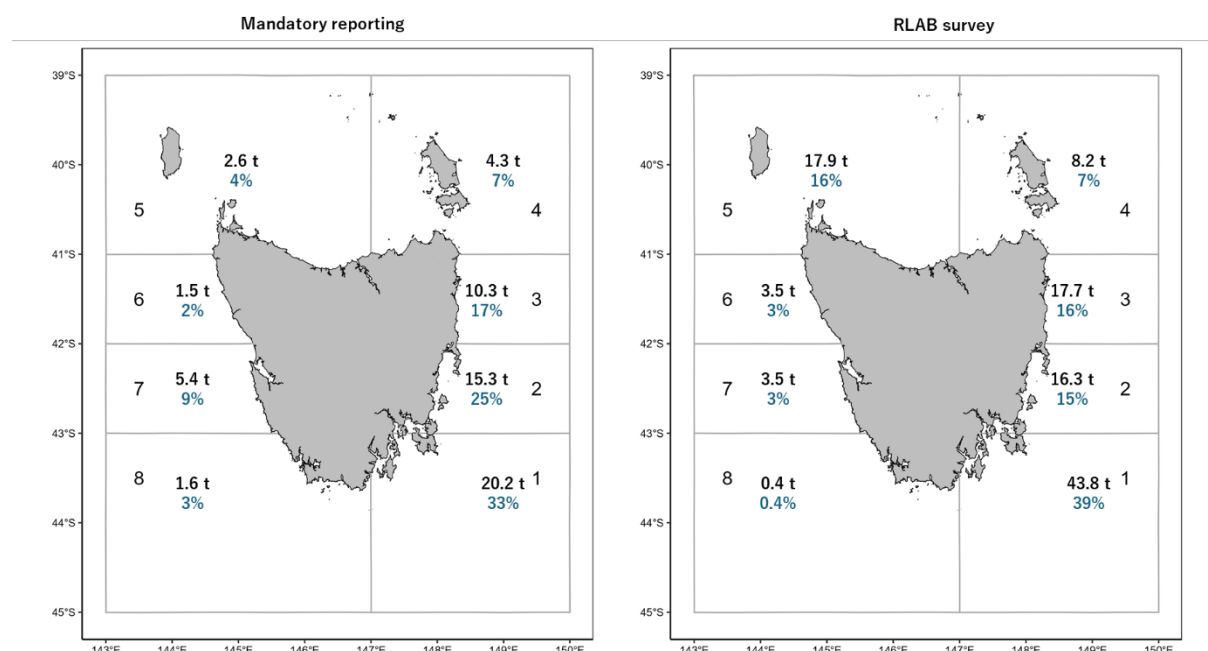


Figure 7. Harvest weight estimates in tonnes and percentages for each stock assessment area for the two reporting methods, mandatory reporting (left figure) and the annual recreational Rock Lobster and Abalone (RLAB) survey (right figure), for the 2024/25 season to April 30.

Comparison with in-field pot checks

In-field sampling of pot identification numbers was carried out by IMAS in the 2024/25 season. Pot checks conducted in and around Pirates Bay over two weekends in April 2025. Due to inclement weather, few pots were present in the area surveyed ($n = 9$). Of the combined data from both survey days, 67% of the pot ID numbers identified made no report using the mandatory reporting channels.

Conclusion

Overall, estimates of catch and effort via mandatory reporting methods were significantly lower than those estimated in the RLAB survey for the 2024/25 season to April 30. While approximately 74% of active fishers recorded in RLAB used one of the mandatory reporting methods at least once, many fishers likely did not report all their trips during the season. These results indicate there is still significant underreporting of catch using mandatory reporting methods in the Tasmanian recreational rock lobster fishery.

While the statewide estimates of percentage of catch per fishing method and seasonal catch patterns were similar between the two data collection methods, there was significant deviation in the regional estimates. This high level of variation makes it difficult to look at potentially validating the mandatory reporting data using the RLAB survey. It is currently unclear if these patterns will hold between years or will vary annually. Running the two data collection methods for several consecutive years will potentially allow the identification of patterns where the two methods are similar and where they deviate. From there, decisions could be made on what is important information for managing the fishery and where each method may be preferentially used.

Another issue is the reduced reporting of zero-catch days in the mandatory reporting data. These zero-catch dates contribute to catch per unit effort (CPUE) calculations which can then be used to examine fishery status over time. If these calculations are skewed due to reporting errors of zero-catch days, it can provide an inflated estimate of biomass in the fishery. Clear communication as to why these zero-catch days are important may help increase the reporting rate, as fishers may wonder, without a clear explanation, why their catching no lobsters is relevant to the fishery.

This report is lacking enough data to look at compliance rates via pot checks. Increased surveys of pot identification numbers would allow for better information on compliance rates to be established. This should be done season-round to pick up when compliance rates may be high or low. In the summer season (December-January) where fishing activity is highest, pot checks may give a large sample size to compare to the reporting rates via mandatory reporting methods. Due to the lack of the Easter peak in participation in the 2024/25 season, this study was unable to provide an accurate estimate of compliance for mandatory reporting via in-situ pot checks. Tasmanian Marine Police conducted checks in the previous season. In a check conducted in January 2024, 42% licence holders associated with the checked pots had made no report via any of the reporting channels. A second check conducted in the last week of March 2025 found 67% of the pot owners had not reported their fishing trips within 48 hours. Additional support from Tasmania's Marine Police in coming seasons may help with providing in-situ data for these compliance rate investigations.

Overall, this report is the first attempt to investigate and validate the mandatory catch reporting data for the Tasmania recreational rock lobster fishery. Estimates of participation, catch and effort via mandatory reporting methods were significantly lower than those estimated by the annual RLAB survey. Further comparisons are required to fully understand how the data is similar, and how it differs, between the data collection methods and how this may change between seasons. This will help us understand how reliable the mandatory reporting data is for use in fisheries management decisions. Based on these considerations, the recommendations below have been made.

Recommendations

- Continuation of the RLAB survey for at least two more years to provide an adequate overlap period between the two data collection methods to properly assess where they are similar and where they differ in scope.
- Increase communication and education around the need for zero catch reporting.
- Engage with Tasmania's Marine Police to facilitate data collection for determining compliance rates for mandatory reporting.
- Engage with the recreational peak body to collaborate on increasing awareness and participation in data collection for the recreational fishery.
- Investigate further options for validation and calibration of the mandatory catch reporting data.

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