



COMMUNITY PREFERENCES FOR THE REGULATION AND MANAGEMENT OF MARINE ANIMALS

REPORT
2025

Prepared for Western Rock Lobster by
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Contents

(Front cover image contribution: Western Rock Lobster Facebook page)

1.0	BACKGROUND	3
1.1	The questions.....	3
1.2	Method	3
2.0	PROFILE SAMPLE	4
3.0	FINDINGS	5
3.1	Should Recreational fishers report their catch?	5
3.2	Should recreational fishers report their catch if the sustainability is an issue?	6
3.3	Incidence of recreational fishers?.....	8
4.0	APPENDICES	9
4.1	Technical Appendix - Sampling and Data Collection Specifics	9
4.2	Questionnaire	13

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1.0 BACKGROUND

In Western Australia, commercial fishing is licensed and regulated, requiring commercial fishers to report their catch to enable the fishery to be managed. In comparison, recreational fishers are licensed and have bag limits but are not required to report on the number of marine animals they take. Under the current management regime, the stocks of some fish are not being maintained at a sustainable level, including Dhufish, Baldchin Groper and Snapper.

Recreational fishing is widespread in Western Australia; in 2021, an estimated 633,000 people participated in recreational fishing at least once a year*. This estimate is consistent with population growth from the Recreational Fishers study in 2017.

1.1 The questions

Research Solutions conducted a short community survey by telephone to measure the following:

- Q1. Do you feel that recreational fishers should accurately report the number of marine animals they take for consumption (including fish and rock lobsters) as commercial fishers are required to?
- Q2. The sustainability of some marine animals, including some fish such as Dhufish, Baldchin Groper and Snapper are at risk. Do you feel that recreational fishers should accurately report the number of marine animals they take for consumption (including fish and rock lobsters) as commercial fishers do if the sustainability of that marine animal is at risk?

Profile information was collected:

- Are you a recreational fisher?
- Location in the Greater Perth metropolitan area or in the Country
- Gender
- Age Group

1.2 Method

A telephone survey of 500 members of the community aged 18 years and older was conducted across Western Australia between Wednesday, 12th February and Tuesday, 18th February 2025. The sample size was 400 in metropolitan Perth and 100 in country areas; this is a robust sample and larger than that required by the Auditor General for Government surveys in Western Australia.

The questionnaire was developed in conjunction with Western Rock Lobster and programmed into a computer-assisted telephone interviewing (CATI) system by Research Solutions' data collection company, Thinkfield. The interviewers were briefed face-to-face via Microsoft Teams and provided with written briefing notes. The interviews were conducted in the evening and over the weekend from Thinkfield's centralised telephone interviewing room in Leederville. The interviewers are experienced and well trained; Thinkfield, like Research Solutions, is Quality Assured under the International Standard ISO:20252, which mandates a series of interviewing and reporting requirements detailed in the technical appendix.

The interviewing team was overseen by an experienced supervisor. The field manager and supervisor listened in to the telephone interviews both during the interview and to recordings of the interviews subsequently to validate the interviews (ISO 20252 requires 10% validation of the interviews) and to ensure that the interview was administered exactly as detailed on the questionnaire with no additional information provided.

The telephone sample was drawn from an extensive telephone and online panel of the community aged 18 years and over across Western Australia; one in five people participated, which is an excellent response rate. The sample was quota'd by region, age, and gender to ensure that a representative sample was achieved, and a comparison of the results with the 2021 Census is shown on the following page.

* Exploring changes in recreational fishing participation and catch due to COVID-19 – a WA case study Table 1, *Participation in Recreational Fishing Western Australia 2020/21 (DPIRD 2023)*

More details about the method are provided in the Technical Appendix.

The results have been analysed for the whole sample and by age, gender, location and whether or not the respondent is a recreational fisher. Only those results that show a statistically significant difference at the 95% confidence level have been reported using the Chi-Square test of significant difference (details provided in the Technical Appendix); this means that results are only reported where there is a real difference between two or more groups which is not due to random chance. That is, if we repeated the study multiple times, 95 times out of 100, we would expect to observe a similar result.

2.0 PROFILE SAMPLE

The profile of the sample is consistent with the 2021 census for Western Australia, as shown below. Any differences are well within the margin for sample error.

Figure 1: Do you live?

	Survey	Census 2021
In the Greater Perth metropolitan area	80.0%	79.8%
In the WA country, outside the metropolitan area	20.0%	20.2%
	100.0%	100.0%

S1. Do you live? (sample size n=500)

Figure 2: Gender

	Survey	Census 2021
Male	50.0%	48.8%
Female	50.0%	51.2%
	100.0%	100.0%

S2. Are you (survey participants classify themselves): (sample size n=500)

Figure 3: Age group

	Survey	Survey grouped	Census 2021
18 – 24 years	9.0%	28.8%	28.7%
25 – 34 years	19.8%		
35 – 44 years	17.8%	35.2%	35.3%
45 – 54 years	17.4%		
55 – 64 years	18.0%	36.0%	36.0%
65 plus years	18.0%		
	100.0%	100.0%	100.0%

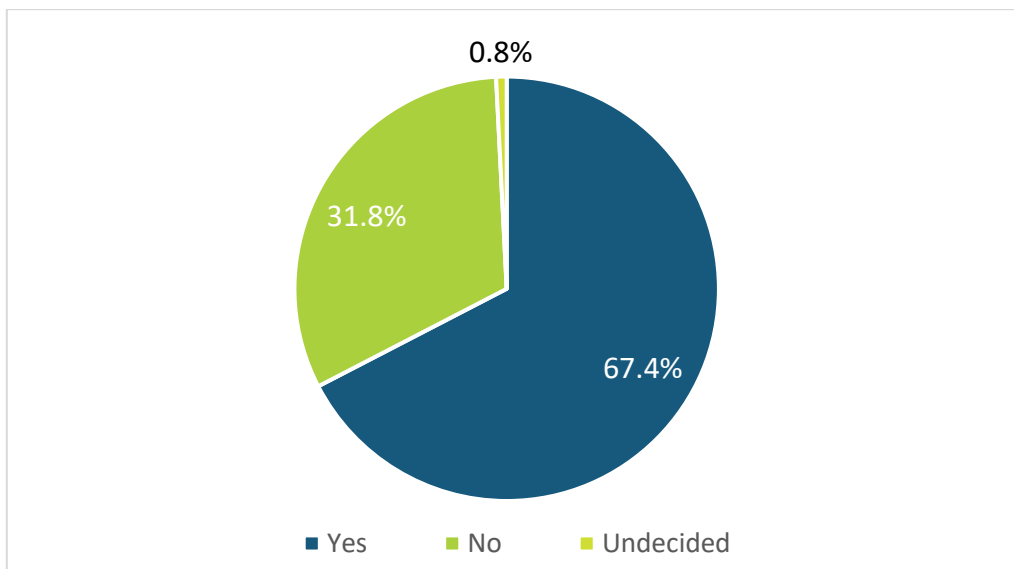
S3. In which of the following age groups do you belong? (sample size n=500)

3.0 FINDINGS

3.1 Should Recreational fishers report their catch?

Almost two-thirds of community members (67.4%) felt that recreational fishers should accurately report the number of marine animals that they take for consumption.

Figure 4: Should Recreational fishers report their catch?



Q1. Do you feel that recreational fishers should accurately report the number of marine animals they take for consumption (including fish and rock lobsters) as commercial fishers are required to? (sample size n=500)

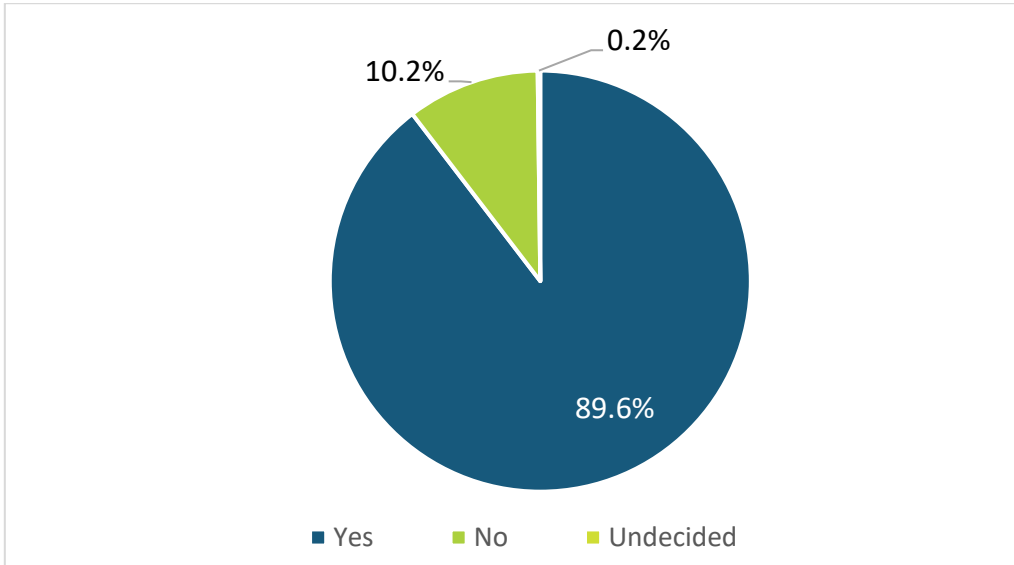
There was no statistically significant difference between the views of the Metropolitan community and the Country community, nor by age group or gender.

Further, recreational fishers were equally supportive of reporting their catch (63.7% supported reporting their catch) compared to non-recreational fishers (69.3% of these people believe that recreational fishers should report their catch). These percentages are well within the margin for error.

3.2 Should recreational fishers report their catch if the sustainability is an issue?

The community strongly supports (89.6%) the concept that recreational fishers should accurately report the number of marine animals they take for consumption (including fish and rock lobsters) in a similar way to commercial fishers if the sustainability of the marine animal is at risk. Ten per cent (10.2%) of community members disagree that recreational fishers should report their catch.

Figure 5: Recreational fishers should report their catch if the sustainability of marine animal is at risk?

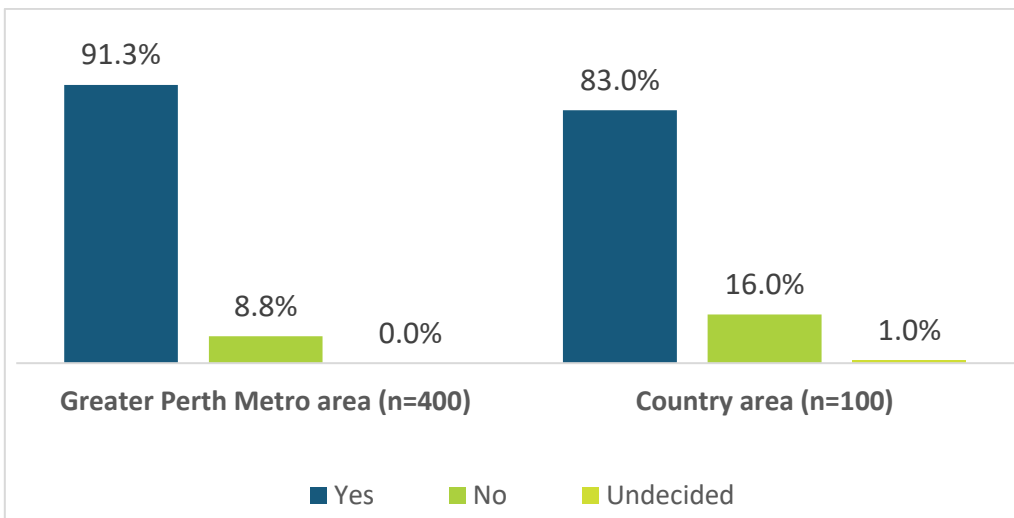


Q2. Do you feel that recreational fishers should accurately report the number of marine animals they take for consumption (including fish and rock lobsters) as commercial fishers do if the sustainability of that marine animal is at risk? (sample size n=500)

The views of the community are statistically significantly different in the Metropolitan area compared to Country areas, by gender and whether the respondent is a recreational fisher or not, as shown in the tables below.

Respondents living in the Metropolitan area are significantly more likely to believe that if sustainability is an issue, recreational fishers should report their catch (91.3%) compared to Country people (83.0%).

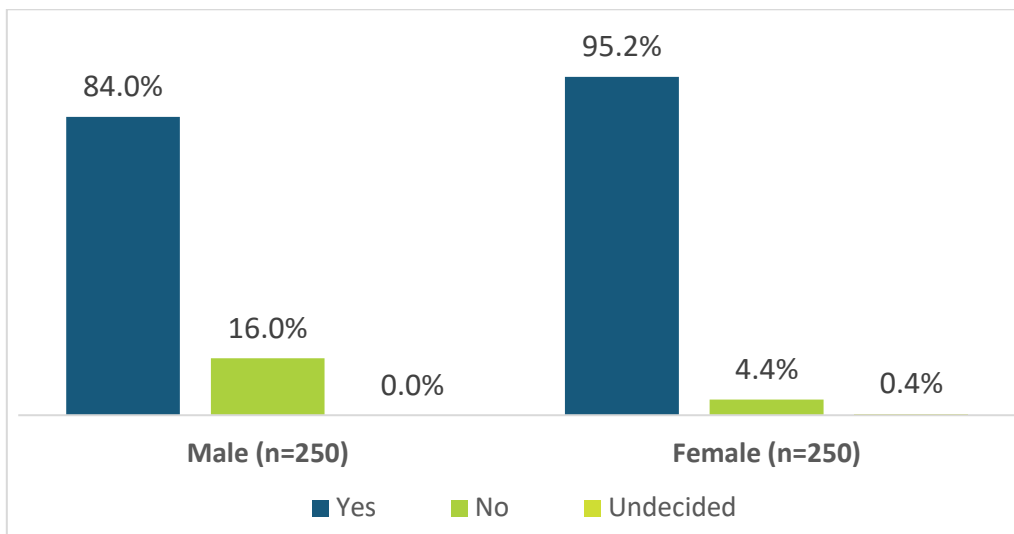
Figure 6: Reporting of catch where there is a sustainability risk a comparison of metropolitan and Country views



Q2. Do you feel that recreational fishers should accurately report the number of marine animals they take for consumption (including fish and rock lobsters) as commercial fishers do if the sustainability of that marine animal is at risk? (sample size n=500)

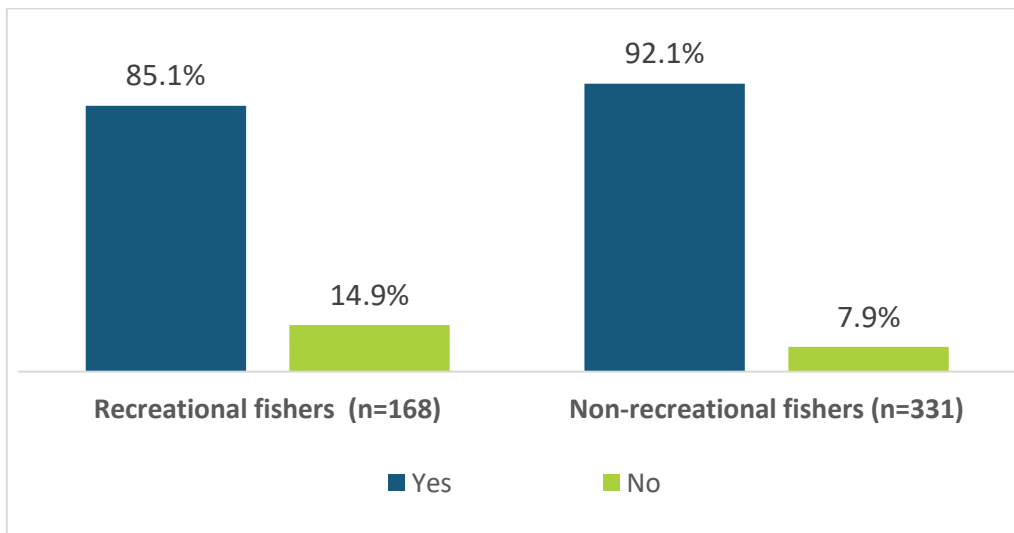
Almost all females (95.2%) believed that recreational fishers should accurately report the number of marine animals they take for consumption if the sustainability of the marine animal was at risk; this compares to 84.0% of males.

Figure 7: Reporting of catch where there is a sustainability risk a comparison by gender.



Q2. Do you feel that recreational fishers should accurately report the number of marine animals they take for consumption (including fish and rock lobsters) as commercial fishers do if the sustainability of that marine animal is at risk? (sample size n=500)

Figure 8: Reporting of catch where there is a sustainability risk a comparison of recreational fishers and non-fishers.



Q2. Do you feel that recreational fishers should accurately report the number of marine animals they take for consumption (including fish and rock lobsters) as commercial fishers do if the sustainability of that marine animal is at risk? (sample size n=499; 1 respondent stating undecided has been removed)

There was no difference between the views of recreational fishers and non-fishers; however, with further analysis, when a single person with an undecided response was removed from the sample, the difference between the views of recreational fishers and non-fishers became statistically significantly different, as shown in the figure above.

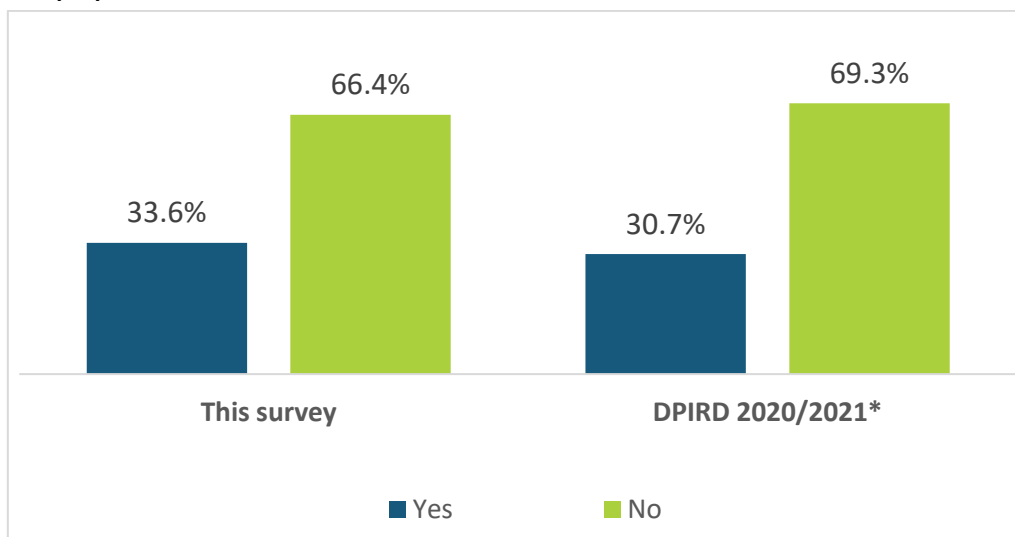
The support for reporting catch, if the sustainability of the marine animal was at risk, is similar amongst each age group, clearly demonstrating that there is no difference between the views of older people and younger people.

3.3 Incidence of recreational fishers?

One in three survey participants identified themselves as recreational fishers (33.6%); this compares to the DPIRD estimate in 2020/2021 of 633,000 recreational fishers in Western Australia, which represents 30.7% of the adult population of Western Australia in 2021.

Recreational fishers in the survey were twice as likely to be male (44.0%) as female (23.2%). They were drawn from all age groups and were equally likely to live in Perth as in country areas.

Figure 9: The proportion of recreational fishers



Q3. Are you a recreational fisher? (sample size n=500)

The DPIRD estimate in Figure 9 above is based on 633,000 recreational fishers. (Recreational fishing participation and catch due to COVID-19 - a WA case study, Table 1, Participation in Recreational Fishing Western Australia 2020/21 (DPIRD 2023)). The percentage of 30.7% is calculated based on the 2021 Census, which shows that 2,062,286 people provided their age as 18 years or older in the 2021 Census, the adult population of Western Australia. (<https://www.abs.gov.au/census/find-census-data/quickstats/2021/5>).

4.0 APPENDICES

4.1 Technical Appendix - Sampling and Data Collection Specifics

Component	Details
Project Management Team	
Research Solutions contact	Nicky Munro
Client contact	Joy Johnston
Field company	Thinkfield
Field company credentials	ISO 20252 / Has a signed Service Level Agreement with Research Solutions to ensure the subcontracted work meets the requirements of ISO 20252:2019(E)
Research Methodology	
Data collection method	Telephone survey
Sampling Methodology	
Target population for survey	Western Australian community
Description of sampling frame	The mobile and landline telephones of Adults 18+
Source of sampling frame	Access panel of 25,000 respondents, this approach to telephone data collection is used almost exclusively in the UK and USA
<ul style="list-style-type: none"> Source of access panel 	Thinkfield
<ul style="list-style-type: none"> Method of recruiting panel members 	Via telephone and Face-to-face surveys
<ul style="list-style-type: none"> Selection criteria for the sample 	None
<ul style="list-style-type: none"> Methods used / appropriateness of the sample fit for purpose 	Quotas to ensure a representative sample was achieved
Was the sample blended	No
Sampling technique	non-probability - sample quota'd
Was the sample quota'd?	Yes
<ul style="list-style-type: none"> Brief description of quota procedure 	Metropolitan n=400, Country n=100 Sex: Male n=250; female n=250 Age: 18-34 n=144; 35-54 n=176; 55+ n=180
<ul style="list-style-type: none"> Information source of quotas drawn from 	2021 Census
Planned sample size	N= 500
Were there any problems encountered in sample selection?	No
Sample size achieved	N=500
Do participants need to be approached again (for a future project)?	No

Component	Details
Fieldwork	
Briefing Method	In person via Microsoft Teams, with written briefing notes provided
Pilot study date	Wednesday, 12th February
Changes made as result of pilot	Data file from the pilot was reviewed and no changes were made
Research participant support	The contact details of the project manager were available to participants on request
Were participants required to perform special tasks (e.g., download software)?	No
Were participants required to share sensitive information or personal data?	No, nothing beyond simple demographic information
Questionnaire appended to report	Yes
Incentives or methods of engagement used for participants	No
Any issues arising in the survey?	No, though the data collection was carefully monitored in real time as well as the recordings made to make sure that respondents were only given the information on the questionnaire and that they were not prompted in any way.
Survey Procedure for CATI	
• Survey dates	Wednesday, 12th February and Tuesday, 18th February 2025
• Questionnaire length / administration time	3 Minutes
• Number of interviewers used	11 interviewers
• Times of day interviews took place	Evenings from 3pm and weekends during the day
• No of call backs before number replaced	Up to 3, at least 3-4 hours apart and at different shift days
Data Collection Outcomes:	
Response rate	21%
CATI research participant contact outcomes:	
• Interviews	21%
• Not available/ answering machines	73%
• Refusals	6%
• Language/Behavioural Barrier	0%
Was a router or similar method used?	No
Overall sampling error	±4.5%

Component	Details
Validation procedures: Number validated:	35% of all completed interviews were validated by Thinkfield N=189
<ul style="list-style-type: none"> Where cases were excluded; how were they replaced to ensure the sample remained representative? 	Quotas were replaced
Validity and Reliability Issues including:	
<ul style="list-style-type: none"> How well the sample fitted the sampling frame 	Very closely as shown in the report
<ul style="list-style-type: none"> Methods which may produce bias in participant selection 	Telephoning to households where the location, age and gender is known does improve the response rate. There is no evidence of bias in participant selection other than when a land line was called, the interviewer asked to speak to the youngest male 18 and over at home since this group is the hardest to reach. Where there is a young male at home it is best to secure an interview with him rather than take the first person to answer the landline who is often an older female. Many of the numbers called were mobile numbers.
<ul style="list-style-type: none"> Possible sampling errors and how well the sample can generalise to the population 	No evident sampling errors
<ul style="list-style-type: none"> Third party data to access any sample bias 	ABS 2021 Census data is provided in the report to demonstrate that the sample is demographically representative.to confirm sample bias
Data Coding, Analysis and Data File Treatment	
Data coding	<ul style="list-style-type: none"> Not required
Consistency checks	<ul style="list-style-type: none"> Preliminary data file checked by Project Manager using SPSS: <ul style="list-style-type: none"> Frequency counts Relevant cross tabulations Data outside the range/duplicates or abnormalities investigated with Field Company prior to coding and analysis Responses checked for: <ul style="list-style-type: none"> Low probability / fictitious responses Inconsistent responses Length of time to complete the survey High % of unanswered questions / key questions not answered High % of don't know
Data checked for duplications	<ul style="list-style-type: none"> Contact details checked name & phone no.
Were any duplications identified?	No

Component	Details
Treatment of missing data	<ul style="list-style-type: none"> No missing data, though a few don't know and on one occasion in table 8 a comparison of the reviews of recreation and non-recreational fishers on reporting for sustainability reasons, where the removal of the single don't know answer produced a statistically significant difference in the results.
Any estimating or imputation procedures used	No
Methods of statistical analysis	<ul style="list-style-type: none"> Frequency counts Descriptive statistics Cross tabulations <p><i>See Survey Research Appendix: Data reduction and data modelling techniques</i></p>
Statistical tests used	<i>See Survey Research Appendix: Statistical tests</i>
Data file provided to client	At the conclusion of the study
De-identified data files retained	For five years
This project has been undertaken with compliance with ISO 20252:2019	

Tests of Statistical significance:

Test:	Chi Square (Pearson's chi-square)
Use:	To determine if two variables are related by more than chance alone.
Data Assumptions:	<ul style="list-style-type: none"> Data is from a random sample. Data must be nominal, ordinal or interval. Sufficiently large sample (absolute minimum n=30) & adequate cell sizes (n=10+) Observations must be independent. Observations must have the same underlying distribution. Data is unweighted
Test Measure / Cut-off Criterion:	p <= 0.5

Western Rock Lobster (WRL) Community Survey

Hello, my name is _____ from Thinkfield. We are conducting a community survey on behalf of Research Solutions. May I speak to the youngest person in the household, aged 18 years or older (check quotes for age and gender)?

The survey is about how fishing is regulated and managed on behalf of the community. It has only six questions, so it will take less than five minutes, and we are very interested in your views.

Your participation is voluntary, and your responses will be aggregated with everyone else's and only overall community results disclosed.

We are interested in your thoughts and opinions; there are no right or wrong answers. Please answer as openly and honestly as you can. To start with, to make sure we have a good cross-section of the population:

IF ASKED:

Our Privacy Policy is available on www.researchsolutions.com.au/privacy-policy/

S1	Do you live:		
	In the Greater Perth metropolitan area (between Yanchep and Mandurah)		O ₁
	In the country, outside the metropolitan area		O ₂
<hr/>			
S2	Are you:		
	Male		O ₁
	Female		O ₂
<hr/>			
S3	In which of the following age groups do you belong?		
	18 – 24 years		O ₁
	25 – 34 years		O ₂
	35 – 44 years		O ₃
	45 – 54 years		O ₄
	55 – 64 years		O ₅
	65 plus years		O ₆
	Prefer not to say		O ₉

- Q1. Do you feel that recreational fishers should accurately report the number of marine animals they take for consumption (including fish and rock lobsters) as commercial fishers are required to?
- | | |
|-----------------------------|----------------|
| Yes | O ₁ |
| No | O ₂ |
| Undecided (DO NOT READ OUT) | O ₃ |
-
- Q2. **The sustainability of some marine animals, including some fish such as Dhufish, Baldchin Groper and Snapper are at risk.**
 Do you feel that recreational fishers should accurately report the number of marine animals they take for consumption (including fish and rock lobsters) as commercial fishers do if the sustainability of that marine animal is at risk?
- | | |
|-----------------------------|----------------|
| Yes | O ₁ |
| No | O ₂ |
| Undecided (DO NOT READ OUT) | O ₃ |
-
- Q3. Are you a recreational fisher?
- | | |
|-----|----------------|
| Yes | O ₁ |
| No | O ₂ |

Thank you for you help.

Federal Privacy laws protect the confidentiality of any comments you make in relation to this survey, and you may access the information you have given at any time until the data is deidentified (24th February).

My supervisor may monitor this interview for quality control purposes and may contact 10% of survey participants afterwards to check the results.

May I confirm your name: _____

Phone number: _____

Just to remind you, my name is _____ from Thinkfield, if you have any questions our number is 9316 3366.