Social Survey of New Zealand Whitebaiters



Monitoring and Evaluation Report: Perceptions of the Aotearoa New Zealand whitebait fishery 2022

Social Science and Monitoring Team



Cover: Whitebaiting, just before sunset, Okuru Estuary, Westland. Photo: <i>Phillippe Gerbeaux, DOC</i> . DOC – 7242095	
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Context

The Social Science and Monitoring team received an Assyst request from the Freshwater team to undertake a monitoring and evaluation programme during the New Zealand whitebaiting season of 2022. The objective was to gather baseline data to describe the whitebait fishery in Aotearoa New Zealand in 2022. The data will help identify the issues of most concern to whitebaiters and inform future whitebait fishing practices.

This report presents measures related to the following indicators from the DOC's Outcome Monitoring Framework (OMF):

• 3.1.1 - Current demand for recreation on public conservation land and waters

Methodology and sample

Surveying was undertaken between October and November 2022 by means of:

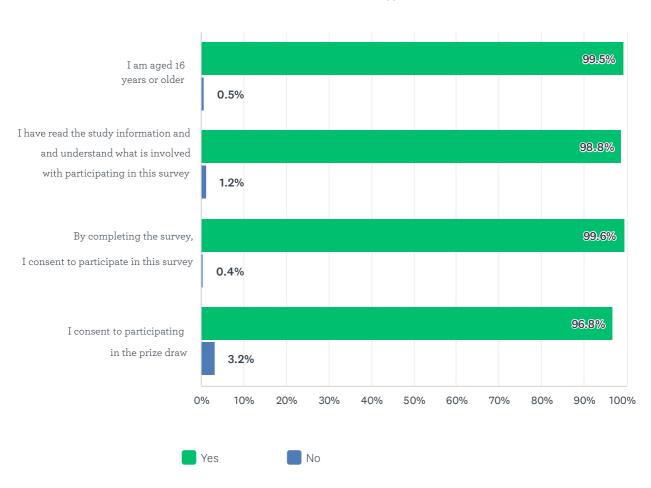
- An online advertising campaign, posted on Google, Facebook and Instagram,
- DOC Rangers distributing surveys to whitebait fisherman on river banks.

For the Online advertising campaign, survey respondents completed a total of 1247 questionnaires. As for the paper based surveys distributed by DOC Rangers, survey respondents completed a total of 55 responses. This yielded a total sample of 1302 surveys.

Results

Statement of consent (please tick relevant box)



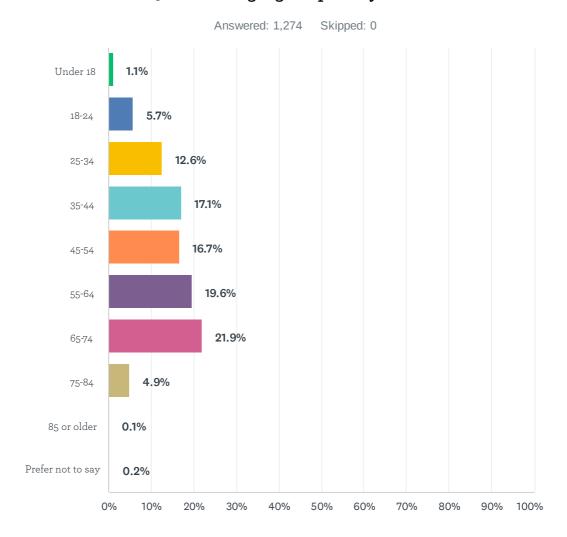


	YES	NO	TOTAL
I am aged 16 years or older	99.5%	0.5%	
	1,295	7	1,302
I have read the study information and understand what is involved with participating in this survey	98.8%	1.2%	
	1,286	16	1,302
By completing the survey, I consent to participate in this survey	99.6%	0.4%	
	1,297	5	1,302
I consent to participating in the prize draw	96.8%	3.2%	
	1,260	42	1,302

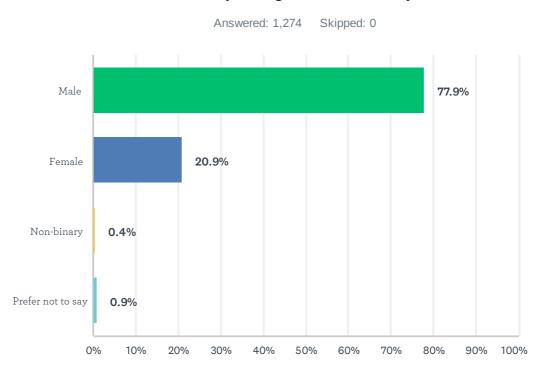
Due to the Department of Conservations Privacy Policy, the results presented in the the following top-line report includes participants who indicated they were over the age of 16, had read the study information and understood what was involved in participating, and consented to participating in the survey.

As a result, of the 1302 participants that submitted a response, 1274 were included in the analysis below.

Q1. What age group are you in?

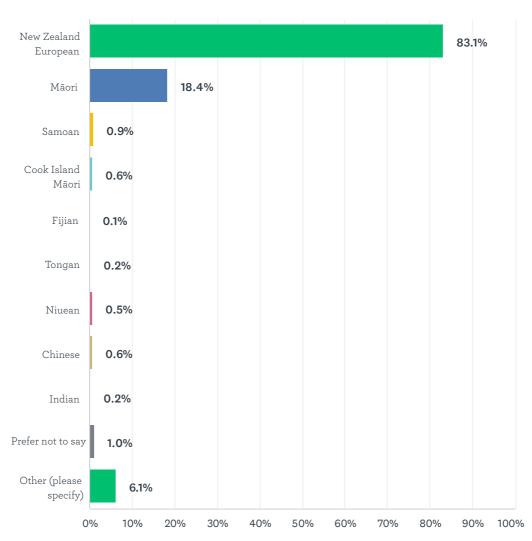


Q2. What is your gender identity?



Q3. What ethnic group(s) do you belong to? (tick all that apply)

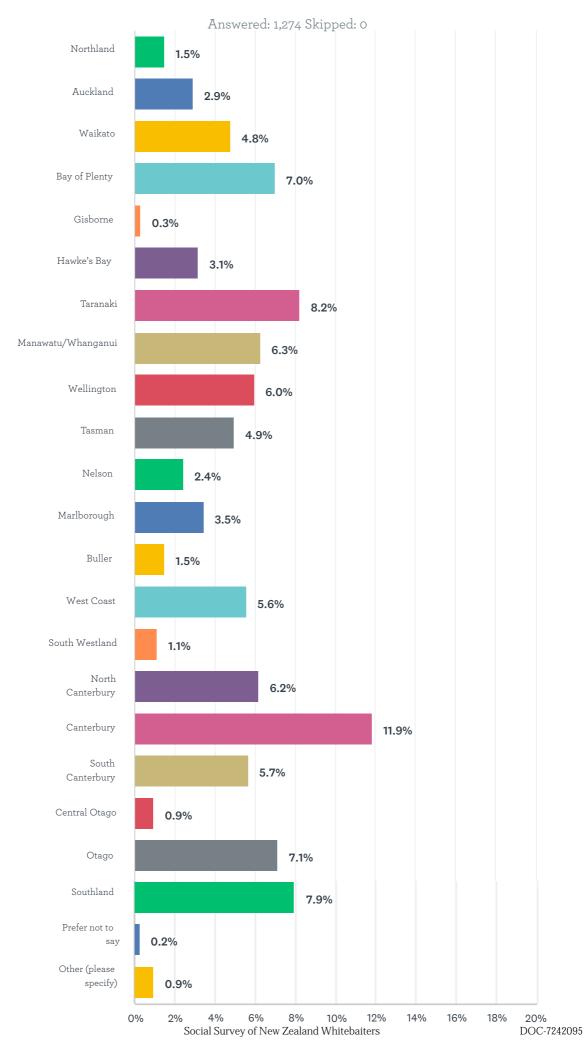




ANSWER CHOICES	RESPONSES	
New Zealand European	83.1%	1,059
Māori	18.4%	234
Samoan	0.9%	11
Cook Island Māori	0.6%	8
Fijian	0.1%	1
Tongan	0.2%	3
Niuean	0.5%	7
Chinese	0.6%	8
Indian	0.2%	2
Prefer not to say	1.0%	13
Other (please specify)	6.1%	78
Total Respondents: 1,274		

The top three responses from the 'Other' category includes	%	TOTAL
New Zealander	2.75 %	35
Kiwi	1.0 %	13
Australian	0.2 %	3

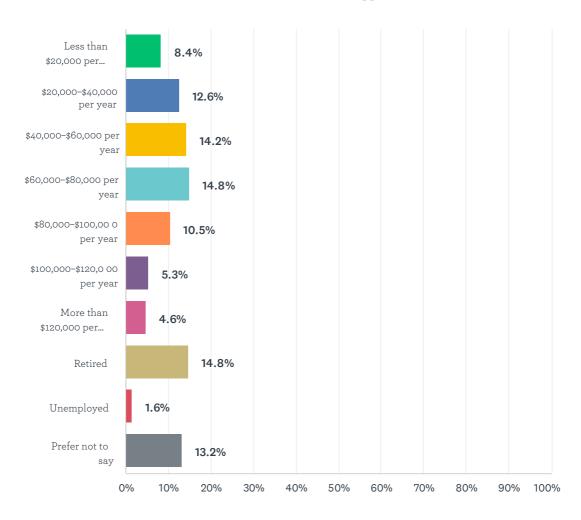
Q4. Which region do you live in outside of the whitebait season?



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Q5. What is your income?

Answered: 1,274 Skipped: 0

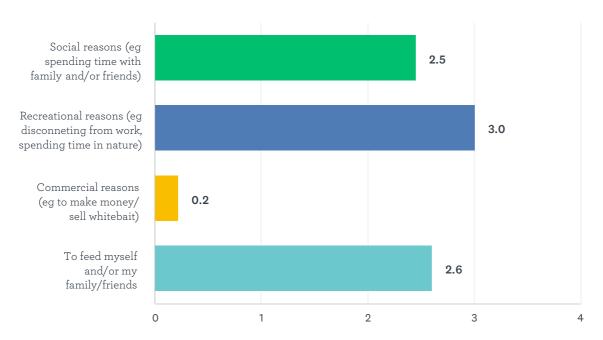


Q6. How important are the following reasons for your whitebaiting?

Answered: 1,274 Skipped: 0

Participants were required to submit a response for each of the four reasons. Responses were on a scale of 0 to 4, where 0 = Not important at all, 1= Slightly important, 2 = Moderately important, 3 = Very important and 4 = Extremely important.

The figure shows average scores and the table shows response category splits.



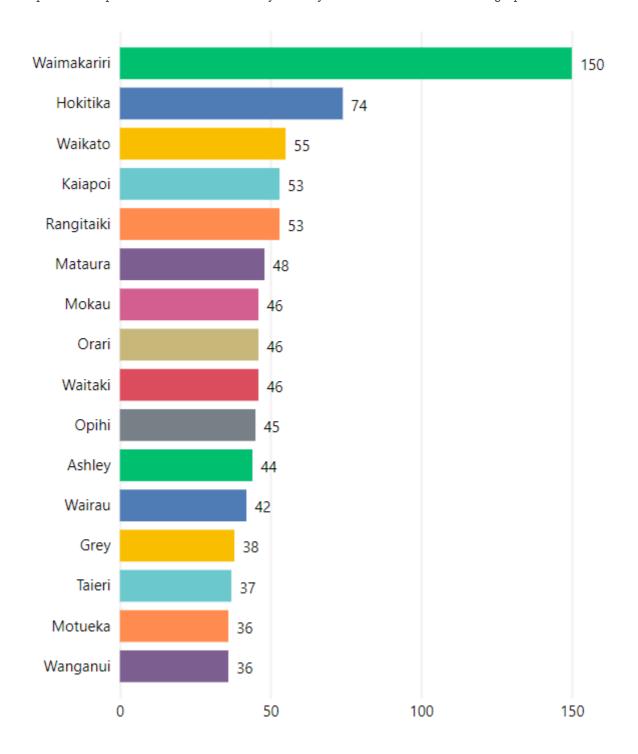
	NOT AT ALL IMPORTANT	SLIGHTLY IMPORTANT	MODERATELY IMPORTANT	VERY IMPORTANT	EXTREMELY IMPORTANT	TOTAL	WEIGHTED AVERAGE
Social reasons (eg spending time with family and/or friends)	12.8% 163	9.7% 124	20.9% 266	32.3% 412	24.3% 309	1,274	2.46
Recreational reasons (eg disconneting from work, spending time in nature)	4.6% 59	3.6% 46	14.4% 184	40.3% 513	37.0% 472	1,274	3.01
Commercial reasons (eg to make money/sell whitebait)	89.6% 1,141	3.9% 50	3.5% 45	1.3%	1.7%	1,274	0.22
To feed myself and/or my family/friends	6.8% 87	11.7% 149	23.8% 303	29.0% 369	28.7% 366	1,274	2.61

Q7.A. In the last five years, where have you been whitebaiting? (Please record up to 5 rivers)

Answered: 1,274 Skipped: 0

Respondents recorded a total of 2727 rivers, consisting of 472 individual rivers, over the past 5 years. The top 15 rivers are displayed below.

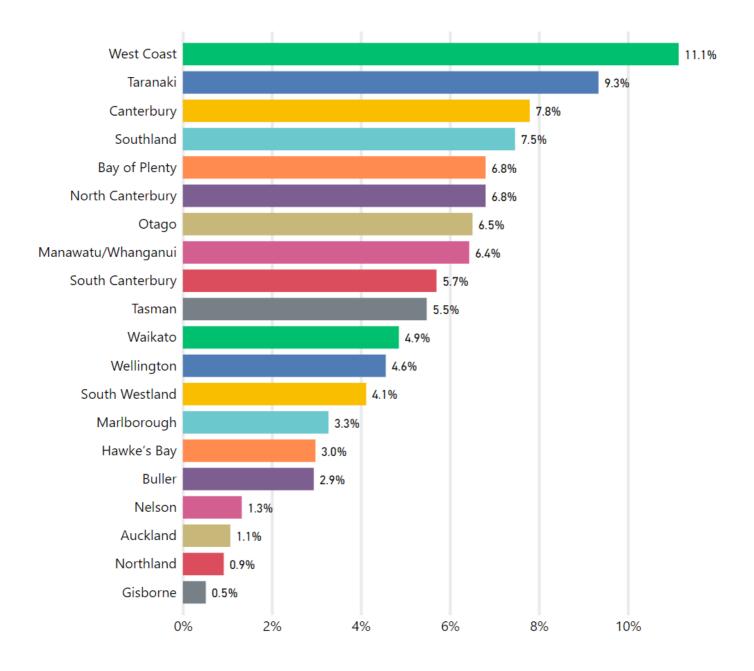
Open text responses that did not correctly identify a river were not included in graph below.



Q7.B. For each of your stated rivers, please answer the following questions:

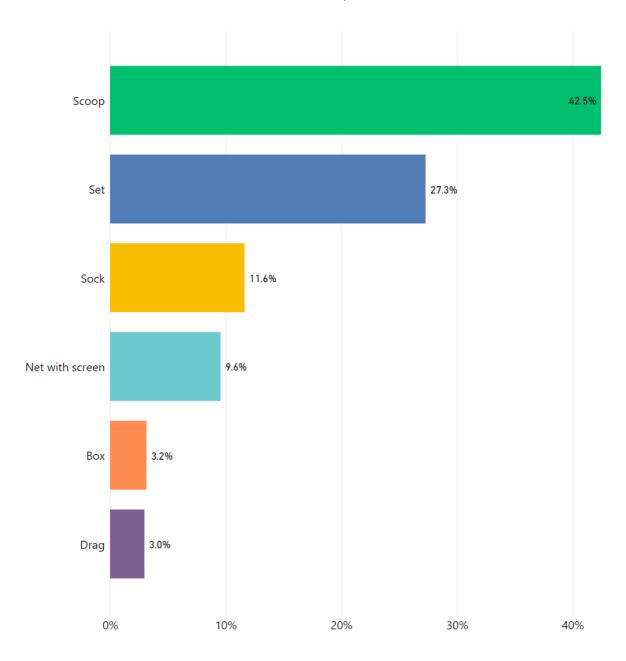
Answered: 1,274 Skipped: 0

Region name



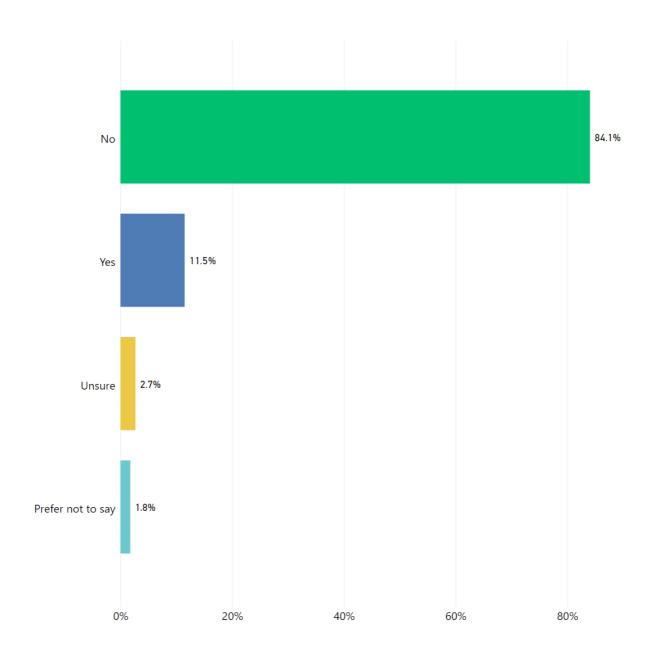
What type of net did you use?

Answered: 2711



Do you fish from a registered stand?

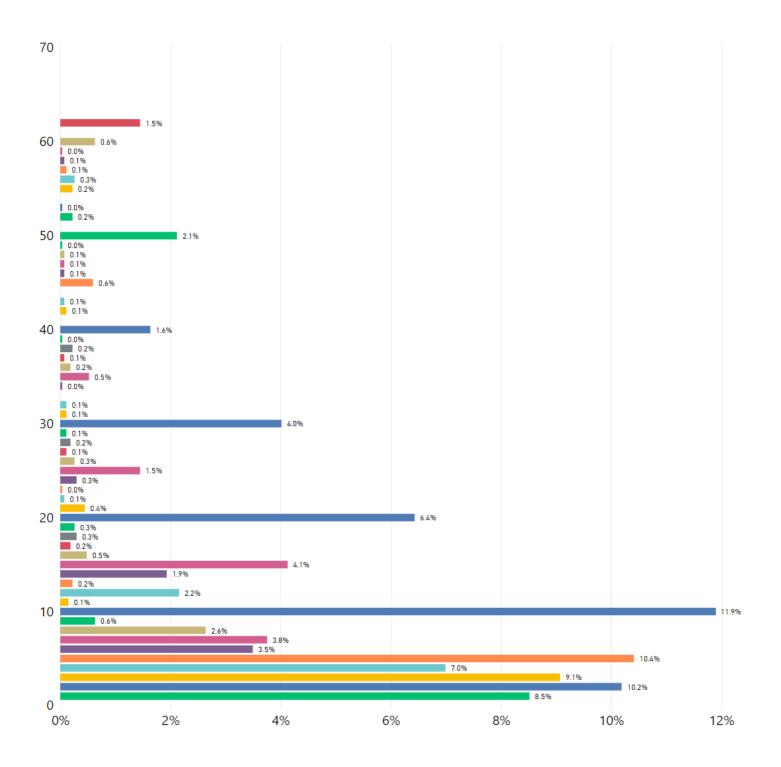
Answered: 2715



What is the average number of days per season you fish this river?

Answered: 2689

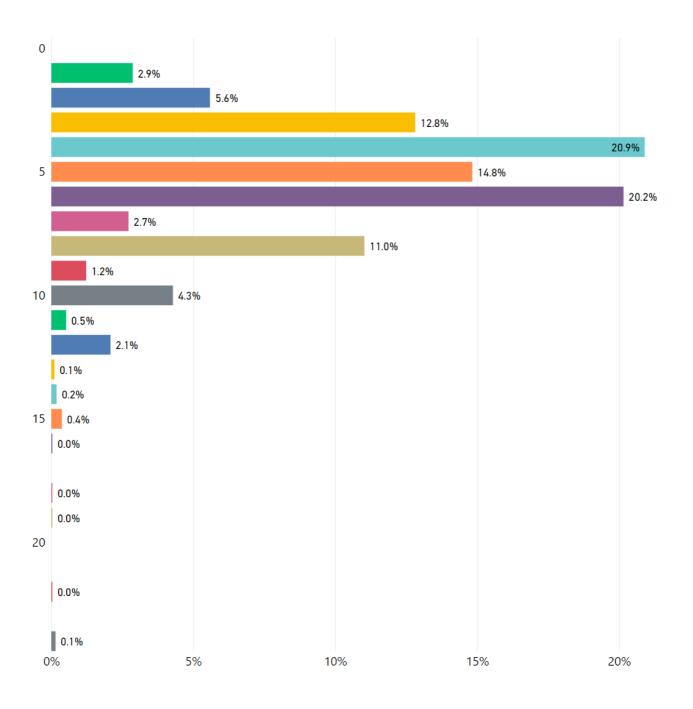
The average across all survey participants was 12.35 days per season.



What is the average number of hours per day you fish this river?

Answered: 2684

The average across all respondents is 5.39 hours per day.

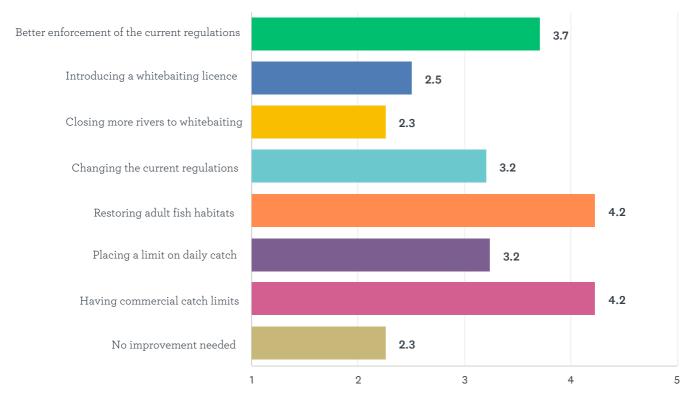


Q8. Do you agree that the following things are needed to improve the whitebait fishery?

Answered: 1,274 Skipped: 0

Responses were on a scale of 1 to 5 where 1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly agree.

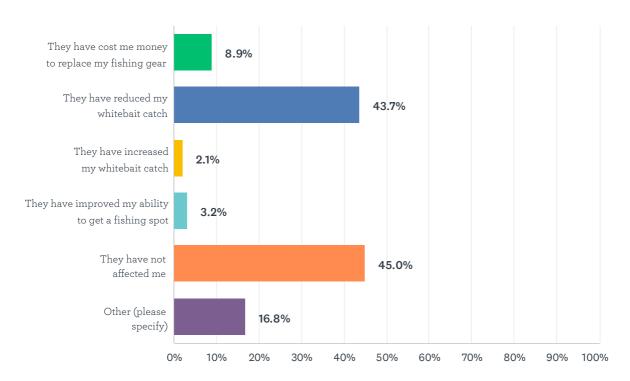
The figure shows average scores and the table shows response category splits.



	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE	TOTAL
Better enforcement of the current regulations	8.1% 103	7.2% 92	23.3% 297	28.3% 360	33.1% 422	1,274
Introducing a whitebaiting licence	36.6% 466	18.7% 238	16.2% 206	14.1% 180	14.4% 184	1,274
Closing more rivers to whitebaiting	37.0% 471	26.1% 332	19.5% 248	9.3% 118	8.2% 105	1,274
Changing the current regulations	16.1% 205	15.0% 191	23.3% 297	23.2% 295	22.4% 286	1,274
Restoring adult fish habitats	2.1%	2.0% 25	14.4% 184	33.4% 426	48.0% 612	1,274
Placing a limit on daily catch	18.4% 234	14.9% 190	17.1% 218	23.5% 299	26.1% 333	1,274
Having commercial catch limits	6.9% 88	4.8% 61	8.3% 106	18.3% 233	61.7% 786	1,274
No improvement needed	33.2% 423	25.4% 323	28.3% 361	8.3% 106	4.8% 61	1,274

Q9. New whitebaiting regulations were introduced in 2021. How have these regulations impacted your whitebaiting experience? (Tick all that apply)



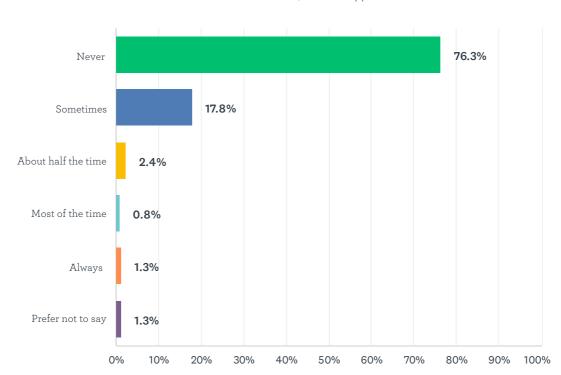


See Appendix for 'Other' comments

ANSWER CHOICES	RESPONSES	
They have cost me money to replace fishing gear	8.9%	113
They have reduced my whitebait catch	43.7%	557
They have increased my whitebait catch	2.1%	27
They have improved my ability to get a fishing spot	3.2%	41
They have not affected me	45.0%	573
Other (please specify)	16.8%	214
Total Respondents: 1,274	119.7%	1525

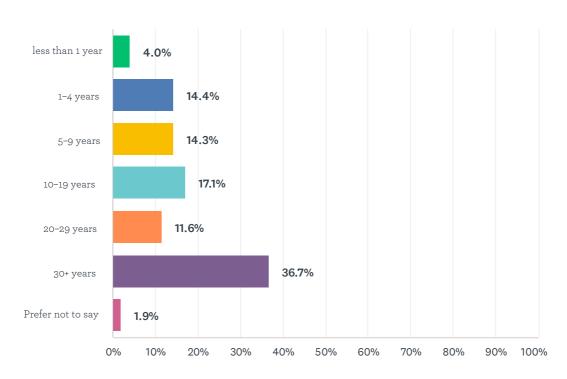
Q10. Do you ever sell or trade the whitebait that you catch?





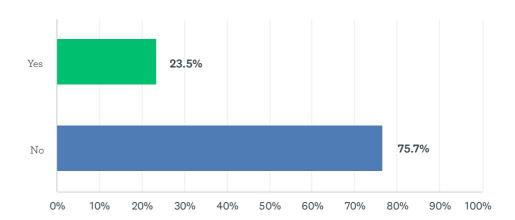
Q11. How long have you been whitebaiting?

Answered: 1,274 Skipped: 0



Q12.A. In the last five years, have you paid for accommodation while whitebaiting?

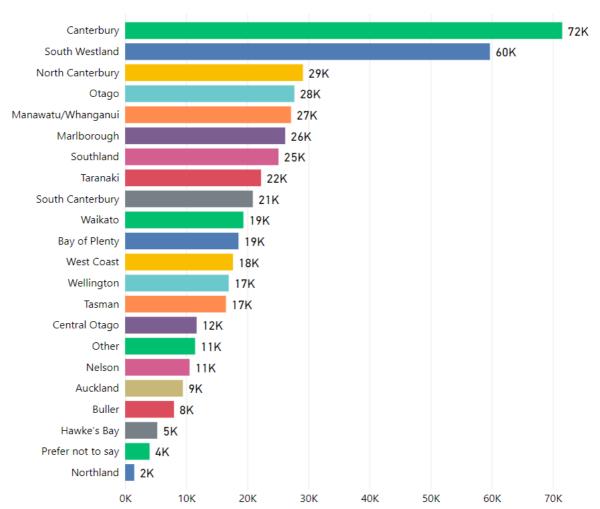
Answered: 1,274 Skipped: 0

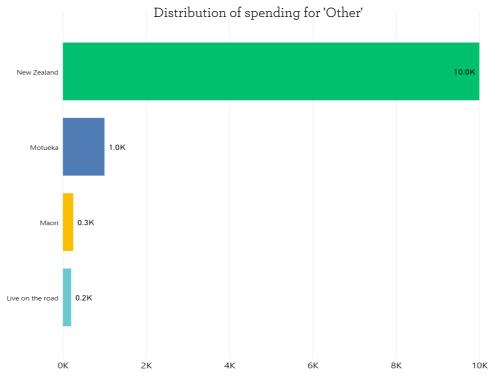


Q12.B. How much in general do you spend each season on accommodation, travel and food costs?

Answered: 259 Skipped: 1,015

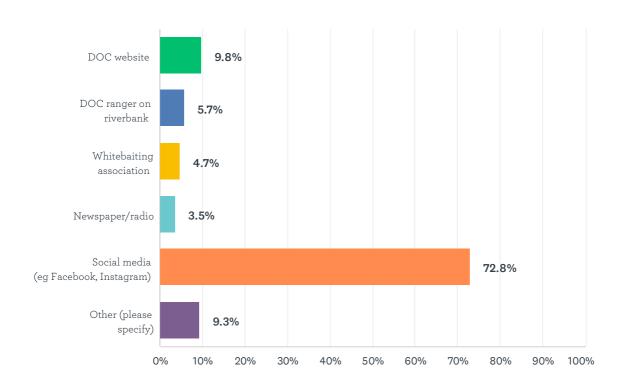
Of the participants who indicated they spent money on accommodation, travel and food costs, the average spend was \$1675, with a total revenue of \$461,000.



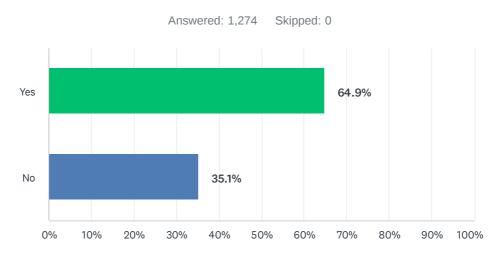


Q13. How did you hear about this survey? (Tick all that apply)

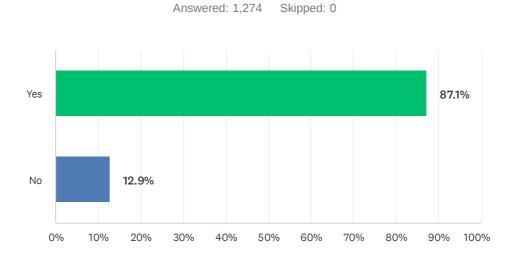
Answered: 1,274 Skipped: 0



Q14.A. Are you willing to provide some details (email address or telephone number) that could be used by the department to contact you for feedback on the whitebait fishery in the future? Your contact details will not be linked to your survey responses or made public.



Q15. If you have opted-in to the prize draw, the contact details you provide for that draw will only be used for that purpose. Once the prize has been drawn, those contact details will be deleted. Would you like to enter the prize draw for a Hunting & Fishing voucher valued at \$100?



Q21 Before submitting your response, do you have any additional information you would like to add on your opinion of the Whitebait fishery in New Zealand?

Answered: 193 Skipped: 1,081

See individual responses: DOC-xxxxxx

Appendix

Online and paper based questionnaires



Perceptions of the Aotearoa New Zealand whitebait fishery in 2022 – survey

You are invited to participate in a survey on the perceptions of the Aotearoa New Zealand whitebait fishery in 2022. This research is being conducted by the Department of Conservation Te Papa Atawhai (DOC).

What is the purpose of this research?

This research will gather baseline data to describe the whitebait fishery in Aotearoa New Zealand in 2022. The data will help identify the issues of most concern to whitebaiters and inform future whitebait fishing practices.

Why have I received this invitation?

You are invited to participate in this research because you have some involvement with the whitebait fishery in Aotearoa New Zealand.

What is involved in participating?

Your participation is voluntary and anonymous, and any identifiable data will be kept confidential. The survey involves answering questions about your personal perceptions and experience in relation to the whitebait fishery. Completing the survey should take around 5–10 minutes. You can withdraw from the survey at any time.

What are the benefits of taking part in this research?

A potential benefit of taking part in this research is that you can choose to enter a prize draw to win a \$100 Hunting and Fishing voucher. The information gathered from the survey will also benefit the Aotearoa New Zealand whitebait fishery by providing direction to actively support a long-term sustainable fishery.

Are there any potential risks involved in this research?

There are no risks to participants in the research.

What if I change my mind during or after the survey?

You are free to withdraw at any time. However, because this is an anonymous survey, it will not be possible for you to withdraw your information once you have completed the survey.

What will happen to the information I provide?

Any identifiable data will be kept confidential. Aggregated data with no identifying information will be kept long-term and may be shared with other researchers in an online repository in keeping with open science practices. Any contact information provided will be isolated from the survey data and will not be linked with any responses you provide. All raw and identifiable data will be

stored on DOC's computer network in password-protected files.

If you have opted-in to the prize draw, the contact details you have provided for that draw, will only be used for that purpose. Once the prize has been drawn, those contact details will be deleted.

For more information, see the <u>DOC Privacy Statement</u> on the DOC website.

Will the results of the study be published?

The findings of this research will be used by the Department of Conservation for improving future fishery practices and regulations. The final research report will be available through the media, the DOC website and in DOC's engagement with the whitebaiting community.

Who can I contact if I have any questions or concerns?

If you have any questions about the research, please contact: whitebait@doc.govt.nz.

Please read and complete the following statement of consent before starting the survey.

* **Statement of consent** (please tick relevant box)

	Yes	No
I am aged 16 years or older		
I have read the study information and understand what is involved with participating in this survey	\bigcirc	\bigcirc
By completing the survey, I consent to participate in this survey		
I consent to participating in the prize draw	\bigcirc	
* Q1. What age group are you in?		
\$		
* Q2. What is your gender identity?		
○ Female		
○ Non-binary		
O Prefer not to say		

New Zealand European	☐ Tonga	an
☐ Māori	☐ Niuea	ın
Samoan	Chine	ese
Cook Island Māori	Indiar	٦
Fijian	Prefe	r not to say
Other (please specify)		
Q4. Which region do you liv Northland	Wellington	Canterbury
Northland	○ Wellington	○ Canterbury
	_	
Northland	○ Wellington	CanterburySouth Canter
○ Northland ○ Auckland	WellingtonTasman	CanterburySouth Canter
NorthlandAucklandWaikato	WellingtonTasmanNelson	CanterburySouth CanterCentral Otag
NorthlandAucklandWaikatoBay of Plenty	WellingtonTasmanNelsonMarlborough	CanterburySouth CanterCentral OtagOtagoSouthland
NorthlandAucklandWaikatoBay of PlentyGisborne	WellingtonTasmanNelsonMarlboroughBuller	CanterburySouth CanterCentral OtagOtagoSouthland
NorthlandAucklandWaikatoBay of PlentyGisborneHawke's Bay	WellingtonTasmanNelsonMarlboroughBullerWest Coast	CanterburySouth CantelCentral OtagOtago
 Northland Auckland Waikato Bay of Plenty Gisborne Hawke's Bay Taranaki 	 Wellington Tasman Nelson Marlborough Buller West Coast South Westland 	Canterbury South Cante Central Otag Otago Southland

* Q5. What is your income?						
O Less than \$20		\$100,000	\$100,000-\$120,000 per year			
\$20,000-\$40	○ More than	More than \$120,000 per year				
\$40,000-\$60,000 per year			Retired			
\$60,000-\$80		Unemploy	yed			
\$80,000-\$10	0,000 per yea	r	O Prefer not	t to say		
* Q6. How importan	it are the foll	owing reasons	for your white	haiting?		
Qo. How important		owing reasons	Tor your write	Marcinia.		
	Not at all important	Slightly important	Moderately important	Very important	Extremely important	
Social reasons (eg spending time with family and/or friends)	\circ	0	\bigcirc	0	0	
Recreational reasons (eg disconnecting from work, spending time in nature)	0	\circ	\bigcirc	0	0	
Commercial reasons (eg to make money/sell whitebait)	\bigcirc	0	\circ	0	0	
To feed myself and/or my family/friends	\bigcirc	\bigcirc	\bigcirc	\circ	\bigcirc	
* Q7.A. In the last five years , where have you been whitebaiting? (Please record up to 5 rivers)						
River 1						
River 2						
River 3						
River 4						
River 5						

* Q7.B. For each of your stated rivers, please answer the following questions:

R	egion name	What type of net did you use?	Do you fish from a registered	What is the average number of days per season you fish this river?	average number of hours per
River 1	\$	\$	\$	\$	\$
River 2	\$	\$	\$	\$	\$
River 3	\$	\$	\$	\$	\$
River 4	\$	\$	\$	\$	\$
River 5	\$	\$	\$	\$	\$

^{*} Q8. Do you agree that the following things are needed to improve the whitebait fishery?

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Better enforcement of the current regulations	\circ	\bigcirc	0	\bigcirc	\circ
Introducing a whitebaiting licence	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\circ
Closing more rivers to whitebaiting	\circ	\bigcirc	\circ	\circ	\circ
Changing the current regulations	\circ	\circ	\circ	\circ	\circ
Restoring adult fish habitats	\bigcirc	\bigcirc	\circ	\circ	\bigcirc
Placing a limit on daily catch	\bigcirc	\bigcirc	\circ	\circ	\circ
Having commercial catch limits	\circ	\circ	\circ	\circ	0
No improvement needed	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc

* Q9. New whitebaiting regulations were introduced in 2021. How have these regulations impacted your whitebaiting experience? (Tick all that apply)
☐ They have cost me money to replace fishing gear
They have reduced my whitebait catch
They have increased my whitebait catch
They have improved my ability to get a fishing spot
They have not affected me
Other (please specify)
* Q10. Do you ever sell or trade the whitebait that you catch?
○ Never
○ Sometimes
About half the time
○ Most of the time
○ Always
O Prefer not to say
* Q11. How long have you been whitebaiting?
○ less than 1 year
○ 1-4 years
○ 5–9 years
○ 10-19 years
O 20–29 years
○ 30+ years
O Prefer not to say

* Q14.A. Are you willing to provide some details (email address or telephone number) that could be used by the department to contact you for feedback on the whitebait fishery in the future?

Your contact details will not be linked to your survey responses or made public.

O Yes

O No



Perceptions of the Aotearoa New Zealand whitebait fishery in 2022 – survey

Q14.B. You have agreed to provide some contact details for feedback on the whitebait fishery in the future, please fill in the following fields:

Name	
Phone number	
Email address	

* Q15. If you have opted-in to the prize draw, the contact details you provide for that draw will only be used for that purpose. Once the prize has been drawn, those contact details will be deleted.

Would you like to enter the prize draw for a Hunting & Fishing voucher valued at \$100?

() Yes

O No



Perceptions of the Aotearoa New Zealand whitebait fishery in 2022 – survey

Please enter your contact details to be in the draw to win a Hunting & Fishing voucher:

Thank you for completing the survey. Please click '**Done**' to submit your survey.

The findings of this research will be used by the Department of Conservation Te Papa Atawhai for improving future fishery practices and regulations. The final research report will be available through the media, the DOC website (www.doc.govt.nz) and in DOC's engagement with the whitebaiting community.

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What are the benefits of taking part in this research?

A potential benefit of taking part in this research is that you can choose to enter a prize draw to win a \$100 Hunting and Fishing voucher. The information gathered from the survey will also benefit the Aotearoa New Zealand whitebait fishery by providing direction to actively support a long-term sustainable fishery.

Are there any potential risks involved in this research?

There are no risks to participants in the research.

What if I change my mind during or after the survey?

You are free to withdraw at any time. However, because this is an anonymous survey, it will not be possible for you to withdraw your information once you have completed the survey.

What will happen to the information I provide?

Any identifiable data will be kept confidential. Aggregated data with no identifying information will be kept long-term and may be shared with other researchers in an online repository in keeping with open science practices. Any contact information provided will be isolated from the survey data and will not be linked with any responses you provide.

All raw and identifiable data will be stored on DOC's computer network in password-protected files.

If you have opted-in to the prize draw, the contact details you have provided for that draw, will only be used for that purpose. Once the prize has been drawn, those contact details will be deleted.

Will the results of the study be published?

The findings of this research will be used by the Department of Conservation for improving future fishery practices and regulations. The final research report will be available through the media, the DOC website and in DOC's engagement with the whitebaiting community.

Who can I contact if I have any questions or concerns?

If you have any questions about the research, please contact: whitebait@doc.govt.nz.

This research is in accordance with the guidelines laid down in DOC's Social Research Policy.

Please read and complete the following statement of consent before starting the survey.

Statement of consent (please tick relevant box)

	Yes	No
I am aged 16 years or older		
I have read the study information and understand what is involved with participating in this survey		
By completing the survey, I consent to participate in this survey		
I consent to participating in the prize draw		
Signature:		
Date:		

Te Kāwanatanga o Aotearoa New Zealand Government





Q4 . Which region do you live in outside of the whitebait season?	
Northland Auckland Waikato Bay of Plenty Gisborne Hawke's Bay Taranaki Manawatu/Whanganui Wellington Tasman	
Nelson Marlborough Buller West Coast South Westland North Canterbury Canterbury	
South Canterbury Central Otago Otago Southland Prefer not to say Other (please specify)	
Q5. What is your income?	
Less than \$20,000 per year \$20,000-\$40,000 per year \$40,000-\$60,000 per year \$60,000-\$80,000 per year \$80,000-\$100,000 per year \$100,000-\$120,000 per year More than \$120,000 per year Retired	
	whitebait season?





Prefer not to say

Q6. What are the reasons you go whitebaiting and how important are these to you? Tick one b o	box in each row
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	NOT AT ALL IMPORTANT	SLIGHTLY IMPORTANT	MODERATELY IMPORTANT	VERY IMPORTANT	EXTREMELY IMPORTANT
Social reasons (eg spending time with family and/or friends)					
Recreational reasons (eg disconnecting from work, spending time in nature)					
Commercial reasons (eg to make money/sell whitebait)					
To feed myself and/or my family/friends					

Q7. In the last five years, where have you been whitebaiting, what type of net did you use and how many days did you fish there?

River	Region	What type of net do you use in this river? (eg scoop, set, sock, drag, box, net with screen)	Do you fish from a registered stand on this river?	What is the average number of days per season you fish this river?	What is the average number of hours per day you fish this river?

Q8. Do you agree that the following things are needed to improve the whitebait fishery? Tick **one box** in each row.

	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
Better enforcement of the current regulations					
Introducing a whitebaiting licence					
Closing more rivers to whitebaiting					
Changing the current regulations					
Restoring adult fish habitats					
Placing a limit on daily catch					
Having commercial catch limits					
No improvement needed					

Q9. New whitebaiting regulations were introdu in 2021. How have these regulations impacted whitebaiting experience?		Q12a. In the last five years, have you paid for accommodation while whitebaiting?	
They have cost me money to replace fishing gear They have reduced my whitebait catch They have increased my whitebait catch They have improved my ability to get a fishing spot They have not affected me Other		No Yes If yes was ticked go to Q12b. Q12b. How much in general do you spend each season on accommodation, travel and food costs Q13. How did you hear about this survey?	s?
Q10. Do you ever sell or trade the whitebait the you catch?	nat	DOC website DOC ranger on riverbank	
Never Sometimes About half the time Most of the time Always Prefer not to say		Whitebaiting association Newspaper/radio Social media (eg Facebook, Instagram) Other	
Q11. How long have you been whitebaiting?		Thank you for completing the survey. The findings of this research will be used by the Department of Conservation	
Less than 1 year 1–4 years 5–9 years 10–19 years 20–29 years 30+ years Prefer not to say		Te Papa Atawhai for improving future fishery practices an regulations. The final research report will be available throthe media, the DOC website (www.doc.govt.nz) and in Dengagement with the whitebaiting community. If you have any questions regarding this survey, please send an emai whitebait@doc.govt.nz. Please place the survey in the attached Freepost envelope and proceed to: The Whitebait Team, Aquatic Unit, Department of Conservation National Office, PO Box 10420, Wellington 6140.	nd bugh DOC's e il to

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Q14. Are you willing to provide some details (email address or telephone number) that could be used by the

department to contact you for feedback on the whitebait fishery in the future?

Phone number __

Email address ____