The relationship between marine tourism and marine protection:

A baseline study of Akaroa, New Zealand



Prepared by:
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LEaP Research Paper No. 25

June 2014

Land Environment & People





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ISSN 2230-4207 (online) ISBN 978-0-86476-349-5 (online)

Lincoln University, Canterbury, New Zealand

Acknowledgements

This research was undertaken as a co-sponsored research project with Lincoln University and the Akaroa Harbour Marine Protection Society. Additional funding was provided by: Rod Donald Banks Peninsula Trust, Friends of Banks Peninsula, and Akaroa Civic Trust.

The authors wish to thank the following individuals and groups for their assistance with this project. Firstly, the authors would like to thank those marine tourism visitors in Akaroa who participated in the questionnaire survey component of this study. The authors would also like to acknowledge those Akaroa marine tourism operators and business owners, and the Chairperson of Ngāi Tahu Te Rūnanga o Ōnuku, who committed their time to participate in the interviews. Each provided thoughtful responses, and contributed important insights about the relationship between marine tourism and marine protection in Akaroa. The authors would like to thank Suky Thompson (Akaroa Harbour Marine Protection Society) for her invaluable assistance and expertise provided during the course of this research project.



Looking over Akaroa Harbour from Summit Road

Recommended citation:

Rose, J.S., Shone, M.C., & Espiner, S. (2014). *The relationship between marine tourism and marine protection: A baseline study of Akaroa, New Zealand*. Centre for Land, Environment and People. Research Paper No. 25. Lincoln University, Canterbury, New Zealand.

Cover Photograph: Akaroa Harbour and town from Lighthouse Road hilltop (photo credit: all photos in this research paper are by Jacqueline Suzanne Rose)

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Series URL: http:hdl.handle.net/10182/3410

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1 Introduction

Nature cruises and marine eco-tourism are primary attractions of Akaroa, one of Canterbury's most popular tourism destinations, and more recently cruise ship port. Each of the last four decades have brought forth a new marine protection measure and increased marine tourism activity to the small town of Akaroa. A variety of marine protection measures are now in place in the area, including a Marine Mammal Sanctuary that came into effect in 1988; Pōhatu Marine Reserve, a 'no-take' reserve on the outer coast that came into effect in 1999; and an Akaroa Harbour Taiāpure — a community-based fishery management model and committee that regulates fisheries through co-management with local Māori, established in 2006. In addition to these measures, a new marine reserve — the *Akaroa Marine Reserve* — has been formally approved by the Minister of Conservation and is due to be enacted in June 2014.

The Akaroa Marine Reserve will be 475 hectares in size, and will be located on the southeast corner of the Akaroa Harbour. Included in this Reserve is the area surrounding Dan Rogers Bluff. It is important to note that although this new marine reserve was approved by government in April 2013, it was not yet in place at the time of this study. It is due to be enacted by parliament on 8 June 2014. The application for the Akaroa Marine Reserve has created significant debate within the Akaroa community, as many customary and recreational fishers who utilise this marine environment appear to view this 'new' reserve as either unnecessary or overly restrictive.

This study is intended, therefore, to act as a baseline study and 'capture' visitor *and* operator perspectives on the link between marine tourism and marine protection measures at a time when this issue is likely to be, at least for marine tourism operators, both prominent and salient. See Figure 1 below for a location map of marine protection measures in Akaroa Harbour and surrounding area.

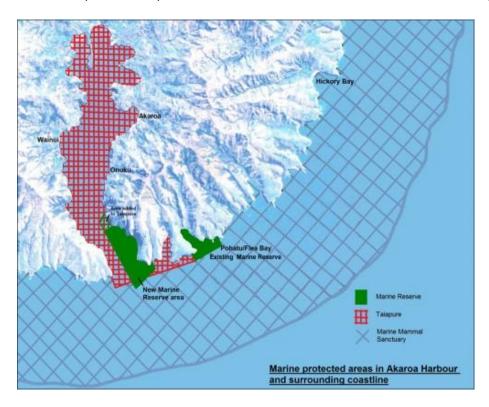


Figure 1: Location map of marine protection measure in Akaroa Harbour and surrounding area (Source: Rod Donald Banks Peninsula Trust)

1.1 Research objectives

This study examines how marine protection measures are used to promote Akaroa and its marine tourism products, and the awareness of these protection measures among Akaroa's visitors, before and after participating in a marine tourism activity. This includes visitor perceptions of how the marine protected areas have influenced tourists' experiences, the contribution of marine tourism to the local economy, and how the marine protection measures are perceived among Akaroa marine tourism business operators as having contributed to the tourism industry. Perceptions of the local Māori rūnanga – Ngāi Tahu Te Rūnanga o Ōnuku – about marine protection and tourism in Akaroa are also examined. Set within this methodological context, this project seeks to provide a snapshot of the role that marine protection measures play in attracting, educating and contributing to the experience of visitors to Akaroa during the summer holiday season in December 2013 to January 2014.

This study is intended to provide baseline data on the various marine protection measures in the Akaroa Harbour and adjacent areas just prior to the introduction of the new Akaroa Marine Reserve. These data, and the data collection methods described in this report, will enable the study to be replicated in the future so that any changes to visitor and operator perceptions and destination promotion can be tracked. This is of salience, given the research was undertaken prior to the enactment of the Akaroa Marine Reserve. As such, the influence of this Reserve on visitor and operator perceptions can be inferred in future iterations of this research. The baseline data also provide an indication of the socio-economic impact of marine protection measures and the economic value of marine-related tourism that can be used by future researchers to gauge the contribution to Akaroa's economy over time.

2 Background

2.1 What are the various marine protection measures in Akaroa?

There are many similarities, differences and overlap between various measure protection measures in Akaroa, including the function, level of protection and enforcement of each measure. A brief history of each different measure is given here. The New Zealand Minister of Conservation is responsible for a range of coastal functions under the Resource Management Act of 1991. Other relevant legislation includes the Marine Mammals Protection Act of 1978, which requires the Department of Conservation (DoC) to protect and manage marine mammals, and the Marine Mammals Protection Regulations of 1992, which regulate human contact and behaviour with marine mammals by commercial operators and other persons in order to prevent harmful effects on marine mammals. The Ministry of Primary Industries is responsible for administering catch limits and fishing regulations.

2.1.1 Ongoing: Ministry for Primary Industries (recreational fishing and shellfish limits)

The Ministry for Primary Industries is responsible for setting and enforcing recreational fishing rules. These rules are intended as a tool to keep New Zealand's fisheries sustainable, ensuring they can be enjoyed by future generations. Recreational fishing rules cover:

- Bag and catch limits
- Potting and netting methods
- Equipment
- Restricted and closed areas

The rules are set by region and apply to all fishers in all areas of New Zealand waters. The Akaroa and Banks Peninsula area is within the South East Fishery Management Area (Ministry for Primary Industries, 2013a). Outside the Taiāpure (see below for details), the Ministry of Primary Industries is responsible for the South East Fishery Management Area, which was established to regulate the daily allowable catch limits and sizes and prohibit the sale of recreational catch. The Ministry is also

responsible for the specific regulations within the Taiāpure, and co-operates with DoC over the management of the marine reserve and Marine Mammal Sanctuary. For example, within the Taiāpure, one may take no more than three Moki, three Blue Cod or three Butterfish, and the take of seahorses is prohibited. Whereas outside the Taiāpure and within the South-east Fishery Management Area, these limits are less stringent, with a 'take' of 30 Blue Cod, 15 Moki and 15 Butterfish, as well as the take of seahorses, being permitted. The South East Fishery Management Area prohibits 'set-netting' on the east coast of the South Island to a distance of four nautical miles offshore, with the exception of special nets for flounder, which are permitted from April to September, in designated areas of the upper reaches of Akaroa Harbour (refer to Ministry for Primary Industries, 2013a, for more details).

2.1.2 1988: Banks Peninsula Marine Mammal Sanctuary

The Banks Peninsula Marine Mammal Sanctuary was created in 1988, and encompasses approximately 413,000 hectares and covers 389.31 kilometres of coastline. It extends from the mouth of the Rakaia River to the mouth of the Waipara River, and out to sea 12 nautical miles from the coast. The main fisher restrictions in place within the sanctuary are:

- A year round ban on amateur set netting
- Seasonal set netting for flounder is permitted in the designated Flatfish areas from 1 April to 30
 September
- There are also restrictions on commercial set netting and trawling
- Fishers are also encouraged to respect the Amateur Fisheries Regulations and Banks Peninsula Marine Mammal Sanctuary Regulations.

The Banks Peninsula Marine Mammal Sanctuary is administered by DoC, and was created in 1988. It is New Zealand's first marine mammal sanctuary, and was created around Banks Peninsula to protect the endangered Hector's dolphins (*Cephalorhynchus hectori*) from by-catch in set nets. Banks Peninsula is identified by DoC as a hotspot for Hector's dolphin on the east coast of the South Island. Its many bays and harbours are an ideal habitat for Hector's dolphins and for many other marine mammals.

When the Sanctuary was first created in 1988, it covered an area of 1,140 square kilometres. It extended from Sumner Head to the Rakaia River, and out to a distance of four nautical miles. Twenty years later, in 2008, the Sanctuary's boundaries were extended as it was recognised that further efforts to protect Hector's dolphins were necessary. Significantly, Hector's dolphins are regarded as a key marine tourism attraction for the many domestic and international visitors who travel to Akaroa every year¹.



Figure 2: Hector's Dolphins in the Banks Peninsula Marine Mammal Sanctuary

¹ Source for this sub-section: Department of Conservation, 2014

2.1.3 1999: Pohatu Marine Reserve

The Pōhatu Marine Reserve was created in 1999, and is located in and around Flea Bay on the southeast side of Banks Peninsula. It sits within the Marine Mammal Sanctuary, and is 215 hectares in size. The Department of Conservation administers this Reserve under the provisions of the Marine Reserve Act 1971. The Pōhatu Marine Reserve was gazetted as the first marine reserve on the east coast of the South Island of New Zealand.

Recreational visits and use is encouraged in the Pōhatu Marine Reserve. This includes recreational activities such as: kayaking, boating, snorkelling, rock pooling in low tide, swimming and hiking. Rock lobster (crayfish) tagging is conducted by the DoC to monitor change in population and distribution over time and to help measure the impact of the Reserve. Seal colonies, blue penguins, yellow-eye penguins and white-flipper penguins are found and extensively researched in Pōhatu Marine Reserve. All of these species of wildlife form an important part of the suite of Akaroa marine tourism attractions.

Marine reserves currently provide the highest level of marine protection in New Zealand, and generally prohibit harvesting or human intervention. There are over 30 marine reserves in New Zealand's territorial waters, and these are managed by DoC. The main aim of a marine reserve is to create an area largely free of human impacts for the purpose of scientific study. Marine reserves may be established in areas that contain underwater scenery, natural features, or marine life of such distinctive quality, or so typical, beautiful or unique, that their continued preservation is in the national interest. The Marine Reserve Act was passed in 1971, and in 1975 the first marine reserve was created. They have been found to provide safe areas for marine life to "breed and seed", ultimately spilling over marine reserve boundaries to replenish the surrounding marine ecosystem.

2.1.4 2006: Akaroa Harbour Taiāpure

The Akaroa Harbour Taiapure was approved by the, then, Ministry of Fisheries and enacted in 2006. The Taiāpure covers 88 per cent of the Akaroa Harbour, and excludes the area of the Akaroa Marine Reserve application (see below for details regarding the Akaroa Marine Reserve) (New Zealand Government, 2014) and the commercial marine farms south of Wainui on its western side. This taiāpure, a community-based fishing management model, was established in 2006 to manage and conserve fisheries for future generations. A taiāpure, more generally, is a local fishery established in coastal waters that have special significance to iwi or hapu, either as a source of food or for spiritual or cultural reasons. The Taiāpure is administered by the Akaroa Taiāpure Management Committee, which was appointed by the Minister of Fisheries. It is co-managed with local Māori, representatives of the Akaroa community, and local organisations (Ministry for Primary Industries, 2013b). The Committee makes recommendations on fish and shellfish limits and prohibits all take from Onawe Peninsula. If species are in danger or recovering, the Taiāpure Management Committee can reduce or increase size and maximum daily limits. Non-compliance can result in fines and seizure of equipment and vessel. The Taiāpure covers the entire Akaroa Harbour and extends just outside the harbour to the southeast, excluding Pohatu Marine Reserve and the area proposed for Akaroa Marine Reserve. In 2009 the Committee introduced the first protection measures - a reduction in 'bag limits' (i.e., recreational fishing and shellfish limits) - over the standard limits set by the Ministry for Primary Industries.

The main purpose of a taiāpure is to manage, conserve and enhance fisheries resources for present and future generations to use and enjoy. 'Taiāpure', translated literally as "a coastal patch" is one of the means by which the government has acknowledged that Maori, as tangata whenua, are entitled to have rangatiratanga over their fisheries (amongst other natural resources), as guaranteed by Article II of the Treaty of Waitangi. To be established, an area with clearly defined boundaries must be proposed and the reasons for importance, relationship of the local people to the area, current utilisation by commercial and non-commercial fishing, the food species that are of particular importance and proposals for improved sustainable utilisation, must all be clearly described. If the

Minister of Fisheries, in consultation with the Minister of Maori Affairs, considers the proposal to be valid, it is notified as a proposal in the Gazette and in local newspapers applicable to the area notified.

The Minister, on the nomination of the local Maori community, appoints a committee of management. The committee of management may propose regulations for the sustainable management of the resources in the area to the Minister of Fisheries and if he approves them, they must apply equally to all people and nobody can be refused entry or be required to leave a Taiāpure-local fisheries management area by virtue of race, colour or creed. In practice, this has the potential to allow local coastal communities to have a great deal of control over the management of their local seafood resources of their area and at the same time, to acknowledge an important component of the nation's founding document (i.e., The Treaty of Waitangi).

2.1.5 2014: Akaroa Marine Reserve

The Minister of Conservation formally approved the creation of the Akaroa Marine Reserve in April 2013. Importantly, this Reserve will be gazetted and come into effect on June 8, 2014 'World Oceans Day'. As such, at the time of this study the Reserve was not yet in force. The proposed Akaroa Marine Reserve will encompass 475 hectares in the southeast area of the Akaroa Harbour. This constitutes approximately ten per cent of the total harbour area, alongside the Dan Rogers Bluff and Cathedral Cave, spectacular scenic features and wildlife habitats visited on most marine tourism cruises. The relevance of the Reserve to marine tourism is that it includes the main area that most marine tourism operators visit, both because of the scenery and nesting habitats. The Reserve will sit beside the Akaroa Harbour Taiāpure, and will provide a unique opportunity for understanding fisheries and environmental-related activities between the two control mechanisms (New Zealand Government, 2014). The Reserve will be the fortieth marine reserve in New Zealand, and only the second to be established on the east coast of the South Island (the other marine reserve being the above-noted Pōhatu Marine Reserve).



Figure 3: Dan Rogers Bluff in the forthcoming Akaroa Marine Reserve

The application for a marine reserve near Dan Rogers Bluff in Akaroa was first presented in January 1996. The applicant was the Akaroa Harbour Marine Protection Society. The application was contentious from the outset, with recreational fishers, commercial fishers and Ngāi Tahu (the Māori iwi within whose tribal territory the proposed marine reserve is located) all making submissions to the Minister in response to the proposal. The Minister of Conservation put the application on hold in 1999 with the agreement of all parties, pending the outcome of an application for a taiāpure by Ngāi Tahu (the Akaroa Harbour Taiāpure noted above). The process recommenced in 2006, after the taiāpure was approved, with a further round of public notification because of the long delay since the original filing of the application. Between 2006 and 2013, a succession of Ministers of Conservation met with the applicant, Ngāi Tahu and other stakeholders to get a better understanding of the respective parties' concerns.

In August 2010, Minister Kate Wilkinson declined the application for the Reserve on recreational grounds; upholding that, on balance, the marine reserve would interfere unduly with, or adversely affect, existing use of the area for recreational fishing purposes. The applicants sought a judicial review of her decision in the High Court of New Zealand and the decision was quashed on the grounds that the benefits of the Reserve outside the Reserve area itself needed to be considered as well. Subsequently, the Reserve was formally approved in April 2013 by the next Minister of Conservation, Dr. Nick Smith, with an adjustment to the northern boundary reducing the reserve size by 55ha to 475ha "to take into account concerns from customary and recreational fishers" (New Zealand Government, 2013). In announcing this approval, Dr Smith – noted:

Having considered the application and relevant information, I am satisfied that the benefits of the proposed reserve outweigh its detriments (Department of Conservation, 2013.

Minister Smith, in this same announcement, also noted the tourism-related benefits of the marine reserve:

As well as benefitting the harbour's rich marine wildlife, including Hector's dolphins and white flippered penguins, the spectacular reserve will enhance Akaroa's nature-based tourism – a vital part of the area's economy.

As noted above, the Akaroa Marine Reserve has been formally approved but has not yet been created. It is scheduled for enactment on 8 June 2014.

2.2 How marine protection measures are used to market Akaroa

Prior to conducting the visitor surveys and marine tourism operator interviews, a review and summary of the existing operators and associated marine tourism products offered in Akaroa was conducted. This included a review of how the existing marine protection measures are featured or used to market Akaroa as a destination. This was conducted by collecting and examining all of the marine tourism flyers and brochures available at the i-Site and Adventure Centre in Akaroa. Marine tourism business websites were also examined to identify whether any of the protection measures were mentioned in the online marketing materials.

Table 1 lists the marine tourism operators who were known to be operating in Akaroa at the time of this study. Of all marketing materials examined in the onset of this study in November 2013, Pōhatu Penguins Tours and Sea Kayaking is the only tourism operator that references marine protections in printed and online marketing materials. This is likely because they operate tours from Akaroa to Pōhatu Marine Reserve where they lead penguin tours and kayaking in the marine reserve.

Table 1: Marine tourism business operators sampled (n=12)

BUSINESS NAME	OPERATOR TYPE	OPERATOR WEBSITE	MARKETS MARINE PROTECTION?
A-Class Sailing Akaroa	harbour sailing cruise	www.aclassailing.co.nz	No
Akaroa Adventure Centre	wildlife kayaking, paddleboard, bike hire	http://www.akaroa.com/activities/akaroa- adventure-centre	No
Akaroa Dolphins Nature Cruises	nature harbour cruises; private charter; kayak, canoe & boat hire	www.akaroadolphins.co.nz	No
Akaroa Jetboat Adventures	jet boat adventure	www.akaroajet.co.nz	No
Akaroa Kayaks	guided sea kayak safari & wildlife tour	www.akaroakayaks.com	No
Akaroa Fishing and Dive Charters	fishing and dive charter	www.akaroafishing.co.nz	No
Black Cat Cruises	harbour nature cruises, swimming with dolphins	www.swimmingwithdolphins.co.nz	No
Coast Up- Close Scenic and Wildlife Cruises	fishing and social charters	www.coastupclose.co.nz	No
Fox II Sailing Adventure	sailing and wildlife cruise & private charter	www.akaroafoxsail.co.nz	No
Pōhatu Penguin Tours and Sea Kayaking	4WD scenic nature safari, kayaking	www.pohatu.co.nz	Yes
Onuku Farm Hostel - Swimming with Dolphins	swimming with dolphins	www.onuku.co.nz	No
Onuku Mafi's Kayak Trip	kayaking	www.mafiskayaktrip.co.nz	No

3 Research Methods

3.1 Part A: Visitor sampling and survey distribution

The study comprised two parts. The first part was a survey questionnaire distributed in-person to 106 Akaroa visitors primarily at the main wharf, main wharf park, Daly's Wharf and French Bay beach that targeted visitors exiting or waiting to participate in marine tours. The survey focused particularly on people who were visiting Akaroa and participating in marine tourism activities during the busiest time of the year during Christmas and the summer school holidays between 20 December 2014 and 14 January 2014. The visitor questionnaires were distributed at peak times when marine tour operators were scheduled to arrive ashore after their tours and thirty minutes before they were scheduled to depart. The purpose of the visitor survey was to gain information about the awareness of the marine protection measures among Akaroa's visitors before and after their marine tourism experience.

3.1.1 The visitor questionnaire

The survey questionnaire, which included quantitative and qualitative dimensions, was designed in conjunction with Lincoln University Faculty of Environment, Society and Design and the Akaroa Harbour Marine Protection Society and was approved for use by the Lincoln University Human Ethics Committee. The questionnaire consisted of a mix of closed and open-ended questions and was organised in three sections to gain information about:

- 1. Marine tourism activities undertaken/planned and economic spending patterns
- 2. Decision-making about visiting Akaroa, including visitor awareness and understanding of marine protection and the extent to which the marine tourism opportunities attracted them to visit Akaroa.
- 3. The visitor survey respondent profile (residence, age, gender, type of visitor).



Figure 4: Akaroa Main Wharf (photo taken south of Daly's Wharf)

One person per group was asked to complete the questionnaire. In order to ensure a good cross section of respondents, a randomised sampling mechanism was employed which asked that the questionnaire be completed by every nth person 18 years of age and over who was participating, or planning to participate, in a marine tourism activity. The survey was self-completed. Respondents were given the opportunity to make any further comments they wished at the conclusion of the survey. Respondents were also given the opportunity to answer "I don't know," "Other;" and "None" to avoid forcing an inaccurate answer. A copy of the questionnaire and research information sheet can be found in Appendix A and Appendix B, respectively, of this report.

There were a number of challenges associated with gathering data from the visitor survey component of this study. The first challenge was that the weather was particularly inclement during large portions of the data collection period. This created unpleasant conditions which served to discourage the

participation of a large number of potential respondents. Moreover, the poor weather also led to the cancellation, on numerous occasions, of marine tourism activities on the harbour. The second challenge related to the lack of access to cruise ship passengers in the area surrounding the primary data sampling site: the Akaroa main wharf. This lack of access was created by the presence of a security guard in this area who, on multiple occasions, 'warned-off' the surveyor from approaching cruise passengers and soliciting their participation in the survey. Upon enquiry, Christchurch City Council officers (this council has municipal responsibility in the Banks Peninsula area) stated they were not only unaware of the presence of this security guard, but also of the contracting agency, organisation or individual(s) of this security guard. The effect, however, of the presence of this guard, was to greatly reduce the ability of the surveyor to include cruise passengers in the study.

3.2 Part B: Interviews with marine tourism business operators and Chairperson for Ngāi Tahu Te Rūnanga o Ōnuku

The second part of the study consisted of personal interviews with all twelve marine tourism operators known to be operating in Akaroa at the time of the study and an interview with the Chairperson for the Ngāi Tahu Te Rūnanga o Ōnuku. The purpose of the interviews was to document perceptions of the relationship between marine protection measures in Akaroa and marine tourism, including the economic aspects of marine tourism for their business or iwi and the level of visitor education about marine protection that takes place during the tours. A representative, owner, or primary marine tour operator (sometimes synonymous) from each business was personally interviewed in December 2013 or January 2014 at various locations in Akaroa, often aboard the tour vessel or at the business office.

Operator interviews consisted primarily of open-ended questions and were organised into four sections to gain information about:

- 1. Marine tourism operator profile: business-related details, including number of trips conducted per year, number of staff and customers served, and length of time operating in Akaroa.
- 2. Operator awareness of marine protection measures, including how the measures affect their business and which measure they feel is most effective.
- 3. How the operator incorporates marine protection measures into their products and tours, including what they tell their customers about marine protection, and the operator's perception of visitor's interest in the information shared.
- 4. How the operator perceives marine protection and its contribution to Akaroa's economy, including their perception about how marine tourism has changed over time, the value of marine protection and the new Akaroa Marine Reserve to their own commercial viability, as well as points of conflict regarding marine protection measures and additional comments.

The schedule of interview questions, research information sheet, and consent form can be found in Appendix C, Appendix D, and Appendix E, respectively, of this report.

3.2.1 Data analysis and reporting

The data from all surveys were entered into a Microsoft Excel spread sheet, coded, and transferred to Statistical Package for Social Sciences 20 (SPSS) to assist in the statistical data analysis. Open-ended questions were analysed to identify key themes and coded to facilitate statistical analysis. Data were analysed for frequencies and all results are reported in percentages, unless otherwise stated. In all instances n= the number of respondents answering that particular question. Where appropriate, further explanation is provided as to the missing responses. For example, some respondents were not required to answer all questions in the survey (e.g., if a respondent indicated 'haven't yet but will complete a marine tourism activity' in Question 1, they were advised to skip Questions 10 and 11). Some chose not to answer or skipped some questions or parts of questions.

4 Research Findings Part 1: Visitor survey

Of approximately 300 questionnaires solicited, a total of 106 questionnaires were completed by respondents during the survey period from 20 December 2013 to 14 January 2014. This represents an overall response rate of 35.3 per cent. A large number of visitors declined to take the survey for various reasons, including inability to speak or write English, time constraints and disinterest. The average time it took for respondents to fill out the survey was 8-10 minutes, but many took 20 minutes or more depending on the respondent's level of interest. Surveys took longer than anticipated because most people, once approached, did not stop walking to fill out a survey; it was often necessary to walk with them where they were headed to explain about the research. Once engaged, they wanted to sit down to complete the forms because of the length of the survey (2 pages, double-sided). Respondents were often directed to the park benches where collection of simultaneous surveys could be managed at a central point. Effort was made to be observant of people exiting tours and congregating at the park while waiting for their groups but the one-on-one attention often required reduced the number of potential participants.



Figure 5: Visitors exiting marine tours at Akaroa Wharf

The weather throughout the summer survey period was poor, consisting of frequent rain and high winds and often hail. Rough seas caused tours to be cancelled on nearly half of the scheduled survey dates. Persistent winds caused respondents to take longer to fill out the survey and rush through responses, skipping over sections that involved more thought and writing. Additionally, surveys were not permitted on the main wharf on cruise days to avoid potentially disturbing cruise ship passengers. These factors combined with inability and disinterest physically limited the ability to collect an anticipated 350 visitor surveys.

Due to the limited number of surveys collected, visitor surveys were also distributed at various hubs around Akaroa that promote marine tourism. For example, Chez la Mer Backpackers distributed surveys to their guests who participated in marine tourism activities, including sailing cruises, kayaking and harbour cruises. Mount Vernon Lodge distributed surveys to visitors attending weddings, functions and conferences who participated in marine tourism activities. Akaroa Dolphins distributed surveys to visitors who participated in their harbour cruises. Adventure Centre distributed surveys to visitors participating in self-guided kayak tours and harbour cruises. Finally, Pōhatu Penguins distributed surveys to visitors who participated in the guided kayak and penguin tours. In many cases, the number of respondents was low because of low visitor participation rates likely due to poor weather conditions during most of the season.



Figure 6: Gale-force winds and white-capped waves in Akaroa Harbour

In some cases, tour operators invited the researcher to attend tours where surveys were solicited. During tours, neither the business operator, tour guide, nor the researcher discussed the project or the intent to ask visitors to fill out a survey after the tour. The purpose of this discretion was to avoid evoking thought processes or drawing attention to marine protection, other than what is routinely communicated and received during a typical tour. This eliminated the potential for bias and misrepresentation of awareness in the survey responses.

It is acknowledged that this voluntary help from some marine tourism operators and local businesses could potentially bias the sample group and survey results, particularly if the assistance was performed by operators and businesses with an interest, or lack of, in marine protection. To offset potential bias, surveys at the main wharf were scheduled at times when tour operators who were not able to assist with the distribution of surveys were departing and returning from their tours. This allowed the researcher to capture a fairly even rate of visitor surveys across all tourism operators. In other words, precaution was taken to limit the number of surveys to equal proportions of visitors participating in marine tourism activities with each of the marine tourism operators.

The survey results are presented in four sections:

- 1. Visitor survey respondent profile
- 2. About the marine tourism activities undertaken or planned in Akaroa
- 3. Decision-making about visiting Akaroa and awareness of marine protection
- 4. Analysis of additional comments

Please note that data presented in this report include percentage data, as well as the actual number of respondents included in each of the findings. It is also important to note that any visitor-related data presented in this report should not be interpreted as representative of all visitors to Akaroa. This is because the relatively small sample size of the visitor survey portion of this study (n=106) precludes broad generalisation. Rather, the data contained within this report should be viewed as representative of the sample only (i.e., those individuals who answered the survey questionnaire), and not the wider visitor population.

4.1 Visitor survey: sample demographics and characteristics

Altogether, a total of 106 respondents answered the survey. These respondents represent a variety of nationalities, ages, gender, and visitor types. The majority of respondents were international visitors to Akaroa (64%; n=68). Of the 106 respondents who answered the survey, an overall sample profile is provided in Table 2.

Table 2: Overview of research sample profile

Visitor type	Overnight visitor (52%; n=55) Day visitor (26%; n=28) Cruise ship visitor (17%; n=18) Akaroa resident (5%; n=5)
Place of residence	Overseas (64%; n=68) Christchurch and Canterbury (26%; n=27) Elsewhere in New Zealand (10%; n=11)
Travel party	Travelling with family and friends (81%; n=86) Travelling alone (11%; n=12) Travelling in an organised group (8%; n=8)
Gender	Female (54%; n=57) Male (46%; n=49)
Age	18–50 years old (77%; n=81)

4.1.1 Visitor type

Of those who answered this question (n=104), the majority of respondents (52%; n=54) were overnight visitors to Akaroa (Figure 7). A further 26 per cent (n=27) were day visitors, 17 per cent (n=18) were cruise ship visitors and five per cent (n=5) were Akaroa residents. Within this sample of respondents, three per cent (n=3) identified themselves as being international visitors working for accommodation to stay in Akaroa for extended periods of time (this time period is generally for at least two weeks, but often longer). This small group of respondents is included in the 'overnight visitor' category of this question in the survey. Given the sample size and restrictions that prevented from sampling on cruise ship days, these numbers are not necessarily proportional to the actual number of visitor types in Akaroa. (See Question 17 in the visitor survey).

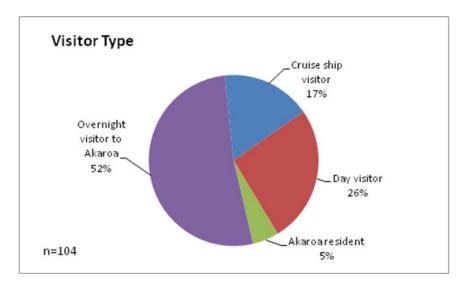


Figure 7: Visitor 'type' (n=104)

4.1.2 Place of residence, travel party and gender

Two-thirds of respondents identified themselves as international visitors (64%; n=67), with the remaining respondents being New Zealand residents (36%; n=38) (see Figure 8). Most respondents were travelling with friends and family (81%; n=85), with the remaining either travelling alone (11%; n=12) or with an organised group (8%; n=7). Overall, the gender distribution of the research sample was relatively even, although there were slightly more females (54%; n=57) than males (45%; n=49) included in the survey. Of those who were included in the research sample, a total of 24 per cent (n=25) were surveyed prior to Christmas 2013, and 76 per cent (n=81) were surveyed after Christmas 2013. (See Questions 14, 5, and 15 in the visitor survey).

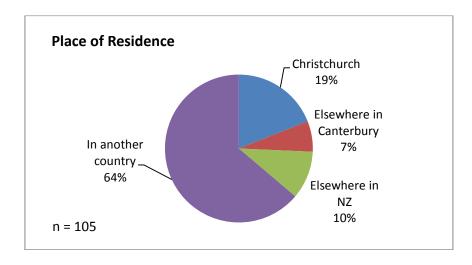


Figure 8: Place of residence (n=105)

4.1.3 Age of respondents

A total of 105 respondents provided information about their age. The visitor profile of these respondents indicates a relatively young group of visitors to Akaroa, with the majority of the total sample (77%; n=81) aged between 18 and 50 years. The remaining 23 per cent (n=24) of respondents were older than 50 years (Figure 9). (See Question16 in the visitor survey).

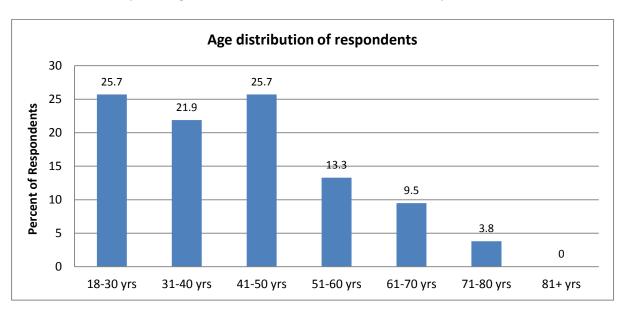


Figure 9: Age distribution of respondents (n=105)

4.2 About the marine tourism activities undertaken or planned in Akaroa

This section explores each respondent's level of participation in marine tourism activities. It includes questions about which marine tourism activity was undertaken or planned, how much respondents spent on marine tourism activities, as well as during his or her entire stay in Akaroa, and with whom they were doing the marine tourism activity. Of the 106 Akaroa visitors who completed the questionnaire, a total of 76 per cent (n=81) had already completed a marine tourism activity, with the remaining 24 per cent (n=25) intending to, but yet to complete, a marine-based tourism activity that day. Most visitors participated in harbour nature cruises (60%), kayaking (29%) and sailing cruises (16%) (see Figure 10). Some respondents participated in more than one marine tourism activity. (See Questions 1 and 2 in the visitor survey).

In regards to economic spending on marine tourism activities (see Figure 11), the average amount spent per person during their stay in Akaroa was \$73 (n=81). Excluding three outliers (\$175, \$200; and \$240), the average amount spent per person was \$67. This number is likely to reflect the high proportion of respondents who engaged in harbour cruises while in Akaroa (see Figure 4 above). The cost of these cruises is similar to the 'average spend' figures of between \$67-\$73 per visitor. Most respondents (80%; n=65) spent approximately \$145 per person for their total stay in Akaroa. Although there is insufficient data to draw conclusions about the overall economic impact of cruise ship passengers specifically (n=18) these cruise respondents generally spent between \$50–\$80 (83%; n=15). A small proportion of cruise ship passengers (17%; n=3) spent between \$145–\$175 on their marine tourism activities while in Akaroa. (See Questions 3 and 4 in the visitor survey).

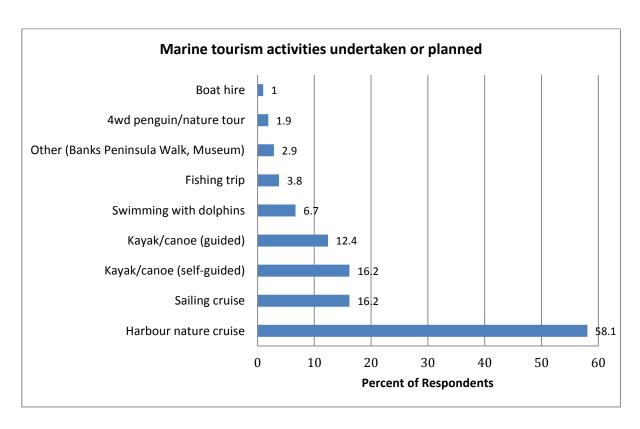


Figure 10: Marine tourism activities undertaken or planned by respondents (n=106)

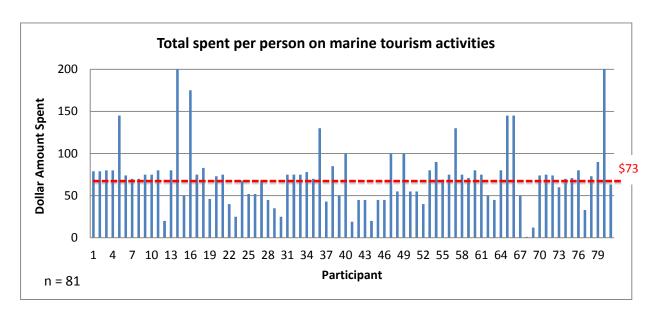


Figure 11: Total spending per person on marine tourism activities in Akaroa (n=81)

4.3 Respondent decision-making and awareness of marine protection

4.3.1 Importance of marine attractions in decision to visit Akaroa

Part three (Question 6) of the visitor survey asked respondents to measure the level of importance of possible attractions that influenced their decision to visit Akaroa (or, if they were a cruise ship visitor, to come ashore). Respondents were asked to circle one number on a scale from 1 ('not important at all') to 7 ('extremely important'), and were also given an 'I don't know' option. The results (see Figure 12) reveal that visitors are more interested in viewing scenery, marine life and dolphins than fishing and shopping. For example, respondents rated scenery (mean=6.2), marine life (mean=5.95), viewing Hector's dolphins (mean=5.89) and harbour boat trips (mean=5.25) as 'extremely important'. Conversely, fishing (mean=1.73) and shopping (mean=2.26) were rated 'not important'. (See Question 6 in the visitor survey).

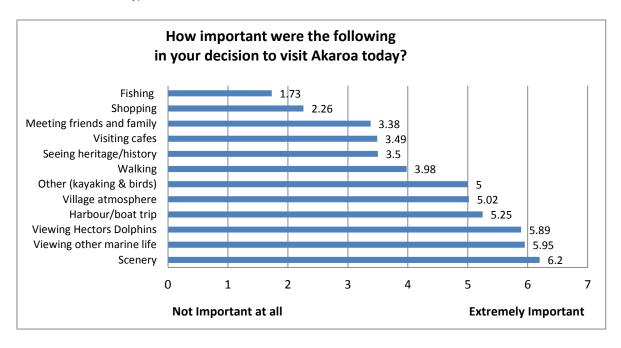
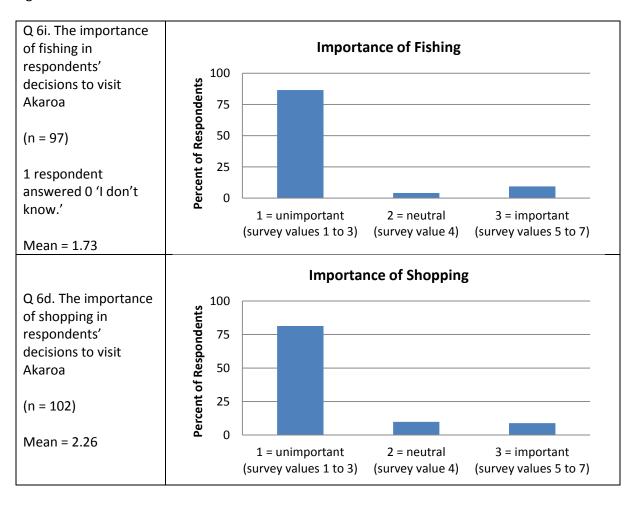


Figure 12: Importance of various attractions in visitors' decision to visit Akaroa (n=105)

The relatively small sample size of cruise ship passengers (n=18) means that there is insufficient data to perform sophisticated analyses on this particular cohort of respondents. This notwithstanding, when cruise passengers' decisions to come ashore were analysed using the existing data, cruise ship visitors' ratings of importance were similar to that of the entire survey sample. For example, the majority of cruise ship visitors rated scenery, viewing Hector's dolphins and marine life, harbour boat trips, and village atmosphere as 'extremely important' and fishing and shopping as 'not important'.

This data is consistent with data collected during marine tourism operator interviews indicating that fishing as a marine tourism activity (and commercial activity) has declined over the past several decades (see Part 2 of this report for analysis and discussion of these marine tourism operator interviews). It was also discovered during interviews that shops and cafes piggyback off of marine tourism activities, or in other words, marine tourism activities bring visitors to Akaroa who in turn become customers for local businesses, including shops and cafes. For ease of interpretation, the individualised findings of the specific questions asked of respondents are presented contiguously in Figure 13 below.



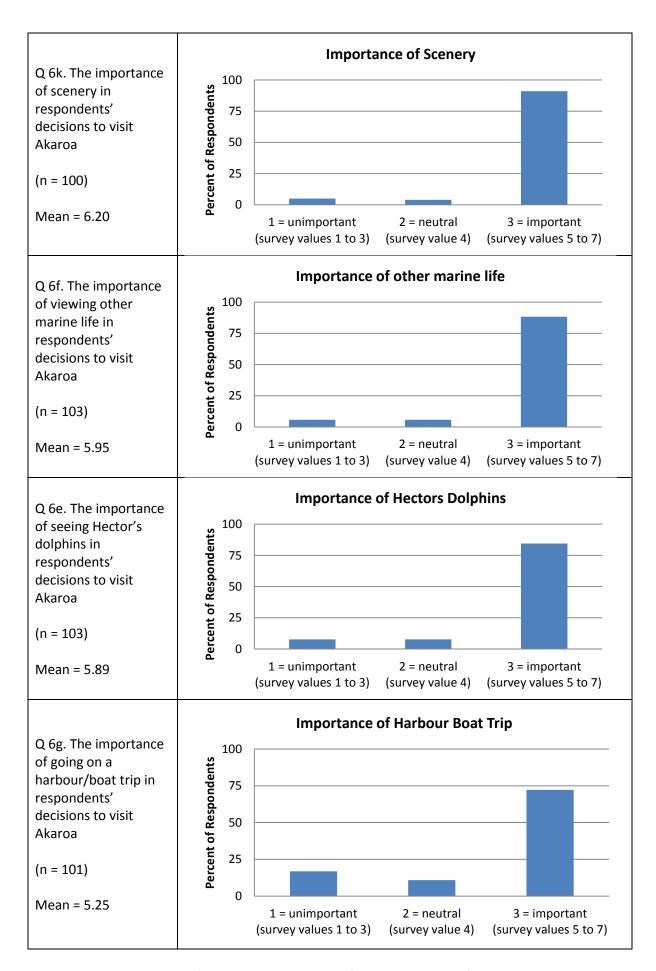


Figure 13: Individualised findings – attractions that influenced respondents' decision to visit Akaroa

4.4 Importance of attractions in decision to participate in a marine tourism activity

Part three (Question 7) of the visitor survey asked respondents to measure the level of importance of possible attractions that influenced their decision to participate in a marine tourism activity in Akaroa. Respondents were asked to circle one number on a scale from 1 ('not important at all') to 7 ('extremely important'). They were also given an 'I don't know' option. The results show similar results to those above, that visitors generally rated seeing marine life (mean = 6.03), viewing Hector's dolphins (mean = 6.03) and scenery (mean = 6.03) as 'extremely important'. Again, fishing (mean = 1.59) was rated 'not important', as was swimming with dolphins (mean = 1.59). Visiting a 'no-take' reserve (mean = 1.59) and marine protected areas (mean = 1.59) were considered by respondents to be less important than viewing marine life, dolphins and scenery (see Figure 14 for details).

Once again, the relative small sample size of cruise ship passengers (n=18) precludes sophisticated analyses. This notwithstanding, this particular cohort's decision(s) to undertake marine tourism appear to be very similar to that of the entire survey sample. For example, the majority of cruise ship visitors rated scenery, viewing marine life and Hector's dolphins, harbour boat trips and village atmosphere as 'extremely important' (survey values 5 through 7). All cruise respondents rated fishing as 'not important' in influencing their decision to undertake a marine tourism activity in Akaroa. Swimming with dolphins was bimodal, with cruise respondents rating it as either 'very important' (40%, n=6) or 'not important at all' (53%; n=8). Visiting a marine protected area was rated important by 65 per cent (n=11) and visiting a 'no take' reserve was rated important by 53 per cent (n=8) of cruise passenger respondents. (See Question 7 in the visitor survey).

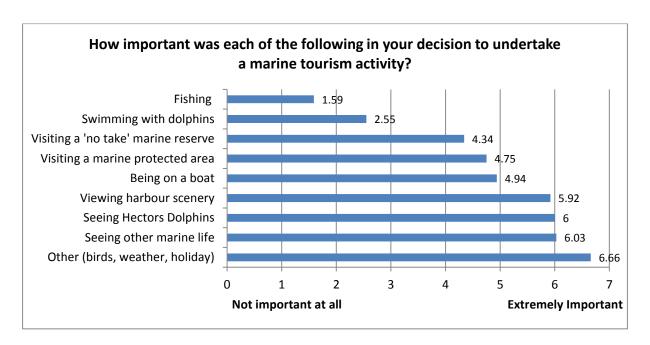


Figure 14: Importance of various items in respondents' decision to Undertake a marine tourism activity in Akaroa (n=105)

4.5 Importance of marine protection measures in decision to purchase marine tourism activity

Part three (Question 8) of the visitor survey asked respondents which, if any, of marine protection measures they were aware of when purchasing or booking their marine tourism activity (n=103). Respondents were provided a list of all marine protection measures in and around Akaroa and were given an option to select as many measures that apply and were given an option to select 'None' and

'Other.' The results reflect the percentage of cases per marine protection measure given the respondent's ability to select more than one case (see Figure 15). The most common selections made by respondents were 'Marine Mammal Sanctuary' (43%; n=44) and 'None' (39%; n=40). These results are fairly consistent with several operators' predictions that visitors generally are not aware of marine protection measures when they decide to visit Akaroa or participate in marine tourism activities. As such, it represents a potentially important indicator of visitor awareness or marine protection measures in Akaroa in future iterations of this research. (See Question 8 in the visitor survey).

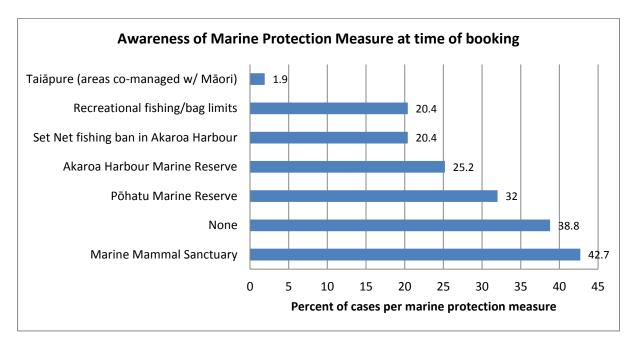


Figure 15: Respondents' awareness of specific marine protection measures at the time of purchasing their marine tourism activity (n=103)

When analysed in comparison to gender, there was no overall significant difference in males who were aware of marine protection measures (47%) than females (53%). More females (61%; n=63) than males (39%; n=40) were aware of the Akaroa Marine Reserve. More males (62%; n=64) than females (38%; n=39) were aware of the recreational fishing/bag limits, and similarly, more males (57%; n=59) than females (43%; n=44) were aware of the set-net ban. While the reason(s) for these gender differences are not revealed in the data obtained from the questionnaires, it is nonetheless worth noting this variation among respondents. This is so due consideration can be given to how the proponents on marine protection measures in Akaroa can potentially raise the level of awareness of these measures among a significant portion of the marine tourism visitors.

Further analysis was undertaken to determine whether or not the age of respondents influenced their awareness of marine protection measures. To achieve this, respondents were re-categorised by age group ('50 years and younger'; and '51 and over'), and then subject to comparative analysis (see Figure 16). The results of this analysis indicate that 68 per cent of respondents aged 50 years or less stated they were aware of marine protection measures in Akaroa. The most commonly identified marine protection measures by this group were: Banks Peninsula Marine Mammal Sanctuary (42%), Pōhatu Marine Reserve (33%), and the Akaroa Marine Reserve (26%). In comparison, 60 per cent of all respondents aged over 50 years stated they were aware of marine protection measures in Akaroa. The most commonly identified protection measures for this group were: Banks Peninsula Marine Mammal Sanctuary (43%), Pōhatu Marine Reserve (29%), and the Akaroa Marine Reserve (21%). It is important to note that for each age group category, approximately one-third of all respondents stated they were unaware of any marine protection measures in Akaroa. In addition, only a very small number of

respondents (2%; n=2) were aware of the existence of the Taiāpure. Both of these respondents were aged 51 years and over.

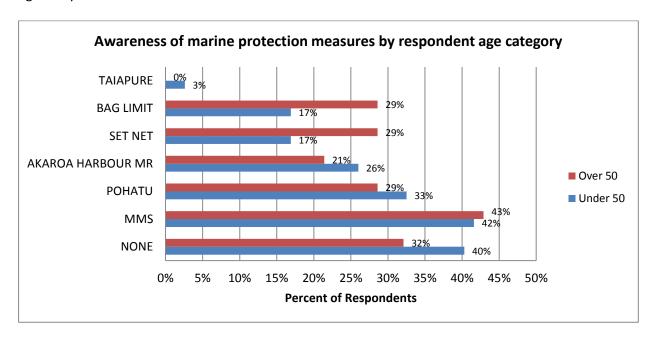


Figure 16: Respondents' awareness of marine protection measures by age group (n=106)

Part three (Question 9) of the visitor survey also asked respondents which, if any, of the following marine protection measures influenced their decision to purchase or book a marine tourism activity specifically. Respondents were asked to select as many options as applicable, and were given an option to select either 'None' or 'Other.' The results reflect the percentage of cases per marine protection measure given the respondent's ability to select more than one case (see Figure 17). Fewer respondents chose to answer this question (n=75) than was the case for Question 8 presented above. However, similar to the overall responses about awareness, the most common selections made by respondents were 'Marine Mammal Sanctuary' (29%; n=22) and 'None' (28%; n=21). In both cases, this could be due to the fact that the Marine Mammal Sanctuary is the oldest measure and therefore has the highest 'visibility' among respondents. It might also be the case that this particular marine protection measure could potentially feature more prominently in the narratives/interpretations provided by marine tourism operators in the course of their activities. These results are fairly consistent with several operators' predictions that marine protection measures are not a key driver that attracts visitors to Akaroa and influences them to book marine tourism activities.

Of those who responded as being influenced by marine protection measures to purchase or book a marine activity, there was no difference in gender (male 51%; female 49%). There was, however, a difference in age group: 68% of those influenced (n = 75) were 50 years and younger compared to 32% who were 51 years and older (see Figure 18). (See Question 9 in the visitor survey).

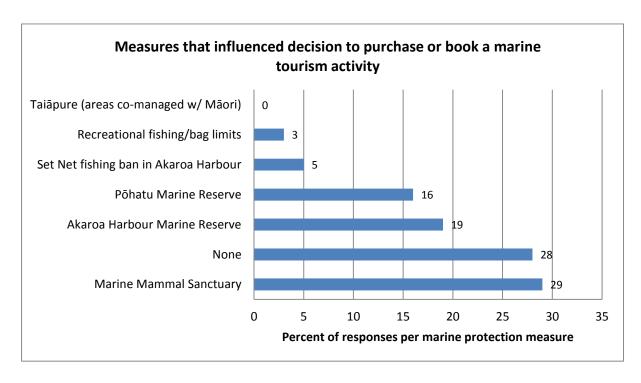


Figure 17: The influence of marine protection measures on decisions to purchase a marine tourism activity (n=75)

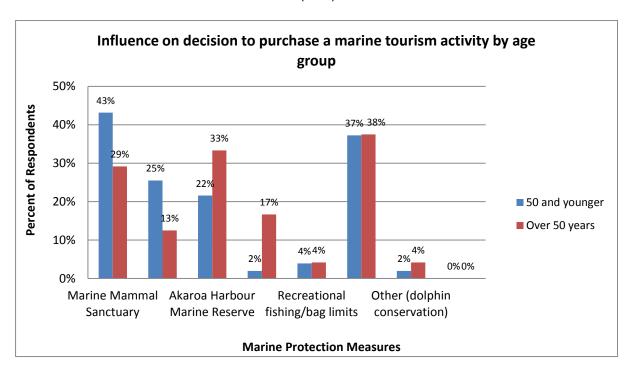


Figure 18: The influence of marine protection measures on decision to purchase a marine tourism activity, by age (n=75)

4.6 Marine tourism and increased understanding of marine protection in Akaroa

Part three (Question 10) of the visitor survey also asked respondents how much their marine activity helped increase their understanding of marine protection measures. A total of 84 respondents answered this particular question. Respondents were asked to circle one response on a scale of 1 ('not

helpful at all') to 7 ('extremely helpful') and given an option to select 'I don't know'. Seventeen respondents skipped the question because they had not yet completed a marine tourism activity, and five respondents chose not to answer. The results for this question suggest the majority of those who responded to this question (60%, n=50) felt that the activities they participated in helped increase their understanding of marine protection measures (mean = 4.74 on a scale of 1 to 7) (see Figure 19). (See Question 10 in the visitor survey).

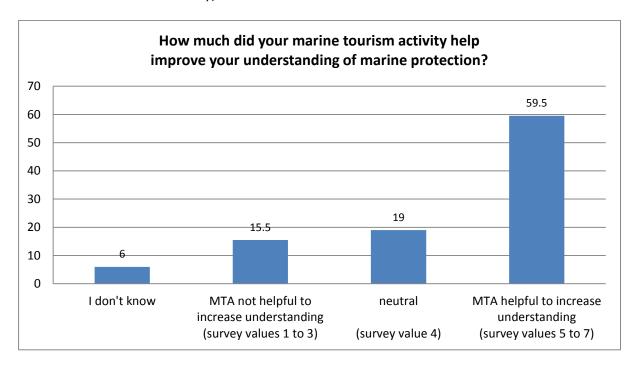


Figure 19: Impact of marine tourism activity on improving understandings of marine protection measures (n=84)

Part three (Question 12) of the visitor survey also asked respondents how well they believe marine life in Akaroa Harbour and the surrounding area is protected (n=102). Participants were asked to circle one response on a scale of 1 ('not at all protected') to 7 ('extremely well protected') and were given an option to select 'I don't know'. The results (see Figure 14) reflect the majority (74%) of those who responded felt the activities they participated in helped increase their understanding of marine protection measures (mean = 4.83 on a scale of 1 to 7) (see Figure 20). (See Question 12 in the visitor survey).

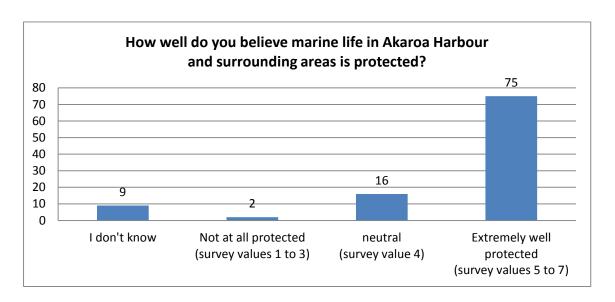


Figure 20: Perceptions on the effectiveness of marine protection measures in Akaroa (n=102)

4.7 Analysis of additional comments

Part four provided free space for respondents to answer an open ended question, "What marine tourism 'messages/lessons' do you remember from your marine tourism activity?" Participants could list as many responses as desired. Responses were then grouped and coded to identify trends. A total of 65 respondents answered this question. The findings of this particular question indicate that most marine protection-related 'take-away lessons or messages' are related to dolphin protection (45%, n=29). Messages about reserves being 'no-take' or 'spill-over' areas were reported by 21 per cent (n=14). A further 15 per cent (n=10) of respondents reportedly learned about the need to support marine protection for future generations, eight per cent (n=5) learned there would soon be a reserve in Akaroa Harbour, and five per cent (n=3) reported that "local people care". Of those who responded, five per cent (n=3) were not able to recall any marine protection-related lessons or messages from their marine tourism activity (see Figure 21). (See Question 11 in the visitor survey).

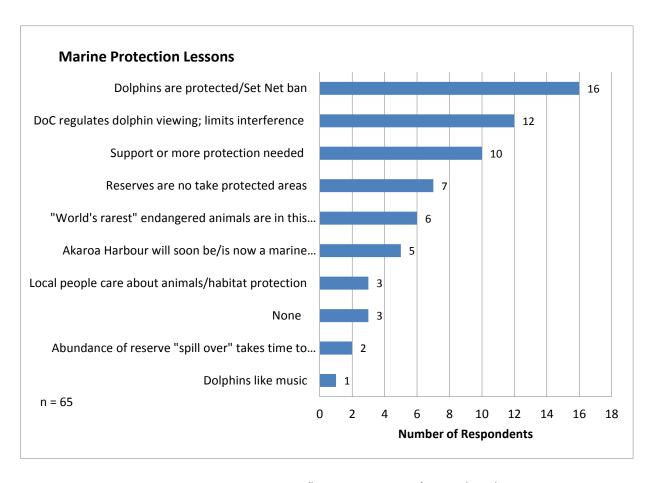


Figure 21: Marine protection 'lessons or messages' remembered by respondents from their marine tourism activity (n=65)

Respondents were then asked to indicate what, if any, changes they would like to see in marine protection in Akaroa in the future (Question 13). A total of 42 people provided a response to this question, of which two (5%) were "I don't know". These two responses were removed for the purposes of analysis, so that only 'valid' responses are included in this discussion. Of the remaining 40 respondents, 50 per cent (n=20) suggested that they would like to see 'more or increased levels of marine protection' in the future. A further 37 per cent (n=15) answered that they would like to see a 'more or increased limits on harbour activities' in the future. These named activities included: jet skiing, swimming with dolphins, cruise ships, harbour cruises, and commercial fishing. Twenty per cent (n=4) of respondents answered 'None' for this question, suggesting that they were happy with the present level of marine protection in Akaroa Harbour and surrounding area, and that they didn't want to see any changes in the future. Five per cent (n=1) of respondents indicated that they would like to see 'eco-tourism grow' in Akaroa Harbour in the future. (See Question 13 in the visitor survey).

Question 18 was an open-ended question that provided free space for respondents to provide additional comments about their marine tourism activity. Responses were grouped and coded with other similar responses to identify trends. A total of 31 respondents answered this question. Of those who did respond to this question, the majority (81%; n=25) stated that their marine tourism experience was an 'excellent, informative, satisfying trip with nice people and a good way to spend their money and show support'. Two respondents commented that more regulation in marine areas was needed, and one noted the sensitive nature of marine protection in Akaroa. Other interesting comments collected are as follows:

"Best \$75 we have spent for a long time, and so pleased some of it goes back to help the marine environment."

"I am aware that some of the cruise costs contribute to conservation projects."

"Excellent experience, great to hear about all the proactive protection measures that are being put into place or being pushed/fought for."

"Best place to visit and support eco-tourism during holiday."

"New Zealand is ahead of the curve in marine tourism by creating new reserves. Don't follow Australia where PM Tony Abbott has just suspended protection in our new reserves. Don't sell out or compromise the environment for short-term benefit."

"Great to see dolphins in the wild, shags, seals in natural habitat."

(See Question 18 in the visitor survey).

5 Research Findings Part 2: Interviews with marine tourism business operators and Ngāi Tahu Te Rūnanga o Ōnuku

In order to gain a more comprehensive understanding of the relationship between marine protection measures and marine tourism in Akaroa, the visitor surveys were complemented with a series of interviews with marine tourism stakeholders in Akaroa. Specifically, this second part of the study consisted of personal interviews with all twelve marine tourism operators known to be operating in Akaroa at the time of the study, as well as an interview with the Chairperson for the Ngāi Tahu Te Rūnanga o Ōnuku (based in Akaroa). The purpose of the interviews was to document perceptions of the relationship between marine protection and marine tourism in Akaroa, including the economic aspects of marine tourism for their business (or iwi) and the level of visitor education about marine protection that takes place during marine tours. Results are presented in accordance with the four sections of the interview, as follows:

- 1. Marine tourism business operator profile
- 2. Operator awareness
- 3. How operators incorporate marine protection measures into their products and tours
- 4. Operators' perceptions about marine protection and its contribution to Akaroa's economy

5.1 Marine tourism business operator profile

Section 1 of the Marine Tourism Business Operator interviews (n=12) asked about business-related details, including number of trips conducted per year, number of staff and customers served, and length of time operating in Akaroa (Questions 1a through 1e). A few major tour operators and several smaller operators conduct the majority of marine tourism business in Akaroa, including only one operator that advertises marine protection in their marketing materials. The average time businesses have operated marine tourism activities in Akaroa is 12 years. Operators interviewed reported a total of 7,799 trips conducted per year, 82,304 customers served per year with an average of 11 customers served per trip. Forty-seven full-time staff and 15 seasonal staff were reported². A snapshot of the data collected during the operator interviews is provided in Table 3.

² According to one marine tourism operator, DoC-permitted marine mammal tourism operators reported to DoC that approximately 43,000 customers were served in 2008. This does not include some smaller operators who do not have marine mammal permits. According to this particular operator, non-permitted operators represent a smaller percentage of trips conducted and customers served per year relative to the permitted operators. Therefore, the combination of smaller, non-permitted operators should not significantly impact the number of trips reported to DoC. For this reason, the marine tourism operator suggested that the reported 82,304 customers served per year during this study was potentially inaccurate, claiming that other marine tourism operators who participated in this study may have inflated the number of customers they serve per year. This claim was made because it was stated that the tourism economy has not changed much since 2008, although the data collected in this study shows the number of customers served has doubled. The operator claimed that, if anything, the marine tourism industry has plateaued or slightly declined due to recent declines in the global economy that have impacted the amount of money people spend on recreation and tourism. Further research is needed to substantiate this claim. However, for comparison purposes,

Table 3: Marine tourism business operator profile (n=12)

Trips per year	7,799
Customers served per year	82,304
Average number of customers per trip	11
Full-time staff employed	47
Seasonal staff employed	15
Average number of years operating in Akaroa	12
Number of operators who market marine protection	1

Overall, marine tourism in Akaroa offers approximately 3,000 to 7,000 trips per year and serves from 45,000 to 82,000 customers per year, weather and economy dependent. Marine Tourism is most often seen as the most important industry in Akaroa, employing over 60 full-time and seasonal staff. A mix of large and small marine tourism businesses averaging 12 years of marine tourism experience serve Akaroa's visitors. Only one operator advertises marine protection in their marketing materials.

5.2 Operator awareness of marine protection measures

Section 2 of the operator interviews (n=12) sought information about what the operator knows about marine protection measures, including how the measures affect their business and which measure they feel is most effective (see Figure 22). All operators interviewed appear to be aware of most marine protection measures present in Akaroa. Ten operators stated that they were aware of the impending Akaroa Marine Reserve and Set Net restrictions, which are part of the Marine Mammal Sanctuary. Eight operators were aware of the Marine Mammal Sanctuary and Pōhatu Marine Reserve. Two operators also mentioned Onawe Peninsula, which is protected under the Taiāpure, and seven operators were aware of the Taiāpure.

Caution should be taken when interpreting these data, because these may be incomplete indicators of operator true awareness across the spectrum and more reflective of the higher profile measures that first come to mind. It is possible that several operators knew more about some protection measures than what they mentioned in response to this particular question. This is possible because several operators would mention later in conversation a measure that they did not mention in response to this question. In the future, it may be useful to add a sub-question with a map or list of all protection measures in Akaroa and ask if there are any measures the operator has never heard of.

if half of the reported trips were cancelled, resulting in half of the reported customers being served, there would still be close to 4,000 trips per year and 41,000 customers served per year according to the data collected in this study. This illustrates a scenario where operators may not be able to work at full capacity due to economic spending patterns, poor weather, or other reasons. In other words, if operators reported numbers that reflect full capacity or best case scenario, and if half of their trips were cancelled for various reasons, such as a declining economy and poor weather, 50 per cent of the total amount reported would still result in approximately 4,000 trips conducted and 41,000 customers served per year. Further research is needed to understand to what extent the combination of all small operators contribute to the total number of customers served, in comparison to the few major operators, to understand the difference in the amount of trips reported to DoC by permitted operators and the true number of trips inclusive of all marine tourism operators. Similarly, further research will also help to inform the true impact of marine tourism on Akaroa's visitors, economy and environment.

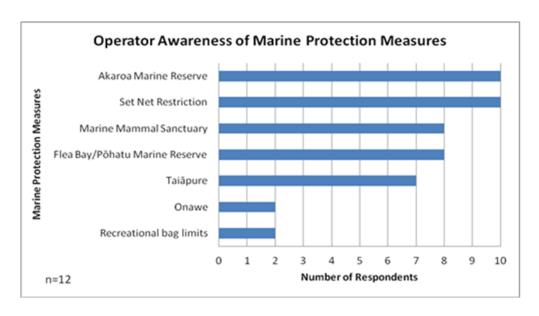


Figure 22: Operator awareness of marine protection measures (n=12)

5.3 How do marine protection measures impact upon business operators?

Question 2b of the interview schedule asked operators how they see different marine protection measures affecting their business. Seven out of 12 operators stated that marine protection was positive for their business by either enhancing or benefiting it (see Figure 23). Four operators were neutral or felt that the marine protection measures do not affect them at all because they "don't do any fishing, interfering or polluting" or "do not have a permit or target dolphins, seals or mammal viewing." According to these responses, the way this question was interpreted determined how it was answered. For example, this particular operator may have viewed protection measures in terms of regulations, that when broken, lead to a penalty or fine; since the business does not violate regulations, it is not affected. The same operator's other responses and comments demonstrated great support for more marine protection so it is possible that when asked the same question from a different perspective (such as how the protection measures affect their business in negative and positive ways), the operator may produce a different response.

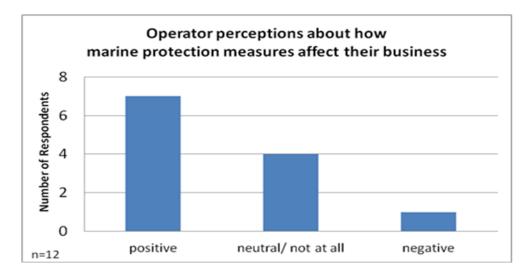


Figure 23: Operator perceptions of how marine protection measures affect their business (n=12)

Several operators mentioned a common concern about the forthcoming Akaroa Marine Reserve eliminating the only safe, sheltered place inside the harbour for recreational fishers to fish during poor

weather. One operator shared a negative impact of the forthcoming Akaroa Marine Reserve: once the reserve is gazetted, they will not be able to catch a fish inside the reserve during their tours on good weather days, for example, if a school of common, easy-to-catch Kahawai are present. This is seen as a negative impact of marine protection when a visitor who has never caught a fish is present on the tour because it eliminates the opportunity to ask this person if they want to catch a fish for the first time if the vessel is inside the reserve boundary. The operator stated that handing a fishing pole to a person who has never caught a fish before can engage them in a marine experience that could increase their connection to nature and education about marine life, leading to increased future support for marine protection.

5.4 Are marine protection measures necessary for business operators?

Question 2c asked operators if any of the measures were necessary for their business (n=12). Eight operators (67%) felt marine protection measures were necessary for increasing marine life and dolphin populations. Some comments included:

"No dolphins, no business."

"Protection of Hectors is paramount. It is necessary for water-based business because it brings in volumes of people and everyone wants to see the dolphins."

"It brings people to Akaroa as an eco-friendly place."

The last comment was made by an operator who did not hold a marine mammal viewing permit, an indication that one does not need to run a marine mammal viewing operation to consider marine protection necessary. The remaining four operators (33%) stated that marine protection measures were not necessary for their business.

5.5 Which marine protection measures are most effective?

Question 2d asked operators which marine protection measure they felt was most effective. Overall, operators felt the Marine Mammal Sanctuary is most effective (n=8). Two operators felt the marine reserve is most effective, one operator selected the Taiāpure and one felt none of the measures are effective. Comments were made as follows:

"The set net ban brought moki and butterfish numbers up in heaps. It's not just good for the dolphins".

"There is no effect from the new reserve yet because it will take time".

"The Taiāpure has less effect but more fish equals more dolphins".

"The Marine Mammal Sanctuary is most effective and other measures help with [Akaroa's] nature positioning".

5.6 Ranking the effectiveness of marine protection measures

Question 2e asked operators to rank the measures, 1 being most effective and 4 being least effective. Most operators hesitated during this question, claiming that they had no way to measure the effect. This notwithstanding, the Marine Mammal Sanctuary was ranked most effective by interview respondents (average 1.5). Pōhatu Marine Reserve was the next effective, then the Taiāpure, and lastly, the Akaroa Marine Reserve. The Akaroa Marine Reserve reportedly was least effective. However, it is important to note that this Marine Reserve had not yet come into effect at the time of this study, and was not therefore operational. Therefore it cannot have had any actual effect on the biota of the harbour at the time of this study. As such, operator responses towards this particular marine protection measure presents a somewhat contrary picture, insofar as these views cannot be based upon any observable nor measureable phenomenon. Rather, it is possible that this business

operator response is representative of a more general disquiet within the Akaroa business community about the impending enactment of the Marine Reserve.

Overall, marine tourism operators in Akaroa appear to be aware of most marine protection measures in Akaroa, and regard marine protection as affecting their business in a largely positive way. The Marine Mammal Sanctuary is seen as the most effective, not just for the protection of dolphins, but also fish and other marine life. The majority of operators also expressed a view that marine protection is necessary for their business, but with some concerns being raised about the location, size and impact of the upcoming 'no-take' Akaroa Marine Reserve on recreational fishing in particular.

5.7 Operator perceptions of marine protection and visitor education

Section 3 of the operator interviews (n=12) sought information about how the operator incorporates marine protection measures into their products or tours, including what they tell their customers about marine protection measures and how receptive their customers are to the information shared. Ten out of twelve (83%) operators tell their customers about dolphin protection. Five operators (42%) talk about Pōhatu Marine Reserve and the impending Akaroa Marine Reserve. Two operators tell their customers very little. Operator comments included:

"Explaining protection measures is part of telling the story. I tell my customers about Flea Bay boundaries and suggest they go on the penguin tours".

"I tell them everything I know, including the benefit of the Marine Mammal Sanctuary and the proposal for the reserve".

"There is massive research going on to protect dolphin populations".

"No take areas are places to breed and seed".

"I tell them, and admit the fact that they are ineffective".

"Very little unless they ask".

"It depends on the skipper, the day, and who's on the boat. If there are mostly New Zealand Kiwi passengers, we may go into more detail, but not for a mostly Japanese group".

In terms of visitor awareness of marine protection measures from the operator's perspective, two operators commented as follows:

"I would be surprised if visitors are aware of marine protection measures in Akaroa".

"I would say in terms of a purchase decision for the harbour cruise or to visit Akaroa, it [marine protection measures] would not even register on a visitor's decision. It helps with the positioning of Akaroa to get visitors, in addition to how much it costs, if they have space [in their schedules], and how nice the town and scenery is. We have to compete with other destinations like Hanmer Springs and I would be surprised if anyone at all factored in marine protection measures in their purchase decisions".

When asked if customers are receptive to marine protection values, 7 of 12 operators (58%) said yes. Two operators said customers are receptive if they are the ones who ask the question. Three operators did not know, did not talk about it with their customers, or stated that it depends on the audience. Overall, most operators tell their customers about marine protection measures and customers are generally interested.

5.8 Operator perceptions of marine tourism's contribution to Akaroa's economy and lines of conflict

Section 4 of the interview schedule sought information about how the operator perceives the contribution to marine tourism to Akaroa's economy, including their perception on how marine tourism has changed over time, the value of marine protection and the new Akaroa Marine Reserve to their own commercial viability, as well as points of conflict regarding marine protection measures and additional comments. When asked if marine tourism is the most important economy in Akaroa, eight out of 12 operators stated 'yes'. A further three operators indicated that the question of importance depended on the perspective of individuals and businesses, stating:

"Marine tourism is very, very important, but it depends on the perspective. Maybe cruise ships are most important for shops. Living here is important to me".

"Someone once said it is one of the biggest dolphin industries around the world so it must be important but whether [or not] it is the most important is hard to know".

"That is an easy yes. It provides 50 per cent of the jobs and economic activity. It would be a sleepy town without tourism. I worked out that Hectors [dolphins] are worth about \$100 million per a 10 year period to the region. That helps with advocacy".

"No, marine tourism is a factor that brings people in, but the landscape and natural environment bring people here simply for the location, which is a product and destination in itself. I only say marine activity and sanctuaries are not most important because if these went away, people would still come".

The final comment noted above is similar to responses in the visitor surveys, which concluded that 'scenery' was rated most important over dolphins and marine life in terms of influencing people to visit Akaroa.

When asked how marine tourism in Akaroa has changed over time, at least half of the operators stated it has moved away from a fishing industry toward a rapidly growing tourism industry. Increased awareness with internet growth, increases in the number of operators and DoC permits, people becoming more aware of the need to protect marine life for the New Zealand economy, and the desire (especially of young people) to see animals in their natural habitat instead of in aquariums were among the responses provided. Some comments include:

"It has become more important from a tourism perspective and expectations of people worldwide for New Zealand to be a world leader in the outdoors. Visitors have put a much greater emphasis on marine tourism".

"It has changed with marine mammal permits which are [an] anachronism. People have given DoC theifdom [sic] which they don't deserve. They are not scientists or professionals".

5.9 What is the value of marine protection measures to commercial viability?

Question 4c in the interview schedule asked operators what the value of marine protection measures and the upcoming Akaroa Marine Reserve was to their own commercial viability (n=12). Five operators felt marine protection added value to their business, five reported that it had no value, and the remaining two did not know, claiming perhaps over time it would become more valuable to their own commercial viability. Of the twelve business operators interviewed, three reported that marine protection measures could be included in advertising and marketing materials to attract visitors. The specific comments offered by respondents to this issue include:

"It gives security, hope and desire to invest".

"It is critical to protect now for the future".

"I don't think there is any [value]. It won't change anything or bring big fish or more dolphins".

"None really. We don't catch many fish in the harbour and only go there if the weather outside the harbour is rough".

"None".

"I like to think it will enhance our viability, but it is unknown and hard to measure until it has been in effect for a couple of years".

"It's neither here nor there because it is not there yet. It is a hard one but a long-term benefit for all".

"I don't think it is going to affect me in a huge way because we can just barely get there [by kayak]".

"Hopefully beneficial, more food for marine mammals, population increase, and clients will be able to see more wildlife on tours and have a better memory of tours".

"[There is] no value. It does nothing for me. Probably a negative factor in my business because those who have permits believe it gives them exclusivity to see marine mammals".

"The Marine Mammal Sanctuary is invaluable for the region. We could still operate the harbour nature cruise, but it would not be as attractive so the numbers would plummet".

"Effectively, over time, it will cement. Akaroa is a brand of pristine, amazing wildlife, protected areas and marine reserves. In monetary terms, there is value for Akaroa, and more importantly in keeping Akaroa pristine, which is what people and tourists want".

5.10 Points of conflict around marine protection measures in Akaroa

Question 4d of the interview schedule asked business operators to explain the points of conflict regarding marine protection measures in Akaroa. All operators reported that tension lies between recreational and holiday fishers, including those who have holiday homes and want to come to Akaroa to fish, and tourism operators. One operator told a story about a specific incident that portrayed this tension and conflict:

"Twenty-five years ago when the researchers wanted to protect the dolphin in the harbour, over 200 people showed up to a community meeting and only 2 of us supported the protection: me and one other person. The holiday fishers passed around a bucket to collect money to hire a lawyer to oppose the protection. The media swarmed around me with cameras waiting for a fight to break out, for someone to hit me for standing up and supporting the protection of dolphins, and I left. I wasn't waiting around for a fight."

Many business operators also mentioned that tourism has grown rapidly in Akaroa, with one operator commenting that there is conflict from "an over-supply of marine tours and operators." Additionally, five operators mentioned the existence of 'tensions' between the upcoming Akaroa Marine Reserve and the Taiāpure. In general discussion with operators during and after the interviews, three operators felt the area of the Akaroa Marine Reserve could be more effectively regulated under the rules of the Taiāpure. According to these operators, utilising this approach allows for the gathering of fish and shellfish to be managed responsibly (and more effectively) within established limits. This would therefore protect particular species of concern from overfishing, while still allowing an individual to engage in recreational fishing and shellfish gathering for personal use.

Alternatively, several operators stated that those who oppose the creation of the Akaroa Marine Reserve can easily abuse the existing Taiāpure because it lacks credibility and enforcement, whereas the Department of Conservation (DoC) is funded and held responsible for enforcing the marine reserve. That is to say, these respondents claim that the existing Taiāpure has no 'teeth' in respect of enforcement, while the Akaroa Marine Reserve will have the institutional and legislative legitimacy of the government via DoC. Further research is therefore needed to understand why the Taiāpure is viewed as lacking credibility and enforcement. Several operators also stated that the new Akaroa Marine Reserve is long overdue, and that something should have been done years ago to protect resources for the future. These claims are reflected in a quote by an Akaroa resident who was included in the visitor survey component of this study:

"This is a sensitive subject in Akaroa and there are people for and against".

These claims are also reflected in a quote from the marine tourism business operator interviews, in which one particular operator stated,

"We all have traditions, and they all [need to] change".

5.11 Interview with Chairperson and Head of Executive Committee of the Ngāi Tahu Te Rūnanga o Ōnuku

The second part of the study also consisted of a personal qualitative interview with Donna Tainui, the Chairperson and Head of Executive Committee³ for the Ngāi Tahu Te Rūnanga o Ōnuku, an organisation that runs and guides the rūnanga. The purpose of this interview was to document perceptions of the local Māori about the relationship between marine protection measures and marine tourism. The following key themes related to marine tourism were drawn from the interview:

- 1. The rūnanga does not have a business interest in the marine tourism. They hold different views of the harbour so marine protection does not affect them on a commercial level, but it does affect them on a spiritual and cultural level.
- 2. Marine tourism has helped Akaroa become a sustainable economy using one of Akaroa's most beautiful assets. Hotels, cafes and shops piggyback off marine tourism.
- 3. Marine tourism has become more sophisticated and developed, with an increasing number of operators and cruise ships now coming into the harbour.
- 4. Very few, if any, local Māori are employed by marine tourism. Most youth are being lost to cities.

The following key themes related to marine protection measures were drawn from the interview:

- 1. The rūnanga is very engaged in marine protection. Marine conservation is strongly advocated by the Ōnuku rūnanga. They supported the Marine Mammal Sanctuary and Pōhatu Marine Reserve, but the Akaroa Marine Reserve is controversial. Although the rūnanga is opposed to the Akaroa Marine Reserve, they are not against managed marine protection, just that particular tool.
- 2. A 'No take' reserve is seen as an institutionalised tool that takes away kaitiaki rights. Kaitiaki is not just about protecting fish species, it's about spiritually and culturally what's happening in the harbour. It's also concerned with transport, bringing whanau (family) together, wahi tapu sacred sites, burial sites and coastline access not just for the purposes of gathering food.
- 3. The taiāpure and rāhui are preferred conservation tools used to restrict or ban harvesting of resources. These tools are seen as necessary for the success of the rūnanga. It is the belief of the rūnanga that marine ecosystems can be managed without a reserve tool to protect spiritual, cultural and ecological aspects of the harbour, which has been a traditional fish take area for centuries.

³ In addition to this role, Donna Tainui is a senior member of the Akaroa community, is an Akaroa resident, and is Deputy Principal of Akaroa Area School.

When asked about the views and values of marine protection education, the following response was received:

"In terms of education, teachers talk about marine protection. Our [Akaroa Area School] staff members have different opinions, but as a school, it is our responsibility to provide all the information available on all the different measures (i.e. this is a marine reserve and how it functions, this is a taiāpure and how it functions, etc.). There is more of a focus on marine protection this year. We are making more of a conscious effort to provide all the information... In terms of marine tourism operators, and what they tell their customers, I would hope they present all the different types of tools".

When asked about the value of marine protection, more specifically, the value of the upcoming Akaroa Marine Reserve, no value was reported, other than the potential value that marine tourism operators could obtain from advertising the reserve to attract visitors to the area. The points of conflict were the controversy between the use of one mechanism over the other; for example, the Marine Reserve mechanism compared to other marine protection tools or mechanisms.

Overall, the rūnanga does not have a business interest in the marine tourism and marine protection does not affect them on a commercial level, but it does affect them on a spiritual and cultural level. Very few, if any, local Māori appear to be employed in marine tourism in Akaroa. Marine conservation strongly advocated by the Ōnuku rūnanga, but a 'no take' reserve is seen as an institutionalised tool that takes away kaitiaki rights of local Māori. The taiāpure and rāhui are preferred conservation tools used to restrict or ban harvesting of marine resources. It is the belief of the rūnanga that marine ecosystems can be managed without a Reserve tool or mechanism to protect spiritual, cultural and ecological aspects of the harbour. Although the Akaroa Marine Reserve has been a controversial issue in Akaroa, in terms of education it was reported that all information available on the different measures should be provided in schools and on marine tours.

6 Conclusion

This research explored the relationship between marine tourism and marine protection measures by conducting 106 visitor surveys, 12 interviews with local marine tourism business operators, and an interview with the Chairperson of the Ngāi Tahu Te Rūnanga o Ōnuku. A broad suite of marine protection tools have been implemented in Akaroa, including a Marine Mammal Sanctuary, Pōhatu Marine Reserve, a Taiāpure, and the forthcoming Akaroa Marine Reserve. The study provides baseline data on the various marine protection measures in the Akaroa Harbour and adjacent areas at the time the new Akaroa Marine Reserve is introduced. The collection of data will allow the study to be replicated in the future to monitor changes in the socio-economic impact of marine protection measures and marine tourism over time.

Visitor surveys revealed that there were varied levels of marine protection awareness among visitors to Akaroa, with 39 per cent (n=40) of visitors having no knowledge of marine protection at all, and 43 per cent (n=44) aware of the Marine Mammal Sanctuary. Marine tourism visitor spending is important to the economy, with an average of \$73 spent on marine tourism activities per survey respondent. The marine environment is an important attraction for visitors, who are mostly influenced to visit Akaroa and participate in marine tourism activities by the harbour scenery and to see dolphins and other marine life. These activities help to increase visitor understanding and knowledge of marine protection measures, and serve as a useful mechanism to promote conservation values.

This study has also found that visitor purchasing behaviour is more influenced by the importance of marine life than the importance of visiting a marine protected area or 'no take' reserve per se. Although not captured explicitly in the primary data of this research, it is nonetheless instructional to note that the range of marine protection measures in Akaroa all serve to protect marine life, and by

implication, help to enhance marine tourism experiences in Akaroa. Data about the influences that attract visitors to Akaroa, and to participate in marine tourism activities, provide a baseline for tracking changes in marine conservation values and whether interest in visiting marine reserves or other types of marine protected areas increases over time. This will be especially useful if marine tourism marketing trends change over time to include advertising about marine protection or the new Akaroa Marine Reserve. These are key performance indicators that can be used to track if Akaroa grows as a marine conservation destination over time.

While there were no significant differences in gender and awareness of marine protection measures, there was a slight difference with more females being aware than males. More research is needed with a greater sample size to draw conclusions about whether there is any significance to slightly more females being aware of marine protection than males, and slightly more males being aware of fishing regulations than females. With more research, the data could then be compared to data from other areas to identify trends and the potential of females to play a greater role in marine conservation and education. This is also true for younger generations, who were found to be more aware of and influenced by marine protection.

The second part of the research involved interviewing marine tourism business operators to determine how they use protection measures to promote Akaroa, and how they perceive the value of marine protection and its contribution to the local economy. Although only one marine tourism business or operator advertises marine protection in their marketing materials, all are aware of and support most marine protection measures. Most operators inform and educate their customers about marine protection and feel that visitors are receptive and interested. There is an overall positive attitude about marine protection with mixed views on the benefit of the forthcoming Akaroa Marine reserve's impact on marine tourism business operator's commercial viability and its impact on Ngāi Tahu Te Rūnanga o Ōnuku's spiritual and cultural traditions.

The Banks Peninsula Marine Mammal Sanctuary is the oldest specific marine protection measure in Akaroa and, according to this research, the most supported by marine tourism operators. Visitor surveys also reported more awareness about the Marine Mammal Sanctuary and its influence on visitors' decisions to visit Akaroa and participate in marine tourism activities. More research is needed to determine if greater operator support for and education about the Marine Mammal Sanctuary is related to greater visitor awareness of the Marine Mammal Sanctuary, as well as other marine protection measures. Further research is also needed to determine if there is any connection to the age of marine protection measures related to its influence on visitor and operator behaviour over time. Broadly speaking, visitor survey results are fairly consistent with several operators' predictions that marine protection measures are not a key driver that attracts visitors to Akaroa and influences them to book marine tourism activities. However, visitor surveys indicated that the marine tourism activities they participated in helped to increase their understanding of marine protection measures. These results show the potential for marine tourism activities to contribute to visitor knowledge and education about marine protection, a key tenet of eco-tourism and useful mechanism to promote conservation values.

In summary, marine protection measures and marine tourism are closely related and very important to Akaroa's economy. Akaroa is a popular tourism destination, and more recently cruise ship port unique to any other place in New Zealand because of its diverse suite of marine protection measures concentrated in and around the Akaroa Harbour that are all intended to improve, manage and protect marine ecosystems in the Banks Peninsula area. These complementary management models share many different and similar characteristics and were encouraged and implemented by different groups, cultures and stakeholders. The processes associated with the application, approval and implementation of marine protection measures in Akaroa has been both contested and controversial. However, the various marine protection measures, and the various groups which have lobbied for and assisted to implement these measures, collectively work to address a commonly-shared concern and

a shared vision: to protect the Akaroa Harbour area, and the marine resources within this area, for present and future generations.

7 Recommendations

This study has shown that there is a range of marine protection measures presently in place in Akaroa. It has also shown that there is a range of responses from visitors to Akaroa, as well as tourism business operators in Akaroa, regarding the value and effectiveness of these marine protection measures. Given the significance of marine-based tourism to the Akaroa economy, and the disquiet within the Akaroa community (business and residential) about the upcoming enactment of the Akaroa Marine Reserve, the value of this research is to provide a 'baseline' against which future measurements can be made. The recommendation of this report, therefore, is that this study be repeated in Akaroa within the next 3–5 years in order to:

- Compare the visitor profile and the operator profile with the snapshot captured in the 2013/14 summer
- 2. Compare the marketing against the marketing in the 2013/14 summer
- 3. Compare operator attitudes to the different measures with the 2013/14 summer
- 4. Compare visitor awareness of the different measures with the 2013/14 summer
- 5. Compare the relative positioning or importance of key attractions (scenery etc.)
- 6. Determine if marine life, dolphins, and marine protection have become more or less important to visitors
- 7. Assess whether or not the controversy within the Akaroa community over the new Akaroa Marine Reserve has abated
- 8. Assess whether or not the Akaroa Marine Reserve is proving a successful marine protection measure in the eyes of operators, visitors and the rūnanga

As noted in the opening section of this report, this research is intended to act as a baseline study and 'capture' visitor and operator perspectives on the link between marine tourism and marine protection measures. The research data were collected at a time when the issue of increased levels of marine protection in the form of a second marine reserve – the Akaroa Marine Reserve – has led to disagreement within the Akaroa community about the merits and prescriptive nature of the restrictions which will be imposed principally upon recreational fishing and shellfish gathering activities in the reserve area. This issue is likely to be, at least for marine tourism operators, both prominent and salient.

The enduring value of this research, therefore, is that the data collected in this study can act as a baseline against which future data can be compared. This will help to assist the tracking of any changes to not only marine tourism operator opinions, but also those marine tourism visitors, towards marine protection measures generally, and the particular Akaroa marine protection measures specifically.

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Appendix A: Visitor Questionnaire

Code:

Date:



New Zealand's specialist land-based university

Akaroa Marine Tourism Visitor Survey

Researchers at Lincoln University have been commissioned by the Akaroa Harbour Marine Protection Society to undertake a project to assess the relationship between tourism and marine protection measures in Akaroa Harbour. As such, this survey is aimed at improving marine protection in Akaroa by better understanding its relationship with tourism.

This survey has questions about your visit, including:

- the marine tourism activities you are doing whilst in Akaroa,
- your awareness of marine protection measures in Akaroa; and,
- your decision-making relating to marine tourism in Akaroa.

Your involvement in this survey is completely voluntary and the survey will take around five minutes to complete.

The survey is anonymous and you may withdraw your participation, including withdrawal of the information you have provided, up until the completion of the survey. If you complete the survey, however, it will be understood that you have consented to participate in the project and consent to the publication of the results of the project with the understanding that anonymity will be preserved.

You must be aged 18 years or over to participate in this survey.

If you require further information, an information sheet with additional details, including contact details, is available for you to take away.

<u>Section 1</u>: About the marine tourism activities you've undertaken today

Q1	Which of the following best applies to you? [please tick (\square) one box only]							
	$_1\square$ I have done/completed a marine tourism activity today							
	₂□ I haven't yet, but I will do/complete a marine tourism activity today							
	₃□ Other [please specify:]							
Q2	Please select which of the following marine tourism activities you <u>will take, or have taken,</u> in Akaroa today.							
	[please tick (☑) as many boxes as necessary]							
	☐ Harbour nature cruise							
	☐ Sailing cruise							
	☐ Kayak/canoe (guided)							
	☐ Kayak/canoe (self-guided)							
	☐ Swimming with dolphins							
	☐ Fishing trip							
	☐ Paddleboard hire							
	☐ Dive charter							
	☐ Boat hire							
	☐ Private charter (wedding, event, etc.)							
	☐ 4WD penguin/nature safari							
	□ Other [please specify:]							
Q3	Approximately how much did you/will you spend on these <u>marine tourism</u> activities today?							
	\$ [please indicate the number of people this amount applies to:]							
Q4	Approximately how much, <u>in total</u> , will you spend during your stay in Akaroa? (this excludes the cost of travel to and from Akaroa)							
	\$ [please indicate the number of people this amount applies to:]							

Who are you doing your marine tourism activity with?

[Please tick (\square) ONE that best describes your group]

₁ □ By myself	
2□ With my family	
₃□ With friends	
 ₄□ With family and friends ₅□ Organised tour group ₅□ Business group 	
₇ □ School group	
₈ □ Other [please specify:]

Section 2: Decision-making about visiting Akaroa and awareness of marine protection

Q6

On the scale below, please indicate how important each of the following items was in your <u>decision to</u> <u>visit Akaroa</u> today (or, if you are a ship passenger, your decision to come ashore).

[Please circle <u>ONE</u> number for each item]

		Not at all Important						Extremely Important	l don't know
a.	Meeting family/friends	1	2	3	4	5	6	7	0
b.	Visiting cafes/restaurants	1	2	3	4	5	6	7	0
C.	Seeing heritage buildings/history	1	2	3	4	5	6	7	0
d.	Shopping	1	2	3	4	5	6	7	0
e.	Viewing Hectors Dolphins	1	2	3	4	5	6	7	0
f.	Viewing other marine life	1	2	3	4	5	6	7	0
g.	Harbour/boat trip	1	2	3	4	5	6	7	0
h.	Village atmosphere	1	2	3	4	5	6	7	0
i.	Fishing	1	2	3	4	5	6	7	0

j.	Walking	1	2	3	4	5	6	7	0
k.	Scenery	1	2	3	4	5	6	7	0
m.	Other [please specify]:	1	2	3	4	5	6	7	0

On the scale below, please indicate how important each of the following items was in your decision to undertake a <u>marine tourism</u> activity in Akaroa today.

[Please circle <u>ONE</u> number for each item]

		Not at all Important	←				→	Extremely Important	l don't know
a.	Being on a boat	1	2	3	4	5	6	7	0
b.	Seeing Hectors Dolphins	1	2	3	4	5	6	7	0
C.	Seeing other marine life	1	2	3	4	5	6	7	0
d.	Swimming with dolphins	1	2	3	4	5	6	7	0
e.	Visiting a marine protected area	1	2	3	4	5	6	7	0
f.	Visiting a 'no take' marine reserve	1	2	3	4	5	6	7	0
g.	Fishing	1	2	3	4	5	6	7	0
h.	Viewing harbour scenery	1	2	3	4	5	6	7	0
i.	Other [please specify]:	1	2	3	4	5	6	7	0

The Akaroa harbour and surrounding area currently has a variety of marine protection measures either in place or pending.

Which, if any, of the following marine protection measures were you aware of when you purchased
or booked your marine tourism activity?

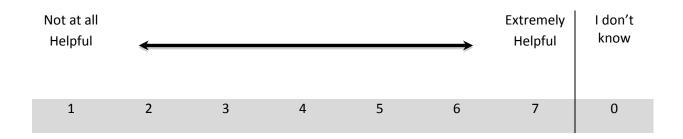
of booked your marine tourism activity:						
[please tick (☑) as many boxes as necessary]						
☐ Marine Mammal Sanctuary	☐ 'Set Net' fishing ban in Akaroa Harbour					
☐ Taiāpure (areas co-managed with Māori)	☐ Recreational fishing/bag limits					
☐ Pōhatu Marine Reserve	□ None [please go to Q10]					
☐ Akaroa Harbour Marine Reserve	☐ Other [please specify]:					
	[]					
Which, if any, of the following marine protection book your marine tourism activity?	n measures <u>influenced your decision</u> to purchase or					
[please tick (☑) as many boxes as necessary]						
☐ Marine Mammal Sanctuary	☐ 'Set Net' fishing ban in Akaroa Harbour					
☐ Taiāpure (areas co-managed with Māori)	☐ Recreational fishing/bag limits					
☐ Pōhatu Marine Reserve	□ None					
☐ Akaroa Harbour Marine Reserve	☐ Other [please specify]:					
	<i>[</i>					

If you <u>have</u> completed your marine tourism activity, please answer Q10 and Q11 below.

If you <u>haven't</u> completed your marine tourism activity, please go to Q12.

Q10

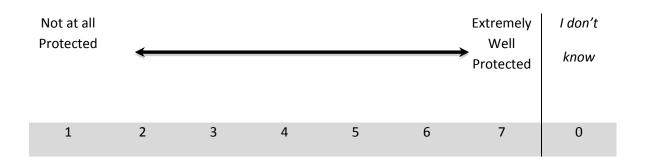
How much did your marine tourism activity today <u>help to increase your understanding</u> of marine protection measures? [Please circle <u>ONE</u> number which best reflects your answer]



What marine protection 'messages/lessons' do you remember from your marine tourism activity?

Q12

Based on your visit to Akaroa today, how well do you believe marine life in Akaroa Harbour and the surrounding area is <u>protected now?</u> [Please circle <u>ONE</u> number which best reflects your answer]



Q13	What, if any, changes t	o marine protection wou	uld you like to see in Akar	oa Harbour <u>in the future</u> ?
		<u>Section 3</u> : About y	ou and your group	
	_			
Q14	Where do you normal	y live? [please tick (☑) o	ne box only, and specify b	elow]
	₁ □ Christchurch [speci			Zealand [specify below]
	₂ □ Elsewhere in Cante	rbury [specify below]	₄□ In another countr	y [specify below]
	[please specify here:			
	_	_		
Q15	Are you?: ☐ Ma	le □ Female		
016	1 w/h at ta	and tiel (17th and barrantic	1	
Q16	wnat is your age? [pled	ase tick ($oldsymbol{arDelta}$) one box only j	1	
	П 10 30 ···а	□ 41 50····	□ 61 70···	□ 04 · · · · · · · · ·
	₁ □ 18–30 years ₂ □ 31–40 years	₃□ 41–50 years ₄□ 51–60 years	₅ □ 61–70 years ₆ □ 71–80 years	₇ □ 81+ years

Q17	Which of the following <u>best</u> describes you? [please tick (☑) one box only]				
	₁ □ I am a cruise ship visitor to Akaroa	₃□ I am an overnight visitor to Akaroa			
	$_2\square$ I am a day visitor to Akaroa	₄□ Other [please specify]:			
	₃□ I am an Akaroa resident	[]			
Q18		onal comments you might have about your marine	tourism		
Q18	Please use this space below to write any <u>addition</u> experience in Akaroa.	onal comments you might have about your marine	tourism		
Q18		onal comments you might have about your marine	tourism		
Q18		onal comments you might have about your marine	tourism		
Q18		onal comments you might have about your marine	tourism		
Q18		onal comments you might have about your marine	tourism		
Q18		onal comments you might have about your marine	tourism		

Please return this form to the researcher.

Thank you very much for your time.

Appendix B: Research Information Sheet (Visitor Survey)



You are invited to participate as a subject in a project entitled: 'Tourism and Marine Protection Measures in Akaroa, New Zealand'

Researchers at Lincoln University have been commissioned by the Akaroa Harbour Marine Protection Society to undertake a project to assess the relationship between tourism and marine protection measures in Akaroa Harbour. This survey is being undertaken as part of a Faculty of Environment, Society and Design summer scholarship research project at Lincoln University. The information collected will provide baseline data for later surveys.

You have been selected to take part in this survey based on a systematic sampling technique in which every 'nth' person at this location is being asked to participate in this survey. Your participation in this project is completely voluntary, and will involve self-completing a questionnaire of approximately five minutes duration. Importantly, you must be 18 years of age or older to participate in this survey.

The survey includes questions about your marine eco-tourism experience in Akaroa, including your awareness of and opinions about marine protection measures, and your decision-making in respect of your choice of marine tourism operators. The survey also asks several questions about your demographic characteristics, and includes a question about your level of spending on marine eco-tourism experiences during your visit to Akaroa.

You are free to stop/cease their involvement at any time while undertaking the survey, at which point all the information you have given will be destroyed. However, completion of the questionnaire will indicate that you have consented to the information you provide being included in the research project.

You may be assured of your anonymity in this survey, as no identifying information will be collected about you. Statistical data will be presented in aggregate form only. All completed questionnaires will be kept in a secure location, and in the Lincoln University secure facility once analysis is completed. The data obtained in the survey will be entered into a password protected computer. The results of the project will be presented in a written report to the Akaroa Harbour Marine Protection Society.

This research project is being carried out by:

Jacqueline Rose, Postgraduate research scholar, Lincoln University

Email: Jacqueline.Rose@lincolnui.ac.nz

This research project is being supervised by:

Dr Michael Shone, Lecturer in Tourism and Recreation, Lincoln University

Email: Michael.Shone@lincoln.ac.nz

Telephone: +64 3 423-0497

Dr Stephen Espiner, Senior Lecturer in Parks and Outdoor Recreation, Lincoln University

Email: <u>Stephen.Espiner@lincoln.ac.nz</u>

Telephone: +64 3 423-0485

They will be pleased to discuss any questions or concerns you have about participation in the project.

The project has been reviewed and approved by the Lincoln University Human Ethics Committee.

Appendix C: Schedule of Interview Questions

Indicative Interview Questions for the project entitled:

'Tourism and Marine Protection Measures in Akaroa, New Zealand'

As noted in the accompanying HEC application, this research project will involve semi-structured interviews will be undertaken with marine tourism operators in Akaroa, as well as with local runanga representatives from the Onuku marae in Akaroa. For these operator interviews, key questions will focus on organisational characteristics; how marine protection measures affect their business operations; how marine protection measures and values are incorporated into their business operations and 'product'; and perceptions of the economic value associated with the promotion of marine protection measures to the Akaroa economy. For interviews with local runanga representatives, it is likely that a different line of questions may be required to address issues associated with the relationship between marine protection measures and local Maori tikanga, kaitiakitanga and the like. It is also anticipated that questions relating to the involvement of local runanga in the establishment and promotion of existing marine protection measures, including the Akaroa Harbour Taiapure, the Banks Peninsula Marine Mammal Sanctuary, and the Pohatu Marine Reserve, as well as the still-to-be-confirmed Akaroa Marine Reserve.

Indicative questions for interviewees include, but is not limited to:

- How long has your organisation been operating in Akaroa?, and how long have you been involved in marine tourism(with this organisation, and personally) in Akaroa?
- What type of marine tourism visitor experiences does your organisation provide?
- How do you communicate the values and/or features of marine protection measures to your customers (if at all)?
- In your opinion, how receptive are your customers to these above-mentioned values and/or features of marine protection in Akaroa Harbour?
- What aspects of the Akaroa Harbour physical environment feature in your product offerings?
- In what way, if at all, do the existing marine protection measures in Akaroa Harbour affect your business operations? Positive and/or negative?
- For your organisation, what are some of the benefits, and challenges, associated with operating under the marine protection measures in place in Akaroa?
- In your opinion, are the Akaroa marine protection measures an effective conservation/natural resource management tool? How could they be improved?
- In your opinion, how have the marine protection measures affected tourism in Akaroa? (positive/negative)

Indicative questions for local runanga interviewees include, but is not limited to:

- What was/is the level/type of involvement of local runanga in the design and establishment of the variety of marine protection measures in Akaroa and surrounding area?
- How do the values associated with Akaroa marine protection measures link with local Maori values and aspirations?

- In your opinion, what have been/are some of the benefits and challenges associated with marine protection measures in Akaroa? How might these benefits be optimised and/or challenges overcome?
- What is the role of local Maori/runanga in the ongoing monitoring and management of marine protection measures in Akaroa?
- How, if at all, have the marine protection measures impacted upon local Maori/runanga in Akaroa?

It is anticipated that, during the course of the interview process, new topics and issues will emerge. The semistructured interview approach will be reflexive enough to allow for these 'new' topics and issues to be followed.

Appendix D: Research Information Sheet (Operator and Runanga Interviews)



You are invited to participate as a subject in a project entitled:

'Tourism and Marine Protection Measures in Akaroa, New Zealand'

Researchers at Lincoln University have been commissioned by the Akaroa Harbour Marine Protection Society to undertake a project to assess the relationship between tourism and marine protection measures in Akaroa Harbour. This survey is being undertaken as part of a Faculty of Environment, Society and Design summer scholarship research project at Lincoln University. The information collected will provide baseline data for later surveys.

You have been selected to take part in this research project based on your role as a senior on-site staff/manager of a marine tourism operator and/or local runanga representative in Akaroa. Your participation in this project is completely voluntary, and will involve a semi-structured interview (face-to-face) with a researcher from Lincoln University. This interview will take approximately 25 minutes to complete. Importantly, you must be 18 years of age or older to participate in this research project. The interview will ask questions about how marine protection measures affect your business operations, how marine protections values are incorporated into your business operations/product, and how these values are communicated to your customers.

The accompanying research consent form contains details about how your identity, and the identity of your organisation, will be dealt with in the reporting of research findings. A number of options are provided so that you can indicate your preference, including the full disclosure of your identity and organisation, through to the full protection of your anonymity (and that of your organisation). You may be assured that we will respect your wishes absolutely. All information obtained in the interview will be kept in a secure location, and in the Lincoln University secure facility once analysis is completed. The data itself will be entered into a password protected computer. The results of the project will be presented in a written report to the Akaroa Harbour Marine Protection Society.

You are free to withdraw your involvement at any time, including withdrawal of the information you have provided, up until the release of preliminary research findings (7th February 2014).

This research project is being carried out by:

Jacqueline Rose, Postgraduate research scholar, Lincoln University

Email: Jacqueline.Rose@lincolnui.ac.nz

This research project is being supervised by:

Dr Michael Shone, Lecturer in Tourism and Recreation, Lincoln University

Email: Michael.Shone@lincoln.ac.nz

Telephone: +64 3 423-0497

Dr Stephen Espiner, Senior Lecturer in Parks and Outdoor Recreation, Lincoln University

Email: <u>Stephen.Espiner@lincoln.ac.nz</u>

Telephone: +64 3 423-0485

They will be pleased to discuss any questions or concerns you have about participation in the project.

The project has been reviewed and approved by the Lincoln University Human Ethics Committee.

Appendix E: Consent Forms (Operator and Runanga Interviews)



New Zealand's specialist land-based university

Research Consent Form

Name of Project: 'Tourism and Marine Protection Measures in Akaroa, New Zealand'

Contact Details:

Dr Michael Shone (Project Co-Supervisor) Lecturer in Tourism and Recreation Department of Social Sciences, Parks, Recreation, Tourism and Sport Lincoln University, Canterbury

Phone: +64 3 423-0497

Email: Michael.Shone@lincoln.ac.nz

I have read and understood the description of the above-named project. On this basis I agree to participate as a subject in the project. I understand also that I may at any time withdraw from the project, including withdrawal of any information I have provided, up until the release of the preliminary research findings (7th February 2014). I also consent to publication of the results of the project with the understanding that anonymity, if requested, will be preserved.

[In addition, please address each of the following points, making sure to delete the response option that does not apply to you:]

- I do/ do not consent to having my interview tape-recorded.
- I do/ do not consent to being identified personally in the publication of the research findings.
- I do/ do not consent to the group, organisation or agency I represent being identified in the publication of the research findings.
- I do/ do not consent to being re-interviewed if required by the researcher.

Name:	_
Organisation:	_
Cianadı	Data