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# TAWHARANUI REGIONAL PARK OPEN SANCTUARY VISITOR SURVEY:

# A study of visitor characteristics, their knowledge of and attitudes towards the proposed open sanctuary

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## ABSTRACT

The loss of biodiversity has been described as the most pervasive environmental threat facing New Zealand today. The significant historical losses of native flora and fauna, and ongoing losses which continue to occur, are being addressed through ecological restoration efforts carried out on offshore islands, and on the mainland ( 'mainland islands' or 'open sanctuaries'). Such restoration projects aim to restore native habitat and populations of indigenous species through targeting the biggest threat to our native species' survival: introduced pests such as possums, rats, mustelids and others.

For conservation efforts such as mainland islands to succeed in the long term, having community understanding and support is invaluable. It is becoming more and more recognised that these 'social' aspects to conservation are as important as their biological counterparts. Research in this area is known as Human Dimensions Research, which is designed to not only educate and inform, but also to allow stakeholders and resource managers the opportunity for dialogue and understanding. The Tawharanui Open Sanctuary Visitor Survey was research designed on this basis, to ascertain what visitors to the park knew about the proposed open sanctuary at Tawharanui, and to gauge their level of understanding and attitude towards it. In addition, relative levels of support for the pest control methods proposed were investigated.

The survey method involved 302 structured face-to-face interviews carried out over a sixweek period. The results showed that only a small percentage of visitors to Tawharanui knew about the plans for the open sanctuary, but that a vast majority supported the proposal. A number of useful trends were identified, such as the result that although people supported the proposed open sanctuary at Tawharanui, their support appeared to be reliant upon the continued open access to Tawharanui and freedom for recreational activities. Secondly, visitors to Tawharanui appeared to be relatively uninformed about conservation issues, thus the need for education about and advocacy for conservation, in particular the open sanctuary, was recognised. In addition, people's concerns about aspects of the proposal were also highlighted. These included a fear by some that the open sanctuary would attract greater numbers of visitors to the park, which might negatively impact upon the scenic nature and feeling of remoteness that many visitors go to Tawharanui to enjoy. A further concern identified was the strong aversion in a large segment of the population towards aerial drops as a means of pest control. This result also signifies the need for a greater focus on educating the public about conservation, and the methods employed for reaching those objectives.



Plate 1. The researcher standing with Rob the Park Ranger, at Anchor Bay carpark.

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#### CHAPTER ONE

#### INTRODUCTION

Biological diversity (biodiversity) refers to the general health of an ecosystem in terms of its richness genetically, by the number of different species present, and ecological systems or processes contained therein (Taylor & Smith, 1997). New Zealand's biodiversity is significant because it has evolved over millions of years separated from the rest of the world, and largely in the absence of humans and other animal predators. Since the arrival of humans in New Zealand however, first with the Maori and then Europeans, the last one thousand years have witnessed catastrophic losses of native plants and animals (Taylor & Smith, 1997; Hackwell & Bertram, 1999; Tong & Cox, 2000).

To help prevent further losses of native plants and animals, and also to restore ecosystems as much as possible to their pre-human influenced state, 'mainland islands' were introduced as a conservation method. This concept developed from successful conservation efforts on offshore islands, where the focus was on freeing those islands of introduced predators, and creating safe havens for endangered wildlife. Examples include Kapiti Island and Little Barrier Island, where Kiwi, Tuatara, Kokako and other vulnerable native species are regaining numbers because of the absence of predators (Hackwell & Bertram, 1999).

In the mid to late 1990s the concept of mainland islands began to be implemented more widely in New Zealand; initially with six Department of Conservation run projects, and also increasingly, by private organisations and concerned individuals. Some of these projects involved the construction of elaborate and expensive 'predator proof' fences, which effectively sealed off an area from the outside and prevented the re-invasion of animal pests once they had been removed (Campbell-Hunt, 2002). Mainland islands were also possible without fences, and could instead rely upon extensive trapping and poisoning programmes, designed to control and keep pest numbers low rather than completely eradicate them from an area (Robinson, 2002).

One important aspect of conservation management that has received belated attention, is the importance of social factors that can advance or hinder conservation programmes. Investigation of these social factors has become known as "Human Dimensions Research" (Ewert, 1996; Decker & Goff, 1987). Today greater numbers of people are taking an interest in environmental matters, whether they relate to economic growth, species conservation or an interest that stems from an ethics point of view. For this reason resource managers need to consider the opinions and attitudes of the public, and in particular affected stakeholders, in their decision making. While it is not necessary to base decisions solely on the results of such research, information gained in this way can at least promote dialogue and understanding, and perhaps help avoid potential conflict and delays to a project (Towns, Daugherty, & Atkinson, 1990).

The Tawharanui Open Sanctuary Visitor Survey is research that proceeded on the basis of the importance of social aspects to conservation. A mainland island, known in this case as an 'open sanctuary', is currently being planned for Tawharanui Regional Park, managed by the Auckland Regional Council (ARC). This project will see the park, situated on a peninsula (see Appendix H), cut off from the mainland by a two-metre high, 2.6 kilometre long fence. Extensive pest control programmes involving bait stations, hunting, aerial drops and trapping will take place, followed by widespread replanting of native trees, and the eventual introduction of endangered native animal species (Ritchie, 2000). While a large amount of planning and fundraising for this project has already taken place (as well as consultation with local iwi and neighboring landowners), no such work has previously been undertaken to gauge actual park users' attitudes and understanding of the project.

The visitor survey reported in this thesis highlights visitor knowledge of and attitudes towards the open sanctuary and predator fence. It also explores people's attitudes towards pests and pest control methods. The survey was also useful to highlight who uses the park, what they do there and their reasons for coming. An added benefit of the survey was that it was educational for the park users interviewed. In addition, the research presented in this thesis demonstrates the ARC's commitment to incorporating the views of park users in decision making concerning management of natural resources.

In terms of previous research, park visitor surveys are carried out annually by the ARC, however these only occur over the busy summer months, and generally focus on issues surrounding visitor satisfaction, and the kinds of activities undertaken by visitors (Auckland Regional Authority, 1988; ARC, 2000; ARC 2001/2002b). This previous research has provided opportunities to compare demographic information with the research presented in this thesis.

Further research, completed by Fraser (2001) examined the New Zealand public's knowledge of and attitudes towards introduced animals. Fraser's research found that for some people, New Zealand was approaching a time when certain introduced animals could be considered part of the native fauna. This research was also useful in highlighting people's attitudes towards different methods of pest control, and how the acceptability of these methods varied for different pests. For example, the larger the physical size of the pest animals, the less acceptable it was seen to be to use poisons for number control. Fraser's research provides some information pertaining to pest control methods, which can be compared with the current study.

The Tawharanui Open Sanctuary Visitor Survey sets out to describe the public's knowledge and attitudes regarding the sanctuary proposal. In coming years the survey should be replicated to gauge changing attitudes and characteristics of visitors over time. In this way Human Dimensions Research can assist the ARC combine their roles of promoting conservation at the same time as continuing to provide recreational opportunities for people.

This thesis consists of six chapters. Chapter two focuses on environmental legislation, government agencies with environmental mandates, and the most pressing environmental issue facing New Zealand, loss of native biodiversity. Chapter two also introduces the historical reasons for the decline in biodiversity, and the methods being used to help restore ecosystems. The importance of the social aspects to conservation known as Human Dimensions Research are discussed, as well as research relevant to the current study. Finally the ARC parks network is introduced, including a description of the proposed open

sanctuary project at Tawharanui, and the need for the Tawharanui Open Sanctuary Visitor Survey.

Chapter three introduces the methodology employed in this research, beginning with the main research objectives. The advantages and disadvantages of the survey method are discussed, as well as the pre-tests that were undertaken, and the sampling frame for this research. Also mentioned are the techniques used in analysing the results from the interviews, the ethical issues, and finally the limitations of this research are considered.

Chapter four summarises the results from the interviews using the format in which the research objectives appeared in chapter three. This chapter provides frequency responses, percentages, and cross tabulations of socio-demographic variables with visitor responses. Where there are apparent relationships between variables, chi-squared tests of association are run to test for statistical significance.

Chapter five then discusses the results in the same format as in chapter four, providing greater insight into the results obtained, and comparing results where possible with results from ARC research and Fraser (2001). This chapter also discusses the qualitative results and trends that appeared while collecting the data.

Chapter six summarises the important points arising from this research, and provides recommendations for the ARC and the Tawharanui Open Sanctuary Society Incorporated based on these results. Finally the limitations of this research are discussed, together with ideas for future research.