

Investigating Rāhui as a Customary Fisheries Management Tool

by

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Abstract

Marine fisheries resources sustain the social and cultural wellbeing of communities. Almost one third of the world's fisheries are overfished. The decline or collapse of a fishery not only has significant biological effects but can also have localised socioeconomic effects on communities that rely on fisheries resources for food, income and wellbeing. There has been a move away from single species management towards an ecosystem-based management (EBM) approach which considers the ecology of the target species, and takes into account socioeconomic factors. Local community management can be seen as an extension of ecosystem-based management, where the ecosystem includes the fishers who use the resource. The traditional knowledge of local communities is important in informing the management of fisheries as it accumulates over successive generations and incorporates social, environmental and cultural aspects.

In Aotearoa New Zealand, traditional knowledge is referred to as mātauranga Māori and is a knowledge system that shapes Māori identity and centralises a Māori worldview. Mātauranga Māori informs tikanga which encompasses a set of physical and spiritual principles on which to act. Māori fishing rights were guaranteed under Article II of the Treaty of Waitangi which guaranteed rangatiratanga or authority over the use and management of fisheries resources. Restrictions or temporary closures on a fishery are referred to as rāhui, a method in accordance with tikanga that provides for kaitiakitanga (environmental guardianship) at a local scale to protect resources and restore balance back to the ecosystem. The practice of rāhui has been translated into a legal framework under Section 186A and 186B of the Fisheries Act 1996 which provides for a two-year temporary closure on a fishery.

The aim of this research was to understand whether traditional (referred to as voluntary) rāhui or legal rāhui provide for rangatiratanga, and the right to exercise

kaitiakitanga. This research also aimed to identify a management tool that recognised rangatiratanga, aligned with the principles of rāhui and was recognised within a legal framework and was therefore protected by law.

Methodologically, this research was guided by Kaupapa Māori theory and utilised the qualitative methods of case study, wānanga, and semi-structured interviews with tangata tiaki/kaitiaki. One case study was situated in Whareponga on the East Cape of the North Island and investigated a voluntary rāhui. The other case study was situated in the East Otago Taiāpure (EOT) in the South Island and investigated a legal rāhui under Section 186B of the Fisheries Act 1996.

This thesis found that the voluntary rāhui in Whareponga was adaptable and provided for rangatiratanga but was not protected by the law. The legal rāhui in the EOT, on the other hand, although protected by law, was inflexible and did not provide for full rangatiratanga. However, proposed changes to fishery regulations in the EOT will provide for aspects of rangatiratanga and allow managers to exercise kaitiakitanga with the recognition of core cultural environmental management principles. These regulations will allow for a fully customary fishery that is informed by mātauranga, in accordance with tikanga and protected by law.

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Acronyms

EBM	ecosystem based management
EOT	East Otago Taiāpure
EOTMC	East Otago Taiāpure Management Committee
FAO	Food and Agricultural Organisation of the United Nations
F & S	foreshore and seabed (in reference to the Foreshore & Seabed Act 2004)
HFO	Honorary Fishery Officer
ITQ	individual transferable quota
MACA	marine and coastal areas (in reference to the Marine and Coastal Areas (Takutai Moana) Act 2011)
MAF	Ministry of Agriculture and Fisheries, a state sector organisation that managed the fisheries until 1995 and subsequently became the Ministry of Agriculture and Forestry before merging into the Ministry for Primary Industries in 2012
MFish	Ministry of Fisheries, a state sector that managed Aotearoa New Zealand fisheries from 1995 - 2012
MPA	marine protected area

MPI	Ministry for Primary Industries, a state sector organisation established in 2012 that manages farming, fishing, food, animal welfare, biosecurity and forestry sectors
MSY	maximum sustainable yield
NGO	non-governmental organisation
QMS	quota management system
TAC	total allowable catch
TACC	total allowable commercial catch
TEK	traditional ecological knowledge

Thesis Conventions

Te Reo Definitions

The definition for each te reo Māori (the Māori language) word will be provided in text the first time the word is used. Refer to Appendix 1 for the glossary.

Usage of Macrons

Macrons are used throughout the thesis unless a quote or pronoun references a word that does not use a macron (for example the use of tangata whenua in the Fisheries Act 1996).

Italicising Te Reo Māori

Te Reo Māori words are not italicised unless the word is used in a quote that italicises the word. This follows the thesis conventions of Williams (2004) and Jackson (2011). This research has a Māori kaupapa and therefore this thesis privileges Māori voices, language, customs and knowledge.

The Treaty of Waitangi, Te Tiriti o Waitangi, the treaty

This thesis will refer to The Treaty of Waitangi/Te Tiriti o Waitangi as ‘the treaty’ unless referring to the te reo Māori version when ‘te Tiriti’ will be used or the English version when ‘the Treaty’ will be used. The term ‘Te Tiriti o Waitangi’ will be used when referring to the Kaupapa Māori principle of Te Tiriti o Waitangi.

Chapter One: Introduction

Overfishing and Declining Fish Populations

Marine fisheries resources contribute globally to food security, trade and economic growth while sustaining the social and cultural wellbeing of communities (FAO, 2016; Marshall *et al.*, 2018). While the Food and Agricultural Organisation of the United Nations (FAO) claims that the world's fisheries catch has remained stable since 2010 (FAO, 2018), research that takes into account the reliability of fisheries data provides a reconstructed trend of a global decline in catch (Pauly and Zeller, 2016). According to the FAO, almost one third of the world's fisheries are overfished (Zhou, Smith and Knudsen, 2015; FAO, 2018). Consequences of overexploitation include ecological changes in community structure due to a reduction in the target species, the potential collapse of the fishery, and impacts to the social and economic wellbeing of communities that rely on fisheries resources (Mullon, Freon and Cury, 2005; Charles, 2012; Colléter *et al.*, 2015).

The biological impacts of overfishing include a reduction in the abundance and size of target species which consequently has cascading effects on the target species predators, competitors and prey which can alter the community structure of the ecosystem as a whole (Pauly *et al.*, 2002; Colléter *et al.*, 2015). The fishing industry tends to target larger, older, predatory fish at the top of the food web and as the abundance of these species decline, the abundance of competitor species or prey can increase (Colléter *et al.*, 2015; Zhou, Smith and Knudsen, 2015). The change in the size structure of the exploited species and broader impacts on community structure can often reduce the ability of the overfished species to recover if fishing pressure is removed (Zhou, Smith and Knudsen, 2015). At a population level, a change in age and size structure can have significant impacts on the reproductive output of

the species, particularly if too many breeding adults are removed (Jennings and Kaiser, 1998; Foale and Manele, 2004). If the rate of exploitation is higher than the reproductive output of a target species the fishery will decline and could collapse, especially if overfishing is compounded by other environmental or anthropogenic stressors (Foale and Manele, 2004; Cahill *et al.*, 2018). Almost one-third of global fisheries are overexploited or have collapsed and most collapses are due to the depletion of fish stocks (Mullon, Freon and Cury, 2005; FAO, 2018). When a fishery collapses, the surrounding ecosystem can shift to an alternative stable state which may be less productive (Travis *et al.*, 2014). Simply removing fishing pressure of the target species alone may not be an effective management response for the population to recover (Travis *et al.*, 2014).

The decline or collapse of a fishery not only has significant biological effects but can also have localised socioeconomic effects on communities that rely on fisheries resources for food, income and wellbeing (Charles, 2012; FAO, 2016). A decline in fisheries resources can alter the global and local ecosystem goods and services that human societies rely on for their wellbeing, often having a greater effect on marginalised coastal communities in developing countries or indigenous communities (Harper *et al.*, 2013; Johnson *et al.*, 2018). Ecosystem services can be described as the benefits that humans as individuals, communities, or humanity as a whole, gain from nature. These services can include food, building materials, medicines, climate regulation, and cultural services (Díaz *et al.*, 2006, 2015). While impacts to many of these services can be quantified, quantifying impacts to abstract concepts such as social and cultural wellbeing are harder (Johnson *et al.*, 2018).

Wellbeing can incorporate a multitude of objective and subjective concerns such as standard of living, food supply, support networks, social and cultural identities, sense of self, aspirations and individuals perceived connection to the environment and others (Salmond, Tadaki and Gregory, 2014; Weeratunge *et al.*, 2014). The human connection to the

environment is not only important in a spiritual sense but this connection is also linked to the concern individuals have regarding environmental issues. A strong connection to the environment may encourage individuals to act more responsibly towards the environment (Schultz, 2000; Vining, Merrick and Price, 2008). As all fisheries include a human element, managing a decline in fisheries resources requires consideration of all these biological, economic, social and cultural concerns (Mascia, 2004; Travis *et al.*, 2014; Johnson *et al.*, 2018).

Modern Fisheries Management

Despite the current state of the world's fisheries and the need for effective management policy, there is no unanimous view on the how these fisheries should be managed at local, national and international scales (Coulthard, Johnson and McGregor, 2011; Melnychuk *et al.*, 2017). Historically, fisheries management systems have focused on managing individual species in isolation and have largely been unsuccessful as they fail to take into account the spatial and temporal variability in stock, environmental fluctuations and complex community interactions (Pande and Gardner, 2009; Moffitt *et al.*, 2016; Skern-Mauritzen *et al.*, 2016). These management systems have focused on regulating fishing effort or catch through input or output controls, while taking into account advances in technology which increase catch capacity (Pauly *et al.*, 2002; Arceo *et al.*, 2013).

In the past, the most commonly used controls were input controls which placed a limit on fishing effort by restricting the use of fishing gear, the temporal and spatial use of a fishery, or by placing limits on the size of the fish caught (FAO, 1997; Bess and Harte, 2000; Chhun *et al.*, 2015). Output controls, on the other hand, regulate the amount of catch coming out of a fishery by using catch data to establish the maximum sustainable yield (MSY) of the fishery (FAO, 1997). Since the 1990s, there has been a move away from single species

management towards an ecosystem-based management (EBM) approach which considers the ecology of the target species, the impact fishing gear has on the habitat, and takes into account socioeconomic factors (Pauly *et al.*, 2002; Patrick and Link, 2015; Di Franco *et al.*, 2016). The EBM approach is more holistic with a goal to protect all marine ecosystem services but due to the complexity of achieving conservation and socioeconomic goals in places with different needs, implementation has been slow (Halpern, Lester and Mcleod, 2010; Chhun *et al.*, 2015; Trochta *et al.*, 2018). The conservation goals of ecosystem-based management overlap with another form of management, marine protected areas (MPAs) which are a type of spatial management tool (Halpern, Lester and Mcleod, 2010). MPAs protect part or all of a designated ecosystem by restricting fishing or banning fishing entirely but the social and economic benefits of MPAs are debatable (Halpern, Lester and Mcleod, 2010; Edgar *et al.*, 2014; Di Franco *et al.*, 2016). The conservation and socioeconomic requirements of fisheries management regimes varies significantly across communities, countries and target fish species, however regulations that limit fishing pressure appear to be most successful (Costello *et al.*, 2016; Hilborn and Ovando, 2016; Melnychuk *et al.*, 2017).

Fisheries have generally been treated as an open access resource, a view which has likely contributed to their decline (Webster, 2002). A concept in economic theory known as ‘the tragedy of the commons’ has been used to explain this potential cause of decline, whereby common pool resources are likely to be exploited due to the difficulty in reducing accessibility to the resource and an individual’s exploitation adversely affecting other users’ exploitation (Feeny *et al.*, 1990). In the adaptation of this theory for the purpose of fisheries management, the term ‘common pool’ resource has been used to mean ‘open access’ (owned by no one) as fisheries generally are (Ruddle, 1994). This theory provides only two outcomes for a fishery, the privatisation of the marine resource or the loss of the resource due to the ‘tragedy of the commons’ and gives no consideration to cooperation or the social interactions

of resource users (Gilmour, Dwyer and Day, 2011; Hawkshaw, Hawkshaw and Sumaila, 2012). Despite these limitations, this concept has often been used as justification for the privatisation of fisheries resources in management, such as the introduction of transferable property rights, or centralised control by government authorities (Feeny *et al.*, 1990; Webster, 2002).

The Decentralisation of Fisheries Management

In many countries, particularly developed countries, the management of marine resources is highly centralised with decisions, generally informed by scientific evidence, being made at a national government level (Jones, Qiu and De Santo, 2011; Arceo *et al.*, 2013). These central organisations are not only responsible for management policy but also for the enforcement of regulations (Ruddle, 1994). In some countries, this approach is often a result of colonial authorities encouraging a move away from traditional, more localised forms of management (Berkes, 1985; Pomeroy, 1995). Advocates for this approach claim that government authorities are better able to balance the need to conserve marine biodiversity with the sustainable use of these marine resources and that the issue of overexploitation is merely a symptom of inadequate governmental control (Hilborn, Punt and Orensanz, 2004; Jones, Qiu and De Santo, 2011). This ‘top-down’ approach is often too generalised, requiring a nationwide application, and at times does not take into account the needs or benefits of individual communities (Hilborn, Punt and Orensanz, 2004; Jones, Qiu and De Santo, 2011). Many countries simply do not have the infrastructure or funding to enforce fishing regulations and often the restrictions placed on these communities by state authorities are met with resistance or defiance (Hilborn, Punt and Orensanz, 2004; Jones, Qiu and De Santo, 2011). Many communities rely on fisheries for their livelihoods and a lack of alternative

livelihoods following the restriction of fishing practices often leads to a breach of nationally enforced fishing regulations (Sulu *et al.*, 2015).

The decentralisation of marine resource management is becoming more popular, particularly in less economically developed countries (Pomeroy, 1995; Jones, Qiu and De Santo, 2011). In these areas, scientific data that supports fisheries managers and policy makers is regularly unavailable and local communities are often able to monitor and manage resource use more effectively than under-funded government enforcers (Pomeroy, 1995; Singleton, 2000; Jones, Qiu and De Santo, 2011). Local people are readily able to access information regarding the state of the resource and are therefore able to modify regulations around how the resources is managed or used which is consistent with the principles of adaptive management (Berkes, Colding and Folke, 2000; Singleton, 2000). Unlike bureaucratic organisations, local communities are able to adapt and immediately respond to changes or uncertainty which results in flexible management regimes that are specific to the area or situation (Armitage *et al.*, 2009). These communities' livelihoods are invested in the sustainable use of these marine resources and fisheries managers and policy makers need to focus locally on the people that rely on these marine resources, rather than nationally on individual fish species (Pomeroy, 1995). This 'bottom-up' approach also allows local people to become involved in management decisions and policy which encourages a sense of ownership and protection over these resources (Hilborn, Punt and Orensanz, 2004; Jones, Qiu and De Santo, 2011). The move toward community-based management methods aligns with the shift in ecological theory with an emphasis on the inclusion of a humans in the management and conservation of ecosystems (Colding and Folke, 2001; Johannes, 2002). Local management can also be seen as an extension of ecosystem based management, where the ecosystem also includes the fishers who use the resource (Hilborn, Punt and Orensanz, 2004).

Co-management or collaborative management involves a combined management approach by community members and state government or an alternative authoritative organisation (Hughey, Jacobson and Smith, 2017). This method provides for a partnership between local people and national policy makers which takes into account the diverse interests and values of the groups (Pomeroy, 1995; Armitage *et al.*, 2009; Jones, Qiu and De Santo, 2011). Often, the largest stakeholder within the marine environment is the fishing community itself and including them in the decision-making policy and considering their needs is important for the success of fisheries management methods (Yates and Schoeman, 2013). Co-management can overcome the issues presented in both top-down and bottom-up management methods by empowering local communities while at the same time ensuring regulations are backed by national legislation (Singleton, 2000). Co-management also allows for the contribution of knowledge systems other than the information provided by scientific data in the management of resources, such as traditional or local knowledge provided by the users of the resource (Jones, Qiu and De Santo, 2011; Sulu *et al.*, 2015). This management method is commonly used by non-governmental organisations (NGO's) in the Pacific region where communities still maintain traditional systems of management and governmental control is ineffective (Sulu *et al.*, 2015). However, difficulties with resource co-management can arise when interest groups, such as the public or community, private stakeholders, or state authority, have dissimilar perspectives on the value of a particular environmental resource and how it should be managed (Singleton, 2000).

Traditional Fisheries Management

Co-management systems often use local and traditional practices that can be informed by the knowledge of the local community (Berkes, Colding and Folke, 2000; Moller *et al.*, 2004). These traditional practices include resource rotation, multiple species management,

protection of particular species at vulnerable life history stages, temporary harvest restrictions, the management of ecological processes at varying scales, and responding to and managing environmental variability and uncertainty (Berkes, Colding and Folke, 2000). The knowledge of local communities, often referred to as traditional ecological knowledge (TEK), informs traditional environmental monitoring and has become an important consideration in natural resource management (Berkes, Colding and Folke, 2000; Burnaby and Gibson, 2003; Watson, Alessa and Glaspell, 2003; Moller *et al.*, 2004). Spiritual, social and environmental values are tied into the context of TEK which cumulates as a result of successive generational experiences (Burnaby and Gibson, 2003; Johnson, 1992). Traditional environmental monitoring is inexpensive, allows the resource users to be the researchers and incorporates long-term observations with large sample sizes (Moller *et al.*, 2004). TEK can inform policy makers of the state of the environment and is particularly valuable in areas where little scientific research has been conducted (Burnaby and Gibson, 2003; Watson, Alessa and Glaspell, 2003). Scientific knowledge is often based on the over-simplification of an entire ecosystem, while TEK incorporates more complex observations on a small spatial scale (Gadgil, Berkes and Folke, 1993; Berkes, Colding and Folke, 2000).

It is, however, important to note that scientific knowledge and TEK are not always mutually exclusive and that both these frameworks can support management strategies depending on management goals (Berkes, Colding and Folke, 2000; Moller *et al.*, 2004). The combination of scientific knowledge and TEK can result in a greater understanding of the scientific processes, social and economic values and overall importance of the environment (Berkes, Colding and Folke, 2000; Sherry and Myers, 2002; Watson, Alessa and Glaspell, 2003).

The History of Fisheries Management in Aotearoa New Zealand

The history of fisheries management in Aotearoa New Zealand has encompassed many different methods (Figure 1) – customary (previously referred to as traditional) approaches, regulated open entry with incentives to encourage participation, and property rights-based management (Bess and Harte, 2000; Bess, 2005).

The *Muriwhenua Fishing Report* provided extensive evidence of pre-contact fishing practices and the subsequent erosion of Māori (the indigenous people of Aotearoa New Zealand) fishing rights post-contact, both before and after the treaty was signed (Waitangi Tribunal, 1988). At the time of European arrival in the late 1700s, records indicated that Māori fishing practices were considerably ‘commercial’ and well developed, with descriptions of Captain James Cook’s vessel buying fish in both the Coromandel on 8 November 1769:

The Natives brought of to the Ship and sold us for small peeces [pieces] of Cloth as much fish as served all hands (Beaglehole, 1955, p. 195).

and the Bay of Islands on 5 December 1769:

Some few we caught our selves with hook and line and in the saine [seine] but by far the greatest part we purchass’d [purchased] of the Natives (Beaglehole, 1955, p. 219)

and the equipment used by the *Endeavour* crew being considered inferior to that of Māori in the areas they visited (Waitangi Tribunal, 1988; Bess, 2001):

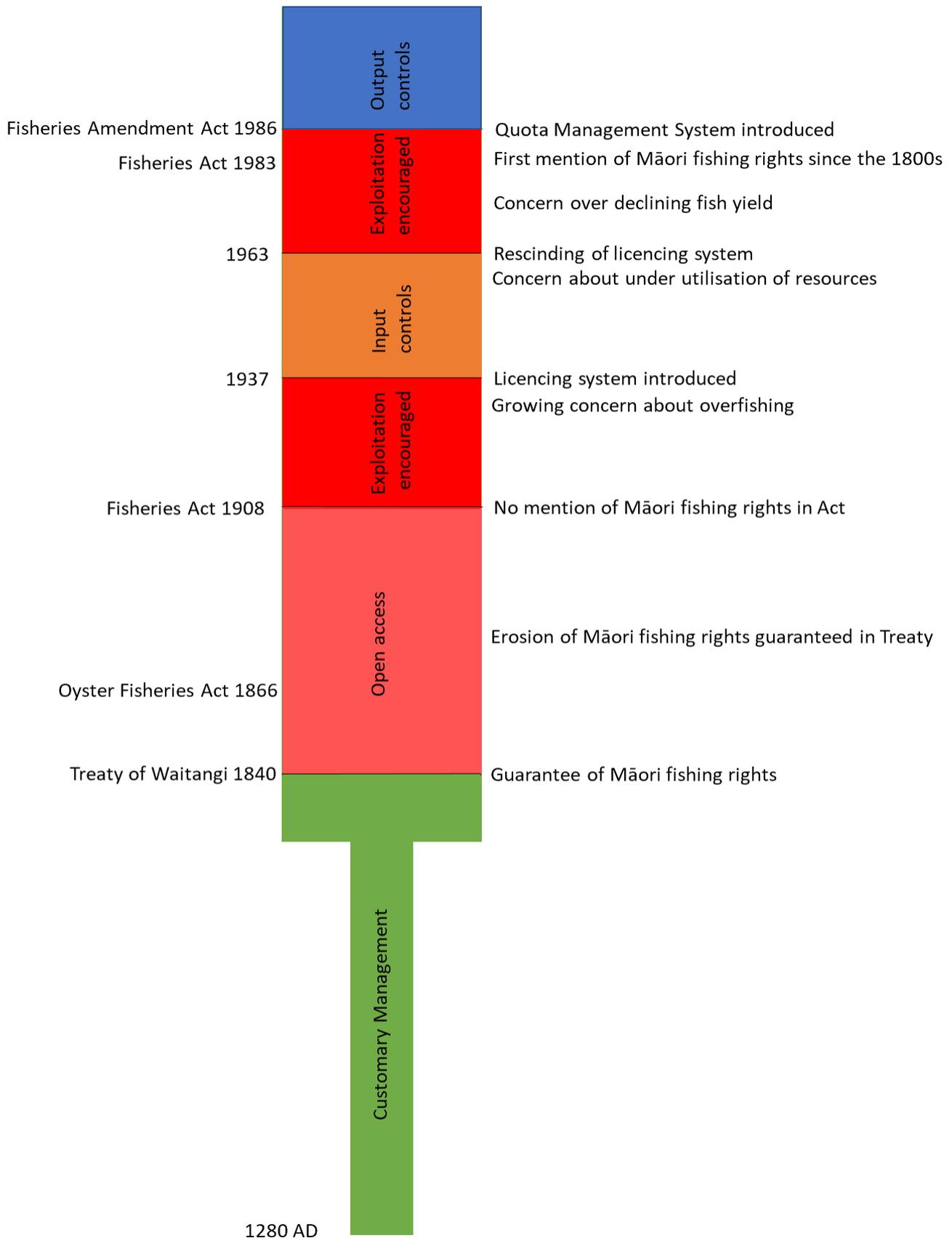


Figure 1: The history of fisheries management in Aotearoa New Zealand from the arrival of humans (~1280 AD) to present.

[The Maori] after having a little laugh at our seine, which was a common kings seine, shewd [showed] us one of theirs which was 5 fathoms deep and its length we could only guess, as it was not stretched out, but it could not from its bulk be less than 4 or 500 fathoms [700-900 m]. Fishing seems to be the chief business of part of the country; about all their towns are abundance of netts [nets] laid upon small heaps like hay cocks and thatched over and almost every house you go into has netts [nets] in its making (Beaglehole, 1955, p. 444).

Fishing areas were well defined between iwi (tribes) and hapū (subtribes), and particular resource management practices were applied at this local scale (Waitangi Tribunal, 1988; Bess, 2001). These fisheries management practices are considered a subset of customary laws, referred to as tikanga, which have been established over generations (Bess, 2011).

Tikanga comes from 'tika' which means 'to be right' and encompasses a set of physical and spiritual principles on which to act (Te Aho, 2007; Jackson, 2011). Within a fisheries management context, tikanga such as rāhui (temporary closures on a fishery) and the observance of wāhi tapu (sacred areas), were tied into the concept of kaitiakitanga (translated as environmental guardianship but expanded upon later) and were an important element of protecting resources for generations to come (Bess, 2001; Wheen and Ruru, 2011; Whaanga and Wehi, 2017). It is important to note that Māori claimed 'guardianship' over an area and the resources associated with it, rather than claiming 'ownership' like the property rights model characteristic of the Western worldview in resource management (Kahui and Richards, 2014). This view is inconsistent with the 'tragedy of the commons' theory as rather than the individual being the core social unit, for Māori it was whānau (Smith, 2012). Post European arrival, the sealing and whaling industries expanded rapidly across Aotearoa New Zealand, with ships arriving from Australia, the United Kingdom and the United States of America

(Bess, 2001; Whaanga and Wehi, 2017). From the late 1700s, until about the middle of the 1800s, the country was marked by an absence of a national framework for fisheries management, and local Māori management practices were unable to control the extensive exploitation carried out by European fishers (Bess, 2001).

The initial approach to colonisation by Western Europeans was an idea that colonisers had a right to these newly ‘discovered’ territories and that the non-Christian indigenous people were subject to their authority (Bess, 2011). The early 1800s saw the rise of the British Empire’s desire for continuity which was the idea that a move to British sovereignty did not encroach on the property rights of the indigenous people (Bess, 2011). Treaties were established as a way of unifying these newly formed nations with an attempt to create a governing framework that honoured both pre-existing laws and those held by the colonisers (Burrows, 2006).

The 1835 Declaration of Independence gave chiefs the right of governance, and as a collective the responsibility to maintain control and authority of what Durie (1998) describes as a ‘Māori nation state’. The Declaration envisioned a Māori parliament, made up by the unification of tribal groups, that would pass laws and regulations which maintained cultural values, and thus, Māori self-determination (Durie, 1998). However, the Declaration was reneged on 6 February 1840, when the treaty was signed between Captain William Hobson, representing the Queen of England, and North Island Māori chiefs (Jackson, 2013a). Following this initial signing, *te Tiriti* was taken around the country to gain more signatures from Māori chiefs (Orange, 2015). The treaty exists in an English language version and a Māori language version, however, they are not direct translations of each other (Barrett and Connolly-Stone, 1998; Jackson, 2013a). The discrepancies between the two versions of the treaty, and consequently how the articles have been interpreted, has been the source of much conflict (Barrett and Connolly-Stone, 1998). In Article II, *te Tiriti* guaranteed *tino*

rangatiratanga which has been defined as complete sovereignty or the preservation of chieftainship or authority (Te Aho, 2007; De Alessi, 2012). However, this translation was contradicted by the first article of the English version in which the Crown¹ claimed ‘all the rights and powers of Sovereignty’ over New Zealand, whereby ‘te Kawanatanga katoa’ is used as an equivalent in te Tiriti. The use of kāwanatanga as a translation for sovereignty is insufficient as it is more closely translated to ‘governance’ (Durie, 1998; Mills, 2009; Bess, 2011). It has been suggested that objections to signing the treaty would have occurred had the signatories known they were giving up their sovereignty and ability to exercise authority (Barrett and Connolly-Stone, 1998; Durie, 1998; Bess, 2011). Additionally, due to a lack of a unified ‘Māori nation state’, the concept of the English notion of a central government would have been unfamiliar to many Māori chiefs, the exception being the few who had travelled overseas (Durie, 1998). Māori fisheries rights were guaranteed under Article II; the term ‘taonga’ covered fisheries in the Māori language version and the English language version guaranteed ‘full exclusive and undisturbed possession of their Lands and Estates Forests Fisheries and other properties’ (Waitangi Tribunal, 1988; Jackson, 2013a). The initial grievances with the treaty were mostly around land rights and disputed land sales with very little evidence of issues surrounding fisheries rights (Bargh, 2016). It was only once fish stocks became locally depleted that the government started imposing regulations to restrict the harvesting of fish (Bargh, 2016).

The first fisheries legislation that was passed after the treaty was signed was the Oyster Fisheries Act 1866; however, this legislation did not make any mention to Article II of

¹ In this thesis, the term ‘the Crown’ follows the definition by Hill (2009, p.4) which states that the Crown ‘refers to the lego-constitutional institution generally called ‘the state’... the Crown is the official name for the entity with which Māori had continually to deal, ever since annexation by Britain in 1840, when interacting with state institutions and those in positions of legally-constitute authority and power’.

the treaty (Bess, 2011). Subsequent legislation, such as the Fish Protection Act 1877 did acknowledge Māori fishing rights but over time Māori were excluded from the regulatory and decision-making process with clear breaches of the treaty and an erosion of Māori fishing rights (Bess, 2011; Jackson, 2013b; Bargh, 2016). The Fisheries Act 1908 made no mention to Māori fishing rights and this Act was the main reference legislation for fisheries management until the 1980s (Bess, 2011). From the early 1900s the exploitation of fisheries was encouraged and once overfishing became a concern in the late 1930s, restricted fishery licences were introduced (Memon and Cullen, 1992). In 1963, it was suggested that marine resources were being underutilised and until 1976, licenses were given on request. By this point, it was clear that inshore fisheries had become depleted due to overfishing and regulations were required once more (Memon and Cullen, 1992). Up until this point, the New Zealand fishing industry was mostly small scale and it was not until the late 1970s that fish became an important export product (Memon and Cullen, 1992). The Fisheries Act 1908 was repealed and replaced by the Fisheries Act 1983 which declared that ‘nothing in this Act shall affect any Maori fishing rights’ and was followed by the Fisheries Amendment Act in 1986 (Durie, 1998; Bess, 2011). However, reports from The Waitangi Tribunal claim that ‘save from some special provisions in an Act or Crown Grant, there are no ‘existing Maori fishing rights’’. This has thus become an empty provision. Those words mean nothing...’ (Bargh, 2016, p. 35).

The quota management system (QMS) was introduced through the Fisheries Amendment Act 1986 in response to a decline in fishery yields and an economic crisis in the commercial fishing industry; up until this point there had been very few public discussions about ownership of fisheries (Durie, 1998; De Alessi, 2012). The QMS was based on the total allowable catch (TAC) and individual transferable quota (ITQ), removing the previous system of input controls such as gear restrictions (Sharp, 1997). The TAC was divided into

three parts – commercial (TACC), recreational and customary – with little research having been conducted on the recreational and customary divisions (Bess, 2005; Jackson, 2013b). ITQ maintained the right to land the allowable catch and with it, came the authority to sell these rights, comparable to the concept of property rights (Waitangi Tribunal, 1988; Waters, 1991). From the Crown’s perspective, Māori fishing rights and interests had historically been associated with small-scale personal needs and subsistence rights and entirely removed from commercial interests (Durie, 1998; Bess, 2001). Evidently this idea was perpetuated throughout fisheries legislation any time Māori fishing rights were considered, particularly when the Fisheries Amendment Act 1986 categorised total allowable catch into customary (which covered all Māori claims to fishing rights), recreational and commercial. This clear distinction between customary catch and commercial catch allowed commercial quota to be leased without consultation with Māori (Durie, 1998).

The Struggle for Māori Fishing Rights

The struggle for Māori fishing rights encompasses issues surrounding land and coastal ownership and access rights, and also the rights to fish or harvest marine species. These rights were guaranteed under the treaty by ensuring Māori the ‘full exclusive and undisturbed possession of their Lands and Estates Forests Fisheries and other properties’. However, as previously mentioned, these guarantees were severely eroded with time, particularly after the ruling of *Wi Parata v The Bishop of Wellington* (1877) which decided that ‘the Treaty of Waitangi was a ‘nullity’ because it had not been incorporated in statutory law’ (Bourassa and Strong, 2000, p. 160).

The Waitangi Tribunal was formed in order for a body external to the Crown to investigate the breaches of the rights guaranteed under the treaty and any injustices against Māori (Ruru and Wheen, 2016). The Tribunal was established under the Treaty of Waitangi

Act 1975 and was able to receive, report and provide recommendations in an attempt to amend breaches by the Crown (Wheen and Ruru, 2011). Many claims discussed Māori fisheries rights and the possible conflict between commercial, recreational and Māori fishing interests which could have the potential to result in the exclusive ownership of fishing grounds (Bargh, 2016). An important claim that came about was the *Muriwhenua Fishing Report* which provided clear evidence for historical fishing operations that extended outside of the scope of merely subsistence harvest into commercial fishing practices (Waitangi Tribunal, 1988; Durie, 1998). The enactment of the Māori Fisheries Act 1989 came about as an interim settlement of the Muriwhenua fisheries claim (Jackson, 2008). The Māori Fisheries Act 1989 acknowledged that the fisheries rights guaranteed to Māori under the treaty had not been recognised in the new fisheries management system (Batstone and Sharp, 1999; Webster, 2002). This Act provided for the management of local fishery areas under the term *taiāpure* which Meyers and Cowan (1998, p. 31) say ‘allow greater Māori participation in management and consultation of the non-commercial fishery’. Following this admission, the Fisheries Act 1996 was passed with an objective under Section 9 to ‘make...better provisions for the recognition of rangatiratanga and of the rights secured in relation to fisheries by Article II of the Treaty of Waitangi’ (Jackson, 2013b).

Public discussion surrounding Māori customary title over the foreshore and seabed was ignited by a decision from the Marlborough District Court in 2003 to refuse Ngāti Apa permission to farm mussels in their historical rohe and the Court of Appeal in *Attorney-General v Ngāti Apa* ruling that the Crown was acting in a way that extinguished this title (Durie, Boast and O’Reagan, 2009). The Court of Appeal declared that the Māori Land Court had the authority to hear foreshore and seabed claims, which prompted the government to create legislation to protect these areas for ‘all New Zealanders’ (Bargh, 2006). The government was concerned that if Māori were given freehold title of the foreshore and

seabed, certain areas would be privatised and public access denied (Boast, 2011). As a result, the Foreshore and Seabed Act 2004 (from this point referred to as the F & S Act 2004) was passed with the aim of protecting the foreshore and seabed in the equal interests of ‘all New Zealanders’ (Bargh, 2006; Durie, Boast and O’Reagan, 2009). The foreshore was legally defined as the area of land between the high and low water mark which is affected by the tide while the seabed was the area below the low water mark to the boundary of New Zealand’s Exclusive Economic Zone, 12 nautical miles offshore (Bargh, 2006; Boast, 2011). These areas included the air above the water and the ground and rock below it (Hickford, 2015). Contention regarding the definition of ‘land’ and whether the foreshore and seabed was included in this definition, was a driving factor for the formation of the F & S Act 2004 (Boast, 2011). It was suggested that the F & S Act 2004 provided a clear outline of the ‘ownership’ status of the foreshore and seabed but provisions for Māori customary interests were severely limited (Durie, Boast and O’Reagan, 2009). The law decided that the foreshore and seabed was the rightful property of the Crown; this decision was a breach of the treaty and concern regarding public access to important places was raised (Durie, Boast and O’Reagan, 2009). The Waitangi Tribunal reported that the F & S Act 2004 did not respect tino rangatiratanga and assumed ownership over the foreshore and seabed, breaching Article II of the treaty (Durie, Boast and O’Reagan, 2009). It was around this time, partly due to the controversy surrounding the 2004 Act, that the political Māori Party was established (Boast, 2011).

In 2005, a report was released by the United Nations Committee on the Elimination of Racial Discrimination which stated that the F & S Act 2004 ‘legislation appears ... to contain discriminatory aspects against the Māori’ and that the enactment was rushed with little consideration towards Māori rights. The Committee recommended that the State attempt to mitigate the discrimination by continuing the discussion with the Māori community and

amending the legislation (United Nations International Convention on the Elimination of all Forms of Racial Discrimination, 2005).

A Ministerial Review Panel was appointed in 2009 to carry out a review of the F & S Act 2004 due to concerns the Act did not provide for customary and public interests in regard to the coastal marine environment (Durie, Boast and O'Reagan, 2009). Rather than revert back to the previous decision that the Māori Land Court would have jurisdiction over the foreshore and seabed, new legislation was created (Boast, 2011). The Marine and Coastal Area (Takutai Moana) Act 2011 (from this point referred to as MACA Act 2011) was a response to the review of the F & S Act 2004 and guaranteed public access to marine and coastal areas (Boast, 2011; Ryks, 2014). This act provided for 'Customary Marine Title' and 'Protected Customary Rights' which acknowledged the marine and coastal customary rights of whānau (family group), hapū and iwi (Te Arawhiti, no date; Boast, 2011). Customary marine title provides tāngata whenua with the right to decline resource consents, permits, and particular conservation activities, ownership of particular minerals, provisional ownership of taonga, and to be included in consultation on some council or policy decisions (Te Arawhiti, no date; Taylor, Te Whenua and Hatami, 2018). Protected customary rights cover particular customary practices such as launching waka (canoe) and resource consents that impact these practices are not granted by the local authorities (Te Arawhiti, no date; Taylor, Te Whenua and Hatami, 2018).

In order to claim any customary rights over a particular area, evidence was required that indicated that these areas had been 'exclusively used and occupied' from '1840 to the present day without substantial interruption' (Boast 2011; Marine and Coastal Area (Takutai Moana) Act 2011). Claimants would now have to go to the High Court for the acknowledgement of these rights which is time-consuming and expensive when previously, the Māori Land Court would have granted these rights (Boast, 2011).

The foreshore and seabed debate highlighted the distinct cultural differences that exist in New Zealand in regard to ownership of, access to, and the management of the marine environment (Durie, Boast and O'Reagan, 2009). The consultation process indicated that many Māori considered the coastal marine environment a collective pātaka kai/kāpata kai (food storehouse/cupboard) with particular hapū or whānau having access to the use of resources (Durie, Boast and O'Reagan, 2009). The extensive historical use of marine resources by Māori, as opposed to land-based resources, meant that tikanga focusing on the use of coastal resource was very well defined (Waitangi Tribunal, 1988; Durie, Boast and O'Reagan, 2009). Access to resources was based on the contribution to the community and was not reliant on the ownership of the physical land or coastline (Durie, Boast and O'Reagan, 2009). Additionally, tikanga did not separate the land and the sea and the environment was viewed as a single entity, a philosophy referred as ki uta ki tai – from the mountains to the sea (Durie, Boast and O'Reagan, 2009; Hepburn *et al.*, 2010). For many non-Māori, on the other hand, the coastal environment was viewed as an open-access playground with the potential for commercial use. This idea stems from the capitalist system and the perceived entitlement to resources by way of the private ownership of pieces of land or coastline to which those resources are associated (Durie, Boast and O'Reagan, 2009). The creation of rigid, permanent coastal boundaries for the sake of resource management, as was the case with the MACA Act 2011, continues to be a standard Western rights-based practice with a focus on the physical coast line (Ryks, 2014). This approach tends to marginalise communities that form boundaries based on social order and as a result can limit their accessibility to important areas (Ryks, 2014).

Customary Fisheries Management in Aotearoa New Zealand

Traditional fisheries management in Aotearoa New Zealand is guided by tikanga and is referred to as customary fisheries management (Harmsworth, 2005; Taylor, Te Whenua and Hatami, 2018). To understand customary fisheries management, it is important to consider the environmental management philosophy in the context of te ao Māori (a Māori worldview) which can be explained through core concepts such as mauri, whakapapa, whanaungatanga, mana and kaitiakitanga (Bess, 2001; Taylor, Te Whenua and Hatami, 2018). In the Māori creation theory, all living and non-living entities possess their own mauri (life force) and are connected through whakapapa (genealogy or decent) as everything originated from the atua (gods; Bess, 2001; Harmsworth and Awatere, 2013; Taylor, Te Whenua and Hatami, 2018). The term whanaungatanga, the idea of integrated kinship, explains the interwoven realms of the physical and spiritual worlds the connection of people to each other, to their tīpuna (ancestors), to the physical environment and to the atua (Taylor, Te Whenua and Hatami, 2018). The mauri of humans is sustained by the mauri of the natural environment, and humans are privileged with mana (authority) and the obligation to reciprocate this relationship by protecting the natural environment through the principle of kaitiakitanga (environmental stewardship; Bess, 2001; Taylor, Te Whenua and Hatami, 2018). Reverend Māori Marsden describes how ‘kaitiakitanga and rangatiratanga are intimately linked’ (Royal, 2003, p. 71). Rangatiratanga provides the authority to exercise kaitiakitanga over ancestral lands and resources (Fisheries Act 1996; Jackson, 2013). By protecting and enhancing resources, Māori are protecting and maintaining themselves, their identity and their relationship with nature (Whaanga and Wehi, 2017).

The practices of customary fisheries management are informed by mātauranga Māori (Māori customary knowledge). Mātauranga Māori is the knowledge system that shapes Māori

identity and centralises Māori cultural values, practices and te ao Māori (Jackson, Mita and Hakopa, 2017; Clapcott *et al.*, 2018). This knowledge is passed on by oral communication to future generations and includes and is not limited to te reo Māori, information regarding the environment, the use of natural resources and cultural practices (Jackson, 2008; McCarthy *et al.*, 2014). Mātauranga Māori has guided the protection of taonga (treasured) species over time and led to harvesting tikanga being developed for important fisheries species (King, Goff and Skipper, 2007; Lyver *et al.*, 2015). The incorporation of mātauranga Māori in the management of natural resources is critical for those exercising kaitiakitanga to actively manage their resources (Clapcott *et al.*, 2018; Taylor, Te Whenua and Hatami, 2018).

The strong association between Māori and the ocean began historically with the voyages of Polynesians through the Pacific Ocean to reach Aotearoa New Zealand and fishing is an important activity that appears in many myths and stories, in particular the story of the demigod Māui fishing up the North Island (Wehi *et al.*, 2013). The practice of fishing is important for the transfer of mātauranga Māori in regard to these stories of tīpuna, the tikanga of fishing areas, the physical marine environment, fishing methods, and the use and harvest of particular species. Case studies have discussed the concerns of Māori about the cultural impacts of declining in fish stocks such as affecting the relationship between whānau, group activities such as fishing, preventing their ability to demonstrate manaakitanga (reciprocity in care and hospitality) or kaitiakitanga, the loss of cultural knowledge around fishing, harvest species, and management, and the barrier that reduced accessibility to marine resources created when sharing stories and skills with the next generation. (Harmsworth, 2002; Turner *et al.*, 2013; McCarthy *et al.*, 2014). Continued access to marine resources is a critical part of the continuation of the transfer of mātauranga Māori to future generations (McCarthy *et al.*, 2014).

Key Taonga Species

The coastal marine environment supports the harvest of several taonga (treasured) species that were historically, and still are today, significant for the wellbeing of Māori, their identity, and cultural practices such as manaakitanga. Some of these species include, but are not limited to, pāua (abalone; *Haliotis spp*; Figure 2), kina (sea urchin; *Evechinus chloroticus*; Figure 4; Figure 5), and kōura (crayfish; *Jasus edwardsii*; Figure 6; Wehi *et al.*, 2013; McCarthy *et al.*, 2014).

McCarthy *et al.* (2014) found pāua to be the most important species for both Māori and non-Māori locals fishing on the east coast of the South Island of New Zealand. There are three different species of pāua in Aotearoa New Zealand – blackfoot *Haliotis iris*, yellowfoot *Haliotis australis* and whitefoot *Haliotis virginia* (Freeman, 2006; Poore, 2010). Blackfoot and yellowfoot are the most abundant of the species and both are commercially harvested under the Quota Management System (Freeman, 2006). Pāua are not only valuable as a food source, but the shell is also used in traditional Māori handicraft and jewellery (Figure 3 Turner *et al.*, 2013; McCarthy *et al.*, 2014). The localised decline of pāua populations in some areas has reduced the ability for kaumātua (elders) and tamariki (children) to access this important resource (McCarthy *et al.*, 2014). Pāua and kōura are particularly important in welcoming manuhiri (guests) and honouring the concept of manaakitanga, an important aspect of connecting individuals and communities (Maxwell and Penetito, 2007; Hepburn *et al.*, 2010).

In most areas (unless bag or size restrictions are in place), the recreational limit for pāua is 10, with a minimum size of 125mm for blackfoot and 80mm for yellowfoot, the recreational limit for kōura is 6 with a minimum tail width of 60mm for female and 54mm for male, and the recreational limit for kina is 50 with no size restrictions (Fisheries New

Zealand, 2019c). Regarding the reproductive biology of the most important species, pāua and kina are both broadcast spawners whereas kōura mate shortly after moulting and females incubate the eggs for 101-116 days (MacDiarmid, 1989; Lamare and Stewart, 1998; Stephens *et al.*, 2006). Accurate growth rate data is significantly lacking in marine invertebrate species such as kina, pāua, and kōura, and growth rates vary according to geographical location (Lamare and Mladenov, 2000).



Figure 2: An assemblage of blackfoot (Haliotis iris) and yellowfoot pāua (Haliotis australis) in the East Otago Taiāpure.



Figure 3: A photo showing the inside of a blackfoot pāua (Haliotis iris) shell which is an important resource for handicraft and jewellery.

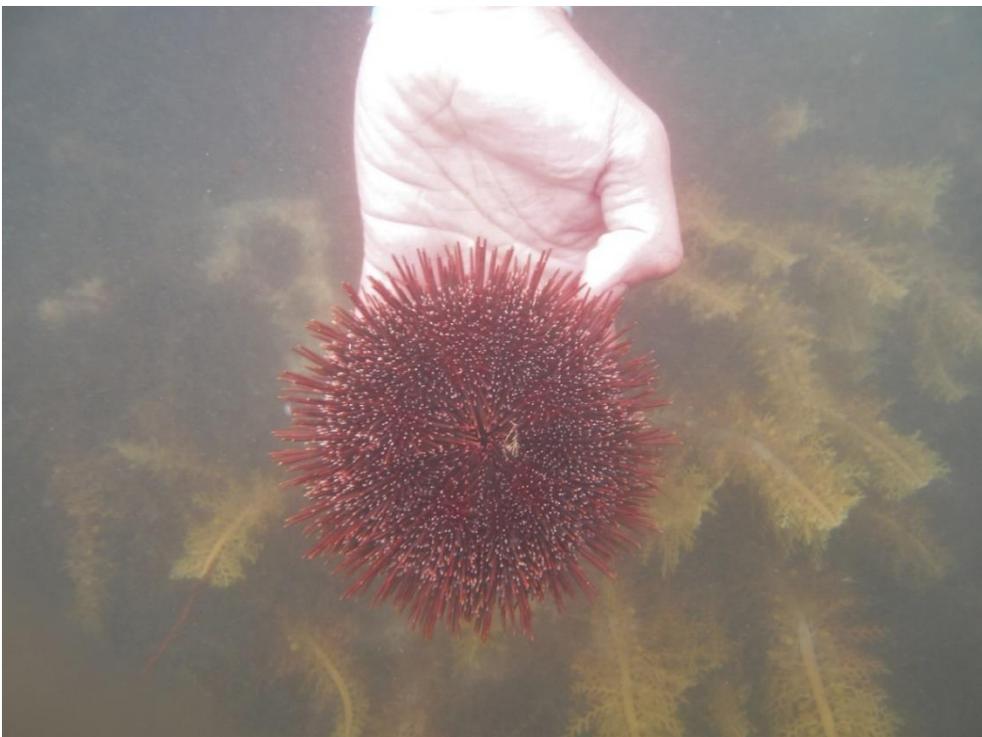


Figure 4: Kina (Evechinus chloroticus) at Whareponga Bay, East Cape.



Figure 5: Photo of the inside of a kina (Evechinus chloroticus) with the edible roe visible (yellow around the inner edges).



Figure 6: A kōura (Jasus edwardsii) in a crevice in Whareponga Bay with a toitoi (Cookia sulcata) attached on the rock above.

Customary Fisheries Management Legislation in Aotearoa New Zealand

Customary fisheries, according to Fisheries New Zealand, are the ‘recognised fishing rights of tāngata whenua’ within a rohe moana or fishing area, and allow for the traditional management of marine resources and also the gathering of non-commercial marine species (Fisheries New Zealand, 2019e). The customary fishing rights that are guaranteed in the treaty are protected by law under the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 and the 1992 Deed of Settlement (Fisheries New Zealand, 2019e). Customary fishing regulations have regional differences - the North Island and Chatham Islands fall under The Fisheries (Kaimoana Customary Fishing) Regulations 1998, the South Island and Stewart Island fall under The South Island Customary Fishing Regulations 1999 and other regulations vary according to the Deeds of Settlement for each iwi (Fisheries New Zealand, 2019e). Tangata tiaki or tangata kaitiaki (guardians) for particular rohe moana are appointed to authorise and manage customary practices. Tangata tiaki are appointed under Fisheries (South Island Customary Fishing) Regulations 1999 which covers customary fishing in the South Island, whereas tangata kaitiaki² are appointed under Fisheries (Kaimoana Customary Fishing) Regulations 1998 which covers customary fishing in the North Island. Appointment to this position is proposed by tāngata whenua but confirmed by the Minister of Fisheries (Fisheries New Zealand, 2019e). Tangata tiaki/kaitiaki can recommend fishing rules or regulations that are consistent with their customary fishing practices and they are the only individuals in the rohe moana that can authorise customary fishing. All customary catch

² This is not to be confused with the term ‘kaitiaki’ which is not in reference to any legal role but is used to ‘describe people who are charged with the guardianship and care of a specific area or tribal boundary’ (Jackson, Mita and Hakopa, 2017, p. 76)

needs to be reported to the Ministry for Primary Industries³ (MPI), the Ministry that manages Fisheries New Zealand (Fisheries New Zealand, 2019e).

Fisheries legislation in Aotearoa New Zealand provides for several customary fisheries management areas - taiāpure, mātaimai, temporary closures and customary bylaw areas (Figure 7). The customary management areas are approved by MPI but tāngata whenua and other groups can apply for these areas to be recognised (Fisheries New Zealand, 2019a). Taiāpure apply to local fisheries that have customary significance as a food source, or areas of spiritual or cultural importance. An appointed management committee can recommend fishing regulations within the taiāpure that need to be approved by the Minister of Fisheries. A taiāpure does not restrict any type of fishing such as commercial, recreational and customary and the management area can only cover estuarine or coastal waters (Fisheries New Zealand, 2019a). There are currently ten established taiāpure in Aotearoa New Zealand waters. The establishment of a proposed taiāpure requires consultation with the public and a tribunal hearing by the Māori Land Court (Fisheries New Zealand, 2019a).

Mātaimai reserves recognise the relationship between tāngata whenua and their traditional fishing areas providing for customary fishing and recreational fishing. Commercial fishing is not permitted in mātaimai reserves unless a bylaw recommended by tangata tiaki/kaitiaki reinstates the practice. Within mātaimai reserves, tangata tiaki/kaitiaki can also authorise customary fishing and recommend bylaws relating to customary or recreational

³ The public service department in charge of fisheries in Aotearoa New Zealand has gone through several name changes. Currently, the fishing sector is managed by Fisheries New Zealand which is part of the Ministry for Primary Industries. Historically, fisheries were part of the Ministry of Agriculture and Fisheries (MAF), and then the Ministry of Fisheries (MFish). This thesis will refer to MPI or Fisheries New Zealand unless another department is mentioned in a quote.

fishing rules (Fisheries New Zealand, 2019a). There are currently 11 North Island mātaihai and 36 South Island mātaihai reserves (Fisheries New Zealand, 2019a).

Temporary closures are covered under Sections 186A and 186B of the Fisheries Act 1996 and these restrictions can be requested by anyone, however their intended use is for customary management and tāngata whenua have to support the closure (Fisheries New Zealand, 2019a). Section 186A provides for the Minister of Fisheries to temporarily close any area of New Zealand fisheries waters (except South Island fisheries waters) while Section 186B provides for the Chief Executive of MPI to temporarily close an area of the South Island fisheries waters. These temporary restrictions can be applied to a particular fishery or to a particular method of fishing for up to two years (Fisheries New Zealand, 2019a). There are currently four established temporary closures throughout Aotearoa New Zealand (Table 1; Fisheries New Zealand 2019a).

Table 1: List of temporary closures in Aotearoa New Zealand including region, closure period and the type of fishery that has been temporarily closed. Table adjusted from Fisheries New Zealand (2019a).

Temporary Closure	Region	Closure Period	Fishery Closed
Marsden Bank and Mair Bank	Northland	29/06/2018 – 28/06/2020	Shellfish
Maunganui Bay	Bay of Islands	14/10/2018 – 13/10/2020	All species except kina
Kaikōura-Wakatu Quay	Kaikōura	09/11/2018 – 31/07/2019	All species
Umupuia Beach	Auckland	19/12/2018 – 18/12/2020	Cockles

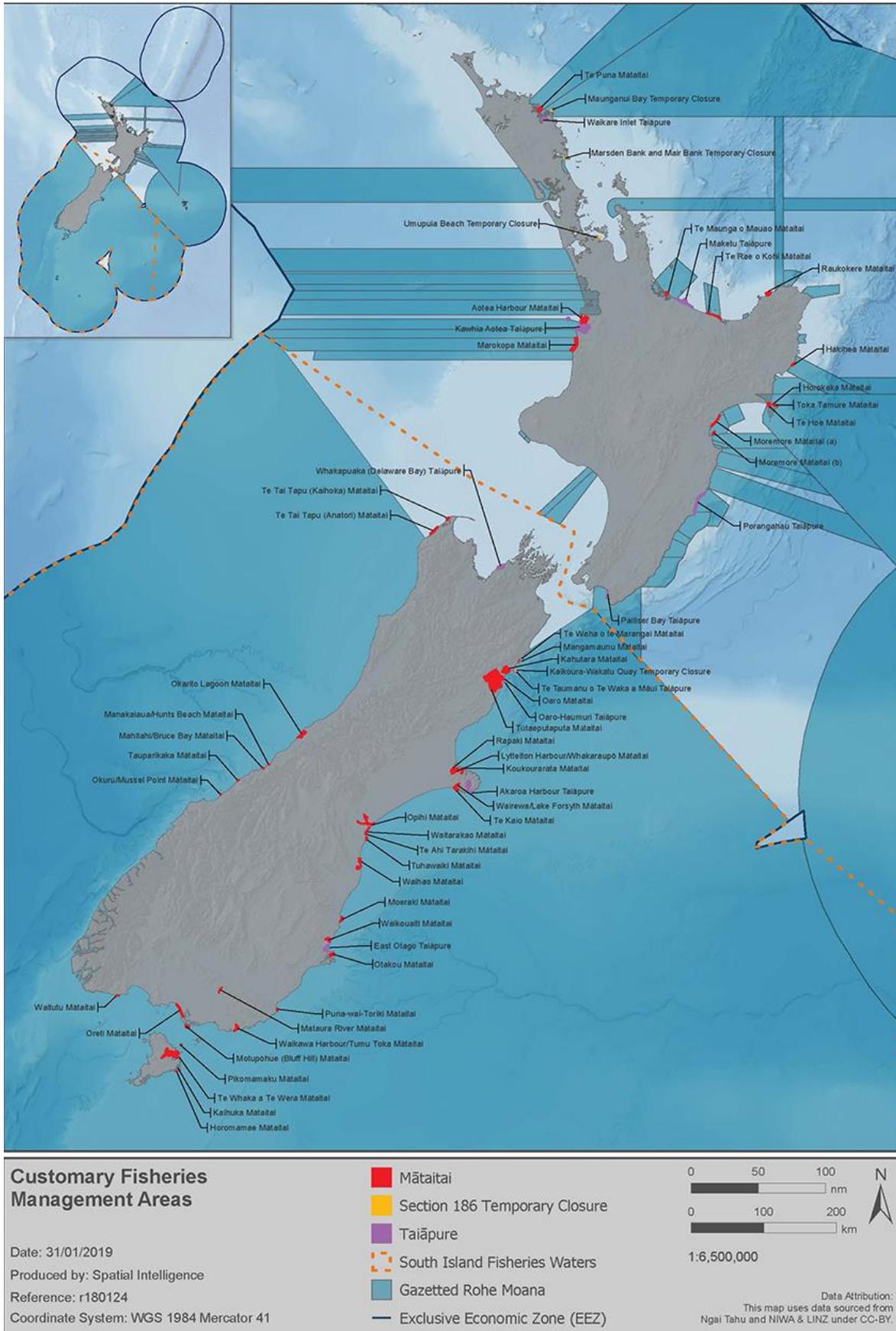


Figure 7: Map of customary fisheries management areas in Aotearoa New Zealand from Fisheries New Zealand (2019b)

Fisheries bylaws can apply to fisheries after a Crown settlement or in a mātaihai reserve (Fisheries New Zealand, 2019a). Under the Fisheries Act 1996, iwi settlements provide tāngata whenua with the authority to make bylaws that restrict or ban the harvesting of species in their rohe moana to ensure the sustainability of a fishery. Within mātaihai reserves, tangata tiaki/kaitiaki can make bylaws which restrict or ban fishing. All bylaws need to be approved by the Minister of Fisheries and can apply to the type of species taken, the quantity, size, method and area the species can be taken from. There is currently only one customary bylaw area in the country in the Waikato-Tainui fisheries area which places several restrictions on the eel fishery (Fisheries New Zealand, 2019a).

While these tools claim to recognise rangatiratanga, it has been noted that the authority still remains with MPI and the Minister of Fisheries who has to approve the application for the rohe moana, the members of the customary management committee, any proposed regulations recommended by the management committee, and the appointment of any tangata tiaki/kaitiaki (Jackson, 2013).

Rāhui as a Customary Fisheries Management Tool

The concept of a rāhui is commonly understood in a contemporary setting as a practice which prohibits or restricts access to areas and resources and is a term and institution used throughout much of Eastern Polynesia (McCormack, 2011; Bambridge, 2016). The literature describes three uses of a rāhui in Aotearoa New Zealand – a method for conserving resources, after a death to protect the area and body, and the assertion of harvesting rights or mana whenua over an area (Neich, 1991; Mead, 2003; Maxwell and Penetito, 2007; McCormack, 2011).

The first form of rāhui as a conservation practice was traditionally put in place during breeding or spawning seasons, if the resource or stocks were depleted, or in preparation for a

special occasion where large scale harvesting was required. This form could be seen as protecting the mauri (life force) of the resources in the area or the area as a whole (Royal, 2003; McCormack, 2011; Wheen and Ruru, 2011). The second form of rāhui was put in place following an accidental death, such as drowning, which protected the area and resources which was made tapu by the death (Maxwell and Penetito, 2007; McCormack, 2011). An object that is tapu could be sacred, or unclean and the tapu state can be passed on by contact or association, therefore a rāhui is enforced until this tapu associated with death has been cleansed (Royal, 2003; Maxwell and Penetito, 2007). This type of rāhui was also established as a sign of respect and aroha (love) to the deceased (McCormack, 2011). The third type of rāhui was a way to assert authority or mana whenua over an area or resource (Neich, 1991; McCormack, 2011; Wheen and Ruru, 2011).

It is important to acknowledge that rāhui exist in te ao Māori, and the concepts of tikanga, mauri, mana (described in the previous section), and tapu all support the cultural and spiritual context of the rāhui (Royal, 2003; McCormack, 2011; Bambridge, 2016). Tapu is a spiritually enforced restriction or sacred prohibition and rāhui could be viewed as a type of tapu (Kahui and Richards, 2014; Bambridge, 2016). According to Reverend Māori Marsden, the protection and replenishment of the mauri of a resource by practices such a rāhui leads to the harmonising of the ecosystem (Royal, 2003; Maxwell and Penetito, 2007). As the enforcement of rāhui was linked to the control of a resource, the effectiveness of the rāhui relied on the mana of those instating it – the more prestigious the person, the greater the mana, and therefore, the stronger the protection (Maxwell and Penetito, 2007; McCormack, 2011).

Historically, rāhui were put in place and enforced by the mana of the rangatira, or chief (Bambridge, 2016). Best (1924) describes how rāhui were instated either ‘with teeth’ or ‘without teeth’ which refers to the extent of their effects – rāhui ‘with teeth’ implied a

stronger protection had been placed over the area or resource (Best, 1924; McCormack, 2011). Rāhui ‘with teeth’ gained stronger protection after a tohunga (expert practitioner) recited a karakia (prayer or incantation) that called upon the protection of the atua ((Maxwell and Penetito, 2007; McCormack, 2011). A pou (post) was erected to indicate rāhui was in place, guard the rāhui, and demarcate the boundaries of the restriction (Maxwell and Penetito, 2007; McCormack, 2011). Rāhui ‘with teeth’ were often used to assert ownership over resources, whereas milder forms ‘without teeth’ were often instigated following a death or for resource management purposes (Maxwell and Penetito, 2007; McCormack, 2011). The instating of a rāhui ‘without teeth’ was announced by the rangatira or tohunga but the protections of the atua were not called upon (Maxwell and Penetito, 2007). The lifting of rāhui enhanced the mana of the rangatira or individual who originally established it and was often a cause for celebration (McCormack, 2011).

The ways rāhui have been implemented, enforced and lifted has changed over time in Aotearoa New Zealand and it has been suggested that milder forms exist in a contemporary setting (Maxwell and Penetito, 2007). McCormack (2011) describes this dilution as a ‘blunting of teeth’. However, Maxwell and Penetito (2007) state that the definition of ‘rāhui’ remains the same and the important principles of tikanga, kaitiakitanga, mauri, mana and tapu still give context to this institution (McCormack, 2011). In many areas, pou rāhui are still erected to provide spiritual protection and indicate the boundaries of the rāhui (Figure 8). A potential reason for ‘milder’ forms of rāhui existing today is the arrival of Christianity and the Tohunga Suppression Act 1907 which resulted in the criminalisation of tohunga and their practices, meaning rāhui ‘with teeth’ were unable to be imposed (Maxwell and Penetito, 2007; McCormack, 2011; Wheen and Ruru, 2011).

Most contemporary rāhui are instated in the marine environment or put in place after an accidental death and although not written in legislation, are recognised and respected in

some places by the public (Maxwell and Penetito, 2007; McCormack, 2011). The practice of rāhui for the purpose of replenishing marine resources has declined since European arrival (McCormack, 2011; Kahui and Richards, 2014). Maxwell and Penetito (2007) refer to these traditional rāhui as ‘voluntary’ rāhui as they are not written in law, a term that will be used in this thesis when referring to this type of rāhui. The decline in this practice is possibly due to the assertion by the Crown that the foreshore and seabed was public property owned by the Crown, a sentiment made legal in the F & S Act 2004 (McCormack, 2011). These voluntary rāhui are often ignored in places that are easily accessible to large populations, or areas with different attitudes towards conservation, resource use, and tikanga (Maxwell and Penetito, 2007). Voluntary terrestrial rāhui are even less common, McCormack (2011) suggests the confiscation of Māori owned land following colonisation as a cause, particularly as rāhui enforced ‘with teeth’ were often a claim of access or ownership rights (Maxwell and Penetito, 2007).



Figure 8: Pou rāhui at Huriawa Peninsula, East Otago Taiāpure to indicate the presence of a rāhui on pāua fishing. Photo credit: Andre van Halderen.

The Translation of Rāhui into Fisheries Management Legislation

In Aotearoa New Zealand law, references to rāhui are mostly based on the principles of conservation or sustainability measures which is what this thesis will focus on (Wheen and Ruru, 2011). Most of the literature discusses legal rāhui in the context of land based reserves for specific species such as kauri or tītī (Wheen and Ruru, 2011; Lyver *et al.*, 2017; Whaanga and Wehi, 2017; Urquhart, Marzano and Potter, 2018) or in regard to conservation land reserves such as ‘Nga whenua rāhui’ which are areas held under lease by Māori but managed by the Department of Conservation and ‘whenua rāhui’ which are part of the settlement between the Crown and Te Arawa Iwi and Hapū (Wheen and Ruru, 2011). Rāhui within legislation that focus on resource conservation can have a dual purpose by serving as a conservation tool to sustainably manage environmental resources and also as a way for Māori to be acknowledged at a political level (Bambridge, 2016).

In a fisheries management context, as mentioned earlier, legislation provides for a temporary closure on a fishery under Sections 186A (referred to as s186A) and 186B (referred to as s186B) of the Fisheries Act 1996. This legislation is under Part 9 of the Fisheries Act 1996 with the acknowledgement that these two tools have been created to ‘recognise and make provisions for the use and management practices of tāngata whenua in the exercise of non-commercial fishing rights’ and tāngata whenua are required to participate in the decision making process to ‘have regard to kaitiakitanga’. Although not explicitly named a rāhui within the legislation, this management method is commonly referred to as a rāhui by various government agencies such as MPI, the Ministry for Environment, and the Department of Conservation (Ministry for the Environment, 2007; Department of Conservation, 2014; Fisheries New Zealand, 2018a).

The literature discusses how rāhui under s186A and s186B differ from voluntary rāhui – they fail to consider important cultural values, shift the power to implement, enforce and lift a rāhui to the Minister of Fisheries, and restrict the ability to adapt the management and respond to change (Maxwell and Penetito, 2007; McCormack, 2011; Wheen and Ruru, 2011; Gnanalingam and Hepburn, 2015).

S186A and s186B are worded slightly differently but both make provisions for a two-year closure on a fishery with the purpose of restoring and enhancing a particular fish population (Gnanalingam and Hepburn, 2015). Section 186A of the Fisheries Act 1996 states:

The Minister may impose such a closure, restriction, or prohibition only if he or she is satisfied that it will recognise and make provision for the use and management practices of tangata whenua in the exercise of non-commercial fishing rights by—

- (a) improving the availability or size (or both) of a species of fish, aquatic life, or seaweed in the area subject to the closure, restriction, or prohibition; or
- (b) recognising a customary fishing practice in that area.

Section 186B of the Fisheries Act states:

The chief executive may impose such a closure, restriction, or prohibition only if the chief executive considers that—

- (a) it is likely to assist in replenishing the stock of the species of fish, aquatic life, or seaweed in the area concerned; or
- (b) it is likely to assist in recognising and making provision for the use and management practices of tangata whenua in the exercise of non-commercial fishing rights.

The legislation only provides for the enhancement of a particular species, a conservation goal that is lacking the important cultural components of voluntary rāhui that aim to restore the mauri of the fishery under the principle of kaitiakitanga (Maxwell and Penetito, 2007; McCormack, 2011). Also, kaitiakitanga is guided by appropriate tikanga which is specific to iwi or hapū and their respective rohe (territories), and therefore, the rules that guide

environmental management are implemented at a local or regional scale (Mikahere-Hall, 2017; Taylor, Te Whenua and Hatami, 2018). Most legislation in Aotearoa New Zealand that governs resources management, such as a s186A or s186B temporary closure, comes from a centralised government and is applied at a national level (Harmsworth, 1997; Gnanalingam and Hepburn, 2015). Consequently, the national application of fisheries regulations is not at an appropriate scale for the practice of tikanga that is relevant to particular iwi or hapū.

The two-year time limit is also questionable in terms of the biological benefits provided for the particular species being protected as the legislation aims to ‘assist in replenishing stock of the species’ (Fisheries Act 1996). Closures on a fishery, as a spatial management method, can take on different forms such as temporary (for a set time period) as is the case of the legal rāhui, periodic (short harvesting periods permitted), permanent, or rotational (Gnanalingam and Hepburn, 2015). The conservation goal for these closures is to enhance the size and abundance of the species by reducing fishing mortality, however there is still very little evidence on how effective a temporary closure is as a management method (Gnanalingam and Hepburn, 2015). The success of a temporary closure is subject to the recovery time of the restricted species and how it responds to the removal of fishing pressure which is dependent on factors such as the species’ baseline abundance, life history, and recruitment dynamics, the size of the closed area and how well is enforced, and the fishing pressure of the areas outside the closed area (Gnanalingam and Hepburn, 2015). The two-year time period is applicable regardless of the species being protected and the species’ particular life history traits which raises questions about the biological justification of the two-year limit.

The role of tāngata whenua, mana whenua, tohunga and rangatira in a legal rāhui is limited to a management committee position and the authority over the implementation, enforcement, and removal of a rāhui remains with the government (McCormack, 2011).

McCormack (2011) describes this as a ‘diluted form’ of the voluntary rāhui as it undermines rangatiratanga and redirects mana to the Minister of Fisheries. Originally, only individuals with mana could declare and remove a rāhui as Best (1904, p.2) stated:

An influential person establishes a rāhui, one with magical powers (supernatural) or deadly to the meddlesome. Probably someone that could make you sick or heal you. Someone with mana.

Unlike the application of mātaihai reserves or taiāpure which is restricted to tāngata whenua, there is no restriction on who can apply for a temporary closure although a temporary closure does have to be approved by local tāngata whenua (McCormack, 2011; Fisheries New Zealand, 2019d). Historically, voluntary rāhui were monitored by the tohunga and they lifted the tapu once the mauri of the area had been restored and the resource had been replenished (Maxwell and Penetito, 2007). In the case of legal rāhui under s186A and s186B, the rāhui is lifted once the two-year time period has lapsed. S186A and s186B temporary closures, however, are legally enforceable with violations resulting in fines of up to \$100,000 for breaches by commercial fishers, or \$5,000 for breaches by non-commercial fishers. This punishment has been suggested by Maxwell and Penetito (2007) as a contemporary way of bringing the ‘teeth’ back to this form of rāhui

The inflexibility of the legal form of the rāhui is another way this management tool has been ‘diluted’ (McCormack, 2011). The public notification of the legal rāhui requires a description of the rāhui boundaries, which species or fishing practices are restricted, and how long the closure is in place (up to the two-year limit). According to McCormack (2011), it takes about a year for s186A or s186B to be enacted after the application is submitted. The order has to be re-applied for every two years with the requirement of strict qualifying conditions and in most cases, the maximum period a fishery can be closed for is six years, or

three consecutive temporary closure orders (Maxwell and Penetito, 2007; McCormack, 2011). Adaptive management is one of the strengths of local management and unfortunately, this inflexibility leaves very little opportunity for the management committee to actively respond and adapt to any changes in the fishery or local environment (McCormack, 2011).

Wheen and Ruru (2011) provided several suggestions as to why there are differences between traditional rāhui and rāhui recognised in legislation. Perhaps the differences were due to the legislators not understanding the principles behind rāhui or being reluctant to create a legal framework that accurately represents the traditional rāhui. Another suggestion for the differences was that the practice of rāhui might have changed over time in how rāhui are instated, enforced and lifted and legislators have been part of the process that has redefined what the practice of rāhui looks like today (Maxwell and Penetito, 2007). There is little research that has investigated rāhui in the marine environment and most has focused on existing literature and how the practice of rāhui has changed over time or been translated into legislation (Maxwell and Penetito, 2007; McCormack, 2011; Wheen and Ruru, 2011; Gnanalingam and Hepburn, 2015; Whaanga and Wehi, 2017; Taylor, Te Whenua and Hatami, 2018). To date there has not been any specific research that aims to investigate whether rangatiratanga is provided for in the contemporary practice of rāhui nor research about rāhui that has been conducted alongside kaitiaki and fisheries managers.

The Crown has a duty and responsibility to treat Māori as partners and ensure provisions are made that honour the principles of the treaty and allow for rangatiratanga over natural resources (Wheen and Ruru, 2011). This includes the responsibility to provide for customary management methods that incorporate te ao Māori values of environmental management and kaitiakitanga. Historically, rāhui were a commonly used tool that provided for rangatiratanga and the authority to exercise kaitiakitanga to restore the mauri of the environment or a particular resource (Maxwell and Penetito, 2007). However, the practice of

rāhui, whether voluntary or legal, has changed over time (Maxwell and Penetito, 2007; Whēn and Ruru, 2011).

Aims of the Research

The aim of this research was to understand whether voluntary rāhui or legal rāhui can be used to provide for what they were ultimately designed to provide for which is rangatiratanga, and the right to exercise kaitiakitanga. Is there a management method that provides for rangatiratanga and kaitiakitanga that is incorporated in to legislation and therefore has the power of the law?

In order to better understand voluntary and legal rāhui, four research questions were asked in the context of two case studies – one that investigated a voluntary rāhui and a second that investigated a legal rāhui under a s186B temporary closure. These questions were:

1. Why is the rāhui in place?
2. What are the aspirations for the fishery?
3. What knowledge informs the management of the fishery?
4. What are the advantages and disadvantages of the rāhui as a fisheries management tool?

The first two research questions were intended to give an understand of the context of the rāhui - why management measures were in place and the value of the fishery from the perspective of tangata tiaki/kaitiaki. The last two questions related to the overall research aim of establishing whether the form of rāhui that was investigated provided for rangatiratanga and centralised te ao Māori.

These research questions were investigated in the context of two case studies – one focused on a voluntary rāhui in Whareponga on the East Cape of the North Island, and the

other case study investigated a legal rāhui under s186B in the East Otago Taiāpure on the southern east coast of the South Island.

This research was guided by Kaupapa Māori theory and methodology to ensure the research centralised Māori values. The research used the qualitative methods of wānanga and semi-structured interviews in the context of the two case studies described earlier.

How This Thesis Can be Read

This thesis is made up of five chapters. This first chapter introduced the background information and literature relating to the research topic and the aims of this research.

Chapter Two is the Methodology Chapter which will discuss the theoretical and methodological framework of the research, Kaupapa Māori theory. The methodology chapter also discusses the use of qualitative methods such as wānanga and semi-structured interviews in the context of two case studies. The interview participants and data analysis are also discussed in this chapter.

Chapter Three discusses the first case study that investigated a voluntary rāhui in Whareponga, on the East Cape of the North Island. The results of the semi-structured interviews in Whareponga are presented and the research questions are discussed in detail in relation to the voluntary rāhui.

Chapter Four discusses the second case study that investigated a legal rāhui in the East Otago Taiāpure, on the southern east coast of the South Island. The results of the semi-structured interviews in the East Otago Taiāpure are presented and the research questions are discussed in detail in relation to the legal rāhui.

Chapter Five is the concluding chapter and is presented in two sections. The first section discusses the main findings of Chapter Three and Four in order to understand whether

either voluntary rāhui or legal rāhui provide for rangatiratanga. The second section discusses the second aim of this research, investigating whether there is a management method that provides for rangatiratanga, kaitiakitanga, and is protected by law.

Chapter Two: Methodology

The methodological framework of the research is discussed in this chapter outlining the use of Kaupapa Māori theory and methodology. As a non-Māori researcher researching the practice of rāhui which exists in a Māori worldview, discussion is included about how research with Māori communities was approached and how I positioned myself in this research. This chapter also discusses the use of wānanga as a research method, and the qualitative method of semi-structured interviews in the context of two case studies. The chapter concludes with a description of inductive analysis using conventional content analysis, and deductive analysis.

Qualitative research involves an understanding of a topic relating to social life, often the experiences of a community, where words are generated from the methods rather than numbers (McCusker and Gunaydin, 2015). Rāhui, whether traditional or recognised in legislation, are tools that are used by fisheries managers who may be local authority figures or a local fisheries management committee authorised by the Minister for Fisheries or the Chief Executive of MPI (Maxwell and Penetito, 2007; Gnanalingam and Hepburn, 2015). The purpose of this research was to understand the use of rāhui from the perspective of tangata tiaki/kaitiaki that were implementing rāhui and therefore, the use of qualitative methods was appropriate.

Kaupapa Māori Theory and Methodology

Kaupapa Māori theory and methodology is a philosophy that promotes the renewal of Māori culture and practices in place of the standard Western worldview, or dominant discourse (Bishop 2008). Following the Māori renaissance in the late 1970's, Kaupapa Māori theory emerged in the 1980's as part of a greater shift in thinking in regard to the position that

Māori held in society (Durie, 2017). The establishment of the Waitangi Tribunal was also part of this shift, and the recognition of the rights guaranteed in the treaty were starting to emerge in the legislation where they had not been previously (Durie, 2017). It was during this period, that provisions were made for Māori rights in fisheries legislation, such as the interim Māori Fisheries Act 1989 and the subsequent Fisheries Act 1996 which, as mentioned in Chapter One, aimed to ‘make...better provisions for the recognition of rangatiratanga and of the rights secured in relation to fisheries by Article II of the Treaty of Waitangi’ (Jackson, 2013a).

The term kaupapa means topic or purpose and the kaupapa of Kaupapa Māori theory is reliant on a foundation of a Māori worldview (Jackson, 2015). Kaupapa Māori theory and methodology provides for the embedding of traditional knowledge into a contemporary setting, the recognition and centralisation of a Māori worldview, Māori experiences and realities, and a research approach that is beneficial to Māori (Smith, 2012; Mikahere-Hall, 2017). Western research frameworks dismiss indigenous knowledge which means that the needs and aspirations of indigenous peoples are often unable to be met (Mikahere-Hall, 2017). Much of the research focusing on Māori had provided very little beneficial outcomes to Māori communities and has been approached with a deficit-based way of thinking, focusing mostly on negatively comparing Māori to non-Māori (Walker, Eketone and Gibbs, 2006). Using Kaupapa Māori theory and methodology, Māori researchers challenged the view that Māori knowledge (mātauranga Māori) was not valid or legitimate and opposed the exploitative way Māori were often researched by non-Māori researchers (Walker, Eketone and Gibbs, 2006).

There are eight important principles of kaupapa Māori research (Rangahau, no date):

1. Tino rangatiratanga – the principle of self-determination: allow Māori to assert sovereignty, autonomy and control over their own culture and aspirations.
2. Taonga tuku iho – the principle of cultural aspiration: acknowledging and centralising te reo Māori, tikanga and mātauranga Māori.
3. Ako Māori – the principle of culturally preferred pedagogy: acknowledging the unique or preferred teaching and learning practices of Māori.
4. Kia piki ake i ngā rarururu o te kāinga – the principle of socio-economic mediation: the need for research to be beneficial to Māori communities.
5. Whānau – the principle of extended family structure: this is the core of Kaupapa Māori theory and this principle acknowledges the relationships and whanaungatanga (connectedness) between individuals and also with their environment.
6. Kaupapa – the principle of collective philosophy: the collective aspiration and vision of Māori communities.
7. Te Tiriti o Waitangi – the principle of the Treaty of Waitangi: understanding the relationship between Māori and the Crown and affirming Māori rights as outlined in Te Tiriti o Waitangi.
8. Āta – the principle of growing respectful relationships: forming and maintaining relationships when engaging with Māori.

The way Kaupapa Māori theory is applied to research changes according to the context of the research and as Durie (2017, p.2) states ‘like any term, people attach their own interpretation to it’ but overall it encompasses ‘a Māori way of doing things’. As this research investigated the customary fisheries management practice of rāhui, a concept which exists within a Māori worldview, and data collection involved interviews with Māori participants, it was important to use a Kaupapa Māori approach to ensure this research was beneficial and centralised Māori values. In some research sectors, Kaupapa Māori theory has been used as

an approach that recognises Māori perspectives (Durie, 2017). Kaupapa Māori theory was critical in recognising and understanding the perspectives of the individuals that were interviewed.

The approach taken in my overall research draws on the principles of āta – the principle of growing respectful relationships, *kia piki ake i ngā raruraru o te kāinga* – the principle of socio-economic mediation, and *taonga tuku iho* – the principle of cultural aspiration. How I applied the principle of āta will be discussed later in this chapter. The principle of *kia piki ake i ngā raruraru o te kāinga* guided my overall research project with a goal to positively support Māori communities in the management of their fisheries and identify a management method that honours *rangatiratanga*, the practice of *kaitiakitanga*, and is offered legal protection. While Smith (2012) describes this as the socio-economic mediation principle, I have also interpreted this as uplifting issues (*kia piki ake i ngā raruraru*) of home people (*kāinga*) as well as recognising that fisheries were and are an important economic base. The principle of *taonga tuku iho*, as discussed earlier, acknowledges and centralises *te reo Māori*, *tikanga*, and *mātauranga Māori*. The way I applied this principle was through privileging the use of *te reo Māori* words throughout this thesis and not italicising them which is consistent with Williams (2004) and Jackson (2011), and valuing *mātauranga* that was shared with me during *wānanga* and the interview stages of my research (these methods are discussed in detail below). These two principles are also consistent with the vision and philosophy behind the research group *Te Tiaki Mahinga Kai* that I am a part of which conducts research for the ‘sustained enhancement of the cultural, economic, social and environmental well-being of Māori, and New Zealand as a whole, through the application of *mātauranga* and science’ (*Te Tiaki Mahinga Kai*, no date). This same philosophy supports the other research group I am part of, *Te Koronga*, a Māori research excellence kaupapa at the University of Otago.

Methods

This research used the qualitative methods of wānanga and semi-structured interviews in the context of two case studies. Each method has a section that describes why these methods were used and includes subsections for each case study to describe the methods specific to the case study.

Data Collection

This research was approved by the University of Otago Human Ethics Committee (reference number D17/268) under a Category B application which is audited by the Committee after approval by the Head of Department of the Marine Science Department. A Consent Form (provided in Appendix 2) and Information Sheet (provided in Appendix 3) were provided to interview participants as part of the requirements of the ethics application.

Data collection was in the form of semi-structured interviews in two locations – Whareponga Bay and the East Otago Taiāpure (EOT). All collected data was securely stored and only the interviewer had access to this information. All interview participants were sent their transcripts to be checked for any misunderstandings or if participants wanted any content removed. As interview participants were reasonably isolated in Whareponga and internet was not always accessible, two hard copies of the transcript (one to keep and one to mark changes) were sent to each interview participant with a pre-paid return envelope. As email was the main form of correspondence with participants in EOT, transcripts were sent via email as a word document. Any changes that interview participants wanted were made to the transcripts and quotes that were used in the thesis were either changed or deleted, as requested. Once each case study chapter was completed, a draft was sent to at least one interview participant from each case study area to allow feedback and comments to be

incorporated into the chapter. On completion of the research, all personal information held regarding the participants, such as contact details and audio recordings, will be destroyed.

My Approach as a Non-Māori Working with Māori Communities

In qualitative research, it is suggested that the researcher set aside their own perspectives and worldview in order to empathise and identify with the people that they study (Taylor, Bogdan and DeVault, 2016). It is important to note there are limitations in my use of Kaupapa Māori as a research approach. Kaupapa Māori as research is characterised as research done by Māori, for Māori (Smith, 2012). Smith (2012, p.186) states that ‘a non-indigenous, non-Māori can be involved in Kaupapa Māori research, but not on their own; and if they were involved in such research, they would have ways of positioning themselves as a non-indigenous person’. As a non-Māori conducting research within indigenous communities, I have spent the past few years attempting to understand the history of colonisation in Aotearoa New Zealand, particularly in the context of research and the relationship between researchers (mostly non-indigenous) and researched, in this case Māori (Smith, 2012). There are, and always will be, limitations to my understanding and interpretation of te ao Māori as I do not share the lived experience of identifying as Māori. I have attempted to better understand my research topic through the use of Kaupapa Māori theory in my analysis, and the guidance and support of my supervisor, Dr Anne-Marie Jackson and research group Te Koronga, Indigenous Science and Research Theme and Graduate Research Excellence. My approach to research has been situated in my wider approach to understanding the world, the society we live in and working and being guided by my community groups. This has involved challenging my assumptions through a feminist lens and attempting to deconstruct the dominant paradigms that continue to oppress and marginalise groups, such as indigenous peoples (Smith, 2012).

The approach I took when conducting research with Māori communities was drawn from the Kaupapa Māori principle āta – the principle of growing respectful relationships and the Kaupapa Māori practices outlined by Smith (2012, p.124). The principle of āta was developed by Pohatu (2004) who provided a list of principles to guide the ‘understandings of relationship and wellbeing’ (refer to Pohatu 2004, p.5 for these principles). These resources allowed me to develop a set of research principles that privileged a Māori worldview (Table 2). I had built up relationships with most of the interview participants prior to the interview stage of this research – as discussed in the section below titled wānanga. The relationship my supervisors, Dr Chris Hepburn and Dr Anne-Marie Jackson, had created with these communities was also built on these principles and had been established many years prior to this research.

The cultural knowledge that I collected in this research was subject to a statement from the Mataatua Declaration on Cultural and Intellectual Property Rights of Indigenous People which declares that ‘Indigenous Peoples of the world have the right to self determination; and in exercising that right must be recognised as the exclusive owners of their cultural and intellectual property’ (Pihama and Smith, 1997).

Table 2: Principles I adopted in creating and maintaining respectful relationships when working with communities in Whareponga and the EOT and how I applied these principles in my research.

Principles	How I applied these principles
Be respectful	Be mindful of the way I interact with people, be considerate of and listen to other’s needs and feelings.
Understand my responsibility	Realise that the narratives and knowledge that is shared with me is personal to those I am interviewing and I need to ensure I do not misinterpret them or breach their trust.

Present myself face to face	Attend hui and wānanga in the community, interview participants face to face.
Maintain integrity of self and individuals	Understand the values of others that I engage with in my research and ensure I act in a way that respects those values and my own.
Maintain reciprocity and a mutually beneficial relationship	Ensure the intention behind my research is clear and that I aim to support the management goals of the fishery as determined by the community.
Be reflective	Constantly consider how my actions and research approach affects others, particularly those I am researching, and how I can improve myself and my understanding.
Be deliberate in the way that I act, listen, write, communicate	Constantly reflect on my actions, my engagement with others, and the way I am communicating and adjust accordingly.
Listen	Do not talk over interview participants when they are sharing their kōrero.
Communicate clearly and deliberately	Ensure that those I am communicating to are able to understand, avoid jargon and disrespectful language.
Be prepared	Research the area where I am conducting the research, have my set of questions prepared for the interview, have copies of the information sheets and consent forms.
Give quality time to participants	Do not have set lengths for interviews, ensure I am not distracted by others.
Study and learn concepts and values in te ao Māori	Ensure research is conducted that enhances my understanding of te ao Māori but acknowledge the limitations of my interpretations as I do not share the experiences of being Māori.
Maintain my conviction that what is being done is correct	Act in accordance to the rest of these principles with the conviction that I am supporting the communities I am working in, and others.
Remain open/consider possibilities	Ensure my thought pattern is flexible and that I am open to new ideas and avoid being clouded by my own preconceived ideas.

Share knowledge and understanding	Engage in conversations, and present my research in a respectful manner, ensure that interview participants get a copy of the chapter they provided knowledge for, and my thesis on completion.
Create a safe space	Ensure the interview participants and community members feel comfortable and have chosen the place to share knowledge.
Protect individual's intellectual property	Acknowledge that a person's narratives, perspective and knowledge is a taonga that needs to be protected, respected and not used inappropriately. Store any information I have collected securely.

Case study

Case study research as a method allows the holistic exploration of complex issues within a specific context (Zainal, 2007). Yin (1984, p.23) describes this method 'as an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident'. Data collection is often limited to a small number of research subjects or a small geographical location (Zainal, 2007). Two case studies were conducted in this research – one in Whareponga on the East Cape of the North Island, and one in the EOT on the east coast of the South Island. These two case studies allowed data to be collected on how rāhui are used in the contexts of a voluntary rāhui in Whareponga, and a legal rāhui in the EOT. In this case, the rāhui is the phenomenon described by Yin (1984, p.23), and the context is the geographical location – either Whareponga, or the EOT. The case study research method was used in this research, as the practice of rāhui does not exist in isolation from the community that uses the method. As discussed in Chapter One, environmental management in the context of te ao Māori recognises the interconnected nature of the world through whakapapa, and therefore the practice of rāhui is unable to be separated from the local context in which it exists (Harmsworth and Awatere, 2013).

Whareponga

Whareponga Bay is on the East Cape of the North Island, north of Gisborne and 20 km east of the town of Ruatōria (Figure 9). The hapū that holds mana whenua over this area is primarily Te Aitanga-a-Mate of Ngāti Porou. Whareponga was chosen for a case study as each year, the hapū implements a voluntary rāhui over all kaimoana (except finfish) for several weeks before Christmas. This case study allowed for the investigation of voluntary rāhui as a customary fisheries management tool. The content relating to this case study can be found in Chapter Three.

East Otago Taiāpure

The EOT is a customary fisheries management area north of Dunedin on the east coast of the South Island (Figure 9). The area has been identified as culturally significant to the Kāi Tahu hapū of Kāti Huirapa ki Puketeraki, the mana whenua of this area (Jackson, Hepburn and Flack, 2018). This area was chosen for one of my case studies as it has a legal rāhui on Huriawa Peninsula. Initially this rāhui was under s186B temporary closure legislation – the customary fisheries management method that this research will investigate. The content relating to this case study can be found in Chapter Four.

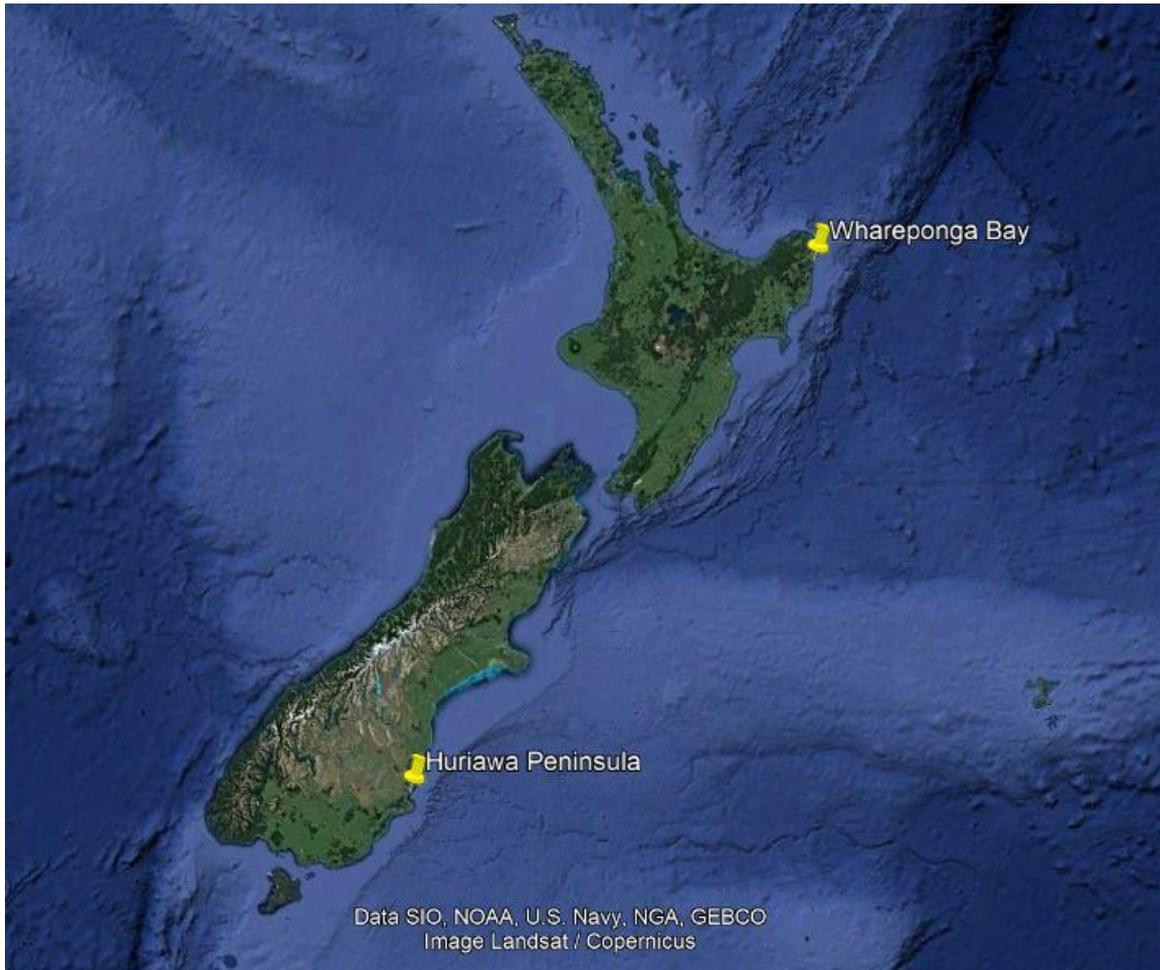


Figure 9: Map of Aotearoa New Zealand with the marked locations of the voluntary rāhui in Whareponga (north) and the legal rāhui on Huriawa Peninsula in the EOT (south).

Wānanga

Royal (2005, p.11) described wānanga as ‘the process and energy leading to understanding’ which involves discussion, debate and analysis in order to allow for the ‘the creation of new knowledge and understanding’. Providing space for shared kōrero (conversation), engaging with the cultural landscapes of the people I work with, and collaborating with others in an informal setting are the processes that contribute to what I understand and define as the method of wānanga. I used this method as a process to understand the people I worked with, build relationships, and understand their connection to each other, and to their place, with the intention that this method would ultimately lead to a

better understanding of the context of the knowledge that was shared with me during the interviews. In the next two sections, I describe the activities that provided for ‘the active process of exploring and considering’ (Royal, 2005, p. 11) that were relevant to each of my case studies, firstly Whareponga, and secondly, the EOT.

Whareponga

In Whareponga, I first met four out of the five interview participants during a 10-day visit to the Whareponga Marae in May 2016. During this visit, the research group Te Tiaki Mahinga Kai which included individuals from Te Rūnanga o Ngāi Tahu and the University of Otago, conducted biological surveys of the fishery (Figure 10). Some of the research group had visited the whānau at Whareponga several times before. This research trip allowed me to spend time with the whānau and we had many kōrero (conversation) filled nights at the marae. The following year, a hui was held at Kariaka Pa to present the report of the findings from the biological surveys that had been conducted the year before, my research was mentioned with a call for interview participants (Figure 11). The following day, I conducted my interviews.



Figure 10: Te Tiaki Mahinga Kai research team with researchers from Te Rūnanga o Ngāi Tahu and the University of Otago at Whareponga Marae on 9th May 2016.



Figure 11: Research hui held at Kariaka Pa, Ruatoria on 20th June 2017.

East Otago Taiāpure

I attended many hui and wānanga that were held at Puketeraki Marae, or in the EOT area which enabled me to build relationships with the interview participants and to better understand the cultural values that are incorporated in the landscape of the EOT.

In early 2016, I enrolled in a research fieldtrip course (AQFI421). This eight-day fieldtrip was based at Puketeraki Marae and taught me about tikanga, not only in the context of the marae but also around fisheries and environmental management. Part of this research required our team to conduct field surveys to assess pāua abundance and we were fortunate to be supported by Brendan Flack, the Chairperson of the East Otago Taiāpure Management Committee (EOTMC) and someone who has offered me a huge amount of support throughout my Master's research. On one of the field days, my team was privileged enough to take the waka *Hauteruruku* across to one of our study sites (Figure 12). I also conducted interviews with several key members of the community to investigate pāua accessibility in the EOT. This mahi included interviewing two participants that were also interview participants in this research project. This fieldtrip course sparked my Master's research kaupapa. The following year I returned as a demonstrator to support a group of students conducting research on an invasive weed on the Waikouaiti River, which provided another opportunity to engage with the community at Karitāne.

In August 2016, before I started my Master's project, I wrote a research report for He Pātaka Wai Ora, an environmental monitoring program on the Waikouaiti River which focused on important mahika kai sites (van Halderen *et al.*, 2016). This report required extensive hui with Brendan Flack, the principal investigator for the project and helped expand my knowledge of the cultural landscape of the area. A hui was held with the community to

present the findings of this report, which provided another opportunity to engage with the community.

In November 2016, I attended the three-day Te Koronga Indigenous Science Research Theme Wānanga which added to my growing knowledge of the area. Again, we stayed at Puketeraki Marae (Figure 13). Each day had a different theme to allow for an understanding of indigenous science through the pēpeha (saying) of Puketeraki – ko Hikaroroa te mauka (Hikaroroa is the mountain), ko Waikouaiti te awa (Waikouaiti is the river), ko Arai te Uru te tai (Arai te Uru is the coastline). One day one, we climbed the mauka (mountain) Hikaroroa (Figure 14), on day two we took the waka on the awa (river) Waikouaiti, and on day three we shared kōrero on the coastline of Arai te Uru (the ancestral waka).

I first presented my Master's thesis proposal to the community as part of the EOT research evening in November 2017, and again in November 2018. This was an important hui that allowed me to share my research with the community, and provided the future interview participants that attended, with a greater understanding of my research. During this time, I also attended several EOTMC meetings.

In April 2019, I attended Ki Uta Ki Tai Volunteer week where I stayed at Puketeraki Marae and along with other volunteers and community members, worked alongside four coastal community groups to support habitat restoration and conservation. During this time, I was able to spend time with four of the individuals that I interviewed. One of the interviews was conducted during this weekend.



Figure 12: Taking the waka Hauteruruku out on the Waikouaiti River to reach a survey site as part of my earlier research in the EOT on 9th March 2016.



Figure 13: The sun sets behind the mauka Hikaroroa during the three-day Indigenous Science Research Theme Wānanga run by Te Koronga at the Puketeraki Marae on 21st November 2016.



Figure 14: Day two of the Indigenous Science Research Theme Wānanga where we climbed up Hikaroroa on 21st November 2016.

Semi-structured Interviews

The semi-structured interview is the most common interview technique used in qualitative research due to its flexibility in being able to adapt the questions according to the responses (Kallio *et al.*, 2016). Semi-structured interviewing requires some study of the research topic to formulate the questions before conducting the interview (Kallio *et al.*, 2016). Semi-structured interviews often use open-ended questions which guides the interview while maintaining a natural conversational structure which provides insight into individual experiences and the flexibility to gather more information from interview participants relating to the research topic (Lindloff and Taylor, 2002; Galletta, 2013).

The aim of this research was to understand voluntary and legal rāhui from the perspective of the tangata tiaki/kaitiaki that were using rāhui as a fisheries management tool, particularly

how these tools provided for rangatiratanga and the practice of kaitiakitanga. For that reason, it was important to understand the experiences of the people who implemented rāhui – both voluntary and legal rāhui - and semi-structured interviews were an appropriate method of data collection for this research in each of the case studies.

Galletta (2013) discussed the importance of reciprocity in the researcher's relationship with the interview participant. Researchers are able to adapt and improvise their questions based on the responses from the interview participants while allowing the participant the space to speak with no restrictions (Kallio *et al.*, 2016). Smith (2012, p.124) discussed reciprocity as an important principle in conducting research with Māori communities and also described the importance of kanohi kitea or the seen face and meeting people face to face in order to build trust in the relationship between the researcher and the researched (Pipi *et al.*, 2004). The principles of reciprocity and kanohi kitea are also the reason why I decided to use the semi-structured interview method in my research.

The interviews were recorded using a Sony ICD-PX312 Digital Voice Recorder and transcribed word-for-word. The collected data was securely stored and only accessed by me, the researcher.

Interview Schedule

The starting question is an important part of the interview as it creates a narrative that can be built on by more theoretical questions as the interview progresses (Galletta, 2013). Galletta (2013, p.48) states that 'achieving space for data deeply grounded in the participant's experience and angle of vision should be the primary focus of the first segment of your interview protocol'. The first interview question in each case study was therefore intended to gain a broad insight into the participants historical and current experience of fishing and their involvement in the management of the fishery.

Whareponga

Five semi structured interviews were conducted *kanohi ki te kanohi* (face to face) in places that were comfortable and convenient to the interview participants – four interviews were conducted at Kariaka Pa (Figure 15), and one interview was conducted on Whareponga Beach (Figure 16). All interviews were conducted on 21st June 2017 (Table 3) and the length of the interviews varied from 24 to 45 minutes.

The interviews comprised of a set of nine open-ended questions and explored the interview participants' experiences of fishing at Whareponga, how the fishery had changed over time, the details of the *rāhui* at Whareponga and their aspirations for the future of the fishery. There was little fisheries management literature (Subritzky *et al.*, 2017) or archival information available for Whareponga and therefore the interview questions attempted to gain more in depth knowledge of the current and historical fisheries management practices in the area, and the perceived state of the fishery. The first question was an important way to establish each interview participant's personal narrative and to better understand how they positioned themselves within the fishery. Asking interview participants to recall their earliest memory of fishing was a way of assisting the participants to access memories about the fishery that may have been forgotten (Galletta, 2013).



Figure 15: (From left to right), Anne-Marie Jackson, Samantha Jackson, Tatai Ngarimu, Eliz Ngarimu, Chris Hepburn and Lisa van Halderen standing in front of Kariaka Pa in Ruatōria, East Cape, 23 June 2017.



Figure 16: Conducting an interview on Whareponga Beach, 21 June 2017.

Table 3: Interview questions for participants to guide the understanding of the rāhui at Whareponga, East Cape, Aotearoa New Zealand.

Interview Questions

1. What is your earliest memory of fishing at Whareponga?
2. Which species do you harvest when you go out fishing?
3. What methods did you use when you went fishing?
4. With regard to abundance and accessibility, how has the fishery changed over time?
5. Is there enough kaimoana for your needs?
6. What management methods are used to maintain/enhance the fishery?
7. What are the challenges involved with implementing the management method(s)?
8. What are your aspirations for the fishery and how could the management be better supported?
9. What role do you think science plays/could play in the management of the fishery?

East Otago Taiāpure

Five semi-structured interviews were conducted *kanohi ki te kanohi* in places that were comfortable and convenient to the interviewees – Puketeraki Marae, the Kāti Huirapa Rūnaka ki Puketeraki offices, the home of one interviewee, and the University of Otago Marine Science Department (Figure 17). The interviews were conducted between 2nd April 2019 and 28th April 2019 (Table 4) and the length of the interviews varied from 32 minutes to 1 hour 33 minutes.

The interviews comprised of a set of seven open-ended questions and mostly explored the interview participants experiences with the establishment of the EOT, and the rāhui on

Huriawa Peninsula, how the management had changed over time, the challenges involved in management and their aspirations for the future of the fishery. The EOT had extensive published literature regarding the state of the fishery and the history of fisheries management in the area (Jackson, 2008; Hepburn *et al.*, 2010; McCarthy *et al.*, 2013; Subritzky, 2013; Ministry for Primary Industries, 2016; Fisheries New Zealand, 2018b) and therefore questions were more focused on the interview participant's perspectives on the success of the rāhui and the challenges of implementing the legal rāhui.



Figure 17: Puketeraki Marae in Karitāne.

Table 4: Interview questions for participants to guide the understanding of the rāhui in the EOT, north Otago, Aotearoa New Zealand.

Interview Questions

1. What was your involvement in the establishment of the EOT?
2. What were the major challenges in implementing the EOT and the rāhui at Huriawa Peninsula?
3. What is your history of fishing in the area?
4. How has the fishery changed over time?
5. What role do you think science has played in the management of the EOT and the rāhui?
6. How do you think management could be better supported?
7. What are your aspirations for the fishery?

Interview Participants

This research involved investigating rāhui as a customary fisheries management tool and therefore tangata tiaki/kaitiaki in the community were interviewed as they were the individuals that actively managed the fishery. These individuals were most likely to offer information that was relevant to understanding voluntary and legal rāhui as fisheries tools. In each case study community, there was one person who was considered a point of contact and they subsequently suggested other individuals to be interviewed. All interview participants lived in the case study area and had fished in the particular fishery. Interviewees also had a range of occupations which encouraged diverse perspectives, a method recommended in qualitative research to provide a greater understanding of the research topic (Galletta, 2013).

Before conducting interviews, the permission to use specific names within the research was discussed. Most of the interview participants wanted to remain anonymous and

felt that they were able to discuss sensitive topics during the interview as a result.

Consequently, I decided to maintain anonymity for all interview participants in order to avoid more weight being given to the narratives of those with names. In each case study, interview participants were assigned a number from 1 to 5 and quotes were attributed to participants by their assigned number being placed in brackets after the quote.

Whareponga

All interview participants were of Ngāti Porou descent, were born in Te Puia and had grown up in the area – either in Whareponga or Reporua Bay. All interviewees had fished in Whareponga Bay, and were actively involved in the management of the fishery.

Interview participant (1) was a female, had studied a degree in Science with a Law Environmental Option and, was a current board member of Ngāti Porou Hauora (the primary health care provider in the area). Interview participant (2) was a female, and an administrator for Hikurangi Takiwa Trust and, supported many other legal entities to create local employment and improve biodiversity. Interview participant (3) was a male, kaitiaki of the Whareponga Marae, was an active fisher, and had extensive knowledge about the fishery at Whareponga. Interview participant (4) was a male, the deputy chairperson of the Whareponga Marae and, was tangata kaitiaki and had the authority to issue customary fishing authorisations. Interview participant (5) was a female, had been the Te Puia Services Manager of Ngāti Porou Hauora, was currently the Manager of Healthy Families East Cape and, had been involved in the drafting of the amended Deed of Agreement.

East Otago Taiāpure

All interviewees lived in the Karitāne area and were involved or had been involved in the EOTMC.

Interview participant (1) was a female, a member of the EOTMC, and had been involved in the establishment of the taiāpure. Interview participant (2) was a male, the Chairperson of the EOTMC and, along with interview participants (3) and (4), who were both female, were approved tangata tiaki for the rohe moana of Kāti Huirapa ki Puketeraki. Interview participant (5) was a male, and a Māori Reserve Trustee representative that had been heavily involved with the EOTMC when the rāhui at Huriawa Peninsula was established.

Data Analysis

The data collected in this research was analysed using both inductive analysis (conventional content analysis) and deductive analysis (Kaupapa Māori theory). The interview data was analysed using qualitative methodology as the researcher required understanding rather than quantification (Patton and Westby, 1992). It is impossible for researchers to remove their preconceived assumptions about the world and for analysis to be entirely inductive and therefore, using deductive analysis and operating within a theoretical framework such as Kaupapa Māori theory was important to understand the data within a cultural setting (Taylor, Bogdan and DeVault, 2016). Using Kaupapa Māori theory for deductive analysis was valid as the concept of rāhui exists within a Māori worldview and data was collected from Māori interview participants.

Conventional Content Analysis

Content analysis is an important analytic approach in qualitative research that is used to understand text data (Hsieh and Shannon, 2005). Hsieh and Shannon (2005, p.1278) define qualitative content analysis as ‘a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying

themes or patterns'. In conventional content analysis, the researcher uses no preconceived themes to analyse the data and instead, themes emerge from the data. This approach is used if there is no existing theory regarding the research topic that can be applied to the data (Hsieh and Shannon, 2005). The researcher reads and re-reads the content to allow immersion in the data and to allow groups of ideas or themes to emerge (Kondracki, Wellman and Amundson, 2002; Erlingsson and Brysiewicz, 2017).

Inductive

The inductive analysis allowed the themes to appear from the raw interview data, as discussed above. The data was repeatedly read as a whole to ensure immersion and to allow clusters of thoughts or themes to emerge from the data. Passages or quotes in the data relating to the main thoughts were highlighted and linked to other thoughts to form a larger theme.

Whareponga

The inductive analysis of the data using conventional content analysis established three themes: gathering; abundance; and; management. These themes are discussed in the Results section of Chapter Three.

East Otago Taiāpure

Inductive analysis of the interviews established two themes: challenges and; the role of science. The theme challenges was comprised of several subcategories: the legal process; time; perceptions and; poaching and enforcement. These themes are discussed in the Results section of Chapter Four.

Deductive

Deductive analysis is interested in how the raw data relates to a particular theory or hypothesis (Wildemuth, 2016). In this research, the principles of Kaupapa Māori theory were used in the deductive analysis of the interview data. As mentioned earlier, Kaupapa Māori theory has been used as an approach that recognises Māori perspectives (Durie, 2017). This research aimed to understand the practice of rāhui from the perspective of tangata tiaki/kaitiaki, the practitioners of kaitiakitanga, and therefore Kaupapa Māori theory was used as a framework for deductive analysis to recognise and understand these perspectives. Applying principles of Kaupapa Māori theory to analyse the interview data provided a framework that allowed culturally relevant meaning to be derived from the data, particularly as rāhui are situated within a Māori worldview.

The principles of Kaupapa Māori theory that were applied to the raw interview data are listed below with a description of the code that was developed from each principle before the analysis of the data. Quotes that were relevant to the codes were highlighted and grouped together. These are presented in the Results section of Chapter Three (for the Whareponga case study) and Chapter Four (for the EOT case study).

Some of the principles were only applicable to the data collected from one case study, this is also discussed below:

Tino rangatiratanga – the principle of self-determination. This principle is incorporated into the treaty and relates to Māori having control and autonomy over their culture (Rangahau, no date; Katoa Ltd, 2017). The code that was developed from this principle helped to answer research question 4., and identified passages that discussed whether the rāhui provided for rangatiratanga according to the tangata tiaki/kaitiaki that were interviewed.

In this context, rangatiratanga was interpreted as the right to practice kaitiakitanga without restriction (Jackson, 2013a).

Taonga tuku iho – the principle of cultural aspiration. This principle centralises te reo Māori, tikanga, and mātauranga and acknowledges their relevance (Rangahau, no date). The code that was developed from this principle helped to answer research question 4., and identified data that discussed whether the particular form of rāhui provided for practices that were consistent with tikanga such as kaitiakitanga and manaakitanga, was informed by mātauranga, and also recognised the important values associated with kaitiakitanga such as mauri (King, Goff and Skipper, 2007; Lyver *et al.*, 2017).

Te Tiriti o Waitangi – the principle of the Treaty of Waitangi. The treaty defines the relationship between Māori and the Crown and affirms the rights guaranteed to Māori under the treaty, as discussed in Chapter One (Rangahau, no date). The code that was developed from this principle helped to answer research question 4., and identified data relating to the relationship between the community and the Crown, and how the management affirmed the Māori rights as outlined in the treaty. For the data in the Whareponga case study, this principle applied to the relationship between Ngāti Porou and the Crown as set out in the amended Deed of Agreement, which existed as a draft at the time of the interviews and is discussed in more detail in Chapter Three. This principle was particularly relevant for the EOT case study as the legal rāhui was a Crown creation. This principle attempted to find interview data that indicated that the rights guaranteed under the treaty, such as rangatiratanga and therefore the authority to exercise kaitiakitanga, were provided for in the practice of the legal rāhui (Jackson, 2011).

Whānau – the principle of extended family structure. This principle recognises the connectedness and kinship between Māori, and between Māori and their environment and is

at the core of Kaupapa Māori (Rangahau, no date; Mane, 2009). The code that was developed from this principle identified interview data that provided a contextual understanding of the importance of the fishery to answer question 1., by understanding how the practice of rāhui was important in sustaining the relationships between individuals in the community and their relationship with the ocean.

Kaupapa – the principle of collective philosophy. The term kaupapa means purpose, and the principle of Kaupapa refers to the collective purpose or aspiration of Māori communities (Rangahau, no date). The code that was developed from this principle helped to answer research questions 2., and identified data relating to the tangata tiaki/kaitiaki aspirations for the fishery and any future management goals.

Ako Māori – the principle of culturally preferred pedagogy. This principle recognises teaching and learning practices that are either unique to Māori or preferred by Māori (Rangahau, no date). The code that was developed from this principle identified data that discussed the teaching and learning practices that allowed the sharing of knowledge about the fishery, or management. This code was developed for the data from the EOT interviews as the literature describes how the management story of the EOT can be used as a useful reference for other communities that want to locally manage their fishery (Jackson, Hepburn and Flack, 2018).

Whareponga

Deductive analysis of the data using Kaupapa Māori theory established five themes based on principles used to analyse the data: tino rangatiratanga; Te Tiriti o Waitangi; taonga tuku iho; whānau; and; kaupapa. These themes are discussed in the Results section of Chapter Three.

East Otago Taiāpure

Deductive analysis using Kaupapa Māori theory established five themes based on the principles used to analyse the data: Te Tiriti o Waitangi; ako Māori; whānau; tino rangatiratanga; and; kaupapa. These themes are discussed in the Results section of Chapter Four.

Conclusion

This research used semi-structured interviews, wānanga and case study methods to gather information to investigate voluntary rāhui and legal rāhui. These methods are consistent with Kaupapa Māori research which centralises a Māori worldview as they included a framework to understanding Māori perspectives, reciprocity, and presenting myself face to face (in both interviews and through sharing knowledge and understanding through wānanga) while at the same time acknowledging the interconnectedness of the living and non-living components of the world (through the use of case study). This approach to research was critical for me to understand the use of two different forms of rāhui in two different locations, and how the management provided for rangatiratanga and the practice of kaitiakitanga. The use of Kaupapa Māori principles to analyse my data allowed me to understand the perspectives of the tangata tiaki/kaitiaki through a cultural lens and removed some of the limitations that my own perspectives had on interpreting the data.

Chapter Three: Whareponga Case Study

This chapter explores the research questions outlined in Chapter One in the context of a case study of a voluntary rāhui in Whareponga. This chapter provides background information about Whareponga and discusses the results of the semi-structured interviews that were conducted with kaitiaki. In the discussion section, the research questions are discussed in relation to the results with reference to the relevant literature.

Introduction

Whareponga Bay is located 20km east of Ruatōria, 128km north of Gisborne on the East Cape of the North Island (Te Puni Kōkiri Ministry of Māori Development, 2017; Māori Maps, n.d.; NZ History, n.d.; Figure 18). The hapū that whakapapa to Whareponga are primarily Te Aitanga-a-Mate of Ngāti Porou (Māori Maps, no date). Similar to other bays in the area, Whareponga has been affected by the movement of whānau away to larger cities for further education or employment opportunities (Te Puni Kōkiri Ministry of Māori Development, 2017).

In 2008, Ngā Hapū o Ngāti Porou entered a deed of agreement with the Crown regarding the foreshore and seabed in the rohe moana of Ngāti Porou. Ngā Hapū o Ngāti Porou Foreshore & Seabed Deed of Agreement (referred to as the F & S Deed) was signed at Parliament by 48 hapū, including the hapū at Whareponga, and the Crown (Te Runanganui o Ngāti Porou, 2019). The F & S Deed required amending when the F & S Act 2004 was replaced by the MACA Act 2011 (Ngā Hapū o Ngāti Porou, 2016). The MACA Act 2011 provided for the recognition of customary interests which had been excluded in the F & S Act 2004 meaning whānau, hapū and iwi could apply for particular customary rights to be recognised (Ngā Hapū o Ngāti Porou, 2016; Taylor, Te Whenua and Hatami, 2018). The

assertion of the rights to use and access the rohe moana of Ngāti Porou by ngā hapū o Ngāti Porou was based on several claims such as unbroken occupation since 1840, common law, tikanga, and the fact the title of the rohe moana had never been relinquished to the Crown (Ngā Hapū o Ngāti Porou, 2016). As the F & S Act 2004 claimed that the foreshore and seabed belonged to the Crown, Ngāti Porou strongly opposed the F & S Act 2004.

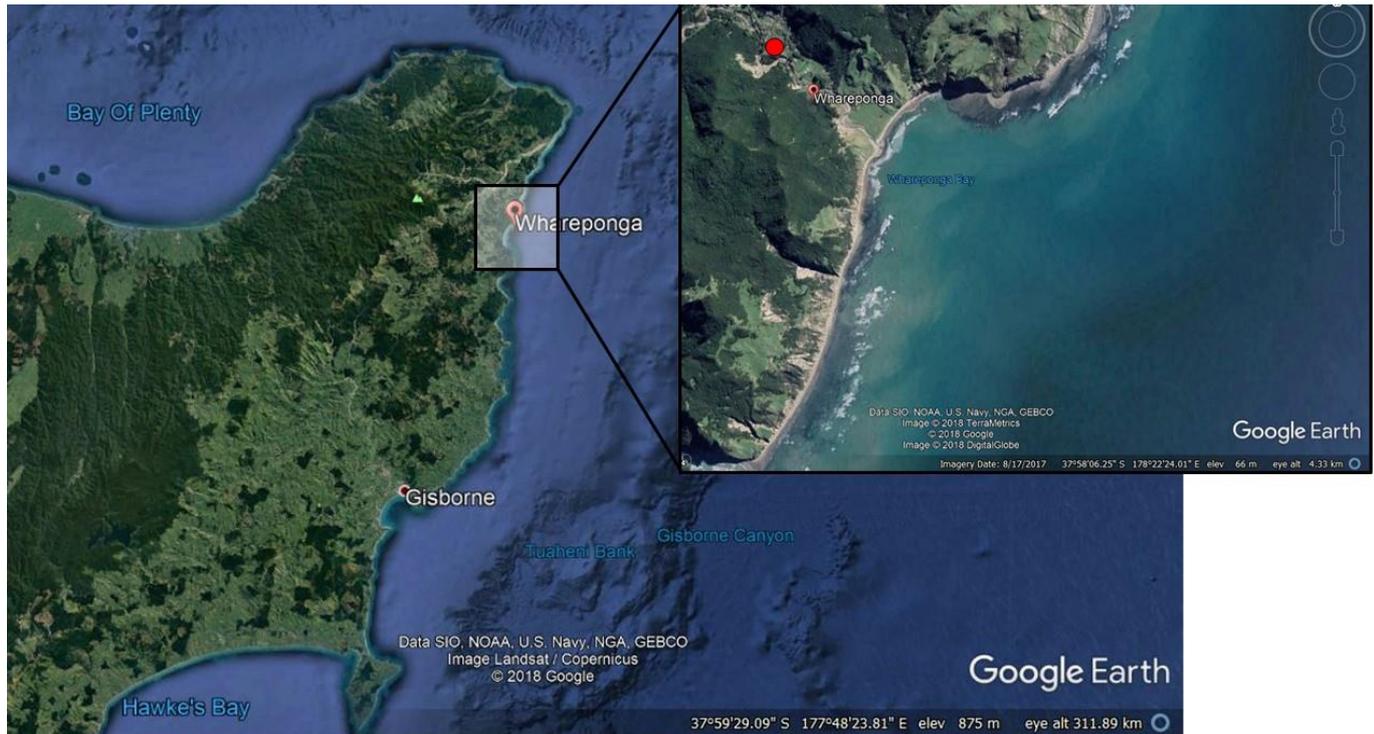


Figure 18: Map of Whareponga, East Cape, New Zealand. Red dot indicates the location of the Whareponga Marae.

The new MACA Act 2011 provided for customary marine title to be recognised under particular circumstances and asserted the common marine and coastal area (previously referred to as the foreshore and seabed) was not owned or capable of being owned by anyone, Crown or other persons. The Deed to amend the F & S Deed (referred to as the Deed⁴) maintained the unbroken mana of the collective ngā hapū o Ngāti Porou over the rohe moana

⁴ The Deed was the preferred term of use by the community in Whareponga when referencing the deed to amend the F & S Deed of Agreement.

and the continued exercising of these rights and activities, such as customary fishing, according to tikanga (Ngā Hapū o Ngāti Porou, 2016). The Deed recognised the strong relationship ngā hapū o Ngāti Porou had with the fishing grounds in their rohe moana. The Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Bill (No.2), which replaced the previous version, was prepared to be introduced to Parliament following the Election in 2017 (E.T. Ngarimu, personal communication, April 24, 2019). Before a bill becomes an Act of Parliament, three readings are required to allow for public debate and on 23 May 2019, the Ngā Hapū o Ngāti Porou Bill (No. 2) which gives effect to the Deed, passed the third reading (New Zealand Parliament, 2016; New Zealand Government, 2019b). In relation to fisheries management, the Ngā Hapū o Ngāti Porou Act will provide the hapū at Whareponga with the ability to make bylaws supported by law that restrict or prohibit fishing in customary marine title areas in order to exercise kaitiakitanga and protect their fishery.

Scientific research on the state of the fisheries at Whareponga Bay has been conducted. In January 2011, kaimoana and habitat surveys were carried out by members of Te Aitanga-a-Mate hapū, and staff and students from the University of Otago as part of the Te Tiaki Mahinga Kai research group (Hepburn, 2011). The baseline surveys were carried out to obtain a snapshot of the state of the fishery and to support the management of customary fisheries by the local community. An initial hui was held at Whareponga Marae in 2010 between the researchers and the hapū in order to discuss the aspirations of the community in terms of fisheries management and the potential role of science in supporting this management. Following researchers' presentations on the type of work the research team had done in other locations, an opportunity for questions and answers encouraged discussion to clarify any information presented and further inform researchers on the community's aspirations (Hepburn, 2011). Smith (2012) mentions the importance of kanohi kitea, the 'seen face', or being physically present, as an important part of building relationships and

membership within a community. In May 2016, follow up surveys were carried out at the same sites as 2011 to provide further scientific information in regard to the trajectory of the fishery (Subritzky *et al.*, 2017). While two sets of monitoring data will provide some information on the how the fishery has changed over time and the baseline abundance of the fishery, long term monitoring with multiple time points is more valuable as it reduces error (Reynolds, Thompson and Russell, 2011). Repeating the surveys at Whareponga will provide more reliable information on the state of the fishery according to scientific method, however this is dependent the availability of monitoring resources such as researcher time and money (Reynolds, Thompson and Russell, 2011).

Aims of This Case Study

For the past few years, a voluntary rāhui on the gathering of all kaimoana (but not finfish) has been put in place by the hapū at Whareponga Bay for several weeks before Christmas. The aim of this research was to investigate the voluntary rāhui at Whareponga Bay. Several key questions were asked:

1. Why is the voluntary rāhui in place?
2. What are the interview participant's aspirations for the fishery?
3. What knowledge informs the management of the fishery?
4. What are the advantages and disadvantages of a voluntary rāhui as a fisheries management tool?

Results

Inductive Themes

The inductive analysis identified three major themes: gathering, abundance, and management. The ideas that emerged under the theme gathering referred to the type of

species that were gathered and the different methods and practices used by interviewees when they went out fishing. The ideas that emerged under the theme abundance referred to the fishers' perceived change in the number of particular kaimoana or fish species. The accessibility to particular species is also discussed under this theme as a change in abundance can make a species more or less accessible to fishers (McCarthy *et al.*, 2014). The ideas that emerged under the theme management referred to the rāhui that is put in place each year, when, why and how it is enforced, the perceived success of this management technique and the role of legislation in the management of the fishery.

Gathering

Kaimoana and fish were described as very important parts of all the interview participants' diets and a wide range of species were gathered (Table 5). The term kaimoana, when used by participants, referred to shellfish and kōura and did not include fish species. One interview participant did not mention any species. The most commonly mentioned species were kina, koura and pāua (Table 5). Four of the five interview participants mentioned gathering kaimoana and fish for sustenance and that in the past, species were not specifically targeted for harvest. Participants would gather the middle-sized individuals when fishing. These four participants described a variety of fishing methods for different species – diving for kina, dropping kōura pots, 'bobbing' for kōura⁵, using handlines for fishing and using handmade hoops for catching sea trout. The harvest of most species happened year-round except for karengo which was gathered seasonally.

⁵ Bobbing for kōura is a method where a stocking or sock is filled with bait (often pāua) and tied to a rope and a weight. The sock is thrown into the water which attracts kōura that get caught in the stocking or sock and are then pulled to the surface (Jessup, 2005; Te Rūnanga o Ngāi Tahu, 2013).

“the kāpata kai, or seafood, was a really important part of our diet” (1)

“pāuas and crayfish and kinas, pūpūs and toitoi... pretty much a big part of our diet when we were growing up...The consensus was that the middle sized, regardless of whatever it was, were the ones that were gathered. Our activity down there [Whareponga Bay] was always to gather food. I don't have that many memories of us going down there for recreational purposes – that came later.” (2)

“it didn't matter what you came across, you didn't look for anything specifically – whatever you got that was it...as long as you've got a line in the water, it doesn't matter what sort of fish comes up the other end” (3)

Table 5: List of all the species gathered by interview participants at Whareponga Bay and the number of participants (out of the five that were interviewed) that mention each species.

Species gathered	Number of participants that mentioned the species	Combined number of times the species was mentioned by all participants
Kāraerae (spiny dog fish, <i>Squalus acanthias</i>)	3	4
Karengo (seaweed, <i>Porphyra columbina</i>)	3	2
Kina (sea urchin, <i>Evechinus chloroticus</i>)	4	20
Kōura (crayfish, <i>Jasus edwardsii</i>)	4	20
Ngākihi (limpet, <i>Notoacmea cellanoides</i>)	1	2
Pāua (abalone, <i>Haliotis spp.</i>)	4	12
Pūpū (common cat's eye, <i>Turbo smaragdus</i>)	3	9
Tāmure (snapper, <i>Chrysophrys auratus</i>)	2	3
Taraute (brown trout, <i>Oncorhynchus trutta</i>)	1	1
Toitoi (cook's turban shell, <i>Cookia sulcata</i>)	2	5
Tuere (common hagfish, <i>Eptatretus cirrhatus</i>)	1	1

Abundance

Four interview participants had been fishing in the area since their youth and all mentioned a reduction in the abundance of all kaimoana species over time.

“our kāpata is not as plentiful.” (1)

“during that time [50 years ago] seafood was plentiful.” (4)

Reduction in kina numbers was most commonly discussed but also the size and quality of the kina that was harvested. The decline in the abundance of other species was also discussed, including pāua, karengo and pūpūs.

“when you look at it [kina] and open one up there’s nothing in it, there’s [sic] no roes, it’s pretty empty” (3)

“Pāuas, kinas, pūpūs, yeah... just not as plentiful as it used to be” (4)

This lack of abundance has meant that kai is less accessible to the interview participants and two participants found they had to go further to gather or fish, one participant discusses this:

“you have to go deeper for kinas, there’s no abundance of kinas. I’ve seen them fished out...the abundance – that used to be you didn’t have to think about but now you have to walk the furthest... right to the borderline [of the rohe]” (3)

Management

All the interviewees discussed how the rāhui at Whareponga Bay was put in place prior to Christmas Day to ensure there was enough kaimoana for all the family that arrived for the holiday period. Three interview participants said the rāhui was in place for six to eight weeks and the fishery was opened a week before Christmas. The rāhui banned the harvesting of kaimoana such as shellfish, kina, and kōura but finfish fishing was still permitted. Many of the other bays in the region were implementing rāhui and the interviewees found that as a result, there were more fishers coming in from elsewhere so they decided to enforce a rāhui at the same time, as discussed by the kaitiaki of Whareponga Marae:

“if they [the other bays] have a rāhui on they [fishers] venture up over here... we had our marae meetings and then put our rāhui on at the same time...we only ever put the rāhui on so there would be enough there for the Christmas period.” (3)

The rāhui was communicated by word of mouth, on Facebook, and announced over the Ngāti Porou radio. There was some concern as to whether all fishers would abide by the rules but all interviewees stated that most people respected the temporary ban. A customary permitting system was in place which allowed harvesting above and beyond recreational limits and sizes. One of the interviewees who granted these permits, advised that permits were not approved during the period the rāhui was in place.

“most of these permits I give are for the tangihanga when there’s a crowd at the marae – birthdays, weddings or whatever... a rāhui is a rāhui – no one at all goes down. Not even us. You can’t write a permit out when there’s a rāhui on.” (4)

There were mixed ideas on the perceived success of the rāhui in terms of sustaining the fishery – three interview participants felt that the rāhui was hard to monitor and that the ban was too short to allow species to recover.

“it’s pretty hard [to monitor the rāhui] unless you’re there for the 12 hours of the day... the idea is good but they [kaimoana species] don’t regenerate that fast.” (3)

One interviewee however, believed that the current system of permitting and having the rāhui in place before Christmas was enough to provide for future generations.

“there will be enough if it’s managed properly... I believe we’re doing it now... Not only through the permit but understanding the tikanga of the place.” (4)

Kaupapa Māori Themes

Five themes were identified by applying Kaupapa Māori principles to code the data; these themes were tino rangatiratanga; Te Tiriti o Waitangi; whānau; taonga tuku iho; and; kaupapa.

Tino Rangatiratanga

The decision to put the rāhui on was made during a marae meeting and size of the rāhui was based on the rohe of the hapū, as described by one interview participant:

“we had our marae meetings and then put our rāhui on...our boundary is between rāhui Mānuka and Mataahu.” (3)

All the interviewees discussed their desire to exercise their worldview and tikanga in the management of the fisheries. Four interviewees preferred that legislation be kept away from their traditional management practices as often the legal system did not provide for a Māori worldview despite an attempt to recognise the rights guaranteed in the treaty, additionally, it was suggested that people were more likely to respect the marae than the legislation.

“We’ve got our own tikanga for taking purposes. There will be enough if it’s managed properly... understanding the tikanga of the place.” (4)

“Where do they have legally enforced type rāhui? Because technically its L-O-R-E, lore. Not L-A-W. There is no meshing of L-A-W when we talk about our traditional practices. Sometimes our people have little regard for all of those things [legal system] ... but muck with the maraes, no one disrespects their marae.” (1)

Te Tiriti o Waitangi

All five of the interviewees discussed how the rāhui was enforced by the marae. Four felt that there was little need for the restriction to be written in law as the presence of fisheries officers to enforce the rāhui was negligible. However, the fifth interviewee did state that they would rather the hapū be prepared for potential legislation in the future

“we put it [the announcement regarding the rāhui] on the radio and then no one would bother going down. So, there doesn’t seem to be any real need at the moment to have that written in law.” (3)

“no one disrespects their marae... they’ll give the middle finger to the L-A-W enforcement officers but if it’s nanny up the road going ‘kō rāhui’ [there is a rāhui over there] they’ll listen better.” (1)

“I don’t ever remember seeing them [MPI fisheries officers] down at Whareponga” (2)

“they’re [MPI fisheries officers] supportive. They almost turn around and leave us to it.” (4)

Two interview participants voice their concern that historically, decisions had been made that separate the physical and spiritual and therefore disregard a Māori worldview.

“We can’t separate the physical from the spiritual... we can’t ignore the spiritual realm in everything we do... We’re all subjected to decision makers who make decisions on behalf of us” (1)

One interviewee discussed the Ngāti Porou Deed of Agreement and how this document could provide the hapū the autonomy to exercise their worldview within a legislative framework.

“What our Deed [of Agreement] gives us and what the Waitangi Treaty Settlement Act gives us is a right to our worldview. The principle of our Deed [of Agreement] is quite clear that we’re partners [with the Crown] and we’re not going to be subjected to your [the Crown’s] interpretations of what hui means or how you’ve managed the fisheries you’ve managed on your worldview. It’s really important that we don’t get hoodwinked into being just the tools of the legislation to supposedly look after the stock in isolation from our culture... the tools of the legislation is there for our benefit as well. We’re hoping that our Deed [of Agreement] is getting to the stage where we’ll be seeing an enactment of that... opportunity for us to be managing the rohe moana of Ngāti Porou.” (5)

Whānau

All interviewees spoke of memories associated with fishing in Whareponga Bay, particularly how practices were carried out together as a family with traditions and skills passed down through generations.

“We used to go fishing with my father, we all used to fish. There was an old boat... and all our ancestors, or my pōua... my grandfathers and grandparents... they used to go out on it... and set crayfish pots.” (3)

“I can just reflect on when we lived there [Whareponga] as children and how frequently we went out with our parents. It was a family activity... We would shell them [kina] on the rocks and my father would open the first one.” (2)

“It was our mum that taught us to dive and our grandmother too... we would have to go and pick the pūpūs for her because she’ll point them out and she couldn’t quite bend over at the time.” (1)

One of the interview participants discussed how access to the supermarket meant that children were losing knowledge about where their food came from and described one traditional type of food that was no longer consumed by the younger generation.

“We would fish from the shore for sand shark, because again it’s the customary delicacy – the liver and then we used to dry them out, was kind of the things we used to chew on. They were the equivalent as our lollies back then. Dry shark, equivalent to lollies! But now there is a Four Square [Supermarket] and that’s where the fishing... and pretty much a big part of your food intake comes from” (2)

The strong relationship the interviewees had with the ocean was described not only in the physical sense, such as providing sustenance by gathering kaimoana, but also in a spiritual sense with the strong connection to the atua.

“When you are coastal people, they’ve got a very strong relationship with the sea and they’ve got a very good indication of what happens at the sea.” (2)

“We grew up having a very close connection with the moana, with Tangaroa, with our takutai and our marae... We’re a family that’s very affiliated to the ocean. We crave that food and kai [kaimoana] because we were brought up with it. We’ve never relinquished our ties with our takutai, that undisturbed relationship with our takutai, our food sources and kāpata kai.” (1)

Many of the names in the area were associated with stories relating to the ocean which indicated the historical link present between tīpuna and the moana. For four of the interview participants, questions regarding the fishery prompted memories of these stories and indicated the importance of the moana in whakapapa.

“Our name Ngarimu is synonymous with the sea. If you’re living by the beach, a lot of the names derive from activities or incidences that happened around there.” (2)

“We class this [the river that runs in to Whareponga Bay] as wāhi tapu because it was a training ground for the warriors...there would have been other stories for here but that was the main one, this one was called Kirikiri-tatangi⁶.” (3)

Taonga Tuku Iho

Mātauranga Māori was the predominant knowledge system that informed the interview participants of the state of the fishery. The role of science in the management of the fisheries was discussed by three interviewees who felt that science along with mātauranga has been an important way of assessing the state of the fishery. Two interviewees discussed how local knowledge of the area meant that often fishers or gatherers knew where to find kai and held knowledge of the areas they most commonly fished in, rather than a generalised view of the fishery. One interviewee discussed how this biased view might have impacted the community’s idea of how fragile the stocks were.

“Looking at it from a scientific view... that sort of clicks in what we used to do... it’s just confirming things but in a different way.” (3)

“The whole journey [of managing the fishery] and especially the science journey has actually given them [the community] a real appreciation of the fragility of what we have... really validating the mātauranga that they [the community] have and the fact that science comes ALONG with that rather than AT that. [Science] validated and didn’t really chase [the community] away. When you’re born, bred and raised off your kāpata kai – when you go out and get kai, you know where to get kai, so you can always find kai – so you don’t necessarily appreciate the fragility of the stocks” (5)

⁶ An area ‘on the foreshore, where young warriors of the area were trained in the art of warfare’ (Ngata, 2002).

Kaupapa

In terms of a collective community aspiration, all the interviewees spoke about importance of protecting the fishery in order to provide for their families and also for future generations.

“we want a kāpata kai for us, for our children, for their children and for their children and their children and to enjoy the lifestyle that our ancestors handed down to us.” (1)

“at the end of the day... [our aspiration is] that our children and our grandchildren will have something... that doesn't disappear altogether” (4)

Protecting the fishery was discussed not only in terms of providing kai, but also ensuring that particular fishing practices continued. This practice was seen to encourage a connection to the moana and also pass on their responsibility as kaitiaki. All the interviewees talked about younger people often leaving the area and therefore missing out on learning important tikanga and fishing practices. They wanted to find a way to engage the younger generation in order to continue these practices and the drive to protect the fishery.

“we're trying to save for future generations... still remind them of their... responsibilities towards the foreshore. I don't think [the younger generation] are aware of what's happening to the foreshore... I think the sad part about that too, is a lot of them never experience it... going out [fishing].” (3)

“I'd like to see in the future maybe some way of engaging the coming generation. Engaging them in those activities where the fishing culture can be handed down.” (2)

One interviewee discussed their aspirations relating to the Ngāti Porou Deed of Agreement and how they would like to see the implementation of tikanga in the future of customary fishing legislation so whānau could gather for those less able.

“Here’s all our tikanga... if you go fishing, you make sure you turn all our rocks over, you don’t fish in certain areas, you abide by our rules, and then we would also require you to report us your... whereabouts and numbers. You have to say ‘yes, I am prepared to go back to the old tikanga and respect the laws as the customary fisheries committee have put them out’ so that was sort of our dream, our aspirational thinking around how we would manage that [the fisheries]. It’s really around us wanting to responsibly maintain our stocks... so that anyone fishing on a customary permit would be able to feed their families... instead of just doing their 10 catch [pāua] or whatever, they can carry on and feed Nanny down here, or Nanny down here, and not be pulled up for it all the time.” (5)

Discussion

Why is the Voluntary Rāhui in Place?

The rāhui in Whareponga was implemented for a number of reasons - the community was concerned about displaced fishing from rāhui being implemented in bays adjacent to Whareponga and kaitiaki had observed a decline in culturally significant species. By implementing the rāhui, the community was fulfilling their kaitiaki obligations by temporarily protecting the species that held cultural significance and therefore allowing customary fishing practices to continue, whānau members to connect to each other and their environment, and the transfer of knowledge through these practices.

The interview participants discussed how the rāhui was initially put in place after several bays in the area, including Waipiro Bay to the south, started putting rāhui on and the hapū found that as a result, more people were coming to Whareponga Bay to gather kaimoana. Fishing displacement describes this change in fishing behaviour as a consequence of a new management regime (McLeod, 2014). This can be a change in the target fishing species, method of fishing or the fishing pressure moving to another fishing area, such is the case at Whareponga Bay when the other bays closed their fishing areas (McLeod, 2014). This phenomenon is a common response to the establishment of marine protected areas where fishing is banned and the fishing effort is displaced to areas outside the protected area (Halpern, Gaines and Warner, 2010; Mascia, Claus and Naidoo, 2010; Rassweiler, Costello and Siegel, 2012).

The rāhui at Whareponga Bay was implemented six to eight weeks a year before the Christmas period to ensure there was enough kaimoana for the whānau during the holiday period. During this time, authorisations for customary fishing were not permitted by kaitiaki. In the North Island, these permits are authorised under the Fisheries (Kaimoana Customary Fishing) Regulations 1998 and can be granted by approved kaitiaki in the rohe moana of the hapū.

The ban covered the harvesting of shellfish (pāua, toitoi, pūpū), kina and kōura but did not restrict the fishing of finfish. According to the interview participants, these species were included as they were the most important species for harvesting and they had observed a decline in these species over time. McCarthy *et al.* (2014) interviewed participants from varied stakeholder groups to understand the perceived state of inshore fisheries in Aotearoa New Zealand and found that all interview participants also referenced a decline in local populations of marine species and the reduced accessibility to stock. At Whareponga, most interview participants focused on the reduced abundance, size and quality of kina. McCarthy

et al. (2014) found that each community that was interviewed seemed to focus strongly on one taonga species that had declined and how this had impacted important cultural factors such as identity, traditions and connections to a place. For example, Rakiura communities focused on tītī, and for the Whareponga community, kina took on this role (McCarthy *et al.*, 2014). Although kina and kōura were equally mentioned by interview participants at Whareponga, references to kina were about historical gathering and its subsequent decline, whereas references to kōura mostly occurred when participants talked about different fishing methods.

The scientific surveys conducted in 2011 and 2016 at Whareponga focused on kina, kōura, and pāua because kaitiaki had discussed their significance with the researchers and were concerned about the species declining (Subritzky *et al.*, 2017). Kaitiaki in the Hawke's Bay have also discussed the local depletion of kina which has meant that the whānau have to go out further on boats to be able to harvest kaimoana. As a result, accessibility is severely limited for individuals that do not have a boat or diving gear (Turner *et al.*, 2013). Continued access to the species that are mentioned by the interview participants, such as kina, kōura and pāua is important for a number of cultural reasons - providing kai for the hapū, for whānau to maintain and enhance their relationship with the ocean and each other, and to ensure fishing, tikanga and cultural practices such as manaakitanga continue to be exercised and consequently passed on to the next generation (Turner *et al.*, 2013; Wehi *et al.*, 2013).

The interview participants also discussed how the rāhui in Whareponga was also established to ensure there was enough kaimoana to allow fishing practices to continue. It was clear from the interview participants' narratives that fishing was not only important for providing food but was a practice associated with whanaungatanga, enhancing the connection between individual whānau members and their connection to the environment (Te Aho, 2007). Fishing as a whānau was a very important activity for all interview participants in

Whareponga and many of the interview participants shared stories from their childhood of going out together as a whānau to gather kai. Interview participants also discussed the many place names, and family names that were associated with the ocean which highlighted the strong relationship between the community and the ocean. A rich oral tradition is an important part of Māori identity and Wehi *et al.* (2013) also found that many songs, stories, and sayings made reference to the marine environment and fishing. The Waitangi Tribunal stated that ‘kaitiakitanga is really a product of whanaungatanga’ as ‘whanaungatanga always creates kaitiakitanga obligations’ and ‘it is not possible to have kaitiakitanga without whanaungatanga’ (Waitangi Tribunal, 2011, p. 105). Having enough kaimoana to allow for customary fishing was not only important to connect the whānau to the ocean and each other but also acted as reminder of the community’s obligation to practice kaitiakitanga (Jackson, Mita and Hakopa, 2017).

The practice of fishing also provided an opportunity for mātauranga regarding harvesting practices, particular species, preparation of kaimoana, and the stories of the ocean to be shared with whānau members and to younger generations (Turner *et al.*, 2013). One interview participant discussed how not only did inaccessibility to species contribute to a decline in fishing practices and knowledge transfer, but other factors also contributed such as the local supermarket which was as an easily accessible kāpata for the younger generation. The interview participant discussed the loss within two generations of a customary delicacy, dried sand shark liver, which they used to eat as children and took several weeks to prepare. The *Muriwhenua Fishing Report* also describes delicacy and one account of fishing stated that ‘anybody who has tasted dried roasted shark will never forget it, that I can assure you’ (Waitangi Tribunal, 1988, p. 16).

What are the Interview Participants' Aspirations for the Fishery?

All interview participants discussed their primary aspirations for the fishery as the ability to exercise rangatiratanga in the management of their fishery and sustaining the fishery. The interview participants discussed the importance of having enough kaimoana for their children, their grandchildren and future generations. Sustainability is a core concept of kaitiakitanga and according to Williams (2004, p.230) the definition of sustainability is the 'use of natural resources in such a way that future generations may continue to enjoy at least the same quantity and quality of resources from the same environment'. The participants also discussed the importance of sustaining customary fishing practices, tikanga and the lifestyle of their ancestors and to be able to pass the mātauranga surrounding these practices on to future generations. The aim to sustain the fishery and provide for customary fishing was also tied into the community's need for continued access to the fishery, as mentioned earlier. Species need to be in easily accessible areas to allow elderly kaumātua and tamariki to fish and therefore encourage the process of intergenerational knowledge transfer (Toussaint, 2014). These aspirations were tied into the reasons why the rāhui was implemented each year, as discussed earlier.

What Knowledge Informs the Management of the Fishery?

The interview participants at Whareponga talked about the different knowledge systems that informed the community's management decision. The principles of tikanga that guide kaitiakitanga and determine how resources should be used and managed, are informed by mātauranga (Waitangi Tribunal, 2011). In Whareponga, the management of the fishery was primarily informed by mātauranga which included the knowledge that the interview participants had gained through their observations while fishing, and the knowledge passed on from their parents while fishing as a whānau. Interview participants also mentioned the

importance of mātauranga and science in assessing the state of the fishery and informing future management decisions. The interview participants discussed how the role of science became important following a hui in 2010 when researchers discussed the scientific monitoring work they had conducted on other coastal fisheries throughout the country. One of the interview participants initially thought that there was not great value in science as he thought ‘what would they [know]?’ but after the hui, he noted that science just ‘confirmed things but in a different way’. Mātauranga Māori has often been disregarded in the management of fisheries and Māori have consequently had to work under the limitations of Western science which has sometimes reduced their ability to exercise kaitiakitanga (Clapcott *et al.*, 2018). For the interview participants, it was important that the science came alongside mātauranga rather than being a competing knowledge system, and they found value in using different knowledge systems to inform management decisions.

What are the Advantages and Disadvantages of a Voluntary Rāhui as a Fisheries Management Tool?

Rangatiratanga was recognised in the management of the fishery in Whareponga in several ways. Rangatiratanga has multiple dimensions and can be expressed through kaitiakitanga and physical practices such as rāhui (Jackson, Mita and Hakopa, 2017). The hapū had control over the establishment, enforcement and lifting process of the rāhui, the hapū determined the boundaries of the rāhui and the species that were restricted from harvest, and management was consistent with tikanga and informed by mātauranga, the preferred knowledge system. This form of rāhui was consistent with the rāhui with ‘no teeth’ that was described by McCormack (2011).

The kaitiaki in Whareponga exercised rangatiratanga in the establishment, enforcement and lifting of the rāhui as they had complete authority over when the rāhui came

into effect or was lifted, and the rāhui was enforced by the mana of the kaitiaki. Kaitiaki uphold their mana by lifting the mana of the resources and environments they protect (Jackson, Mita and Hakopa, 2017). It has been suggested that kaitiaki are akin to the tohunga that traditionally enforced rāhui but within a contemporary setting (Jackson, Mita and Hakopa, 2017)

The importance of the marae was evident in the way the interview participants discussed the implementation and enforcement of the rāhui. The Whareponga marae was the location where discussions around the rāhui were first conducted and the marae was considered one source of mana that maintained kaitiakitanga and encouraged the respect of the rāhui (Kawharu, 2000). This was clear when one interviewee said ‘no one disrespects their marae’. This is also discussed by Kawharu (2000, p.360) ‘the *marae*, and all contained within it, is itself a symbolic and practical manifestation of a kin group’s *mana* to maintain *kaitiakitanga* within a defined territory’. The enforcement of the rāhui was based around the respect of tikanga, the respect of the marae and the mana of the individuals living in Whareponga that declared the rāhui.

Most interview participants discussed how there was little need for the rāhui to be written in law, particularly because there were no fisheries officers close to the bay that could enforce it. Several rāhui on Māhia Peninsula that are not legally enforced, some of which have been in place since 1945, have been successful as the people in the area have respected the tikanga of the rāhui (Maxwell and Penetito, 2007). Rāhui in areas that are reasonably remote and less accessible to large populations, such as Whareponga and Māhia Peninsula, may be less likely to be ignored than areas which are more accessible (Maxwell and Penetito, 2007). One interview participant was concerned about enforcement and that monitoring adherence to the ban was difficult. Another interview participant discussed how they would prefer if the hapū was prepared for potential legislation in the future.

Parameters such as when the rāhui was implemented, the length of time the fishery was closed, the species that were restricted from harvest, and the boundaries of the rāhui, provided the kaitiaki in Whareponga with some flexibility as all these parameters are able to be adapted in order to respond to changes in the fishery. The boundaries of the rāhui were determined by the rohe moana of Te Aitanga-a-Mate hapū at Whareponga Bay and the entire rohe is closed during the rāhui, as a result, interviewees say that people do not bother coming down to the bay. The rāhui is communicated by word of mouth, via Facebook, Ngāti Porou radio and in the local newspaper. This flexible management approach is consistent with adaptive management which is an important aspect of community-based resource management that allows a community to use local knowledge to interpret the response of the environment to management regimes and adapt regulations without the bureaucracy associated with legal frameworks of management (Berkes, Colding and Folke, 2000; Armitage *et al.*, 2009). The whānau at Whareponga are able to exercise kaitiakitanga on their terms and adapt the rāhui in response to changes in the fishery as informed by mātauranga.

The whānau in Whareponga were still able to exercise rangatiratanga as their right to harvest resources during the period of time that the rāhui was not enforced in Whareponga. Continued access to marine resources and the harvesting of closed areas after a specific time period is an important cultural aspect of temporary closures elsewhere, and in Whareponga (Cinner and Aswani, 2007). Interview participants viewed themselves as part of the ecosystem rather than separate from it, a philosophy that is not often recognised in Western cultures (Vining, Merrick and Price, 2008). This was highlighted when a participant was talking about the importance of their children growing up in the area and saying that ‘they’re tied through their umbilical cord to the land’. The term ‘whenua’, familiar in the concept of tāngata whenua (people of the land) is also the te reo Māori word for placenta, indicating the intricate binding of person and place. The same interviewee mentioned that they were unable

to separate the physical from the spiritual, again highlighting the interconnectedness of the individual to their surroundings. Allowing customary fishing practices outside of the times that the rāhui was in place, connected whānau to each other and to the environment, reminding the whānau at Whareponga of their responsibilities as kaitiaki (Jackson, Mita and Hakopa, 2017).

During this time, customary fishing practices were governed by tikanga. Interview participants discussed how they believed that by understanding the tikanga of the area and by incorporating tikanga in the management of customary fishing, that there would be enough kaimoana for current and future generations. When interview participants went fishing at Whareponga, they did not go out for particular species. This opportunistic harvesting behaviour has also been identified in the archaeological records of midden sites throughout the country where the most abundant marine resources in the area are most commonly found at the dig sites (Smith, 2013). Regardless of the species that the interview participants were harvesting, the consensus was that the middle-sized individuals were gathered. This is considered a form of tikanga-based harvesting (Clapcott *et al.*, 2018). In many fisheries, the larger and therefore older individuals are often favoured which can cause changes in population dynamics as these individuals tend to be more reproductively successful compared to the smaller individuals (Law, Plank and Kolding, 2012; Barnett *et al.*, 2017). The selection of the middle-sized individuals, as is the case at Whareponga, reflects the idea behind a 'slot fishery' which enforces a maximum and minimum size limit to preserve the age structure of the population and protect the larger, more successful breeding individuals (Law, Plank and Kolding, 2012; Barnett *et al.*, 2017). Another protective measure evident at Whareponga was the preferred use of customary fishing methods by all interview participants such as handlines for fishing and free diving or wading for kina and pāua. These more traditional methods may protect particular species, or populations, that are found deeper as they place constraints on

exploitation (Catterall and Poiner, 1987). Species or populations that occur in deeper water could be at risk of exploitation through use of dive gear such as wetsuits, weight belts, masks and snorkels as they make these populations more accessible (Catterall and Poiner, 1987; Smith, 2013).

There were mixed ideas on the perceived success of the rāhui in sustaining the fishery and allowing the species to recover. Most of the interview participants mentioned the insufficient length of time the rāhui was put in place which was six to eight weeks each year. Once fishing pressure is removed, species in a fishery require different time lengths to recover which is dependent on factors such as growth rates, the baseline size of the population, and life history dynamics (Gnanalingam and Hepburn, 2015). For a population to be sustainable, it is necessary for most or all individuals to reach sexual maturity and contribute to recruitment before being fished out which provides the reasoning behind minimum legal size limits for fishing (Ministry for Primary Industries, 2013). The growth rate of the important species at Whareponga vary geographically, but kina take four to five years to mature, and kōura take three to five years to mature (Annala *et al.*, 1980; Lamare and Mladenov, 2000). While a temporary reduction in fishing pressure is beneficial, the time scale for the recovery of important fishery species is likely to be in years, as opposed to the weeks that the rāhui at Whareponga Bay provides. According to Gnanalingam and Hepburn (2015) closures of less than a year, particularly in areas with high fishing pressure or where recruitment and productivity is low, are unlikely to prevent the depletion of fisheries resources. However, as mentioned earlier, the ability for the hapū to exercise rangatiratanga and control characteristics of the rāhui, such as the length of time the area is closed, allows the rāhui to be adapted to account for the growth rates of these species.

The rāhui in Whareponga, being voluntary, was not recognised in legislation and therefore not offered legal support in enforcement of the management regulation. This form

of rāhui would be what McCormack (2011) describes as a rāhui without ‘teeth’. Interview participants discussed a loss of control in the management of their rohe when decisions were made on behalf of the community that do not incorporate their worldview or tikanga. This was particularly evident in the way that traditional practices, in this case the rāhui, which are placed into a legal framework were respected by some interview participants – ‘technically it is L-O-R-E. Not L-A-W. There is no meshing of L-A-W when we talk about our traditional practices’. This sentiment was also reflected in most of the interview participant’s expressing that there was little need for the rāhui to be legislated, as discussed earlier. They felt that the legal system did not provide for a Māori worldview and tikanga in the management of resources and therefore having the rāhui written in law would not incorporate all the values required in the practice of kaitiakitanga.

Future implications

One interview participant discussed how through the enacted Deed and under customary marine title, the hapū wanted the recognition of te ao Māori and to define rangatiratanga on their own terms when making management decisions (Ngā Hapū o Ngāti Porou, 2016). The 47 who hapū signed the Deed have each committed to establishing a fisheries management committee who will develop a fisheries management plan for the rohe moana of each hapū. The plan has to be taken into account by policy makers and will outline the sustainable utilisation of fisheries resources, recognise and provide for customary food gathering, and recognise and provide for the special relationship between the hapū and places of importance for customary food gathering (Ngā Hapū o Ngāti Porou, 2016). This is different to the requirements of other customary protected areas such as taiāpure where the management committee requires approval by the Minister of Fisheries (Memon, Sheeran and Ririnui, 2003). The Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Bill (No 2) Act 2019 will

provide for the establishment of fisheries bylaws to recognise kaitiakitanga and customary management practices such as rāhui, that are protected by law. These bylaws can restrict recreational and commercial fishing but still provide for customary fishing through permits. However, MPI has to ultimately approve these bylaws, undermining rangatiratanga and the authority to exercise kaitiakitanga on hapū terms (Ngā Hapū o Ngāti Porou, 2016). Also, the hapū at Whareponga is limited by time as any fisheries bylaws have to be recommended within 12 months of the date that the bill was passed (A. Walker, personal communication, July 4, 2019).

Conclusion

The fishery in Whareponga is a significant source of kai for the hapū and fishing has been an important activity that has supported whanaungatanga and continued the transfer of fishing practices, knowledge and the practice of kaitiakitanga to subsequent generations. The community at Whareponga have observed a decline in the abundance of key species such as kina, kōura, and pāua. This reduction along with increased fishing pressure has resulted in the enforcement of a rāhui for several weeks before Christmas to ensure there is enough kai for the holiday period. The main aspiration of the interview participants for the fishery at Whareponga was to be able to exercise rangatiratanga in the management of the fishery and protect the fishery in order to provide for customary fishing. For the community at Whareponga to continue to actively manage the marine environment through practices such as rāhui, they assert that kaitiakitanga needs to be guided by tikanga. The current management practices in Whareponga recognise rangatiratanga as the hapū has the authority to implement, enforce, and lift a rāhui in order to meet their obligation as kaitiaki, the hapū has the flexibility to change the time period of the rāhui and the boundaries and they can use mātauranga to adapt management as they see necessary. The community can also use tikanga

to guide customary fishing practices when the rāhui is not in place. The length of time the fishery is closed is unlikely to be long enough to allow the species to recover, however the flexibility in management allows the hapū to adapt management according to the growth rates of significant species. The rāhui at Whareponga was not offered legal protection, a concern for one of the interview participants but the remaining interview participants did not think it was necessary for the rāhui to be recognised in legislation as the law often disregard te ao Māori and therefore the cultural values that support a rāhui. While the Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Bill (No 2) Act 2019 will give the hapū legal protection over the management of their fishery through customary marine title of the rohe moana, the hapū has only been given one year to recommend any fisheries bylaws. Bylaws have to be approved by the Minister of Fisheries and therefore this application process does not provide for rangatiratanga as the authority lies with the Minister, although it does provide the hapū with legal protection.

Chapter Four: East Otago Taiāpure Case Study

This chapter explores the research questions presented in Chapter One in the context of the case study of a legal rāhui under s186B of the Fisheries Act 1996 in the East Otago Taiāpure. This chapter discusses background information regarding the EOT, and the results from the semi-structured interviews that were conducted with tangata tiaki. In the discussion section, the research questions are discussed in relation to the results with reference to the relevant literature.

Introduction

The East Otago Taiāpure (EOT) is a customary fisheries management area situated in Karitāne, 30 km north of Dunedin on the east coast of the southern South Island (Figure 19; Gnanalingam and Hepburn 2015). Kāi Tahu⁷ hapū Kāti Huirapa ki Puketeraki hold mana whenua status over the area which was identified as a site of cultural significance to Kāi Tahu in the Ngāi Tahu Claim Settlement Act 1996 (Gnanalingam and Hepburn, 2015; Jackson, Hepburn and Flack, 2018). The EOT area includes historically significant mahika kai⁷ sites that were important to Kāti Huirapa for customary food gathering, as well as the tributary of the Waikouaiti River and several fortified pā sites such as Huriawa and Mapoutahi (Jackson 2018). The term mahika kai is often simply described as the traditional areas where resources were harvested (Harmsworth, 2005; Wessels, 2012). However, this concept is integral to Kāi

⁷ Kāi and Ngāi represent two variations in dialect, the former is common in the South Island where ng is pronounced as a k. Similarly, mahika and mahinga represent two dialectic variations (Williams, 2010). As this case study is based in the South Island, the southern dialect will be used in Chapter Four except when the term is used in quotes, the names of an organisation, a Kaupapa Māori theory principle, or in reference to the Ngāi Tahu Claim Settlement Act 1996. This convention also applies to rakatirataka (rangatiratanga), kaitiakitaka (kaitiakitanga), tikaka (tikanga), manaakitaka (manaakitanga), tākata (tāngata) and mātauraka (mātauranga).

Tahu cultural identity and incorporates access to these important sites, the site itself, the harvesting of resources, the health of the resources, and the ongoing spiritual and cultural connection of returning to the site (Townsend *et al.*, 2004).

A proposal for the EOT was submitted in 1992 and the EOT was gazetted in 1999 (Jackson, Hepburn and Flack, 2018). The establishment of the EOT was an important way for Kāti Huirapa ki Puketeraki to regain control and exercise rakatirataka in their rohe moana (Jackson, Hepburn and Flack, 2018). The East Otago Tāiapure Management Committee (EOTMC) was established in 2001; fifty percent of the EOTMC is from Kāti Huirapa Rūnaka ki Puketeraki and the other fifty percent is comprised of representatives from various groups within the community such as recreational fishers (East Otago Boating Club), research (University of Otago, in particular Te Tiaki Mahinga Kai) and environmental interests (River-Estuary Care: Waikouaiti-Karitane group; Hepburn *et al.*, 2010; McCarthy *et al.*, 2013) .

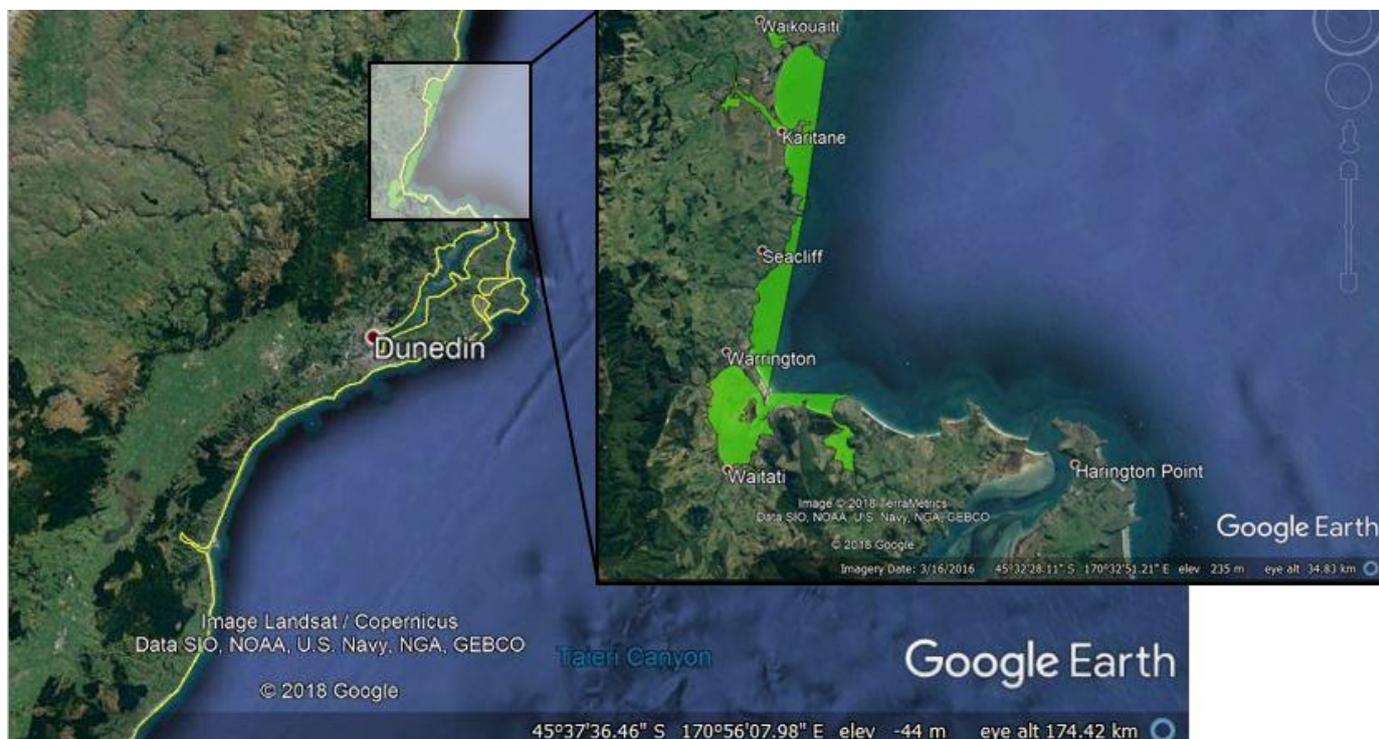


Figure 19: Map of Dunedin with an overlay of the East Otago Taiāpure filled in with green.

The role of the EOTMC is to uphold the kaitiakitaka responsibilities through developing fisheries management plans, making regulation recommendations to the Minister of Fisheries that are informed by tikaka, mātauraka Māori, local knowledge and scientific evidence (Hepburn *et al.*, 2010). The East Otago Taiāpure Management Plan outlines the vision for the Taiāpure as:

A sustainable, healthy, abundant and accessible fishery inside the Taiāpure that provides for the community's customary, recreational and commercial needs (East Otago Taiāpure Management Committee, 2008).

The EOT extends from the northern point Ohineamio/Cornish Head, south westerly to Okahau/Warrington and then easterly to Waiweke/Potato Point, covering 25 kilometres of coastline (Figure 20; Hepburn *et al.*, 2010; Jackson, Hepburn and Flack, 2018).

The EOTMC is not only involved in the management of the local fisheries but extends the concept of kaitiakitaka to the surrounding environments such as the Waikouaiti River and Hikaroroa, the local mountain (Figure 21; Figure 22; Hepburn *et al.*, 2010). This work reflects the philosophy of 'ki uta ki tai', or 'from the mountains to the sea' which is a holistic framework of management that acknowledges the connection between the mountain, the river, the estuary and the sea (Hepburn *et al.*, 2010).

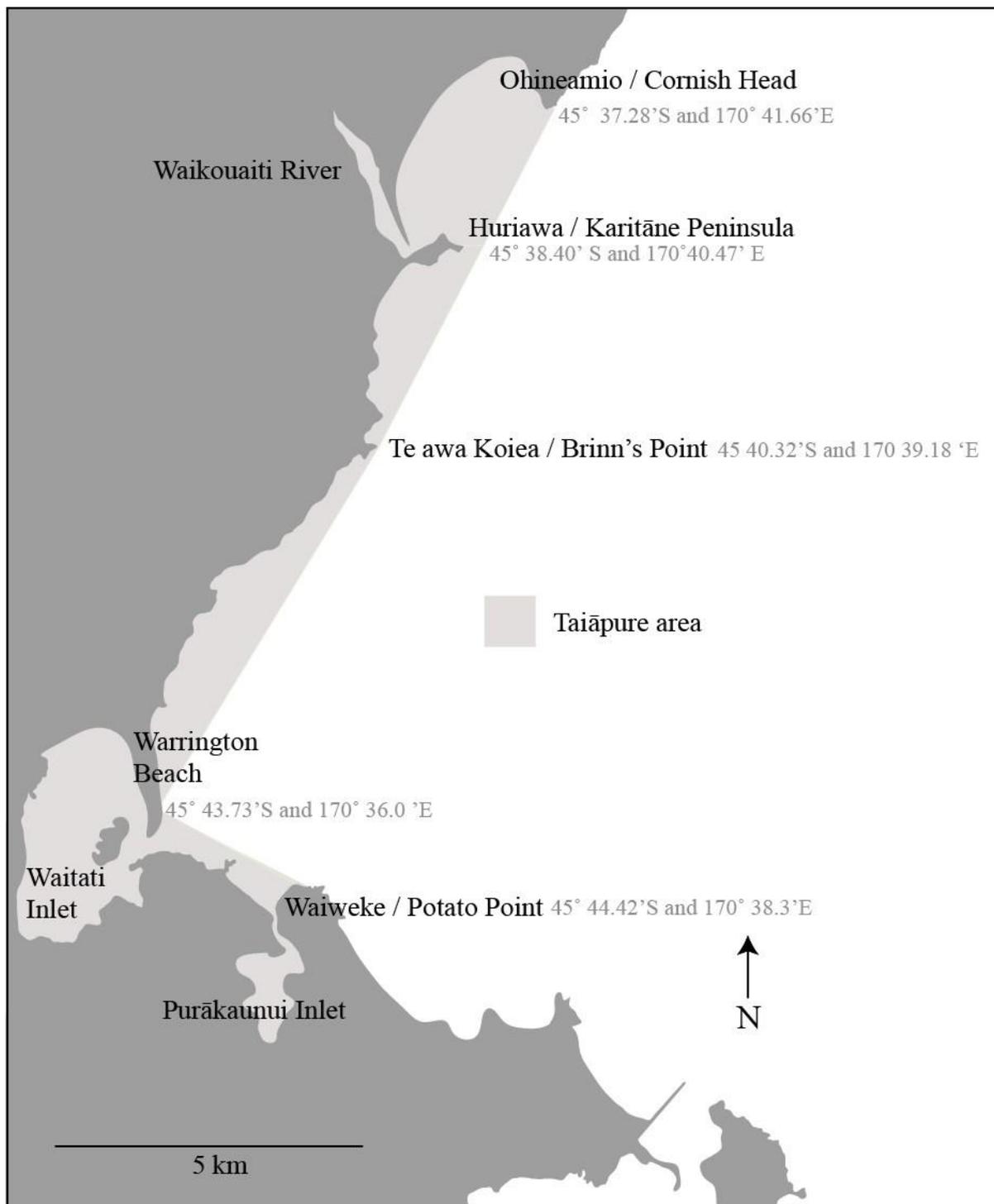


Figure 20: Map of the EOT from Jackson, Hepburn and Flack (2018)



Figure 21: View looking towards Karitāne from Hikaroroa.



Figure 22: View from the Puketeraki Marae with the marae gateway in the foreground and Hikaroroa in the background.

The Taiāpure was established in response to concerns regarding the declining blackfoot pāua (*Haliotis iris*) populations, a species which holds cultural significance for the iwi (Gnanalingam and Hepburn, 2015). Baseline scientific surveys of pāua carried out in the EOT in 2008 confirmed the decline (Gnanalingam and Hepburn, 2015). Since the establishment of the EOT, a series of regulations have been passed to protect kaimoana, particularly in response to the results from the scientific surveys (Figure 23; Jackson *et al.* 2018). A set net ban was put in place in 2007 which was subsequently replaced in 2008 with an East Coast wide set net ban out to four nautical miles (Ministry for Primary Industries, 2012; Jackson, Hepburn and Flack, 2018). The baseline surveys indicated that less than one percent of pāua on Huriawa Peninsula were above the legal-size limit of 125 mm and in response a voluntary rāhui was placed on the peninsula (Figure 24; Gnanalingam and Hepburn 2015).

In 2010, a temporary closure of the pāua fishery under Section 186B was legislated on Huriawa Peninsula and wider Taiāpure regulations were passed to reduce recreational bag limits on finfish and shellfish and limit the commercial harvesting of tuaki (Figure 25; Gnanalingam and Hepburn, 2015; Jackson, Hepburn and Flack, 2018). A re-survey in 2012 indicated that pāua densities had declined inside and outside the rāhui and as a result the two-year rāhui at Huriawa Peninsula was renewed (Gnanalingam and Hepburn, 2015). A rāhui under s186B was re-applied for several more times until September 2016 when a Section 11 closure was gazetted on both Huriawa and Mapoutahi Peninsulas which made provisions for a closure that had no time-limit and was based on sustainability measures (Jackson, Hepburn and Flack, 2018). At the time of the proposed closure, pāua densities at Mapoutahi Peninsula were the lowest in the entire EOT (Ministry for Primary Industries, 2016).

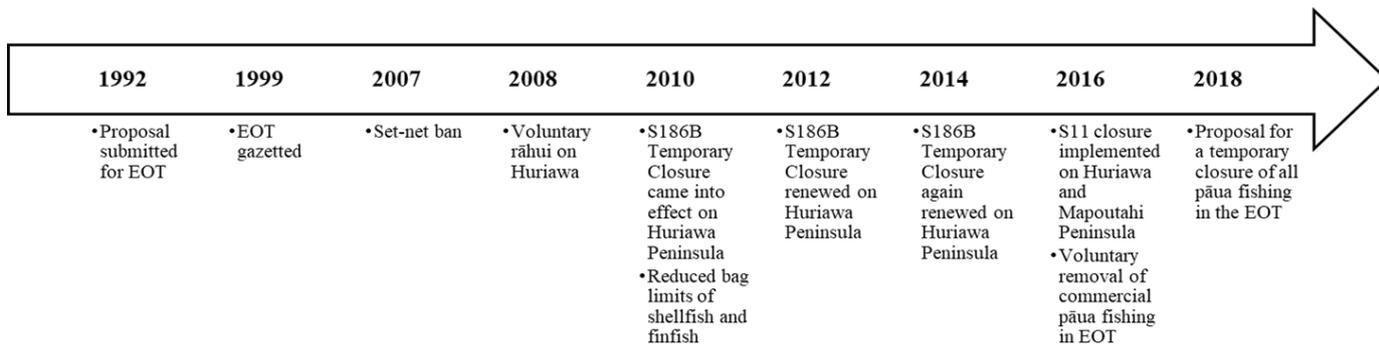


Figure 23: Timeline of management in the EOT



Figure 24: The view facing north from the Puketeraki Lookout overlooking Huriawa Peninsula (the first outcrop) and Ohineamio, further north.



Figure 25: Sign post at Warrington Beach indicating the bag limit restrictions in the EOT.

Aims of This Case Study

The aim of this case study was to investigate a legal rāhui under Section 186B at Huriawa Peninsula in the EOT. Several key questions were asked:

1. Why is the legal rāhui in place?
2. What are the interview participant's aspirations for the fishery?
3. What knowledge informs the management of the fishery?
4. What are the advantages and disadvantages of a legal rāhui as a fisheries management tool?

Results

Inductive Analysis Themes

The inductive analysis identified two major themes: challenges and the role of science. The ideas that emerged under the theme challenges referred to the challenges the interview participants identified in the process of implementing the EOT and also the rāhui at Huriawa Peninsula. This theme was divided into four subcategories, the first subcategory, the legal process, discussed the challenges interview participants faced while learning about the legal process of fisheries management and the different legal avenues the EOTMC went down to protect their fishery. The subcategory time referred to the interviews discussing the challenge of the extended timeframe in which legal protection took to achieved within the EOT. The subcategory perceptions included the challenges the interview participants faced regarding the public perceptions of each proposed management form. Lastly, the subcategory poaching and enforcement involved the challenges the interview participants, and community have with pāua poaching in the closed fishing areas and the difficulty of enforcing the fisheries regulations. The ideas that emerged under the theme the role of science revolved around the interview participants perception regarding the role that science had played in the management of the EOT and the rāhui at Huriawa Peninsula.

Challenges – The Legal Process

All five of the interviewees discussed the legal process of establishing the Taiāpure as a whole as it was a necessary step in the implementation of the legal rāhui on Huriawa Peninsula. One interviewee had been involved in the establishment of the EOT and discussed how the government at the time asked if Kāti Huirapa Rūnaka ki Puketeraki would manage the fishery at a local scale.

“It was actually the government asked them [the rūnaka] if they would like to do it [manage the fishery], otherwise they would have asked someone else. Anyone could have put it [the Taiāpure] in, but the marae got first priority. He [the Minister of Fisheries] says ‘would you like someone in a white collar like me’ he says, ‘running your fisheries from up in Wellington?’” (1)

Two interviewees who were involved in the establishment of the EOTMC explained that there were extensive discussions around whether the EOTMC should include the whole community or just tākata whenua.

“[at the Taiāpure meetings there] was discussions around whether it [the EOTMC] be just tāngata whenua or the community. So, getting the community, in terms of the make-up, took a little while because it was one of the first in the country.” (2)

“we had the Taiāpure but it wasn’t iwi, it was under an iwi or hapū umbrella but it involved the whole community as opposed to just the Māori community or the community of Kāi Tahu. I think that makes a difference not because it should but because it does, because it isn’t just ‘those Māoris trying to do something themselves’.” (3)

Four of the interviewees discussed how during this process a major challenge was understanding the legal system as the Taiāpure was one of the first in the country. Some of the initial regulations were purely based on an informal agreement, or as an interviewee stated, a “gentleman’s agreement” (1).

“a lot of this stuff is not our day job and we can’t be experts of legislative stuff – all that legal stuff, you become it I guess because you have to but also it is hard finding time to do all that stuff.” (4)

“you have to have the right words there because if you didn’t have the right words and [an application for legal protection] went through, you’re buggered really.” (1)

One interviewee discussed how as their legal knowledge grew, the legislation for the rāhui at Huriawa Peninsula was changed from a Section 186B temporary closure to a closure under Section 11.

“We did change the Section 186B to a Section 11 on sustainability [measures]...I think as our understanding of the law grew - because we’re not lawyers, we’re not professionals – we were able to use that [Section 11 legislation].” (2)

Challenges – Time

One of the major challenges in management that was discussed by all five of the interviewees was the length of time any regulations took to pass and the difficulty of the application process. This included the initial gazetting of the Taiāpure and the subsequent legislation such as the rāhui on Huriawa Peninsula. All five interviewees discussed how a voluntary rāhui was placed on the pāua fishery at Huriawa Peninsula in 2008 for about two years while the EOTMC waited for the Section 186B temporary closure to be gazetted. A particular concern was that the two-year s186B temporary closure would lapse before the renewed legislation had passed.

“Yeah, it is a long time, a long lead in. And of course, you have to have all your consultation and your thought processes sorted before you get it to the Minister. So, there’s a lot of discussion that goes on – quite a slow process.” (2)

“The legal regulations took years to get so it [the voluntary rāhui] was sort of in there for that length of time from when we applied because we needed it... I mean it’s

an active area and an active committee. I'm sure others [communities] have tried and maybe given up because of the process.” (5)

“We were worried that it [s186B application process] was taking so long that by the time it comes in, it would be up for a renewal... we were kind of panicking when there was a wee bit of a gap between that temporary closure and the new regs coming in and we were terrified that all of a sudden, our pāua was going to get plundered. Because people know, they know.” (4)

One interview discussed how the extensive application process and the requirement to notify the public for consultation meant that fishers were more likely to fish in the areas they thought might be restricted in the future.

“And so, when something like that happens [establishment of a CPA] of course it is a public notification. You get commercial fishers who suddenly think ‘oh well I might be chucked out of here’ so then they start getting active themselves...and so, the behaviour of people who know, because they were going to be affected, has changed. Just in case it comes on, let's go and get it often.” (3)

Challenges – Perceptions

Another challenge that all five interviewees discussed were the perceptions of the public when the Taiāpure was established, and the subsequent regulations and rāhui were legislated. The initial Taiāpure application divided the community and was not well supported, particularly due to anti-Māori sentiments. Two interview participants suspected a negative bias in the media which exacerbated tensions.

“It [the EOT] just divided the community. Because back then there was a lot of anti-Māori people here. Fishermen were happy, weren't happy. Boating club were happy,

weren't happy... what these people were worried about was that they were getting stopped from going down on the beach, and stopped from fishing but it wasn't that. That wasn't going to happen.” (1)

“At that time, we decided not to call it a rāhui, we decided to call it a temporary closure – it fitted better with the thinking at the time... I think the idea of temporary closure, people argued very strongly against their rights or privileges being taken away.” (2)

“things get into the press and the media absolutely loves a nice fight...So, the Taiāpure here I think was the weapon.” (3)

“feeling frustration with the ODT and the media...always wanting interviews or quotes [from tangata tiaki] and would put a snippet in and then they'd get someone else's opinion and they would get paragraphs of their rant. And it was not balanced, we felt it was never balanced.” (4)

Three interview participants had received abuse for being part of the EOTMC but another participant discussed how perceptions had changed with time.

“But they [the EOTMC] get an awful lot of shit, sometimes it's okay, but just when you're ready to leave, it's like a nasty remark as they walk out the door...But it's much, much reduced now. It's only the odd person that does.” (3)

Challenges – Poaching and Enforcement

All five interviewees discussed the issue of pāua poaching on Huriawa Peninsula and concerns about enforcement. Three interviewees felt that there were not enough fishery officers present to enforce the rāhui and other regulations within the Taiāpure or that the fines were not harsh enough to act as a disincentive for potential poachers. Two of those

interviewees also discussed how they would prefer if the fishery officers notified tangata tiaki or the EOTMC when people were illegally taking pāua on Huriawa Peninsula or had been caught overfishing or taking undersized pāua elsewhere in the Taiāpure as it may help with management.

“I mean we’ve got a temporary close until we open them [the fisheries] up again but people don’t take any notice of it... But there’s a lot that get them [pāua] and don’t get caught – we know that... But see by the time you get MAF [now MPI] out here, they’re gone... the big chiefly MAFs they don’t have the time – they’re all over the place... It’s just stupid. We really do need more fishery officers.” (1)

“We had a case of poaching a few weeks ago.” (5)

“It would be nice... because they’re patrolling Otago coastlines, if they gave a brief of say ‘this is happening in your area’ or ‘this is the outcome’. Sometimes we don’t know [about poaching incidents] really until it’s in the court news what happens... And that [being notified] would kind of help what’s going on in that area... They [MPI] don’t have that feedback mechanism [to report poaching] ... It would be [good] for tangata tiaki, not for everyone, but I think because we are connected to them and they know about us.” (4)

The Role of Science

All five interviewees discussed how science played a critical role in the management of the EOT and implementation of the rāhui on Huriawa Peninsula. Two interviewees discussed the success of the application process and attributed this to the scientific evidence that was supplied from various research projects within the EOT.

“I think, [science] is one of the main contributors, in my opinion, to us being as successful as we have been because we have the science to go with it. Without that we would not have a show in the world, I don’t believe. We could do whatever we felt good but, in the end, it would have no power. We wouldn’t have had the power to close down Mapoutahi or Huriawa... none of that would have happened without the science because no one would have believed it was necessary.” (3)

“We did change the Section 186B to a Section 11 on sustainability... I think probably the fact that those surveys that we did pointed towards a sustainability issue perhaps.” (2)

Another interviewee discussed the difficulty of providing evidence based on cultural values and how in a legal setting those values are not often understood or appreciated. In a legal context, the scientific evidence was important knowledge to provide alongside those values.

“I think it’s important to have that [science] to back you up because from a kaitiaki perspective, or a Māori perspective, so much of it is – I want to say a feeling – but it’s kind of like you know, you feel it. If you know your area, and you know what’s going on, it doesn’t hold up, it doesn’t stand up... you could have said all these things from your heart and your experiences but if we didn’t have the black and white in the court, it doesn’t hold up and so if you’re going to fight something you need that back up... We have to continually sit back and look at the bigger picture so mauri is a part of that as well and it’s hard to put all that together. When it’s a part of your place and you’re interconnected with everything, it’s hard to put that stuff into words. So sometimes you need, not necessarily a graph, but you need a timeline of ‘this is what we’ve been doing’... We’ve got timelines and we can stand up and say, ‘well actually

we've been doing this for 20 years and so we do know'...it gives you something to stand up – like a pou really.” (4)

Four interviewees also discussed the importance of the relationship between the community and the university researchers. This relationship was mutually beneficial as it provided a learning space for university student researchers but also provided research for the community.

“So that relationship with the science is really good, it's real beneficial to both [researchers and the community] – I think that's important.” (4)

“And the ones [researchers] that go and offer their services but also work with people – they learn so much themselves, it's almost a two-way thing and it always should be mutually beneficial. So, the knowledge for us has been fabulous.” (3)

“We would not have had all this information if it hadn't been for the university students. Or else we probably would have found our own to do it... we don't have money.” (1)

“If other communities had to do the same science as we have, it would just be impossible.” (2)

Kaupapa Māori Themes

Five themes were identified during the deductive analysis approach using Kaupapa Māori Theory; these themes were Te Tiriti o Waitangi; tino rangatiratanga; ako Māori; whānau and; kaupapa.

Te Tiriti o Waitangi

The interviewees discussed the relationship between the hapū and the Crown in regard to customary fisheries management and one interviewee felt that the Crown misunderstood the cultural values associated with environmental management and two other participants felt that there was a lack of trust in the relationship.

“And they [policy makers] don’t understand mauri as well and it’s really hard to get that concept across and that interconnectedness.” (4)

“I think the Crown mistrusts because they are so untrustworthy themselves so they assume everyone is going to be like that... If you do want to [gather customarily] then you always have somebody not from here as well gathering with us just so they can’t tell us ‘you’re just covering for each other’.” (3)

These three interviewees also talked about how they had felt let down or dismissed in the legal process. The interviewees felt that customary fishing wasn’t valued, and that Crown authority overrode the authority of the hapū. Despite this, they still felt the need of some sort of legal protection of the fishery.

“Commercial is still such a big part of it is that they [the Crown] don’t really value customary because it doesn’t pay the bills. And the big ticket is the commercial. They forget the whakapapa and that but that’s them...we are lucky that we are supported by science, that relationship is really good, legislation lets us down.” (2)

“So, it doesn’t matter how many protective things we have, the Crown when it wants to do something...But if you have nothing [no legal protection], there’s always a risk. But you’ve got to be able to, in some way, have a legal protection that you can administer and apply.” (3)

The same three interview participants, all approved tangata tiaki, discussed the lack of authority granted to the hapū and sense of mistrust in regard to management when comparing the roles of honorary fishery officers (HFOs), tangata tiaki and fishery officers. Approved tangata tiaki are not allowed to simultaneously hold positions as HFOs, both of which are voluntary positions which don't receive income, a topic that was a concern for the interviewees.

“I remember when I got my tangata tiaki training, I was like, ‘oh yeah, well I just go up to people and have a chat and see how much they’re getting’ and the fisheries officer said, ‘mmm you can’t do that’, I’m like, ‘what? You’re telling me that I can’t go and ask people...?’. I was just about knocked over by a feather with that because I was thinking what’s my role then?” (4)

“You can’t expect an honorary fisheries officer to come whipping up, you expect people who are being paid to do that. He [the fishery officer] said, ‘well, there’s only two of us on on the weekend’ and I said, ‘well that’s not our fault’. You won’t give us [tangata tiaki] the legal right to do something about this. [HFOs] have the same [power as fishery officers], almost. They can tell you to put it back, they can inspect your catch. We can’t, as designated kaitiaki because that’s not our role – they won’t let us be both.” (3)

“they made them relinquish one or the other and there was more mana in holding their role as tangata tiaki. So, that still remains which it is a sore point. But that’s the Ministry brief – they won’t trust tangata tiaki with both roles.” (2)

One of these interview participants was particularly concerned about the lack of authority when comparing the legal process and protection mechanisms involved in customary protected areas (CPAs) and marine protected areas (MPAs).

“Even the system to renew the rāhui on Huriawa, it’s just ridiculous. If a marine protected area was put on here tomorrow, that rāhui would stay forever and ever. It would never need renewing and yet ours does, why is that? Because the Taiāpure is a recognised means of taking care of and keeping an eye on our resources... why is there such a huge process for us to do what a marine protected area can do - it [a MPA] can be instant, it can be forever, it never isn’t. Whereas ours was just a bit more amenable in that when we believe the stocks are sufficiently healthy, we can then open Huriawa again but only with customary permits... But I should imagine that if we were ever successful in getting the same rights as a marine protection holds then there will be an uproar. There really would.” (3)

The same interviewee was involved in the consultation forum in the establishment of a network of MPAs along the south east coastline and along with another interviewee mentioned their concern that fishing pressure in the EOT would increase once the MPAs were gazetted. These interviewees also felt that law enforcers were stricter when enforcing MPA regulations as opposed to customary regulations within CPAs. The potential fishing displacement in the EOT was one of the reasons the EOTMC had proposed a complete ban on pāua fishing.

“our bother was always going to be that one of the marine protected areas was proposed to be at Bobby’s Head down to where our Taiāpure starts, so where are they [fishers] going to hit? They’re going to hit ours every time.” (3)

“Well [the MPA will] make it [fishing in the EOT] more attractive because there’s less penalties for taiāpure discretions. So, it will drive the gathering to here which is why we’ve gone for our closure on pāua completely.” (2)

Two interviewees mentioned the Kāi Tahu Settlement; one interviewee was glad that the settlement was around mahika kai and the protection of the environment while the other interviewee was concerned about the iwi losing authority over these areas, particularly when potential marine protected areas were established close to the EOT.

“I’m sort of always glad that the Ngāi Tahu settlement was always around mahinga kai which brings it back to environment really.” (5)

“there has to be compromise but remember Kāi Tahu is at the table and they already had all this [authority over the marine environment] and we’re were about to have to give some up because this was part of the settlement – mahika kai and fisheries. It was the 9th of the 9 things put forward – the others were all around land, and forest and rivers and stuff and the 9th one was mahika kai and still we are giving stuff away. And we’re not happy about it.” (3)

Tino Rangatiratanga

Two interviewees, who were tangata tiaki, discussed the use of customary fishing authorisations and how they were based on tikaka and crucial for the practice of manaakitaka and providing kaimoana for whānau and manuhiri. Authorisations can be granted to anyone, not just tākata whenua. One interviewee discussed manaakitaka in the context of the rūnaka maintaining important relationships with other rūnaka through the exchange of kaimoana where each area had a different specialist species.

“So, you can only authorise within our hapū boundaries. And you can authorise to anyone for any purpose really. But then you have certain guidelines that are discussed within taiāpure. So, they have to be consistent with tikanga and one of the key tikanga is manaakitanga... One of the arguments is ‘it’s just for Māoris’ or it was

just for Ngāi Tahu but it's for anyone... might be for a birthday or a funeral – so that's manaakitanga.” (2)

“Ōtākou always took cockles and the Bluff always brought oysters or crayfish, Moeraki brought crayfish and pāua, here brought pāua, and pipis. So, you had all of these specialist foods and those three or four Papatipu Rūnaka, that's what they did when they got together or if someone was going away North and the birders⁸ would donate birds as well. So, it was stuff that wasn't easily accessible to those up North for those kinds of kai hau kai exchanges⁹.” (3)

Four interviewees mentioned the significance of a new job role that one of the tangata tiaki (and one of the interview participants) had accepted and how it would empower the hapū. Much of the management mahi is done by unpaid individuals in their spare time, outside of their day job hours. This role would provide the hapū the opportunity and authority in having a defined job role that represents Kāti Huirapa Rūnaka ki Puketeraki that can better support management of the fishery through biological surveys, education and engagement, as one interview participant explained:

“finally, we've got someone in that role that it's their job to go out and engage with people, educate people, talk, to be able to go and consult with the people in [their] own time... People want to be able to consult with us over different things – it could be anything – it could be consents, it could be oil and gas, it could be fisheries stuff – and they're all wanting hui in their work day, it's their job, but it's not our job, it's not our paid job. And we can't get leave sometimes but now we've got someone who can speak for us in work time and be on equal footing with everyone else. So that's a

⁸ Whānau who harvested tītī.

⁹ Cultural food exchanges that are important for maintaining relationships.

real win for us. So, to be able to go out and do pāua surveys, do cockle surveys in work time and get that evidence, it's really strengthening us.” (4)

Ako Māori

One interviewee discussed the importance of education in the management of the EOT and using the EOT as a learning space for other hapū or communities.

“One of the other important things we do is education – make people understand why rather than having a stick... We have a lot of wānanga where people do come in from other areas, come and look at our place and they can go home with their own thoughts of how to manage it. It's not just the fishery either, the land, the restoration, it's all connected and we know this place so it's much easier for our situation to have this as the wānanga and people can come in and look at what we've done and think about how they might do something similar at home... And that's why it's frustratingly slow to get things done but I think in the long term you do get a better result. So, we're being patient, we've been here for hundreds of years and we're going to be so we don't need to [rush].” (2)

Whānau

Four interviewees discussed fishing in the area when they were younger or with whānau. Three interview participants mentioned how the fishery had since changed and become less accessible. The impact of this was explained by one of the interview participants:

“When we did move here and the kids were little, we had a little boat and I remember taking the kids out with a glass bottom bucket and we would spot flounder in the water. And we weren't really actively trying to get fish but we could see them... But I

noticed when we started going out and only getting small blue cod, it just really upset me...we used to always be able to wait for a big one, you'd put the little one back, wait for the big one, give the first one to Tangaroa – we always did that – it didn't matter what size it was, if it was a good size, it still went back in. And you would just shift spots until you got one. And then a couple of years ago we were out here and only kept bringing up small ones, small ones, small ones and after about 6 I said, 'nah, this is not good. I don't want to keep having to unhook small ones and put them back'. I said, 'obviously there's no takers here'." (4)

All five interviewees discussed how the fishery was connected to the land and the river and how the health of the fishery was linked to the health of these other environments.

"When we started [the EOT], I thought we were going to look at the pāuas and then I didn't realise then we're looking at the water...then we looked at the sewerage and I never even thought it was going to come to all that... I thought we were there to look at the fish but I suppose if you want fish you've got to have nice clean water." (1)

"our fishery will benefit from the neighbour's fishery getting better. So hey, if its healthier. So, we're not... I think the fact that we can look after our patch and it can benefit others." (2)

This connection also extended to the people as four interviewees discussed how important people's connection to their environment was and how it played an integral part in the management and protection of the environment and resources. One interview participant was concerned about how this disconnection had negatively impacted the environment and that reconnecting people was an important goal:

"They [other environmental groups] want it [the environment] back before people were there and we're saying well no, actually, people are an important part of the

landscape, you need to look at having people as an important part of it... It's going to take time. I think we recognise the problem, that's half of it. We didn't, did we? For many decades we didn't realise what was happening and people turning their back on... like the river (Figure 26) - many things happened to it that shouldn't have because they've been excluded from it which is what we're working towards now... getting people reconnected to it, back in there to those places... I often talk to the young ones about this – if you have to go over the West Coast and find some pounamu, bring it back, shape it into an adze, cut down a tree, make your canoe, get your harakeke, make your fishing line out of that, make your paddle, find something with a big bone, make a hook out of it, and then go out and catch your fish and don't have a refrigerator. All that. You're intrinsically involved in it aren't you?" (2)



Figure 26: The point where the Waikouaiti River meets the ocean and Huriawa Peninsula (right).

Kaupapa

All five interview participants discussed their aspirations of a healthy, abundant fishery where the community was able to sustainably harvest kaimoana without placing pressure on fishing stocks. The initial focus would be on the recovery of the pāua fishery as that was the species that initiated the establishment of the Taiāpure and the rāhui Huriawa Peninsula.

“I would like to see that we could go and get a pāua and not get wet like we used to. I’d like that to happen.” (1)

“I would like the community to be able to harvest their own fishery and sustainably - that it’s a healthy fishery for them.” (5)

“all the species that sustained people are all on the endangered list and that’s what our mahi is – to get them off the endangered list and back on the menu... I guess the vision is for a fully customary fishery so pāua is the species that we have a lot of information on, it’s the key species... I think those species [kina, crayfish, blue cod] will [be the focus] one day – we need to get it right with the pāua. Once that’s happened, looking back at the history, that’s the species that created the Taiāpure so getting that one nailed rather than biting off too much.” (2)

Two interview participants talked about the importance of the recovery of the fishery to allow customary fishing practices to be revived and to ensure knowledge is passed on to the next generation through these practices.

“[My aspiration is] for the species not to disappear. So that kids don’t ask, ‘oh what was that?’ or ‘I wonder what that tasted like’ so you could always still experience

it.... Because there's a species in decline, that means there's a whole practice of that gather and getting them, that's going to get lost." (4)

"Use it or lose it. That's right, look it doesn't take long to lose it, the language got lost in a generation – still trying to get it back. Those practices too. Like a lot of them are gone – we have to look at books and that to get it because technology came and they went. But I think it's just a really good lesson to keep that practice up. Even if it is a bit of a novelty, it's still valuable, I think. There's heaps of opportunity for others learning those ways. So that's the vision really, to keep that healthy, abundant fishery for all...what I'd really like is to be able to use customary methods of harvest of all those species so that they would be abundant. You make your canoe out of your log, and then you make your hooks out of bones and there's enough fish that you can catch them. I think that would be really good. Because that keeps those practices alive. And I think they're still relevant in this age. Particularly actually in many ways – understanding the value of things. That's the vision. That's our 200-year plan." (2)

One of these interview participants went on to talk about the recovery of the fishery in the context of manaakitaka and providing kaimoana to manuhiri and whānau.

"[The aspiration is] that there was enough and that it was healthy so that we would be able to provide... for special events or especially for visitors, manuhiri...It would be good if we had special occasions at the marae that we could eat mahinga kai and it was commonplace in that actually everybody would be able to help go gather. At the moment it's not normal for people to go out and gather. And I don't mean everybody, I mean as a whānau and it was normalised so that the kids went with dad and learned how to do it or mum and learned how to do it. Or they were involved in the prep. But we don't have that sort of system so there's a lot of pressure if there's a tangi to go

and get, even if it's a tangi somewhere else you've got to take something with you."

(4)

Four out of the five interviewees talked about the potential success of the future ban on pāua fishing in the entire Taiāpure. The interviewees desire was to one day re-open the fishery at Huriawa and Mapoutahi Peninsula, and the rest of the Taiāpure when the fishery had recovered but only under customary fishing authorisations using tikaka Māori.

"there was a lot of discussion around wading fishery which I thought would have been quite good actually... but then other people thought that it was maybe dangerous and then when it comes down to it a no-take is so much easier... when we talk about recovery, I think if there's a total ban [on pāua fishing] then there's hope for that."

"when we believe the stocks are sufficiently healthy, we can then open Huriawa again but only with customary permits." (4).

Discussion

Why is the Legal Rāhui in Place?

In order for the EOTMC to achieve their management vision of a 'sustainable, healthy, abundant and accessible fishery', the EOTMC applied for regulations within the EOT to restrict fishing pressure (East Otago Taiāpure Management Committee, 2008). The application for the s186B temporary closure on Huriawa Peninsula was part of this set of regulations and was based on the importance of Huriawa Peninsula as an historic pā site that is wāhi tapu (sacred) to local Kāi Tahu, and concern around declining pāua numbers (Gnanalingam and Hepburn, 2015). The two subsequent renewals of s186B were due to pāua numbers remaining stable or only slightly recovering within the rāhui and declining outside

the rāhui (Ministry for Primary Industries, 2016). Similar to other locally managed fisheries that implement legal rāhui such as Kaikōura and the Bay of Plenty, the rāhui on pāua fishing at Huriawa Peninsula was initially voluntary and while it was respected by the local community, fishers from outside the area were ignoring the restriction and continuing to fish (Maxwell and Penetito, 2007; Stephenson *et al.*, 2014).

The interview participants discussed their concern about the cultural impacts of the declining fisheries species, another reason for implementing the rāhui on Huriawa Peninsula. These concerns were their reduced ability to exercise manaakitaka and engage in customary fishing practices, which resulted in a barrier to the transfer of knowledge that is usually provided by engaging in these practices. As discussed in Chapter One, these concerns are recurrent themes in other case studies in Aotearoa New Zealand that have investigated the cultural impacts of declining species, such as pāua, that hold cultural significance to Māori (Turner *et al.*, 2013; McCarthy *et al.*, 2014).

What are the Interview Participants' Aspirations for the Fishery?

The rāhui on Huriawa Peninsula was an important step toward supporting the interview participants' aspirations for the fishery, aspirations which aligned with the Kāi Tahu saying *mō tātou, ā, mō kā uri ā muri ake nei* - for us and our children after us. The interview participants aspirations were to exercise kaitiakitaka to encourage the recovery of the fishery, allow for the continuation and revival of customary fishing practices, manaakitaka, and the passing of knowledge to the next generation by engaging in these practices. There was also a lot of mana in restoring the resources, as described by Jackson, Mita and Hakopa (2017, p. 115) 'there is a great need to have plentiful fisheries resources in order to be able to provide kai, to host visitors for example, and thus to uplift your mana'. The EOT was also considered an important wānanga space for knowledge to be passed on to

current and future generations such as how to harvest particular species, species information, how to prepare kaimoana, and also management ideas for other communities who wanted to manage their fishery.

The interview participants discussed how the rāhui at Huriawa Peninsula was not viewed in isolation from the management of the rest of the Taiāpure which is consistent with the EOT management framework of 'ki uta ki tai' (Hepburn *et al.*, 2010). Their aspirations for the fishery were extended to the surround environments, in particular the Waikouaiti River that flows into the sea.

What Knowledge Informs the Management of the Fishery?

Mātauraka Māori played an important role in initiating the application process for the rāhui on Huriawa Peninsula, however, the interview participants discussed how scientific data had been critical in the overall management of the EOT and the main contributor to the success in the application process for the s186 temporary closure and subsequent renewals (Jackson, Hepburn and Flack, 2018). The biological surveys in 2008, 2012 and 2016 also provided evidence of a sustainability issue which supported the legislated change from the s186 temporary closure to an indefinite closure under s11 on both Huriawa and Mapoutahi Peninsula (Ministry for Primary Industries, 2016). The role of science was not only important for providing evidence to support the rāhui application but it was also crucial step in gaining the support from the broader community (Jackson, Hepburn and Flack, 2018). The interview participants discussed how there was initially significant opposition to the establishment of the EOT in the early 1990s, particularly as individuals incorrectly thought that it was a way for Māori to restrict non-Māori access to fisheries. A survey sent out in 1992 asked if the community would support the management of the fishery by the local hapū, the survey had an 86% return rate and 94.7% expressed opposition. However, the EOTMC has carefully

consulted with multiple user groups and over time gained support from the community for particular management regulations such as the s186B temporary closure (Hepburn *et al.*, 2010). It is important to note that monitoring fisheries management systems by conducting scientific research is not possible for many local fisheries management groups as it is costly, inaccessible, and often local communities lack scientific capacity or trust in this form of knowledge (Moller *et al.*, 2004; Jackson, Hepburn and Flack, 2018).

The relationship between the EOTMC and the University of Otago (45 kilometres away) and other researcher groups, such as Te Tiaki Mahinga Kai, has been really important in the science journey of the EOT, as discussed by the interview participants (Jackson, Hepburn and Flack, 2018). Many research projects have been conducted in the area in a wide range of fields from law to oceanography and each year researchers present their findings back to the community at the Puketeraki Marae (Hepburn *et al.*, 2010). The EOT provides a space for students from the University of Otago to learn how to work with communities and to understand tikaka and Māori environmental values. As such, manaakitaka is realised in the relationship between the EOT and the University of Otago – the students are able to learn how to conduct research, and the community can use this research to expand their knowledge of the local environment and inform management decisions. The relationship also aligns with the principle of āta (described in Chapter Two) which was developed by Pohatu (2004) and promotes the creation of safe spaces and the growth and nurturing of respectful relationships when engaging with Māori and the environment.

What are the Advantages and Disadvantages of a Legal Rāhui as a Fisheries Management Tool?

As discussed in Chapter One, the literature has described some of the disadvantages of s186B temporary closures such as their inflexibility which prevents adaptive management,

the ineffective closure time of two-years that is unlikely to allow for the recovery of species, and their disregard for the cultural values of customary environmental management (Maxwell and Penetito, 2007; McCormack, 2011; Gnanalingam and Hepburn, 2015).

The rāhui under s186B on Huriawa Peninsula was renewed twice and at times the interview participants feared the protection would lapse before the renewal was approved. Due to the limitations of the s186B temporary closure, the EOTMC applied for a rāhui under s11 on both Huriawa and Mapoutahi Peninsula. This legislation has provided the EOTMC with more flexibility than the s186B temporary closure as this rāhui has no time limit and does not require a renewal. However, it does require a review of the information supporting the closure within three years which requires the continued support from the monitoring surveys (Ministry for Primary Industries, 2016).

One of the contributing factors to the EOTMC taking many years to implement any regulations was the need to build up their confidence and knowledge of the legal system. For the members of the EOTMC, these committee roles were not their day job. However, as their knowledge grew, they were able to make an informed decision that the s186B temporary closure was too inflexible and not meeting their needs.

As discussed by the interview participants, and the literature, s186B temporary closures fail to incorporate the necessary cultural components of rāhui (Maxwell and Penetito, 2007; McCormack, 2011; When and Ruru, 2011). The shifting of power to the Minister who approves the rāhui application and the management committee means rakatirataka is not honoured, which was discussed in Chapter One. The East Otago Taiāpure Management Plan discusses the struggle for rakatirataka and the right to exercise kaitiakitaka and manaakitaka (East Otago Taiāpure Management Committee, 2008). Rakatirataka gives the right to exercise kaitiakitaka that is consistent with tikaka, and therefore, in order to

exercise kaitiakitaka, rakatirataka is necessary (Williams, 2004). As discussed in Chapter One, kaitiakitaka is the obligation to protect the mauri of the environment as the environment sustains the mauri of individuals (Taylor, Te Whenua and Hatami, 2018). According to legislation, including tākata whenua participation in the decision to implement a rāhui under s186B is required by law in order for the Chief Executive to have regard to kaitiakitaka (Fisheries Act 1996). Having regard to kaitiakitaka therefore requires the acknowledgement of rakatirataka, tikaka and mauri.

The interview participants provided several reasons why they felt that these cultural components that are crucial to the practice of rāhui weren't provided for despite being guaranteed in the legislation for s186B temporary closures and in a broader sense in Article II of the treaty. Interview participants discussed that either the government and policy makers simply did not understand these concepts, did not value customary fisheries or did not trust Māori to have full authority which is consistent with the literature (Wheen and Ruru, 2011). One interviewee discussed how the government's perceived value of fisheries was tied into economic gain and given that the commercial fishing industry in 2017 was worth \$4.18 billion and continues to grow, the interview participant felt the government was more invested in the needs of commercial fishers rather than customary fishers (Williams *et al.*, 2017).

Interview participants described how the Crown did not want to give authority to Māori in regard to the roles of tangata tiaki and HFOs. The three interview members that were tangata tiaki discussed their disappointment that they were not able to hold dual roles as HFOs and tangata tiaki. Under the Fisheries Act 1996, HFOs can be recommended to the chief executive by tangata tiaki but to avoid any conflict of interest, HFOs cannot be a nominated person that can issue customary permits, as a tangata tiaki has the authority to do (Ministry for Primary Industries, 2017). HFOs have similar powers to fishery officers such as

the authority to enforce fisheries regulations by questioning fishers and searching or seizing their catch (Ministry of Fisheries, 2007; Ministry for Primary Industries, 2019). Legally, tangata tiaki can issue customary authorisations for pāua fishing on Huriawa Peninsula which could be argued as a way of temporarily lifting the rāhui. However, the EOTMC has decided to extend the rāhui to cover the issuing of customary authorisations.

Historically, as discussed in Chapter One, individuals with mana established, enforced and removed a rāhui (Best, 1904). Fisheries legislation has diminished this role by allowing tangata tiaki to recommend rāhui to the Minister, and technically lift a rāhui by granting customary authorisations but preventing them from enforcing the rāhui. One interview participant discussed how the role of tangata tiaki held more mana than the role of HFO.

The inability for tangata tiaki to enforce the rāhui regulations was particularly relevant in cases of pāua poaching which all interview participants had seen on Huriawa Peninsula since the closure. All the interviewees discussed their concern about the lack of fishery officers whose presence acts a deterrent to poachers wanting to taking pāua from closed areas, particularly on Huriawa Peninsula where pāua numbers are slowly recovering. The interviewees were only aware of one HFO operating in the area who lived in Warrington, a 20-minute drive from Huriawa Peninsula where much of the poaching activity had been observed by the interview participants. This HFO also worked full-time in Dunedin and one interview participant discussed how they did not expect the HFO to drive over every time they suspected poaching in the area but expected more from the paid fishery officers, particularly as HFO role is voluntary and unpaid (Ministry for Primary Industries, 2017, 2019).

Despite these disadvantages, it is important to note that s186 temporary closures are protected by law. As Maxwell and Penetito (2007) states, this provides a way for the ‘teeth’ to be returned to the rāhui as individuals caught breaching the terms of the rāhui can be fined.

Future implications

One of the interview participants was a representative for the hapū on the South-East Marine Protection Forum. The South-East Marine Protection Forum was formed in 2014 in order to provide recommendations to the Minister of Fisheries and Conservation on a series of MPAs proposed for the south east coast of the South Island (Department of Conservation, 2019). At the time of the interviews the hapū was awaiting a decision from the Ministers to see which network recommendation would progress as the proposed network was likely to be close to the boundaries of the EOT (Department of Conservation, 2019). On the 11th May 2019, Minister of Fisheries Stuart Nash and Minister of Conservation Eugenie Sage announced the progression of a large network of MPAs extending from Timaru to Waipapa Point in Southland (Department of Conservation, 2019). This decision was part of the New Zealand government’s objective under the Marine Protected Areas Policy to protect 10% of waters by 2020 (Department of Conservation and Ministry of Fisheries, 2005). The current Marine Reserves Act 1971 that guides marine protection, fails to reference the treaty and has few provisions for iwi involvement, however a new Marine Protected Areas Act is currently in consultation (Ministry for the Environment, 2016). One of the no-take areas proposed, Te Umu Koau, lies just to the north of the EOT (Figure 27) and interviewees were concerned that fishing pressure would be displaced into the EOT. The displacement of fishing pressure to areas outside of MPAs has been documented elsewhere (Halpern, Lester and Mcleod, 2010; Mascia, Claus and Naidoo, 2010; Rassweiler, Costello and Siegel, 2012). However, despite concerns about displaced fishing and the low fishery officer presence, the EOTMC

does not oppose the proposed MPA network provided that it allows for co-management. Co-management of the MPA would allow for the vision of the EOT to be extended beyond the boundaries of the current Taiāpure.



Figure 27 Map of the proposed network of MPAs for the south east of the South Island (NZ Herald, 2019)

The next management step is for the EOTMC to retain the s11 closures on Huriawa and Mapoutahi Peninsulas, and close the entire EOT temporarily to recreational pāua fishing, and indefinitely to commercial pāua fishing (Fisheries New Zealand, 2018b). One interview participant discussed how this closure would prevent the fishing pressure from the proposed no-take reserve to be displaced into the EOT. Once the EOTMC are satisfied that the fishery

has adequately recovered, a customary fishery will be opened to fishing by customary authorisations only (Fisheries New Zealand, 2018b). The goal of the EOTMC is for the fishery to provide for the needs of the community and for management to be informed by tikaka, and customary authorisations are the tools to achieve this (East Otago Taiāpure Management Committee, 2008). With regard to the response from the public, similar to the initial regulations in the EOT, consultation, time and the ongoing support from researcher groups is likely to achieve the support from the wider community. A new paid role, funded by Te Rūnanga o Ngāi Tahu, and recently filled by one of the interview participants will be an important part of the future management journey. This pilot role has been created to understand how tangata tiaki can be better supported with the responsibility to engage, educate, and carry out scientific surveys, further supporting the management of the EOT.

Conclusion

A rāhui under s186B was unable to provide the EOTMC with flexibility and adaptability in the management of their fishery, important characteristics for community-based resource management. The legal rāhui also failed to provide for the crucial cultural values associated with kaitiakitaka, ultimately undermining rakatirataka. However, the rāhui was able to be enforced as it was supported by the law. The rāhui on Huriawa Peninsula under s186B was just one step in the 27 year management journey of the EOT (East Otago Taiāpure Management Committee, 2008; Jackson, Hepburn and Flack, 2018). This step was important for the EOTMC to increase their knowledge of the legal system and it provided time to consult with the public and gain support from the broader community. The proposed closure of the whole EOT to recreational and commercial pāua fishing provides for rakatirataka as it allows the EOTMC to assess the recovery of the fishery based on scientific evidence and mātauraka and re-open the fishery under customary fishing authorisations.

These authorisations are in accordance with tikaka which would allow tangata tiaki to exercise kaitiakitaka. While these regulations only apply to pāua, they keystone species that initiated the establishment of the EOT, there is scope to add more species to the customary fishery in the future.

Chapter Five: Conclusion

This concluding chapter is divided into two sections according to the aims of this research. The first section discusses the main findings of the two case studies that investigated whether either form of rāhui – a voluntary rāhui in Whareponga, or a legal rāhui under s186B in the EOT – provide for rangatiratanga. The second section discusses a management form that recognises rangatiratanga, kaitiakitanga and the core the principles of rāhui, and is recognised in law.

Research Questions

The aim of this research was to understand whether voluntary rāhui or legal rāhui as fisheries management tools can provide for rangatiratanga and the right to exercise kaitiakitanga that is in accordance with tikanga and informed by mātauranga. This research also aimed to identify a management form that recognised rangatiratanga, aligned with the principles of rāhui by restricting or prohibiting the harvesting of fisheries resources to restore the mauri of the resource, and was recognised within a legal framework and therefore protected by law. This research was explored by conducting semi-structured interviews with tangata tiaki/kaitiaki in two case study areas. The third chapter of this thesis focused on a case study of a voluntary rāhui in Whareponga on the East Cape of the North Island, and the fourth chapter focused on a case study of a legal rāhui under s186B of the Fisheries Act 1996 in the EOT on the south east coast of the South Island. In each of these case studies, four research questions were asked:

1. Why is the rāhui in place?
2. What are the aspirations for the fishery?
3. What knowledge informs the management of the fishery?

4. What are the advantages and disadvantages of the rāhui as a fisheries management tool?

These questions were discussed extensively in each of the case study chapters. The first two questions enabled an understanding of why management measures were in place and the value of the fishery from the perspective of tangata tiaki/kaitiaki. The last two questions related to the overall research aim of establishing whether the form of rāhui that was investigated provided for rangatiratanga and centralised te ao Māori.

Main Conclusions from the Case Studies: Do Voluntary Rāhui or Legal Rāhui Provide for Rangatiratanga?

The communities in Whareponga and the EOT had both observed a decline in fishery species and had decided that management measures had to be implemented to reduce fishing pressure on the fishery. One of the driving factors that initiated the implementation of the voluntary rāhui in Whareponga was the concern about displaced fishing after other bays in the area had started implementing rāhui. The legal rāhui in the EOT on Huriawa Peninsula, on the other hand, was implemented, initially as a voluntary rāhui, when scientific surveys indicated that the reduced bag limits for pāua were not halting the decline of populations in the Taiāpure, and particularly on Huriawa Peninsula. The voluntary rāhui in Whareponga restricted the harvest of shellfish (pāua, toitoi, and pūpū), kina and kōura while the legal rāhui in the EOT restricted the harvesting of only pāua. Maxwell and Penetito (2007) state that the definition of rāhui has not changed over time and historically, conservation rāhui were put in place in response to depleted stocks or in preparation for a large scale harvest (McCormack, 2011; Wheen and Ruru, 2011). This was consistent with the findings from this research as both the voluntary rāhui in Whareponga and the legal rāhui in the EOT were implemented to restrict the harvesting of depleted stocks. The voluntary rāhui in Whareponga was also to

allow the stocks to have a break from harvesting before lots of whānau members returned for Christmas.

As mentioned in Chapter Three, ‘it is not possible to have kaitiakitanga without whanaungatanga’ (Waitangi Tribunal, 2011, p. 105). For these two communities, their aspiration for protecting the fishery was not just about allowing the species to simply recover, it was about restoring the mauri of the environment and thereby restoring the mauri of the people (whanaungatanga bound through whakapapa), it was about the revival or continuation of fishing practices to provide an opportunity for people to connect to people, to their tūpuna, and to the environment. It was exercising manaakitanga, it was passing on these practices and the associated knowledge to younger generations, and ultimately reminding others of their responsibility to protect the fishery.

Reverend Māori Marsden stated that ‘kaitiakitanga and rangatiratanga are intimately linked’ (Royal, 2003, p. 71). Rāhui is a method of kaitiakitanga, and kaitiakitanga requires recognition of rangatiratanga, therefore the practice of rāhui too requires recognition of rangatiratanga (Kawharu, 2000; Williams, 2004). Jackson, Mita and Hakopa (2017, p. 127) stated that it is ‘mātauranga, coupled with the authority, mana, and rangatiratanga to lead, rule and manage the marine environment in accordance with tikanga that gives rise to the traditional methods of management’. Therefore, the practice of rāhui, must provide for rangatiratanga, be in accordance with tikanga, informed by mātauranga, and ultimately restore the mauri of the environment it has been placed over to protect (Williams, 2004; Taylor, Te Whenua and Hatami, 2018). This research found that the voluntary rāhui in Whareponga recognised rangatiratanga and the associated concepts and principles, although it lacked the ‘teeth’ provided by legal protection. The legal framework of the s186B temporary closure in the EOT, on the other hand, although having ‘teeth’, did not provide for full rangatiratanga. The legal rāhui was not designed through a holistic lens and undermined

rangatiratanga; therefore kaitiakitanga and all the principles of customary fisheries management were unable to be fully realised (Kawharu, 2000). This is similar to the findings of Jackson (2011) in the context of whether the EOT allowed for rangatiratanga.

The voluntary rāhui in Whareponga was implemented, enforced and lifted by kaitiaki who had the authority to determine the boundaries of the rāhui, the length of time the fishery was closed and which species were restricted from harvest. This form of rāhui was consistent with the traditional forms described in the literature where the authority to declare a rāhui was given to individuals that held mana such as the tohunga or, in a more contemporary setting like Whareponga, kaitiaki (Maxwell and Penetito, 2007; Wheen and Ruru, 2011; Jackson, Mita and Hakopa, 2017). However, kaitiaki have no legal authority to enforce the voluntary rāhui as it does not have the ‘teeth’ of the law. In the EOT, on the other hand, legal protection is offered but the authority to implement the rāhui was given to the Minister, the authority to enforce the rāhui was given to fishery officers, and lifting the rāhui occurred once the two-year time period or renewal time period ran out. However, the rāhui was extended by a closure under s11 which provides the EOTMC with control over when the rāhui is lifted. Through the legal framework of the EOT, the role of kaitiaki has been reduced to an advisory role that recommends the legal rāhui to the Minister, which is the same as other New Zealand citizens as anyone can apply for a legal rāhui (Maxwell and Penetito, 2007).

The application process for the s186B temporary closure in the EOT was inflexible and required the specification of the boundary and species restricted from harvest, and once approved by the Minister had to be announced in the Gazette, the official Government newspaper (New Zealand Government, 2019a). The two-year time limit also restricted the adaptability of management in the EOT, and as Gnanalingam and Hepburn (2015, p.1) state ‘by defining a time limit for temporary closures legislators have failed to account for the ecology of many of the species targeted for protection that require longer periods of

protection for restoration’. In Whareponga, on the other hand, the flexibility of the rāhui allowed for adaptive management as kaitiaki were able to implement the voluntary rāhui, evaluate its effectiveness and then change aspects of the voluntary rāhui in response to changes in the fishery to reach management objectives (Berkes, Colding and Folke, 2000; Cinner and Aswani, 2007). Although the six to eight-week time period was unlikely to be sufficient to allow species to recover, the flexibility in the voluntary rāhui allowed for immediate change (Gnanalingam and Hepburn, 2015). This type of management, often community based and implemented at a local scale, is becoming more important as management can adapt to environmental change and changes observed in the fishery (Berkes, Colding and Folke, 2000; Curtin and Pallezo, 2010). The use of preferred communication forms such as word of mouth, Ngāti Porou radio, and Facebook, also provided for flexibility as it gave the Whareponga community the option to announce the start of the rāhui in te reo Māori or English and also in a written or oral form. As the Waitangi Tribunal stated te reo Māori ‘is by nature an oral rather than a written language’ and using oral forms to communicate the rāhui, honoured te reo Māori (Waitangi Tribunal, 1989, p. 32).

Kaitiaki have an in-depth understanding of the management and use of particular resources, understood within te ao Māori, all concepts and values surrounding kaitiakitanga are derived from mātauranga (Jackson, Mita and Hakopa, 2017; Clapcott *et al.*, 2018). The management of the voluntary rāhui in Whareponga was primarily informed by mātauranga. For the legal rāhui in the EOT, interview participants discussed the difficulty of using evidence other than science to support the application process for the legal rāhui, particularly as concepts such as mauri were difficult to quantify or communicate to decision makers. The legal process of the rāhui did not provide for the recognition of other knowledge bodies to support the EOTMC’s management recommendations and scientific evidence was critical in the application process for the EOT rāhui – one interview participant compared the support

science provided to a pou. The legal process reflects the community, and in the EOT, management that is informed by mātauranga, a knowledge system that is not understood by the wider community, is unlikely to gain support. It is important to note that mātauranga and science are valid bodies of knowledge that are contextualised within a particular worldview that share similarities but Hikuroa (2017) stated that ‘it is important that the tools of one are not used to analyse and understand the foundations of another’. However, for the legal rāhui in the EOT to ‘assist in recognising and making provisions for the use and management practices of tangata whenua’ which are guided by mātauranga, this knowledge body should be privileged in the application process (Fisheries Act 1996).

Unlike the voluntary rāhui in Whareponga, the legal rāhui in the EOT is offered legal protection. However, four of the five interview participants in Whareponga did not think it was necessary to have the voluntary rāhui recognised in law as they were concerned the law would disregard te ao Māori values that support a rāhui. This concern is not unjustified given that the s186B temporary closure in the EOT did not provide for rangatiratanga, the foundation on which the rights to exercise kaitiakitanga are built.

In order for the legal rāhui to ‘assist in recognising and making provisions for the use and management practices of tangata whenua’ and do so with ‘regard to kaitiakitanga’, as stated in s186B of the Fisheries Act 1996, the legal process has to have regard for rangatiratanga. The diluted form of kaitiakitanga outlined in s186B closure made no mention of tikanga, mātauranga or mauri, some of the core principles that support customary fisheries management in te ao Māori. Ultimately, the ability for kaitiaki to exercise kaitiakitanga through the practice of rāhui is inadequately provided for in legislation. This is consistent with Turner *et al.* (2013) who state:

A number of common themes emerge, all representing clashes between externally imposed management regimes and Indigenous management approaches. In general, those imposing the regulations and actions neither recognize nor effectively accommodate Indigenous Peoples' knowledge, needs, customary practices or rights (Turner *et al.*, 2013, p. 571)

However, it is important to note that it is the legal process of the s186B temporary closure that undermines rangatiratanga, and the EOTMC has forced action using an imperfect legal tool. Democracy is understood to be 'rule by the people' and consequently the foundations of systems of authority are built on 'fragile claims about who 'we' [as the people] are and how and where we should rule' (Spitzer, 2019, p. 1). The legal system has created a set idea of a customary management tool that does not work with the holistic vision of the EOTMC and the concept of ki uta ki tai. As a result, the EOTMC has had to go beyond the processes of the legislation that created taiāpure and s186B temporary closures, incorporating management processes that cover the land, the river, the estuaries and the seas (Hepburn *et al.*, 2019). The EOTMC has informed the wider community of all management decisions and all of these processes have included input from the local community. This has been difficult in a place where management has had to overcome challenges such as racism, and balance the rights of different user groups that are often misinformed about the purpose of customary protection areas (Hepburn *et al.*, 2019).

The voluntary rāhui in Whareponga recognises rangatiratanga but was not protected by law and while this is appropriate in areas that are small and the local people respect tikanga, such as Whareponga, in densely populated areas that are easily accessible, the rāhui may be ignored, as was the case in the EOT before the legal rāhui was established (Maxwell and Penetito, 2007). While the enacted Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Bill (No.2) will allow for legal protection of customary fisheries management methods, such as

rāhui, these bylaws have to be approved by the Minister of Fisheries, shifting the mana and authority away from kaitiaki and potentially undermining rangatiratanga (Ngā Hapū o Ngāti Porou, 2016). In bylaw areas, customary fishing authorisations can be issued by kaitiaki or the fisheries management committee only ‘for purposes which sustain the functions of the marae concerned’ with no mention of tikanga (Fisheries Act 1996). These provisions further restrict customary fishing as in non-bylaw areas, authorisations can be issued ‘for customary food gathering purposes’ which is a more generalised purpose and ‘require that the taking of fisheries resources is consistent with the tikanga of the tangata whenua’ (Fisheries (Kaimoana Customary Fishing) Regulations 1998). In saying this, enforcing a voluntary rāhui can put kaitiaki at risk and result in intimidation, threats or, in some cases, violence. The law is able to protect kaitiaki in these instances.

Is There a Customary Management Tool That Recognises Rangatiratanga and is Protected by Law?

This research aimed to identify a management form that recognised rangatiratanga, aligned with the principles of rāhui by restricting or prohibiting the harvesting of fisheries resources to restore mauri, and was recognised within a legal framework and therefore protected by law.

The EOTMC has proposed five changes to the regulations within the EOT which include temporarily closing the EOT to recreational pāua fishing, permanently closing the EOT to commercial pāua fishing, banning the harvesting of seven kelp species and the use of set nets, and prohibiting filleting of fish at sea (Fisheries New Zealand, 2018b). The first four regulations are in accordance with the tikanga of rāhui – to restrict or prohibit access to resources in this case restricting harvesting or the method of fishing (McCormack, 2011). The prohibiting of filleting fish at sea is a custom that has been mentioned in several Waitangi

Tribunal claims (Waitangi Tribunal, 1985, 1988), the *Muriwhenua Fishing Report* in particular notes that:

Some rules, we thought, were basically directed to the maintenance of clear waters and balanced fish habitats. It is forbidden to gut fish in the open seas or to dispose of small fish, excess bait, food or rubbish. (Waitangi Tribunal, 1988, p. 24).

According to the discussion document that was prepared for consultation, the EOTMC considers that these proposed regulatory changes are required to ‘address a decline in fish stocks in the taiāpure’ in order to ‘allow for the regeneration of fish stocks, and thereby enable sustainable use into the future’ (Fisheries New Zealand, 2018b, p. 1). The document also states that these changes ‘recognise rangatiratanga in the management of local fisheries, and the rights secured by Māori in relation to fisheries by Article II of the Treaty of Waitangi’ (Fisheries New Zealand, 2018b, p. 1).

The process of implementing these regulations fails to recognise one aspect of rangatiratanga as the EOTMC only has the authority to recommend these regulatory changes to the Minister of Fisheries who has the authority to approve them (Jackson, 2013a). However, the new management regulations proposed by the EOTMC will recognise more dimensions of rangatiratanga than the previous s186B temporary closure on Huriawa Peninsula, which is now managed under a s11 closure. As Jackson, Mita and Hakopa (2017, p. 114) state, rangatiratanga has multiple dimensions which includes ‘a spiritual dimension; a physical dimension; a dimension of reciprocal guardianship; a dimension of use; manaakitanga and; manuhiri’. The spiritual dimension relates to the connection to the atua; the physical dimension includes practices such as rāhui; the dimension of reciprocal guardianship describes the practice of kaitiakitanga; the dimension of use relates to the right to harvest and fish resources; the dimension of manaakitanga relates to sharing and uplifting

mana and; the dimension of manuhiri relates to hosting manuhiri such as the ones that came from overseas (Waitangi Tribunal, 2004; Jackson, Mita and Hakopa, 2017). The *Report of the Waitangi Tribunal on the Manukau Claim* discuss how ‘the natural world of the Māori was not divided into seen and unseen parts, but the physical and spiritual dimensions formed an integral and indivisible entity’ (Waitangi Tribunal, 1985, p. 38). Therefore, to disregard one dimension of rangatiratanga, is to disregard all dimensions as they are all intricately bound. It is unlikely that legislation can be created to provide for rangatiratanga but there are ways of working around the legislation to get as close as possible in order to use ‘law to give effect to ‘lore’’ (Fisheries New Zealand, 2018b, p. 3).

The new regulations will allow tangata tiaki to establish whether the fishery has recovered, rather than having a set time limit that dictates when the rāhui is lifted as is the case with s186 temporary closures. Kaitiakitanga can be realised as the recognition of recovery can be based on the preferred body of knowledge, such as mātauranga, science or both, which will also take into account the recovery of the mauri of the fishery (Jackson, Mita and Hakopa, 2017; Taylor, Te Whenua and Hatami, 2018). The relationship between the EOTMC and the University of Otago researchers will provide ongoing scientific monitoring support for the fishery. Once the fishery is deemed to have recovered, the EOTMC can re-open the pāua fishery under customary fishing authorisations only which have to specify the quantity, date of the harvest, size limits, methods, area that is being fished, purpose of the take, and any other matters regarding customary food gathering (Fisheries (South Island Customary Fishing) Regulations 1999). Customary fishing authorisations make provisions for rangatiratanga as they provide for authority over the use of resources in accordance with tikanga, and allow for manaakitanga (Jackson, Mita and Hakopa, 2017).

According to the interview participants, the intention is to initially focus on pāua as the keystone species, and extend the closure on to other species once more information is

available. Individuals who fish under a customary authorisation are required by law to report back to tangata tiaki within five days with a record of the quantity of pāua taken and the specific sizes of the pāua which can also support the monitoring of the pāua fishery (Fisheries (South Island Customary Fishing) Regulations 1999). Customary fishing authorisations allow tangata tiaki to put in place controls which are in accordance with tikanga such as input controls which include restrictions on the method of fishing, the temporary and spatial use of the fishery, and the size of the pāua being taken and output controls such as restricting the quantity of pāua being taken (Bess and Harte, 2000). As one of the interview participants mentioned in Chapter Four, the initial proposal was to implement a wading-only fishery in the EOT, however this was deemed too complex to enforce (Fisheries New Zealand, 2018b). According to the EOTMC, wading was a traditional method of harvest (or harvesting tikanga) which restricted the areas that fishers could access. By specifying on the customary fishing authorisation that individuals fishing can only do so by wading, fishing can be restricted to shallow areas and be in accordance with tikanga (Fisheries New Zealand, 2018b). The temporal and spatial restrictions can be implemented when particular pāua populations are spawning which was a common method used traditionally by Māori (McCormack, 2011). The *Muriwhenua Fishing Report* described how ‘Maori knew the seasons of spawning and maturity for the species they utilised’ (Waitangi Tribunal, 1988, p. 33) and according to the *Report of the Waitangi Tribunal on the Manukau Claim* there were ‘the appropriate places for collecting various fish or shellfish according to seasonal migratory, spawning and feeding habits’ (Waitangi Tribunal, 1985, p. 38).

Customary fishing authorisations also provide for the recognition of manaakitanga, whanaungatanga and the transfer of mātauranga as they prevent the exclusion of people from the fishery. In most indigenous communities, unlike the western models of no-take marine protected areas, closures on a fishery are not permanent but temporary as humans are an

integral part of the fishery (Cinner and Aswani, 2007). One of the aspirations for the EOT was to have enough kaimoana for visitors, and allow exchanges with other hapū, these practices were important for enhancing the mana of Kāti Huirapa ki Puketeraki and maintaining social relationships (Jackson, Mita and Hakopa, 2017). The maintenance of these social relationships also relates to whanaungatanga - acknowledging the connection between people, and the realms of the living and the non-living (Harmsworth and Awatere, 2013; Taylor, Te Whenua and Hatami, 2018). Allowing for customary fishing through authorisations provides for fishing practices to continue and therefore enhances the connections between people fishing together, between people and their environment and provides an opportunity to share stories and knowledge (Te Aho, 2007; Wehi *et al.*, 2013). As mentioned in Chapter Three, ‘whanaungatanga always creates kaitiakitanga obligations’ and therefore connecting with the environment reminds individuals of their responsibility and obligation to enhance the mauri of their surroundings and in turn, enhance their mauri and their mana as kaitiaki (Waitangi Tribunal, 2011, p. 105; Jackson, Mita and Hakopa, 2017). Including people in the fishery through the use of customary fishing authorisations allows for manaakitanga, whanaungatanga, the transfer of mātauranga, and a reminder of kaitiakitanga obligations (Figure 28).

The long management journey of the EOT has included many steps, and although the legal rāhui on Huriawa Peninsula under s186B was inadequate for the many reasons that have been discussed, it has been an important interim measure to allow for the transition to a s11 closure and the wider proposed ban. This time period has not only allowed the EOTMC to gain an understanding of the legislation, but it has also given the wider community time to adapt to the change and understand the benefits of the management decisions. For the successful management of resources, regardless of whether the management is based on tikanga or law, all groups associated with the area and resource need to feel supported, and be

cooperative in the management (Cinner, Sutton and Bond, 2007; Taylor, Te Whenua and Hatami, 2018). The EOTMC realised that despite article II of the treaty, legislation is unlikely to be created around rangatiratanga and lore cannot be incorporated into law.

Therefore, the EOTMC found a way to incorporate law in to lore by the proposal to implement a rāhui and only lifting the rāhui under customary fishing authorisations in accordance with tikanga. In some places, such as Whareponga, where the groups that have an interest in the fishery are predominantly from the same hapū, they might be ready to establish similar regulations.

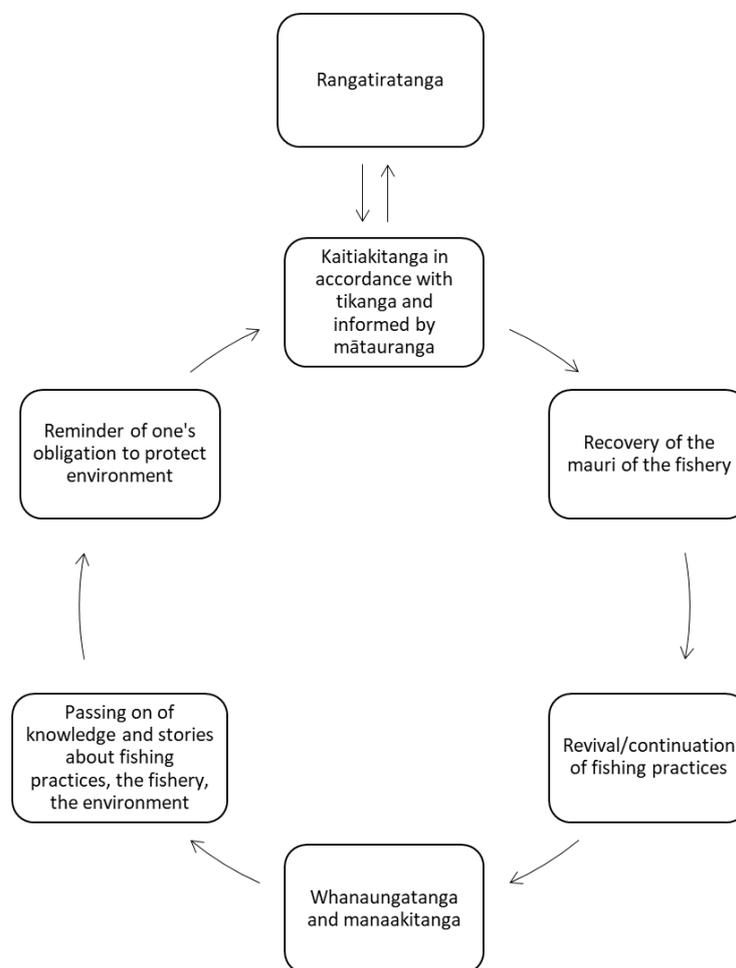


Figure 28: Reverend Māori Marsden stated that 'kaitiakitanga and rangatiratanga are intimately linked' (Royal, 2003, p. 71). This cycle represents the link between rangatiratanga and the creation of kaitiakitanga obligations.

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Appendix 1

Glossary

Aotearoa	New Zealand
Arai te Uru	ancestral canoe that brought the ancestors of Ngāi Tahu to New Zealand
aroha	love
atua	god(s)
awa	river
hapū	subtribe
hui	meeting, gathering
iwi	tribe
kai	food
kaimoana	sea food
Kāi Tahu	The southern dialect name for the iwi Ngāi Tahu
kaitiaki	local guardian

kaitiakitanga/kaitiakitaka	guardianship
kanohi kitea	the seen face, a living person
kanohi ki te kanohi	face to face
kāpata	cupboard
kāpata kai	food cupboards
karakia	prayer, ritual, incantation
Kāti Huirapa ki Puketeraki	a rūnaka of Kāi Tahu with a takiwa that centres on Karitāne and extends from Waihemo to Purehurehu and inland to the Main Divide.
kaumātua	elder(s)
kina	sea urchin, <i>Evechinus chloroticus</i>
Kirikiri-tatangi	a site in Whareponga on the foreshore that was used to train warriors in the art of warfare, translated to rattling gravel
ki uta ki tai	Māori proverb meaning from the mountains to the sea
kōrero	conversation, narrative, discourse
kōura	crayfish or rock lobster, <i>Jasus edwardsii</i>
mahi	work
mana	prestige
manaakitanga/manaakitaka	hospitality, caring

mana whenua	guardians of the land
manuhiri	visitor, guest
Māori	indigenous people of Aotearoa New Zealand
marae	meeting house
mātaitai	customary seafood gathering site
mātauranga/mātauraka	knowledge
maunga/mauka	mountain
mauri	life essence, life force
moana	ocean, sea
Ngāi Tahu	tribal group with a territory covering much of the South Island, also called Kāi Tahu in the southern dialect
Ngāti Porou	tribal group of the East Cape area with a territory extending north from Gisborne to Tihirau
pā	fortified village
pākehā	white person
pāua	abalone, <i>Haliotis</i> spp.
pēpeha	tribal saying or motto
pōua	grandfather, elderly man

pou	post, pillar, support
pou rāhui	a post marking a temporary closure or prohibition
pūpū	common cat's eye, <i>Turbo smaragdus</i>
rāhui	a temporary closure or prohibition
rangatira/rakatira	chief, person with authority
rangatiratanga/rakatirataka	chieftainship, right to exercise authority
rohe	boundary, region, territory
rohe moana	defined fishing area of a particular tribe
taiāpure	area that is set aside for kin groups to gather shellfish or to fish
takutai	coast, shore
takutai moana	foreshore and seabed, coast
tamariki	children
tangata	person, human
tāngata/tākata	people
tangata kaitiaki	a person or persons appointed under Fisheries (Kaimoana Customary Fishing) Regulations 1998 who are members of the tāngata whenua

tangata tiaki	a person or persons appointed under Fisheries (South Island Customary Fishing) Regulations 1999 who are members of the tāngata whenua
tāngata whenua/tākata whenua	people of the land
tangi	to cry, funeral (shortened form of tangihanga)
taonga/toaka	treasure, prized object
tapu	sacred, prohibited
te ao Māori	Māori world
te reo Māori	the Māori language
tikanga	custom, practice, correct way
tino rangatiratanga/tino rakatirataka	self-determination, sovereignty, autonomy
tīpuna	ancestors
Tiriti o Waitangi	Treaty of Waitangi
tītī	muttonbird, sooty shearwater, <i>Puffinus griseus</i>
tohunga	skilled person, chosen expert, healer, priest
toitoi	cook's turban shell, <i>Cookia sulcata</i>
tuangi/tuaki	New Zealand cockle, <i>Austrovenus stutchburyi</i>
wāhi tapu	sacred place, sacred site
waka	canoe

wānanga	to meet and discuss, learning
whakapapa	genealogy, descent
whānau	family
whanaungatanga	relationship, connectedness
whenua	land, placenta

Appendix 2

Consent form

I have read the Information Sheet concerning this project and understand what it is about. All my questions have been answered to my satisfaction. I understand that I am free to request further information at any stage.

I know that:-

1. My participation in the project is entirely voluntary;
2. I am free to withdraw from the project at any time without any disadvantage;
3. Personal identifying information audio recordings will be destroyed at the conclusion of the project but any raw data on which the results of the project depend will be retained in secure storage for at least five years;
4. This project involves an open-questioning technique. The general line of questioning includes to perspectives on the effectiveness of customary fisheries management areas, in particular rāhui, and the challenges involved in implementing this management technique. The precise nature of the questions which will be asked have not been determined in advance, but will depend on the way in which the interview develops and that in the event that the line of questioning develops in such a way that I feel hesitant or uncomfortable I may decline to answer any particular question(s) and/or may withdraw from the project without any disadvantage of any kind.
5. The results of the project may be published and will be available in the University of Otago Library (Dunedin, New Zealand) but every attempt will be made to preserve my anonymity.
6. I, as the participant:
 - a) agree to be named in the research,
 - OR;
 - b) would rather remain anonymous

I agree to take part in this project.

.....
(Signature of participant)

.....
(Date)

.....
(Printed Name)

Appendix 3

Information Sheet for Participants

Thank you for showing an interest in this project. Please read this information sheet carefully before deciding whether or not to participate. If you decide to participate, we thank you. If you decide not to take part there will be no disadvantage to you and we thank you for considering our request.

What is the Aim of the Project?

The aim of this research project is to investigate rāhui, or temporary closures, in a customary fisheries management context. This project is being undertaken as part of the requirements for Lisa van Halderen's Master of Science in Marine Science thesis. This study will explore what a rāhui enforced by legislation should achieve, the tools that are available for implementing a rāhui (both locally and legally enforced types), challenges that exist when putting these tools into practice, and how effective this management tool is from the perspective of local people. The intention behind this research is to provide information and support to fisheries managers who are considering implementing a rāhui. Interview data will be collected to investigate tangata tiaki/kaitiaki (local customary fisheries guardians) and local peoples' perspectives regarding the effectiveness of rāhui as a customary fisheries management tool.

What Types of Participants are being sought?

We are seeking participants who have knowledge of customary fisheries areas, and also local tangata tiaki/kaitiaki. The key members of the staff researchers' network will help guide participant selection for this project. The preferred number of participants would be 10 – 20 individuals.

What will Participants be asked to do?

Should you agree to take part in this project, you will be asked to participate in a kanohi-ki-te-kanohi (face to face interview) that will have a maximum duration of an hour.

Please be aware that you may decide not to take part in the project without any disadvantage to yourself.

What Data or Information will be collected and what use will be made of it?

The interview will be recorded using a voice recorder and transcribed verbatim. Collected data will be securely stored in such a way that only those mentioned below will be able to gain access to it. Any personal information held regarding the participants (contact details, audio recordings after they have been transcribed) will be destroyed on completion of the research. The data derived from the interviews will likely be kept for much longer, possibly indefinitely.

On the Consent Form you will be given options regarding your anonymity. Please be aware that should you wish we will make every attempt to preserve your anonymity. However, with

your consent, there are some cases where it would be preferable to attribute contributions made to individual participants. It is absolutely up to you which of these options you prefer.

This project involves an open-questioning technique. The general line of questioning includes questions relating to perspectives on the effectiveness of customary fisheries management areas, in particular rāhui, and the challenges involved in implementing this management technique. The precise nature of the questions that will be asked have not been determined in advance, but will depend on the way in which the interview develops. Consequently, although the Department of Marine Science is aware of the general areas to be explored in the interview, the Committee has not been able to review the precise questions to be used.

In the event that the line of questioning does develop in such a way that you feel hesitant or uncomfortable you are reminded of your right to decline to answer any particular question(s).

The results of the project may be published and will be available in the University of Otago Library (Dunedin, New Zealand) but every attempt will be made to preserve your anonymity.

Can Participants change their mind and withdraw from the project?

You may withdraw from participation in the project at any time and without any disadvantage to yourself.

What if Participants have any Questions?

If you have any questions about our project, either now or in the future, please feel free to contact either:-

Lisa van Halderen

and

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This study has been approved by the Department stated above. However, if you have any concerns about the ethical conduct of the research you may contact the University of Otago Human Ethics Committee through the Human Ethics Committee Administrator (ph 03 479-8256). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.