Te Mauri o te Kaitiaki – Exploring Te Ao Māori in Environmental Relations and Kaitiakitanga in Aotearoa New Zealand

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ABSTRACT

Indigenous environmental empowerment is on the rise as humans look at ways to slow the adverse effects of anthropogenic environmental degradation. In the context of Aotearoa New Zealand, the concept and practice of 'kaitiaki' and 'kaitiakitanga', respectfully, play a significant role in the co-existence of Māori with the natural world. Previous research shows the innate connections and responsibilities encompassed in being kaitiaki which extend beyond the human element to encompass nonhumans and spiritual manifestations. This research aims to illustrate how Māori use cultural values, concepts and practices in local-level conservational practices through ethnographic research in Matapōuri. I investigate the conflicts and convergences of a rāhui recently placed on two cultural significant areas to the local hapū, and through this, I analyse the practical and spiritual application of kaitiakitanga. Based on this ethnography, I discuss a model for relating environmental degradation with the wellbeing of Māori within Aotearoa New Zealand today. Here, I wish to highlight the ecological and cultural threats present from continuing in the current system. Lastly, I argue that the assertion of kaitiakitanga at the local-level is also an assertion of Indigenous autonomy for Māori and the environment.

MIHI

To my beloved Koro and Nan,

David Seymour Tamaki-Tutaki

&

Regina Tamaki.

Also, to my beautiful cousin,

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Table of Contents

CHAPTER ONE

1.0 INTRODUCTION

As the world is in a serious environmental crisis, humans everywhere are looking for alternative ways to implement more ecocentric values into production, tourism and resource management. Ecocentrism is the philosophy that recognizes that all species, including humans, are interrelated and focuses on the ecological whole as well as considering the significance of all organisms in the Ecosphere (Leopold 1949). This is opposed to anthropocentrism, which misperceives the environment as something to be exploited to serve the needs of humanity (Rowe 1994). Indigenous knowledge is becoming an increasingly popular alternative for environmental management and protection. Many Indigenous Peoples, such as New Zealand Māori, are implementing cultural values and practices of environmental care into their contemporary resource management. This includes adapting traditional astronomy, gardening, and customary fishing practices to contemporary ways of life to promote Indigenous knowledge and to work towards the healing of **Te Taiao** (the natural world).

This thesis explores the physical and spiritual relationships Māori have with the environment, and through this connection, how **Mātauranga Māori** (Māori knowledge) and **tikanga** (customs) are being implemented in contemporary conservation efforts in Aotearoa New Zealand. I discuss principles and practices such as kaitaki and kaitiakitanga, **rāhui tapu** (ritual prohibition) and **Mātauranga Taiao** (Māori environmental knowledge). The term, **kaitiaki** (guardian), was first recognised within legislation in the Conservation Act 1987 under section 48B in relation to South Island freshwater fisheries. Although there is no definition of kaitiaki in the Act, it is paired with the use of **tangata tiaki** (human guardian) to highlight the role of **tangata whenua** (people of the land) in customary food gathering. It was not until the Resource Management 1991 (RMA 1991) that the

term **kaitiakitanga** (guardianship; stewardship) was used in relation to the obligation Māori have to protect and care for the environment. The concept of kaitiaki has been a key principle in Māori interactions with the environment even prior to this legislative recognition, having existed as a guiding concept before the colonisation of Aotearoa. The "-tanga" suffix was added to kaitiaki, with kaitiakitanga glossed as 'guardianship' and 'conservation' in English. Notably, "-tanga" suffix has been used since the days of **He Whakapūtanga** (Declaration of Independence, 1835) and **Te Titiri o Waitangi** (Treaty of Waitangi, 1840). It is also incorporated into words like **kāwanatanga** (governorship) and **rangatiratanga** (sovereignty). Kawana, for instance, is a transliteration of 'governor', a concept unfamiliar in pre-colonial Māori society. According to Nikora, kāwanatanga "invokes the idea of protection; it is the concession that [Māori] made in the treaty to allow government to govern (Nikora 2001:377). Further discussion on the etymological and epistemological foundations of kaitiakitanga are explained in greater detail in Section 1.3, Chapter Two, and throughout this thesis.

The RMA 1991 defines kaitiakitanga as, "the exercise of guardianship by the tangata whenua of an area in accordance with tikanga Māori in relation to natural and physical resources; and includes the ethic of stewardship" (Resource Management Act,1991, s. 2(1)). Kawharu (2000) argues, however, that this definition restricts the meaning of kaitiakitanga to 'guardianship'. It is my contention that 'kaitiaki' has a plethora of meanings and ontologies – which also extends beyond the human experience. In this thesis I explore the concept of kaitiakitanga through a **Te Ao Māori** (the Māori worldview) lens to highlight the holistic view that Māori have with Te Taiao. This is a deeply-rooted spiritual connection, manifested through our **whakapapa** (genealogy), **pūrākau** (stories), tikanga, and Mātauranga Māori, that helps Māori better understand Te Taiao's health and wellbeing. This corresponds with a broader and universal understanding of Indigenous environmental knowledge as knowledge which works to enable people to both respect and give back to nature (Goldberg-Hiller and Silva 2011).

The purpose of this thesis is to accentuate the ontologies of kaitiaki and kaitiakitanga from a Te Ao Māori perspective, emphasising the spiritual and reciprocal connection between Māori and Taiao, as well as displaying the role of nonhumans in environmental protection. The concept of kaitiaki in Te Ao Māori is strongly ecocentric in principle. Rowe (1994) explains that:

> Ecocentrism goes beyond biocentrism with its fixation on organisms, for the ecocentric view people are inseparable from the inorganic/organic nature that encapsulates them. They are particles and waves, body and spirit, in the context of Earth's ambient energy. (Rowe 1994:106).

Māori understandings of kaitiaki encompass common Te Ao Māori values such as **manaaki** (hospitality; care), **mauri** (life force) and **mana** (power), and include the relationship between humanity and Te Taiao as forming parts of a whole. As part of this holistic understanding, there is a great recognition in Te Ao Māori of the importance of animals and their role as guardians of Taiao on behalf of **ngā Atua** (the gods) such as **Tāne** (god of the forest) and **Tangaroa** (god of the sea). As well as human and animal life, natural features like mountains, mist, rain and rock formations also hold responsibility as kaitiaki, phenomena further explored in Chapters Three and Four.

The principle of kaitiaki is deeply embedded into the daily lives of people at all levels of Māori social organisation – **iwi** (tribe), **hapū** (subtribe; extended family) and **whānau** (family) – through local conservation projects, and the implementation of historical practices like **rongoā** (Māori medicine) and rāhui to promote sustainable Māori-influenced ways of living. In Māori customs and metaphysical beliefs, kaitiakitanga emerges as something more than a legal term, rather, it is a crucial concept that holds spiritual, social and ecological importance. I suggest in this thesis that contemporary conceptions of kaitiaki are anthropocentric, and that kaitiakitanga, similar to the concept of rangatiratanga, is the assertion of a Māori birthright and a responsibility to **tiaki Taiao** (environmental care).

1.1 Research Objectives

There are three objectives I wish to address in this thesis. The first is to explore the spiritual, reciprocal relationship between Māori and Te Taiao expressed in kaitiaki and asserted in kaitiakitanga. In Te Ao Māori, there is an obligation for all beings to invest mana into the preservation of natural life, and in return, natural life provides mana, sustenance and **wairua** (spirit) to the kaitiaki and their community (Johnson 2013). A similar understanding pertains in Native American human-environmental relationships. Momaday (1976), for instance, refers to a Native American ethic in respect to the physical world as 'reciprocal appropriation'. This is a concept where humans use the environment and its resources, but in return practice reciprocal efforts in caring and maintaining components of the natural sphere, so that natural life and its gifts may replenish at their own pace.

The second objective is to examine how kaitiakitanga is asserted in contemporary Māori life, through participant observations and interviews in the community of Matapōuri in **Te Tai Tokerau** (Northland). My fieldwork in Matapōuri Bay shows how local Māori activate their role as kaitiaki in relation to their **wāhi tapu** (sacred areas), biodiversity and natural resources. I explore how the hapū of the area, Te Whānau a Rangiwhakaahu, and other non-Māori groups exercise conservation initiatives through local-based efforts. The three environmentally oriented groups specific to the area are 'Kapakaitiaki', Matapōuri Kaitiaki Project', and 'Te Wairua O Te Moananui (Ocean Spirit), which I discuss in depth in Chapter Three. These groups mobilise to recognise the spiritual connections between people, the **whenua** (land), **moana** (ocean) and creatures who inhabit these realms, while also acknowledging the value of traditional Māori knowledge in local conservation. I will also explore how legislation has transformed contemporary understandings of kaitiakitanga, looking at how traditional values and practices of kaitiaki have been adapted as a result of policy and legislation.

The final objective of this thesis is to compare the convergences between environmental degradation and Indigenous oppression through measures of well-being. Forster asserts that "colonization… introduced political frameworks that privileged British rule and displaced Māori environmental beliefs and practices, deliberately excluding Māori from participation in systems and institutions that controlled social behaviour associated with managing natural resources" (Forster 2016:321). In relation to Indigenous demands for environmental justice, Schlosberg and Carruthers (2010) argue that "to more fully comprehend current claims and discourses, a conception of justice must address the fundamental capacity of Indigenous communities to sustain the lives and livelihoods they value" (Schlosberg and Carruthers 2010:31).

In the current era of the Anthropocene, a great disconnect has been observed between people and their environments and this is particularly the case in the past few decades (Haraway 2016). Marsden & Henare (1992) argue that this disconnection is linked to capitalistic modes of production and values which revolve around economic gain, a problematic I discuss further in relation to the *Capitalocene* epoch in Chapter Two.

It is important to highlight the significance of including Indigenous people in talks about environmental restoration. It has been reported by the United Nations Environment Programme (UNEP) in the GEO-6 Report (2019) that Indigenous knowledge is an invaluable resource for sustaining a healthy population and environment. The report also emphasises the need for Indigenous voices in conservation. It is my contention that principles which exist in Te Ao Māori such as kaitiaki, manaaki and mauri, along with associated customs and practices are highly valuable for the restoration of the environment and its mauri in Aotearoa New Zealand.

Through exploring Māori spirituality, reciprocal relations and kinship, this thesis illustrates kaitiaki and kaitiakitanga through a Te Ao Māori lens. I challenge current legislative understandings of kaitiakitanga, which have reduced the concept

of kaitiaki to that of a ‘guardian’, and commonly only recognise humans as guardians and protectors of the environmental sphere. I argue that western and anthropocentric appropriations of Māori concepts do not encapsulate Te Ao Māori values and concepts fully. If there is an urgent need to protect and preserve **taonga** (treasures) in Aotearoa, the agency and livelihoods of all human and nonhuman aspects of the ecosphere must be recognised. Incorporating ecocentric thinking and Indigenous values and practices in conjunction with Indigenous knowledge and science is, I argue, the transformative change needed to reform exhaustive regimes and address the global ecological crisis.

1.2 Explanation of Terms

There are some definitions that must be explained to clarify why I have decided to incorporate certain terms over others. Throughout this research, I wavered between using either ‘kaitiaki’ or ‘kaitiakitanga’ in relation to Māori obligations to Te Taiao. As defined by Kawharu (2000), “kai is a generic term and when applied to **tiaki** (care) as a prefix, it has a literal translation meaning caretaker, guardian, conservator or trustee” (Kawharu 2000:350). Jackson (2015) adds that when the suffix ‘tanga’ is added, the term transforms its meaning to guardianship, conservation, fostering, protecting and sheltering. There are different historic and contemporary understandings of kaitiaki and kaitiakitanga, and both terms reference particular histories. There are also hapū and iwi specific understandings.

In the context of this research, I use the term kaitiaki to refer to both humans and nonhumans who exist as protectors and guardians of Te Taiao. Kaitiakitanga is used when referring to ‘an assertion of the right to practice being kaitiaki’, in relation to rangatiratanga, Mātauranga Taiao, tikanga and kawa in environmental care.

A further explanation is required for my use of terms such as Taiao, Papatūānuku and so on. Firstly, following a relational ontology framework, my intention is to break the concept of ‘Other’ when discussing the environment by

using personified and capitalised Māori names for key features, ancestors and species endemic to Aotearoa. As such, I refer to the environmental realm predominantly as Te Taiao to exemplify how Māori see and interact with the environment; Te Taiao is conceived of as a living and breathing entity, and for the purpose of analysis, I identify different categories (human, nonhuman and natural features), while also acknowledging that, on a fundamental level, these are all intrinsically connected in Te Ao Māori. In this context, and when discussing kaitiaki in Te Ao Māori in this thesis, I make reference to relevant Atua, such as Tāne and Tangaroa, to illustrate their sector/realm within Te Taiao, the kaitiaki – descendants of ngā Atua – they have appointed on their behalf, and the relationship **tāngata** (people) have with them.

Before discussing Mātauranga Taiao, however, it is useful to situate this in the context of 'Indigenous' knowledge. According to Dei (1993) writing in the early 1990s, Indigenous knowledge includes:

> the cultural traditions, values, beliefs and worldviews of local peoples as distinguished from Western scientific knowledge. Such local knowledge is the product of Indigenous peoples' direct experience of the workings of nature and its relationship with the social world. It is also a holistic and inclusive form of knowledge. (Dei 1993:105).

Several decades later, Bruchac described in detail:

> A network of knowledge, beliefs and traditions intended to preserve, communicate, and contextualize Indigenous relations with culture and landscape over time… Indigenous communities have devised distinctive methods of encoding useful data within philosophies of thought… This data includes geographical, genealogical, biological and other evidence that maps human relations to flora and fauna, land and water, and supernatural forces. (2014:3814).

Agrawal (1995) argues that the dichotomisation of Indigenous knowledge and western science is problematic, critiquing the power differentials of dichotomising these forms of knowledge. He argues that this dichotomy stems from

the restrictive idea that Indigenous knowledge is primarily concerned with the daily livelihoods of people, whereas western knowledge aims at creating a "more analytical and abstract representation of the world" (Agrawal 1995:15). Gilberthorpe (2007) notes that there is opportunity for Indigenous knowledge to be included in new decolonial ideologies of modern research, development and sustainability. This is a significant theme throughout this research, and will be discussed in depth in Chapter Two.

Historically, Mātauranga Māori has been marginalised in the wider context of environmental management in New Zealand. The introduction of the Tohunga Suppression Act in 1907, for instance, sought to replace rongoā Māori, which has a spiritual element, with modern medicine, and although only nine people were convicted under the Act (Norris and Beresford 2018), a significant amount of knowledge was lost. Rongoā Māori involves very intricate knowledge of the environment and since the 1907 Act, not only has a lot of invaluable knowledge been lost, but the population of rongoā and non-rongoā plant species have diminished as a result of 'development' and environmental degradation. I discuss the correlation between environmental health and cultural well-being in Chapter Four. Rereata Makiha defines Mātauranga Māori as,

> Te Mātauranga a te Māori, he hononga mea o te rangi, te whenua, ki te moana. Ka mutu ko te otinga o we rā mea e rongo ai te pō, e rongo ai te ao.
>
> Mātauranga Māori holistic, connecting the sky, the land and the sea. It becomes a part of the unconscious mind, and the conscious mind. (Rereata Makiha in *Waka Huia*, 15 July 2018 [original translation]).

From Mātauranga Māori stems the term to describe Māori environmental knowledge, Mātauranga Taiao. King et al. (2007) define Mātauranga Taiao as the "cumulative body of knowledge, practice and belief that has evolved through adapted processes" (King, et al. 2007:60), thus it is not confined to traditional applications but is equally relevant in the contemporary era. The authors go on to

assert the significant contribution Mātauranga Taiao could make to bodies of knowledge such as western science, environmental and hazard management, mitigation and climate change. For instance, what science terms environmental indicators are understood in Mātauranga Taiao as **tohu** (sign; symbol), embedded with messages from ngā Atua and ngā tupuna. The importance of reading and understanding tohu is exemplified through intergenerational storytelling, **waiata** (songs) and **whakataukī** (proverbs), and is accompanied by Mātauranga Taiao in reading time with the lunar phases, flora and vegetation, and associating regular species visits to a particular area as an indication of environmental prosperity (Ministry for Culture & Heritage, 2010). In a study conducted by Ngāti Kere, a list of tohu is presented through which the local iwi monitors the state of their **rohe moana** (coastal area):

> Tohu tuatahi – number and size of koura/crayfish in shallow water: The abundance of koura in shallow (knee-deep) water reflects the level of depletion of marine life…
> Tohu tuarua – number and size of hapuka/grouper close to the coast: In a similar way to the koura…
> Tohu tuatoru – level of Ohinemuhu rock above sand and abundance of pipi: Ohinemuhu rock has been used for generations to gauge the level of sand and sediment deposits… When the rock is mostly buried, the pipi are not so good… (Wakefield 2007:22).

The report lists another six tohu – also including people-induced indicators – which outline the important forms of measuring environmental health. While these methods are not exhaustive, they illustrate a creative blending of a strong scientific method in conjunction with Mātauranga Taiao. I intend to promote Indigenous environmental knowledge as a key component in conservation efforts. I also wish to acknowledge the importance of understanding Mātauranga Taiao in the contemporary context of Aotearoa New Zealand. The relations and power dynamics between Pākehā and Māori are a crucial factor in understanding how Mātauranga Māori is implemented today, as discussed in Chapter Three and Four.

1.3 Theoretical Frameworks and Research Methodologies

There are two frameworks that I have employed during this research, both of which draw on concepts that have influenced recent Indigenous research paradigms. The first is a relational ontology theoretical framework, as presented by Datta (2015), and the second, as developed by Smith (1997), Smith (1999; 2015), and Pihama (2010), is the Kaupapa Māori framework. These frameworks have been foundational for my thinking throughout this research, as well as being the underlying influence in my data collection processes.

My research involved gathering information from primary and secondary sources. Primarily, I gathered ethnographic data from the local hapū and community in Matapōuri through employing components of ethnographic methods such as participant observation, semi-structured interviews and digital ethnography to gather experiences, narratives, and cultural meanings given to the recent rāhui placed on wāhi tapu in the area. I use pūrākau in this research to provide the historical context of whakapapa between Māori and Te Taiao, but also to illustrate the working symbiotic relationship between the physical and spiritual worlds. Pūrākau as a methodology is fairly new, but as a concept, it represents the symbolic forms and means of storytelling in Te Ao Māori. It also "expresses epistemological constructs, cultural codes, and worldviews that are fundamental to Māori" (Woodhouse 2019). Secondary sources include academic journal articles and books and audio-visual media including local documentaries. Through the use of both sources I applied my qualitative data to current literature and understanding of kaitiaki and kaitiakitanga.

The first framework I employ is a relational ontology conceptual framework, a philosophical position that focuses on the relationality between beings, rather than the beings themselves (Wildman 2006). Relational ontology is a research paradigm relevant to research in Indigenous communities. Ranjan Datta (2015), discusses the framework in relation to themes such as relationality, hybridity,

otherness and scientific knowledge. Relationality refers to the relationship between actors, in this case being the relationships between and with human and nonhuman actors (both considered 'actors' in this context). Ingold (2011) explains that relationality between human/nonhuman, sentient/non-sentient beings, means that these phenomena are spiritually interconnected. He argues that spirituality is crucial to understanding these relationships in a holistic way. As Indigenous worldviews often highlight the importance of healthy relationships between the physical and natural world, this framework is crucial in exploring spiritual experiences and values as valid research inquiries. Hybridity refers to interactions between actors as continuous and complex, rather than colonial notions of rigidity and fixity. Otherness refers to colonial undertones that dichotomize human/nature and man/woman, for example. Critically, otherness positions one actor as inherently inferior to the other. It is also important to consider the conflicting binaries of notions such as us/them, culture/nature, man/woman as being incorporated under 'otherness', which according to Said (1993), is a colonial idea that positions one entity as being inferior to another. Within this thesis, I have tried to omit such comparisons between Indigenous and western paradigms, as well as culture and nature as much as possible to avoid using these notions of 'other,' which 'suggests separation and dependency' (Datta 2015:105).

Datta's notion of scientific knowledge emphasises the validity of Indigenous experiences and science in research. Datta (2015) explains that scientific knowledge, involving a relational ontology approach, considers both empirical science and traditional experiences as valid forms of knowledge. This framework recognises the depth of knowledge, held in stories, songs and worldviews as crucial for an Indigenous identity.

A relational ontology conceptualisation acknowledges the agency of the natural world, as well as Indigenous experiences and worldviews. Nature is understood as a dynamic phenomenon, and Indigenous environmental knowledge used in conjunction with modern forms of science, can be theorised to create a base

for investigating ecocentric and holistic relations between humans and nature. This framework complements a Kaupapa Māori framework, which aims to create research methodologies based on Māori beliefs, values and principles important to **āhuatanga** (likeness; attributes of) Māori. Leonie Pihama defines a Kaupapa Māori theoretical framework in relation to its mātauranga Māori foundation as follows:

> While the theoretical assertion of Kaupapa Māori theory is relatively new, Kaupapa Māori as foundation is not… It predates any and all of us in living years and is embedded in our cultural being… Kaupapa Māori theory is shaped by the knowledge and experiences of Māori. It is a theoretical framework that has grown from both mātauranga Māori and from within Māori movements for change. (Pihama 2010:5).

This research paradigm also aims to create safe spaces in which Māori may engage openly and comfortably in sharing knowledge, creating sites that are both culturally safe and appropriate. As a Māori researcher conducting research with Māori and on Te Ao Māori experiences, it is important to reflect on my positionality – as a Māori researcher, of Ngātiwai and Rereahu descent, and other relevant aspects of my subjectivity– within research, to ensure that I remain respectful of the knowledge being shared.

A unique aspect of the Kaupapa Māori concept is a deep consideration of our **tūpuna** (ancestors), in terms of the extent that information can be shared. It is important to acknowledge that some people may withhold from sharing knowledge, for risk of it 'getting into the wrong hands' – while it may not be intended for such use, written accounts of Māori stories, narratives and experiences could result in harm to **Te Ao Wairua** (the Spirit world). Given this warning, I have ensured that any information concerning the whānau, hapū and iwi participating in my research has been approved by a **rangatira** (chief; leader) and **kaumātua** (elders), and when requested, have not written the names or accounts of particular tūpuna belonging to Ngātiwai and hapū. As a Māori researcher, it is important to consider what our

tūpuna would want shared to the world. Indigenous knowledge is sacred knowledge, and therefore must be respected and cared for by Māori as kaitiaki.

An additional motivation for implementing a Kaupapa Māori research framework in my research is because its key principles are paralleled with essential Māori values. There are four key principles in a Kaupapa Māori framework, as explained by Smith (2015), which are the principles of whakapapa, Te Reo, tikanga, and rangatiratanga. She provides a model (See Figure 1) in which the principles are conceptualised within Te Ao Māori perspectives, and describes how these values may be implemented in research contexts.

Principle	Nature of the struggle	Implications for Research
Whakapapa	in Te Ao Māori: (i)related to identity (ii)whānau, hapu, iwi in Te Ao Pakeha: (i)race classifications (ii) ethnicity	classification whānaungatanga micro/macro credibility of researcher
Te Reo	in Te Ao Māori: (i) identity (ii)education (iii)knowledge in Te Ao Pakeha: (i) rights (ii)protection (iii)national identity	kanohi ki te kanohi the researcher/s research process conceptual work
Tikanga	in Te Ao Māori: (i) authenticity (ii)mana (iii)marae (iv)representation (iv) accountability in Te Ao Pakeha (i) authenticity (ii)conformity (iii)access	research process research design place people interpretation representation accountabilities credibility
Rangatiratanga	in Te Ao Māori: (i) mana whenua (ii)mana tangata (iii)Treaty of Waitangi	research policy research activity research funding definition/design priorities

Figure 1 - Kaupapa Māori Principles, Smtih (2015).

Whakapapa is a fundamental aspect in Māori cosmogony, and plays a key role in Indigenous research, because it is through whakapapa that we connect to each

other, the environment and the world. Through an ethic of whakapapa, the relationship between the researcher and the researched is mutual and clearly defined, and the forming of relationships creates strong foundations for shared knowledge. Te Reo is an integral part of Māori identity, and it can be argued that mātauranga Māori cannot be properly understood unless it is in Te Reo Māori. Linguistically, Māori **kupu** (words) can have several different meanings for one word, and it is often difficult to translate fully what the essence of certain Te Reo terms mean. For this reason, I incorporate Te Reo as a key component in understanding Te Ao Māori and Te Taiao, through using and explaining these terms throughout this thesis. Similarly, it is important to adhere to local tikanga in research, particularly when interacting with different iwi and hapū, as tikanga may vary between rohe. Tikanga influences how research is designed and conducted, and enables close-contact interactions between the researcher and their interlocutors. Connections are essential in Te Ao Māori, and a proper understanding of Te Reo and tikanga allows Māori research to be conducted for and with Māori, in the context of the interlocutor's worldview.

The last principle of the Kaupapa Māori framework, rangatiratanga, represents the sovereignty and self-determination of Māori and all that is Māori. Rangatiratanga is displayed in research through creating guidelines that are supportive of, and beneficial for Māori worldviews, knowledge and experience. This principle concerns itself with the protection of the subject community or group, and ensures that there is a maintained sense of manaaki, **māhaki** (humility), and mana reciprocated by the researcher. These principles aim to represent the mana of Te Ao Māori, to ensure that Māori knowledge is being shared in culturally appropriate ways, and that there is a level of respect maintained between all peoples involved. These principles underlie the Kaupapa Māori research framework, and create stable grounds for conducting ethnographic research activities with Māori.

1.4 Positionality

I am of both Ngātiwai and Rereahu descent through my father, and am familiar with both the struggles and accomplishments of Māori common throughout Aotearoa. As stated above, for the purpose of this research I have worked with people within the Ngātiwai region, and Matapōuri especially. It is important to understand that Mātauranga Māori is sacred for us as an Indigenous people to maintain our cultural identity, mātauranga and rangatiratanga. As Te Ao Māori is the overriding perspective in this research, it is important to represent Māori perspectives in such a way that not only supports, but empowers Māori[1]. I recognise that the knowledge of my iwi and the hapū involved is sacred. It is necessary to ensure that the processes and methodologies in this research respect my iwi, as well as the hapū and whānau members involved, to uplift and **āwhina** (support) their mana, tikanga and kawa.

1.5 Significance

There was a growth in studies on kaitiakitanga in different contexts after the introduction of the Resource Management Act (RMA) in 1991. These works highlight the importance of tangata whenua maintaining a sense of duty to the environment, creating culturally sensitive devices for sustainable resource management, the impact of tourism, as well as what kaitiaki means in terms of self-determination (Goldberg-Hiller and Silva 2011; Kawharu 2000; Smith 1999). The introduction of the RMA 1991 marked a significant change in how kaitiakitanga was interpreted in environmental legislation and policies and how it can be implemented locally. As this research aims to investigate Te Ao Māori perspectives of the concept

[1] Here, I note that the views that I express throughout this thesis are not representative of all iwi Māori.

of kaitiaki, I explore ethnographic understandings of kaitiaki and kaitiakitanga and the influence of legislation on how these values and practices have been incorporated into contemporary life. I argue that the anthropocentric undertones of legislation constrains the entirety that Te Ao Māori encompasses in relation to Te Taiao, kaitiaki and kaitiakitanga.

Within the field of anthropology in New Zealand, there is a small body of scholarship that directly focuses on the practical assertion of kaitiakitanga, such as Merata Kawharu's writings on Māori socio-environmental ethics in resource management (2000). Kawharu emphasises that "kaitiakitanga is… more than managing relations between environmental resources and humans; it also involves managing relationships between people in the past, present and future" (2000:352). There are also ethnographic accounts and descriptions of kaitiaki and kaitiakitanga in practice, including works by Schwimmer (1963), Roberts et al. (1995), Mutu (2002; 2010), McCormack (1997; 2007; 2018), Selby et al. (2010), and Johnson (2013). There is, however, scant literature on the relationship between kaitiakitanga and the current environmental crisis, with an exception being Dick, et al. (2012), who discuss the consequences of biodiversity loss in coastal systems from the perspective of tangata whenua. It is my contention that current literature surrounding kaitiaki is anthropocentric and seldom concerns the role that nonhumans and natural features have in being kaitiaki. Through exploring the essence of kaitiaki and kaitiakitanga, I wish to assert the need for looking to nature not only as a provider of sources, but as part of the living whole of **Te Ao Marama** (the World of Light). This thesis will attempt to provide an Indigenised interpretation of environmental anthropology, while also emphasising ecocentric values and infrastructures to accentuate the importance of caring for the environment's health.

As briefly mentioned, there is a growing urgency to find alternatives to current unsustainable and environmentally destructive regimes. Around the world, governments and non-government organisations (NGOs) are advocating for and implementing more eco-friendly initiatives. For example, as of 1 July 2019, New

Zealand banned single-use shopping bags from being sold or distributed (Saxton 2019, 28 June). This decision is in line with other countries which have recently banned single-use plastics, such as Kenya, Vanuatu, the United Kingdom, Taiwan, Zimbabwe, Australia, France, Morocco, and Rwanda (Calderwood 2018). The global environmental crisis is an opportunity for anthropologists to engage with the realities of culture and nature relations, and explore how environmental degradation impacts cultural livelihoods, belief systems and practices. In Tuvalu, for example, rising sea levels as a result of climate change are threatening the livelihoods of Tuvaluans (Farbotko and Lazrus 2012), a situation also occurring in other Pacific island nations. There has already been extensive work done in the anthropological field surrounding the environment, climate change, and more recently sustainability, but in regards to the Indigenous presence in these conversations, there is still more work to be done.

This thesis aims to contribute to the decolonisation of modern anthropology through examining Indigenous cultural perspectives of the environment. By decolonising modern anthropology, I mean to narrate these experiences discussed from a Te Ao Māori perspective, irrespective of former colonial perspectives of Māori culture and tikanga. Instead, I contest that it is essential to highlight the importance of the Indigenous experience in a time where Indigenous revitalisation is on the rise. Western knowledge and science have long regarded Indigenous knowledge systems as 'illegitimate' or 'unvalidated' accounts of knowledge (Horsethemke 2004). I argue that through mediums such as academic writing and research, there is great opportunity to decolonise attitudes around Indigeneity, spirituality and nature relations. As an Indigenous researcher, it is important to ensure that the research produced contributes positively to the communities involved, from an ethical point of view, but also in a spiritually dignifying sense too.

1.6 Overview

Chapter One of this thesis provides an overview of the project, and its significance to the discipline of anthropology and Te Ao Māori. Here, I will also discuss the methodologies I have used in this research.

Chapter Two is a review of relevant literature and includes a discussion identifying gaps. Topics discussed include the current environmental crisis, Indigenous environmental knowledge, and the literature surrounding kaitiaki and kaitiakitanga.

Chapter Three is an ethnographic case study of the community of Matapōuri in Ngātiwai. In this I explore how the hapū of Matapōuri implement kaitiakitanga in their conservation efforts. I analyse kaitiakitanga in relation to the rāhui recently placed on wāhi tapu Te Waiotetaniwha and Rangitapu by local hapū, Te Whānau a Rangiwhakaahu, and investigate the impacts this rāhui has had on the Matapōuri community in terms of their taonga, **puna** (pool) and protection of biodiversity.

In Chapter Four, I interpret kaitiakitanga based on the four stages of creation in Te Ao Māori – earth, sky and land, flora, the animal kingdom, and humans – to better understand all the facets incorporated in kaitiakitanga. This investigates the wellbeing of each stage (in relation to Te Taiao), and observes how humans as the final stage, relate to the other stages through a kaitiaki lens.

The final chapter summarises my findings, and proves to be a discussion around the key arguments I make throughout this thesis. Understanding kaitiaki and its ontologies and manifestations provides a valuable tool in restoring the environment's wellbeing. There may be a way in which the contemporary model for kaitiakitanga can fully incorporate Māori cosmology and Mātauranga Taiao into a system that encourages ecocentrism and Indigenous knowledge in Aotearoa New Zealand.

CHAPTER TWO

2.0 LITERATURE REVIEW

The purpose of this chapter is to thematically analyse relevant literature on kaitiakitanga and knowledge of the environment, and its place in national conservation efforts. I first, however, adopt a comparative approach and investigate Indigenous concepts and practices in conservation and sustainability on a global scale, before discussing the literature centred on Māori. Works from both Māori and non-Māori authors on Māori and the environment, kaitiaki and kaitiakitanga will be discussed and critiqued throughout.

2.1 The Environmental Crisis

The impacts of environmental degradation in Aotearoa needs to be contextualised within the ecological crisis on a global scale. The global environmental crisis is one of the biggest issues that humans and nonhumans are confronting in the 21st century. Some impacts of the current environmental crisis include climate change, pollution, deforestation, ocean acidification, rising sea levels, species extinction, loss of biodiversity and ecological collapse. A recent report from the United Nations Environment Programme (UNEP) states that climate change is one of the most pressing issues that affect both natural and human systems, and that environmental pollution is a major source of damage to the planet, human health, equity and economic sustainability (GEO-6 Report 2019). Kendra et al. (2019) describe the current crisis as the "second environmental crisis" following the first crisis in the 1960s, which was created by rapid urbanization, growing populations, climate change and global economic adjustments (Kendra, et al. 2019). It could be argued, however, that the decline of the environment's health started at the beginning of the Anthropocene.

The Anthropocene, a term coined by Nobel Laureate Paul Crutzen (2000), can be described as the epoch in which human activity has significantly impacted the

environment and ecosystems. Hornborg & Malm (2014) argue that the Anthropocene began in the Industrial Era during the 1800s which marks the onset of global warming and drastic environmental change. The Industrial era caused interruption to the earth's natural processes and cycles and is associated with rising populations and technological advancement (Hornborg and Malm 2014). A critique of this view, however, is that it is actually the capitalist regime which has resulted in the rapid degradation of the environment and natural resources. Moore (2017) argues "the Capitalocene… is also a Necrocene – a system that not only accumulates capital, but drives extinction… between the creativity of capitalist development and its deep exterminism. That exterminism is not anthropogenic but *capitalogenic*" (Moore 2017:597). I emphasise throughout this thesis that transformative change is needed if the earth and all its inhabitants are to survive and thrive.

In an ethnographic study of the Bahamas, Amelia Moore (2015) indicates that ecologies "shape and are shaped by those who live and work in the Bahamas and by multiple forms of anthropogenic change" (Moore 2015:29). She explains that the severity of anthropogenic change has resulted in ecological problems, including physical vulnerability to climate change, coastal erosion and marine biodiversity loss. It has also had a significant impact on environmental management communities, tourism and development. Hamilton et al. (2015) argue that we must move from a capitalogenic and anthropogenic epoch, and extend our ability to think and act beyond the human experience to include that of nonhuman lives and livelihoods. Chakrabarty (2016) argues that anthropocentric thinking has created the assumption that nature and all things nonhuman are separate from humanity, and are taken care of by "the natural order of things" (Chakrabarty 2016:378). This is to suggest that humans have no responsibility for what happens in the natural realm, and should instead be focussed solely on human affairs. This approach, without having regard for our responsibility to our environment and resources, has consequently led to the rapid acceleration of environmental degradation and human-induced species extinction, which in turn also leaves humans at risk. Before

discussing solutions and alternative ways to replenish the earth's resources, it is important to recognise how certain western ideologies and political economies have influenced the decline in environmental health.

Some of the greatest causes of environmental degradation are associated with dominant western ideologies and political economies such as anthropocentrism, resourcism and capitalism. In simple terms, anthropocentrism is a human-centred belief that neglects the significance of nonhuman species (Nimmo 2011). In this paradigm, people use animals for self-interested economic and developmental reasons (Boyd 2017), and human capacities and interests are privileged over those of nonhuman beings (Hayward 1997). Development, technology and expansion, in addition to rapid population increase and the mass exploitation of resources, has led to a great deal of nonhuman species endangerment and extinction. The cumulative effects of these processes have resulted in the subjugation of nature and its limited resources which interrupts important ecosystems and livelihoods.

Resourcism stems from anthropocentric thinking, and is based on the assumption that nature is for something, implying that the planet solely serves the needs of the contemporary human economy (Evernden 1993). The idea that the environment exists solely to serve the needs of humans, is problematic. Leopold argues that resourcism disregards the intrinsic value of nature, only acknowledging the human-benefiting properties that nature holds, rather than recognising the importance of all organisms within the ecosystem. Resourcism as an ideology is apparent in recent human history, particularly in relation to the rise of capitalism.

The capitalist economy is directly related to environmental degradation. Speth argues that "capitalism as we know it today is incapable of sustaining the environment" (Speth 2008:63). This is because human populations, technological advancement, and mass developments have increased rapidly since the Industrial Era, focussing on the progress of human growth rather than sustaining all life on the planet. Marsden & Henare (1992) explain that this disconnection between human and nonhuman elements of the world is attributed to the capitalistic mode of

production, which aims to expropriate and commodify both the environment and humans, disregarding any sort of spiritual considerations. Sweezy (2004) supports this notion of disconnection, and explains that economic entities – individuals, partnerships and corporations – tend to advance their own economic interests without considering the consequences of their decisions on the entire society or environment. Berry (1988) notes the environmental destruction unleashed by technological advancement:

> … To increase the volume and speed with which we move natural resources through the consumer economy to the junk pile or the waste heap. Our managerial skills are measured by our ability to accelerate this process. If in these activities the… environment is made inhospitable for a multitude of living species, then so be it. We are supposedly, creating a technological wonderworld… But our supposed progress toward an ever-improving human situation is bringing us to a wasteworld instead of a wonderworld. (Berry 1988:76).

The supposed economic advances heralded by capitalism have in fact caused environmental loss. Sullivan (2009) shows how the current crises of capitalism and the environment is interconnected in two ways: First, the economic exploitation and increased consumption of 'natural resources' contributes massively to ecological crisis; and second the ecological crisis itself is also a crisis of limited material resources and the limits of economic production. Even so, the environmental crisis has become a platform for economical gain through creating new markets for "environmentally-friendly" products, enabling consumers to make more eco-conscious decisions when purchasing products, goods and services. This ideology is described as "green capitalism" or "green neoliberalism", and suggests "if we just price the environment correctly… everyone and the environment will win. If nature can be rationally abstracted and priced into assets, goods and services, then environmental risk and degradation can be measured, exchanged, offset and generally minimised." (Sullivan, 2009:18). Sullivan argues that the monetisation of the environmental crisis assumes that the natural environment is the provider of

services for humans and the economy. Conversely, Carrier (2010) posits that this "ethical consumption", is "the natural way to protect the environment" (Carrier 2010:204). He asserts that through ethical consumption, individuals are motivated to live their lives in a more moral way, and on a greater scale, thereby putting pressure on the competitive market to adopt ethical decisions in production and distribution processes.

A critique of the environmental destruction wrought by capitalism comes from a study conducted by Kirsch (2008), in which he highlights the local voices of the Yonggom people concerning the impacts of the Ok Tedi mine in Papua New Guinea (PNG). In a three-day meeting in Kiunga on the Fly River in 2005, more than 300 people from affected communities gathered to discuss the legal, environmental and economic issues caused by the mine. During the meeting they identified Broken Hill Property (BHP) as "responsible for everything that happens" (Kirsch 2008:291). BHP, the mine's majority shareholder, had been subjected to a lawsuit for problems caused by the mine, including 30 million tons of tailings and 40 million tons of waste rock created annually since 1986 (Kirsch 2008). However, under BHP's management, there has been a chain of other environmental impacts including deforestation, fish population depletion and birds migrating from the Ok Tedi and Fly rivers, fertile garden land buried underneath tailings, and river system collapse from run-off mine waste.

Kirsch critiques capitalist extractive industries, emphasising the need instead to think "in alternative temporal scales, including the requirements of reproducing society… and transmitting cultural knowledge across generations" (Kirsch 2008:294). He explains that in Papua New Guinea, there is concern around generational changes as a result of capitalism and environmental degradation. For example, the Yonggom profess a loss of cultural and environmental knowledge, as well as express fatalistic commentaries on contemporary life as a consequence of the environmental degradation caused by the mine. For the Yonggom, pollution is evidence of a social problem, and their concern is more to do with the effect on their

social relationships, rather than with economic and technological advancements. Adam (1998) also claims that current economic conventions and industrial modes of production seldom consider the future, including the long-term market, its continuing impact on the environment (although these may not be visible at present) and the social consequences in affected communities.

It is evident from an extensive amount of multidisciplinary literature in the last few decades that the environment is seriously endangered, as a consequence, primarily of capitalism. More recently, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) issued a report noting, "nature can still be conserved, restored and used sustainably… By transformative change we mean a fundamental, system-wide reorganization across technological, economic and social factors" (IPBES, 2019). In regards to Indigenous land and biodiversity, the GEO-6 report notes that Indigenous land makes up 22% of the land's surface area which sustains 80% of the world's biodiversity (United Nations Environment Programme 2019). Additionally, the IPBES report comments that Indigenous lands are becoming 'islands' surrounded by exhaustive land-use regimes, posing a major threat to Indigenous communities and biodiversity conservation (IPBES, 2019). This highlights the benefits from incorporating Indigenous, values, ideologies and environmental knowledge in discussions surrounding the wellbeing of the planet and those living on it.

2.2 Indigenous Environmental Knowledge

As briefly discussed in Chapter One, Indigenous Environmental Knowledge denotes a system that is founded on the relationship between Indigenous peoples and the environment. The type of knowledge encompassed can be traced back to ancient hunter-gatherer societies (Berkes 1993). An underlying principle of this system is that Indigenous cosmologies in general are holistic, conceptualising the entire universe; that all beings animate and inanimate, belong to an all-encompassing

genealogy; that beings are not framed into rigid categories, and are purposeful beings in their own right (Johnson 2013; Roberts, et al. 1995; Stonechild 2016).

Agrawal (1995) emphasises that the dichotomy between western and Indigenous ecological knowledge is false, creating homogenised oppositional groups, whereas in reality both Indigenous and western knowledge are inherently complex and heterogenous. There is, however, analytical distinctions that can be made, with, for example the embedding of capitalism within Western environmental knowledge as a crucial point of departure. Berkes (1993) argues that the social context of Indigenous environmental knowledge includes "symbolic meaning through oral history, place names and spiritual relationships… [and] relations based on reciprocity and obligations towards both community members and other beings" (Berkes 1993:5). This gives room to argue that spirituality, reciprocity and ecocentric thinking are essential components of Indigenous knowledge and to the political assertion of rights rooted in this epistemology.

Spirituality is a crucial aspect of Indigeneity, although beliefs are extremely diverse within and among Indigenous groups. Forbes (2001), however, describes several stand-out characteristics of Indigenous spirituality in relation to Indigenous People from Turtle Island (North America):

> First, it is common to envision the creative process of the universe as a form of thought or mental process. Second, it is common to have a source of creation… stemming from a First Principle. Third, the agents of creation are seldom pictured as human, but are depicted instead as "wakan" (holy), or animal-like… or as forces of nature… (Forbes 2001:283).

Spiritual connections between people, the land, sea and animals are prevalent in many Indigenous worldviews. In 2018, for example, the chief of the Winnenmem Wintu tribe from northern California, Caleen Sisk, visited the Rakaia river in Canterbury to reconnect with their ancestor, the Chinook salmon. The Chinook, now present within New Zealand waters, are direct descendants of those who filled the McCloud River, which were decimated as a result of a dam being built

in the 1940s. The Winnenmem Wintu have a spiritual connection with the Chinook, performing prayer and ritual to their ancestors during their visit. Caleen Sisk explains "we believe we are so attached to the salmon that whatever happens to them, happens to us – so if they go extinct then so will we" (Harris 2018, 17 April). This highlights the deep connection and coexistence between people and environment, a point relevant to Māori as discussed in Chapters Three and Four.

Indigenous connections with nature, particularly with animals, do not always imply an ecocentric narrative wherein animals are divorced from Indigenous livelihoods. An example of this is demonstrated by Todd's (2014) fieldwork in the hamlet of Paulatuuq, situated in Canada's Northwestern Territories. Here, the Inuvialuit engage with and relate to fish through:

> … catching, preparation, storage, consumption, storytelling, philophisizing, sharing, theorizing, songs, ways of respecting, and linguistic definitions of, about, for, or with fish and fishy beings within the community of Paulatuuq… Fish, both singular and plural, are present in every household in some manner: whether it is in a freezer, a story… pursued and consumed within the community by any means, but their presence remains subtle, persistent and somewhat elusive. (Todd 2014: 222).

The Inuvialuit see fish as being "woven into every aspect of community life" (Todd 2014:225). Todd explains that fish have agency, in the sense that they can choose to be caught and eaten, but they also know when someone acts with or without respect. Whether it serves a human economy or not, the singular fish ultimately has control of its own role within the community. In understanding Indigenous spirituality in human-nature engagements, it is important to emphasise that respect for life does not mean that animals cannot be used for human purposes. Animals and natural features possess agency and are able to act on their own account, which is symbolic of the relationship between humans, nonhumans and the environment (Todd 2014).

In a Guardian Newspaper article written by Robert MacFarlane (2019), nature personhood and nonhuman agency are discussed in relation to the movement

of “new animism” following global nature rights movements. This refers to a resurge in the belief that all living things possess a soul, thereby emphasising the importance of agency, and challenging common modernistic conceptions of the environment. He quotes Grear (2019), who argues that the legal system needs to develop a new framework in which humans are entangled with nature, as opposed to being separate or superior. Berry (1999) posits “trees have tree rights, insects have insect rights, rivers have river rights, and mountains have mountain rights” (1999:5) and adds that under current understanding, “the world has become an ‘it’ rather than a ‘thou’” (1999:7). In Aotearoa New Zealand, recent acts have been introduced to argue the personhood of culturally significant natural features. Te Awa Tupua Whanganui Settlement Claims Act (2017) and Te Urewera Act (2014) are acts in which the agency of this river and park, respectfully, are given legal recognition, granting local Māori the ability speak for and on behalf of these ancestral places.

An important point raised by Einarsson (1993) in his analysis of whales in Icelandic small-scale fishing communities, is the existence of conflicts between western notions of ecocentrism, environmentalism and the livelihoods of local communities. In environmentalism discourses the values, interests and livelihoods of local communities that rely on nature for income and resources are often disregarded (Einarsson 1993; Einarsson 2009). Einarsson exemplifies this by comparing the narratives of local Icelandic fishermen with claims from environmentalists around the welfare of cetaceans, particularly in regards to whaling. He suggests that environmentalism tends to focus solely on the survival of nonhuman species and considers humans as a foreign and negative element in ecosystems.

Einarsson (1993) goes on to discuss the impact environmentalism and the romanticising of whales has had on Icelandic fishing communities, and critiques popular narratives surrounding whales and other cetaceans. From an environmentalist perspective, whaling in any form is wrong and morally unjustifiable; whales and dolphins are beautiful, majestic creatures that show human-like behaviour, thus creating a human bond with cetaceans that is “uniquely special”

(Einarsson 1993:76, quoting Barstow 1991). This perception has led to whales becoming icons for environmentalist groups, such as Greenpeace and the Whale and Dolphin Conservation Society, which claim that "if we can't save the whales, we can't save anything" (Whale and Dolphin Conservation Society 1991:3). This symbolic importance of whales has anthropocentric undertones, such that whales must "provide hope" for endangered species, the environment and human society.

To interpret the moratorium on commercial whaling placed by the United Nations (UN) in 1982, Einarsson investigates the narratives and perspectives of Icelandic small-scale fishing communities and minke whalers. He describes fishermen's perceptions of animals and nature as anthropocentric and utilitarian, notably these small communities do not consider themselves Indigenous or spiritual in an ecocentric sense. Rather, in the context of sustaining livelihoods, communities rely on fishing and whaling for sustenance and economic survival:

> The question of whaling or not whaling is more than philosophical speculation about the intrinsic value animals, speciesism and so forth. It is a question of economic survival and the possibility of living in the village where you feel you belong. But these two things may be very difficult to combine with the loss of income from whaling (Einarsson 2003:78).

Narratives around whales in these communities are not romantic, and do not include stories about whales saving people who are shipwrecked at sea. Alternatively, local stories are about "whales sinking boats and causing deaths… destroying gear and eating scarce fish" (Einarsson 2003:74). Einarsson notes that the minke whales are not perceived as inherently "special", but are simply viewed like other natural resources, making this a perspective which conflicts outside with environmentalists.

Einarsson suggests that environmentalism tends to focus solely on the survival of nonhuman species and considers humans as a foreign and negative element in ecosystems; a distinction which has material consequences for local livelihoods, cultural values and historic attachments to place. He adds that it is

imperative that the needs and interests of local and Indigenous communities are recognised in conservation efforts. Kopnina (1994), commenting on Einarsson's argument in relation to ecocentric thinking and conservation, argues that local and Indigenous communities are able to "find compatibility between natural balance and the needs of humans in using natural resources" (Kopnina 1994:19). This could be because of a deep sense of place or connection to the land that Indigenous and local communities have. Houde (2007) indicates that Indigenous values, ethics, culture and identity are interrelated to land and environmental stewardship, and possess the means necessary to implement more effective resource management and risk reduction for human health and livelihoods.

Another example of Indigenous environmental and livelihood practices is drawn from the Kluane First Nation people in the Southern Yukon Territory, who emphasise both the spiritual and symbolic (utilitarian) benefits of wolves. In discussing concern around moose and caribou populations, the Kluane First Nation government supported the killing of wolves, despite wolves being spiritually significant to them (Nadasdy 2005). For the Yukon First Nation people, wolves are sacred, "they regard wolves to be other-than-human persons who, in addition to being especially tough and intelligent, also possess particularly spiritual power" (Nadasdy 2005:318), but this does not prevent them from killing them. Nadasdy (2005) describes how historically wolves were killed for their fur or because they were competing with moose and caribou. First Nation people often trapped, shot and engaged in "denning" to control wolf populations; wolves are also considered a danger to humans, dogs and horses. Describing a First Nation hunter who supported the wolf kill, Nadasdy writes that:

> He himself is a member of the wolf moiety, but if a wolf threatened him or his food he would kill it without a second thought. And this is precisely what the wolf kill was all about, since the wolves—by threatening the moose and caribou populations—were threatening First Nation people's food supply (Nadasdy 2005:320).

For mainstream environmentalism, the killing of animals is seen as incompatible with respecting them, and Nadasdy (2005) notes that Euro-American perspectives often confuse respect for reverence. I argue that disregarding the role that humans have within natural cycles further widens the gap between humans and nature. While spirituality may or may not be an important factor in communities, the spiritual connections themselves do not necessarily prohibit the killing of animals, but rather promote the work of respect. Through highlighting respect, Nadasdy points to a key cultural distinction which enables the reproduction of Indigenous ways of life and small-scale livelihoods.

These cross-cultural examples display the cycle of reciprocation and respect in its different forms within Indigenous societies. Acknowledging the spiritual link some people have with the environment will encourage mainstream discourses, such as those employed in modern science and legal systems, to consider environmental wellbeing as well as cultural and livelihood wellbeing. Nature personhood legislations in New Zealand, for instance, as well as in Ecuador, Bolivia, and India, grant natural features legal personhood, thereby recognising the agency and spirituality inherent in nature. Māori claims like the Te Awa Tupua (Whanganui River Claims Settlement) Act 2017 is suggestive of an Indigenous mobilisation of values when reclaiming alienated taonga and resources.

Indigenous knowledge generally suggests that there is more than just a physical plane of existence, and recognises that any actions made in the physical world may have direct consequences in the Spirit world, and vice versa. Stonechild (2016) and Washington (2013) explain that failing to apply the principle that all beings are connected (as is associated with modernism and the dominance of the market) has weakened the spiritual bonds between humans and nature, causing the degradation of the world. A lack of respect and reciprocal connections to land has influenced the adoption of anthropocentric modes of thinking, in which nature is only valued for its utility to humans. It can be argued then, that an ecocentric view – one that considers all beings as being important to the ecosphere – is important in

understanding Indigenous views of the environment. Washington (2013) argues that ecocentrism recognises the intrinsic value of nature, as opposed to the utilitarian or instrumental value of human-centred thinking.

2.3 Te Ao Māori

Marsden (2003) defines Te Ao Māori as "a world comprised of a series of interconnected realms separated by aeons of time from which there eventually emerged the Natural World. This cosmic process is unified and bound together by spirit" (Marsden 2003:31). Chapter Four in this thesis discusses Māori relations with the environment in greater detail, going into depth about the invaluable connections between them in the context of kaitiakitanga. There are a few key works and concepts presented by both Māori and non-Māori authors that lay a foundation for understanding this relationship. In relation to kaitiakitanga in resource management, the relationship between Māori and Taiao is reciprocal, synergistic (Durie 2001; Kawharu 2000) and based on a kin-centric worldview (Roberts et al. 1995). This relates to the relational ontology of Te Ao Māori wherein everything is innately valuable, connected and related to each other through the principle of whakapapa.

Roberts et al. (1995), Ruru and Wheen (2016), and McCormack (2011; 2018) discuss rāhui as being an essential practice of enacting Te Ao Māori perspectives and kaitiakitanga; it asserts the Kaupapa Māori principles of rangatiratanga and whakapapa, as well as manaaki for the wellbeing of Taiao. Barlow lists five customs common with implementing rāhui: 1) a place is set aside for an event or special purpose; 2) restrictions on food-gathering sites to prepare for a special occasion; 3) leave a place to regenerate its mauri; 4) in the case of fatalities or drownings, to respect the deceased and prevent food gathering in that area; 5) a physical symbol or signpost to indicate a rāhui (Barlow 1991). There are three types or reasons for imposing rāhui as explained by McCormack (2011), and these include

conservation rāhui, accidental death or drowning rāhui, and political rāhui. For this research, I focus mainly on the conservation type.

In legislation, Ruru and Wheen show that rāhui is used in reference to conservation reserves, such as in Ngā Whenua Rāhui. In addition, the Fisheries Act 1996 allows for temporary closures of fishing areas "to provide for the use and management practices of tangata whenua in the exercise of their customary, non-commercial rights" (Ruru and Wheen 2016:207 (italics removed)). Also provided for in fisheries legislation are **mātaitai** (customary seafood gathering site) reserves. Establishing rāhui underlines Māori claims to hold the right and responsibility to protect the land and environment, as is exemplified by the actions taken by the hapū Te Whānau a Rangiwhakaahu described in Chapter Three. I now turn to the concept of kaitiakitanga, a value deeply embedded in Māori identity, relations with the land, and Māori ecocentric thinking.

2.4 Kaitiaki and Kaitiakitanga

A central theme of this thesis concerns articulations of kaitiaki and kaitiakitanga. As discussed in Chapter One, kaitiaki has been recognised in legislation since the Conservation Act 1987, and the generalised term 'kaitiakitanga' was coined and popularized in the Resource Management Act 1991. Since then, a significant amount of literature has arisen on kaitiakitanga and the environment authored by Māori and non-Māori writers such as Margaret Mutu, Merata Kawharu, and Jay T. Johnson. Current literature about nonhuman kaitiaki are generally expressed in relation to hapū and iwi, such as in works from Schwimmer (1963), Roberts et al. (1995) and Hurinui-Jones (2004). In relation to literature involving nonhuman kaitiaki, aside from narratives written about iwi/hapū specific kaitiaki, there is little analytical work on the subject. I argue that the legislative form of kaitiakitanga is anthropocentric,

and lacks the foundational understandings of Mātauranga Taiao, which is largely ecocentric.

2.4.1 Kaitiaki vs. Kaitiakitanga

The first instance of the term 'kaitiaki' used in legislation was in the Conservation Act 1987 in relation to the rights of tangata whenua to protect and manage customary food gathering practices in the South Island freshwater fisheries. Since then, kaitiakitanga has been used in several pieces of legislation including the Resource Management Act 1991, the Fisheries Act 1996, the Marine and Coastal Area (Takutai Moana) Act 2011, and the Te Awa Tupua (Whanganui River Claims Settlement) Act 2017. Kaitiakitanga was first defined in the RMA 1991, as "the exercise of guardianship by the tangata whenua of an area in accordance with tikanga Maori in relation to natural and physical resources; and includes the ethic of stewardship" (Resource Management Act, 1991).

Kawharu (2000) argues, however, that this definition has reduced the meaning of kaitiakitanga to that of "guardianship" and thereby ignores the wider obligations and rights contained. The process of defining kaitiakitanga in the RMA 1991, importantly ignored extensive Māori criticism at the time (Johnson 2013; McCormack 1997; 2007). Turvey (2009) explains that Māori concepts like kaitiakitanga have become detached from their original meaning and purpose in the common law system. An important point noted by McCormack (2007), is that the manner in which kaitiaki in included in the RMA Act creates the potential for non-Māori to claim an inextricable kaitiaki link to nature. As Minhinnick (1989) argues, "only tangata whenua can be kaitiaki, can identify kaitiaki, can determine the form and structure of kaitiaki" (Minhinnick 1989:4). As I argue in Chapter Three and Four, the ontologies of kaitiaki extend further than humans, and encompass a complexity of roles and responsibilities. A few academic works have already been produced on Ngātiwai which highlight our relationship with kaitiaki, including from

Schwimmer (1963), Pelasio (2016), and Piripi (1961; 1962), as I extrapolate throughout Chapter Three.

Recent legislation in Aotearoa, such as the Te Awa Tupua Act 2017 and the Te Urewera Act 2014 (acts that gained global attention for their 'nature personhood' concept) go further to incorporate Te Ao Māori in their foundations. The Te Awa Tupua Act 2017 incorporates notions and manifestations of kaitiaki, whilst recognising the agency of both the kaitiaki and Te Awa Tupua:

> Whanganui hapū hold that each **ripo** (rapid) of the Whanganui River is inhabited by a kaitiaki (spiritual guardian), which is particular to each hapū. Each of these kaitiaki is a mouri (see mauri; life force) and is responsible for maintaining the lifeforce and therefore the health and well-being of the Whanganui River and its people. Each hapū and the whānau within that hapū are responsible collectively for maintaining the mouri of the ripo and, in so doing, the collective mouri of Te Awa Tupua. These of the ripo provide insight, guidance, and premonition in relation to matters affecting the Whanganui River, its resources and life in general. Whanganui Iwi and the hapū and whānau of Whanganui look to these kaitiaki for guidance in times of joy, despair, or uncertainty for the guidance and insight they can provide. (Te Awa Tupua Act 2017, Sch. 8, ss. 3).

This section is an example of the more recent efforts to incorporate the spiritual factors of Māori culture in legislation, particularly as these pertain to Māori relations with the environment. In order to understand the significance of kaitiakitanga for Māori, the ontology of kaitiaki in Te Ao Māori is explored, including a discussion around spirits, animals and other features of Papatūānuku.

3.4.2 Kaitiaki i Te Ao Māori

Kaitiakitanga is attributed to more than just guardianship of natural resources, as it encompasses a plethora of values, beliefs and practices. Kaitiaki literally translates to 'caretaker, guardian, conservator, or trustee' (Kawharu 2000:350), and is grounded in the genealogical connections to the landscape, and between all beings of the earth (Johnson 2013; Roberts 1995) and the spirit world. In Māori cosmogony, Te Ao Marama (the world of light) in which we live was birthed from the separation of Papatūānuku, our Earth Mother, and Ranginui, our Earth father. Papa and Rangi had many children, some of which are the Atua of different spheres of Te Ao Marama – such as Tāne, Tangaroa, and **Tāwhirimātea** (god of weather) to name a few. Mutu quotes the late Ngāti Kahu kaumātua McCully Matiu, who provides a spiritual understanding of kaitiaki in the Report and Recommendations of the Board of Inquiry for the New Zealand Coastal Policy Statement 1994:

> Kaitiakitanga is the role played by kaitiaki. Traditionally, kaitiaki are the many spiritual assistants of the gods, including the spirits of deceased ancestors, who were the spiritual minders of the elements of the natural world. All the elements of the natural world… the seas, sky, forests and birds, food crops, winds, rand and storms, volcanic activity, as well as people and wars are descended from a common ancestor. These elements, which are the world's natural resources, are often referred to as taonga, that is, items which are greatly treasured and respected…
>
> These spiritual assistants often manifest themselves in physical forms such as fish, animals, trees or reptiles. Each is imbued with mana… In this respect Māori become one and the same as kaitiaki (who are, after all, their relations), becoming minders for their relations, that is, the other physical elements of the world.
>
> As minders, kaitiaki must ensure that the mauri or life force of their taonga is healthy and strong. A taonga whose life force has been depleted… the tangata whenua as kaitiaki must do all in their power to restore the mauri of the taonga to its original strength. (Mutu, 2002:14).

As discussed, animals play a crucial role in mediating physical and spiritual relations within nature. Birds, tuatara and insects protect the **ngāhere** (forests), while

fish, stingrays, sharks, whales and eels protected the moana and waterways throughout Aotearoa. **Kurī** (dogs) are also considered kaitiaki, as they often accompanied rangatira and would protect descendants of that rangatira once they passed (Orbell 1998). Murdoch (2006) explains that the term **ariā** (manifestation) refers to these physical manifestations of spirit, and notes that they are merely symbolic of their representative Atua. All iwi, hapū and whānau have or have knowledge of a kaitiaki or ariā. In Chapter Three I discuss these kaitiaki (such as Tūkaiāia and Tautahi) in relation to Te Whānau a Rangiwhakaahu and Ngātiwai, and illustrate their significance in understanding the roots of kaitiakitanga.

Taniwha are also encompassed in this manifestation of spiritual guardians in the natural world. Often described as appearing as sharks, whales, tuatara or even floating logs, taniwha protect the oceans, rivers, lakes and streams throughout Aotearoa (Orbell 1998). There are many oral accounts of people who have seen taniwha, and they have often been held accountable for drownings or harm done to people who disrespected them in some way. It has been argued that some taniwha were known to aid Māori in seafaring and when they were stranded at sea, some were tupuna, and some people turned into taniwha as a result of their misdeeds or misfortune (Reed 2011; Reed and Calman 2008). It is evident that the mana of taniwha and ariā are unprecedented when it comes to spiritual affairs in the natural world. Taniwha are both the spiritual and physical manifestations of our tūpuna, the Atua, and the natural world, within the context of this research, taniwha and nonhuman kaitiaki are synonymous as guardians of Te Taiao.

3.4.3 Kaitiakitanga as Rangatiratanga

Kaitiakitanga encompasses values which are inherent to Māori identity and includes concepts such as mana, tapu, mauri and rangatiratanga (Kawharu 2000). Mana refers to the ancient authority passed down through whakapapa, and in terms of kaitiakitanga, it refers to the authority Māori have in relation to environmental rights.

Tapu and mauri are the spiritual presences that must be considered in enacting kaitiakitanga. The former denotes everything sacred and fosters a sense of caution and sanctity, the latter, mauri, refers to the life force or essence that is possessed by all creatures animate and inanimate.

The assertion of rangatiratanga in conservation efforts is essential for replenishing Papatūānuku and her resources, and it is the right and responsibility of Māori to promote such interests. Rangatiratanga is a key feature of kaitiakitanga because "it requires recognition by the state of tribal authority and the development of opportunities for tribes to participate in resource management." (Forster 2016:318). Matthews (2018) argues that the enactment of rangatiratanga in current environmental affairs is difficult, even impossible in some cases, because of "the requirement of Māori to conform to the laws enacted by the Crown" (Matthews 2018:31). He also quotes a Ngāi Tahu kaumātua who claims that in relation to individualised fisheries quota systems and rangatiratanga:

> Dominance in property rights bring tino rangatiratanga which then allows Māori to be Kaitiaki. To solve the problem long term, we need to buy quota which will give jurisdiction over mahinga kai and land and enhance the iwi or hapū to stop the council from doing things. You can only truly be Kaitiaki when you own the whole lot of the land, quota or waterway. (Matthews 2018:27-8).

This statement highlights the complexity that arises when Māori resources become entangled with green, or blue, capitalism in the process of reclaiming Indigenous rights (McCormack 2011, 2018). Part of this reclamation of rights in Aotearoa is the Waitangi Tribunal, which is a commissioning body whose primary function is to inquire and make recommendations for Māori regarding legislation, policies and actions from the Crown which are thought to breach the principles of Te Tiriti o Waitangi (Ministry of Justice 2020). The statement is also at odds with traditional Māori concepts of land ownership, historically communally held by iwi and hapū, and in which the duty of Māori to be kaitiaki for Papatūānuku was emphasised. Here I want to argue against the need for Māori ownership of all land,

waterways and resources as a necessary condition of being kaitiaki, and instead suggest that Māori may assert their rangatiratanga and kaitiakitanga in environmental matters without having to own the whenua as property. I argue that the traditional concept of Māori land ownership is not in terms of western understandings of property and the associated drive to commoditise resources, but instead hinges on the belief that Māori are the children of Papatūānuku and therefore have a right and responsibility to protect her and all that she provides.

Challenger writes "There is a need to maintain and enhance the land's wairua by caring for it – once the land is despoiled its wairua is lost. Land, therefore, needs to be nurtured and cared for" (1985:23). The wairua of the land mirrors the wairua of the people, and while the environment is struggling for its own autonomy, we (Māori and Indigenous Peoples) are struggling for our autonomy and self-determination as well. While the current assertion of Māori authority over environmental matters is essential to conservation efforts, how this assertion proceeds is also critical; Māori should not simply assimilate western ideologies of land and land ownership to assert rights, but rather should emphasise our genealogical connections and responsibility to Papatūānuku as a point of enduring difference, resistance and strength.

On the global level, there is a significant amount of literature pertaining to the effects of anthropogenic change and capitalism on the environment. There is also a sufficient amount of literature to suggest that Indigenous environmental knowledge – relative to the culture and their surrounding environment – is being utilised more to slow the ongoing effects of environmental degradation and Indigenous survival. I suggest in this thesis that, in the context of Aotearoa, there is a prevalence of anthropocentrism in relevant literature in relation to understanding being kaitiaki and kaitiakitanga in academia. While there is recognition of nonhuman guardians, there is seldom literature discussing the spiritual connection Māori have with these nonhuman kaitiaki, taniwha and tohu, nor expressive of narratives and experiences with these protectors. I aim to address the role of nonhuman kaitiaki in Aotearoa, but

also the obligation of Māori to reciprocate that responsibility. There has already been succinct analysis of Māori values, concepts and practices in literature, however, I wish to emphasise the importance of practices such as rāhui to asserting kaitiakitanga. As Chapter Three explores, rāhui, although lacking significant legal support, is a useful tool to promote preservation and protection. Lastly, I note there are significant disparities between Māori (Indigenous) and Pākehā (western) forms of conservation. I aim to illustrate that dedicated groups – Māori, Pākehā and other non-Māori groups – are able to work together to preserve and protect their local environments, under the guidance of hapū and iwi.

CHAPTER THREE

ETHNOGRAPHY: MATAPŌURI

My research on kaitiakitanga in Matapōuri focuses on the rāhui placed in April 2019 on Te Waiotetaniwha, popularly known as the 'Mermaid Pools', and the headland used to access them, Rangitapu. The local hapū, Te Whānau a Rangiwhakaahu, implemented this rāhui with the ambition of restoring the mauri of these areas after excessive use over the past few decades. The purpose of this chapter is to examine the cultural significance of these wāhi tapu, observe the environmental degradation of Te Waiotetaniwha as a result of increased tourism and development, and investigate the forms in which the hapū and the Matapōuri community assert their kaitiakitanga. Through semi-structured interviews, participant observation and pūrākau, I illustrate both the historical and contemporary importance of Te Taiao, Te Waiotetaniwha and Rangitapu for Te Whānau a Rangiwhakaahu and the community. In this chapter, I refer to Te Whānau a Rangiwhakaahu as the hapū, and the non-Māori population of the Matapōuri township as the 'community'. I draw on four interviews with members of the hapū and local conservation groups involved in the preservation of the environment in Matapōuri. I also draw on more informal kōrero with local hapū and community members. My methodology includes digital ethnography to record the meanings given to environmental features and actions. The social media platform Facebook enabled me to gather additional data and engage with local community projects whose base of contact is through Facebook. I observe the tikanga, Mātauranga Taiao and conservation projects that the hapū and community have initiated as part of restoring the mauri in these wāhi. I also include news articles and social media reports about the rāhui, the activities being carried out, as well as some responses from the general public.

3.1 Place – Matapōuri

Figure 2 – 'Map of Matapōuri township'. Google Maps 2019.

Matapōuri is a small township located roughly 25 minutes out of Whāngārei within the Ngātiwai rohe. According to the Whangarei District Growth Strategy ((WDGS) 2017), only five percent of the area is in Māori title of a total 1,907 of hectares in the area. The permanent population size of Matapōuri is 372, and there is a high rate of holiday home ownership in the area (WDGS 2017). According to the 2018 Census, the population (grouped as Matapōuri-Tutukākā) is mostly made up of people aged 30-64 (Stats NZ 2018). The Whāngārei District Council (2019) describes Matapōuri's environment as:

> … characterised by a landscape of rocky coast interspersed with sandy beaches. The Pohutukawa clad headlands form prominent features, and give a rugged nature to the surrounds, contrasting with the relatively sheltered coves and bays. In calm conditions, the colour and clarity of the water adds to the scenic quality of the landscape... (Whangarei District Council, 2019:200).

Known internationally for its beautiful stretch of beach, pristine blue waters, restful estuary and iconic corner-store dairy (Tripadvisor.co.nz, 2019), Matapōuri Bay is one of the many beaches in Te Tai Tokerau which has experienced an exponential increase in tourist visitation over the past few decades. Te Whānau a Rangiwhakaahu as well as the community of Matapōuri, share a connection to the whenua, prompting numerous conservational efforts.

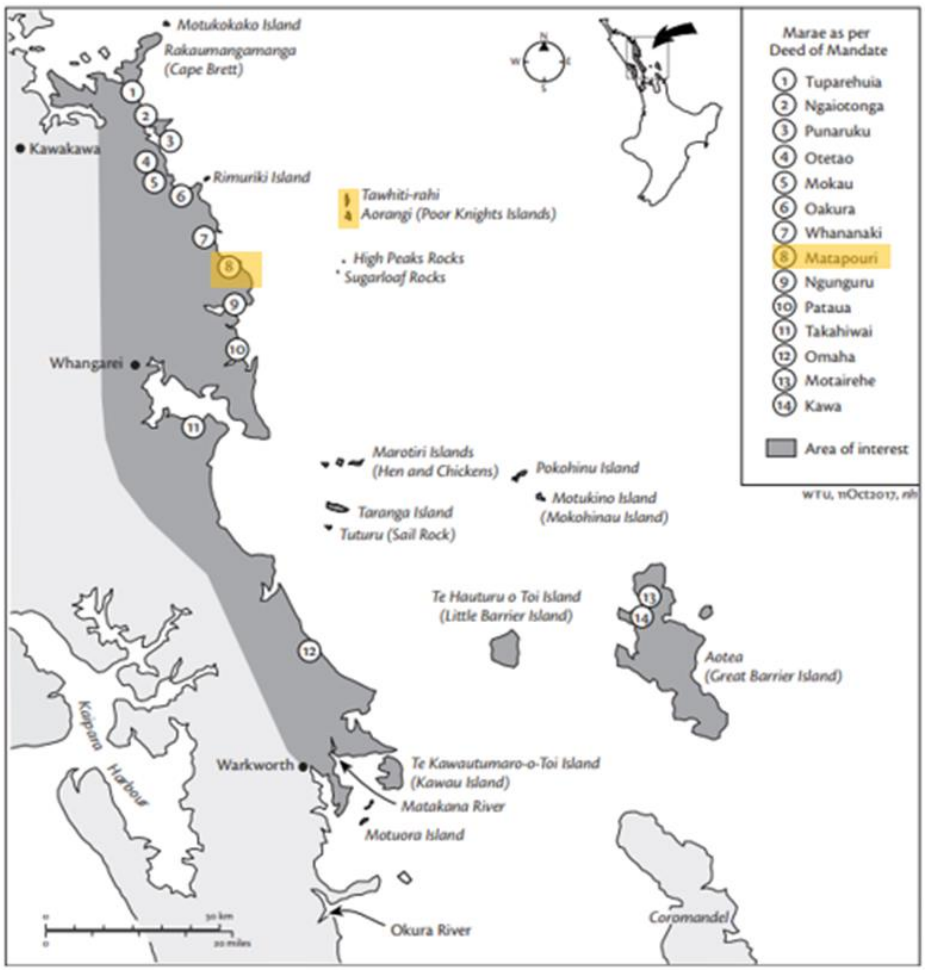

Figure 3 - Ngātiwai area of interest and marae, Wai 2561 (2017), accessed 9 Aug 2019.

The name Matapōuri derives from an event that happened in the area pre-colonisation. Aperahama Edwards (personal communication 2019b), of Ngāti Kahungunu and Ngātiwai descent, chairman of Te Whānau a Rangiwhakaahu Hapū Trust, and a well-respect rangatira of Matapōuri, recounts:

> There are several pūrākau regarding the origin of the name Matapōuri. One of those stories was told to me by my Māmā. There was a time when Matapōuri was under attack, only the elders, women and children were in our pā, the strong and able bodied had gone to another **pakanga** (battle). Our main pā in Matapōuri was called Otara or Otātara. They had outposts or other pā around our rohe that were look out places and all the men and women had gone to Pakanga… and the elders and children were left back at the pā.
>
> An elder was up at Rangitapu and looked out and saw on the horizon a fleet of waka – waka taua (war party) – and they knew that they didn't have enough

time to escape with the children. So, they sent the children and the elderly women to start… This particular kaumātua officiated these types of prayer or karakia at Te Wai o Te Taniwha, which caused the sea to become rough, as a deterrent for taua that were coming. As the sea became rough, there's a rock in the middle of the bay at Matapōuri and the tides and the waves crashed on the rock.

And the story says that the sea mist came up and covered the front of the bay, and that's where the name Otito comes from. Tito is to sort of… be quite creative or almost like fabricate, not tell the truth. So the mist that came up, concealed all the front of the bay and the war party that were coming along mistook it just for a cliff-face and carried on in the rough sea, and so that's how our tupuna survived that onslaught.

So the rock in the middle of the bay, Tukāperu or Tukaperuperu, is its real name, and the peruperu, as we know, is a type of haka that causes the dust to rise, when they recite that type of haka, there's a movement where the whole body of performers leap from side to side, and in doing so it often brings the dust to come up; and it was the same with the waves crashing on the rock, it caused this mist to come. That's also where, one of the accounts, as to how Matapōuri gets its name from that event. The mata being the face of the bay, and the pōuri being the mist or the fog. There are a number of other stories to the name, but that's one of them. (Edwards, personal communication, 2019b).

3.2 People

3.2.1 Te Whānau a Rangiwhakaahu

Te Whānau a Rangiwhakaahu are the local hapū of Matapōuri and have inhabited the area for generations. Described by Edwards as being "a very close whānau a hapū", they have created a strong force to protect their Taiao. When discussing the identity of the hapū, there is no one more important than Rangiwhakaahu, whose descendants now mostly reside in Matapōuri. Te Whānau a Rangiwhakaahu have mana whenua and tangata whenua status to Matapōuri through their whakapapa connection to Ngātiwai, Ngāti Toki and Ngāti Manaia. Ngāti Toki is a hapū of Ngātiwai and has historic links to Ngāpuhi; and Ngātiwai are descended from Manaia and his people

Ngāti Manaia (Taonui 2017), which I discuss in detail below. I will note here that at the request of the hapū, I will not record the names of the tūpuna of the hapū, however Aperahama was able to explain the following:

> Our tupuna is Te Rangiwhakaahu, and her hapū were Ngāti Toki and Ngāti Rehua… Her kāinga were at Great Barrier Island - at Aotea - a place called Onewhero, Matapōuri, Whananāki, Whangaruru and over Aorangi on the Poor Knight Islands, but her main residence or kāinga is at Matapōuri. It's through our tupuna Whaea Rangiwhakaahu that we whakapapa to Matapōuri, and her ancestor, his name was Te Rangitūkiwaho, he belonged to Ngāti Toki. So, Ngāti Toki are the mana whenua, the original mana whenua hapū residing in Matapōuri, a hapū of Ngātiwai. They whakapapa to Ngāti Manaia and Ngātiwai. (Edwards, personal communication 2019b).

Whaea Rangiwhakaahu is also known to have a special connection to dolphins, prominent kaitiaki for Matapōuri. Rangiwhakaahu's **kāinga** (home) included Aotea, Matapōuri and Aorangi on Tawhiti Rahi. Aperahama recalled a story about a waka that was travelling from Tuparehuia back to Aotea when it sunk past Home Point. Whaea Rangiwhakaahu and a few others survived and called up the **aihe** (dolphin), who was able to help them until they were retrieved from the water. The hapū continue to foster their close relationship with their local environment through a grassroots approach to conservation, through whānau and the community to tiaki Taiao.

A local working group significant to this research is Kapakaitiaki, a "community-based initiative consisting of tangata whenua and members of the local community who are working to encourage awareness and respect of culturally significant sites in Matapōuri" (no author, ngatiwai.iwi.nz, 25/2/2019). The group was created in summer 2018 in response to the growing number of visitors damaging the environment, but also to help educate on the tikanga and kawa of Te Whānau a Rangiwhakaahu. Key facilitators in this group include hapū members Te Para Jennings, Dorothy Waetford and Ngapera Hohepa, who also run the Kapakaitiaki Facebook page, post regular updates and issues involving the rāhui, as well as other

concerns surrounding Matapōuri's Taiao. From the beginning, Kapakaitiaki have continued to gain support from the local and wider communities, with 427 members on the Facebook page and active engagement with conversation projects, however it is whānau that is the heart of Kapakaitiaki. Some of the **mahi** (work) Kapakaitiaki carry out involves the monitoring of people visiting the Mermaid Pools. In the summertime of 2018-19, whānau members sat on Rangitapu and counted people going over to the pools. Jennings notes, "we've got them coming [from] all over the world, so the majority daily through summer, was about a thousand-plus people a day, and that area cannot handle that amount of people". Kapakaitiaki's efforts have continued since the rāhui was put in place, with members still monitoring the beaches and area especially over the summer months. They promote awareness through local outreach and utilise social media platforms like Facebook to involve the wider community.

3.2.2 Ngātiwai

Ngātiwai are the people of the water and seas. They are an amalgam of older iwi groups within the region, being synonymous with Ngāti Manaia, one of the oldest iwi groups in Te Tai Tokerau (Northland). Our tipuna, Manaia, captained the waka Māhuhu-ki-te-Rangi from Hawaiki to Aotearoa, and upon reaching the now Ngātiwai rohe, he and his descendants spread throughout the area. A common misconception about Ngātiwai is that we are a hapū of Ngāpuhi. Piripi (1961) and Pelasio (2016) claim that intermarriage and involvement in **hui** (meetings) are the reason for this common error; and that Manaia pre-dates that of the Ngāpuhi ancestor, Rāhiri. A battle at Mimiwhāngata in pre-colonial times between Ngāti Manaia and Ngāpuhi led to the slaughter of Ngāti Manaia, although Manaia and a few others were able to escape. This story exemplifies how Ngātiwai became scattered and suggests its somewhat uncomfortable relationship with Ngāpuhi (Piripi 1962). Another narrative relates the physical natural features of Whāngārei Harbour

to the ancestor, Manaia. In his final year, Manaia noticed his wife had had an affair with his servant, Paeko. In the ensuing quarrel Paeko prayed and Manaia, his children, his wife and Paeko turned to stone, where today they all stand atop Mt. Manaia looking over Whāngārei harbour (see Figure 4).

Figure 4 - Mt. Manaia overlooking Whāngārei Harbour, nzgeo.com (2018), 4 Aug 2019,

Ngātiwai claims to manawhenua and manamoana covers Rakaumangamanga (Cape Brett) to Mahurangi (past Warkworth), out to Aotea (Great Barrier Island) and encompasses islands such as Tawhiti Rahi (Poor Knight Islands), Hauturu (Little Barrier) as well as many other islands (See Figure 3 above). My connection to this iwi is through my grandmother (Nana) on my father's side, born of Mokau marae ki Whangaruru. Te Whānau o Rangiwhakaaku ki Matapōuri are closely associated with my own hapū, Te Uri o Hikihiki ki Whangaruru, so while my research is driven by academic pursuit, this **rangahau** (subject) has personal significance reconnecting me to my roots and allowing me to illustrate the stories of Ngātiwai and Matapōuri in regards to the importance of Te Taiao to Te Ao Māori.

Ngātiwai have a deep and spiritual connection to their environment passed down through intergenerational experience and storytelling, which helps

conceptualise the stress which our environment is under today. Mōrore Piripi, a significant Ngātiwai rangatira, who has written extensively on the history of Ngātiwai, stated that "all the power of Ngātiwai comes from the water; from the taniwhas and their spirits" (Piripi 1961:19). As described in the Waitangi Tribunal Report (Wai 2561), there is no eponymous ancestor named 'Wai', rather the term wai refers to the water that Ngātiwai draw their mauri from. Taonui (2005) explains that Ngātiwai's name comes from a traditional practice at Manawahuna, a cave at Motukokako, where tohunga would foretell their future by reading the way that water would pass through the cave. This link with water also provides the foundation for maintaining relationships with creatures of the moana, namely taniwha and other ocean-dwelling kaitiaki.

The concept of kaitiaki within Ngātiwai encompasses people, animals, mountains, rivers, even the mist and rain, but is typically associated with animals within the rohe. It should also be noted that 'kaitiaki' in Ngātiwai are more commonly referred to as 'mana'. Schwimmer (1963) notes that the term mana "expresses the belief that the guardians are the source from which human beings derive the power they call mana" (Schwimmer 1963:400); what I denote through this research as 'nonhuman kaitiaki'[2]. Pelasio (2016) refers to Carmen Hetaraka, an esteemed matua of Ngātiwai, who claims that the use of the term mana derives from 'mana Atua'. Barlow (1991) explains this as being a very sacred power of the Atua which is passed down to those who carry out rituals, karakia, and uphold principles.

[2] Although I acknowledge the importance of mana in the context of Ngātiwai, I will continue to use the term 'kaitiaki' to reference both human and nonhuman guardians to avoid confusion when discussing other meanings of mana in my thesis. My interlocutors also only use the term kaitiaki during discussion.

Another aspect which is important to explain in relation to Ngātiwai kaitiaki is the dual categorisation highlighted in Schwimmer's (1963) fieldwork in Whangaruru. The distinction is not to inferiorise one or other phenomena, but rather to exemplify relationships. Schwimmer (1963) argues that in Te Ao Māori the basic opposition is between **ora** (life) and **aitua** (fate). He then provides the following table of dualisms present in Te Ao Māori:

Ora (life)	Aitua (fate)
Sky	Earth
Spirit	Body
Day	Night
Tapu	Noa
Man	Woman
Right	Left
Even	Odd
Propitious	Unpropitious

(Schwimmer, 1963: 408-09 [italics removed]).

Notably, precolonisation Māori did not have a categorical term for the word 'animal', nor were human and nature treated as separate realms. Schwimmer writes of an ethnographic example from the hapū Te Uri o Hikihiki (also my hapū) where he provides a similar table on kaitiaki species in Whangaruru (Schwimmer, 1963). These categories are based on the basic opposition of ora and aitua, and include the tikanga and mātauranga necessary to understand our kaitiaki:

Mauri, Te Whenua, Kawau, Poiha	*Hineruru*
Male *mana*	Female *mana*
Species not sacred	Species sacred
Species eaten	Species not eaten
Day animals	Night animal
Functions: protective and punitive	Function: protective only
Messages pertaining to life	Messages pertaining to death and destiny
Manipulative relationship with man	Communion relationship with man (Schwimmer 1963:409) .

One taniwha renowned in Ngātiwai is Tautahi (also known as Mauri (Schwimmer 1963)), a shark identified by a ring around his eye (Schwimmer 1963). Tautahi is the protector of fish and shellfish grounds. He is believed to eat them during the off-season when the grounds are tapu. This kaitiaki is said to have been a baby, who was to be named after his ancestor Tautahi. The baby was, however, still born and when his mother threw his body into the water, he turned into the taniwha and kaitiaki, Tautahi. Arguably the most significant kaitiaki for Ngātiwai is Tūkaiāia, the messenger bird, a kaitiaki whose ariā commonly takes form as a seagull, **Tīwakawaka** (fantail), **Tiu** (sparrow) or **Kāhu** (sea hawk), but is mainly associated with a large hawk-like bird who may also shapeshift into other beings. Tūkaiāia is mentioned in many pūrākau, **tauparapara** (chants), whakataukī and waiata, such as the one in the beginning of this section which exemplifies that Tūkaiāia and Ngātiwai move as one on the land and at sea. Piripi, in Pelasio (2016), explains that the particular form of Tūkaiāia is not as important as what he represents for Ngātiwai **uri** (descendants):

> Our job is to teach these traditions to younger generations, that is your kaitiaki, if you see them it's alright, should you see this particular thing, be careful, should you see this, you should run, leave, go back to a safe place. That is our job [as kaitiaki], to pass on the teachings and history to our children and grandchildren (Piripi in Pelasio, 2016:36).

During my childhood I was taught by my Nan that, when travelling, to see a hawk flying nearby means that the journey will be safe. However, if a hawk was to swoop close in front of the car, this would mean to be alert and cautious for there may be danger nearby or ahead. I was taught to karakia before embarking on long journeys, and to see a hawk meant that our tupuna were watching and guiding us. This connection with the environment is dispersed throughout the Ngātiwai rohe, as I now discuss in relation to Te Whānau a Rangiwhakaahu, their Taiao and the kaitiaki of their whenua and moana.

3.2.2 Matapōuri Community

The Matapōuri community, according to hapū members, were largely supportive of Māori methods implemented during the enacting of the rāhui process. Aunty Debz explains that local residents and members of the community provide **koha** (gifts), assist Kapakaitiaki in painting pou, and in spreading awareness of the rāhui. Since February 2019, local residents have flooded the review section of the Mermaid Pools on TripAdvisor attempting to divert attention away from the pools, highlighting the pollution and damage, and asserting that the hapū have enforced a rāhui on the area. Ocean Spirit and Matapōuri Kaitiaki Project are two other local groups who draw attention to the ecological and environmental impacts caused by increased traffic, pollution and degradation.

Te Wairua O Te Moananui (Ocean Spirit) is a local charitable trust founded in 2015 and is concerned with promoting harmonious and respectful relations between people, marine life and ecosystems. The founders, Glenn and Janey Pares Edney, are dedicated to educating, protecting and preserving Tutukākā's coastal environments. The trust aims to recognise the spiritual connection between people, the land and the ocean, whilst acknowledging the importance of historic Indigenous knowledge in promoting healthy ecosystems. Ocean Spirit acknowledge that the role of kaitiaki is held by tangata whenua and particular species, but that environmental degradation is everyone's issue. In his Master's thesis, Edney (2012) argues that Indigenous conservational ethics and western ideals of environmental conservation in New Zealand do not always coincide:

> Whereas the Conservation Act [1987] involves the preservation and protection of ecosystems for the purpose of maintaining their intrinsic value, the Māori perspective focuses more on… [the] concept that embeds humans within their ecological home in a reciprocal relationship, requiring a sense of guardianship (kaitiaki)" (Edney, 2012:17).

Through engaging with and gaining permission from local hapū, Ocean Spirit have been broadly able to educate the wider public on the consequences of

environmental damage to our coastlines, including producing an informational video addressing the ecological issues in Te Waiotetaniwha, and have seemingly been successful in navigating the tensions between different environmental ontologies. According to Edney, he is unaware of any full ecological assessments being done on Te Waiotetaniwha, however, there have been three Hauora Moana assessments which he describes as a community monitoring process. Edney explains that Hauora Moana is a qualitative method he developed in his Master's research, which is concerned with the "correlation between traditional management practices and modern scientific ecological monitoring" (Edney personal communication 2020). I discuss some of these Hauora Moana outcomes below and in Chapter Four. In terms of engagement, the hapū have a vital role in working with Ocean Spirit to ensure reverence for the rāhui. In terms of assessing the hauora of Te Waiotetaniwha, communication and organisation with the hapū is essential to make sure appropriate tikanga is carried out.

Another group assisting in raising awareness of environmental issues and protecting biodiversity in the area is the Matapōuri Kaitiaki Project (MKP), a coastal landcare group founded in 2016 whose focus is the restoration of Whale Bay and the Otīto Reserves, of which Rangitapu is a part. The group was founded by Jarrid Plows, and later additionally facilitated by Kayla Raines. It initially focussed on predator control and later expanded into biodiversity restoration and conservation (Plows, personal communication 2020a). The main objective of the group, according to Plows (personal communication 2020b) is restoring our ecology, providing an area for native wildlife, and restore the biodiversity of the Matapōuri-Tutukākā coast. The group aims to create awareness about the Indigenous coastal fauna and flora, and the importance of preserving endemic species for the ecosystem and for future generations.

There is a solid relationship and good communication between MKP and local Māori. Prior to establishing the group as an official landcare group through Kiwicoast (a collaborative initiative who sponsors and support community-led

landcare groups), Plows and Raines approached the local kaumātua, Jimmy Mackie, to discuss the intentions and purposes of the project. Jimmy was enthusiastically in support of the cause, however, due to declining health he sadly passed away shortly thereafter. Plows and Raines continued communicating with key members of Kapakaitiaki and Te Whānau a Rangiwhakaahu established a relationship of mutual support. Plows explains that they consult the hapū before anything happens and have a 'hapū liason' person who communicates cultural matters between MKP and the hapū. The main point of contact is Aperahama Edwards who oversees issues such as finding **kōiwi** (bones; skeletons) and has knowledge of the appropriate tikanga to handle those situations (Plows, personal communication 2020b).

In relation to the rāhui, MKP note that they have always fully supported the hapū in their decision to enforce a rāhui on Rangitapu and Te Waiotetaniwha. They have, in addition, undertaken projects on Rangitapu including pulling weeds, planting native vegetation, creating fencing, and removing visitors from the maunga and puna. Plows comments that the hapū and Kapakaitiaki are fully supportive of MKP's conservation work on Rangitapu, explaining that if "the hapū isn't onboard, then the kaupapa is useless" (Plows, personal communication 2020b). This highlights not only a strong connection between hapū and the local non-Māori community, but the importance of communication and trust between parties to ensure that everyone knows, agrees and is involved in the decisions made for the local environment. This also indicates that both tikanga Māori and mātauranga Māori, as well as mainstream conservation and preservation, are able to work *together*, so long as communication and cooperation is clear and honest and existing power relations mitigated.

3.3 Taiao i Matapōuri

The rāhui placed in Matapōuri can be contextualised within the relationship that Te Whānau a Rangiwhakaahu and the Matapōuri community have with their

environment. Ngātiwai have maintained significant Mātauranga Taiao of the surrounding intricate marine ecosystems, irrespective of the alienations accompanying colonisation. Their Mātauranga Taiao stems from their relationships with the moana and water; according to Aperahama, Manaia had a saying 'ahakoa tū ana hau ki uta, e taupunga ana hau ki tai', translated as 'when I'm standing on the shore, I'm submerged in the sea' (Edwards, personal communication, 2019b). The particular connection Te Whanau o Rangiwhakaahu have with their environment can be seen in their stories, experiences and particularly in their concern for the wellbeing of their taonga and Taiao.

3.3.1 Ngā Kaitiaki o Matapōuri

When I asked my interlocutors about the kaitiaki of the area, Tuatini, a great white shark, was the most referred to. Sharks are a significant kaitiaki in the Ngātiwai rohe, and include Tuatahi for Whangaruru, Tuatini for Matapōuri and Te Mauri for Whananāki (Schwimmer 1963; Edwards personal communication 2019b). These kaitiaki are said to have guided our ancestors from Hawaiki to Aotearoa. Jennings provides an account of her grandfather and father encountering Tuatini:

> Years back, my grandfather was still here and my father was only eight years of age. There was a reward out for this great white because he became a pest to [fishermen]. Holiday people weren't happy with this great white with taking the fish off their line, disturbing their nets. So, this reward went out on [Tuatini]… My grandfather set out one morning with his son, and on just a small dinghy to paddle out the middle of Matapōuri Bay, [they] stopped. He sung his waiata to this great white, and he had a kōrero, a prayer, and this great white raised up out of nowhere on the side of the boat. It was bigger than the dinghy, and as my father said to me he just about packed his pants!... but his father was still standing at the front of this dinghy and you know, had his karakia, kōrero Māori, and it sort of nudged the boat, dived down, never to be seen again. The reward never got claimed… but he was also here as a protector. (Jennings, personal communication 2019).

Like that of Tūkaiāia, Tuatini is also shape-shifter, as Aperahama explains:

> It takes different forms, talked about as a crayfish, another form that it has is a pākaurua, or otherwise known as a whai, a stingray. Tuatini itself is another word for the great white shark… there's a creek at home that comes and goes along the beach, based on the weather and stuff like that, and it's all associated to that particular shark, or kaitiaki, Tuatini… It has a nohoanga (nesting place) along that creek, where the tupāpaku (corpses) used to be washed, and it comes home is when the water's flowing, when it goes back to sea, the water stops flowing out. So, it spills over when this kaitiaki comes back. (Edwards, personal communication, 2019b).

Another kaitiaki for Te Whānau a Rangiwhakaahu is the aihe, or dolphin, discussed briefly in relation to Whaea Rangiwhakaahu above. Edwards explains the tohu based on the dolphin's behaviour within the Bay:

> Times that the aihe would come into Matapōuri… depending on what they were doing… sometimes they would swim the length of the bay, but there's different tohu that they give that [Whaea Rangiwhakaahu] would be able to interpret and know that sometimes it was a tohu mate (sign of death) from the Barrier. Because she couldn't just go back to the Barrier, there were trees at home they had brought over from the Barrier, and when these different tohu would happen, they would go to tangi under the trees for these ones, whoever it was, that passed over on the Barrier (Edwards, personal communication, 2019b).

3.3.2 Rangitapu

Figure 6 - Rangitapu, fieldwork 16 April 2019.

> Rangitapu is a very sacred place for our hapū, there are a number of reasons for that… it's a pā, but it wasn't a pā that was lived in for everyday purposes, there

> was wānanga that were held there. Rangitapu is in reference to the heavens, to the skies… So, on the headland itself there's a flat area - it's hard to see it anymore because of the growth of the trees and stuff - but you can see where the whare was or were. And it's a perfect place for astronomy because you've got the eastern horizon and very clear skies, and so it was used for that type of wānanga, as I understand it. There are also burial places. There's a place there where- yeah just different types of burial… places but preparation places too (Edwards, personal communication, 2019b).

Jennings recalled that in her childhood, the only way to access the Mermaid Pools was through a cave called "the blowhole" (Figure 7 below) Jennings, personal communication, 2019). Edwards also mentions the blowhole when he gives an account of climbing Rangitapu in his childhood:

> As children, we weren't allowed to deviate off the path that would run down in the gully, so that was the path we used to use if going around. The other side of Rangitapu was a favoured fishing and diving place, often referred to as the blowhole. That was a cave that we would go through. And so, as children… we'd just follow our nannies, walk along. We were always told not to go up the maunga, either side of the gully because of a number of wāhi tapu… it's quite dangerous as well and that the foliage growing on the cliff edge gives a false impression that there's land there. (Edwards, personal communication, 2019b).

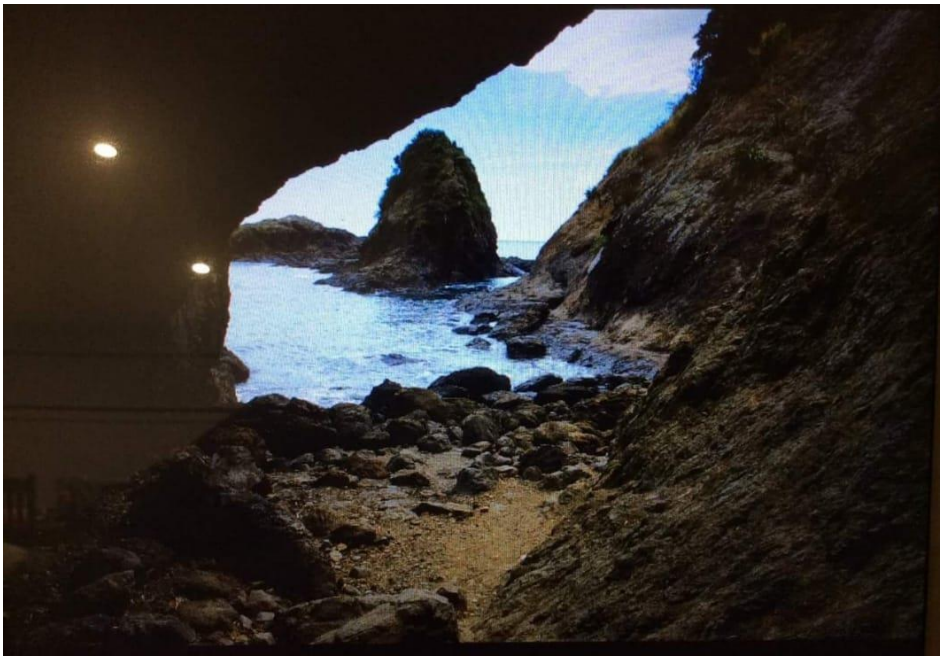

Figure 7 - The 'Blowhole'. Photo taken from Jennings personal collection. Accessed 06/03/2020.

The blowhole was the access way for locals to get to the Mermaid Pools, however a few decades ago there was a storm in Matapōuri which resulted in the closure of the blowhole. Edwards claims that the storm was a tohu to stop going to the puna. Not long after the blowhole closed, two men, former employees of Whāngārei District Council (WDC) used weed eaters, according to Jennings, to create a track going over Rangitapu. The hapū were not consulted about the creation of the track, nor was it an official development endorsed by the Department of Conservation (DoC). According to a media release from DoC:

> The unofficial walkway was cut across the top of Otīto Reserve's sacred Rangitapu Pā… and as such is missing vital health and safety requirements to qualify as a public walking track. It is a high-risk walkway, with wear and tear making it exceptionally slippery, especially in wet weather. Steep sections of the walkway are missing required safety features, with trup hazards such as exposed roots; slippery, jagged rocks; and potholes making accidents on the Pā and around the Pools a reality. (Department of Conservation, 20 April 2019).

As a result of the unofficial track, locals have observed that there has been a significant amount of damage to the maunga, the main cause of which is attributed to

the sheer volume of foot traffic; hundreds of people walk on the unofficial track each year. Aunty Debz, for instance, describes the gouging of land, exposure of root systems of big **rākau Māori** (Indigenous trees), erosion and littering as some of the environmental impacts that have affected the whenua. The constant foot traffic has created a permanent path up and over Rangitapu (see Figure 8 & circled in Figure 9). Edwards adds that some remnants of the **pā** (fortification) have been irreversibly damaged due to people walking over the maunga.

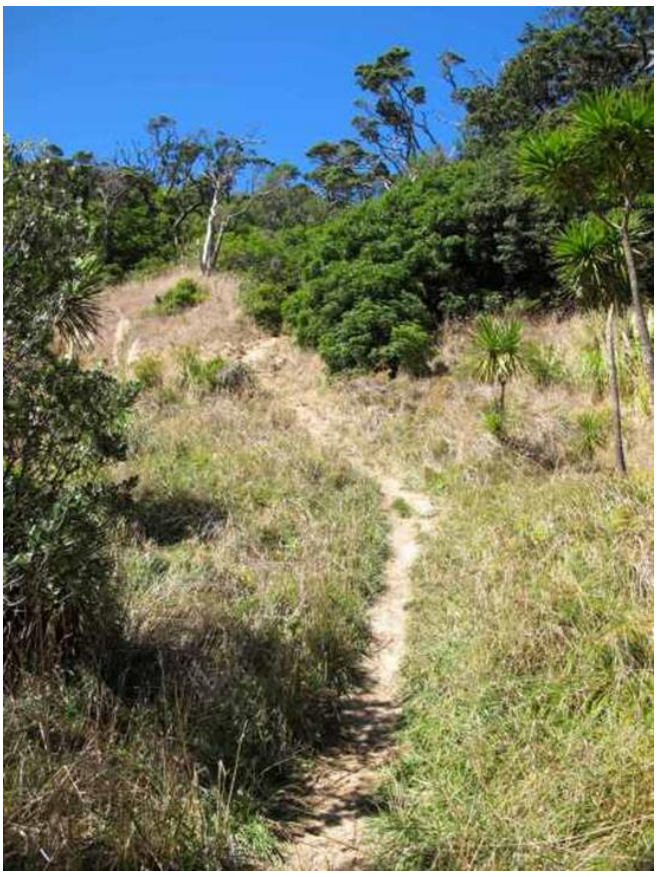

Figure 2 - Access path going up Rangitapu, nzfrenzynorth.wordpress.com (2017), accessed 22 Oct 2019.

Figure 9 - Birdseye view of Rangitapu, circled left: foot traffic damage; outlined right: Te Waiotetaniwha. Department of Conservation (2019), accessed 24 Jan 2020.

3.3.3 Te Waiotetaniwha

Figure 10 - Waiotetaniwha, google.co.nz (2017), accessed 28 Apr 2019.

The puna known as Te Waiotetaniwha is a collection of rockpools, guarded by Rangitapu's cliff face on one side, and a wall of jagged rocks and surging whitewash on the other. The climb over Rangitapu to Te Waiotetaniwha is not easy and quite

dangerous, due to the steep and sometimes slippery incline. The pool pictured above (Figure 10) is the main attraction, with the potential of having fifty people swim in it at one time. Prior to its rise in popularity, the pools each contained their own intricate ecosystem. The puna were teeming with various kelp and seaweed, **Kina** (urchin), mussels, **Kōura** (crayfish), crabs, coral and encrusting life. Increased tourism in the past 30 years has led to the degradation of the health of the ecosystems within the pools, leading to a puna whose mauri has now been lost.

Historically, the pools were a site of sacredness and still remain of great significance to Te Whānau a Rangiwhakaahu, being a place of karakia, ritual and the foretelling of future events. The name Te Wai o Te Taniwha translates directly to 'the water of the taniwha', as a taniwha lives in the pools and has the ability to make the sea calm or rough. The name also references the white-wash surge that comes over the rocks and fills the pools. As discussed, Ngātiwai identify with the water and hold bodies of water to be of great importance. The pools were used for healing through karakia, and used for the foretelling and outcome of different events. They were also used by tohunga to receive insight or aid in major decision making prior to engaging in warfare. In many Ngātiwai narratives, there is reference to wai whakaataata, which translates as using the water as a mirror to help foretell events in the future:

> Tohunga would go there and recite karakia, and place – in some of the pools – there were types of rākau that were placed in [the pools], and the movement of the rākau would give an indication of different things. As I understand it, often that was caused by the tides. So, it's our innate connection that Ngātiwai have with the water… and I suppose for us as a hapū, seeing the state of this sacred puna turned into like a **mimi** (urine) cesspool, basically it's just heartbreaking (Edwards, personal communication, 2019b).

Over the years, Te Waiotetaniwha has been subjected to unregulated and excessive usage which has resulted in ecosystem collapse and pollution within the puna. Tourism has been a major causal factor, as local tourism operators and social media have fuelled the popularity of the Mermaid Pools. The puna are being promoted on

popular tourist sites such as TripAdvisor, Lonely Planet and Tourism New Zealand, as well as social media sites such as Facebook and Instagram, without the consent or knowledge of the hapū. During its seasonal peak in summer, the Mermaid Pools have around a thousand people a day visiting (Jennings, personal communication 2020). Jennings also points out that the area – both the pools and Rangitapu – is "not designed for the masses" implying that the sheer volume of people visiting the area is enough to cause significant harm to the wāhi. A major problem is the lack of infrastructure in the area; there is only one public toilet throughout the whole of Matapōuri Bay and the walk from the beach to the pools is roughly 40 minutes each way. Descriptions of the pools smelling like urine, being murky, and polluted are common sentiments expressed by hapū members and in blogsites. When I asked Edwards of the damage to the wāhi he stated:

> … there's no toilet facilities, there's no access path, there's no rubbish facilities, the result was that the maunga was completely obliterated by all the people walking, defecating and mimi-ing in the pools, and in the surrounding pools and in the rocks.
>
> And just the sheer volume of rubbish was just ridiculous and because a lot of it just blows off the rocks into the moana as well, it comes back into the bay, but you know it's sanitary things, nappies, all sorts, a couch…
> Because it was unregulated and the various agencies responsible for the care and protection of the wāhi tapu aside from us just basically buried their head in the sand, it was too hard to sort of fix and resolve. (Edwards, personal communication, 2019b).

According to the Department of Conservation ((DoC) 2019), "ecological research undertaken by local hapū have shown a decrease in the general health of the Pools and ngāhere during busy summer months". In a video titled 'The Mermaid Pools in Crisis' (Feb 2019), Glenn Edney and late local marinebiologist, Hamish Clueard, discuss how the pools have changed significantly over the years (see Figures 10). Some of the noticeable changes described by Clueard include the lack of seaweed

and the change in coraline turf from a pink-grey colour to a pale white. In relation to biodiversity in the pools:

> There is quite a few little whelks there, or pūpūs as we call them, and there's one or two bigger whelks in there. There's a handful of kina, but this place used to be full of kina, and quite a few crayfish used to live in here. And of course, the kaitiaki for this pool is a crayfish. ('Mermaid Pools', Ocean Spirit.org, (Clueard, [Youtube video] 4 Feb 2019).

Edwards also mentions the thriving ecosystem that used to exist in the puna, and compares this historic situation to current conditions,

> As a child, the pools were clear. They had beautiful shaped rocks all on the base of them. Very deep. There was coraline and types of seaweed growing all in them. Kina… I remember seeing crabs and pūpū, and occasionally fish in and out. Problem with them is over the summer, because the flushing system in those pools isn't as regular as people assume, the water sort of dissipates and the salt… they become really salty. The destruction is probably beyond measure, they'll never really recover fully back to the state they were in. (Edwards, personal communication, 2019b).

Figure 11 - Small whelks and algae, screenshot from 'Mermaid Pools', Oceanspirit.org (2019), accessed 5 Nov 2019.

Figure 12 - Hamish (left) and Glenn (right) observing and discussing nurtient indicator algae. 'Mermaid Pools', Oceanspirit.org (2019), accessed 5 Nov 2019.

In the documentary, Edney (2019) explains that the amount of urine present in and around the pools has contributed greatly to the abundance of nutrient indicator algae (see Figure 11 above) within the puna. The presence of this algae is visible via satellite images (see outlined in Figure 8 above). This type of algae only grows in bodies of water that have a great amount of nutrients. As a consequence of the lack of toilet access at the pools, people excrete in and around the pools, thereby encouraging these types of algae. Edney states that a probable additional cause of the state of the coraline turf in the pools is from sunscreen, not only because it is used by many people who swim there, but because it has chemicals that significantly harm coral and reefs. Wood (2018) explains that sunscreen UV filters and chemicals like oxybenzone induce developmental and reproductive toxicities among different organisms, and contributes to coral bleaching.

The importance of their Taiao has mobilised Te Whānau a Rangiwhakaahu and the Matapōuri community to assert local and tikanga-based solutions to restore the mauri of these wāhi tapu. The environmental anxieties and concerns that the local people have are not uncommon among coastal communities in Aotearoa. There have been recent efforts by Ngāti Porou, for example, to speak out against the government's proposal to build a "Blue Highway" in Wharekahika, Hick's Bay

(Tyson, 2019). The damage caused to Rangitapu and Te Waiotetaniwha not only affects the wellbeing of the whenua and wai, but also the cultural and spiritual integrity on the environment for those who rely on them.

3.4 Te Rāhui o Rangitapu

Te Whānau a Rangiwhakaahu, noting the degradation of their wāhi tapu, felt quite helpless" and "invisible" in conversations about the puna in 2018. Tourism websites such as Lonely Planet, TripAdvisor and local tourism operator Dive! Tutukaka, promoted the Mermaid Pools to tourists, highlighting its picturesque and crystal-clear rock pools without consultation with or consent from the hapū. Knowing that these wāhi could not withstand the sheer volume of people visiting, polluting and having little regard for the Taiao, Te Whānau a Rangiwhakaahu decided they needed to do something about the declining health of their taonga. They could have sought formal solutions such as claiming a reserve status for Rangitapu and Te Waiotetaniwha under the Reserves Act 1977, however decided against pursuing such legal remedies. The hapū surmised that while this might provide legal definitions of "preservation and management" for the wāhi tapu, the autonomy of protecting Rangitapu and Te Waiotetaniwha would be handed to the Crown, thereby immobilising local kaitiakitanga and mātauranga Taiao. According to Edwards, they decided to utilise their tikanga Māori and mātauranga Māori instead.

The first phase of the rāhui began in early February 2019 and involved the creation of art, signage and **pou iti** (small posts) to spread awareness of the environment and local culturally significant sites. These pou iti are sets of painted, metre-long posts comprised of three beings, each representing a taniwha, a **wahine** (woman), and a **tāne** (man). These were created by members of the hapū and Kapakaitiaki who wanted to inform the public about the sacred sites they were visiting and spread awareness of the upcoming rāhui (see Figures 12 and 13). In the time of my fieldwork, I saw several sets of pou iti throughout the Matapōuri

community: a set erected on a fence just before reaching the township, three on residents' fences (Figure 13); several sets line the entrance-way to Matapōuri marae; and a Kapakaitiaki sign posted in the carpark by the beach (Figure 14). While the WDC did not consent to the pou being erected on Council grounds, some of the local community showed their support by propping pou iti up on their private fences (see Figure 15).

Figure 3 - Kapakaitiaki erecting signage and pou iti, Edwards is also present. Ngātiwai Stories 2019. accessed 14 June 2019.

Figure 14 - Signage from DoC and Kapakaitiaki at the Bay. Photo from fieldwork taken 30 Dec 2019.

Figure 15 - Pou iti erected on community fence. Photo from fieldwork taken 30 Dec 2019.

The hapū felt that Crown agencies who had responsibility for the area, such as the WDC and the Department of Conservation, were ignoring the urgency of the situation. Te Whānau a Rangiwhakaahu released a media statement on the 16th of April 2019 to Newshub – a New Zealand news media outlet – claiming that the pools were "devoid of any life", and that community meetings to discuss a rāhui would take place in the coming weeks. Edwards notes that interest grew "like wildfire", with an overwhelming amount of support being expressed for a rāhui nationally and internationally. This rāhui was a discussion topic on New Zealand news for a few weeks, and tourism sites beginning to promote it less. Following the media statement and public support, the hapū observed that local government and DoC, began to involve them in conversations. DoC declared their support of the rāhui in a public statement released in the same week. The statement endorsed the closure of the walkway over Rangitapu due to health and safety reasons as well as ongoing cultural and ecological damage to the wāhi (Department of Conservation 2019). DoC also released a map outlining the boundary of the proposed rāhui (see Figure 16). The hapū initially had some concerns about the effect of the rāhui on the community, such as affecting the business of the one shop in Matapōuri or the possible resistance

from the community once the rāhui was in place. The shop has not witnessed a decline in trade, according to Edwards, and the rāhui has been received well from the community in general.

Figure 16 - Proposed rāhui area, Department of Conservation 2019, accessed 20 Jan 2020.

As discussed by Ruru & Wheen (2016), the term rāhui in legislation such as Ngāti Awa Settlements Claim Act (2005), Fisheries Act 1996, and Ngā Whenua Rāhui kawenata in the Conservation Act 1987, usually refers to a means to restore the productivity of the land and allow the mauri of resources to replenish. Te Whānau a Rangiwhakaahu assert the rāhui's purpose is to restore the mauri of these wāhi tapu. It has not, however, been legally recognised by New Zealand's government. Instead, in accordance with their tikanga and mātauranga, Te Whānau a Rangiwhakaahu decided to officiate the rāhui with the erecting of a pou rāhui (post marking a rāhui). In this way, the mana and autonomy of kaitiaki still belongs to the tangata whenua of the area; a pou marking a rāhui represents more than a physical post signifying a spiritual warning as well. The hapū were, however, internally conflicted about imposing the rāhui on Rangitapu and Te Waiotetaniwha as they are considered already tapu and have never had this removed. For some hapū members,

it seemed contradictory to impose a rāhui, for others the rāhui was perceived as ensuring that the maunga and puna had time to heal.

3.4.1 Te Pou Rāhui Rangitapu

Figure 4 - Te Pou Rāhui Rangitapu first erected 19 April 2019, ngatiwai.iwi.co.nz, accessed 15 Feb 2020.

The whānau and hapū of Matapōuri had hui to discuss how they were going to carry out the process leading up to officiating the rāhui. Edwards recalls things "just falling into place" when they planned the rāhui. The hapū wanted to improve their signage, so they decided that they wanted to erect a pou rāhui at the base of Rangitapu, in the bay named **Te Kohanga** (the nest), but there was no carver

available in their whānau at the time. This changed when a whānaunga, Rua Paul a tohunga whakairo (master carver) came to stay in Matapōuri for a few months. On the day of his arrival, a twisted and bent Tōtara tree was brought to the hapū by a local farming family, and a hapū member then opened a space in her home for the carver to work. Edwards explains,

> Whānau were able to go over and support and assist, different whānau prepared kai for him during the course of the carving of the pou. Our youth, our taitamariki, and whānau would go over and help carve. People contributed different things, some of those contributions were really significant of time and resources (Edwards, personal communication 2019b).

When it came to the initial date set for the rāhui, however, a **tangihanga** (funeral) occurred, and the date was then organised two weeks later around the time of **Rākaunui** (full moon), meaning that the tides were either extremely high or low. Te Kohanga is easy to reach without getting too deep in water on a normal low tide day. The hapū had not realised, however, until the day before that the tide was to be higher than what was the norm. Those who attended the ceremony included Te Whānau o Rangiwhakahu and the community, representatives from WDC and DoC, as well as members of Ngātiwai and the wider public who also came to support the kaupapa. Aperahama explains how the ceremony was carried out:

> The tohunga whakairo and others carried the pou down. They erected it, Charlie Mackie and others put it up and made a beautiful footing for it to stand on. And then they stayed with it, in the night, had a little fire on the beach and waited. So those are some of our tikanga around once it's up you don't cover it. You put it up and in the night the cover comes off and it's left standing, and those who created it stay there and wait with it until the rest of us arrive.
>
> So we decided we'd go early that morning… It was winter, we woke up and it was unbelievably warm… It was at about 4 in the morning, we all went down and we had prepared to start at 5, so we walked around – and we had to get wet, the water was warm. So we had kuia, some of our elders, kaumātua who just walked straight out into the water, and it came up just around our knees when we went around, and it was just unbelievably warm. We had children, babies,

and the fire was burning. The cameras from Te Kaea and Māori Television came.

We did the karakia to whakatū i te pou rāhui, to i te pou rāhui me te whakaingoa i te pou [karakia to erect the pou rāhui, impose the rāhui and name the pou]. We named it Rangitapu. The pou itself is quite unique because when the rākau arrived it was all twisted and bent, never had seen a rākau like that used for a pou, but our whānaunga who led the carving of it, Rua Paul, he just went for it and what he created was beautiful. It's based on kōrero that we've all had. So, every part is significant.

One of things that was asked [by DoC] was that it not be placed on the track itself, and we kind of wanted it to be, because the whole idea is it would stop people going there. But there were concerns around health and safety and if it fell and injured people or whatever. There would be issues. But the place that our whanaunga prepared for it was right next to the track, and when they- without really putting any thought to it – they set it up there, when they erected the pou, because of the twists and bends, it leans right back over and its head is just above where the track is, and it looks straight down (See Figures…). Coming along the beach you can see it, and when you try and walk up the path, it's right there, it's keeping a close eye. (Edwards, personal communication, 2019b).

Figure 18 - Aperahama (left), local whānau and mana whenua carring out the ceremony on 19 April 2019. Ngātiwai Our Stories 2019. accessed 30 June 2019.

Since establishing the rāhui, while people have trespassed, it is being adhered to most of the time. As per tikanga, mauri is beginning to be restored within the puna and on Rangitapu. According to the June Hauora Moana Assessment conducted by Ocean Spirit on Te Waiotetaniwha (2019), major improvements to the pools mauri included improved water clarity and regeneration of some near-surface kelp. Compared to the amount of years of tourism distress, this was a positive sign. An update was provided from the Kapakaitiaki Facebook Page on April 26th 2020 (during the time of the nation-wide COVID-19 lockdown/rāhui), marking a year since the rāhui Rangitapu was enforced. A Kapakaitiaki member indicated that new growth of plants and fungi have been observed on the track, which suggests foot traffic has lessened significantly. In Te Waiotetaniwha, fish in the pools and seaweed growth also indicate that the puna is slowly rejuvenating, however it is too soon to predict how much time these wāhi tapu will need to restore the mauri.

3.5 Analysis

It is evident that Te Whānau a Rangiwhakaahu place a strong importance on their whenua, moana, wāhi tapu and taonga. Mediums such as karakia, pūrākau, waiata, tauparapara, and whakataukī are ways in which Māori stay spiritually connected to our ancestors and environment, but it is the assertion of kaitiakitanga and the practical implementation of practices such as rāhui that continue to foster the physical, reciprocal connection with Te Taiao. Johnson (2013) notes that this "reciprocal relationship necessitates [Māori] active engagement, not only to maintain the balance within the ecosystem, but also to maintain individual and community identities" (Johnson 2013:135). This is suggestive of the tensions between Māori kaitiakitanga and non-Māori conservational practices.

While there appears to be a significant amount of support for the rāhui from the wider community and general public, recent publications from

Newshub, Stuff, and the Ngātiwai Trust Board indicate that the rāhui has not been fully adhered to in the summer of 2019-20. Matapōuri locals have witnessed tourists trespassing and climbing over Rangitapu, and people are reported to have accessed the puna by boat. Te Whānau a Rangiwhakaahu are now considering issuing trespass notices to enforce the rāhui further. They have faced racial abuse – both at Matapōuri and online – which disrespects the hapū, whenua and purpose of the rāhui. These external criticisms of the rāhui and other practices of Mātauranga Taiao, I suggest, are due to two main reasons: First, the lack of understanding of rāhui in the general population and the lack of legal recognition given to this particular rāhui. McCormack notes that "as a fisheries management tool, rāhui receives a degree of recognition in legislation but as a cultural principle, rāhui imposition following a drowning receives no legislative backing, though is informally and variously adhered to by the general public" (McCormack 2011:43). In the case of Te Waiotetaniwha and Rangitapu, the rāhui in place is neither for fisheries management nor due to death, but to restore mauri. While signage and awareness are spread throughout Matapōuri, the lack of formal recognition is likely a reason why some people have no inclination to respect the rāhui. Edwards recounts how the hapū considered applying for a marine protected area (MPA) or mātaitai reserve, under Customary Fisheries Regulations 1998 to enforce a prohibition, however, these tools were perceived as undermining rangatiratanga by vesting control in the Crown and as being in opposition to hapū ecologies. As McCormack suggests, MPAs "dichotomise people and nature, are at odds with Māori conceptualizations of humans 'as part of a personified, spiritually imbued "environmental family"'… and serve to alienate Māori from their stewardship" (McCormack 2018:20).

For Māori, the consequences of disrespecting rāhui are embedded in more than just legal persecution, affecting us spiritually and physically too. Edwards explains that with rāhui, "people still have a choice, and the reality is there's a consequence if they choose not to observe [it]… we have to be cautious that we don't undermine the spiritual element of it by trying to overly enforce it" (Edwards,

personal communication 2019b). If someone – regardless of ethnicity – was to climb over Rangitapu, tripped and sprained their ankle or got sick from swimming in Te Waiotetaniwha, this would be seen as a form of **utu** (revenge), a tohu to remind the person that Te Taiao is trying to heal and to leave it be.

A second reason for ignoring the rāhui hinges on the structurally unequal relationship between Māori and non-Māori, particularly Pākehā, the descendants of European settlers that came to Aotearoa over two hundred years ago. Contention arises between tikanga Māori and Pākehā rights, and the need to adhere to rāhui. This tension can be seen in the comment section of a Facebook article (posted on *Te Ao*, 8 Jan, 2020) regarding the rāhui on Whakatāne river following a drowning in January 2020:

- "They have no mandate to enforce this, you can show respect in many ways not just their way."
- "A Rahui doesn't apply to me. I'm not Maori. You don't need to shut down a river because someone drowned in it…"
- "Rahui applies to nothing another figment of [their imagination]".

Similar attitudes to the Rangitapu rāhui highlight the disparities between Māori and Pākehā, suggest a lack of understandings of Māori concepts and reference the history of settler colonialism in Aotearoa New Zealand. Taiepa et al. note that there is a common view among Pākehā that kaitiakitanga "is of marginal relevance to contemporary ecological problems… [kaitiakitanga] is still not fully understood by the majority of European culture. Further, Māori have not been given the opportunities and mechanisms fully to develop and demonstrate its potential application" (Taiepa, et al. 1997:240). Of interest too is that while the role of kaitiaki is embedded in genealogy and tikanga, the question of whether Pākehā may also be kaitiaki has also arisen. Pākehā may claim ownership of a plot of land or a spiritual connection to the landscape due to their ancestors, but as Mutu (2010) explains, Pākehā and other non-Māori cannot be kaitiaki because they are not mana whenua. Furthermore, Mutu continues,

> There is also fact that legal ownership of land as defined through the English-derived legal system is irrelevant in respect of the kaitiakitanga responsibilities of mana whenua. Yet Pākehā, including lawyers and judges, will try to argue that the legal title overrules kaitiaki considerations. The erroneous notion of the supremacy of Pākehā law derives from the delusions of White Supremacy… (Mutu in Selby et al. 2010:16).

I suggest, however, that Pākehā may enact their 'kaitiakitanga' – for lack of a better term – under the *authority* of Māori. This relationship can be seen in Matapōuri in the case of Ocean Spirit and the Matapōuri Kaitiaki Project. Both groups involve and consult Te Whānau a Rangiwhakaahu members for appropriate tikanga and protocol when disseminating environmental information and carrying out local conservation projects. It is the case that non-Māori may also develop deep spiritual connections with the land in Aotearoa, and that spirituality is not a subjective experience for Indigenous Peoples alone. I suggest that Pākehā cannot be kaitiaki in the sense of claiming mana whenua through whakapapa and cannot possess the ability to enforce appropriate tikanga and kawa on environmental matters. Through consulting and following the lead of tangata whenua, however, Pākehā may work to support Māori in asserting their role as kaitiaki and enacting kaitiakitanga in conservational matters. Forster explains:

> Māori-local government engagement is a critical mechanism for realizing Māori autonomy in relation to resource management, particularly since the greater part of the tribal territory is no longer in Māori ownership. This means that Māori cannot exercise [kaitiakitanga] and are therefore forced to influence existing resource management and embed Māori environment interests and agendas into state resource management practices (Forster 2016:324).

At a national level, this would mean prioritising and resourcing Māori Indigenous environmental knowledge within a mainstream setting. This has already happened to an extent in the case of some iwi land claims and nature personhood settlements like Te Awa Tupua Act (2017) and Te Urewera Act (2014) which have sought to mobilise Maōri environmental autonomy within Aotearoa New Zealand's

current legislative system. Māori concepts are difficult to translate into an English and western framework. Concepts like kaitiakitanga, rāhui, mauri and tapu are referred to in legislation with little context of their signification at iwi and hapū levels. Marsden (2003) explains:

> A new sense of awareness, new attitudes are required to turn us completely around. Attitudes to counter the organisation/regulation/bureaucratic/consumer /production/expansionist/materialistic mentality. Awareness… that we are an integral part of the natural order which is no less sacred than the spiritual order… only then can we restore and maintain the harmony and balance which successive generations of humankind have arrogantly disrupted (Marsden 2003:46).

Kaitiaki are the protectors of Te Taiao, and each component of Te Taiao has a role to play in maintaining the ecosystems we live in. Te Whānau a Rangiwhakaahu have asserted *their* right as kaitiaki, tangata whenua and mana whenua through upholding their kawa, applying their tikanga, and adopting both old and new forms of spreading awareness and knowledge. Their kaitiakitanga is supported by and inclusive of non-Māori groups within Matapōuri with the common goal of asserting Māori rights to being kaitiaki and protecting their environment. The connection between Māori and Te Taiao is maintained through reciprocal relations of protection; rāhui provides the grounds to let Papatūānuku and the environment heal on its own time and space continuum, rather than for the utilitarian needs of humans. The spiritual link, as I discuss in the next Chapter, is evident in measures of wellbeing for both Māori and Te Taiao.

CHAPTER FOUR

4.0 ON BEING KAITIAKI

This chapter examines the role and responsibility of Māori as kaitiaki protecting Te Taiao. I illustrate this relationship through whakapapa, analysing the parallels between environmental health, and Māori health and cultural wellbeing. This will be based on Te Tai Tokerau perspectives of the Māori creation story and other origin stories; for some Northland hapū, including Ngātiwai (see also Ngātiwai Environmental Policy 2015), this version of the creation story is told through **Ngā Unaunahi e Whā** (four fish scales), further indicating our connection to the ocean. Unaunahi is also a whakairo pattern (See Figure 19) popularly used throughout Te Tai Tokerau, and represents the abundance of food, and the wealth of the sea and people (Wilson n.d). In this chapter, I provide the cultural context and origins of the natural world and its Atua based on whakapapa and pūrākau. Then, using reports from the Ministry of Environment, Statistics NZ and Manaaki Whenua (Landcare Research) among others, as well as Māori stories and experiences, I examine the environmental indicators/tohu related to the current health of each sector. Lastly, I analyse the sociocultural impact of these environmental issues, and reflect on what it means to be kaitiaki, and why the assertion of kaitiakitanga is important to Māori.

Figure 19 - Te Unaunahi Whakairo Pattern. Wilson, K. n.d. (Accessed 12 Dec 2019).

Ngā Unaunahi e Whā is a Tai Tokerau version of the creation story that is divided into four stages. **Te Unaunahi Tuatahi** (the first fish scale) relates to the substances that form the earth and concerns the realms of **Papatūānuku** (Earth Mother), **Ranginui** (Sky Father), and Tangaroa. Unaunahi Tuatahi is discussed in relation to land and soil quality, freshwater and marine environments, as well as air pollution in Aotearoa. Te Unaunahi Tuarua is the stage of flora and incorporates all Indigenous vegetative life, plants, trees and coral; Te Unaunahi Tuatoru encompasses all animal life, and both Unaunahi Tuarua and Tuatoru are embedded in the realms of the Atua Tāne, Tangaroa and **Punga** (god of ugly creatures). The final stage of creation, Te Unaunahi Tuawhā, relates to everything human, here I discuss how the genealogical links between tangata and Taiao serve as the grounds for the Māori right to an authoritative voice on conservational matters in Aotearoa New Zealand.

4.1 Te Unaunahi Tuatahi // The Earth

> *In the beginning was **Te Kore** (the Void), from Te Kore came **Te Pō** (the Night), and in that darkness was Ranginui the Sky Father and Papatūānuku the Earth Mother in a tight embrace. Their seventy children were the Atua, who longed for freedom from their parents. Tāne-mahuta, father of the forest and all living things that love freedom and light, wanted to separate his parents to let the light in, so pressed his back on Papa and planted his feet up on Rangi's body. He exerted all his strength and separated the earth and the sky, and brought Te Ao Mārama, the World of Light…*
> *The curves of Papatūānuku's body became the mountains, the tears that dropped from Rangi's eyes became the rain, rivers and streams that adorn his wife, and the mist that hung on Papa's shoulders was the grief for her husband. From this, their children were released to live and flourish in the world that was created from the light.* (Reed 2011:10-11 [paraphrased]).

4.1.1 Te Whenua a Papatūānuku // The Land of Papatūānuku

Papatūānuku is our Earth Mother, the kaitiaki of whenua and all living beings who she births into existence providing both the physical and spiritual basis for life (Royal 2010a). As explained by Best (1921), Papatūānuku is the mother of all things, who also produces food and provides shelter for her offspring, encouraging a reciprocal relationship with the earth. The bond between Māori and Papatūānuku can be seen especially in birth and death rites. Whenua, often referred to as land, is also the word for placenta. It is common within Māori culture for people to bury the placenta of a new-born baby on their **tūrangawaewae** (standing place) as tangata whenua of that area (Durie 1991). Similarly, the contemporary form of funeral burials – and some pre-contact burial traditions (Higgins and Moorefield 2004) – encompasses the belief of burying as returning our bodies back to Papatūānuku. According to Royal (2007) Papatūānuku emerged from the **Te Moananui ā Kiwa** (Pacific Ocean), however, other stories say that **Hinemoana** (Ocean Maid), is another wife of Ranginui, and that is why the shore separates Papa from Hinemoana, the waves crashing against Papa's body[3]. Māori have a close relationship with Papatūānuku; she is the foundation of life, livelihoods and the economy in Aotearoa, underpinning major industries including agriculture, forestry and tourism. It is the increasing demand of these industries, however, that has led to significant decline in Papatūānuku's health.

Population growth and industrial development increased rapidly in Aotearoa after colonisation. In the past two decades alone, drastic changes to vegetation on land driven by the dominant political economy has occurred (Foote, et al. 2015). Animal products are New Zealand's largest export valued at $16.7 billion; there has

[3] I omit explanations of Hinemoana further in this chapter, as I mainly reference the ocean or in-land waterways in relation to Tangaroa and Tāne.

been a 70 percent increase in cattle since 1994, and 51 percent of our land is now either pastures or urban areas (OEC 2019). Whangarei's population grew 2.5 percent between 1997 and 2019, with an increase of 2,300 people in the year to June 2018, according to the Whangarei District Annual Economic Profile (2018). In addition, Northland's Gross Domestic Product (GDP) increased 8.4 percent in 2017 and nearly half of this was due to intensive agriculture (Statistics New Zealand, 2019). Intensive agriculture is understood as being one of the major drivers of environmental degradation in Aotearoa (Foote et al. 2015; Environment Aotearoa 2019a). The rapid increase in the demand for agriculture has led to more cows per hectare and more land being cleared to be used for grasslands. Forestry plantations, such as pine forests, however, are also contributing to the clearing of land for economic purposes.

One of the primary consequences of intensive agricultural and forestry regimes is the increased risk of land erosion. Although the majority of erosion occurs within natural cycles through rainfall or melting ice, the impact that human activity has on the land has resulted in erosion happening more frequently. This is a consequence of removing Indigenous forests and woody vegetation for pastures (now the largest type of land cover in New Zealand) and forestry plantations. According to Phillips et al., "the degree of soil disturbance from harvesting operations and the amount of surface erosion… are strongly correlated" (Phillips, et al. 2017:114). Although there is little documentation on the causal relationship between tourism and environmental degradation in New Zealand, it is evident from the case of Rangitapu that increased human recreational activity and foot traffic is also contributing to erosion and diminished soil quality.

Papatūānuku is under extreme stress, with soil quality diminishing, whenua being manipulated, and an increase in soil erosion and landslides; degradations which affect Māori in distinctive ways. One of the major consequences of landslides and the risk of erosion relates to wāhi tapu, marae and urupā as land is constantly changing and the exposure of soil increases the chances of sacred sites shifting and

being damaged. In the case of Te Whānau a Rangiwhakaahu, many hapū and iwi are coastal-based and increased erosion puts these communities at risk of losing their homes and tūrangawaewae. The degradation of Papatūānuku not only poses a threat to Māori and mātauranga Taiao, but to all life, livelihoods and ecosystems that depend on her.

4.1.2 Ngā Wai a Tangaroa // The Waters of Tangaroa

Tangaroa (a son of Papatūānuku in this version) is the Atua of the ocean and water, elements considered to be the foundation and source of all life. Royal (2002) writes that the islands of Aotearoa and Polynesia are fish that have been drawn up from the water, and that people evolved from amphibious beginnings. It is important to note, however, that not all water is categorised the same and there are distinctions between freshwater, groundwater, and the ocean. In Te Ao Māori, different terms for water are categorised in relation to their use and the status they hold. As described by James (1993), these terms for water include **Waiora** (spiritually used in ceremonies), **Wai Māori** (mundane; for everyday use), **Wai Tai** (dangerous ocean waters), **Wai Mate** (has lost mauri; damaged or polluted beyond rejuvenation), and **Wai Kino** (polluted with large rocks or snags potentially harmful to life). For Māori, water provided a means of travel and voyaging as well as spiritual healing through ritual and karakia. Tangaroa provides sustenance for humans and other children of Tāne, but is also merciless and unforgiving when he is not respected. When fishing, for example, it is the norm for Māori to recite karakia and give the first fish caught back to the ocean, reciprocating respect and gratitude to Tangaroa (Meredith 2010).

Our current agricultural regimes on land, however, are affecting our freshwater bodies and oceans significantly and in new ways. Some of the major drivers for aquatic damage are agricultural runoff, commercial fishing and plastic pollution. According to the Environment Aotearoa report (2019), recent farming intensification has increased our risk of water pollution. Increased risk results from

having less sheep but more cows per hectare, more fertilisers and irrigation. Several studies of water quality have found that an increase in agricultural activity upstream has led to an increase in nitrogen, phosphorus, E. coli and sediment concentrations in waterways (Morrison et al. 2009; Wilcock et al. 2011; Bollen 2015). Excess nutrients like phosphorus and nitrogen, as well as warming temperatures, have resulted in an increase in algal blooms. Algal blooms can "decrease the dissolved oxygen, prevent life from penetrating water, and change the composition of freshwater plant and animal species that live in a waterway" (Environment Aotearoa 2019:61). The Whāngārei District Growth Strategy (2017), notes that 54 percent of land use in Matapōuri is for pastoral farming, and as a consequence in three streams – Matapōuri, Te Wairoa and Parangarau – algal blooms pose a threat to the water quality and ecosystems; in the case of Te Waiotetaniwha, the algae flourishes as a result of excess nutrients from human waste.

In our oceans, commercial fishing and coastal development, as well as plastic pollution and climate change are factors that have contributed to the degradation of the health of the oceans, resulting in increased ocean acidification, rising sea levels, and plastic debris build-up (Clark and Rowden 2009; New Zealand Marine Studies Centre 2017; Campbell et al. 2019). The Ministry of Environment & Statistics New Zealand provides the following indicators for the current state of our marine environment:

> • National mean coastal sea levels have risen (relative to land) 1.81 (±0.05) millimetres per year (2018).
> • Ocean acidity has increased 7.1 percent in New Zealand's subantarctic surface waters (between 1998 and 2017).
> • … sea-surface temperatures increased between 0.1 and 0.2 degrees Celsius per decade (between 1981 and 2018).

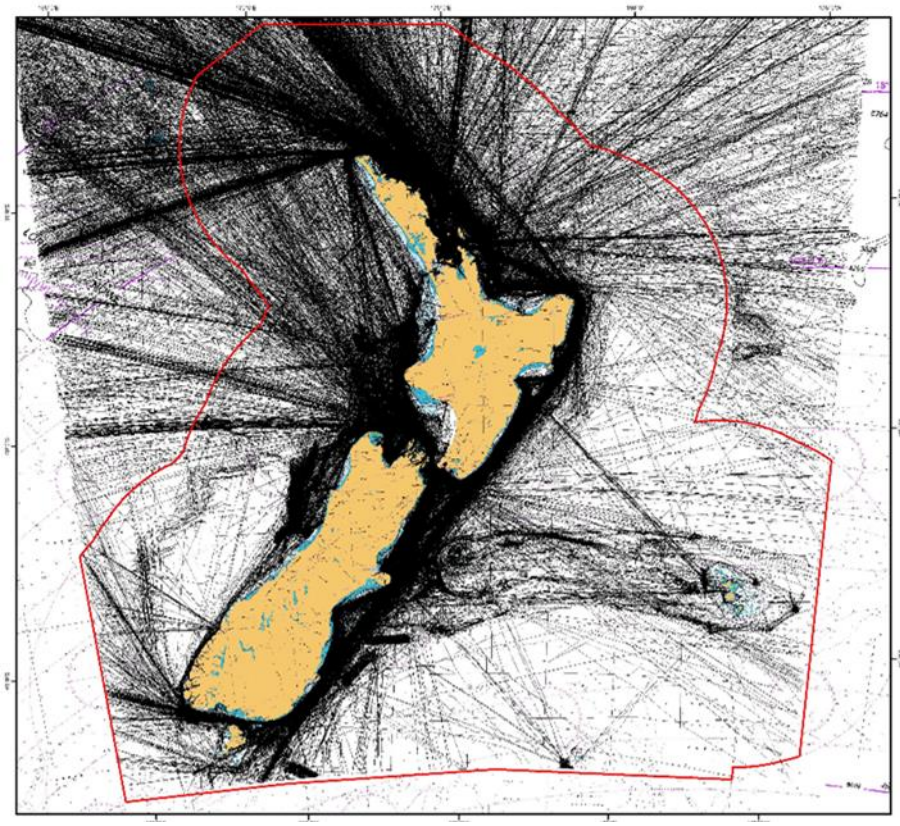

Figure 20 - 'Combined vessel traffic in the New Zealand EEZ based on AIS transponders from July 2014 to June 2015'. (Ministry of Environment & Stats NZ, 2019). Accessed 20 Nov 2019.

According to Our Marine Environment (Our Marine Enviornment 2019b), additional human activities like coastal hardening – where industrial waterfronts, jetties or seawalls are installed which severely disrupt natural habitats and ecosystem services (Ido and Schmrit 2015) – as well as recreational fishing, aquaculture, mining and shipping all have negative impacts on the marine environment. Some of the pressures from these activities include habitat degradation and pollution, which disturbs ecosystem cycles and damages seabeds. Climate change and ocean acidification are also contributing factors for habitat destruction, both of which emerge from increased human activity and development. Coral reef damage is also a serious concern, and in small areas such as Te Wai o te Taniwha, sunscreen is a significant factor causing coral damage and affecting coastal water quality. All these activities contribute to destroying marine habitats and coastal environments. This

also impacts on human quality of life and livelihoods because of the heavy reliance on the moana for recreational and cultural activities in Aotearoa.

Plastic pollution in the Pacific Ocean has become a global hot topic for environmental movements such as Greenpeace, 4Ocean and small-scale clean-up projects throughout the world. In Aotearoa, "plastic is the most common type of litter on our beaches" (Our Marine Environment 2019b:29), and is now being found in fish, shellfish and seabirds affecting both these species and humans through the risk of plastic consumption. Tina Ngata, a Ngāti Porou **manawahine** (woman of strength) and activist, also known as the 'Non-Plastic Māori' (as she omits single-use plastics from her lifestyle), comments that Māori and Pacific Island peoples are at greater risk of acquiring toxic carcinogens through ingesting seafood, as it staple within our diet (18 Feb 2018). The Sustainable Coastlines Litter Intelligence programme, a survey group dedicated to assessing anthropogenic litter on beaches throughout New Zealand, surveyed 44 beaches in April 2019 to examine the extent of litter on beaches. The survey results show that plastic made up almost 60.9 percent of litter found on beaches, followed by glass and ceramic, foamed plastic, and metal, collectively making up 30.2 percent, with the rest being cloth, rubber, paper and others (Our Marine Environment 2019b). Over time, plastic breaks down into microscopic fragments known as microplastics which seldom decompose, causing ecosystem and habitat damage by ingestion and potential chemical leaching (Koelmans, et al. 2013). Among these smaller plastics, plastic pellets – raw material for manufacturing plastic products – are found in great quantities throughout the Southwest Pacific, with over 100,000 pellets per metre of coast in New Zealand (Gregory 1989). According to Villarrubia-Gómez et al. (2017), plastic has the ability to transport living organisms such as algal bloom species and viruses, distributing harmful toxins and pollutants, which also alter ecosystems composition and functions. The decline in health of our moana and waiora bodies exposes our waters to the threat of becoming waimate. This is having significant impact on Māori as well as all New Zealanders, given a common reliance on water.

Wai is the foundation and source of life, and is embedded in daily as well as ritualistic practices. The following whakataukī displays the relationship Ngātiwai has to water, our oceans, as well as the importance of our kaitiaki, Tūkaiāia:

> Kia tūpato!
> Ka tangi a Tūkaiāia ki te moana
> ko Ngātiwai kei te moana e haere ana
> Ka tangi a Tūkaiāia kei te tuawhenua
> ko Ngātiwai kei te tuawhenua e haere ana
>
> Beware!
> When Tūkaiāia calls at sea,
> Ngātiwai are at sea
> When Tūkaiāia calls inland
> Ngātiwai are inland.

Edwards (personal communication 2020b) referred to Te Wai o Te Taniwha as a wai whakahirahira, a reflection that mirrors the current situation and mauri. Waimate or water bodies near waimate status are contaminated, being deemed unsuitable and unsafe for drinking, swimming and food gathering. As explained by the Ministry for the Environment, "degraded mahinga kai and kaimoana limit traditional food for daily consumption and significant events, reducing the mana of individuals, whānau, and hapū, and their capacity to express hospitality" (2019:69). Salmond (2014) explains that if the waters are dying and stagnant from environmental degradation, pollution and exploitation, then the people are emphatically dying also.

4.1.3 Te Hau o Ranginui // The Breath of Ranginui

Ranginui, the Sky Father, is the kaitiaki of the skies and heavens and is often associated with light and tapu (Orbell 1998). In the coming of Te Ao Mārama, Tawhirimātea was the only child to oppose the separation, so he followed his father to the heavens and became the kaitiaki of winds and storms alongside his father.

Human life and knowledge are said to originate in the realm of Ranginui, tracing back to when Tāne climbed **Ngā Rangi Tūhāhā** (the twelve heavens) and retrieved the three baskets of knowledge. These three **kete** (baskets) were **kete-tuatea** (basket of light), **kete-aronui** (basket of pursuit) and **kete-tuauri** (basket of darkness), and were brought down by Tāne to imbue the first woman created, Hineahuone, with both human and spiritual aspects (Taonui 2010). We are always surrounded by Ranginui as he is the air we breathe, the atmosphere we live in, and is concerned with all things related to the weather, climate, clouds and storms through Tawhirimātea. In the Our air report (2018a), the Ministry of Environment provides data on Aotearoa's current air quality, and the effects of this.

According to Our air (2018a), New Zealand's air quality is good in most places in comparison to the rest of the world. Air pollution is apparent however, and stems from natural, industrial, transport and area sources. Natural sources of pollution include particles from the ocean, volcanoes, geothermal activity and wildfires. Emissions from human-made sources such as industries, vehicles and transportation, agriculture, landfills and home heating are associated with increases in air pollution. In an Auckland study conducted by Pearce & Kingham (2008), outdoor pollution levels were generally higher in socially deprived and low-income households, but levels were also elevated in areas with a higher Pākehā population. According to Our air (2018a), particle matter can create health problems such as cardiac illnesses, respiratory diseases, as well as cellular and genetic damage (2018a).

Heavy metals and pollutants in the air create serious respiratory and cardiac illnesses which impact Māori and Pacific Islanders disproportionately (Harris, et al. 2006). Air pollution significantly affects Māori intergenerationally as it increases the risk of respiratory problems, psychological and physiological distress, and pre-mature deaths. According to the Ministry of Health (2018), in 2001 Māori were two times more likely to be hospitalised for asthma; in 2010-12 Māori had an almost three times higher mortality rate from chronic obstructive pulmonary disease

(Ministry of Health 02 Aug 2018). The air is also being filtered less as a consequence of the removal of Indigenous plant species and deforestation, which has a myriad of other consequences for all life in Aotearoa.

4.2 Te Unaunahi Tuarua // Indigenous Flora

> *Although he had separated his parents so forcibly, Tāne loved them both. He set to clothe his mother in beauty that had not been dreamed of in the dark world. He brought his own children, the trees, and set them in the earth… He pulled up a giant kauri tree… and proudly surveyed the spreading crown set above the clean, straight trunk. The breeze played with the leaves, singing the song of a new world.* (Reed 2011:10-11).

Tāne is a significant figure in Māori culture and worldview, as the god of our forests and the father of birds. Tāne, through his strength, brought light into the world by separating his parents, he also created the first woman, Hineahuone and adorned the skies with the sun, moon and stars, and brought knowledge, wisdom and understanding for human beings (Royal 2010b). Tāne Mahuta is the name given to Tāne in relation to being the god of forests. Tāne Mahuta is also the name for his ariā as a giant Kauri who resides in Waipoua Forest in Te Tai Tokerau, who stands 51.5 metres tall, has a diameter of four and a half metres, and is said to be 1500 years old (Royal 2010b). Plants and trees have significant roles in Te Ao Māori, one example is Kumarahou, a rākau rongoā known as Gumdigger's Soap which was historically used for the flower's soapy properties, but Māori today continue to drink it for coughs, colds, bronchitis, and asthma (Williams 1996). Rākau Māori are also used for whakairo – the pou rāhui Rangitapu was carved from the rākau Tōtara – but they are best when in the ground and growing. Royal (2010b) explains that tree felling of rākau Māori is detrimental to Te Ao Māori, which can be metaphorically seen as closing the separation between Rangi and Papa, and returning the world to darkness.

Te Waonui a Tāne, our Indigenous forests known for its Kauri and other hardwood species, are unlike any in the world, with 85 percent of seed plant species being endemic to Aotearoa (Froude, et al. 1985). Prior to human occupation, Aotearoa was approximately 78 percent covered with forest, but with the arrival of Māori and Europeans forested land began to diminish (see Figures 19, 20 and 21), and currently about 65 percent of our Indigenous forests have been removed (Environment Aotearoa 2019). Froude et al. (1985) links factors such as climate deterioration, local volcanic activity, forest fires, the expansion of early Māori agriculture and European colonist activities to the decline in Indigenous forest land cover. From 1840 in particular, the expansion of urban areas, agricultural grasslands and exotic plantations have exacerbated the decline of Indigenous forest. Today, only a third of the original cover of Te Waonui o Tāne remains. Our Indigenous forests "regulate the climate by storing carbon, prevent erosion, provide nursery habitats, and create nectar for honey production. They are also the backbone of our recreation and tourism activities" (Environment Aotearoa 2019:26). According to the Ministry of Primary Industries (2019), the forestry industry contributes five billion dollars to New Zealand's economy, and with radiata pine making up 90 percent of exotic plantations, monoculture plantations create problems for biodiversity and the whenua. O'Loughlin (1995) discusses monoculture plantation risks including disease, fire, and insect attacks. 'Kauri dieback' is an example of a lethal root rot disease that was first reported in Aotea in 1972 and later on mainland Aotearoa in 2006 (Bradshaw et al. 2019). Kauri dieback is the greatest threat to Kauri survival, as it can kill Kauri of all ages, nearly all infected trees die and there is no known cure (Balm 2017). Kauri are a taonga and ancestor to Māori, play a significant role in the ecosystems they reside in and their health and mauri is inextricably linked to that of local kaitiaki and ecosystems (Lambert et al. 2018). Other consequences include threats to biodiversity, soil structure and soil quality. The removal of Indigenous forests and the introduction of foreign species for agriculture and urban areas have

resulted in increased risk of erosion, ecosystem disruption, degraded soil and air quality, and habitat destruction.

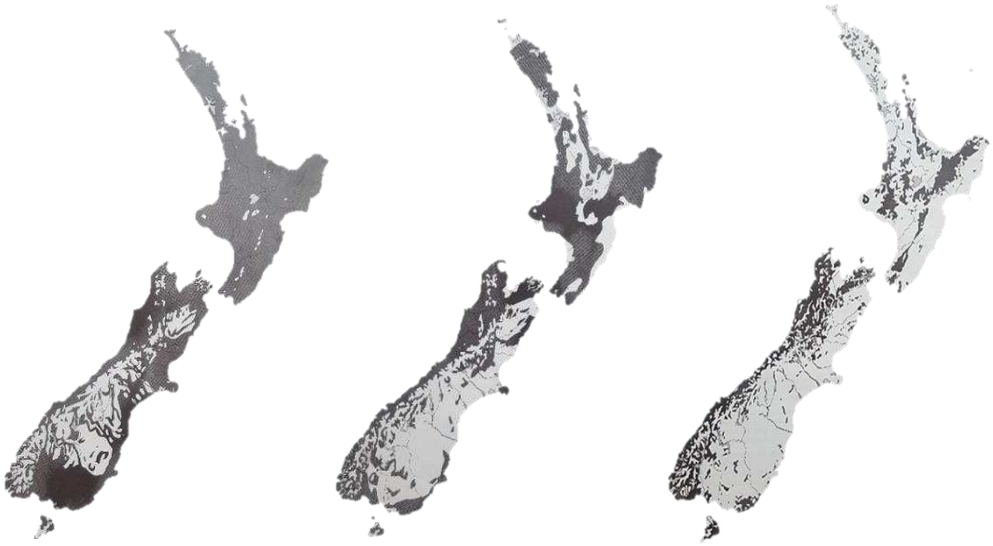

Figure 21 - Estimated forest coverage in Aotearoa pre-contact, 1840 and 1976. Commission for the Environment, (1985). Accessed 29 Nov 2019.

The impact of the ongoing decimation of Te Waonui o Tāne seriously impacts Māori; the ngāhere are made up of our ancestors, providing a safe-keep for mauri, regeneration and healing of our spiritual health. The removal of Indigenous forests also reduces species numbers of our taonga rākau Māori. Warmer climate temperatures and low water flows also affect the health of our rākau Māori, putting a lot of our endemic species at more risk of extinction. Māori practices such as rongoā, whakairo, and **rāranga** (weaving) are threatened, diminishing the mauri of our rākau ancestors. The introduction of foreign animal species, such as the brush-tailed possum and wild pigs among other introduced species who feed on Indigenous flora (Wodzicki 1984), also pose a threat affecting Indigenous animal species too.

4.3 Te Unaunahi Tuatoru // Indigenous Fauna

4.3.1 Ngā Uri ā Tāne Mataahi // Descendants of Tāne Mataahi

Manu (birds) that inhabit Aotearoa are the children of Tāne-Mataahi, and are held in high regard within Te Ao Māori. The feathers of manu are traditionally worn by high-ranking Māori and chiefs, mostly in the form of **korowai** (cloak) or in the hair. One of the most notable of bird feathers came from Huia, whose feathers were black with a white tip and who have been extinct since the 20th century (Keane 2010). Huia feathers were considered taonga and were kept in **waka huia** (carved wooden chest). Manu provide us with sustenance, a popular example being the **Tītī** (muttonbird), a traditional customary bird once hunted and harvested for special occasions which is now considered endangered. Other connections between people and birds include that similar behavioural traits are observed and remarked upon. The phrase 'he kākā waha nui,', for instance, is used to describe a loud-mouthed person in reference to the **Kākā** (parrot) (Keane-Tuala 2010). The habits, birdsong and symbolism of manu is also the basis of many waiata, tauparapara, poetry and **taonga puoro** (musical instruments), some of the latter of which are used to attract particular birds such as the **Pūtorino** (flute) and **Karanga Weka** (weka caller). Manu are also important kaitiaki, who provide tohu which may predict the weather or future events, and guide their descendants through Te Ao Marama. Their survival is imminent for the survival of Māori cultural practices and beliefs, yet many species have already become extinct including the Huia, Moa, and **Koreke** (New Zealand quail), threatening historic cultural practices and the beliefs associated with them.

Other children of Tāne Mataahi include **te aitanga pepeke** (the insect world) which is made up of creatures who share certain features such as "four or more legs, sit in a crouching position, and some can leap or jump. Mosquitoes, butterflies and moths, spiders and sandflies belong to this group" (Haami 2010b:126). These creatures were involved in battles among Atua including Tāne and Tangaroa, and continue to be important in Māori culture and Aotearoa's

biodiversity. Haami provides an account of Ngātiwai tūpuna, Manaia, bringing sandflies and mosquitos to Aotearoa from Hawaiki:

> In one tradition, an ancestor named Manaia brought the **Namu** (sandfly) and **Waeroa** (mosquito)… to New Zealand on his canoe. He did this as an act of revenge against some of the tribes who had not invited him to join in their **hākari** (feasts). He released them in the Bay of Islands, in the north, and from there they are said to have spread far and wide." (Haami 2010:129 [Original translation]).

4.3.2 Te Ao o Tangaroa // The Realm of Tangaroa

Tangaroa is the god of the sea and father of **ika** (fish) and taniwha. This realm also includes sea mammals such as whales, seals and dolphins (all commonly associated with being descendants of Te Hāpuku (Haami 2010a). The whakapapa of many ika can be traced back to Tangaroa. Through his son Punga there is a whakapapa line to the species of ika, shark, fish, whale, and taniwha in Aotearoa. Taniwha, whose ariā often take the form of a shark, ray or certain fish in the ocean, and lizards, eels, and **rākau tipua** (enchanted logs) for inland waterways could be considered the original kaitiaki, as they are the children of the Atua, brought to Te Ao Mārama to protect the realms of their progenitors. For Māori, fish and shellfish are essential in our diet. Popular species harvested today include Kina, **Pāua** (abalone), Kuku, Kahawai and Hoki. The Toheroa, however, are now a protected species after extensive recreational use and commercial sale during the mid-1900s decimated numbers. They now are strictly controlled and permits for harvesting are restricted to Māori under the direction of appointed kaitiaki (Meredith 2010). Fish and shellfish are embedded deep within Māori culture, being harvested for gatherings such as tangihanga and hui, as well as being staples in the Māori diet. Fish bones and other parts of marine organisms were also used for many purposes; taonga and jewellery were carved from whale bones, weapons such as **māripi** (shark tooth knife) were carved from shark teeth and fishhooks were made from wood, shell or bone often decorated with Pāua shells to attract fish with its iridescent shell (Te Papa Tongarewa, n.d.). Edwards

notes that a pā named Kōpipi in Ngunguru (nearby Matapōuri), was named after the endemic bivalve mollusc, **Pipi**: "the Pipi shells [were] used as a defence mechanism to protect the pā, it was a highly sought after kai because of the abundance of food, of pipi, and now the pipi has been obliterated" (personal communication 2019b). The local Māori utilised the abundance of Pipi by covering the ground around the pā in shells, so that if intruders tried to infiltrate in the night, the sound of the shells crunching and the dark figures against the white shells in the moonlight provided an advantage to Kōpipi pā (Edwards, personal communication 2019b).

4.3.3 Te Aitanga ā Punga // Punga's Family

Punga, a son of Tangaroa, is the god of all things ugly and repulsive, and Te Whānau a Punga encompasses a wide range of these creatures from the land and sea. These descendants include Tuatara, lizards, as well as sharks, both sea and freshwater fish, eels, lizards, stingrays and octopus. Tuatara are endemic to Aotearoa, and have been revered historically by Māori (Haami 2010). Lizards, however, were seen to represent Whiro, the god of evil, darkness and death, but in some cases, Taonui (2010) explains, particular stones would be imbued with mauri and buried within the forest, then a tohunga would release a **Moko Kākāriki** (common green gecko) to be kaitiaki over the mauri.

4.3.4 E Pākikini ana i ā Mātou Whānaunga // Our Relatives are Suffering

The biggest threat to our nonhuman relatives is human exploitation as illustrated by the term capitolocene. Capitalist economies significantly impact the habitat, species numbers and wellbeing of non-human species, and the consequences of this are cumulative. According to Environment Aotearoa (2019) at least 75 plant and animal species have become extinct. The number of extinctions include 59 bird species, three frog, two reptile, four insect and seven plant species (Leschen et al. 2012;

Newman et al. 2013; Hitchmough et al. 2015; Robertson et al. 2017; de Lange et al. 2018). Our marine species of Tangaroa are also suffering: “90 percent of seabirds, 80 percent of shorebirds, and 26 percent of [Indigenous] marine mammals are either threatened with or at risk of extinction” (Environment Aotearoa 2019:17). Baker et al. (2016), for example, suggest that only 63 individual Māui dolphin remain, a species endemic to Aotearoa.

Introduced species also threaten Indigenous species through habitat destruction, competition for survival, predation and diseases (Environment Aotearoa 2019); and according to Kelly & Sullivan (2010), Aotearoa has one of the highest invasive species counts in the world, with 159 species in Aotearoa’s marine biota documented as adventive and invasive (Cranfield, et al. 1998). Exotic marine species are also affecting the Matapōuri-Tutukākā coast’s marine biota, Edwards observes that the Asian paddle crab is one species damaging the local marine ecosystems (personal communication 2019b). The Asian paddle crab, for example, was detected in New Zealand in 2000 (Marine Biosecurity NZ n.d), and is considered an aggressive species which potentially carries disastrous diseases for crabs, prawns and lobsters.

The dwindling numbers of our Indigenous species is of serious concern for Māori. The number of Kōura is declining due to land intensification and habitat modification, as well as predation from exotic species (Department of Conservation n.d). The white crayfish is a manifestation of Tuatini, a kaitiaki that is unique to Te Whānau a Rangiwhakaahu and Matapōuri, but with a declining population it is hard to know whether Tuatini will continue to appear, putting Mātauranga Taiao at further threat. The increased risk of extinction of our taonga species not only affects our ecosystem, but also the Māori tikanga, stories and experiences of observing and interacting with our nonhuman relatives is also at risk of being lost. With the extinction of species such as the Moa, Huia, and Kawekaweau the world’s largest gecko, their stories, gifts and environmental knowledge associated with them is also threatened.

4.4 Te Unaunahi Tuawhā // The Human Element

4.4.1 Ko Au te Taiao, ko te Taiao ko Au

> *The children of Papa and Rangi… were all male gods, instinct with the ira Atua (divine element), and were incapable of producing the ira tangata (human element) which could only emerge from the uha (female element) … On arrival at Kurawaka [Tāne] fashioned an image of earth, to be the first woman, Hine-ahu-one, assisted by his brother gods… Tāne the fertiliser then lay on the new formed body and put the breath of life into its mouth, nostrils and ears. The eyelids opened, the eyes lit up, breath came from the nostrils, and the living body sneezed.* (Reed 2011:17 [Original translation]).

The birth-right of being kaitiaki is embedded in Māori whakapapa, from the Atua, the whenua, and from both our human and nonhuman ancestors. Our physical body comes from Papatūānuku, our wisdom comes from Ranginui, our spirit comes from Tangaroa, and our life was breathed into us from Tāne. Even our personality traits and behaviours can be thought to have come from our flora and fauna whānau, for example, as noted a loud person would be compared to a Kākā, or a fidgety person would be compared to the tail of the Tīwaiwaka because of their restless behaviour (Keane-Tuala 2015). It is my contention that the role of being kaitiaki is the responsibility of all beings within Te Ao Mārama, however in the context of people, Māori hold both the genealogical responsibility and sovereignty as tangata whenua to be an authoritative voice when it comes to environmental protection in Aotearoa.

4.4.2 Ko tō Mātou Hauora // Our Wellbeing

Environmental health and Māori wellbeing are intertwined, and have a symbiotic relationship, whereby if one is hurting the other one is also hurting. In the Whare Tapa Whā wellbeing model, Durie (1994) compares health to the four walls of a house, which represents the different dimensions, "**taha tīnana** (the physical side,

the body), **taha wairua** (the spiritual), **taha hinengaro** (the mental – thoughts and feelings), and **taha whānau** (the family)" (Harmsworth and Awatere 2013:278). Durie (1994) explains that taha wairua is both an integral part of Māori which gives us the capacity to understand our relationship with the environment. Taha wairua includes:

> land, lakes, mountains, reefs all have spiritual significance quite apart from economic and agricultural considerations… [and] a lack of access to tribal lands or territories is regarded by [kaumātua] as a sure sign of poor health since the natural environment is considered integral identity and fundamental to a sense of well-being" (Durie 1994:71) .

The Whare Tapa Whā model offers a model for understanding the relationship between environmental health and Māori wellbeing. In terms of taha tinana, according to the Ministry of Health (2018), in 2010-12 the mortality rates of cardiovascular diseases and cancer, as well as the prevalence of diabetes, was twice as high among Māori than non-Māori. In the taha hinengaro, according to 'Ngā mana hauora tūtohu':

> Māori suicide rates were near twice as high as those of non-Māori in 2010-12. Māori overall were significantly more likely… to be hospitalised for intentional self-harm in 2012-14… Māori adults are 1.5 times more likely to report a high or very high probability of having an anxiety or depressive disorder (Ministry of Health, 2 August 2018).

Forty-one people committed suicide in Te Tai Tokerau in 2017/18 (Northern Advocate 2018). Although mental wellbeing is an ongoing issue in the general population, it is our tāne (men) who are struggling most. In 2016 the suicide rate of Māori men rose to 32 per 100,000 (Eastham-Farrelly 2019). In 2013-14 Māori men were twice as likely as non-Māori men to report a high or very high probability for anxiety and depressive disorders (Ministry of Health, 2018). More recent data indicates that the rate of Māori using mental health services is on the rise (Community & Public Health 2020).

Concerning taha whānau, family wellbeing is impacted by mental and physical illnesses, environmental factors, and socio-economic conditions. Exposure to domestic violence contributes to mental illness like depression, anxiety and suicidal behaviours (Fergusson, et al. 2005), again, heavily affecting our taha hinengaro. According to Te Puni Kōkiri (2017), Māori are twice as likely to be victims of intimate partner violence, half of the New Zealand prison population is Māori, 61 percent of children in state-care are Māori, and 26 per 100,000 children are hospitalised due to assault, neglect and maltreatment. While there are no statistics on domestic violence in the Matapōuri-Tutukākā area, according to the local regional newspaper, the Northern Advocate (2015), Northland police attended 5255 incidents of domestic violence in 2015. Durie (1999) explains that our taha wairua:

> … Is linked more specifically to the external world and to a spiritual element that connects human wellness with cosmic, terrestrial and water environments. Good health is difficult to achieve if there is environmental pollution; or contaminated water supplies, or smog which blocks out the sun's rays, or a night sky distorted by neon lighting, or earth which is hidden by concrete slabs, or the jangle of steel which obliterates the sound of the birds… (Durie 1999:4).

It is evident that as the environment continues to degrade as a result of capitalism, intensive agriculture and urban expansion, so does the wellbeing and mauri of Māori, our Atua and their descendants. Marsden and Henare (1999) suggest that capitalism emphasises a disconnect between people and the environment. Conversely, Māori assert their kaitiakitanga is embedded in 'environmental whanaungatanga' (Roberts et al. 1995). In prioritising Māori environmental knowledge within a state legal system and conservation, it subsequently grants Māori the ability to practice their kaitiakitanga – through implementing appropriate local kawa and tikanga at the smaller social levels i.e. whānau, hapū, iwi, freely – but also gives recognition to the Indigenous flora and fauna of Aotearoa New Zealand, who have occupied this land mass prior to the arrival of early Māori. A

transformative approach that recognises humans, plants and animals as all being necessary to the survival of the ecosystems in which we live is imminent, however, this must be developed through breaking down sociocultural inequities, anthropocentric interests and exhaustive utilitarian capitalist modes of production.

To be a kaitiaki is to be a guardian, a role that has been instilled in us, our nonhuman whānaunga, and the natural features of Te Ao Marama. To accept the assertion of our kaitiakitanga as a form of rangatiratanga, also acknowledges Māori whakapapa to, knowledge of, and relationship with Te Taiao as necessary grounds to heal us and the environment. This is also to acknowledge the role our nonhuman relatives play as kaitiaki, and to recognise that the spiritual communication between tangata and Taiao is reciprocal and necessary to read both the causes and solutions of Aotearoa's environmental degrade. It is not enough for Māori voice to be heard, but for Māori environmental practices and tikanga to be normalised. Legislating such customs, while providing *legal protection*, comes with complications in translations and meanings, and has a tendency to decentre local Māori as an authoritative body in conservation. The importance of our values like whakapapa and mauri must be understood from a basic level of cultural competency in conservation, so that customs such as rāhui may be legislated in a way that empowers Māori rangatiratanga, and protects our right and the rights of our whānaunga as kaitiaki.

CHAPTER FIVE

5.0 DISCUSSION

This thesis posed three objectives for this research. The first objective was to explore the relationship between New Zealand Māori and Te Taiao, the natural environment. The links presented through cosmological narrative in Chapters Three and Four indicate that the foundation of Māori interconnectedness with the environment is embedded in whakapapa to ngā Atua and our Indigenous flora and fauna. The reciprocal exchange between Māori and Te Taiao is carried out through various means of protection and implementation of rāhui, karakia, ritual and respect. The concepts of mauri and mana also play a significant role in maintaining these relations with the natural environment, as this is where the spiritual reciprocity is focussed. As kaitiaki, we invest our mana into restoring the mauri of a resource, those within the environment in turn invest their mana into providing sustenance and life for humanity. Māori are therefore inseparable from the environment, and as suggested in Chapter Four, environmental decline may have adverse health effects for Māori. Māori are more likely to suffer physical, mental and whānau ill-health than non-Māori. Given the current environmental crisis, our spiritual health – and consequently our overall mauri – is depleting too.

The second objective in this thesis is concerned with how kaitiakitanga is asserted in contemporary Aotearoa New Zealand. It is my contention that 'kaitiakitanga' denotes Māori rights to assert their status as kaitiaki, and to instil tikanga-based methods of environmental protection and care, rather than describing vague behaviours of 'guardianship' and 'conservation'. Cultural practices such as rāhui are imminent in ensuring that the taonga of Aotearoa is maintained healthy and full of mauri. The responsibility of all kaitiaki is to protect each other, because in Te Ao Māori we are all related, connected and descendants of our primeval parents Ranginui and Papatūānuku. Te Whānau a Rangiwhakaahu asserted their kaitiakitanga through establishing Te Rāhui o Rangitapu, in the absence of legal

support. They officiated this rāhui with a pou rāhui, pertaining to their local tikanga and kawa, rather than relying on external systems. In the context of tourism, agriculture and housing development in Matapōuri having risen, delicate ecosystems and significant wāhi tapu are losing their mauri. Māori rely on Te Taiao for sustenance, livelihood, and spiritual fostering, and the loss of mauri in our environment is keenly felt. Through upholding the importance of kaitiakitanga and the obligations of kaitiaki, Māori maintain "the mana they receive from the land by continuing to speak and act on its behalf" (Johnson 2013:135).

I argue that the challenges posed in contemporary assertions of kaitiakitanga are cognizant with the systematic oppression of Māori and the environment. A major challenge faced by iwi and hapū is Aotearoa New Zealand's current legal system, a system that incorporates Māori concepts in legislation, but seldom encapsulates the depth and multiple ontologies of these concepts. This makes it difficult to legislate for rāhui on the basis of spiritual preservation, as the western legal system rarely considers – let alone encapsulates – Te Ao Wairua and issues of spirituality. As Smith (1991) notes, there is great difficulty in translating Māori concepts to fit within the frame of the British Common law system. An issue with the legal conception of kaitiakitanga in Acts such as the RMA 1991 and Fisheries Act 2006, is that it is extremely anthropocentric. As discussed previously, two natural features in Aotearoa have been placed under legal personhood, Te Awa Tupua and Te Urewera. These legislations acknowledge these rivers as legal persons, as well as the importance of the ecosystems within them, and that local Māori – in the case of disputes and discussion – serve as kaitiaki and a voice to ensure that the mauri of these Awa are prioritised. Salmond argues, "[kaitiakitanga] once exercised by nonhuman taniwha such as particular sharks and stingrays… Today, a more anthropocentric version is common, with people regarding themselves as kaitiaki of these places" (Salmond 2017:375). I contest that our nonhuman relations and tohu presented from the natural world are also kaitiaki, as they are Indigenous to Aotearoa, they hold an obligation to protect and guide us, as we do them.

Another challenge pertains to the multicultural nature of contemporary Aotearoa New Zealand, and the role of non-Māori and their obligation to protect the environment. While it has been asserted that non-Māori are not able to be kaitiaki on the basis that they are not mana whenua or mana Atua, I argue that Pākehā and other non-Māori may display a *sense* of kaitiakitanga, under the guidance and authority of local iwi and hapū. This type of kaitiakitanga was exemplified by non-Māori conservation groups in Matapōuri actively engaging and consulting Te Whānau a Rangiwhakaahu and Ngātiwai concerning the appropriate means to approach conservation along the coastline. This conflicts with notions of mainstream environmentalism which suggest that humans are a foreign element in nature, and displaces human livelihoods and interests. The local conservation non-hapū-based groups, Matapōuri Kaitiaki Project and Ocean Spirit, promote the survival of Indigenous flora and fauna for the delicate coastal ecosystem, and recognise the importance of Māori environmental knowledge and tikanga in protecting these taonga. Under the guidance of Te Whānau a Rangiwhakaahu, the parties involved continue to work collectively towards protecting the local environment for the sake of the ecosystem and ensure the preservation of wāhi tapu and taonga is upheld.

The final objective of this research was to highlight the parallels between environmental degradation and Indigenous oppression, and conversely, the link between kaitiakitanga and rangatiratanga as a means of empowering Māori. Throughout this thesis I alluded to the fact that Māori and the environment are inseparable, and that an assertion of kaitiakitanga lies not just in environmental protection, but also in our right to autonomy in Aotearoa New Zealand. As discussed in Chapter Four, the dredging of coastal environments, pollution of our waters, agriculture intensification and increased erosion are some of the environmental damages, having significant cultural effects for coastal Māori communities. Environmental decline has become an intergenerational problem that relates to devastating statistics on Māori health and wellbeing. It also references an extractive economy wherein humans and nature are separate. I argue, that an ecocentric

perspective is necessary to recognising the importance of ecosystems, the natural world and humans. Therefore, I claim that the Crown's inability to enforce their Treaty obligations by allowing taonga species – such as the Kōura, Māui dolphin and kaimoana for Te Whānau a Rangiwhakaahu – to plummet, is evidence of the continuance of Indigenous environmental oppression in contemporary Aotearoa New Zealand. For Māori to (rightfully) practice Mātauranga Taiao and tikanga-based methods of environmental protection, there needs to be a meaningful recognition of the spiritual and genealogical elements of Māori environmental knowledge by the Crown. Non-Māori should be encouraged to understand the degradation of the environment as synonymous with Māori oppression.

The ability to protect the environment is encoded into the genealogies, worldviews, practices, customs and beliefs of Indigenous Peoples. The knowledge which has been passed down through generations is maintained through communal relations, values, and adaptation of historic practices to today's society. The entire earth, human and nonhuman, landscape and seascape, are dependent on working coherently with each other to live and thrive. The call for environmental justice that has risen recently, is particularly poignant for Indigenous Peoples who have a long history of activism related to desecrating the sacred.

CONCLUSION

Many contemporary understandings of kaitiakitanga are detached from their Te Ao Māori foundations. The belief that the role of kaitiaki is instilled in only tangata whenua or just people is the result of colonial narratives which have categorized Indigenous ontologies in narrow and barely sufficient translations. The belief that only humans are capable of being guardians or pursuing conservation highlights the anthropocentric undertones of Indigenous environmental oppression embedded in notions of Other. Kaitiaki are us, the animals, birds, insects, mountains, rivers, oceans, taniwha, our ancestors and our Atua. It is embedded in our being and identity as Māori. Kaitiakitanga, therefore, should be understood as *the act of being a guardian* and a form of rangatiratanga. Having an understanding of foundational Māori tikanga and environmental knowledge provides grounds for fostering healthy communities and ecosystems. In recognising Māori as an authoritative foundation for implementing kaitiakitanga, it not only asserts Māori rangatiratanga, but recognises the autonomy and agency of Te Taiao and nonhumans.

GLOSSARY

Āhuatanga – likeness; attributes of

Aitua – fate

Ariā – manifestation

Āwhina – support

Hākari – feast

Hapū – sub tribe; extended family

He Whakapūtanga – Declaration of Independence

Hinemoana – Ocean Maid

Ika (fish)

Iwi – tribe

Kāhu – sea hawk

Kāinga – home

Kaitiaki – guardian

Kaitiakitanga – guardianship; stewardship

Kākā – Native NZ parrot

Karanga Weka – Weka caller

Kaumātua – elders

Kāwanatanga – governorship

Kete – baskets

Kete-aronui – basket of pursuit

Kete-tuatea – basket of light

Kete-tuauri – basket of darkness

Kina – sea urchin

Koha – gift

Koreke – New Zealand quail

Korowai – feather cloak

Kōura – crayfish

Kupu – words

Kurī – dog

Māhaki – humility

Mahi – work

Mana – power; respect

Manaaki – hospitality; care

Manawahine – woman of strengh

Manu – birds

Māripi – shark tooth knife

Mātaitai – customary seafood gathering site

Mātauranga Māori – Māori knowledge

Mātauranga Taiao – Māori environmental knowledge

Mauri – life force

Mimi – urine

Moana – ocean

Moko Kākāriki – common green gecko

Ngā Atua – the Māori gods

Ngā Rangi Tūhāhā – the Twelve Heavens

Ngā Unaunahi e Whā – the Four Fish Scales

Ngāhere – forest

Ora – life

Pā – fortification

Pakanga – battle

Papatūānuku – Earth Mother

Pāua – abalone

Pipi – endemic NZ bivalve mollusc

Pou iti – small posts

Puna – pool

Punga – god of ugly creatures

Pūrākau – stories

Pūtorino – flute

Rāhui/rāhui tapu – ritual prohibition

Rākau Māori – Indigenous trees

Rākau tipua – enchanted log

Rākaunui – full moon

Rangahau – subject

Rangatira – chief; leader

Rangatiratanga – sovereignty; autonomy

Ranginui – Sky Father

Rāranga – weaving

Rohe moana – coastal area

Rongoā – Natural Māori medicine

Taha hinengaro – mental health

Taha tīnana – physical health

Taha wairua – spiritual health

Taha whānau – family/community health

Tāne – man

Tāne (-Mahuta; -Matāhi) – god of the forest

Tangaroa – god of the sea

Tāngata – people

Tangata tiaki – human guardian

Tangata whenua – people of the land

Tangihanga – funeral

Taonga – treasures

Taonga puoro – musical instruments

Tauparapara – chant

Tawhirimātea – god of the winds

Te aitanga pepeke – the insect world

Te Ao Māori – Māori worldview

Te Ao Marama – the World of Light

Te Ao Wairua – the Spirit world

Te Kohanga – the nest

Te Kore – the Void

Te Moananui ā Kiwa – Pacific Ocean

Te Pō – the Night

Te Tai Tokerau – Northland

Te Taiao – the Natural world

Te Titiri o Waitangi – the Treaty of Waitangi

Tiaki – care

Tiaki Taiao – environmental care

Tikanga – customs

Tiu – sparrow

Tīwakawaka – fantail

Tohu – sign; symbol

Tuarua – second

Tuatahi – first

Tuatoru – third

Tuawhā – fourth

Tūpuna – ancestors

Tūrangawaewae – standing place

Uri – descendants

Utu – revenge

Waeroa – mosquito

Wāhi – area

Wāhi tapu – sacred area

Wahine – woman

Wai Kino – water with large rocks or snags potentially harmful to life

Wai Māori – water that is mundane; for everyday use

Wai Mate – water which has lost mauri; damaged and/or polluted beyond rejuvenation

Wai Tai – dangerous ocean waters

Waiata – song

Waiora – water spiritually used in ceremonies

Wairua – spirit

Waka huia – carved wooden chest (for huia feathers)

Whakapapa – genealogy

Whakataukī – proverb

Whānau – family

Whenua – land; placenta

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