









This report was prepared by **Anne-Marie Jackson**, **Ngahuia Mita** and **Hauiti Hakopa** from the research group Te Koronga, based at the University of Otago, School of Physical Education, Sport and Exercise Sciences for Ko ngā moana whakauka — Sustainable Seas National Science Challenge project *3.1.1 Hui-te-ana-nui: Understanding kaitiakitanga in our marine environment*.

For more information on this project visit: www.sustainableseaschallenge.co.nz/hui-te-ana-nui-understanding-kaitiakitanga-in-our-marine-environment

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The Te Koronga logo was designed by Mr Keanu Townsend (Ngāti Whātua, Ngāti Kahu o Whangaroa, Ngāpuhi, Ngāti Wai, Te Roroa). Keanu describes the logo in the following way:

This design embodies kaitiakitanga, Matariki, knowledge of the sky, astronomy and navigation. The mountaintops signify striving for success and reaching the summit, which also represent the three baskets of knowledge. The manaia represents guardianship of the elements for next generations. The fish scales represent the ocean. The harakeke represents the land and the unity of different iwi. Pūhoro represent the flow of life and connects all of the elements together (personal communication, Keanu Townsend, October 2016).



Te Koronga

Ko ngā moana whakauka — Sustainable Seas National Science Challenge is committed to the appropriate protection, management and use of mātauranga Māori within its research, outputs and outcomes. This is expressed through the respect and integrity of our researchers, both Māori and non-Māori, and in our approach to ethics and the management of intellectual property. Where mātauranga Māori is sourced from historical repositories, we recognise the obligation to take all reasonable steps to ensure its protection and safeguard for future generations. We also acknowledge the findings of the Waitangi Tribunal in relation to Ko Aotearoa tēnei: A report into claims concerning New Zealand law and policy affecting Māori culture and identity and are committed to working with Māori researchers and communities to refine our approach.

About Ko ngā moana whakauka – Sustainable Seas National Science Challenge

Our vision is for Aotearoa New Zealand to have healthy marine ecosystems that provide value for all New Zealanders. We have 60+ research projects that bring together around 250 scientists, social scientists, economists, and experts in mātauranga Māori and policy from across Aotearoa New Zealand. We are one of 11 National Science Challenges, funded by Ministry of Business, Innovation & Employment.



Cover image: Te Rā Tauaki, Mizzen sail of Tairāwhiti waka hourua, representing the Mangopare and 7 pointed navigational stars. © Tairāwhiti Waka Hourua, 2020. Photo provided with permission from Tairāwhiti Waka Hourua via foundational Tairāwhiti crew member and author of this research Ngahuia Mita.

Abstract

Mātauranga (Māori knowledge) is a complex knowledge system comprised of intergenerational beliefs, values and practices, that comprises of what is known, and how it is known, that can be utilised to sustainably manage the marine environment. The objectives of this research were to: (1) analyse mātauranga associated with the marine environment through archival research and examination of key texts and; (2) undertake a desktop analysis of literature, reports, and frameworks relating to Māori perspectives of the marine environment.

To carry out this work, we employed Kaupapa Māori Theory and Critical Discourse Analysis. We specifically used the Kaupapa Māori Theory principles of tino rangatiranga (the self-determination principle) and taonga tuku iho (the principle of cultural aspirations). Fairclough's (2005a) objects of research was used to operationalise this research. The different objects of research call for a variety of methods in terms of data selection, collection and analysis. As such, for Objective 1 we primarily utilised archival research methods. We sourced, examined and thematically analysed karakia (incantations), moteatea (chants), pēpeha (tribal sayings), whakataukī (proverbs), and pūrākau (stories) regarding the marine environment in the Hocken and Alexander Turnbull libraries, sources within the Journals of the Polynesian Society and Ngā Moteatea (collected and edited by Tā Apirana Ngata and Pei Te Hurinui Jones). In Objective 2 we examined current Māori beliefs, practices, ecology and rituals pertaining to the marine environment through an analysis of literature, reports and frameworks relating to mātauranga and kaitiakitanga, which builds upon the following work (Hepburn, Jackson, Vanderburg, Kainamu, & Flack, 2010; Jackson, 2008b, 2010, 2011, 2013a, 2013b; Jackson, Hepburn, & East Otago Taiāpure Management Committee, 2010). We focused the analyses on Waitangi Tribunal texts, literature, reports and frameworks.

The overarching kaupapa (core main finding) of this research is the hononga tāngaengae (unbroken connection) between Māori and the marine environment from time immemorial to today. The main findings of Objective 1 were mātauranga pertaining to: tikanga (customs and protocols), karakia (incantations), whakapapa (genealogies), mōteatea (chants), pūrākau (stories and narratives), maramataka (lunar calendar and heavenly bodies), kupu (relevant words), waka voyaging traditions, kaitiaki and kaitiakitanga (guardianship), pēpeha (tribal sayings) and whakataukī (proverbs). These aspects of mātauranga, derived from archival material, pertaining to the marine environment are relevant for ecosystems based management (EBM).

The main findings of Objective 2 were a separation of the metaphysical and physical elements of kaitiakitanga. The metaphysical elements of kaitiakitanga are: discourses of creation narratives of the marine environment; kaitiaki and non-human forms; kaitiakitanga, whakapapa, whanaungatanga and kinship; kaitiakitanga, spiritual beliefs and values; kaitiakitanga and taonga; and kaitiakitanga and rangatiratanga. Furthermore, we analysed the practices of kaitiakitanga which are: kaitiakitanga, mana and rangatiratanga; kaitiaki as humans; kaitiakitanga, ownership, control and user-rights; kaitiakitanga, obligation, custodianship, guardianship, trustee and stewardship; kaitiakitanga, sustainable management, conservation and protection; kaitiakitanga and tikanga; kaitiakitanga and mātauranga: an in depth knowledge of resources; kaitiakitanga and traditional methods of management.

Findings from this research will contribute to the overarching objective of the National Science Challenge Sustainable Seas Ko Ngā Moana Whakauka, which is the "utilisation of our marine resources within environmental and biological constraints".

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Tangaroa, Tangaroa, whakamau, whakamau tai

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Hōhunu ana te wai

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Ko te mihi tuatahi ki a Tangaroa, me ngā kāhui atua, kāhui tipua, kāhui tāwhito, kāhui

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Nā mātou,

Dr Anne-Marie Jackson (Ngāti Whātua)

Ms Ngahuia Mita (Te Aitanga-ā-Māhaki)

Dr Hauiti Hakopa (Ngāti Tūwharetoa)

V

Ko wai ngā Kairangahau

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University of Otago, School of Physical Education, Sport and Exercise Sciences, I co-lead two research groups, and supervise a number of budding emergent researchers and scientists. The first research group is Te Tiaki Mahinga Kai (http://www.mahingakai.org.nz/), which is a collective of researchers, community members and customary fisheries managers who are interested in managing the coastal marine environment. In this group, my focus is primarily on indigenous knowledge and the depth of our understandings of the marine environment and how this complements Western science. The second research group is Te Koronga (https://www.facebook.com/tekoronga/) which is a programme of Māori research excellence and we aim to understand the depths of Māori knowledge, interface work (i.e. indigenous and Western knowledge systems) and also non-Māori forms of knowledge – but that Māori have an interest in.

Ms Ngahuia Mita

Ko Maungahaumi me Te Rae o te papa ōku maunga

Ko Turanganui-a-Kiwa me Tikapa ōku moana

Ko Waipaoa, me Waihou ōku awa

Ko Horouta me Tohorā ōku waka

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Wāhanga 1

Introduction

Hui-te-ana-nui is the name of the whare (house)¹ of Tangaroa (god of the ocean) that he and his brother Tāne (god of the forest) built, modelled after Wharekura². All parts of the whare were carved and serve as the exemplar of modern carving. Hinematikotai is the kaitiaki (guardian) of the whare and is implicated in the story involving Rua-te-pupuke, grandson of Tangaroa, and his son Manuruhi, who Tangaroa captured for breaching a fishing protocol. Rua-te-pupuke went in search of his son Manuruhi and found him on the apai (front wall of the house) of Hui-te-ana-nui as a tekoteko (carved figure on the gable of a house). Rua-te-pupuke decided to burn the whare and recruited the assistance of Hine-matikotai. Her words "E moe, e moe, ko te pō roa o Hine-matikotai³" are referenced in verse three of the epic waiata tangi that Rangiuia of Te Aitanga-ā-Hauiti composed. This incident influenced the marine life and contributed to the beginning of whakairo (carving) lore at the whare wānanga (ancient school of learning) known as Te Rāwheoro that Hingangaroa established at Uawa.

Māori knowledge, beliefs and practices pertaining to the marine environment stretch from a modern context to before the beginning of time. The width and depth of these understandings and practices are framed within Māori worldview. Marsden (2003b) provides a useful description of worldview and outlines that

¹ We provide in text definitions for each Te Reo Māori (Māori language) word, the first time the word is used. We have primarily utilised the *Williams dictionary of the Maori language*, 7th Edition. We also give further definitions when the meaning of the word changes depending on the context. We have also deliberately chosen to not italicise Te Reo Māori words as this research is situated firmly within Kaupapa Māori which privileges Māori language, customs and knowledge.

² The house that Io dwelt within.

³ The guardian of Hui-te-ana-nui.

worldview is the central systemisation of conceptions of reality to which members of its culture assent and from which stems their value system. The worldview lies at the very heart of the culture, touching, interacting with and strongly influencing every aspect of the culture (p. 56).

The conceptions of reality that Marsden (2003b) refers to are creation narratives. There are multiple creation narratives relating to the marine environment, such as the one that begun this chapter. Tangaroa is a prominent figure within Māori narratives of the marine environment. In the North Island the predominant view shared by many iwi, including our own, is that Tangaroa was one of more than seventy children of the primeval parents Ranginui (Sky Father) and Papatūānuku (Earth Mother), who represent the sky and the land. Ranginui and Papatūānuku were locked in an eternal embrace (Ka'ai & Higgins, 2004). Tāne-mahuta (deity of man, forests and birds) separated the parents (Ka'ai & Higgins, 2004) and Tangaroa moved to reside in the realm of the ocean and was thenceforth known as the progenitor of fish and marine life. The whakapapa (genealogical table) of these gods and the respective domain each presides over is provided in *Figure 1*.

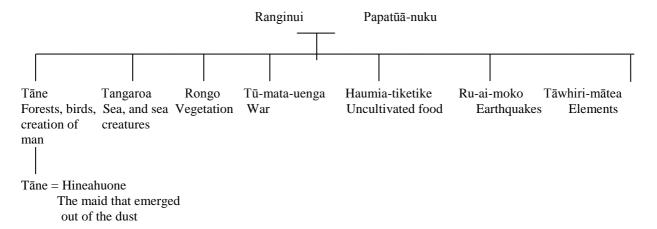


Figure 1. Whakapapa of Ranginui and Papatūānuku. Adapted from "God, man and universe: A Māori view" by M. Marsden, 2003a, in T. A. C. Royal (Ed.), *The woven universe: Selected writings of Rev. Māori Marsden*, pp. 2-23.

However further South in the Ngāi Tahu narrative, Takaroa⁴ was the first husband of Papatūānuku (Tiramōrehu, 1987). This is recorded in the oral traditions of Ngāi Tahu tohunga Matiaha Tiramōrehu (1987). Tiramōrehu (1987) explains that it was "te waiatatanga o ngā atua" or the "singing of the atua" that initiated creation. *Figure 2* illustrates Tiramōrehu's account of Ngāi Tahu creation whakapapa.

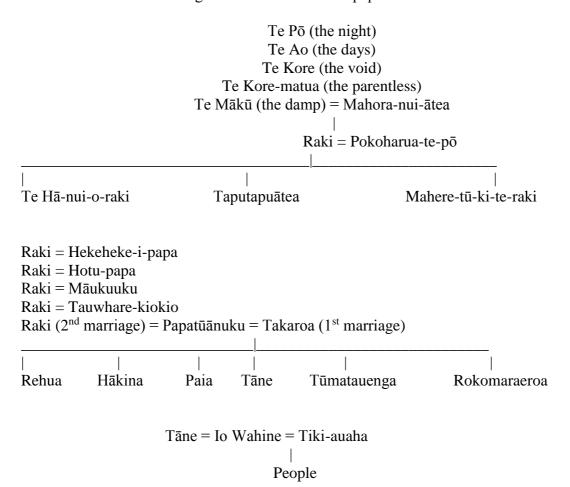


Figure 2. The Ngāi Tahu creation genealogy. Adapted from "Te Waiatatanga mai o te Atua. South Island traditions" by M. Tiramōrehu, 1987, in M. M. van Bellekom & R. Harlow (Eds.), *Te Waiatatanga mai o te Atua. South Island traditions recorded by Matiaha Tiramōrehu* and in "Te tīmatanga mai o ngā atua. Creation narratives" by M. P. J. Reilly, (2004), in T. M. Ka'ai, J. C. Moorfield, M. P. J. Reilly, & S. Mosley (Eds.), *Ki te whaiao. An introduction to Māori culture and society*, p. 7.

Māori creation and cosmogonic narratives encode beliefs and values and "form the central system on which their [Māori] holistic view of the universe is based" (Marsden,

 $^{^4\} Ng\bar{a}i$ Tahu dialect of k instead of ng (Takaroa instead of Tangaroa).

2003b, p. 56). Three fundamental values to this research are: whakapapa, whanaungatanga and kinship; mātauranga and; kaitiakitanga. There are complexities in defining key concepts in a Māori worldview which is succinctly expressed in the *Report of the Waitangi Tribunal* on the Motunui-Waitara claim

A remarkable feature of the English language is its facility to use words of precision so as to define arguments and delineate the differences that may exist. The Maori⁵ language is generally metaphorical and idiomatic. It is remarkable for the tendency to use words capable of more than one meaning in order to establish the areas of common ground, and for its use of words to avoid an emphasis on differences in order to achieve a degree of consensus or at least a continuing dialogue and debate (Waitangi Tribunal, 1983, p. 50).

As such, we will provide working definitions of these three values. Importantly, there are multiple descriptions that can be provided for each of these values, and the intention is to provide the lens through which we have positioned this research.

Working definitions of whakapapa, whanaungatanga and kinship

We have grouped the concepts of whakapapa, whanaungatanga and kinship together as these are frequently referred to throughout this report as well within the archival materials and Waitangi Tribunal reports. Whakapapa is fundamental in understanding origin and connection to the multiple elements of a Māori worldview, and is intimately related to whanaungatanga and kinship which in *Ko Aotearoa tēnei: A report into claims concerning New Zealand law and policy affecting Māori culture and identity* (2011b) is described as the organising principle of a Māori world.

The first concept we will examine is whakapapa. Whakapapa is defined in the Williams dictionary of the Maori language as

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⁵ We have left quotes in their original form including macron usage.

- 1. v.i. Lie flat.
- 2. Go slyly or stealthily.
- 3. v.t. Lay low, strike down.
- 4. Place in layers, lay upon another.
- 5. Recite in proper order genealogies, legends, etc.
- 6. n. Genealogical tables.
- 7. Bush felled for burning

Whakapapa is integral to a Māori worldview (Harmsworth & Awatere, 2013; Patterson, 2000; Roberts, 2013; Roberts, Norman, Minhinnick, Wihongi, & Kirkwood, 1995). Literally whakapapa refers to the layering of one thing upon another, such as genealogical links or cultural concepts (Ka'ai & Higgins, 2004). Roberts (2013) explains whakapapa as a philosophical construct that implies all things have an origin. This origin begins with the creation of the universe. George (2010) states whakapapa is the "inalienable link that binds us to the land and sea" (p. 242). Therefore, it is whakapapa that can be drawn upon to explain Māori connection to the ocean, specifically through a direct genealogical connection between humans and Tangaroa, the Māori deity of the ocean (as expressed in *Figure 1* and *Figure 2*).

While we focused primarily on the marine environment in this report there are interconnections and relationships beyond the scope of this project (such as between Tangaroa and Tāne, Tangaroa and Papatūānuku). The whakapapa in *Figure 1* shows (among other things) that all living things, whether humankind, plants or animals, share a common ancestry from the union of Ranginui and Papatūānuku, we acknowledge these relationships remain and that as humans we are junior siblings or descendants of the environment (Papatūānuku and her offspring) (Roberts et al., 1995).

A definition of whanaungatanga is not provided in the *Williams dictionary of the Maori language*. However whanaungatanga can be explored by examining the words that it is comprised of: whānau and whanaunga. Whānau and whanaunga are defined in the *Williams dictionary of the Maori language* in the following ways. **Whānau** means

- 1. v.i. Be born
- 2. Be in childbed
- 3. n. Offspring, family group.
- 4. Family
- 5. A familiar term of address to a number of people.

whakawhānau

v.i. Come to the birth.

whānaua, pass. Be produced, be brought forth.

Whānau, v.i.

- 1. Go
- 2. Lean, incline, bend down.

whanaunga, n. Relative, blood relation

The relationships between whakapapa and whanaungatanga are highlighted as "all the elements of the natural world, the sky father, mother earth and their offspring, the seas, sky, forests and birds, food crops, winds, rain and storms, volcanic activity, as well as man and wars, are descended from a common ancestor, the supreme god Io" (Matiu & Mutu, 2003, p. 167). The interconnections between whakapapa, whanaungatanga and kinship are described in *Ko Aotearoa tēnei: A report into claims concerning New Zealand law and policy affecting Māori culture and identity*

the defining principle is *whanaungatanga*, or kinship. In te ao Māori, all of the myriad elements of creation – the living and the dead, the animate and inanimate – are seen as

alive and inter-related. All are infused with mauri (that is, a living essence or spirit) and all are related through whakapapa. Thus, the sea is not an impersonal thing but the ancestor-god Tangaroa, and from him all fish and reptiles are descended...Every species, every place, every type of rock and stone, every person (living or dead), every god, and every other element of creation is united through this web of common descent, which has its origins in the primordial parents Ranginui (the sky) and Papatu-ā-nuku (the earth) (Waitangi Tribunal, 2011b, p. 23).

A Working Definition of Mātauranga

We provide a working definition of mātauranga and situate this definition within the broader international conversation of indigenous knowledge. The difficulty in the task of defining mātauranga is expressed by Royal (1998b) where he retells a conversation he had with the late Reverend Takiwairua Marsden. Royal begins

Let me explain. Mātauranga Māori [Māori knowledge] itself is not new: it has been created and maintained for centuries in this country. What is new is to see it in contrast to other disciplines of knowledge. Perhaps the best way to illustrate this is by telling you about a question I asked of Rev. Takiwairua Marsden of Te Tai Tokerau [Northland New Zealand]. His father was raised in a deeply Māori context having been a graduate of the whare wānanga [ancient schools of esoteric learning] and later became an Anglican minister under a deeply Māori rationale. I asked Taki that if I was to ask his father what Mātauranga Māori was, would he know? Taki replied by saying that he was sure his father wouldn't have a clue what mātauranga Māori was. Taki went further, 'To ask my father what mātauranga Māori is, would be like asking a fish what water is. It remains invisible to them' (Royal, 1998b, pp. 11-12).

We are hesitant to present a corporate view of mātauranga as this is certainly not what has emerged from analysis. A rich, detailed, intricate analysis and system of beliefs, ritual and

practice has emerged dependent on place. For the purposes of this research, we will provide a platform to arrange and understand the texts we examined rather than employing a static definition. As such, we will provide a working definition of mātauranga. The *Williams dictionary of the Maori language* states that **mātau** (v.t.) means

- 1. Know, be acquainted with.
- 2. Understand.
- 3. Feel certain of.

The Williams dictionary of the Maori language states that ranga (v.t.) means

- 1. Raise, cast up.
- 2. Pull up by the roots.
- 3. *Set in motion*.
- 4. n. Sandbank, fishing ground.
- 5. Frame or comb.
- 6. *Company* of persons.
- 7. Shoal of fish.

The Williams dictionary of the Maori language provides a second meaning for ranga (v.t.) as

- 1. *Perform* certain rites over a child of a chief.
- 2. Avenge a death.

raranga (v.t.) Weave, plat, mats, baskets, etc.

The Williams dictionary of the Maori language states a third meaning for ranga (v.i.)

as

1. Blow gently.

raranga, n. Direction.

There are complexities in the phrasing of mātauranga. For example, numerous authors have explored the meaning of mātauranga, Mātauranga Māori, mātauranga Māori, Mātauranga for example (Harmsworth, Warmenhoven, & Pohatu, 2004; Hudson, Roberts, Smith, Tiakiwai, & Hemi, 2010; 2003a; Royal, 1998b; L. T. Smith & Reid, 2000, p. 5; Waitangi Tribunal, 2011b; D. Williams, 2001). We use "mātauranga" to represent these various terms (rather than Mātauranga, mātauranga Māori for example). We highlight some of those meanings here, for example Mohi described mātauranga as the "knowledge, comprehension or understanding of everything visible or invisible that exists across the universe" (D. Williams, 2001, p. 15). Royal (1998b) builds upon Whatarangi Winiata's musings on mātauranga and contends that "Mātauranga Māori, or Māori knowledge, was and is created by Māori according to a paradigm known as Te Ao Mārama, to explain and understand the Māori experience of the world" (p. 80, italics in original). Marsden (2003a) explains that mātauranga "encapsulates a Māori world-view and involves observing, experiencing, studying and understanding the world from an indigenous cultural perspective" (p. 11). In the Ko Aotearoa tēnei: A report into claims concerning New Zealand law and policy affecting Māori culture and identity mātauranga "encompasses not only what is known but also how it is known – that is, the way of perceiving and understanding the world, and the values or systems of thought that underpin those perceptions" (Waitangi Tribunal, 2011b, p. 22). Furthermore mātauranga is Māori knowledge that has been passed down generations from ancestors, tohunga and kaumātua and is an essential part of Māori life (Harmsworth et al., 2004).

Knowledge, both traditional and contemporary is encapsulated by mātauranga and includes but is not limited to: Māori values, tikanga (knowledge of cultural practices); te reo Māori (Māori language); kaitiakitanga; whakataukī (proverbs); kōrero tāwhito and pakiwaitara (stories and legends). Alongside the rich repository of mātauranga that exists

within archival, oral and written histories and other materials there is a growing amount of contemporary examples of how mātauranga is incorporated, utilised and practised within marine management (Hepburn, Flack, Richards, & Wing, 2010; Hepburn, Jackson, et al., 2010; Jackson, 2008b, 2011; Jackson et al., 2010; McCarthy et al., 2013).

For the purposes of this report we contend that mātauranga viewed in the context of Māori worldview, and the organising principles of whakapapa, whanaungatanga and kinship relationships, is both what is known in the marine environment and how it is known. We are specifically interested in mātauranga in karakia (incantations), mōteatea (chants), pēpeha (tribal sayings), whakataukī (proverbs), and pūrākau (stories), which form the primary basis of Wāhanga 3: Objective 1.

International Context: Indigenous knowledge

In the international indigenous context mātauranga is a localised example of indigenous knowledge. We do not seek to represent the diverse range of experiences of indigenous peoples as, like mātauranga, the term indigenous knowledge is fraught (Agrawal, 2002; 2009). Rather our intention is to highlight mātauranga of kaitiakitanga in the marine environment as an example unique to Aotearoa, New Zealand. Berkes (2008) defined indigenous knowledge "as the local knowledge held by indigenous peoples or local knowledge unique to a given culture or society" (p. 9). There are overlaps between indigenous knowledge and the term traditional knowledge. Similarly to discussions on indigenous knowledge, "there is no single universally accepted definition of traditional knowledge" (Bonny & Berkes, 2008, p. 244). Bonny & Berkes (2008) do however offer the following definition "as generational knowledge composed of empirical observations, and with explanatory, practical, social and spiritual elements" (p. 9). To further complicate the phrases and terminology, we differentiate indigenous knowledge from local knowledge, and

local ecological knowledge (Johannes, Freeman, & Hamilton, 2000) which Berkes (2008) situates as non-traditional knowledge and refers to this as "recent knowledge" (p. 9).

Internationally, indigenous knowledge is situated alongside traditional ecological knowledge. Traditional ecological knowledge can be described as "a cumulative body of knowledge, practice and belief, evolving by adaptive processes and handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and their environment" (Berkes, 1999, p. 8, italics in original). Berkes (1999) points out that traditional ecological knowledge emerged from the combination of "ethno-science and human ecology" (Berkes, 1999, p. 37). These descriptions have similarities with kaitiakitanga (and this will be described in the next section) which could be described as a localised example of traditional ecological knowledge (Moller, Berkes, Lyver, & Kislalioglu, 2004); yet kaitiakitanga emerges distinctly from a Māori worldview perspective rather than from ethno-science or human ecology.

A Working Definition of Kaitiakitanga

Kaitiakitanga is a localised example of traditional ecological knowledge, and indeed ecosystems based management. However, we highlight that each has distinctly different worldviews and thus epistemological (ways of knowing) assumptions. The *Williams dictionary of the Maori language* states that **tiaki** (v.t.) means

- 1. Guard, keep.
- 2. Watch for, wait for.

The Williams dictionary of the Maori language states that **Kai** (iv) is a prefix to transitive verbs to form nouns denoting an agent.

NOTE – This prefix should, like the causative **whaka**, be regarded as forming one word with the verb to which it is attached.

There are multiple meanings for the word kaitiakitanga and depending on the context and user can mean different things. The word kaitiakitanga consists of three parts: tiaki (verb); kai (prefix) and tanga (suffix). Marsden (2003b) outlines that while most definitions for tiaki is 'to guard', tiaki also has a range of other meanings depending on the context that the term is used in, such as "to keep, to preserve, to conserve, to foster, to protect, to shelter, to keep watch over" (p. 67). By adding the prefix kai to the verb tiaki, this signifies "the agent of the act. A *kaitiaki* is a guardian, keeper, preserver, conservator, foster-parent, protector. The suffix *tanga*, when added to the noun, transforms the term to mean guardianship, preservation, conservation, fostering, protecting, sheltering" (Marsden, 2003b, p. 67, italics in original). The location of kaitiakitanga within Māori worldview and mātauranga are the primary concerns of this proposed research. We also acknowledge J. Williams' (2012) description that kaitiakitanga has two elements; a metaphysical and a practical, which we explore in depth in Wāhanga 4: Objective 2.

International Context: Sustainable Management

We further contextualise this research within sustainable management. Internationally there currently exists large-scale issues of environmental degradation; climate change and over-fishing (Worm et al., 2009) that are negatively impacting on the marine environment and marine resources. There has been a proliferation of new terms and concepts to sustainably manage the marine environment, such as: co-management (Carlsson & Berkes, 2005; Grafton, 2005; Lyver, 2005; Mikalsen & Jentoft, 2001; Moller et al., 2004; Nadasdy, 2003; Pomeroy & Berkes, 1997; Selfa & Endter-Wada, 2008); governance (Berkes, 2006a; Lemos & Agrawal); community-based conservation (Berkes, 2004; Berkes, 2006a, 2006b; Craig et al., 2000; Selfa & Endter-Wada, 2008); co-management and indigenous peoples (Berkes, 2006b; Berkes & Turner, 2006; Lyver, 2005; Moller et al., 2004); adaptive management (Berkes & Turner, 2006); traditional ecological knowledge (Berkes & Turner,

2006); adaptive management and traditional knowledge systems (Berkes, 2007, 2008) and; adaptive co-management (Berkes & Turner, 2006; Folke et al., 2004) for example. Perhaps of most relevance to this research is adaptive co-management.

Adaptive co-management is well suited to traditional ecological knowledge and arguably kaitiakitanga, indigenous knowledge and mātauranga due to the dynamic nature of the processes of traditional ecological knowledge. There are synergies with adaptive co-management and ecosystems based management. The focus of the *National Science Challenge Sustainable Seas Ko Ngā Moana Whakauka* is ecosystems based management. Thus, we now shift our attention to ecosystems based management.

Ecosystems Based Management

The National Science Challenge Sustainable Seas Ko Ngā Moana Whakauka was established on the fundamental approach of ecosystems based management (EBM) (Alder et al., 2010; Crowder & Norse, 2008; Folke et al., 2004; Worm et al., 2009). In the Sustainable Seas Ko ngā moana whakauka National Science Challenge Research and Business Plan there is a description of EBM and we have provided some highlights below

EBM is a strategy for the integrated management of land, water and living resources that recognises the full array of interactions, including human, within an ecosystem and promotes conservation and sustainable use in an equitable way (Sustainable Seas Science Leadership Team, 2015, p. 5).

The goal of EBM is to maintain an ecosystem in a healthy, productive and resilient condition so that it can provide the services and goods humans want and need, both now and in the future. It differs from many current strategies that manage single species' or sectors, by using an integrated approach that considers all of the activities that affect the marine environment (Sustainable Seas Science Leadership Team, 2015, p. 13).

Inherent in EBM are the key concepts of broad integration (e.g., of science, users, and decision making) and balance (e.g., among uses and between short- and long-term perspectives), and both apply along continuums. As resource management moves from the current state and along these continuums, changes are required in both the science and policy arenas. These changes will sometimes be challenging, but will lead to increasing benefits to society (Sustainable Seas Science Leadership Team, 2015, p. 13).

In the descriptions of the concepts provided in the previous section, there are similarities with the definition of EBM for example: a whole of system approach; the need to include multiple users; a dynamic and ever-changing process; management over multiple different scales and; the importance of working effectively with user groups, especially Māori as indigenous peoples. There are synergies between kaitiakitanga and EBM in the recognition of a whole of system approach (although kaitiakitanga includes specific reference to spiritual connections). However the aims of this research are not to conclusively explore the interconnections of the commonalties and differences between kaitiakitanga and EBM, but we are providing the contextual overlay of the interrelationships between many of the broad terms, concepts and ideas that this project canvasses within the context of the National Science Challenge.

National Science Challenge Sustainable Seas Ko Ngā Moana Whakauka

The National Science Challenge Sustainable Seas Ko Ngā Moana Whakauka is a 10 year programme of research with a primary objective to "enhance utilisation of our marine resources within environmental and biological constraints". The overall programme of research is depicted in Figure 3.



Figure 3. Programmes of Research in National Science Challenge Sustainable Seas Ko Ngā Moana Whakauka.

There are five programmes of research within the *National Science Challenge*Sustainable Seas Ko Ngā Moana Whakauka and this research report is within the Tangaroa Programme.

The Tangaroa programme explores the relationship between mātauranga Māori and EBM to establish pathways for supporting the maintenance of a healthy, productive and resilient marine estate. It is a Māori centred programme focussed on supporting Māori in their effective management and ownership of marine resources, while enabling their place-based knowledge, practices, values and obligations to flourish for future generations. It will also provide information and tools to support decision making related to the increased use of marine resources. This approach recognises that positively supporting Māori in the management of our marine resources,

contributes to the enhanced utilisation of those resources (Sustainable Seas Science Leadership Team, 2015, p. 39).

There are three themes in the Tangaroa programme: Theme 1: Kaitiakitanga in our marine environment; Theme 2: Kaitiakitanga and economic development and; Theme 3: Bridging the lore and law dynamic. This project is located within Theme 1: Kaitiakitanga in our marine environment. Theme 1 aims to "develop mechanisms that support the investigation, maintenance and development of mātauranga Māori based practices" (Sustainable Seas Science Leadership Team, 2015, p. 42). Furthermore, outcomes and outputs from Theme 1 "will provide a valuable foundation not just to themes 2 and 3 of the *Tangaroa* programme, but to all of the other programmes in the Challenge both for phase 1 and phase 2 research" (Sustainable Seas Science Leadership Team, 2015, p. 42). This Project is 3.1.1 Understanding kaitiakitanga in our marine environment and is entitled Hui-te-ananui: Understanding kaitiakitanga in our marine environment.

Objectives of this Research

This research has two objectives:

Objective 1. To analyse mātauranga associated with the marine environment through archival research and examination of key texts.

Objective 2. To undertake a desktop analysis of literature, reports and frameworks relating to Māori perspectives of the marine environment.

Limitations of this Research

Due to the volume of archival sources, mātauranga, Māori history and experiences relating to the marine environment we have made specific and deliberate choices in limiting this research (as will be described in Wāhanga 2: Methodology). We have excluded legislation as this is being undertaken in Dr Robert Joseph's Project 3.3.1 Tūhonohono:

Tikanga Māori me te Ture Pākehā ki Takutai Moana ("Tūhonohono"). Furthermore, we have excluded interviews with key informants as well due to the scope of this research.

Outputs

The outputs of this research include this report which is "a baseline dataset of accessible existing mātauranga Māori and kaitiakitanga information relating to the...marine environment" (Sustainable Seas Science Leadership Team, 2015, p. 44). This research provides a comprehensive understanding of mātauranga associated with the marine environment. This will allow for a strong platform of mātauranga to be linked into a deeper understanding of the connection to an ecosystems based management approach. Encoded within mātauranga are objectives, values, beliefs and tikanga that are premised on the sustainable "utilisation of our marine resources within environmental and biological constraints". The outcomes of the research will more clearly highlight the specifics of how mātauranga and associated practices can contribute to the overall National Science Challenge Sustainable Seas Ko Ngā Moana Whakauka objective. In principle, the objectives of this proposed research align with the National Science Challenge Sustainable Seas Ko Ngā Moana Whakauka objective.

International Context: Indigenous Sustainable Management for Future Generations

Fundamentally, this research is derived from a Kaupapa Māori approach, which is situated in the broader context of the rights to self-determination of indigenous peoples over their natural resources, and how self-determination is crucial to the maintenance of health and well-being (King, Smith, & Gracey, 2009; Reid & Robson, 2006; United Nations, 2008, 2009). The United Nations (2009) outlines that through the establishment of the United Nations Declaration on the Rights of Indigenous Peoples (United Nations, 2008) that indigenous peoples have the right to manage their natural resources in accordance with their own knowledge system. Bess (2001) situates Māori claims to regain self-determination of the

marine environment within the broader context of indigenous peoples' rights and outlines that over the past twenty years, indigenous peoples have improved their capacity to "gain recognition of their cultures and heritage, address the effects of having been economically dispossessed and disenfranchised from their traditions, languages and resources, and reclaim what they have lost" (p. 24). Furthermore, the right to self-determination of indigenous peoples is crucial to positive health and well-being (King et al., 2009; United Nations, 2009).

Structure of this Report

The report is structured in four wāhanga (sections): Wāhanga 1: Introduction has provided an entrée to the research examining the context and key concepts for this research within the broader aims of the *National Science Challenge Sustainable Seas Ko Ngā Moana Whakauka*. Wāhanga 2: Methodology explores the methodological and theoretical underpinnings of this research; namely Kaupapa Māori Theory and Critical Discourse Analysis. In Wāhanga 3: Objective 1, we present the main findings of Objective 1 through an analysis of mātauranga and kaitiakitanga within archival materials. Wāhanga 4: Objective 2 describes the examination of kaitiakitanga in the marine environment found in Waitangi Tribunal reports alongside literature. Wāhanga 5: Conclusions is the summary of findings and conclusion section.

Wāhanga 2:

Methodology

In this section, we examine the methodological assumptions that informed this research. We utilised the combination of Kaupapa Māori Theory and methodology and Critical Discourse Analysis (Jackson, 2015a). The section begins with a description of Kaupapa Māori including the two main principles of this research: tino rangatiranga (the self-determination principle) and; taonga tuku iho (the cultural aspirations principle). We position this research strongly within Kaupapa Māori, as this is research that has a Māori kaupapa, is Māori led and had an informal network of Māori advisors. The methods of Objective 1 and Objective 2 are outlined, including a description of the analytical approaches.

Kaupapa Māori

A Kaupapa Māori approach was utilised within this research. L.T. Smith and Reid (2000) outline that "there is no Kaupapa Māori 'recipe' and to attempt to construct one would be antithetical to the fundamentals of Kaupapa Māori" (p. 1). This research draws on a number of different sources of Kaupapa Māori for the methodology and methods (Bishop, 1998, 2008; Jackson, 2015a; Moewaka Barnes, 2000; G. H. Smith, 1997, 2003a, 2003b; L. T. Smith, 1999, 2000; L. T. Smith & Reid, 2000; S. Walker, Eketone, & Gibbs, 2006). We refer to both Kaupapa Māori as based upon worldview and the formal theory of Kaupapa Māori theory and methodology.

Elements of Kaupapa Māori Theory

The six elements for Kaupapa Māori theory are:

- 1. Tino rangatiratanga (the self-determination principle);
- 2. Taonga tuku iho (the cultural aspirations principle);
- 3. Ako Māori (the culturally preferred pedagogy principle);

- 4. Kia piki ake i nga raruraru o te kainga (the socio-economic mediation principle);
- 5. Whānau (the extended family structure principle);
- Kaupapa (the collective philosophy principle) (G. H. Smith, 2003b; L. T. Smith & Reid, 2000).

Tino rangatiratanga self-determination principle

This research draws heavily on the first element of Kaupapa Māori theory tino rangatiratanga (self-determination principle). The tino rangatiratanga principle is "that of Māori control over things Māori" or known as "by Māori for Māori" (L. T. Smith & Reid, 2000, p. 14) or as Durie (1998) states that "Māori seek control of service to Māori, for Māori" (p. 25). Similarly Bishop (1998) outlines that

self-determination...means the right to determine one's own destiny, to define what that destiny will be, and to define and pursue a means of attaining that destiny in *relation to others*, with this notion of relations being fundamental to Māori epistemologies (p. 441, italics in original).

Another important element of tino rangatiratanga (self-determination principle) is the "desire to critique and transform" (L. T. Smith & Reid, 2000, p. 15) and further that tino rangatiratanga can be utilised as a strategy for "resistance and struggle against the dominant hegemony" (p. 15). Rangatiratanga will be highlighted throughout this research. Kaitiakitanga is an expression of rangatiratanga. Furthermore, in the Te Tiriti o Waitangi context rangatiratanga has numerous definitions as highlighted in Table 1.

Table 1. Translations of Te Tiriti o Waitangi Ko te Tuarua by Sir Apirana Ngata, Sir Hugh Kawharu and Professor Margaret Mutu.

Te Reo Māori	Ngata (1963)	I. H. Kawharu (1989a)	Mutu (2010)
version			
"te tino rangatiratanga o ō rātou wenua ō rātou kāinga me ō rātou taonga katoa"	"the full possession of their lands, their homes and all their possessions" (A. Ngata, 1963, p. 7).	"the unqualified exercise of their chieftainship over their lands, villages and all their treasures" (I. H. Kawharu, 1989a, p. 321).	"their paramount and ultimate power and authority over their lands, their villages and all their treasured possessions" (Mutu, 2010, p. 25).

Within Table 1, definitions are also provided of taonga, which links specifically into the next Kaupapa Māori principle of taonga tuku iho (the cultural aspirations principle).

Taonga tuku iho the cultural aspirations principle

This research also utilises the principle of taonga tuku iho (cultural aspirations principle) (G. H. Smith, 2003b; L. T. Smith & Reid, 2000). Taonga tuku iho refers to those treasures (taonga) that have been passed down (tuku iho), including the cultural knowledge and practices associated with the marine environment. Māori have a strong relationship with the marine environment. This relationship is guaranteed in the Treaty of Waitangi ("their fisheries") and in te Tiriti o Waitangi (as taonga). However Māori relationships with the marine environment extend much further than 1840. Mātauranga and kaitiakitanga are both concepts of taonga tuku iho. Indeed, within the context of Te Tiriti o Waitangi, the marine environment can be conceptualised as a taonga as well as the principles, values and tikanga associated with it.

Research that has a Māori kaupapa

As has been highlighted, and will be reiterated through this report, mātauranga and kaitiakitanga in the marine environment is a Māori kaupapa (Flack, Flack, et al., 2015; Flack, Jackson, Phillips, & Vanderburg, 2015; Hauteruruku ki Puketeraki et al., 2016; Hepburn, Flack, et al., 2010; Hepburn, Jackson, et al., 2010; Jackson, 2008a, 2008b, 2010, 2011,

2013a, 2013b, 2015a, 2015b; Jackson et al., 2010; McCarthy et al., 2013; Mita et al., 2016; Phillips, Jackson, & Hakopa, 2016; Ruckstuhl et al., 2016; van Halderen et al., 2016). There is a significant body of Māori knowledge and practice within and about the marine environment that is located within a Māori worldview. Māori knowledge and practices of the marine environment are critical for our cultural survival now and for generations to come.

Māori led research

This research is "by Māori for Māori" (L. T. Smith & Reid, 2000, p. 14). A Māori research team has prepared and undertaken this research within the context of the Tangaroa Programme of research within the *National Science Challenge Sustainable Seas Ko Ngā Moana Whakauka*. Dr Jackson leads our team, which includes Ms Ngahuia Mita and Dr Hauiti Hakopa.

Dr Jackson is a Senior Lecturer at the University of Otago, School of Physical Education, Sport and Exercise Sciences. She co-leads with Associate Professor Chris Hepburn, Te Tiaki Mahinga Kai a marine focused research group. Her work in the marine environment includes research with the Ngāti Whātua, East Otago Taiāpure Management Committee, Hauteruruku ki Puketeraki, Te Taitimu Trust, Water Safety New Zealand, Te Toki Voyaging Trust and Te Aitanga-ā-Mate for example. She also co-leads alongside Dr Hauiti Hakopa, Te Koronga, a Māori programme of research excellence at the University of Otago. She has extensive relationships with Māori communities in the areas of the marine environment. She is a fluent speaker of Te Reo Māori and is an advisor to numerous Māori organisations throughout New Zealand in marine related kaupapa. Anne-Marie was Project Lead on this research and co-led Objective 2.

Ms Ngahuia Mita was an Assistant Research Fellow on this project. Her previous research experience comes from her study wherein she completed her Masters research in 2016 alongside Hauteruruku ki Puketeraki, a small waka club based in Karitāne, north of

Dunedin. The focus of her research was Māori connection to the ocean, in the context of health and wellbeing. Ngahuia has also completed two internships one of which, under Ngā Pae o te Māramatanga provided pilot data for this research. More recently she completed an internship with Professor Christina Hulbe examining Māori and Polynesian voyagers and their relationship with Antarctica. Ngahuia is also a fluent speaker of Te Reo Māori. Ngahuia was an Assistant Research Fellow on this project and led Objective 1.

Dr Hauiti Hakopa has a background in land surveying, ethno-cartography, Geographic Information Systems, spatial information and its application to the geography of narratives such as mōteatea. He specialises in research underpinned by Kaupapa Māori and focusses primarily on research in spatial data/information, wāhi tapu and how that contributes to cultural identity. He is also a fluent speaker of Te Reo Māori and is a karakia exponent. For part of 2016, Dr Hakopa was the lead of Objective 1. Due to being successfully awarded a Ngā Pae o te Māramatanga Postdoctoral Fellowship, Ms Ngahuia Mita was contracted as an Assistant Research Fellow to lead Objective 1 in collaboration with Dr Anne-Marie Jackson.

Māori Advisory Group

As part of this research, we utilised our research network within the marine environment to seek guidance and inform different individuals and groups regarding this work. Due to the short-term nature of this project (1 year, at 0.2 FTE), as well as the commitments of the individuals in our Māori network, we decided upon an informal network, so as not to over-burden the communities we work alongside. Our engagement and activities included: regular presentations at East Otago Taiāpure Management Committee Hui at Puketeraki, East Otago; frequent kanohi-ki-te-kanohi (face-to-face) discussions and meetings; email dialogue; supporting aligned kaupapa; a presentation at the national Māori history conference in Bluff in 2016, and the National Science Challenge Sustainable Seas Ko Ngā Moana Whakauka symposium in 2017; hosting and attendance at the University of Otago Te

Koronga Indigenous Science Research Theme wānanga in November 2016 at Puketeraki; attendance at the Te Taitimu Trust annual wānanga in 2017; attendance at Waka Ama Nationals in 2017; and drafts of this work was sent out to those key members of the advisory team of Mr Tame Te Rangi, Mr Robert Hewitt, Associate Professor Chris Hepburn, Dr Daniel Pritchard, Emeritus Professor Khyla Russell, Mr Brendan Flack, Mr Hoturoa Kerr and Mr Nigel Scott.

Kaupapa Māori and Critical Discourse Analysis

As previously stated, we utilised Kaupapa Māori and Critical Discourse Analysis. Jackson's (2015a) paper examined the usefulness of combining Kaupapa Māori Theory alongside Critical Discourse Analysis in the context of customary fisheries management. We specifically used Norman Fairclough's interpretation of CDA (Blommaert & Bulcaen, 2000; Fairclough, 1992, 2001a, 2001b, 2001c, 2005a, 2005b, 2005c; Fairclough & Wodak, 2004; Gouveia, 2003; Hackley, 2003; Hammersley, 1997; 2003; Thomas, 1999; Titscher, Meyer, Wodak, & Vetter, 2000; Travers, 2001; Van Dijk, 2001a, 2001b; Weiss & Wodak, 2003; Wodak, 2004). The focus of much of this later research is on contemporary processes of social change and transformation, with an interest in the processes of neo-liberalism, globalisation and partnership governance, and how discourse or semiosis has a central role in these processes (Chiapello & Fairclough, 2002; Fairclough, 2000a, 2001a, 2003b, 2005a, 2005b, 2005c).

There are two precursors to CDA research, firstly that research examines processes of social change and secondly that research is transdisciplinary. As described in Wāhanga 1: Introduction we have positioned this research within the broader context of the self-determination of indigenous peoples in sustainable management of the marine environment through the importance of indigenous worldviews and practices. Furthermore, this research is

fundamentally transdisciplinary as it is at the intersections of indigenous knowledge, sustainable management and EBM.

Semiosis and Discourse

Fairclough (2005a) theorises two definitions for discourse. First, he uses discourse (as an abstract noun) interchangeably with semiosis (to avoid confusion with the second meaning of discourse he proposes). Fairclough (2005a) contends that semiosis is a "category which designates the broadly semiotic elements...of social life" (p. 2), such as language, and also "visual semiosis" such as body language or visual images for example (p. 2). Semiosis (or discourse as an abstract noun) occurs in three ways within social practices and social events: firstly, as ways of acting (genre); secondly as ways of representing (discourse) and; thirdly as ways of being (style). We are specifically interested in examining discourse as a category for ways of representing parts of social life, for example the discourse of kaitiakitanga (Fairclough, 2005a).

Nodal discourses

Fairclough (2005a) utilises the concept "nodal discourses" to describe discourses that are "condensations" and "simplifications" of complex cultural, social and political realities (p. 10). Not all discourses are capable of being nodal discourses, a nodal discourse works because it is able to operate in multiple areas of social life (such as education, health, economy) and also on different scales (international, national and local). Nodal discourses are capable of imagining potential future "imaginaries" and in order to operationalise the imaginary, nodal discourses can be utilised as strategies for social change (for the imaginary future it predicts), and attract material investments of money and time for example, for the imaginaries then to become a reality (Fairclough, 2005a).

The discourse of kaitiakitanga is an example of a nodal discourse. Kaitiakitanga subsumes a multitude of different "smaller" discourses and can be applied across different

areas of social life, such as within the marine environment, land issues and health for example. Furthermore, kaitiakitanga can be applied across different scalar boundaries, for example, from the local to the institutional to the international. There are multiple examples of kaitiakitanga at a local scale, such as iwi and hapū aspirations. Hapū and iwi aspirations for kaitiakitanga may share similar high-level goals such as the protection of the marine environment, but will be unique. At the institutional scale, discourses of kaitiakitanga can be recognised in tribal iwi authorities, such as Te Rūnanga o Ngāti Whātua, Treaty claimant organisations and post-Treaty governance entities for example. Similarly, at the international scale, a discourse of kaitiakitanga can be related to international indigenous peoples' understandings of the importance of the environment. Kaitiakitanga is an example of a nodal discourse that is capable of "imagining" particular futures, strategies for change and predictive ways of representing future possibilities.

Discourse as imaginaries

While discourse includes ways of representing how things are and have been, discourse also includes "imaginaries – representations of how things might or could or should be...projections of states of affairs, 'possible worlds'" (Fairclough, 2005a, p. 6). One way for changing the imaginaries into actuality is through utilising strategic discourses, or nodal discourses. Kaitiakitanga as a discourse of imaginaries projects representations of how things might or could be.

Objects of research

Fairclough (2005a) utilises the framework "objects of research" which is based on the work of Bourdieu and Wacquant (1992), to operationalise the research process. This requires the objects of research to be constructed for the data selection, collection and analysis methods. There are four themes for the objects of research that can be analysed, these are: emergence, hegemony, recontextualisation and operationalisation (2005a). These different

research objects call for different methods in terms of data selection, collection and analysis. As such, for Objective 1 we primarily utilised archival research methods and for Objective 2 we undertook a discursive analysis focusing on the theme of the emergence of the discourses of kaitiakitanga.

Methods Objective 1

We sourced and examined karakia (incantations), mōteatea (chants), pēpeha (tribal sayings), whakataukī (proverbs), and pūrākau (stories) regarding the marine environment held in the Hocken and Alexander Turnbull libraries, sources within the Journals of the Polynesian Society and Ngā Moteatea (collected and edited by Tā Apirana Ngata and Pei Te Hurinui Jones). We built upon pilot archival work undertaken at the Hocken and Alexander Turnball Libraries, Archives New Zealand and National Library (completed by Ms Ngahuia Mita in collaboration with Dr Jackson and Dr Hakopa, funded by Ngā Pae o te Māramatanga). The key method for this research was archival research including retrieval, examination, databasing and analysis of the material. We also used literature where necessary in order to give further explanation to contrast and compare practices derived from archival sources with current Māori beliefs; and practices associated with kaitiakitanga of the marine environment today.

Archival research

Archival research is an important resource in uncovering and understanding thoughts and ideas of the past, which from a Māori worldview is extremely important in being able to move forward. Wareham (2001) explains that in regard to archives, specifically for Māori, vital pieces of identity are held within written records and that they can be used as a tool to trace sequences of events and tribal history. Wareham's (2001) thoughts reinforce that the information held within these libraries and sources are pieces of identity passed down through generations and therefore are pivotal in aiding our understanding of the environment

in the present day. This is an example of the Kaupapa Māori Theory principle of taonga tuku iho (the principle of cultural aspirations).

The process of locating and retrieving material required a working plan in order to facilitate data collection of archival material specific to Tangaroa and kaitiakitanga, from the two archival libraries and the Journals of the Polynesian Society database. Once a plan had been formulated for retrieval and databasing the information we collected, we began to navigate through the whakapapa of archives relating to Tangaroa and the ocean with a particular focus on items relating to kaitiakitanga in the marine environment. This process required careful formulation and use of key words and terms that would provide material within the library databases pertaining to Tangaroa and kaitiakitanga in the marine environment. Initially we framed key topic areas pertaining to Tangaroa, such as names associated with the ocean, winds in different marine environments for example.

The databases within the Alexander Turnbull and Hocken libraries differ; yet they are both based on the idea of a whakapapa. The files are organised in a stratified system and layered from a large collection like an iwi of files, down to a series similar to the idea of a hapū, which is a collection of smaller whānau records, to the individual record to be viewed. Therefore, we formulated a number of key search terms in order to decipher the complex structure of each library's database. This was important to consider as oftentimes the subject or keyword of 'Tangaroa' alone would not return all of the records that had information pertaining to Tangaroa and the ocean; this was the same for 'kaitiakitanga'. For a number of the records, although Tangaroa was not the focus of the manuscript, there was still some inclusion and reference to Tangaroa.

Thirty-five archival sources were viewed and recorded within a database for the purpose of this research. These sources varied and each source contained a number of different papers, in some cases books and other material. These were recorded using the

metadata associated with their record, and also key words that were associated with the source. Further to this, all of the sources we recorded separately as an individual file containing the relevant information on a per-page basis pertaining to Tangaroa and the marine environment. Wāhanga 3: Objective 1 contains the analyses of these archival sources.

Thematic analysis

The archival material was viewed and formatted into individual documents and these were then analysed through thematic analysis. Thematic analysis is the process of identifying key ideas and themes using the data collected from the archival material (Willig, 2014). Thematic analysis allows for the researcher to make links between the themes and to highlight patterns within the data (Willig, 2014). As is common within a Māori worldview the themes that emerged were interconnected. During the process of viewing and recording the information about these archival sources there were a number of reoccurring themes.

Methods Objective 2

We examined current Māori beliefs, practices, ecology and rituals pertaining to the marine environment through an analysis of literature, reports and frameworks relating to mātauranga and kaitiakitanga, which builds upon the following work (Hepburn, Jackson, et al., 2010; Jackson, 2008b, 2010, 2011, 2013a, 2013b; Jackson et al., 2010). We focused the analyses on Waitangi Tribunal texts, literature, reports and frameworks. We have centred the analyses on Waitangi Tribunal texts as these provide a useful background to understanding kaitiakitanga and mātauranga in the marine environment. We have also synthesised literature and reports within the specific context of the marine environment.

Waitangi Tribunal Texts

The Waitangi Tribunal texts that were summarised were the: Motunui-Waitara claim; Kaituna River claim; and Manukau claim (all pre-1987⁶) and; Muriwhenua Fishing claim; Ngai Tahu sea fisheries report; Report on the Crown's foreshore and seabed policy; the Report on the management of the petroleum resource; Te Tau Ihu o te Waka a Maui: Report on Northern South Island claims and; Ko Aotearoa tēnei: A report into claims concerning New Zealand law and policy affecting Māori culture and identity (all post-1987). These Waitangi Tribunal texts were selected due to their relevance for the marine environment.

Report of the Waitangi Tribunal on the Motunui-Waitara claim. WAI 6 (Waitangi Tribunal, 1983)

The Motunui-Waitara claim was made on behalf of Te Atiawa. Claimants were "prejudicially affected by the discharge of sewage and industrial waste onto or near certain traditional fishing grounds and reefs and that the pollution of the fishing grounds is inconsistent with the principles of the Treaty of Waitangi" (Waitangi Tribunal, 1983, p. 1). The outcome was that

Te Ati Awa's grievances were partially met: the right of Syngas to discharge effluent was cancelled, and provision made for its discharge through the Waitara Borough Council's upgraded sewerage system. Crown funding met a substantial part of the associated costs (Orange, 2004, pp. 151–152).

Report of the Waitangi Tribunal on the Kaituna River claim. WAI 4 (Waitangi Tribunal, 1984)

The claimants were members of Ngāti Pikiao and Te Arawa and were in opposition to a Rotorua Waste Water Treatment Plant proposal to create a pipeline to dump sewage into the

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⁶ 1987 is a pivotal year for Waitangi Tribunal understandings because of the outcomes of the 'Lands Case' which provided further clarification of the principles of the Treaty of Waitangi.

Kaituna River due to "medical, social and spiritual and cultural grounds" (Waitangi Tribunal, 1984, p. 8). The outcomes from the Kaituna claim included improvements to the treatment plant and the effluent being disposed to land (Orange, 2004).

Report of the Waitangi Tribunal on the Manukau claim. WAI 8 (Waitangi Tribunal, 1985)

The Manukau claim was brought to the Waitangi Tribunal by Nganeko Minhinnick of Waikato-Tainui. The foci of the Manukau claim were land confiscations, unjust treatment and lack of access to traditional fisheries within the Manukau Harbour (Waitangi Tribunal, 1985). Furthermore,

the Manukau Report identified the need for comprehensive planning measures that involved various Crown, local and private bodies. Although work began in the latter part of the 1980s, it was recognised that a satisfactory resolution of the problems in Manukau Harbour would take years (Orange, 2004, p. 153).

Report of the Waitangi Tribunal on the Muriwhenua fishing claim. WAI 22 (Waitangi Tribunal, 1988)

The Muriwhenua fishing claim was brought to the Waitangi Tribunal by Matiu Rata of Ngāti Kuri. The claimants represented Ngāti Kuri, Te Aupouri, Te Rarawa, Ngāi Takoto, Ngāti Kahu and the Māori incorporations and authorities of the Muriwhenua area. The Muriwhenua claim covered both land and sea. However, due to the size of the claim it was divided into land and fisheries. The Muriwhenua claimants requested "definition of their treaty fishing rights" (Waitangi Tribunal, 1988, p. xi). It was asserted by the claimants that Muriwhenua tribes have fished their rohe moana from time immemorial and that successive government policy had restricted their abilities to fish. In 1986, the fisheries management scheme, the Quota Management System (QMS) was introduced, and the Muriwhenua claim was adjusted to include a section stating that the QMS was in fundamental conflict with the

treaty. In September 1987, the Muriwhenua claimants were successful and there was a High Court injunction against further allocations under the QMS. The QMS was determined to be in fundamental conflict with the te Tiriti o Waitangi and the Treaty of Waitangi "because it apportioned 'to non-Maori the full, exclusive and undisturbed possession' of the property in fishing that to Maori was guaranteed" (Meyers & Cowan, 1998, p. 22). The Waitangi Tribunal further concluded that the QMS could be altered so that it was in line with the treaty.

The Ngai Tahu sea fisheries report. WAI 27 (Waitangi Tribunal, 1992)

The cruxes of the Ngāi Tahu claim were longstanding grievances for the loss of traditional land, fisheries and resources as guaranteed by the treaty. Due to the wide scope and scale of the claims, the claim was split into two parts: the first dealing with land claims and; the second for fisheries. After a series of hearings between August 1987 and September 1991, the Waitangi Tribunal concluded that Ngāi Tahu had

- (a) an exclusive Treaty right to the sea fisheries surrounding the whole of their rohe to a distance of 12 miles or so their being no waiver or agreement by them to surrender such right.
- (b) a Treaty development right to a reasonable share of the sea fisheries off their rohe extending beyond the 12 miles out to and beyond the continental shelf into the deepwater fisheries within the limit of the 200 mile exclusive economic zone such right being exclusive to Ngai Tahu (Waitangi Tribunal, 1992, p. 303).

Report on the Crown's foreshore and seabed policy. WAI 1071 (Waitangi Tribunal, 2004)

The Foreshore and Seabed claim was brought to the Waitangi Tribunal by multiple coastal iwi following the Crown response to the *Marlborough Sounds* case⁷. The Report on the Crown's Foreshore and Seabed Policy was "the outcome of an urgent inquiry into the Crown's policy for the foreshore and seabed of Aotearoa–New Zealand" (Waitangi Tribunal, 2004, p. xi).

Report on the management of the petroleum resource. WAI 796 (Waitangi Tribunal, 2011c)

The claims for the Report on the management of the petroleum resource were brought to the Waitangi Tribunal by Ngāruahine of Taranaki and Ngāti Kahungungu of Hawke's Bay and Wairarapa. The impetus for their claims was that these iwi considered the regime of the management of petroleum to be in breach of the principles of the Treaty of Waitangi (Waitangi Tribunal, 2011c). The Waitangi Tribunal found that there were "systemic flaws in the operation of the current regime for managing the petroleum resource" (Waitangi Tribunal, 2011c, p. 174). Furthermore, the Waitangi Tribunal explained that Māori knowledge systems, beliefs, and connection to the land and waterways through whakapapa are inherent to tribal custodianship of natural resources and concluded that these are therefore integral to an understanding of the claimants' perspectives on how [the current] petroleum regime affects them and their efforts to exercise rangatiratanga as kaitiaki over their respective tribal domain (Waitangi Tribunal, 2011c, p. 23).

Alongside this report we examined the Ruckstuhl et al. (2013) booklet specifically for its contents relating to the marine environment. The booklet provides an introductory canvass of issues of Māori and mining.

⁷ In the *Marlborough Sounds Case* the "Court of Appeal departed from the previous understanding that the Crown owned the foreshore and seabed under the common law. This opened the way for the High Court to declare that Māori common law rights in the foreshore and seabed still exist, and for the Maori Land Court to declare land to be customary land under Te Ture Whenua Māori Act 1993" (Waitangi Tribunal, 2004, p. xi).

Te Tau Ihu o te Waka a Maui: Report on Northern South Island claims. Wai 785 (Waitangi Tribunal, 2008)

The Te Tau Ihu o Te Waka a Maui: Report on Northern South Island claims is critically important in relation to the relevance of the current case study area of Te Tau Ihu o te Waka a Māui. This is a particularly complex report due in part to the nuances of autonomous and related tribal affairs in the area. Due to the breadth of the claim the report spans three volumes. The Waitangi Tribunal found that grievances by the Crown against the claimants, from Te Tau Ihu, included a contradiction of their customary rights, their ability to gather resources and access to mahinga kai. The Waitangi Tribunal concluded "all the iwi of Te Tau Ihu suffered prejudice as a result of Treaty breaches. By the end of the nineteenth century, Government officials and commissions of inquiry acknowledged a state of landlessness and poverty in Te Tau Ihu, exacerbated by environmental modification and a loss of access to natural resources" (Waitangi Tribunal, 2008, p. xvi).

Ko Aotearoa tēnei: A report into claims concerning New Zealand law and policy affecting Māori culture and identity. WAI 262 (Waitangi Tribunal, 2011b)

Ko Aotearoa tēnei: A report into claims concerning New Zealand law and policy affecting Māori culture and identity is commonly referred to as the "Indigenous Flora and Fauna and Cultural and Intellectual Property Claim", the "Flora and Fauna Claim" or "WAI 262" (Waitangi Tribunal, 2011b, p. 1). Considered one of the largest and most complex claims brought before the Waitangi Tribunal, the claim focused on mātauranga. In this context mātauranga was described by the Waitangi Tribunal (2011b) as "the unique Māori way of viewing the world, incorporating both Māori culture and Māori traditional knowledge" (p.1). The Waitangi Tribunal (2011b) explains that the core of the original claim was "the customary tikanga rights inherent in and associated with the natural resources of indigenous flora and fauna me o ratou taonga katoa. Rights which the claimants say were

guaranteed to them by Te Tiriti o Waitangi" (p. 2). A key outcome of the claim was that the Waitangi Tribunal called for the relationship between the Crown and Māori to move into a space beyond grievance and urged the government to consider a new era of engagement based on partnership as promised by the Treaty of Waitangi, including strengthened access for Māori to the marine environment and a larger role in decision making.

Discourse analysis

We analysed the data utilising Critical Discourse Analysis and Kaupapa Māori Theory, which Dr Jackson frequently uses in her research (Jackson, 2008b, 2010, 2011, 2013a, 2013b). Discourse analysis was utilised to analyse key texts to provide an overview of kaitiakitanga in the marine environment. As Fairclough (2003) outlines, discourse represents part of the social world and to identify the various discourses that exist within a text, the "themes" can be examined. Furthermore, the "most obvious distinguishing features of a discourse are likely to be features of vocabulary – discourses 'word' or 'lexicalize' the world in particular ways" (Fairclough, 2003, p. 129).

Each of the texts were read, and re-read, words and themes were highlighted and these were then grouped into specific discourses. We asked key questions of each text such as: Who are the author(s) of the text? What voices are represented and whose? What is the intended message? What are the possible interpretations of this text? Who are the possible audiences? What resistant readings are possible? The main focus of the discourse analysis was to examine the different discourses of kaitiakitanga. There are multiple discourses that contribute to understandings of kaitiakitanga, and further, each of the multiple discourses allows kaitiakitanga to be viewed in certain ways, and not others. These findings are highlighted in Wāhanga 4: Objective 2.

Conclusion

This section examined the methodological considerations for this research. Kaupapa Māori Theory and Critical Discourse Analysis were drawn upon in this research. For Objective 1 we utilised archival research techniques to examine mātauranga and kaitiakitanga within texts located in the Hocken Library and Alexander Turnbull Library, as well as specific collections. We examined the texts through thematic analyses. For Objective 2 we focused the analyses on Waitangi Tribunal texts and reports, supported with a review of literature. We used Critical Discourse Analysis to examine discourses of kaitiakitanga, positioning kaitiakitanga as a nodal discourse. The next two sections will focus on the main findings from Objectives 1 and 2.

Wāhanga 3:

Objective 1

The aim of Objective 1 was to analyse mātauranga associated with the marine environment through archival research and examination of key texts. This objective included contrasting and comparing ancient practices derived from archival sources with current Māori beliefs and practices associated with kaitiakitanga of the marine environment today. This section examines the key emergent themes of: whakapapa (genealogies), tikanga (customs and protocols), karakia (incantations), mōteatea (chants), pūrākau (stories and narratives), maramataka (lunar calendar and heavenly bodies), kupu (relevant words), waka voyaging traditions, kaitiaki and kaitiakitanga (guardianship), pēpeha (tribal sayings) and whakataukī (proverbs) regarding the marine environment.

Whakapapa

Whakapapa is introduced in Wāhanga 1: Introduction. As we have discussed, whakapapa is how Māori explain connections to the environment, people and to the gods. The language and practices of our tūpuna (ancestors) are woven into our landscapes and histories, which expresses the link to our origins (Ka'ai & Higgins, 2004). This origin begins with the primordial parents in the form of Ranginui and Papatūānuku from whom all things ultimately trace descent (Roberts, 2013) as described in Wāhanga 1: Introduction. It is from here that we draw the beginning of our existence. Embedded in creation narratives are themes and myth-messages that provide us with guidelines and set precedents, models and social prescriptions for human behaviour (R. Walker, 1990). Humans and all other species claim origin from the children of Ranginui and Papatūānuku (see *Figure 1*) further justifies the belief that all things animate and inanimate are related and connected (Ka'ai & Higgins, 2004).

Whakapapa is important as it explains the connection we have with Tangaroa and therefore the marine environment. The ocean and Tangaroa are not only important for us as Māori but also as people of the Pacific, as the marine environment connects us to our relatives of the islands throughout the Pacific Ocean. Whakapapa emerged as a major theme within the archival material we examined. One source from the Grey collection discussed the varying names of Tangaroa across the Pacific, alluding to the wider whakapapa that extends across the ocean to our Pacific whānau. This source referred to the earlier discussion of Tangaroa, and more specifically the name Tangaroa and how this varies across the Pacific. This source written by C D Whitcombe (1898) described that the name Tangaroa differs in dialect eastward and also that in different islands Tangaroa is responsible for different acts in creation. For example in Tonga, Whitcombe (1898) describes that Tangaloa was a family of deity and that Tangaloa assisted Māui in fishing up the land. Furthermore Whitcombe (1898) also discusses that in the Society Islands Tangaroa is considered the creator of all things. This is a common idea throughout many of the islands of the Pacific due to the close interaction these islands groups have with Tangaroa. As their land mass are completely encircled with water, it is unsurprising that in their beliefs surrounding creation, Tangaroa is paramount; the water and Tangaroa being the origin of all things. Furthermore the similarities in the stories and traditions across the Pacific, such as these understandings of Tangaroa, show the whakapapa of the ocean that connects us all.

One particular passage from this source summarises this notion further explaining that "evidently the Polynesians have some common origin and belong to one race of which their present languages are but dialects" (Whitcombe, 1898, p. 4). This small passage from Whitcombe (1898) encapsulates the idea that as Polynesians we are all connected and that our languages are but dialects. The same idea can be considered about the language of Tangaroa wherein our understandings and practices connected to the marine environment are

but dialects of each other. Thus our relationship and interaction with the ocean extend from the same origin, however have been adapted to the environment, which we reside in. In a more recent source, Tēmara (2007) builds on this idea in a resource designed for tamariki (children), which has its origins in the whakaaro (thoughts) of the manuscript material, explaining the significance of the whakapapa of Tangaroa and the relationships and similarity in understanding that people of the Pacific Islands hold.

More specifically in Aotearoa, New Zealand and for Māori, whakapapa explains how we are connected to one another and to Tangaroa. A number of the sources that we viewed began with whakapapa and an explanation of the creation of the world that we live in (Ruatapu & Reedy, 1993; W. Williams, No date; Wohlers, 1854). Of these sources those that contained information pertaining to Tangaroa often begun with discussions of their versions of the creation narrative and the beginning of the whakapapa of Tangaroa through the separation of Ranginui and Papatūānuku which we discussed in Wāhanga 1: Introduction. Wiremu Maihi Te Rangikaheke, a rangatira of Ngāti Rangiwewehi who worked closely alongside Sir George Grey and completed many of the manuscripts that sit within the Grey collection, authored a number of the papers that we viewed, which detail the separation of Ranginui and Papatūānuku and the emergence of Tangaroa (Curnow, 2012). However through viewing and analysing a number of the sources the inter-tribal differences in the whakapapa of Tangaroa were apparent. For example, as explained the creation narrative of the South Island (discussed in Wāhanga 1: Introduction, and in Figure 2) Takaroa is the first husband of Papatūānuku. Wilhelm Dittmer's (1907) Te tohunga book discussed the relationship of Takaroa and Papatūānuku and mentioned their children together. Dittmer's (1907) accounts of creation collected from various kaumātua and tohunga show the difference in perspective based on tribal beliefs. From these stories we can explain the origins of creatures of the ocean and of a number of objects and activities. For example the story of Ruatepupuke and his son Manuruhi, which is shared in Wāhanga 1: Introduction was one that featured in a number of the sources we examined as the explanation of the origin of carving. It is stories like this that are outward expressions of whakapapa not only for people but also for objects, traditions, beliefs and tikanga.

Throughout the archival material we examined whakapapa was recorded by the authors in order to show connection between tūpuna, atua and different natural phenomena; an example of this is included in the kupu section. Whakapapa also provides a method for organising information; therefore it is pertinent to begin this chapter with a discussion on whakapapa in order to provide a foundation for the subsequent sections, the first is tikanga.

Tikanga

The Williams dictionary of the Maori language defined tikanga as

- 1. n. Rule, plan, method.
- 2. Custom, habit.
- 3. Anything normal or usual.
- 4. Reason.
- 5. Meaning, purport.
- 6. Authority, control.
- 7. a. Correct, right.

Tikanga Māori is composed of a complex array of beliefs, values, principles and precedents, which can be defined in a number of different ways. Often explained as custom, or the 'Māori' way of doing things, tikanga governs our interactions with each other, the environment and the atua (Mead, 2003). Accordingly, Mead (2003) contends tikanga may refer to a role, plan or method; however, is also commonly referred to as custom or habit. The knowledge base of tikanga is vast and complex and stems from generations of accumulated knowledge, which has been added to and modified with time (Mead, 2003). To understand

the essence of tikanga requires an understanding of Māori worldview and whakapapa. Mead (2003) states that "mātauranga Māori might be carried in the minds, tikanga Māori puts that knowledge into practice and adds the aspects of correctness and ritual support" (p.7). Therefore, to understand Māori knowledge and philosophy, an understanding of tikanga is needed.

Within the archival material that we examined, direct references to tikanga were limited. As with a number of other concepts and values, tikanga was inherent throughout the practices recorded in relation to the marine environment such as karakia. However, one key source contained explicit reference to tikanga within the marine environment a report written by Te Ahukaramu Charles Royal (1989) entitled *Marine disposal of waste; A Māori view*. Throughout this report, Royal (1989) discusses Māori perspectives of the marine environment describing the creation narratives and a perspective of the Treaty of Waitangi. Royal (1989) also refers to tikanga associated with the marine environment, for example not shelling shellfish below the high tide mark so as not to desecrate the marae (courtyard) of Tangaroa. This understanding of the marine environment is encapsulated by the following whakataukī shared by Royal (1989)

Ko te moana
Ehara rawa i te wai kau
No Tangaroa ke tena marae
He maha ona e hua e ora ai
nga manu o te rangi
te iwi ki te whenua
The sea is not any water
It is the marae of Tangaroa
It yields life for many things
the birds in the sky
the people upon the land (p. 9, No macrons used in the original text)

This whakataukī explains the importance of the marine environment for Māori, "ko te moana, ehara rawa i te wai kau – the sea is not any water" (p. 9). This asserts a Māori

understanding of the marine environment, wherein the sea cannot be considered merely a body of water but more appropriately the marae of Tangaroa and the origin of life for many creatures including ourselves. Royal (1989) explains that just as land is undeniably inherent to identity for Māori so to is the marine environment.

As Māori and Polynesian people, we have a strong connection to Tangaroa and the ocean. As island peoples our ancestors have always lived near and used the ocean as a means of travel and a source of food. The above whakataukī, reflects this connection describing the sea as the marae of Tangaroa. Thus, the water, ocean and Tangaroa are revered from a Māori worldview which provides the foundation for tikanga associated with the marine environment. Tangaroa is also an important figure throughout our creation narratives and those of the Pacific Islands. This idea emerged as a part of the research showing that in many places the ocean and Tangaroa are considered a source of life. As ocean people our ancestors also understood the strength and danger that can be associated with the ocean, which explains the importance placed on Tangaroa, various other atua and karakia for protection and safety within that realm (a form of tikanga).

Karakia

The Williams dictionary of the Maori language defines karakia

- 1. n. *Charm, spell, incantation;* particularly the rites proper to every important matter in the life of the Maori.
- 2. v.i. Repeat a form of words as a charm or spell.
- 3. v.t. Repeat an incantation over a person or thing.

As previously discussed the archival material we examined contained limited explicit references to tikanga however one key aspect of tikanga pertaining to the marine environment that was prevalent throughout the sources that we viewed was karakia. Karakia is a special branch of esoteric Māori scholarship that is easily distinguished from other oral narratives.

Karakia are not waiata mõteatea although there are oriori (lullaby) that are and can be used as karakia (A. T. Ngata & Te Hurinui Jones, 2006, pp. 4-19); they are not pūrākau yet they tell their own story (A. T. Ngata & Te Hurinui Jones, 2006, pp. 4-19). They are not whakapapa yet they contain references to esoteric whakapapa (E para, e para – karakia by Ngātoroirangi on Tongariro); and they are not whakataukī or whakataukī yet parts of karakia provide the basis for communicating ideas in a similar way as whakataukī (ko tō manawa ki tōku manawa e Tāne ka irihia!). Karakia often contain references to atua which bind the characteristics of atua to the kaupapa of the karakia (Nāu e Tāne-te-wānanga-ā-Rangi), the composition thereof is complex yet simple, the language is often complex (Haramai te akaaka nui, haramai te akaaka roa, haramai te akaaka atua), yet the phrasing (in the recitation) has a certain smoothness to the flow that draws the mind and spirit into its domain (Tūwheratia o ringa ki te ata nei ē!).

Karakia are prayers or incantations addressed to the atua who reside in the spiritual realms (Barlow, 1991). Karakia are offered to the atua to allow interaction with these realms and to ask for their guidance, blessing and protection in our pursuits (Barlow, 1991). Karakia provide a way for us to move "into another world, the world of the spiritual powers, we move into their time and into their place, and we bring their tapu, and their mana into operation in our world" (Shirres, 1997, p. 87). The practice of karakia is engaging in this two-world system, first looking to the atua and their spiritual powers within te ao wairua and bringing these back with us into the physical world. Thus, karakia is one way of linking god, man and universe (Marsden, 2003a). Further to this it is developing what Shirres (1997) referred to as the Māori faith vision, understanding that we as humans are connected to this Māori belief system. To recite a karakia is to connect to the spiritual realm and thus Māori spirituality. The voice you produce, the low sound and pitch, the rhythm as well as the deep meaning of the words spoken, all adds to the spiritual experience that is chanting karakia.

Shirres (1997) explains this connection clearly when he writes "to chant the words of the karakia is to become one with the ancestors and to use their words in invoking the atua, the spiritual powers, and in loosing [sic] ourselves from what is destructive, binding ourselves to what is life-giving" (p. 77). This demonstrates what is actually happening during the karakia and how we are engaging with the gods and our universe. We are connecting to our ancestors, remembering the words they taught us, the words to invoke the gods and freeing ourselves of this 'human-ness', binding to the pure divinity from our atua. The wider purpose of the karakia as Shirres (1997) explains "is to enable us to carry out our role in creation. One with the ancestors, one with the spiritual powers...our part in bringing order into this universe" (p. 87). This reflects that notion of a dynamic universe through the continuation of karakia (Marsden, 2003a). Our universe is a series of ongoing processes and experiences, of connecting ourselves in the physical world with that of the spiritual and "penetrating into states of mind for some kind of evaluation and understanding" (Marsden, 2003a, p. 22) which is something karakia engages you with. This explanation of karakia follows on from the previous korero (discussion) surrounding whakapapa. Wherein Shirres' (1997) comment asserts that in performing karakia we are carrying out our role in creation being in touch with our ancestors and other spiritual entities that encapsulate our world.

Using karakia to connect to the ocean was evidenced in the archival material we examined with over a third of the sources collected having at least mentioned karakia. Key sources included White (No date) and Fowler (1970) whose manuscripts contain karakia and a number of references to Tangaroa. Sources examined in John White's *Aspects of Māori life* papers contained a number of references to karakia. Some of the karakia pertained to the whakapapa of Tangaroa and others were concerned with activities happening in and around the ocean such as fishing, winds and making nets. The following is a synopsis of the karakia included within the *Aspects of Māori life* collection of sources

- 1. Karakia waka (asking for safe passage for the canoe)
- 2. Entitled "Karakia hau" (Hau nui, hau roa, hau pūkeri)
- 3. Awa moana karakia (nō Ngāti Hao of Ngā Puhi)
- 4. Karakia entitled "He karakia moana"
- 5. Karakia entitled "He awa moana, ko te awa o Rehua" (see, Grey (1853) for the full karakia)
- 6. States the cause of tides as a taniwha
- 7. Karakia (no title)
- 8. Karakia for fishing
- 9. Karakia said for pāua
- 10. Karakia for making a new net
- 11. Karakia said when making hīnaki
- 12. Karakia for fishing mentioning the tides
- 13. Karakia titled 'Whare o Tangaroa'

The inference from the presence of such karakia within this archival material is the importance of karakia in everyday life and at all times when engaging with Tangaroa and activities in and around the ocean. In each of these activities whether it be fishing, preparing for fishing, making hīnaki (eel traps, nets), our tūpuna (ancestors) were performing appropriate rituals in order to maintain a connection with atua and with the spiritual domain of our world. The importance of this in relation to kaitiakitanga within the environment is the acknowledgement of the deep spiritual connection to the environment and to the mana of the atua imbued within each of these activities related to the moana. Within these karakia, there is no explicit mention of kaitiakitanga as a concept, however by establishing relationships with atua through karakia, throughout these activities it is to humble oneself to the atua and acknowledge their mana (authority, prestige) in that realm or pursuit; the essence of kaitiakitanga.

The following are two karakia taken from two of the sources we viewed. Entitled *Call to the wind* (p.2) this karakia was found as part of the *Awa moana* section of White's (No date) *Aspects of Māori life* viewed on microfiche in the Alexander Turnbull library. The preface to the karakia noted that the karakia is a call to the wind for a group that will be travelling over the ocean to carry them safely to the place they are going. This karakia shows

the interaction that exists between Tāwhirimātea (god of the elements) and Tangaroa. Although Tangaroa governs the domain of the ocean, when engaging with him we must also be mindful of Tāwhirimātea and perform the appropriate rituals and karakia in order to be protected. This small karakia is an example of an expression of whakapapa, a notion present within most karakia. Showing the relationship between these two sons of Ranginui and Papatūānuku (see *Figure 1*). Rewi (2010) observed that many karakia refer to Māori cosmology, and thus contain whakapapa pertaining to the atua. Furthermore Moorfield (2005) explains that karakia express this interconnected-relationship and were designed to afford us the ability to practice everyday activities.

He karanga hau tenei karakia, i te mea he ra pai, he aio, a e rere ana te ope i te moana, a kua awhi rātou i te hanga, ka karakia ai i tenei karakia kia puta mai ai he hau hei kawe i a ratou ki te wahi e ahu atu ai ratou, koia nei te karakia

ko, ko, ko, hau nui, hau roa hau pukerikeri titi kokoia te tupe i raro nei, homai te hau (White, No date, p. 2).

In contrast to this karakia, the second is taken from the work of Leo Fowler (1970) from the manuscript of the book *Te take o nga iwi Maori* that according to the records of the Alexander Turnbull Library relates to the origins of Māori and Polynesia as well as Māori astronomy. The karakia is recorded in English and is a karakia to Tangaroa in order to protect the journey of a waka. This karakia provides a contrast to the karakia recorded by White (No date), as it has been translated to English. Although it does not provide the depth of understanding that Te Reo Māori does, it provides another perspective which shows the role karakia have in connecting the physical world with the spiritual. This karakia describes Tangaroa as the atua of the ocean having the lives of the people and the canoe under his control.

O Tangaroa, God of the boundless deep, Tangaroa of the mighty waves and the troughs that lead down to the blackness, we place our canoe in your hands, in your hands we place our lives (Fowler, 1970, p. 33).

Karakia are therefore an important element of engaging with the marine environment. Karakia are an expression of whakapapa where we acknowledge our ancestors and the atua that govern every domain that we wish to engage with. Furthermore within that context a number of other values such as kaitiakitanga, mana, tapu (sacred, set apart), manaaki (generosity) are also expressed and upheld through a process of karakia. Through viewing, understanding and analysing these karakia we can further understand our connection, as Māori, to the marine environment.

Branches of karakia

The next section contains a number of examples of different karakia collected from the Journal of the Polynesian Society. Each of these examples are provided to show the use of karakia in different contexts and their relevance to the marine environment.

Awa

Karakia, known as awa, were used for calming the sea, and ensuring the voyage was secure. A sample follows of an awa used for the Aotea waka (canoe)

Ko Turi te tangata i runga,

Ko Te Roku-o-Whiti te hoe.

Piripapa te hoe,

Awhipapa te hoe,

Toi tu te hoe.

Toi rere te hoe.

Toi mahuta te hoe,

Toi kapakapa te hoe,

Te hoe; kei runga te hoe, E Rangi!

Ko te hoe na wai?

Ko te hoe na Te Kau-nunui.

Ko te hoe na wai?

Na te Kau-roroa;

Ko te hoe na Rangi-nui e tu nei,

Tena te waka ka tau

Ki Tipua-o-te-rangi—

Ki Tawhito-o-te-rangi.

Nga turanga whatu o Rehua.

Ka pae ake au i te kakau
O taku hoe, i Te Roku-o-Whiti.
Whiti patato,
Rere patato,
Mama patato.
Te riakanga, te hapainga,
Te komotanga, te kumenga mai,
Te riponga, te hawenga,
A te puehutanga o te wai
O taku hoe nei...(Tautahi & Taipuhi, 1900, pp. 204-205)

Taketake

The following karakia is referred to as a taketake and was used to pull the waka out of Te Korokoro-o-te-Parata. Te Arawa had a similar experience; the karakia was uttered by Ngātoroirangi to prevent the waka from being swallowed up by the depths of the ocean. Following is a sample of the taketake entitled: *Karakia unu mō "Aotea"*

E Rongo-ma-Rua-whatua e
I runga i te pu-whakamaroro-hau.
Amo ake au i taku toke [sic] nei,
I a Awhio-rangi, Wai-o-rua.
I hoki ki runga,
I hoki ki raro,
Ki te whai-ao,
Ki te ao-marama,
Maru! a ka hura,
Tangaroa! unuhia! (Tautahi & Taipuhi, 1900, p. 206)

Tapuwae

Another karakia used by the Aotea canoe involved the use of a tapuwae, a karakia said to hasten the waka to shore. The following is a sample of the tapuwae, also from Tautahi and Taipuhi (1900)

Hikihikitia, hapahapainga, Rangaranga te tapuae O taku waka nei, Rere huruhuru, Rere a manu, Rere taketake. I tu ai; i keu ai;
I mania ai; i paheke ai;
I haere ai tama,
I tona tua-whenua,
Ka mate te tama
A te hemahema.
Ka puta kei waho—
Kei a Tama-hoko-tahi—
Kei te mokopu-rongo—
Kei te whai-ao (p. 207-208)

Waerea

The following karakia is part of a waerea (used to placate the ocean deities to ensure a safe voyage and smooth sailing) for Takitimu. This was the final ritual for consecrating the Takitimu (Cowan, 1908).

Ka tatū a Takitimu ki te wai ka waerea te moana

Tu rā mai te tu rā,
Kakapa te manu i uta, he pakihau,
Tauranga ko Tawhiti-nuku,
Te whakamakautia ko Ariki-tapu
Kia inu ia i te wai o Whakatau,
Mate toka i mua, mate toka i roto.
Tuwhanawhana, tu mai ihi, tu mai rere ana e.
Ai hoki te hirihiri kai te kohukohu i runga,
Koi rangi tukua, koi rangi horoa.
Tane tukua, Tane takoto-e.
Ai hoki tenei mata tohu
Uru whakapupu ake te uru o te whenua.
Te tau arohakina ki waho,
Ki te uraura o te ra,
Ki te werowero o te ra.

The sample karakia below was also used for the Takitimu waka, noting the names of different toki (adze) and atua. This is another example of a waerea

Tu ake nei au, he tipua, he tawhito, Nau, E Tangaroa-mau-tai, E Tangaroa-uta ē ī. Whai ake nei au i taku ara,

Whakarere ki tai ma Rehua (p. 96)

He ara moana, he ara atua,

Nou, E Kahu-kura, Tama-i-waho,

Rongo-mai, ē ī.

Waerea, waerea te ngaru roa

Te ngaru ikeike, te ngaru-anoano,

Te ngaru wanawana, te ngaru paepae.

Te ngaru-wharewhare, te ngaru ihiihi

Hai ake nei au i te toki

He toki tipua, he toki uru-rangi

He toki matua, he toki atua

No te Toi-rangi, no nga Rangi-tuhaha

Mai ki tenei tama ē ī.

Kotikoti i nga tai wanawana

I nga tai wharewhare, i nga tai ihiihi

Tukua ki raro ki a Hine-moana, e takoto nei,

Ki a Wawa-tai, ki a Huka-a-tai,

Ki a Te Wiwi, ki a Te Wawa ē ī.

Tamaua he iho matua nou, E Kiwa!

Ki enei tama ē ī.

Waerea, waerea to ara, he ara ka nguha,

He ara ka takoto. He aio, he marino, ē ī.

Ka puta, ka puta ki tua, he awa to,

Ko Harua-a-tai he awa to,

Ko Tauranga ki uta ki te ihu-whenua

Ki enei tama ē ī (H. T. Whatahoro, 1915, p. 9)

The following is another example of a waerea performed by Kahukoka, one of the commanders of the waka Te Karaerae and the waka known as Tāne-kaha, to grant safe passage to Wharekauri Island

Waerea, waerea nga tai moana

Waerea nga tai o Kiwa

Waerea, waerea nga tai na Hine-moana,

Waerea, waerea nga tai na Tangaroa,

Waerea, waerea nga tai na, Tāne-matua,

Waerea, waerea uga [sic] tai nau, E Tawhiri-matea,

Takoto te ihi moana, takoto te ihi-matawai

Takoto te ihi pu-kohn[sic]-rangi, takoto te ihi-wai-rangi,

Ki auripo, ki au-tahora, ki au-marino

Takoto atu te au-Tonga, te au-Para-wera-nui

Te au-mauru, te au-whakarua, te au-marangai,

Te au-moana ki te pu, ki Hawaiki,

Ki te pu, ki te Toi-whenua (H.T. Whatahoro, 1914, p. 66)

Ngeri

The following is a hauling karakia or ngeri (chant) for the Takitimu sourced from

Cowan (1908)

Turukiruki, panekeneke, i a ihu waka.

Aue, turuki, turuki!

Paneke, paneke!

Turuki, turuki!

Paneke, paneke!

Paneke i a wai, paneke ia Itu,

Hui-te-rangiora te toki matapo

'la huri te pōi marino maī (p. 93)

This is a sample of some of the karakia that we examined. We also included the well-

known karakia of the Far North recited by Nukutawhiti.

Nukutawhiti karakia

E kau ki te tai ē, is attributed to Nukutawhiti who recited the karakia as he attempted

to guide his waka, Ngātokimatawhaorua into the Hokianga harbour. The background to this

karakia is part of the corpus of cultural knowledge that converges to provide context to the

interpretation thereof as an ancient vehicle repurposed with new insights and collective

values.

On Kupe's return to Hawaikirangi from Hokianga, aboard the Matawhaorua waka, he

found the island in a state of war (Kaamira, 1957). His mokopuna (grandson) Nukutawhiti

approached him and asked if he could commandeer his waka to leave the island to ensure the

continued existence and survival of his people. Kupe agreed to his request and began the

process of reshaping the hull of the waka.

According to the account of Kaamira (1957), Kupe was an expert, skilled at "building

carved houses [and] adzing out canoes" (p. 232). He called upon Toka-akuaku (tohunga) to

assist in reshaping the hull; their tools were toki (adze), one called tauira-ata, the other was

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called ngā-pā-ki-tua. One toki had a broad edge and the other had a narrow edge. The reason behind reshaping the hull was so that more people could be carried and the waka could sit higher in the water (Kaamira, 1957). The timing of the completion to the insides of the waka is a little unclear; the following sections are provided from the transcript (Kaamira, 1957)

The upper and lower transverse supports of the floor-boards were completed. On that same day the battens lying over the join of the top-strakes and the hull were lifted (into place), and the two plumes of the canoe were made fast. The upper plume at the bow was called Puhi-maroke (Dry plume). The lower plume of the bow was called Puhi-maaku (Wet plume). And that was the day that the two lashings of the stern-post were bound, the cross-lashing and the down-lashing, and made fast to the flat part at the extreme stern of the canoe. And that was the day when the upper and lower ornamental wands were arranged. And it was also the day when the final names were given to each part of the canoe (p. 237).

What is manifest in the text above is the procedural detail of the process required to reshape the hull of the waka. Further in Kaamira's (1957) transcript, Kupe explained to Tokaakuaku how the finishing touches would be applied to the waka with the help of two other tohunga, Ngāhue and Rongomai whom Kupe called upon to assist in this work; both tohunga had their own toki; one was called papa-ariari and the other was called tiki-te-pou-nui. The transcript however does not elaborate on the function or shape of these two toki. What is also evident in the Kaamira (1957) transcript is the esoteric knowledge that Kupe possessed. Kupe explained to Toka-akuaku that the finishing touches needed to take place on the fourteenth day of the lunar calendar known as Tamatea-kai-ariki. Below is Nukutawhiti's karakia from Kaamira's (1957) transcript.

E kau ki te tai e, e kau ki te tai e,

E kau raa, e Taane.

Waahia atu raa te ngaru hukahuka o Marerei-ao;

Pikitia atu te aurere kura o Taotao-rangi.

Tapatapa ruru ana te kakau o te hoe,

E auheke ana, e tara tutu ana te huka o Tangaroa

I te puhi whatukura, i te puhi mareikura o taku waka.

Ka titiro iho au ki te pae o uta, ki te pae o waho.

Piki tuu rangi ana te kakau o te hoe;

Kumea te uru o taku waka

Ki runga ki te kiri waiwai o Papa-tuu-a-nuku

E takoto mai nei;

Ki runga ki te uru tapu nui o Taane

E tuu mai nei.

Whatiwhati rua te hoe a Pou-poto,

Tau ake ki te hoe naa Kura, he ariki whatu manawa.

Too manawa, e Kura, ki taku manawa;

Ka irihia, ka irihia ki Wai-o-nuku,

Ka irihia, ka irihia, ki Wai-o-rangi,

Ka whiti au ki te whei ao, ki te ao maarama.

Tupu kerekere, tupu wanawana,

Ka hara mai te toki o Haumia e.

Hui e. Taiki e. (p. 230)

E kau ki te tai e, therefore encapsulates story and whakapapa for the descendants of Nukutawhiti. The vast array of karakia shared within this section show, as previously described, the prevalence of karakia as a practice throughout the lives of our tūpuna. Each interaction with the marine environment was both an opportunity to engage with atua and transmit knowledge. A further aspect of Māori oral tradition used to maintain such knowledge is mōteatea (lament, traditional chant), which we discuss in the following section.

Mōteatea

Mōteatea are a form of ancient waiata that are used to maintain and pass on oral tradition. The *Williams dictionary of the Maori language* defines **mōteatea** as

- 1. a. Fearful, faint-hearted, apprehensive.
- 2. Scrupulous, hesitating.
- 3. Annoyed, vexed, chagrined.
- 4. v.i. Grieve.

5. n. Lament.

There are many moteatea that recall ancient whakapapa and stories embedded in the landscape. The following excerpts are samples of various moteatea that contain references to the marine environment and atua that govern that realm.

He oriori mō Tu-Tere-Moana

The first moteatea we examined is entitled He oriori mo Tu-Tere-Moana, composed by Tu-hoto-ariki of Ngāi Tara. Below is a sample of the moteatea, followed by Table 2, which gives an analysis of references to the marine environment within this particular moteatea.

Sample of mōteatea

Nau mai, e tama, kia mihi atu au;

I haramai ra koe i te kunenga mai o te tangata

I roto i te ahuru mowai, ka taka te pae o Huakipouri;

Ko te whare hangahanga tena a Tanenuiarangi

I te one i Kurawaka, i tataia ai te Puhiariki,

Te Hiringa matua, te Hiringa tipua, te Hiringa tawhitorangi;

Ka karapinepine te putoto ki roto te whare wahiawa;

Ka whakawhetu tama i a ia,

Ka riro mai a Rua i te pukenga, a Rua i te horahora;

Ka hokai tama i a ia, koia hokai Raurunui,

Hokai Rauru whiwhia, hokai Rauru maruaitu,

Ka maro tama i te ara namunamu ki te taiao;

Ka kokiri tama i a ia ki te aoturoa,

E tama, e i!

Table 2. Analysis of He oriori mō Tu-Tere-Moana, (A.T., Ngata & Jones, 2006, pp. 2-19).

Verse, line and page number	Phrase or sentence	Whakamārama Analysis
Verse 1, line 3, p. 4	Huaki-pouri	Said to be the house of Kiwa (the guardian of the Oceans) and Hinemoana, his wife (the Daughter of Hine-rau-wharangi, who is the daughter of Tāne and Hine-titama). (See Journal of the Polynesian Society, 1926, p. 239)

Verse 2, lines 24, 25, I karangatia e This is the whakapapa of **Parawera**-Tanenuiarangi ki a **nui** who is said to be one of the winds p. 6 that directed the waka to Aotearoa (see Hurutearangi, I noho i a next line) Tonganuikaea, nana ko Parawera-nui Verse 7, lines 97-99, E huri tō aroaro ki Both Parawera-nui Tahuand p. 10 Parawera-nui, ki makaka-nui were used to guide waka Tahu-makaka-nui: to Aotearoa Ko te ara tēnā i **Parawera-nui** is the Mighty-northerlywhakaterea mai ai ō blast tīpuna Tahu-makaka-nui is the Great-E te kauika Tangaroa, blistering-easterly-wind (p. 19) te urunga tapu o Kauika Tangaroa is referred to as a Paikea deep-sea school of whales (p. 19) Te urunga tapu o Paikea is a sacred ritual for calming the oceans Verse 7, lines 100-Ka takoto i konei te ara Haru-a-tai is translated by Ngata and 103, p. 10 moana ki **Haru-a-tai**. Jones as billowing-ocean. When the Ka tupea ki muri ko waka is out in the open sea its course is Tai-whakahuka. known as haru-a-tai (see p. 19) Ka takoto te ara o **Haru-a-tai** is also said to be the name Kahu-kura ki uta, of an atua that assisted deep sea Ka tūpātia ki a **Hine-**Journal ofvoyagers. (See the makohu-rangi Polynesian Society, 1926, p. 239) Tai-whakahuka is the flying spray in the wake of the canoe from the paddle strokes (see p. 19) **Hine-makohu-rangi** – the stern piece of the waka are screen off (tūpātia) or covered over (hence Hine-makohurangi) see Ngata & Jones (2006, p. 19) for further explanation Verse 7, lines 104, Ka patua i konei te **ihinga moana** billowing seas 105, p. 10 ihinga moana, te wharenga moana curling waves takapau whakahaere is a ritual used wharenga moana; Ka takiritia te takapau to keep the waka on course (see Ngata whakahaere & Jones, 2006, p. 19)

Verse 7, lines 106,	Ka takoto i runga i a	Hine-korito whale, taniwha	
107, p. 10	Hine-korito,	Hine-kotea whale, taniwha	
	I a Hine-kotea , i a	Hine-makehu whale, taniwha	
	Hine-makehu	All three are said to be: "Fair-haired,	
		fair - skinned off-spring of Tangaroa,	
		viewed as atua, helpful to mariners";	
		that is they were protectors of canoe	
		voyagers (Journal of the Polynesian	
		Society, 1927, p. 376).	

He waiata tangi mō Karaitiana Tuketenui Amaru

The following is a waiata tangi (lament, song of mourning) addressed to Karaitiana Tuketenui Amaru (see A. T., Ngata and Jones, 2006, pp. 374-379). The analysis is in Table 3.

Sample of the mōteatea

E moe ra, Papa, i tau moe reka!
E oho ki runga ra, kauwhatatia ra
Te kauwhata o to atua,
Kia puta noa mai, kia korerotia;
Kia tohungia nga tohu o te mate,
Kia tohungia nga tohu o te ora,
Ka reka ai ra ko te noho.
Auina rawa ake ka taupokina
E te mate ki raro ra

Table 3. Analysis of He waiata tangi mō Karaitiana Tuketenui Amaru (A.T., Ngata and Jones, 2006, pp. 374-379)

Verse, line and page number	Phrase or sentence	Whakamārama Analysis
Verse 9, lines 44-47, p 379	Ko Maninitua, ko Maniniaro. Ka tangi a Hauiti, ka tangi wiwini, Ka tangi a Ranginui, ka tangi wawana; Rukutia to, rukutia tou!	Maninitua & Maniniaro are part of the ritual chant of the Takitimu waka performed by Ruawharo
		tangi wiwini, tangi wawana (and Manini- tua, Manini-aro are

names of paddles used
in the Takitimu waka

Rangiuia's lament

One of the leading tohunga of Te Rāwheoro Whare Wānanga (Te Aitanga-ā-Hauiti) briefly referred to in Wāhanga 1: introduction, composed an epic waiata tangi for his son at his death. This waiata has numerous references to whakapapa such as Tangaroa, Tāne and Ruaumoko, heavenly bodies and demonstrates the scholarship of Te Rāwheoro Whare Wānanga. Of particular reference to the ocean environment are verses 3, 4 and 6 of Rangiuia's lament, these have been extracted from the waiata in

Table 4 below (see W. Ngata, 1993 for an in-depth analysis of the moteatea).

Sample of mōteatea

Haere rā e hika i te raumati e I te paki ka takoto ka mahana rā koe I te moe pouwaru nā ko koe anake ia Nāu i hora atu i te takapau ē

Table 4. Analysis of Rangiuia's Lament

Verse, line and page number	Phrase or sentence	Whakamārama Analysis
Verse 3, lines 80-111, line 82	I te pō roa, e, o Hinematikotai	Hinematikotai is the kaitiaki of Hui-te-ana- nui – house of Tangaroa
Verse 4, lines 112-137, line 124	Ki a Kiwa rā ia, nana nei te Moana	Kiwa is the guardian of the oceans
Verse 6, lines 171-215, line 177	I a Tangaroa , I a Poutu e	Tangaroa is known as Tangaroa-whakamautai. Verse 6 contains the whakapapa of Tangaroa to Hingangaroa (who established te Rāwheoro).

Pūrākau of Kahutia-te-rangi and Ruatapu

In the pūrākau of Kahutia-te-rangi and Ruatapu (discussed in further depth in the following section) wherein Kahutia-te-rangi summoned his ancestors and kaitiaki in the form of a tohorā in order to save himself his karakia "ka hura" (a sample included in the following section) is also performed as a mōteatea. Below is a sample of the mōteatea sourced from Māori newspaper Te Waka Māori (1877).

Sample of mōteatea

Ka hura, ka hura,

Ka hura te moana,

Ka hura te moana uwha,

Ka hura te moana kore.

Ko to manawa.

Ko taku manawa.

Ko Houtina, ko Houtaiki, Te Ripia, Reiana,

Whakahotu nuku,

Whakahotu rangi,

He ropi, he ropihau,

He taketake, he hurumanu.

Te moana irohia,

Hoatu to kauwhau tangata ki uta.

Katahi tera ka karangaranga i ona tipuna taniwha, i a Paikea Ariki, i a Whainga Ariki, i a Hurumanu Ariki, hei waha i a ia ki uta (p. 135)

This selection of mōteatea provides an overview and examples of the use of mōteatea to preserve whakapapa kōrero and narratives specifically related to the marine environment. Mōteatea are yet another pool of knowledge we are able to draw on in order to examine mātauranga and kaitiakitanga in the marine environment. The next section continues this discussion through an exploration of pūrākau.

Pūrākau

Pūrākau are cultural narratives that encode beliefs and key messages important to Māori. In this section, we will explore some examples of pūrākau that are relevant within the context of the marine environment. The first is Tangaroa.

Tangaroa

There are multiple pūrākau that pertain to Tangaroa. Within the archival material we examined Tangaroa appeared in most of the sources. The predominant references to Tangaroa were through stories of creation. One pūrākau in particular relates to Tangaroa and his role in the origin of whakairo (carving) described by Mead (2015) as "Te taonga o Tangaroa" (the treasure of Tangaroa). The whakapapa of carving, as per this pūrākau derived from iwi of the East Coast, involves Ruatepupuke⁸ (the grandson of Tangaroa) retrieving the art of carving from the house of Tangaroa Hui-te-ananui under the sea (B. Graham, 1946; G. Graham, 1933; Mead, 2015; Stratford, 1972). The story of Ruatepupuke is described by Stratford (1972) in his recording of Legendary Origins of Māori Arts and Crafts. In this pūrākau Ruatepupuke travelled to the home of Tangaroa in search of his son Manuruhi (B. Graham, 1946; G. Graham, 1933; Mead, 2015). Manuruhi had been out fishing using a fishhook and sinker that Ruatepupuke had fashioned for him. However Manuruhi had breached tikanga through failing to perform the appropriate karakia to Tangaroa, and failing to acknowledge Tangaroa and his offspring through not returning his first catch. Seeing Manuruhi's indiscretions Tangaroa became angered capturing Manuruhi and taking him beneath the ocean where Tangaroa placed Manuruhi as the tekoteko (carved gable figure) for his whare Hui-te-ananui (B. Graham, 1946; G. Graham, 1933; Mead, 2015). In the version of this pūrākau described by Stratford (1972), Ruatepupuke discovered Manuruhi atop of Tangaroa's whare, the whare was adorned with carvings, of which the poupou (carved wall figures) were able to talk. In order to seek revenge on Tangaroa and his offspring for capturing his son, Ruatepupuke concealed himself within the whare to wait for the return of Tangaroa and his children (the fish and sea creatures). When they returned, Ruatepupuke deceived them through covering all the openings of the whare to keep them in the darkness.

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⁸ Iwi of the East Coast are able to claim direct descendency from Tangaroa, through the whakapapa of Ruatepupuke through to Hingangaroa.

Ruatepupuke then set Tangaroa's whare alight and proceeded to beat Tangaroa's offspring as they tried to escape the flames (B. Graham, 1946; G. Graham, 1933; Mead, 2015; Stratford, 1972). Having achieved revenge for the capturing of his son, Ruatepupuke returned back to the land taking with him his son embodied as the tekoteko and a number of the talking poupou of Tangaroa's house.

As with all pūrākau the story of Ruatepupuke and Manuruhi has a number of messages and beliefs encoded within it. The most apparent is the origin for whakairo, through Ruatepupuke retrieving carvings from Tangaroa's house Hui-te-ananui, mankind was able to view and learn the art of carving. Secondly our understandings for the appearance of different fish and sea creatures are described in the pūrākau through Ruatepupuke's actions. Finally this pūrākau is directly related to kaitiakitanga. The reason for Manuruhi's capture was due to him not following tikanga, by addressing karakia to Tangaroa in the first instance, not returning his first catch and taking copious amounts of fish. Therefore this pūrākau highlights the importance of tikanga and kaitiakitanga within the marine environment; lessons and tikanga that are still observed today.

Takaroa

Through viewing and analysing a number of the sources it was also apparent the intertribal difference in the whakapapa and pūrākau of Tangaroa. As explained previously the Ngāi Tahu creation narrative assigns Takaroa as the first husband of Papatūānuku. *Te tohunga* a book written by Wilhelm Dittmer (1907) discussed the relationship of Takaroa and Papatūānuku and mentioned their children together.

In the Ngāi Tahu version of the creation narrative recorded by Ngāi Tahu tohunga Matiaha Tiramōrehu (1987) and recorded by Johann Wohlers (1854) a missionary and resident of Ruapuke Island, Takaroa was the first husband of Papatūānuku (Reilly, 2004). This narrative explains that Papatūānuku had a relationship with Rakinui whilst Takaroa was

away burying the whenua (placenta) of one of their children (as shown in *Figure 2*). When Takaroa returned and discovered Rakinui and Papatūānuku together, he was angered by their actions and challenged Rakinui. A battle between them ensued with Rakinui being defeated by Takaroa's spear (Tiramōrehu, 1987; Wohlers, 1854). Rakinui fell injured atop of Papatūānuku leaving them in a fastened embrace. Tiramōrehu (1987) explains that with this Takaroa retreated to the ocean, and that he is personified in the waves that constantly lap at Papatūānuku as a symbol of his undying love for her.

Māui

Another famous character throughout Māori and wider Polynesian mythology is Māui known in Aotearoa as Māui-tikitiki-a-Taranga or Māui-pōtiki. The stories and deeds of Māui are well known throughout the Pacific not dissimilar to the linguistic similarities discussed earlier. Stories of Māui are reflected in the same way throughout Polynesia. Perhaps the most well known pūrākau of Māui in connection to Aotearoa and the marine environment; is of Māui and his fish. In this pūrākau, Māui is credited with fishing up the North Island, henceforth referred to as Te Ika a Māui (the fish of Māui), using the jawbone of his Grandmother Murirangawhenua. Specifically this pūrākau explains that the North Island is considered a whai (stingray) or kupakupa (also kopakopa). The remnants of Māui's achievement in fishing up the island are held not only within pūrākau but within the landscape itself. Throughout Te Ika a Māui, the North Island, there are a number of areas named for Māui's infamous deed. As has been said the island in its entirety is referred to as Te Ika a Māui. Northland is referred to as Te Hiku o te Ika a Māui (the tail of the fish of Māui), Te Matau a Māui (the fish hook of Māui) is the name for Hawkes Bay; Te Upoko o te Ika a Māui (the head of the fish of Māui) the Wellington area and bottom of the North Island. The South Island is referred to as Te Waka a Māui (the canoe of Māui) with Rakiura or Stewart Island being Te Punga a te Waka a Māui (the anchor of the canoe of Māui).

Paikea

The story of Paikea is briefly referred to in the previous section. This pūrākau is a further example of beliefs and messages, related to the marine environment, encoded within a story. This pūrākau tells the survival story of a Ngāti Porou ancestor, Paikea, formerly named Kahutia-te-rangi who survived an attempt by his brother Ruatapu to kill him (W. E. Gudgeon, 1895; Ruatapu & Reedy, 1993; Salmond, 2014). The attempt perpetrated by Ruatapu occurred whilst the two were on a fishing trip with their siblings. Ruatapu sank the waka the brothers were in, in an effort to drown Kahutia-te-rangi. However using karakia, Kahutia-te-rangi was able to summon a whale, Paikea, who carried him to safety; ultimately landing in Whangarā on the East Coast (Salmond, 2014). This ancient story of survival highlights the use of karakia and the importance of kaitiaki (guardians) throughout Māori tradition. The karakia is sometimes referred to as *Whakakau Paikea* (M. Whaanga, 2005) (which we described in the mōteatea section as well). A sample follows

Ka hura, ka hura, Tū-manawa wiri
Ka hura Tū-manawa pore
Ka hura Tū-manawa uha
Tere ana te ika i te moana te pipiha whakaea
Whakahotu-nuku, Whakahotu-rangi
He poupou, he huru manu, he taketake, he roki hau
Ko taku manawa, ko tō manawa
Ko te manawa-nui no Rangi

These are three well-known examples of pūrākau connected to the marine environment, from which we are able to draw important beliefs and messages in regards to kaitiakitanga in the marine environment. Perhaps the most apparent is the consideration of the marine and land environments as atua and tūpuna. The pūrākau associated with Tangaroa and Takaroa from a southern perspective reaffirm the marine environment as an ancestor. Furthermore the features of the landscape described in the Māui stories provide one explanation of the land we now inhibit and therefore our close affinity to the ocean.

Understanding intimate features of the environment and their many nuances was an activity central to a Māori way of life for our tūpuna and continues to be today. The next section provides an exploration of maramataka (calendar, almanac) and the connection between celestial bodies and the marine environment from a Māori perspective.

Maramataka

The maramataka refers to the Māori lunar calendar. Measurement of time using lunar phases and celestial markers is a practice that was central for Māori and many other cultures traditionally and continues to be today (Devonshire, 1977; Roberts, Weko, & Clarke, 2006; H. Whaanga & Mataamua, 2016). As Roberts et al. (1995) explain for Māori all things have a celestial origin. Despite tribal variation, as has been discussed, there is consistency across creation narratives that allow us to trace whakapapa back to atua who originally resided primarily in a celestial realm.

Our interest with maramataka in the context of the marine environment is the connection between the moon and Tangaroa and the use of celestial markers for marine related activity. Roberts et al. (2006) present one explanation for the connection of the moon and tides from a Māori perspective through Tangaroa-a-roto and Rona, who they explain were two daughters of Tangaroa, with Tangaroa-a-roto as an explanation of the relationship of the "close connection of the moon with the tide" (p.15). Other explanations for the close connection of Tangaroa and the moon are given, Best's (1976) recordings of Māori tohunga (expert knowledge holders) in both *Māori religion and mythology (Part 2)* and *The astronomical knowledge of the Maori* (Best, 1922) include descriptions of the connection between Tangaroa and the moon. The following is an excerpt from Best's (1922) *The astronomical knowledge of the Maori*

One version makes Rona a daughter of Tangaroa, the mythical origin or parent of all fish. The superior, or sacerdotal, version, as it may be termed, is that Rona is the

guide and controller of the moon. Her full name is Rona-whakamau-tai, or Rona the Tide-controller: thus we see that the Maori recognised the connection between the moon and tides. Tangaroa is one of the guardians and directors of the ocean, and his full name is Tangaroa the Tide-controller...It was Tane-matua (Tane the Parent, the Begetter) who said, "Let the waxing moon control the ebb and flow of the Ocean Maid." Then stars were arranged so as to serve as companions for the waxing moon and to control the expanse of Hine-moana (p. 20).

Here Best (1922) gives an explanation of Rona and Tangaroa as controllers of the tides and identifies the connection between the ocean, the moon, the stars and these atua. Pūrākau and whakapapa such as these provide an explanation for the inclusion of Tangaroa throughout maramataka. Roberts et al. (2006) collected forty-four maramataka across a number of hapū (sub-tribe) and iwi (tribe) of which, they all (with the exception of one) included 'Tangaroa nights'. The following is an explanation given by Roberts et al. (2006) for the Tangaroa nights within the various maramataka they collected

A majority of the maramataka contain three Tangaroa nights, usually between nights 23-27 in the calendar. Two lists include both Tangaroa-kiokio and also Kiokio (nos. 2 and 3) while others list either one or the other but not both nights. Six (nos. 2, 3, 23, 29, 40 and 42) list four Tangaroa nights. There is only one report on the appearance of the moon at this time, which notes that Tangaroa a roto is the night when the moon "sinks into the sea" (no. 30)...The Tahitian calendar contains three Tangaroa nights: Ta'aaroa-mua (night 24; "a night when Ta'aroa remains awake") Ta'aaroa-roto (night 25) and Ta'aaroa-muri (night 26) (p. 11).

This sample from Roberts et al. (2006) highlights the importance of the connection between Tangaroa and the moon. Their detailed analysis of maramataka from across Aotearoa, New

Zealand and the Pacific reveals similarities and differences in understandings of these nights, the role of Tangaroa and the characteristics of the ocean during this period. Therefore Māori and wider Polynesian maramataka provide a powerful tool to understand the marine environment in synchronicity with the moon. This mātauranga acted as a guideline for our tūpuna and their interactions with the ocean, not only for the purpose of kaitiakitanga but also to protect the people who were engaging with the marine environment during these times. Maramataka in a contemporary context continue to provide a wealth of information that can be used to inform practices of kaitiakitanga in and around the marine environment.

Throughout the archival material we examined there were various references to Tangaroa in relation to celestial markers. One of the sources, a part of John White's *Aspects of Māori life* series contained karakia with specific reference to Tangaroa. This source entitled *Stars, nga whetu* contained two karakia, the first was addressed to Kōpū (Venus, morning star) and included reference to Tangaroa and the second was addressed to Whānui (Vega) another star considered the fifth brightest star in the night sky. Following the karakia to Whānui, included in this source was a list of other stars. These are of interest as again these references Tangaroa and other names associated with the marine environment. Table 5 included below, contains a selection of this list.

Table 5. Star names adapted from Aspects of Māori life: Stars, ngā whetu (White, No Date.)

Name of the star	Whakamārama description	
Mango-roa	The Milky Way - a band of light crossing the sky, made up of vast numbers of faint stars. Literally translated as the 'long shark'.	
Te-ra-o-Tainui	The sail of Tainui (waka), White gives this as an explanation of a constellation (Best, 1922).	
Te punga o Tamarereti	Southern Cross (Best, 1922)	
Rongo-mai	Halley's Comet - seen by earth every 75 years and last seen in 1986.	

Table 5 shows part of the list of Māori star names that were provided in the aforementioned source, however this is only a small selection of the star names that are known and have been recorded (see Best, 1922; Harris, Mataamua, Smith, Kerr, & Waaka, 2013; Matamua, 2017). This selection provides a small insight into the connection between the marine environment, pūrākau and star lore. For example the naming of the Milky Way as it is the shape of mangō (shark) (Harris et al., 2013). Additional names for the Milky Way appear in Best (1922) and also in the *Manuscript of te take o nga iwi Maori* (Fowler, 1970) as Te Mangoroa, Te Ika Matau o Tangaroa, Te Ika o te Rangi.

A further source that we examined also included reference to stars, in this instance the stars are used for fishing. In *Te tohunga; The ancient legends and traditions of the Maoris* (Dittmer, 1907) two stars are mentioned, hira uta and hira tai, for their use in fishing. Further discussion by Best (1922) describes the origin for the two stars explaining

In White's manuscript we have a note to the effect that Hirauta and Hiratai are the abodes of Wehi-nui-a-mamao. Another reads: "The stars were obtained from outside the threshold of the heavens of Rongo, from the coverings of Wehi-nui-a-mamao, and the names of those coverings were Hirauta and Hiratai."...Wehi is connected with stars in several traditions, and the word *mamao*, meaning "distant," has probably a bearing on the subject. Another note states that the above two, with Parinuku and Parirangi, are the ties of the coverings of Wehi-nui-a-mamao. And yet another is that Wehi-nui-a-mamao, Hirauta, Hiratai, and the two Pari are the *tupuni* (coverings) of the stars obtained by Tane. Again, Tane took from Wehi-nui-a-mamao the *tupuni* of his garments, Hirauta, Porera-nuku, Takurua, Whare-pungarehu, Ruaki-motumotu,

Wero, and Tahu-werawera. Apparently these are all star-names, and Wehi personifies distance, or perhaps the sides of the hanging sky (p. 36, italics in original).

This discussion of Wehi-nui-a-mamao is a further example of the depth and breadth of knowledge of tātai arorangi (astronomy) and knowledge of celestial bodies that was held by Māori traditionally and is preserved in oral and written tradition. This section has also highlighted the seamless connection that exists between the celestial realm and activities carried out within the marine environment. A further example of this specifically within the marine environment is the use of celestial bodies for oceanic navigation. Tools such as the maramataka and tātai arorangi meant that Māori and Polynesian ancestors had a precise knowledge of seasonal patterns and phases of celestial bodies, knowledge which allowed them to navigate across the Pacific Ocean (Harris et al., 2013). Connection to the marine environment through the use of waka is discussed in detail in a further section of this report, however this section based on maramataka and tātai arorangi provides an insight of the inherent connection between these realms and how such knowledge is used to inform kaitiakitanga within the marine environment. The following section is focused on vocabulary; words and terms that were discovered in the archival material we examined.

Kupu

There were a number of keywords that appeared throughout the texts that were viewed. These kupu (words), not dissimilar to whakataukī and pūrākau, tell a story about understandings of and connection to the marine environment.

Table 6 contains a selection of words, terms, and names that emerged from the examination of archival sources and have been categorised accordingly.

Table 6. Words, names and terms viewed with archival material.

Source	Category	Kupu
Aspects of Māori life – Nga whetu,	Stars	Te-ra-o-Tai-nui
White, J., (No date)		Mangoroa
		Te punga o Tama Rereti,
		Rongomai
Legendary origin of Maori arts and	Names	Hine-matiko-tai (maiden of the ocean)
crafts, Graham, G., (n.d)		Te Hono o Taiuniunui (The deep chasm of
		the oceans dark)
Te tohunga: the ancient legends and	Names	Tinirau (the many hundreds who formed the
traditions of the Maoris, Dittmer, W		family of waves that encircle the earth)
(1907)		
Notebook containing Maori	Kupu	Wawa (a word emulative of the moaning of
vocabulary and botanical notes,	тара	the sea from on the beach)
Shortland, E., (No date)		,
, , ,		
Commentary on Maori poems and	Names	"He wai puke tenei ingoa a Para", also
mythology, Te Rangikaheke (No		known as Hine-Parawhenuamea – guardian
date-b)		of freshwater Tū-kapua – guardian of clouds
Manuscripts for publication -	Fishing	"Te Whatukura a Tangaroa" – A fishing
Volumes 26-27, 29-31, 56, Journal		talisman from Te Whānau a Apanui.
of the Polynesian Society (No date)		•
The Land of Tara, Best, E., (No	Waiata	tai o te moana (tides of the sea)
date)		hukahuka (to foam)
		wai (water)
		whānau moana (family of the sea)
		one (sand)
		pupu (trumpet shell)
		ika nui (large fish)
		wai hukahuka (foaming waters) mango (shark)
		kopu ika (could be referencing the kopu, or
		kōkopu)
		- · r/

Further words, terms and names that were viewed were included in whakapapa lists.

The following lists in Table 7 are from W. Williams' (No date) and Te Rangikaheke (No date-a).

Table 7. Whakapapa lists collected by W. Williams (No date) and Te Rangikaheke (No datea).

Whakapapa list (W. Williams, No date, p. 19)	Whakapapa list entitled "The beginning and origin of all things" (W. Williams, No date, pp. 22-23)	Names for the ocean, (Te Rangikaheke, No date-a, p. 4).
Ruamano	Te Pu	Ko moana uriuri
Tangaroa	Ranginui & Papatūānuku	Ko moana kahiwahiwa
Taihohi	Tane-tuturu	Ko moana kanapanapa
Taihoha	Tane-pepeke	Ko moana whatongatonga
Taituarehu	Tane-uetika	Ko moana kirikiri
Te Ngarutuatahi	Tane-ueha	Ko moana kariake
Te Ngarutuarua	Tane-te-waiora	Ko moana pouri
Te Ngarutuatoru	Tane-nui-a-rangi	Ko moana potango
Te Ngarutuawha	Tane-nui-a-rangi Kurawaka	Ko moana whekere
Te Ngarutuarima	Parawhenuamea	Ko moana whakahotu
Te Ngarutuaono	Tangaroa-nui-nga-whatu	Tutengaranuku
Te Ngarutuawhitu	Taihohi	Tutengararangi
Te Ngarutuawaru	Taihoha	Tapatapaia
Te Ngarutuaiwa	Taikarangaroa	Ngarupuke
Te Ngarutuangahuru	Te Ngaru 1 – 10 (previous	Urutira
	list)	Mawake Taupo
	Te Ahumoana	Ngaru keokeo
	Ko te karukarumoana	Ngaru wheneu
	Tepetepemoana	Ngaru whati
	Toto	Ngaruhukahuka
	Pumatua	Tawhirimatea
	Pakiaite	Orooro
	Rongotohe	Oronia
	Kahutuanui	Waiorangi
	Maere	Uruika
	Mahutaponui	Taketakerangi
		Oroorohia
		Waiorangi
		Whakaraumatangi
		Whakakakariki
		Moana waiapu
		Moana-tua-whenua

These whakapapa lists (columns 1 & 2) and list of terms for the ocean (column 3) are another example of the rich understanding that our Māori and Polynesian ancestors had of the marine environment. Each of these terms relates to specific characteristics of the ocean and marine environment, tūpuna or atua connected to it, which provides another layer to understanding our role as kaitiaki. A further pursuit that requires intimate understanding of the marine environment is oceanic voyaging. The following section describes waka and voyaging traditions for the relevance in understanding kaitiakitanga in our marine environment.

Waka – Voyaging Traditions

Waka and voyaging traditions provide a unique and important insight into Māori understandings and expressions of kaitiakitanga in the marine environment. Waka in all forms provided our tūpuna within the means to engage with the marine environment. To understand this connection begins with Māori cosmology. An example of this cosmology is a pūrākau that comes from the people of Mātaatua⁹, which describes Tāne-mahuta ascending to the skies in Te Waka o Tamarereti¹⁰ as an explanation of how the stars came to be. This pūrākau explains, following the separation of Ranginui and Papatūānuku, Tāne-mahuta travelled to the sky to adorn his father Ranginui with a korowai (cloak) of stars (Harris et al., 2013). Upon reaching the skies Tāne knocked over his kete causing the stars to spill out across the skies, which accounts for how we see the stars in the night sky today (Harris et al., 2013). Tāne's ascent on a waka is one example of the appearance of waka within Māori cosmology. Further examples are the stories of Māui. The narrative of Māui fishing up the North Island is evidence of the importance of waka, wherein Māui and his brothers paddled out of the sight of land before finding and fishing up what we know now as the North Island

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⁹ Mātaatua, is the name of an ancestral canoe. People descended from the crew of this canoe (from Hawaiki) whose territories are in Northland and the Bay of Plenty.

¹⁰ Harris et al. (2013) note that Tamarereti was a relative of Tāne-mahuta and that his waka was named "Puna Ariki"; puna refers to a spring and ariki a paramount chief.

(R. Walker, 1990). The remnants of this story are important for the people of Ngāti Porou who descend from Māui and are kaitiaki of his waka Nukutaimemeha, which still lies in a petrified state on their maunga (mountain), Mount Hikurangi.

The origins of more recent ancestral waka are within Polynesia and the whakapapa that connects us to our seafaring ancestors. These ancestors were navigating Te Moananui-a-Kiwa, the Pacific Ocean, long before the settlement of Aotearoa, New Zealand, which demonstrates this intimate connection to the ocean (Evans, 1998; R. Walker, 1990). R. Walker (1990) asserts that from around 200AD these ancestors were completing voyages spanning across Te Moananui-a-Kiwa, moving through the boundaries of the Marquesas, Hawai'i and Rapanui (Easter Island), which R. Walker (1990) concludes that "within a timeframe of 600 years Polynesians had colonised an oceanic environment that was 995 parts water to five parts land. Given the time in human history that this was accomplished – seven centuries before Columbus dared to venture out of sight of land – it was a remarkable achievement" (p. 24).

R. Walker (1990) explains the knowledge and seafaring prowess held by these ancestors, which allowed for the navigation of the ara-moana or sea routes that led them to Aotearoa (R. Walker, 1990). This skill in navigating began with the waka hourua or double hulled sailing waka, which R. Walker (1990) describes as the precursor of modern hull technology. This technology grew out of the fact that single dug out hull canoes only allowed for small cargo capacity; it was not feasible to carry the number of people and supplies over such vast distances (R. Walker, 1990). The migrations of our Polynesian ancestors have often been romanticised and belittled by non-indigenous anthropologists. R. Walker (1990) explains Elsdon Best and Percy Smith were among the authors that romanticised Polynesian maritime skill; of note is the following quote from Best who stated "they steered their

primitive craft by the heavenly bodies, and by the roll of the waves, before the trade winds" (in R. Walker, 1990, p. 25).

These romanticised versions of early Polynesian voyaging made way for others to question Polynesian seafaring ability; one of the key authors to challenge these ideas was Andrew Sharp (1957). Sharp's (1957, 1961) ideas influenced the notion of the drift theory, wherein he criticised Polynesian navigational abilities creating the idea that Aotearoa, New Zealand was founded by virtue of these ancestors only being able to navigate within 300 nautical miles, anything further than this was described as a drift voyage (Eketone, 2004; R. Walker, 1990). This created a false view of the earliest Polynesian arrivals into Aotearoa, putting their voyages and journey down to accident. R. Walker (1990) asserts that many of these ideas that challenged Polynesian maritime reality, were a feature of European culture based on published material such as maps and charts as opposed to oral knowledge transmission.

The restoration of waka hourua (double-hulled sailing canoes) and sailing traditions in the 1980's, Hokule'a from Hawai'i and Hawaikinui belonging to Matahi Brightwell of Aotearoa, and revitilisation of traditional waka building techniques by master carvers such as Hekenukumai Busby, and the work of Hoturoa Barclay-Kerr, is a testament to the maritime brilliance of those early ancestors (Nelson, 1998; R. Walker, 1990). The recent voyages of Hokule'a, Hikianalea, Haunui, Fafaaite and the Marumaru Atua waka for example using traditional navigational techniques exemplify the ancient skill of early Polynesian navigators and sailors. Furthermore a number of authors have discussed the ancient art of way-finding and Polynesian navigation such as Lewis (1972), Finney & Low (2006), Bader & McCurdy (1999), Walker (1990), Harris et al. (2013) which prove Sharps' drift theory false.

One of the most popularised narratives regarding Polynesian migration to New Zealand is that of 'the great fleet', introduced by Percy Smith (Nelson, 1998; R. Walker,

1990; J. Williams, 2004a). R. Walker (1990) describes Smith's idea of 'the great fleet' as a story of a fleet of waka leaving Ra'iatea in 1350. He goes on to explain that this idea was then reinforced by a number of authors, including Elsdon Best and Te Rangi Hiroa that generations of children were taught to believe that the arrival and origin of Māori was in a fleet of seven waka. What is known however, is that waka were the vehicles on which our tūpuna journeyed to Aotearoa. This occurred in numerous migrations across multiple generations. Waka are a symbol of identity, mana and tribal territory for Māori (R. Walker, 1990). Inter-tribally the stories of voyaging and waka differ considerably however, waka remains the reoccurring thread that bind the first people of Aotearoa together, link us to our greater Polynesian whakapapa and to the marine environment.

Waka identity

Waka are therefore an important aspect of Māori identity, as waka were the vehicles our ancestors used to travel to Aotearoa, which made way for the establishment of iwi and hapū that Māori belong to today (Taonui, 1999; R. Walker, 1990). Taonui (1999) describes this connection explaining

Waka traditions are accounts of arrivals, dispersal and settlement. They tell of how tribes came into being and occupied their tribal lands, they not only explain origins but are also expressions of mana and identity. They define tribal boundaries and intertribal relationships. They merge poetry and politics history and myth, fact and legend (p. 87).

Taonui (1999) outlines a number of features which Māori associate with waka. Two of the concepts he acknowledges as both central to discussion of waka are mana and identity. Marsden (2003a) describes mana as spiritual power and authority whereas identity is what allows us to define ourselves as Māori. Identity is also very complex especially within a Māori context. It is dynamic and is subject to change through the influence of external factors

such as the environment, politics, ethnicity and location (Moeke-Pickering, 1996). Identity manifests at every level of society. Although perceived as an individual trait or concept, it is almost impossible to understand one's identity without considering the influences from these other levels. R. Walker (1989) describes identity as being defined in sequence by myth, tradition and history, each period capturing different nuances of the formation of Māori identity. For Māori, identity is woven into a complex inter-relationship of kinship ties and common whakapapa (Broughton, 1993; R. Walker, 1989).

Our tūpuna used tribal location and significant markers such as mountains and rivers to guide them thus acknowledging these features as a significant part of their identity; as referred to earlier in the pūrākau subsection. The intimate association with the land, ocean and naturally the spiritual connection went hand in hand. As Moeke-Pickering (1996) explains it is these traditional tribal structures and cultural practices that underpin the foundation of how Māori identity is conceptualised today. Furthermore waka and these voyaging traditions for many hapū and iwi provide a tangible origin for their connection to the marine environment. Celestial navigation and sailing techniques require an in-depth knowledge, understanding and observation of the stars and marine environment. Therefore the importance of kaitiakitanga was observed perhaps by no one more so than early Māori and Polynesian voyagers.

Waka Tikanga

Examining Māori voyaging traditions and their connection to kaitiakitanga in the marine environment also provides useful understandings of waka and tikanga. Tikanga related to waka and in particular the pūrākau of Rata and his waka is an example of the importance of the interaction between the realms and practices of different atua. This pūrākau also appeared throughout the archival material we examined (Journal of the Polynesian Society, No date; Ruatapu & Reedy, 1993).

The pūrākau of Rata and his waka is an early link between waka and the observance of tikanga. The pūrākau describes the story of Rata building a canoe and it begins when he fells one of Tane-mahuta's trees. However in doing this, Rata neglected to perform appropriate karakia to Tāne-mahuta which resulted in Tāne-mahuta's children, the hakuturi¹¹ (forest, fairy folk, birds, insects) resurrecting the tree, replacing every chip of wood until the tree was standing again (Nelson, 1998; R. Walker, 1990). The next day Rata found the tree upright and while he was perplexed he proceeded to cut the tree down, once again without ritual, and shape his waka. This time hiding himself in order to see what had happened to the tree and again the hakuturi came out to replace every chip of wood and resurrect the tree. Upon seeing the hakuturi resurrect the tree, Rata revealed himself in anger and startled the hakuturi. They reprimanded him for his failure to recognise and correctly acknowledge Tanemahuta, and his failure in seeking permission to take one of his children, in the form of a tree for his waka (R. Walker, 1990). As with all Māori traditions and narratives certain messages and lessons can be observed from this pūrākau (R. Walker, 1990). The key emergent message in this pūrākau is the importance of performing the appropriate rituals to ensure respect and recognise the mana of that atua and their descendants. In terms of tikanga waka, it is appropriate to recite karakia in order to gain permission and spiritual guidance before pursuing marine activities. This will ensure that we will be connected to the spiritual element of our world and be safeguarded within that realm. A further element of this connection and protection within the marine environment are kaitiaki.

Kaitiaki

Kaitiaki (also kaitieki) is literally translated as minder, custodian, guardian. In the contemporary context of the marine environment the term is often used to describe people who are charged with the guardianship and care of a specific area or tribal boundary however

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¹¹ Te Tini o te Hakuturi, mythical forest guardians.

in this section we refer to kaitiaki in the form of marine creatures and spiritual guardians. We continue this discussion in Wāhanga 4: Objective 2 as well. Direct references to kaitiaki throughout the archival material were limited however the source of the information for this section was the Journal of the Polynesian Society (Best, 1899, 1929; B. Graham, 1946; L. C. Gudgeon, 1906) whose issues contain a plethora of information both traditional and contemporary on Māori and Polynesian mythology, whakapapa and related matter. The search term 'kaitiaki' returned a limited number of entries, a large proportion of these as previously mentioned referred to human kaitiaki of the marine space and environment. However further searches using the term 'guardian' returned further relevant sources. Many of these sources referred to atua dwelling in different realms of the natural world who act as kaitiaki of those spaces. For example this excerpt from Best (1899) described the following atua as personifications of their environment

Wai-nui is the origin or mother of water. The great ocean, the flowing rivers and lakes—these are the *aria* (form of incarnation) or *kohiwitanga* (visible form) of Wai-nui, mother of waters and she is the personification of those waters, as Tane is the personification of trees and birds. Tangaroa, the Polynesian Neptune, who stands in the same relation to the ocean and the fish thereof as does Tane to forests and birds (p. 95-96, italics in original).

Best's (1899) reference to these atua and their relationship to the creatures and elements of the environment they personify identify them as the primal kaitiaki of these spaces. This highlights whakapapa as ever-present within Māori worldview, as in the context of marine kaitiaki there is a whakapapa-based system, wherein Kiwa is also associated with being a kaitiaki of the ocean however not sharing the same status as Tangaroa. Kiwa is acknowledged throughout pūrākau as a kaitiaki of the ocean, encapsulated in the Pacific Ocean being called Te Moana Nui a Kiwa, which Best (1928) states was the name "given to

the ocean on account of Kiwa being the guardian thereof" (p. 227). Kiwa's connection to the ocean also comes through his union with Hine-moana who is considered the female atua of the ocean or sea-maiden¹².

Creatures of the ocean can also be considered as kaitiaki of the marine space. Further reference to animals and creatures of the ocean as kaitiaki within the Journal of Polynesian Society was as taniwha (water spirit, guardian, supernatural creature) and tipua¹³ (strange being, object of fear). Taniwha and tipua appear consistently throughout pūrākau and iwi traditions, often described or conceptualised as 'monsters' or dangerous beings; taniwha and tipua had and continue to have a role in the protection of certain areas and of people.

It is important to note here that understandings of taniwha and tipua and stories about them will vary inter-tribally, between hapū and even between whānau based on experiences and whakapapa. However in general terms taniwha and tipua are an example of beings within the marine environment that reside in certain places in order to guide the interactions of people with that area (B. Graham, 1946). As B. Graham (1946) summarises

Each tribe, sub-tribe, and indeed family group, had its familiar *taniwha* or *tupua* of some kind. These beings were regarded with mixed feeling either of fear, or with deferential respect; as also indeed not without some affection. For they were beneficial as being the protective *atua* (guardian spirit) or *mauri* (mascot) of their connected tribal group. They were to be feared, also, when anybody wittingly or unwittingly offended them by the breach of some of the many rules of etiquette applying to *taniwha* and *tupua*. When offended against (even if unwittingly), they must be adequately placated by some appropriate *karakia* (invocation), and also by

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¹² Iwi of the East Coast also refer to Kiwa as their ancestor who is connected with both the Horouta and Takitimu canoes (W. E. Gudgeon, 1895).

¹³ Also referred to as tupua.

materially appropriate offerings (*takoha*) to meet the unfortunate occasion (p. 26, italics in original).

Within the records of the Journal of the Polynesian Society there were a number of references to taniwha and tipua. The following sample is from the writings of L.C. Gudgeon (1906) who describes a tipua by the name of Ruawhango who resides to the south of Kawhia. L.C. Gudgeon (1906) explains

Presumably Ruawhango is a spirit, but no one has ever seen it. All that is known is this: that its voice has often been heard warning those who came to gather shell-fish to desist from injuring the offspring of the *tipua*. I have not heard that any one required a second warning, and therefore this guardian of the *pipi*-beds has not found it necessary to personally interview intruders; and for this reason nothing is known of the social history or personal appearance of Ruawhango (p. 29, italics in original).

In this story, the presence of Ruawhango relates to kaitiakitanga through the preservation of the pipi beds. There are similarities throughout iwi traditions and pūrākau wherein taniwha and tipua are in place to give warning about events, characteristics of the water or environment for protection. As Keane (2007) explains taniwha can also represent kaitiaki in the form of different animals and creatures.

The story of Paikea, discussed previously in the pūrākau section is one such example, wherein Kahutiaterangi was saved from drowning through karakia and invoking the spirit of his ancestors through the kaitiaki of a whale; ultimately taking on the name Paikea to reflect this event. There are numerous other examples from around the motu (country) that detail animals as marine kaitiaki, held within written and oral sources of whānau, hapū and iwi. Information about different kaitiaki and features of the environment are often captured in phrases of Te Reo Māori such as pēpeha (tribal sayings) and whakataukī (proverbs). In the

two subsequent sections we examine pēpeha and whakataukī, focusing on their relevance for transmitting messages about kaitiakitanga in the marine environment.

Pēpeha

Mead (2003) explains pēpeha are often referred to as proverbs, however he contends that pēpeha "reflect thoughts on many aspects of Māori culture; history, religious life, conduct, ethics, warfare, marriage, death and weather" (p. 9). Pēpeha are constructs in Te Ao Māori that are used to locate people within time and space, with each other, and with sites of significance (Reilly, 2004). As Love (2002) explains "the relationships and histories carried within pēpeha provide a context which extends beyond the present situation, and often between the lives of both the speaker and the listener" (p. 3)

Furthermore Mead and Grove (2003) explain the relevance of pēpeha in a modern context is that pēpeha are "not merely historical relics. Rather they constitute a communication with the ancestors" (p. 3). Therefore pēpeha handed down and spoken by ancestors related to kaitiakitanga and to the marine environment provide us with a valuable insight into their thoughts about this space and how we can use their teachings and wisdom to inform the protection and management of this taonga in the present day. Included in Table 8 are a collection of pēpeha sourced from *Ngā pēpeha o ngā tūpuna*, referring to Tangaroa and the marine environment (Mead & Grove, 2003).

Table 8. *Pēpeha related to kaitiakitanga in the marine environment (Mead & Grove, 2003)*

Pēpeha	Whakamārama Analysis and Translation
825 "He wai Tangaroa i haere ai ki uta"	"By means of water Tangaroa went inland" -
Best 1976, p. 180; 1977a, p. 1, 80, 238+	In the mythology certain progeny of
	Tangaroa the personification of fish were
	able to journey inland through the water
	ways as do the eels. Others remained in the
	ocean and some of those, the whales became
	the saviours of mariners in distress when the
	proper karakia were recited. Thus it was that
	the Tākitimu canoe had the assistance of four

such monsters in its passage to Aotearoa (Mead & Grove, 2003, p. 135).

577 "He moana kē tā matawhāiti, he moana kē tā matauaua" Grey 1957, p. 21; Te Rangikāheke 1849, p. 113; Williams 1971, p. 192

"The sea of the prudent person and that of the rash one". The first person sets out when the sea is calm, the second when it is stormy. This is a warning against initiating a project when conditions are unfavourable (Mead & Grove, 2003, p. 100).

2219 "Tangaroa ara rau" Best 1929b, p. 139; Brougham 1975, p. 130, Grey 1857, p. 83 "Tangaroa of many paths". Here Tangaroa personifies eels, which move sinuously by so many paths that no matter how many are caught, many are sure to elude the eeler (Mead & Grove, 2003, p. 359).

2220 "Tangaroa kiriūka" Brougham 1975, p. 39 "Unflinching Tangaroa" Tangaroa god of sea creatures, stands here for the courageous and ferocious shark and therefore symbolises the intrepid warrior (Mead & Grove, 2003, p. 359).

2221 "Tangaroa piri whare" Brougham 1975, p. 50; Colenso 1879, p. 124; Grey 1857, p. 84

"Tangaroa is hiding in the house". Tangaroa, god of the sea, is invisible and heals all, so be careful, 'The walls have ears'. The saying is applied to a mischief eavesdropper (Mead & Grove, 2003, p. 359).

2222 "Tangaroa pūkanohi nui!" Brougham 1975, p. 79; Grey 1857, p. 83; Williams 1908, p. 30; 1971, p. 306

nui!" "Large-eyed Tangaroa." Tangaroa, god of the b. 83; sea, can see everything we do and hear everything we say (Mead & Grove, 2003, p. 359).

These are but a small selection of the pēpeha recorded by Mead and Grove (2003) in their Ngā pēpeha o ngā tūpuna collection. We chose these particular pēpeha due to their reference to Tangaroa and the āhua (appearance, condition) of the ocean. However this small selection highlights Mead and Groves' (2003) earlier point that these pēpeha signal constant communication with tūpuna and therefore provide guidance for our actions in a contemporary context. Iwi and hapū have a myriad of their own pēpeha held within oral traditions, and

⁺ Note. References as found within *Ngā Pepeha a ngā Tīpuna* by H.M. Mead & N. Grove, 2003.

woven into pūrākau, whakapapa and aspects of landscape. Within the context of this research, pēpeha can be drawn on to understand previous interaction with the marine environment and how these can inform our practices. Pēpeha referring to the characteristics and conditions of the ocean, sea creatures and resources provide a wealth of information and wisdom useful for careful management and decision-making regarding the marine space. The following and final section of Wāhanga 3: Objective 1 briefly discusses whakataukī, which in a similar thread to pēpeha, provide a window into the past to discuss and examine kaitiakitanga within the marine environment.

Whakataukī

Moorfield (2003) defines whakataukī as proverbs and significant or formulaic sayings, which as he contends, are key ingredients in whaikōrero or the Māori art of oratory. Hakopa (2011) extends this definition in relation to whaikōrero explaining, "whakataukī and pēpeha are common tools used to engage, instruct and edify an audience" (p. 10). Wehi, Cox, Roa and Whaanga (2013) explore this idea further describing whakataukī as a representation of "[one of] the main ways of transmitting information about all aspects of life and society including traditional ecological knowledge" (p. 59).

Throughout the archival material we examined there were limited references to whakataukī, however one occurance of whakataukī within the texts has been referred to earlier in the tikanga section of this report (see Royal, 1989). Additional references to whakataukī were found within a source entitled *Notebook of southern placenames, waiata, and vocabulary (1929-1930)* (Unknown, No Date) within the Hocken Library collections. References to whakataukī within this source were limited but did include one pertaining to the breaking of the dawn and as per the item description two whakatauki beginning with the lines "E rakau piko" and "E kura, kura Ngaitahu" respectively.

However in relation to whakataukī about the marine environment specifically Wehi et al. (2013) have conducted an in-depth study focused on the analysis of information contained within whakataukī concerning marine resources. Through this linguistic analysis Wehi et al. (2013) placed the whakataukī collected within five time periods making theirs a pre-eminent source for the examination of whakataukī in relation to the marine environment and resources.

Conclusion

The aim of Objective 1 was to analyse mātauranga associated with the marine environment through archival research and examination of key texts. The main findings were that mātauranga associated with the marine environment is expressed through features of Māori oral tradition including: tikanga (customs and protocols), karakia (incantations), whakapapa (genealogies), mōteatea (chants), pūrākau (stories and narratives), maramataka (lunar calendar and heavenly bodies), kupu (relevant words), waka voyaging traditions, kaitiaki and kaitiakitanga (guardianship), pēpeha (tribal sayings) and whakataukī (proverbs).

This chapter begun with a discussion of tikanga or protocols and practices related to the marine environment that emerged from the archival material. Within this material direct references to tikanga were limited. As with a number of other concepts and values, tikanga was inherent throughout the practices recorded in relation to the marine environment such as karakia. This was an interesting finding for us, however it highlights the interconnected and complex nature of mātauranga, wherein tikanga was embedded within practices related to the marine environment rather than discussed as an isolated process.

The subsequent section, on karakia, further highlighted this point wherein references to and the appearance of karakia were prevalent throughout the archival material. This section is one of the largest of this chapter, containing a detailed explanation of karakia and the role of karakia as these occurred throughout the texts. The key finding of this section as

alluded to previously was the myriad of karakia used for different activities in and around the marine environment. Particularly those viewed in John White's *Aspects of Māori Life* collection emphasise that the use of karakia traditionally was ever-present rather than reserved for ritual occasion only. That is, the karakia we examined throughout the texts were appealing to atua for guidance and protection in everyday activities in and around the marine environment; such as fishing, making nets and collecting pāua. The latter part of this section explored further nuances of karakia providing examples of more complex karakia, connected to specific iwi and hapū.

Mōteatea were introduced as a further theme and form of oral tradition sourced from *Ngā mōteatea* and the *Journal of the Polynesian Society*. As repositories of whakapapa, mōteatea provide another outlet through which to examine kaitiakitanga in the marine environment. This section provided samples of a number of mōteatea that make reference to the marine environment, whakapapa and significant events. Pūrākau or cultural narratives related to the marine environment that were present within the archival material were explored for their use in identifying beliefs and messages contained within them. Specifically pūrākau pertaining to Tangaroa, Takaroa¹⁴ and Māui were discussed. This section highlighted the use of cultural narratives and story-telling as a means to display and transfer wisdom, beliefs and values connected to the marine environment. The pūrākau that were briefly discussed in this section highlighted how these narratives continue to be embedded throughout the marine landscape and many modern day practices.

The section following pūrākau is based on maramataka, the Māori lunar calendar. Measurement of time and seasonal patterns through careful observation of lunar phases and celestial bodies is a practice that was integral to a Māori way of life. Furthermore maramataka and tātai arorangi are relevant because of the interconnected nature of the moon,

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¹⁴ The name given to Tangaroa in Ngāi Tahu dialect.

stars and the marine environment and how this can dictate marine related activity. This section examined the work of Roberts et al. (2006) and their extensive examination of maramataka from across Aotearoa, New Zealand and the Pacific, works of Best (1976) *Māori religion and mythology (Part 2)* and *The astronomical knowledge of the Māori*, as well as elements of the archival material that referenced maramataka and tātai arorangi.

The subsequent section discussed vocabulary that emerged from the archival material and texts including words, names and terms related to the marine environment. This section included various names given to aspects of the marine environment, which provided valuable insight into the characteristics of the environment from the perspectives of tūpuna. These characteristics were explored further in the next section which examined waka including: whakapapa, voyaging traditions, tikanga and identity. Voyaging and tikanga associated with waka is unique in the sense that it is one of the activities where our ancestors were perhaps the most connected with the marine environment. Therefore the mātauranga investigated within those sections provided further layers of understanding of kaitiakitanga in the marine environment in the past, presently and what this means for the future.

Following the discussion of waka was a brief overview of kaitiaki or marine guardians gathered from sources within the *Journal of the Polynesian Society*. This section explored pūrākau that contain reference to kaitiaki within the marine environment. Throughout many hapū and iwi pūrākau, taniwha and tipua are present to give warning about events, characteristics of the water or environment or for protection.

The final two sections in this Wāhanga discuss pēpeha and whakataukī related to the marine environment. The section based on pēpeha examined Mead and Grove's (2003) collection of pēpeha within $Ng\bar{a}$ pēpeha o $ng\bar{a}$ tūpuna. A selection of pēpeha were sampled in order to show the relevance of this ancient wisdom to the kaitiakitanga of the marine environment today. Finally whakataukī are discussed, throughout the archival material we

examined references to whakataukī were limited, however this section makes reference to the work of Wehi et al. (2013) who have examined whakataukī related to the marine environment in depth within their study.

This chapter provided an expansive view of oral traditions and literature that connect Māori to the marine environment. Throughout this chapter there are a myriad of interconnections between sections, as is the nature of whakapapa. The texts examined provide valuable insights into the past whilst offering mātauranga which can be used now and in the future for kaitiakitanga within the marine environment. This chapter is in no way a definitive collection of these sources, as each rohe (area), iwi (tribe), hapū (subtribe), hapori (community) whānau (family) will have their own mātauranga and stories connected to the marine environment. However Objective 1 provides the beginning of further discussions and examinations of how these texts and knowledge can be operationalised in order to preserve the marine environment for further generations.

Wāhanga 4:

Objective 2

The aim of Objective 2 was to undertake a desktop examination of literature, reports and frameworks relating to Māori perspectives of the marine environment. As such, we examined Māori beliefs, practices, ecology and rituals pertaining to the marine environment through an analysis of literature, reports and frameworks relating to mātauranga and kaitiakitanga which built upon prior research (Hepburn, Jackson, et al., 2010; Jackson, 2008b, 2010, 2011, 2013a, 2013b; Jackson et al., 2010). Utilising Kaupapa Māori Theory and Critical Discourse Analysis, we have positioned kaitiakitanga as a nodal discourse that subsumes many other "smaller" discourses. These smaller discourses of kaitiakitanga allow as well as restrict the boundaries for their meanings and usage. We preface this discussion by drawing upon J. Williams' (2012) point that kaitiakitanga has two elements; a metaphysical and a practical. J. Williams (2012) explains that

on the metaphysical level it [kaitiakitanga] refers to the various ways in which atua are manifest to support the present generation; each atua being seen to have its own area of concern. On the practical level, the practice of kaitiakitanga requires the Manawhenua linked with resources in a particular locality, to mirror the kaitiakitanga of atua for the good of the entire descent group (p. 99-100).

We have structured this section in two parts, following the working definition of kaitiakitanga according to J. Williams' (2012) conjecture. Thus, the first part outlines the discursive analysis of the metaphysical elements of kaitiakitanga which included: discourses of creation narratives of the marine environment; kaitiaki and non-human forms; kaitiakitanga, whakapapa, whanaungatanga and kinship; kaitiakitanga, spiritual beliefs and values; kaitiakitanga and taonga; and kaitiakitanga and rangatiratanga. The second part

outlines the discursive analysis of the practices of kaitiakitanga and includes: kaitiakitanga, mana and rangatiratanga; kaitiaki as humans; kaitiakitanga, ownership, control and userrights; kaitiakitanga, obligation, custodianship, guardianship, trustee and stewardship; kaitiakitanga, sustainable management, conservation and protection; kaitiakitanga and tikanga; kaitiakitanga and mātauranga: an in depth knowledge of resources; kaitiakitanga and traditional methods of management.

Working Definition of Kaitiakitanga

We return to the earlier working definition that we provided in Wāhanga 1: Introduction for kaitiakitanga. There are multiple meanings for the word kaitiakitanga and depending on the context and user can mean different things. The word kaitiakitanga consists of three parts: tiaki (verb); kai (prefix) and tanga (suffix). Marsden (2003b) outlines that while most definitions for tiaki are 'to guard', tiaki also has a range of other meanings depending on the context that the term is used in, such as "to keep, to preserve, to conserve, to foster, to protect, to shelter, to keep watch over" (p. 67). By adding the prefix kai to the verb tiaki, this signifies "the agent of the act. A *kaitiaki* is a guardian, keeper, preserver, conservator, foster-parent, protector. The suffix *tanga*, when added to the noun, transforms the term to mean guardianship, preservation, conservation, fostering, protecting, sheltering" (Marsden, 2003b, p. 67, italics in original).

Discursive Analysis of the Metaphysical Elements of Kaitiakitanga

The metaphysical elements of kaitiakitanga are: discourses of creation narratives of the marine environment; kaitiaki and non-human forms; kaitiakitanga, whakapapa, whanaungatanga and kinship; kaitiakitanga, spiritual beliefs and values; kaitiakitanga and taonga; and kaitiakitanga and rangatiratanga.

Discourses of creation narratives of the marine environment

To understand kaitiakitanga, and indeed any singular element of a Māori world (Marsden, 2003b; Royal, 1998a), it is critical to contextualise kaitiakitanga within a Māori worldview. Marsden's (2003b) assertion that conceptions of reality and creation narratives form worldview is similarly applied to the domain of Tangaroa and the other deities who preside within the marine environment. Building off the prior discussion in Wāhanga 1: Introduction, the universe is a holistic, complex web of interrelationships and layers including the metaphysical, spiritual and physical, which gives rise to the cultural and practical (Waitangi Tribunal, 1988). As discussed in the *Report of the Waitangi Tribunal on the Manukau claim* "the natural world of the Maori was not divided into seen and unseen parts, but the physical and spiritual dimensions formed an integral and indivisible entity. That perspective dominated from the beginning and provided the foundation for later environmental controls" (Waitangi Tribunal, 1985, p. 38).

As previously described in Wāhanga 3: Objective 1, there are multiple creation narratives, pūrākau and kōrero relating specifically to the marine environment. In the *Report of the Waitangi Tribunal on the Manukau Claim*, worldview was described in the following way as the "magico-religious world-view of the environment that readily lent itself to the conservation of the earth's natural resources" (Waitangi Tribunal, 1985, p. 38). In this section we examine creation narratives relating to atua; tūpuna and; mātauranga-ā-iwi, ā-hapū.

Atua (deities) and creation narratives

There were multiple creation narratives within the Waitangi Tribunal texts (Waitangi Tribunal, 1983, 1984, 1985, 1988, 1992, 2008, 2011a, 2011b, 2011c) which adds to the descriptions already provided in Wāhanga 3: Objective 1. The earlier Waitangi Tribunal reports (Waitangi Tribunal, 1983, 1984, 1985, 1988) in particular retold various creation narratives based off Hiroa (1949) and Best's (1929) work. There is a rich discussion provided in *The Report on the Management of the Petroleum Resource* which describes Tāne, the

separation of Ranginui and Papatūānuku, the creation of Hineahuone and the Māui stories for example (Waitangi Tribunal, 2011c).

As discussed in Wāhanga 3: Objective 1 there are numerous lessons that are derived from creation narratives. In *The Report on the management of the petroleum resource* there is a detailed assessment of a number of the lessons that can be garnered from creation narratives for example outlining that the separation of Ranginui and Papatūānuku "resulted in change and a will to shape and develop the environment" (Waitangi Tribunal, 2011c, p. 26). Furthermore, that Tāne's rebalancing of Papatūānuku led to the development of the

philosophy of aroha. This definition of aroha is not limited to the literal translation 'love' but can include distress or longing, pain, and yearning. It also relates to the notions of restoration and balance – where an imbalance requires correction, through aroha, this can be achieved through restoration...Another lesson is the relationship of all things in the environment through whakapapa. Everything comes from the union of Rangi and Papa. The story of Tāne fashioning the first human from the earth is part of the whakapapa to the land and underscores the depth of the affinity that Māori have with it (Waitangi Tribunal, 2011c, p. 26).

For marine specific descriptions the *Report of the Waitangi Tribunal on the Muriwhenua fishing claim* provides useful analyses; describing Tangaroa as god and father of the fish; Punga as father of the shark; Ru as the father of lakes and rivers (Waitangi Tribunal, 1988) for example. Adding to the pūrākau of the separation of Ranginui and Paptūānuku, as well as kōrero pertaining to Tangaroa (which has already been described), we will retell an abridged version of the pūrākau of Tūmatauenga.

Not all of brothers were happy with the separation of their parents, and one in particular was Tūmatauenga. Tūmatauenga is personified as the god of man and the god of war; he is one of the younger siblings of the supreme gods. Tūmatauenga stood up to his

older brothers, namely Tangaroa, Tāne, Rongomātāne and Haumiatiketike, in their pursuit of separating their parents. In doing so, Tūmatauenga removed the tapu from each of his brothers' domains. Thus, through whakapapa, as humans (as junior in the descent line), we can now eat the children of Tangaroa (fish and shellfish), Tāne (birds and berries), Rongomātāne (cultivated foods) and Hamiatiketike (uncultivated foods).

A further creation narrative that we examined is the pūrākau of Ikatere and Tuterangiwewehi. One of Tangaroa's sons was Punga, and his sons were Ikatere and Tuterangiwewehi. Upon the separation of Ranginui and Papatūānuku, and when each of the gods populated their different domains (Tāne to the forest, Tangaroa to the ocean for example), Ikatere remained within the sea as the progenitor of fish and Tuterangiwewehi fled inland as the progenitor of reptiles.

Smith (1999) cautions the usage of work such as Elsdon Best, John White, Edward Shortland and others. An interesting note to add is that at the end of Best's (1929) text, he has included twenty-three Te Reo Māori transcripts from various informants throughout New Zealand, which have informed his analyses. In particular, there is a written testimonial that provides a narrative describing the creation of shellfish.

These creation narratives highlight the indivisibility of the fabric of the universe and thus the resources that are from the gods. This is well articulated in the *Report of the Waitangi Tribunal on the Muriwhenua fishing claim* "to the pre-European Maori, creation was one total entity land, sea and sky were all part of their united environment, all having a spiritual source. It was by divine favour that the fruits from these resources became theirs to use" (Waitangi Tribunal, 1988, p. 179). Alongside creation narratives of various gods, within the Waitangi Tribunal texts and reports there were also numerous references of specific tūpuna.

Tūpuna (ancestors)

Each of the Waitangi Tribunal reports referred to different tūpuna. We do not have the scope to explore in detail each of the ancestors mentioned. We have described some tūpuna kōrero already in Wāhanga 3: Objective 1, including for example, Māui, Kupe and Paikea traditions (Best, 1929; Hiroa, 1949; Waitangi Tribunal, 1988). In the *Ko Aotearoa tēnei: A report into claims concerning New Zealand law and policy affecting Māori culture and identity* there is a comprehensive description of Kupe and some of his travels (which we have described previously in Wāhanga 3: Objective 1). There are also discussions in the *Ngai Tahu sea fisheries report* and the *Ngai Tahu land report* regarding Aoraki.

Aoraki is considered a tupuna maunga (ancestral mountain) for Ngāi Tahu. This is embodied by many whakataukī, waiata and pūrākau that pay reverence to Aoraki, the highest maunga in Aotearoa. For the people of Ngāi Tahu, Aoraki is considered a tupuna, based on their whakapapa and explanation for the creation of Te Waipounamu, the South Island. The story held by Ngāi Tahu is that Aoraki and his brothers descended from the heavens in order to visit their step-mother Papatūānuku. However, upon their attempt to launch their waka and return to the heavens they failed to correctly recite the appropriate rites causing their waka to fall back into the water and become overturned. It is this pūrākau, which explains a further name for the South Island as Te Waka o Aoraki. The aforementioned name is based on the belief that upon the capsize of their waka, Aoraki and his brothers became immortalised as the Southern Alps with Aoraki being the highest of its peaks (Anderson, 1998; Mules, 2007; Waitangi Tribunal, 1991).

Mātauranga-ā-iwi, ā-hapū

Each of the Waitangi Tribunal claims that we examined specifically highlight korero and purākau relevant to their areas, or as what Doherty (2012), refers to as mātauranga-ā-iwi (knowledge specific to a tribe) and mātauranga-ā-hapū (knowledge specific to a sub-tribe).

We highlight three examples relevant to the case study areas of Taranaki, "top of the South" and Ngāi Tahu.

In the *Report of the Waitangi Tribunal on the Motunui-Waitara claim* there is specific mātauranga belonging to Te Atiawa which provides "evidence of the role which the reefs and sea-bed play as a means of recording and transmitting cultural values" (Waitangi Tribunal, 1983, p. 6). This is further highlighted in the second half of this Wāhanga.

In the *Te Tau Ihu o Te Waka a Maui report on Northern South Island Claims*, and supported by the *Te Tau Ihu o Te Waka* series (Mitchell, Mitchell, Wakatū Incorporation, Ngāti Tama ki Te Waipounamu Trust, & Te Ātiawa o Te Waka-a-Māui Trust, 2004-2011). *Te Tau Ihu o Te Waka* is a series of four volumes written about the histories and stories of Te Tau Ihu o Te Waka a Maui (the top of the South Island) where the histories, oral traditions and other historical sources are seamlessly woven together (Mitchell et al., 2004-2011).

Volume one entitled *Te Tangata Me Te Whenua: The People and The Land* is perhaps the most significant in terms of this work and connection to the marine environment as it covers many myths and pūrākau of the region. Volume one includes the different narrations of the story of Te Tau Ihu as the prow of the canoes of Aoraki and Māui. This volume provides an explanation for the features of the landscape in this rohe. For example how Tute-Rakiwhanoa is responsible for sculpting much of the coastline around Te Tau Ihu. There is a myriad of pūrākau included also relating to people and different taniwha. The pūrākau are important as these hold stories and myth messages as well important ecological information that gives explanations for features of the land and the marine environment in Te Tau Ihu. One of the prominent characters referred to is Kupe, whose escapades throughout Te Moana o Raukawa (the Cook Strait) and Te Tau Ihu are recorded in the names of many landmarks. As has been reiterated frequently throughout this report such pūrākau provide guidelines for

our behaviour and interaction with place, thus Te Tau Ihu Volume One is a valuable and in depth insight into Te Tau Ihu stories and whakapapa.

Within a Ngāi Tahu context there is extensive oral and written history about the importance of fisheries and mahinga kai resources to Ngāi Tahu as described in the *Ngai Tahu sea fisheries report*. Mahinga kai was identified as one of the "nine tall trees" or nine major grievances Ngāi Tahu lodged against the Crown as part of the Ngāi Tahu Claim (WAI 27), such was its importance to the tribe. The importance of mahinga kai is outlined in *Ngāi Tahu 2025* which states that

Our natural environment – whenua, waters, coasts, oceans, flora and fauna – and how we engage with it, is crucial to our identity, our sense of unique culture and our ongoing ability to keep our tikanga and mahinga kai practices alive.

It includes our commemoration of the places our tūpuna moved through in Te Waipounamu, and the particular mahinga kai resources and practices we used to maintain our ahi kā anchoring our whakapapa to the landscape. Wherever we are in the world, these things give us our tūrangawaewae. They form our home and give us a place to return to and provide us with what we need to be sustained as Ngāi Tahu. (Te Rūnanga o Ngāi Tahu, no date, p. 8)

Māori creation narratives, inclusive of atua narratives, tūpuna, mātauranga-ā-iwi, ā-hapū forms a comprehensive backdrop of Māori worldview. Each iwi and hapū have their distinct worldview and we are also able to draw some commonalities, which are highlighted in the *Report of the Waitangi Tribunal on the Muriwhenua Fishing Claim* which summarises Māori understandings in the following way

- (i) A reverence for the total creation as one whole;
- (ii) A sense of kinship with fellow beings;

- (iii) A sacred regard for the whole of nature and it's resources as being gifts from the gods;
- (iv) A sense of responsibility for these gifts as appointed stewards, guardians and rangatira;
- (v) A distinctive economic ethic of reciprocity; and
- (vi) A sense of commitment to safeguard all of natures resources (taonga) for the future generations (Waitangi Tribunal, 1988, p. 179).

Alongside creation narratives, atua, tūpuna and mātauranga-ā-iwi, ā-hapū is the relevance of non-human kaitiaki which also have distinct pūrākau, kōrero and narratives associated with them.

Kaitiakitanga and non-human forms

As previously described in Wāhanga 3: Objective 1, kaitiaki take on non-human forms (M. Kawharu, 2000; Marsden, 2003b; Roberts et al., 1995). Matiu and Mutu (2003) explain that "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" (p. 167). The non-human kaitiaki are discussed in depth in *Ko Aotearoa tēnei: A report into claims concerning New Zealand law and policy affecting Māori culture and identity* which outlines that kaitiaki "can be spiritual guardians existing in non-human form. They can include particular species that are said to care for a place or a community, warn of impending dangers and so on. Every forest and swamp, every bay and reef, every tribe and village – indeed, everything of any importance at all in te ao Māori – has these spiritual kaitiaki" (Waitangi Tribunal, 2011b, p. 23). There are different forms of kaitiaki for example as described in *Ko Aotearoa tēnei: A report into claims concerning New Zealand law and policy affecting Māori culture and identity*

some [kaitiaki] have physical representations like reptiles (especially lizards and associated species) or as dog forms, fish, or denizens of the ocean. These are termed taniwha. Then there are the kaitiaki in the form of rocks, trees, or features like unusual pools of water. These are called tipua kaitiaki. There are also the carved kaitiaki, either realised in stone (which was the usual practice) or in wood...These forms of kaitiaki were responsible for the mauri of the natural elements (Waitangi Tribunal, 2011c, p. 30).

Furthermore, in Ko Aotearoa tēnei: A report into claims concerning New Zealand law and policy affecting Māori culture and identity, there are tipua for example in rock form (Waitangi Tribunal, 2011c), wāhi tapu (significant sites) and landmarks "including mountains, rivers, and lakes, can also be recognised as kaitiaki. They hold the mauri of a district and a whole tribe" (Waitangi Tribunal, 2011c, p. 32). These forms of kaitiaki are similar to the discussions provided in Wāhanga 3: Objective 1 and also relates to the subsection examining kaitiaki as humans. The presence of these kaitiaki and tipua, as described Ko Aotearoa tēnei: A report into claims concerning New Zealand law and policy affecting Māori culture and identity are perhaps the precedence for the practice of kaitiakitanga by us as humans. Kaitiaki and tipua inhabited places in order to maintain there mauri an act which is the central tenet of kaitiakitanga today. In the following section we further explore the notions of kaitiakitanga and whanaungatanga as the appeared within the Waitangi Tribunal texts.

Kaitiakitanga and whakapapa, whanaungatanga and kinship

Throughout the Waitangi Tribunal texts whakapapa, whanaungatanga and kinship were frequently referred to. As such, we have collapsed these phrases to reflect kaitiakitanga as whakapapa, whanaungatanga and kinship (as described in Wāhanga 1: Introduction). Whakapapa is the origin. Through tracing whakapapa, whether from now to the source or

vice versa, what emerges is a rich tapestry of relationships. These kinship relationships are described as whanaungatanga which is outlined in *Ko Aotearoa tēnei: A report into claims concerning New Zealand law and policy affecting Māori culture and identity*

That is why whakapapa (genealogy) is so important: it is the practical manifestation of the kinship principle. For this reason, Māori relationships with taonga in the environment – with landforms, waterways, flora and flora, and so on – are articulated using kinship concepts. Indeed, the first step in understanding the Māori relationship with the landscape (for example) is to understand that descent from it is an essential Māori belief. Māori attitude towards the environment make sense if that is grasped (Waitangi Tribunal, 2011b, p. 105).

As such, the Ko Aotearoa tēnei: A report into claims concerning New Zealand law and policy affecting Māori culture and identity uses kinship as the translation for whanaungatanga and explains that

We [Waitangi Tribunal] mean kinship here in the wider sense, as used in a culture that sets such store by descent that commonly recited family lines are measured in 40 generations or more...whanaungatanga is the organising principle of mātauranga Māori. It describes the relationships between people, between people and natural resources, even between related bodies of knowledge. In fact, all relationships of importance in mātauranga Māori are explained through kinship (Waitangi Tribunal, 2011b, p. 105).

The Waitangi Tribunal provides a succinct description of this relationship between whanaungatanga and kaitiakitanga explaining that "kaitiakitanga is really a product of whanaungatanga – that is, it is an intergenerational obligation that arises by virtue of the kin relationships. It is not possible to have kaitiakitanga without whanaungatanga. In the same way, whanaungatanga always creates kaitiakitanga obligations" (Waitangi Tribunal, 2011b,

p. 105). The context for kaitiakitanga is also important and this is within Māori worldview which takes it beyond just the "Maori conservation ethic" (Roberts et al., 1995, p. 16) and to where M. Kawharu (2000) argues that kaitiakitanga finds its locale, within "Maori kin-based communities because it weaves together ancestral, environmental and social threads of identity, purpose and practice" (p. 350). For example

This system of thought provides intricate descriptions of the many parts of the environment and how they relate to each other. It asserts hierarchies of right and obligation among them: humankind, for example, has dominion over plants because whakapapa tells of the victory of Tū-mata-uenga over his brother Tāne-mahuta [as has been discussed]. These rights and obligations are encompassed in another core value — *kaitiakitanga*. Kaitiakitanga is the obligation, arising from the kin relationship, to nurture or care for a person or thing. It has a spiritual aspect, encompassing not only an obligation to care for and nurture not only physical wellbeing but also mauri (Waitangi Tribunal, 2011b, p. 23, italics in original).

The importance of whakapapa, whanaungatanga and kinship is critical in understanding the practical but perhaps more importantly the spiritual elements of kaitiakitanga.

Kaitiakitanga, spiritual beliefs and values

Alongside a comprehensive examination of worldview, and the organising principles of whakapapa, whanaungatanga and kinship, we analysed spiritual beliefs and values. Building off Marsden's (2003a, 2003b, 2003c) body of work which explained that values emerged from creation narratives and conceptions of reality. Awatere & Harmsworth (2014) define values as "instruments through which Māori make sense of, experience, and interpret their environment" (p. 5). The importance of Māori values is expressed succinctly in the *Report of the Waitangi Tribunal on the Muriwhenua fishing claim* that

To understand the foundation upon which our people [Māori] lived their lives, we must first understand their spiritual beliefs as practiced by their leaders, priests and people as a whole, in their time. In regards to our fishing rights and traditional grounds, we must first examine their spiritual concepts before we can understand how they were able to control their fishing areas, and all that that entails (Wiremu Paraone in Waitangi Tribunal, 1988, p. 15).

There are numerous spiritual beliefs that are associated with kaitiakitanga. In this section, we will examine some of these spiritual beliefs and values, namely: mauri, mana, tapu and noa.

Kaitiakitanga and mauri

The Williams Dictionary of the Maori Language defined mauri or mouri, n. as

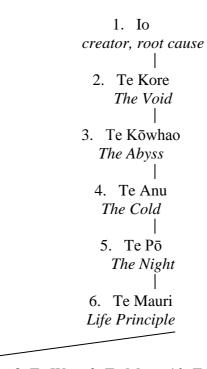
- 1. Life principle, thymos of man. Called sometimes mauri ora.
- 2. Source of emotions; not to be confused with the material seat of the same in manawa or ngākau. From this comes oho mauri, start suddenly...Also mauri rere, panic-stricken; mauri tau, absence of panic.
- 3. *Talisman*, a *material symbol* of the hidden principle protecting vitality, **mana**, fruitfulness, etc,. of people, lands, forests etc...In some instances **mauri** apparently indicated the principle itself, which the symbol was spoken of as **aria**.
- 4. A young plant of **māpou**, or some other shrub, pulled up by the roots and used in connection with certain **karakia**.
- 5. Poles of māpou, erected for the pure ceremony in connection with the kumara crop; called also toko, or toko-mauri.
- 6. The name of a class of karakia.

Kaitiakitanga and mauri are intimately connected. Mauri is the life essence (Jackson, 2015b). Mauri is also discussed in the *Report on the management of the petroleum resource* as "a divine spark and presence which gives all things animate or inanimate quality, vitality,

meaning, value, poise, longevity, and mana" (Waitangi Tribunal, 2011c, p. 30). Marsden (2003c) explains that

imminent within all creation is *mauri* – the life force which generates, regenerates and upholds creation. It is the bonding element that knits all the diverse elements within the Universal 'procession' giving creation its unity in diversity. It is the bonding element that holds the fabric of the universe together (p. 44, italics in original).

Marsden's (2003c) description highlights the life supporting capacity of mauri. Drawing on Marsden's (2003a) whakapapa as shown in *Figure 4*, mauri is a common ancestor to the creation of thought, life, the natural universe and human beings.



- 7. Te Pū, 8. Te Weu, 9. Te More, 10. Te Aka, 11. Te Rea 7. Shoot, 8. Taproot, 9. Laterals, 10. Rhizome, 11. Hairroot
- 12. Te Rapunga, 13. Te Whāinga. 14. Te Kukune, 15. Te Pupuke, 16. Te Hihiri 12. Seeking, 13. Pursuit, 14. Extension, 15. Expansion, 16. Energy
- 17. Te Mahara, 18. Te Hinengaro, 19. Te Whakaaro, 20. Te Whē, 21. Te Wānanga 17. Primordial Memory, 18. Deep Mind, 19. Sub-conscious Wisdom, 20. Seed-word, 21. Consciousness Achieved Wisdom

22. Te Hauora, 23. Te Ātāmai, 24. Te Āhua, 25. Wā, 26. Ātea 22. Breath of Life, 23. Shape, 24. Form, 25. Time, 26. Space

27. Ranginui/Papatuanuku 27. Heaven/Earth (The Natural World)

Figure 4. A genealogy of the cosmos. This is an abridged version of Māori Marsden's creation whakapapa. Adapted from "God, man and universe: A Māori view," by M. Marsden, 2003, in T. A. C. Royal (Ed.), *The woven universe: Selected writings of Rev. Māori Marsden*, p. 181.

Linked to kaitiakitanga, we, as juniors to mauri have a necessary obligation and responsibility to protect it. Furthermore, the description illustrates how kaitiakitanga is aimed

at protecting the mauri of the resource (which we will describe in more detail in the second half of this section). In Marsden's whakapapa of the creation of the universe, mauri existed prior to this world, and was the driving force of the process of creation from Te Korekore (the world of potential being), to Te Pō (the world of becoming) and Te Ao Mārama (the world of being) as highlighted in *Figure 4*. Marsden (2003a) continues that "mauri was the force or energy mediated by hauora – the breath of the spirit of life. Mauri-ora was the lifeforce (mauri) transformed into life-principle by the infusion of life itself" (p. 44). Marsden (2003a) describes three mauri: mauri atua; mauri tangata and; mauri manaaki whereby

Under the principle of *Mauri Manaaki*, derived from the mauri of a meeting house in which the mauri was implanted by Tāne in *Wharekura* (the first *whare wānanga*) came the custom (*tikanga*) of *tuku rangatira* (noblesse oblige). Tāne planted three mauri in Wharekura: *Mauri Atua* (life force of the gods), *Mauri Tangata* (the life force of tangata whenua) and *Mauri Manaaki* (the life force of the guests and visitors).

The word *manaaki* means to bestow a blessing. The presence of visitors was equivalent of the bestowal of a blessing upon the hosts. On the part of the hosts, they bestowed a blessing upon the guests by giving them the best of their provisions in the $h\bar{a}kari$ (banquet) and hospitality provided. This was a reciprocal relationship which could be extended by the exchange of gifts (p. 71, italics in original).

The practices of kaitiakitanga are to enhance the spiritual elements of mauri. The desecration of mauri refers to not only physical desecration but also spiritual and is described as mauri mate and mauri noho (Morgan, 2004). As will be described in the second half of this section, numerous claims that were brought to the Waitangi Tribunal related to the desecration of mauri.

An important connection is made between mauri and mana in the *Report on the management of the petroleum resource* where it is stated that "mana is the result of mauri and is achieved when mauri is safe and enhanced. The focus of any endeavour should always be on mauri. Mana is the reward of that achievement, but people should be aware of its pitfalls" (Waitangi Tribunal, 2011c, p. 30). As such, the next value that we will explore is mana.

Kaitiakitanga and Mana

The Williams dictionary of the Maori language defined mana as (i)

- 1. n. Authority, control.
- 2. Influence, prestige, power.
- 3. Psychic force.
- 4. a. Effectual, binding, authoritative.
- 5. Having influence or power.
- 6. *Vested with effective authority.*
- 7. v.i. Be effectual, take affect.
- 8. Be avenged.

In this context, we refer to mana as spiritual authority. This explanation is furthered in the *Report on the management of the petroleum resource* (Waitangi Tribunal, 2011b) which highlights the interrelationships between non-human kaitiaki, mauri and mana which is drawn from Matiu and Mutu (2003) in a Ngāti Kahu context who explain that

in Māori cultural terms, all the natural, physical elements of the world are related to one another, and each is controlled and directed by the numerous spiritual assistants of the gods. These spiritual assistants often manifest themselves in physical forms such as fish, animals, trees or reptiles...Each kaitiaki is imbued with mana. Man being descended from the gods is likewise imbued with mana although that mana can be removed if it is violated or abused. There are many forms and aspects of mana, of

which one is the power to sustain life...Māoridom is very careful to preserve the many forms of mana it holds, and in particular is very careful to ensure that the mana of kaitiaki is preserved...In this respect Māori become one and the same as kaitiaki (who are, after all, their relations), becoming the 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 (p. 167).

This relationship between mana and kaitiakitanga is aptly described by Selby et al., (2010) whereby kaitiakitanga "is an inherited commitment that links mana atua, mana tangata and mana whenua, the spiritual realm with the human world and both of those with the earth and all that is on it (p. 1). People, kaitiaki and places are imbued with mana, and embody mana, which means there is an inherent obligation to enhance this mana (in a word, manaakitanga), which we discuss in the second half of this section. Further values that were examined were tapu and noa.

Kaitiakitanga, tapu and noa

The Williams dictionary of the Maori language defines tapu as

- 1. a. *Under religious* or *superstitious restriction*; a condition affecting persons, places, and things, and arising from innumerable causes. Anyone violating **tapu** contracted a **hara**, and was certain to be overtaken by calamity. As a rule, elaborate ceremonies were necessary to remove **tapu** and make anything **noa**.
- 2. Beyond one's power, inaccessible.
- 3. Sacred.
- 4. n. Ceremonial restriction, quality or condition of being subject to such restriction.

There were multiple examples of the tapu of the sea throughout the reports which we describe in particular in the second section of this Wāhanga. For example, in *Report of the Waitangi Tribunal on the Manukau claim* "tribes taught a respect for the sea, the sea gods and

for Kaiwhare the guardian spirit of the Manukau who wreaked havoc on transgressors. We [Waitangi Tribunal] were told of the maintenance of the laws of the sea through tapu and rahui (with their self imposed punishments by whakahawea and maori mate)" (Waitangi Tribunal, 1985, p. 38). The value of tapu is often paired with the value of noa.

The Williams dictionary of the Maori language defines **noa** as

- 1. a. Free from tapu and any other restriction.
- 2. Of no moment, ordinary.
- 3. Within one's power.
- 4. ad. denoting absence of limitations or conditions, to be translated variously according to the context. (a) Without restraint. (b) Spontaneously, of oneself. (c) Gratuitously. (d) Without consideration or argument. (e) At random, without object. (f) Idly, without occupation. (g) Fruitlessly, in vain. (h) As soon as. (i) At all. (j) Already. (k) Quite, altogether. (l) Just, merely. (m) Indicating extension of time, space etc.

These are some of the specific values that we examined in the Waitangi Tribunal reports. There were numerous other values and concepts present. We will now examine the discourse of taonga.

Kaitiakitanga and taonga

A prevalent discourse that emerged throughout the Waitangi Tribunal texts and explored in detail in *Ko Aotearoa tēnei: A report into claims concerning New Zealand law and policy affecting Māori culture and identity* was taonga. The *Williams dictionary of the Maori language* defines **taonga** n. as

1. Property, anything highly prized.

As previously described in Wāhanga 2: Methodology, the word taonga is found within Article II of Te Tiriti o Waitangi as such this relates specifically to the Kaupapa Māori

Theory principle of taonga tuku iho (the principle of cultural aspirations). In the earlier Waitangi Tribunal reports (1983, 1988), the position that fisheries are a taonga was clearly articulated. This is aptly described in the *Report of the Waitangi Tribunal on the Muriwhenua fishing claim*

the fisheries taonga, like other taonga, is a manifestation of a complex Maori physic-spiritual conception of life and life's forces. It contains economic benefits, but it is also a giver of personal identity, a symbol of social stability, and a source of emotional and spiritual strength. This vision provided the mauri (life-force), which ensured the continued survival of the iwi Maori. Maori fisheries include, but are not limited to a narrow physical view of fisheries, fish, fishing grounds, fishing methods (Waitangi Tribunal, 1988, p. 180).

Each iwi and hapū have their understanding of taonga. For example in the *Report of the Waitangi Tribunal on the Motunui-Waitara claim* the Waitangi Tribunal explained that "the general word 'taonga' embraces all things treasured by their ancestors, and includes specifically the treasures of the forests and fisheries. We [Waitangi Tribunal] accept that approach. We [Waitangi Tribunal] note that tribal fishing grounds, like specific areas that were renowned as sources of food, were regarded as part and parcel of tribal treasure troves, and were often the cause of tribal conflict" (Waitangi Tribunal, 1983, p. 50).

The marine environment is a taonga. It contains spiritual, cultural, physical and economic elements. For example, spiritually as described throughout this research and reflected for example in the *Report of the Waitangi Tribunal on the Muriwhenua fishing claim* that "the fisheries taonga contains a vision stretching back into the past, and encompasses 1,000 years of history and legend, incorporates the mythological significance of the gods and taniwha, and of the tipuna and kaitiaki (Waitangi Tribunal, 1988, p. 180). Physically, taonga refers to those resources within the marine environment (and the marine

environment itself), the waters, as well as how this is managed (and is the focus of the second half of this Wāhanga). This is described in the *Report of the Waitangi Tribunal on the Muriwhenua fishing claim* "in the Maori idiom 'taonga' in relation to fisheries equates to a resource, to a source of food, an occupation, a source of goods for gift-exchange, and is a part of the complex relationship between Maori and their ancestral lands and waters" (Waitangi Tribunal, 1988, p. 180). Culturally, taonga refers for example to the values and how the marine environment is appropriately managed and cared for, in light of Māori worldview. As described for example in the *Report of the Waitangi Tribunal on the Muriwhenua fishing claim* that "in their own cultural terms they would have known that access to the fisheries was gained from Tangaroa in return for the observance of the appropriate rites" (Waitangi Tribunal, 1988, p. 180). Economically, a major difference in Māori conceptions of taonga is expressed in the *Report of the Waitangi Tribunal on the Muriwhenua fishing claim* where "taonga were either gifted or wrested, never sold" (Waitangi Tribunal, 1988, p. 180). We continue this discussion in the second half of this Wāhanga.

We position that the marine environment is a taonga incorporating the spiritual, physical, cultural and economic elements of the definition of taonga. Each of these elements are critical for Māori understandings of the marine environment. In particular, the *Report of the Waitangi Tribunal on the Muriwhenua fishing claim* highlights the future focus where "the taonga endures through fluctuations in the occupation of tribal areas and the possession of resources over periods of time, blending into one, the whole of the land, waters, sky, animals, plants and the cosmos itself, a holistic body encompassing living and non-living elements" (Waitangi Tribunal, 1988, p. 180).

Desecration/negative impact on kaitiakitanga

Throughout the Waitangi Tribunal reports that were analysed, a prevalent discourse that emerged was the negative impact or desecration of a taonga. As has been established,

the marine environment is a taonga and thus when it is desecrated (for example through pollution) it is not only the physical elements that are affected, but the spiritual, cultural, physical and economic elements as well. Thus because of the complex spiritual and physical components of resources (through a common lineage to the primordial parents), when a resource is desecrated, the physical and spiritual elements are affected (M. Kawharu, 1998) and so are the other elements that share the thread of whakapapa. The impact is not only upon the physical resource but especially upon the mauri of the taonga, for example "a taonga whose life force becomes severely depleted...presents a major task for the kaitiaki" (Matiu & Mutu, 2003, p. 168).

Numerous claims highlighted the desecration of their respective taonga, for example in the *Report of the Waitangi Tribunal on the Manukau Claim* the following impacts are described: impact of the Mangere Sewage Purification Works (p. 54-55); the Slurry Pipeline and the mixing of waters (p. 55-58); New Zealand Steel Limited, Forest Service and the Maioro Mine Site (p. 58); the impact of people (p. 62); the LPG Wharf Terminal (p. 62) for example. This importance of the taonga and the impact of when it is desecrated is described in the following way in the *Report of the Waitangi Tribunal on the Muriwhenua fishing claim*

When areas of ancestral land and adjacent fisheries are abused through over-exploitation or pollution the tangata whenua and their values are offended. The affront is felt by present-day kaitiaki (guardians) not just for themselves but for their tipuna in the past. The Maori 'taonga' in terms of fisheries has a depth and breadth which goes beyond quantitative and material questions of catch volumes and cash incomes. It encompasses a deep sense of conservation and responsibility to the future which colours their thinking, attitude and behaviour towards their fisheries. The fisheries taonga includes connections between the individual and tribe, and fish and fishing grounds in the sense not just of tenure, or 'belonging', but also of personal or tribal

identity, blood and geneology [sic], and of spirit. This means that a 'hurt' to the environment or to the fisheries may be felt personally by a Maori person or tribe, and may hurt not only the physical being, but also the prestige, the emotions and the mana" (Waitangi Tribunal, 1988, p. 180).

This is further discussed by Matiu & Mutu (2003) in a Ngāti Kahu context

Should they [kaitiaki] fail to carry out their kaitiakitanga duties adequately, not only will mana be removed, but harm will come to the members of the whānau and hapū. 'Thus a whānau or a hapū who still hold mana in a particular area take their kaitiaki responsibilities very seriously. The penalties for not doing so can be particularly harsh. Apart from depriving the whānau or hapū of the life-sustaining capacities of the land and sea, failure to carry out kaitiakitanga roles adequately also frequently involves the untimely death of members of the whānau or hapū (p. 168).

Restoration of mana is a critical element and it is the role of the kaitiaki who are embedded with mana to manage the marine environment

In order to uphold their mana, the tāngata whenua as kaitiaki must do all in their power to restore the mauri of the taonga to its original strength. 'In specific terms, each whānau or hapū is kaitiaki for the area over which they hold mana whenua, that is, their ancestral lands and seas (Matiu & Mutu, 2003, p. 168).

Kaitiakitanga and rangatiratanga

In the Williams dictionary of the Maori language rangatiratanga, n. is defined as Evidence of breeding and greatness. Rangatira n. is defined as

- 1. Chief, male or female.
- 2. Master or mistress.
- 3. Person of good breeding.

- 4. a. Well born, noble.
- 5. In the expression whenua rangatira, state of peace.

As outlined in Wāhanga 2: Methodology rangatiratanga is guaranteed in Article II of te Tiriti o Waitangi which also reflects the Kaupapa Māori principle of tino rangatiratanga (principle of self-determination). There are strong connections between rangatiratanga and kaitiakitanga (Harmsworth, 2005; M. Kawharu, 1998, 2000) whereby kaitiakitanga is exercised through the authority embedded in rangatiratanga. As M. Kawharu (2000) outlines "kaitiakitanga is both an expression and affirmation of rangatiratanga" and explains that "rangatiratanga" is the authority for kaitiakitanga to be exercised" (p. 353, italics in original).

The *Ngai Tahu Sea Fisheries Report* also outlined the relationship between people and their atua, people and their resources, which are (like themselves) also genealogically linked to their atua and this provides the background for rangatiratanga

Rangatiratanga operates within the kin relationship between these concepts - gods, people, resources. With regard to fisheries the reference point is Tangaroa. There are no limitations to the bounty of Tangaroa except respect for the resource and sustainability of the resource. Rangatiratanga includes management and control of the resource and reciprocal obligations between those who actually harvest the resource (Waitangi Tribunal, 1992, p. 100).

Manawhenua and mana moana status is implicit and mandatory for the exercise of kaitiakitanga. Marsden (2003a) explains that "kaitiakitanga and *rangatiratanga* are intimately linked...the rangatira proclaimed and enforced rāhui since he was the rangatira over the tribal territory" (p. 71), which we will describe in further detail in the second part of this Wāhanga. In the *Ko Aotearoa tēnei: A report into claims concerning New Zealand law and policy affecting Māori culture and identity*

The most important of the Treaty promises in the context of this claim was the promise to protect the tino rangatiratanga of iwi and hapū over their 'taonga katoa' — that is, the highest level of chieftainship over all their treasured things. Most speakers of Māori would render this phrase, tino rangatiratanga, in its Treaty context as a right to autonomy or self-government. Thus, as this Tribunal has often said, the sovereignty of the Crown was intended to be qualified by the Crown obligation to actively protect Māori rangatiratanga (Waitangi Tribunal, 2011b, p. 25).

This complex relationship between kaitiakitanga and rangatiratanga is explained in the Report of the Waitangi Tribunal on the Motunui-Waitara claim

'Te tino rangatiratanga o o ratou taonga' tells of the exclusive control of tribal taonga for the benefit of the tribe including those living and those yet to be born. There are three main elements embodied in the guarantee of rangatiratanga. The first is that authority or control is crucial because without it the tribal base is threatened socially, culturally, economically and spiritually. The second is that the exercise of authority must recognise the spiritual source of taonga (and indeed of the authority itself) and the reason for stewardship as being the maintenance of the tribal base for succeeding generations. Thirdly, the exercise of authority was not only over property, but of persons within the kinship group and their access to tribal resources.

We [Waitangi Tribunal] consider that the Maori text of the Treaty would have conveyed to Maori people that amongst other things they were to be protected not only in the possession of their fishing grounds, but in the mana to control them and then in accordance with their own customs and having regard to their own cultural preferences (Waitangi Tribunal, 1983, p. 51).

We will continue some of the issues raised in the *Report of the Waitangi Tribunal on the Motunui-Waitara claim* in these excerpts in the second half of this Wāhanga.

Conclusion

While we have separated the metaphysical and practical elements of kaitiakitanga, this is partly for structuring this report; the important reminder is that the interconnectedness and indivisibility remains. The metaphysical elements we examined were: discourses of creation narratives of the marine environment; kaitiaki and non-human forms; kaitiakitanga, whakapapa, whanaungatanga and kinship; kaitiakitanga, spiritual beliefs and values; kaitiakitanga and taonga; and kaitiakitanga and rangatiratanga. The next part examines the practical elements of kaitiakitanga.

Discursive analysis of the practices of Kaitiakitanga

As previously described in the subsection entitled Kaitiakitanga, spiritual values and beliefs, there are numerous values of importance within a Māori context. While we have focused on spiritual values, in this section we will explore the practical applications of some of those values. Awatere and Harmsworth (2014) explain that values

form the basis for the Māori world view (Te Ao Māori), and provide the concepts, principles and lore, Māori use to varying degrees in everyday life, and to form ethics and principles. They can govern responsibilities and the relationship Māori have with the environment and the way they make decisions (p. 5).

There are numerous values that are relevant within a Māori worldview context, Awatere and Harmsworth (2014) describe the following for example

tikanga (customary practice, values, protocols), whakapapa (ancestral lineage, genealogical connections, relationships, links to ecosystems), rangatiratanga (self-determination), mana whenua (authority over land and resources), whānaungatanga (family connections), kaitiakitanga (environmental guardianship), manaakitanga (acts

of giving and caring for), whakakotahitanga (consensus, respect for individual differences and participatory inclusion for decision-making), arohatanga (the notion of care, respect, love, compassion), and wairuatanga (a spiritual dimension) (p.5).

From our analyses of Waitangi Tribunal reports, we will examine some of the values mentioned by Awatere and Harmsworth (2014), however we situate our analyses upon the discourses of kaitiakitanga and namely the practices of kaitiakitanga. As such, in the second part of Wāhanga 4: Objective 2 we outline the discursive analysis of the practices of kaitiakitanga which includes: kaitiakitanga, mana and rangatiratanga; kaitiaki as humans; kaitiakitanga, ownership, control and user-rights; kaitiakitanga, obligation, custodianship, guardianship, trustee and stewardship; kaitiakitanga, sustainable management, conservation and protection; kaitiakitanga and tikanga; kaitiakitanga and mātauranga: an in depth knowledge of resources; kaitiakitanga and traditional methods of management.

Kaitiakitanga, mana and rangatiratanga

Following from the prior discussion on rangatiratanga, it is the chief (or those in leadership) who holds the mana and therefore rangatiratanga in the context of the marine environment. The *Williams dictionary of the Maori language* defined **mana** as (i)

- 1. n. Authority, control.
- 2. Influence, prestige, power.
- 3. Psychic force.
- 4. a. Effectual, binding, authoritative.
- 5. Having influence or power.
- 6. Vested with effective authority.
- 7. v.i. Be effectual, take affect.
- 8. Be avenged.

As Marsden (2003a) explains, mana "is divine authority and power bestowed upon a person divinely appointed to an office and delegated to fulfil the functions of that office" (p. 40). The person is imbued with "authority (mana) and hau (breath of spirit) and mauri (life principle)" (Marsden, 2003a, p. 40). Marsden (2003a) describes for example, mana atua (authority derived from the gods), mana moana (authority of the sea and ocean), mana tangata (authority of people), mana whenua (authority of the land) as well as mana and manaaki (enhancing mana). Mana is intimately tied to rangatiratanga, and vice versa. In the *Report of the Waitangi Tribunal on the Muriwhenua fishing claim* it was expressed that

In the Maori text [of Te Tiriti o Waitangi] authority is represented in rangatira, or chiefs who led by virtue of their mana, or personal and spiritual prowess. It was usual for Maori to personalise authority in that way, so that the one word 'mana' applies to both temporal authority and personal attributes. Accordingly it would be said that a certain chief held the mana of a particular place, or that the authority over tribal seas was vested in a specified person (Waitangi Tribunal, 1988, p. 181).

This spiritual authority component of mana is often held by people in kaitiaki roles and means there is an inherent obligation to uplift the mana of those places and environments. Mana therefore "enhances a person's prestige giving him authority to lead, initiate, organise and regulate corporate communal expeditions and activities; to make decisions regarding social and political matters" (Marsden, 2003a, p. 40).

In the *Report on the Crown's foreshore and seabed policy* it is outlined that "Māori exercised the authority of te tino rangatiratanga, under tikanga Māori" (p. 25). This authority included: a spiritual dimension; a physical dimension; a dimension of reciprocal guardianship; a dimension of use; manaakitanga and; manuhiri. The spiritual dimension has been described in the first half of this Wāhanga, as well as within Wāhanga 3: Objective 2 and throughout this report. The physical dimension includes, for example, the practice of

rāhui which would be enforced. Also, by utilising rāhui "Māori communities made places and species tapu, preventing access and use. By their naming of places, their karakia and korero, and their rituals, the tangata whenua created and maintained whakapapa links with their particular foreshore and territorial waters" (Waitangi Tribunal, 2004, p. 25) (as we discuss this further for example in the kaitiakitanga and traditional methods of management subsection. The dimension of reciprocal guardianship is where tangata whenua were "the kaitiaki of the taonga, and cared for it in such a way as to ensure its survival for future generations" (Waitangi Tribunal, 2004, p. 25), and it in turn nurtured the tangata whenua, in a word – kaitiakitanga. The dimension of use, which is sometimes referred to as user rights under English law, meant that rangatira had rights to harvest fish, seabirds, travel over certain areas, and also restrict and exclude others from these practices. We will discuss this further in the kaitiakitanga, ownership, control and user-rights subsection. The dimension of manaakitanga, where, as I. H. Kawharu (1989b) outlined is the "sharing (through manaaki) and authority (mana) are applied concurrently" (p. 130). The element of hosting manuhiri refers to for example the various agreements made by Māori with manuhiri from across the seas, such as the squatting licenses for whalers granted by Ngāi Tahu (Waitangi Tribunal, 2004).

Manaaki

The link between kai on the table and uplifting of mana is extremely important. Royal (2007) defines manaakitanga, within a Treaty of Waitangi context, as consisting of three parts, mana, aki and tanga "mana = the 'fire of the gods', 'being' (do not confuse mana with power). Aki = to ascend, uplift. Mana+aki+tanga = the art of uplifting mana" (p. 7). There is a great need to have plentiful fisheries resources in order to be able to provide kai, to host visitors for example, and thus to uplift your mana. This is expressed in the *Report of the Waitangi Tribunal on the Motunui-Waitara claim*

The harvesting of seafood from the reefs was and is not only for the purposes of survival. Kaimoana also has an intrinsic cultural value manifested in manaaki (token of the esteem) for manuhiri (visitors)...It is a matter of tribal prestige and honour, not only that guests should never leave hungry, but that guests should be suitably impressed by an abundance of traditional foods prepared for them. The hakari (feast) associated with the numerous Maori tangi and hui is an important part of Maori culture, and as we were to witness for ourselves, it is important that the supply should exceed the guest's needs...The cultural value of kaimoana is therefore important, not only because it satisfies the traditional palate and sustains the way of life of the individual, but because it maintains tribal mana and standing. In Maori terms it would not be valid to contemplate the destruction of some reefs by assessing the individual needs of the local people and the resource necessary to meet that need. It is necessary to assess the tribal need (Waitangi Tribunal, 1983, p. 8).

As is described above there are linkages between kaitiakitanga and mana. This is further outlined in the *Ko Aotearoa tēnei: A report into claims concerning New Zealand law and policy affecting Māori culture and identity* that "mana and kaitiakitanga go together as right and responsibility, and that kaitiakitanga responsibility can be understood not only as a cultural principle but as a system of law" (Waitangi Tribunal, 2011b, p. 23).

Kaitiaki as human

Each of the Waitangi Tribunal reports discussed the notion of kaitiaki as people and the important role of kaitiaki in enacting kaitiakitanga. Kaitiaki have the mana, and rangatiratanga to uphold tikanga and practice kaitiakitanga. As discussed in *Ko Aotearoa tēnei: A report into claims concerning New Zealand law and policy affecting Māori culture and identity* "in the human realm, those who have *mana* (or, to use Treaty terminology, *rangatiratanga*) must exercise it in accordance with the values of kaitiakitanga – to act

unselfishly, with right mind and heart, and with proper procedure" (Waitangi Tribunal, 2011b, p. 23).

Being a kaitiaki is based on this kinship relationship with the spiritual realm and the interconnections are immediately apparent, as such "particular individuals or groups are charged with stewardship on that basis. In short, kaitiaki are the minders of the mauri of taonga" (Waitangi Tribunal, 2011c, p. 30). This means that

All key resources have their kaitiaki, their guardians. Acting as kaitiaki – exercising kaitiakitanga – ensured that the landscape's resources were safeguarded. This responsibility was the corollary of the authority and control exercised by rangatira, or chiefs, over the environment and its resources in the name of their people (Waitangi Tribunal, 2011c, p. 36).

Kaitiakitanga, ownership, control and user-rights

Building off the previous discourses of mana and rangatiratanga held by kaitiaki within the context of tikanga (which will be described shortly) emerged the discourse of ownership and user rights held by kaitiaki. As expressed in the *Report of the Waitangi Tribunal on the Muriwhenua fishing claim*

in reality the debate is not about who owns the taonga, but who exercises control over it. Indeed, although the English text of the Treaty guarantees rights in the nature of ownership, the Māori text uses the language of control – tino rangatiratanga. equally, kaitiakitanga – which is the obligation side of rangatiratanga – does not require ownership. In the end, it is the degree of control exercised by Māori, and their influence in decision-making, that needs to be resolved in a principled way through the use of the concept of kaitiakitanga (Waitangi Tribunal, 1988, p. 181).

We will return to this point in the conclusion. The concept of user rights is described in the following way

all natural resources, all life was birthed from Mother Earth. Thus the resources of the earth did not belong to man but rather, man belonged to the earth. Man as well as animal, bird, fish could harvest the bounty of mother earth's resources but they did not own them. Man had 'user rights' (Marsden, 2003b, p. 67).

Marsden (2003c) asserts "we are born out of the womb of the primeval mother¹⁵" (p. 45) which the term whenua reminds us, because it has the dual meaning of both land and placenta. Thus, Marsden (2003c) contends that "our contribution is to enhance and maintain her [Papatūānuku] life support systems" and "to treat her [Papatūānuku] with love and reverence as our primeval mother" (p. 46). As previously highlighted, user-rights are based on kinship which determined how "resources were used, rather than to how they were owned, and human leadership was combined with spiritual beliefs for the maintenance of control" (Waitangi Tribunal, 1988, p. 181). User-rights were afforded through descent and were applied in the context of tikanga. Alongside ownership, control and user-rights we have grouped the next set of concepts together as kaitiakitanga, obligation, custodianship, guardianship, trustee and stewardship.

Kaitiakitanga, obligation, custodianship, guardianship, trustee and stewardship

Kaitiakitanga is frequently defined in English terms as obligation, custodianship, guardianship, trustee and stewardship for example. English definitions of kaitiakitanga are often criticised for lacking a specific reference to spiritual dimensions of kaitiakitanga. For example *Ko Aotearoa tēnei: A report into claims concerning New Zealand law and policy affecting Māori culture and identity* explains that

It [kaitiakitanga] is often translated as guardianship or stewardship. Generally speaking, this is a fair approximation, although it lacks the core spiritual dimension

 $^{^{15}}$ Marsden (2003a) is referring to Papatūānuku the primeval mother of which all humankind were born.

that animates the concept. In Māori tradition the 'guardians' or 'stewards' are, as often as not, supernatural beings (Waitangi Tribunal, 2011b, p. 105).

The same is concluded by Marsden (2003a) in relation to stewardship that

Stewardship is not an appropriate definition since the original English meaning of stewardship is 'to guard someone else's property'. Apart from having overtones of a master-servant relationship, ownership of property in the pre-contact period was a foreign concept...use of land, waters, forests, fisheries, was a communal and/or tribal right...Man had 'user rights' (p. 67).

This is summarised in the following was that "we are not owners or despots over mother earth but recipients and therefore stewards" (2003c, p. 46). The importance of the natural world is further strengthened through the "inherent obligation we have to our tūpuna and to our mokopuna" through whakapapa (Selby et al., 2010, p. 1). The practices of kaitiakitanga are part of the obligation to care for and nurture the environment. As such, this obligation provides a framework for sustainable management.

Custodianship is described in the following way

Whakapapa acts as the link between the land and the tipuna (ancestors) who were its custodians. They exercised their functions as kaitiaki (guardians) through the observance of tikanga (Māori customary practices). It is this connection that links the past with the present and provides a rationale and a basis for the lengths that Māori will go to in their efforts to protect wāhi tapu (sacred sites), regardless of whether they 'own' the land in a legal sense. Associated with wāhi tapu is the kaitiaki concept, which provides an additional set of considerations. These systems of knowledge and belief continue to pervade te ao Māori to the present day. Māori views on the tribal custodianship of natural resources are therefore integral to an understanding of the claimants' perspectives on how the current petroleum regime affects them and their

efforts to exercise rangatiratanga as kaitiaki over their respective tribal domains (Waitangi Tribunal, 2011c, p. 23).

Kaitiakitanga, sustainable management, conservation and protection

Kaitiakitanga is also frequently defined as sustainable management, conservation and as protection. This is highlighted for example in the well-known phrase of "Maori conservation ethic" (Roberts et al., 1995, p. 16). Furthermore, J. Williams (2012) explains that "sustainability is key to the concept of kaitiakitanga" (p. 99 – 100). J. Williams (2004b) provides a definition for sustainability that sustainability is the "use of natural resources in such a way that future generations may continue to enjoy at least the same quantity and quality of resources from the same environment" (p. 59). Sustainable management as a part of kaitiakitanga, is based on information and an in depth knowledge of natural resources and processes. There is evidence of deep understandings of the consequences if resources are not managed properly, and that the resources are finite and thus must be managed appropriately and furthermore that the resources must be respected and cared for, in order to manaaki all New Zealanders for future generations.

M. Kawharu (2000) suggests that kaitiakitanga has elements of resource management that includes aspects of conservation and protection but adds that it includes much more and asserts that kaitiakitanga has both environmental and social dimensions and that the material, human and non-material must be balanced. Natural resources are "drawn directly from our natural environment...The means by which those resources are used and managed will depend on how we view and relate to our environment" (Marsden, 2003a, p. 43).

Kaitiakitanga and tikanga

There were numerous references to tikanga throughout the texts. We provided a definition of tikanga in Wāhanga 3: Objective 1. Professor Margaret Mutu in the *Report on*

the Crown's foreshore and seabed policy defines tikanga in the context of 19 June 2003 Court of Appeal's Marlborough Sounds decision in the following way

rule, plan method; custom, habit; anything normal or usual; reason; meaning, purport; authority, control; and correct, right (Waitangi Tribunal, 2004, p. 1).

In the *Report on the management of the petroleum resource* it clearly highlights the linkages between kaitiakitanga, other values (many of those which have previously been described in this report) and how these refer to tikanga, for example

besides kaitiakitanga, other key cultural values such as whanaungatanga (family links) and manaakitanga (hospitality) also shaped the exercise of rangatiratanga or authority. Cumulatively, these concepts have established the tikanga, or principles, that define appropriate behaviour within the environment, and determine how the environment's resources should be used and managed (Waitangi Tribunal, 2011c, p. 36).

Furthermore, Harmsworth (2005) adds that kaitiakitanga "is the practice of spiritual and physical guardianship based on tikanga" (p. 129) and asserts that

kaitiakitanga is an 'active' rather than 'passive' guardianship or custodianship. It conferred obligations rather than a right to make decisions, and placed obligations to make wise decisions about resource management, and to sustain the wellbeing of iwi, hapu, and whānau. All had the collective responsibility to ensure that resources were managed wisely...Kaitiakitanga is inextricably linked to tino rangatiratanga (p. 129).

While we have provided general principles of tikanga; each area has their own specific focus. We outline some of those tikanga in Table 9.

Table 9. Descriptions of tikanga

Report of the Waitangi Tribunal on the Motunui- Waitara claim	Report of the Waitangi Tribunal on the Manukau claim	Report of the Waitangi Tribunal on the Muriwhenua fishing claim
"rules that compelled quietness at sea (Waitangi Tribunal, 1985, p. 38).	"prohibited food on the water (Waitangi Tribunal, 1985, p. 38).	"expeditions, glimpses of communal life, particulars of fishing methods and pickings from what appeared to be a hidden treasure trove of ancient practices, customs, beliefs and laws" (Waitangi Tribunal, 1988, p. 22).
"the harvesting of seafood rotationally and in appropriate seasons (Waitangi Tribunal, 1983, p. 8).	"gutting fish at sea or opening shellfish" (Waitangi Tribunal, 1985, p. 38)	Fishing expeditions – with a specific catch and place in mind "the bait being carefully apportioned to crew so that only the required catch was taken and no excess bait was discarded" (Waitangi Tribunal, 1988, p. 23)
"the preservation of the beds in their original state to the extent that even a dislodged rock is returned to its original position" (Waitangi Tribunal, 1983, p. 8).	"lighting fires or cooking on the shoreline" (Waitangi Tribunal, 1985, p. 38)	"the laws of Tangaroa (God of the fish) are still observed by many" (Waitangi Tribunal, 1988, p. 24)
"the avoidance of all forms of despoliation from rubbish and waste to human and animal excreta in proximity to the sea or to the rivers that run into it" (Waitangi Tribunal, 1983, p. 8).	"Bathing was prohibited in certain places at certain times" (Waitangi Tribunal, 1985, p. 38)	•
"the placing of a rahui (prohibition) on the gathering of seafood following the loss of a body at sea or to guard against over exploitation (in this district the rahui was sometimes indicated by a sprig of rimu on a floating log)" (Waitangi Tribunal, 1983, p. 8).	"urinating in the water was prohibited at all times" (Waitangi Tribunal, 1985, p. 38)	"Some rules, we thought, were basically directed to the maintenance of clear waters and balanced fish habitats. It is forbidden to gut fish in the open seas, or to dispose of small fish, excess bait, food or rubbish" (Waitangi Tribunal, 1988, p. 24).
"the avoidance of gutting fish	"people used kits not sacks"	"There are particularly strict

or shelling shellfish below the high water mark" (Waitangi Tribunal, 1983, p. (Waitangi Tribunal, 1985, p. 38)

rules for the maintenance of habitats, feeding and breeding areas" (Waitangi Tribunal, 1988, p. 24).

"a prohibition on the gathering of shellfish by women during menstruation" (Waitangi Tribunal, 1983, p. 8).

"never dragged the kits over shellfish beds" (Waitangi Tribunal, 1985, p. 38) "They required the seasonal capture of many species, the seasonal use of some fishing grounds" (Waitangi Tribunal, 1988, p. 198)

"dug only with their hands" (Waitangi Tribunal, 1985, p. 38)

"imposition of tapu and rahui (prohibitions) to protect sensitive breeding areas or threatened species" (Waitangi Tribunal, 1988, pp. 198-199)

"replaced upturned rocks, and never took more than their needs (Waitangi Tribunal, 1985, p. 38) "Use of the seas in both bands was regulated and controlled by established practices or laws that were regularly observed" (Waitangi Tribunal, 1988, p. 198).

"Use of the seas in both bands was also regulated and controlled by established practices or laws that were regularly observed and which were based principally on respect for life, the seabed, the water, and the gods associated with the fish and seas. These laws required the maintenance of species, habitats and water purity" (Waitangi Tribunal, 1988, p. 199)

These complex interrelationships between the concepts are expressed in the *Report on*the Management of the Petroleum Resource which summarises that

ultimately all of these concepts merge into a single outcome and purpose – the tikanga that defines human conduct in the exercise of custodianship over the natural world

and environment: The ancestral landscape defines the relationship between tangata whenua and the natural environment; it is, quite literally, the embodiment of their cultural heritage. The state of their ancestral landscapes is therefore 'inextricably linked to Maori spiritual, emotional, physical and social well-being and is expressed through the ethic and practise of kaitiakitanga' (Waitangi Tribunal, 2011c, p. 36).

Alongside the interconnections between kaitiakitanga, tikanga and other cultural values, based on this relationship to the ancestral landscape (including the marine environment), is the importance of in-depth knowledge of the resources and the marine environment.

Kaitiakitanga and mātauranga: An in-depth knowledge of the resources

A further discourse of kaitiakitanga is an in depth knowledge of the resources that are being managed and cared for. The kaitiaki have mātauranga or an in-depth knowledge of particular resources and the practices as well. Those imbued with mana and rangatiratanga often had (and indeed have) an in depth knowledge and mātauranga of the resources and places, alongside an appreciation of the *how* this knowledge is known (which is described in the Kaitiakitanga and tikanga subsection, as well as in the Kaitiakitanga and traditional methods of management subsection). There are extensive oral and written histories (Best, 1929; Hiroa, 1949; Matiu & Mutu, 2003) as described in Wāhanga 3: Objective 1 about the importance of the marine environment resources and also described in some of the Waitangi Tribunal reports (Waitangi Tribunal, 1983, 1984, 1985, 1987, 1988, 1992, 2002, 2004) which we highlight in Table 10 (namely from the *Report of the Waitangi Tribunal on the Manukau claim* and the *Report of the Waitangi Tribunal on the Muriwhenua fishing claim*). Leach (2006) outlines that Māori fishers were "profoundly knowledgeable about the sea and its resources, and well able to harvest fish in a manner which conformed, in the main, to the customs of his ancestors in the tropical Pacific" (p. 311).

Table 10. In-depth knowledge of resources

Report of the Waitangi Tribunal on the Manukau claim

Report of the Waitangi Tribunal on the Muriwhenua fishing claim

"incantations and rituals" (Waitangi Tribunal, 1985, p. 38).

rich accounts of techniques, areas, species, times of year, seasonality, observations over time, cooking methods "traditional practices" (Waitangi Tribunal, 1988, p. 16); specific names and areas relating to different tribes; naming of different fishing grounds; location of different fishing grounds based on land marks; navigation of fishing grounds "beyond the sight of land using the seagull and penguins as guides" (Waitangi Tribunal, 1988, p. 21); currents for speed; old names, codified in songs (Waitangi Tribunal, 1988); birds (Waitangi Tribunal. 1988); practices (Waitangi Tribunal, 1988);

"The reading of signs was a specialised art, the reading being taken from wave patterns, fish breaking the waves, shellfish digging deeper into the bed, bird movements and the growth or blooms of trees" (Waitangi Tribunal, 1985, p. 38).

"these rules showed the degree of care taken for essential renewable resources, the extent of the Muriwhenua people's reliance upon the bounty of the sea. Without that explanation, it can only appear odd that a people who live on a comparatively small land mass surrounded by huge oceans, and who had come from even smaller islands in a never ending sea, should hold the rules of hygiene and conservation that by Western standards are extreme (Waitangi Tribunal, 1988, p. 24).

"The appropriate paces for collecting various fish or shellfish according to seasonal migratory, spawning and feeding habits" (Waitangi Tribunal, 1985, p. 38).

There were inferences "to the care taken to fashion gear to ensure species – selective fishing, so that the wrong fish were not taken at the wrong time and place, to the need to maintain the balance of species and to the practice of retiring grounds that showed signs of depletion. Some current fish laws were challenged. It was thought preferable to take the 'undersized' of some species and much more sensible to maintain the larger breeding stock. The trawling practice of capturing fish during shoaling drew hostile reactions when the effect is to

capture all the shoals and prevent replenishment (Waitangi Tribunal, 1988, p. 25).

Archaeological, historical accounts, economic accounts, exchange as trade, nature of exchange; sealing, whaling and non-Māori fishing; rich historical account (Waitangi Tribunal, 1988)

association of particular fish movements with the growth stages of various plants on shore, and with the phases of the moon at different times of the year; the prediction of weather changes from the behaviour of certain finfish, shellfish and birds; the preferred lures and bait for different species at different times; the main species peculiar to particular fishing grounds; the months of the year for catching various species and the preferred days within those moths; optimum fishing times according to the phases of the moon; the line and netting techniques to be employed during the spring tides of full and dying moon; the fish to be caught at various tides; the fish caught, best locations and techniques needed according to wind directions; the migratory, breeding and feeding habits of various fish, and also of certain birds; and the lures appropriate to some species (Waitangi Tribunal, 1988, p. 23).

"Utilisation of the rich fishery resource was accompanied by an intimate knowledge of the local environment and locally available species" (Waitangi Tribunal, 1988, p. 199).

"Fishing equipment, methods and biological knowledge were highly competent and involved a variety of specialised techniques" (Waitangi Tribunal, 1988, p. 199).

"The native order was directed to balancing capture with resource maintenance. Selective species capture, habitat care, sea hygiene and protection of the supply was as important as the catch" (Waitangi Tribunal, 1988, p. 199).

This in-depth knowledge that we have highlighted is only a small taste of the information we examined, and indeed the knowledge that is located within iwi, hapū and

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whānau. It was and is this expert mātauranga, coupled with the authority, mana and rangatiratanga to lead, rule and manage the marine environment in accordance with tikanga that gives rise to the traditional methods of management.

Kaitiakitanga and traditional methods of management

There were numerous examples of traditional methods of management in the texts that we examined, particularly in relation to rāhui and mahinga kai (in a Ngāi Tahu context especially). We examine rāhui, mahinga kai as well as other examples from J. Williams (2012).

Rāhui

Rāhui is a traditional method for restricting the harvest of a particular resource and is also utilised to protect a particular area from the taking of resources for a particular time, until the stocks have been replenished. A number of authors outline the usage of rāhui as a method of kaitiakitanga (M. Kawharu, 2000; Marsden, 2003c; J. Williams, 2004b). Marsden (2003a) explained "in order to conserve the resources and ensure their replenishment and sustenance the Māori introduced the tikanga or custom of *rāhui*. Rāhui was a prohibition or ban instituted to protect resources" (p. 69). Examples of the importance of rāhui include rotation farming, restoration and regeneration to "ensure a constant and steady source of supply" (Marsden, 2003a, p. 69). J. Williams (2004b) discussed rāhui as

the ritual setting aside, by Manawhenua, of a resource. It could be for a set time or an indeterminate period. Thus it may be that the resource was reserved for an upcoming special occasion or given time to regenerate after overuse. Some rāhui were seasonal (p. 142).

A further point that J. Williams (2004b) makes is that

we can occasionally become distracted by spiritual considerations; rāhui was, and still is, simply a practical consideration. Rāhui was not due to the sanctity of the resource;

it was a purely human consideration, imposed by humans and enforced by humans, to ensure the sustainability of the resource (p. 143).

In the excerpt above the definition given for rāhui is a temporary restriction of a food supply. This excerpt shows the connections between rangatiratanga and kaitiakitanga whereby the authority employed is human through the chief (rangatiratanga) and is often materialised by a pou (Marsden, 2003a) to show the rāhui (kaitiakitanga, the traditional method for management). This excerpt outlines the traditional conservation ethic (Roberts et al., 1995) as previously described.

Marsden's (2003a) exploration of mahinga kai diverged slightly from William's (2004b) focusing explicitly on the important relationship between rāhui and tapu to highlight the spiritual elements of rāhui, whereby

rāhui and tapu were at times used interchangeably to mean the same thing namely 'under a ban'. Rāhui in its basic meaning is 'to encompass'. A rāhui designated the boundaries within which the tapu as a ban was imposed. Tapu meaning 'sacred or set apart' denoted that a ban was in force over that area (p. 69).

Marsden (2003a) contends that normally it would be the tohunga, which in a modern context, could perhaps be aligned to the kaitiaki (human) and that the kaitiaki would decide to enforce a rāhui through "reading the signs that pointed to the depletion of resources in different areas of the tribal territory (p. 70). The tohunga

would then conduct the appropriate ritual which involved the aid of the appropriate departmental god; and then he would take a talisman stone and by his prayers concentrate the life force of the birds, fish or whatever in that stone and plant the mauri stone within the area encompassed by the rāhui, or on a fishing ground, or wherever the situation warranted it (Marsden, 2003a, p. 70).

Table 11. Other descriptions of traditional methods of management

Value/principle	Description
kaihaukai	"Ritual distribution of surplus by exchanging specialty foods from one area to another, usually both obligatory and reciprocal" (J. Williams, 2012, pp. 90-91)
mahinga kai	Food preserve
mana whenua	The right (and responsibility) to make decisions about the resources of a particular area. Those who exercise mana whenua (J. Williams, 2012, pp. 90-91)
ohu	Communal working bee (J. Williams, 2012, pp. 90-91)
piringa	"Hangers on" (without resource rights, but with an expectation of ongoing support) (J. Williams, 2012, pp. 90-91)
rauiri	Reserved area (J. Williams, 2012, pp. 90-91)
wakawaka	Division of a resource into sections, the rights to harvest each one being held by a different group (J. Williams, 2012, pp. 90-91)
Ki Uta Ki Tai	Notion of management from the mountains to the sea (Flack, Jackson, et al., 2015; Hepburn, Jackson, et al., 2010; Jackson, 2011)
Transplantation	The "practice of managing and transplanting pipi, cockles, mussels, kina, pāua, oysters, and scallops for a variety of reasons, including sustainabilitywas managed according to the spawning cycles of the various species, and traditional regulatory mechanisms such as rāhui were used to ensure sustainable quantities of kaimoana developed before any harvesting took place" (Waitangi Tribunal, 1988, p. 181).

Mahinga kai

There are multiple examples of the discourse of mahinga kai which is closely linked to kaitiakitanga and rangatiratanga. The discourse of mahinga kai is particularly important within a Ngāi Tahu context where there is extensive evidence of the importance of mahinga kai to Ngāi Tahu peoples (see for example: Russell, 2004; Te Rūnanga o Ngāi Tahu, no date; Waitangi Tribunal, 1991; J. Williams, 2004b). The importance of mahinga kai is aptly discussed by Russell (2004) whereby it is outlined that

mahika kai resources have more than a mere sustenance significance; they include elements of physical, psychological and spiritual health and wellness...Alongside these, other culturally associated values have significance, particularly the ability to appropriately host both expected and unexpected visitors. Possession and maintenance of such ability demonstrated the mana of an Iwi or hapū, as committed kaitiaki (caretakers) (p. 259).

This excerpt provides a definition for mahinga kai as traditional food resources that is related furthermore to the important places where it was collected, and also linking through both whakapapa and history to ancestors of Ngāi Tahu (Te Rūnanga o Ngāi Tahu, no date).

There are multiple examples of the discourse of mahinga kai which is closely linked to kaitiakitanga and rangatiratanga. Furthermore, the discourse of mahinga kai is particularly important within a Ngāi Tahu context where there is extensive evidence of the importance of mahinga kai to Ngāi Tahu peoples (see for example: Russell, 2004; Te Rūnanga o Ngāi Tahu, no date; Waitangi Tribunal, 1991; J. Williams, 2004b). The importance of mahinga kai is aptly discussed by Russell (2004) whereby it is outlined that

mahika kai resources have more than a mere sustenance significance; they include elements of physical, psychological and spiritual health and wellness...Alongside these, other culturally associated values have significance, particularly the ability to appropriately host both expected and unexpected visitors. Possession and maintenance of such ability demonstrated the mana of an Iwi or hapū, as committed kaitiaki (caretakers). (p. 259)

Within a Ngāi Tahu context there is extensive oral and written history about the importance of fisheries and mahinga kai resources to Ngāi Tahu peoples as described in, for example, the *Ngai Tahu Sea Fisheries Report*.

Mahinga kai is described as the custom of gathering food as well as the practices and the sites where food is gathered. Such is the importance of mahinga kai that it is stated that it underpins Ngāi Tahu culture and was outlined as one of the nine trees of the Ngāi Tahu claim. The above excerpt shows clearly the close links between mahinga kai and whakapapa, which reaffirms the ordering of the physical world, of which man is a part, as well as a deeper explanation of the links between mahinga kai and mātauranga. The important mahinga kai species are also listed within the text.

Conclusion

The second part outlined the discursive analysis of the practices of kaitiakitanga and includes: kaitiakitanga, mana and rangatiratanga; kaitiaki as humans; kaitiakitanga, ownership, control and user-rights; kaitiakitanga, obligation, custodianship, guardianship, trustee and stewardship; kaitiakitanga, sustainable management, conservation and protection; kaitiakitanga and tikanga; kaitiakitanga and mātauranga: An in depth knowledge of the resources; kaitiakitanga and traditional methods of management.

Wāhanga 5:

Conclusion

The objectives of this research were to: (1) analyse mātauranga associated with the marine environment through archival research and examination of key texts and; (2) undertake a desktop analysis of literature, reports, and frameworks relating to Māori perspectives of the marine environment.

The main finding of this research is the hononga tāngaengae (unbroken connection) between Māori and the marine environment from time immemorial to today. This includes a comprehensive knowledge system founded within the context of Māori worldview. Results have highlighted that the marine environment is a taonga, and must be viewed in relationship to the organising principles of whakapapa, whanaungatanga and kinship and mediated through understandings of mātauranga and kaitiakitanga. The significant challenge for the *National Science Challenge Sustainable Seas Ko Ngā Moana Whakauka* and specifically the Tangaroa Programme is how mātauranga and kaitiakitanga of the marine environment is protected, safeguarded and advanced throughout the *National Science Challenge Sustainable Seas Ko Ngā Moana Whakauka*.

The summary of the main findings of Objective 1 were that mātauranga associated with the marine environment is expressed through features of Māori oral tradition including: tikanga (customs and protocols), karakia (incantations), whakapapa (genealogies), mōteatea (chants), pūrākau (stories and narratives), maramataka (lunar calendar and heavenly bodies), kupu (relevant words), waka voyaging traditions, kaitiaki and kaitiakitanga (guardianship), pēpeha (tribal sayings) and whakataukī (proverbs). Wāhanga 3: Objective 1 provided an expansive view of oral traditions and literature that connect Māori to the marine environment.

The texts examined provide valuable insights into the past whilst offering mātauranga which can be used now and in the future for kaitiakitanga within the marine environment.

The summary of the main findings of Objective 2 were separated (and still linked) into the metaphysical and practical elements of kaitiakitanga. The metaphysical elements were: discourses of creation narratives of the marine environment; kaitiaki and non-human forms; kaitiakitanga, whakapapa, whanaungatanga and kinship; kaitiakitanga, spiritual beliefs and values; kaitiakitanga and taonga; and kaitiakitanga and rangatiratanga. The discursive analysis of the practices of kaitiakitanga included: kaitiakitanga, mana and rangatiratanga; kaitiakitanga, ownership, control and user-rights; kaitiakitanga, obligation, custodianship, guardianship, trustee and stewardship; kaitiakitanga, sustainable management, conservation and protection; kaitiakitanga and tikanga; kaitaki; kaitiakitanga, mātauranga: an in depth knowledge of resources; kaitiakitanga and traditional methods of management including rāhui and practice; and kaitiakitanga and mahinga kai.

These findings are in no way a definitive collection of these sources, as each rohe (area), iwi (tribe), hapū (subtribe), hapori (community) and whānau (family) will have their own mātauranga connected to the marine environment. However this research provides the beginning of further discussions and examinations of how these texts and knowledge can be operationalised in order to preserve the physical and spiritual elements of the marine environment now and for further generations.

Future challenges

The Ko Aotearoa tēnei: A report into claims concerning New Zealand law and policy affecting Māori culture and identity will provide a useful platform for broader issues of mātauranga. As described in Wāhanga 2: Methodology, the claimants sought redress on three key questions relating to the ownership and control of:

- mātauranga Māori (which, we [in the context of this claim] said earlier, refers to the Māori world view, including traditional cultural and knowledge);
- the tangible products of mātauranga Māori traditional artistic and cultural expressions that we call taonga works; and
- the things that are important contributors to mātuaranga Māori such as the unique characteristics of indigenous flora and fauna what we call taonga species and the natural environment of this country more generally (Waitangi Tribunal, 2011b, p. 17).

There are two precursors that need to be met, firstly the identification of the taonga and secondly the kaitiaki relationship with the taonga (both of which have met in the context of this research). The *Ko Aotearoa tēnei: A report into claims concerning New Zealand law and policy affecting Māori culture and identity* explains

in reality the debate is not about who owns the taonga, but who exercises control over it. Indeed, although the English text of the Treaty guarantees rights in the nature of ownership, the Māori text uses the language of control – tino rangatiratanga. equally, kaitiakitanga – which is the obligation side of rangatiratanga – does not require ownership. In the end, it is the degree of control exercised by Māori, and their influence in decision-making, that needs to be resolved in a principled way through the use of the concept of kaitiakitanga (Waitangi Tribunal, 2011b, p. 112, emphasis added).

The Ko Aotearoa tēnei: A report into claims concerning New Zealand law and policy affecting Māori culture and identity provides a useful framework for the utilisation of this research (and other mātauranga informed research) within the context of the National Science Challenge Sustainable Seas Ko Ngā Moana Whakauka and specifically the Tangaroa Programme. Ko Aotearoa tēnei: A report into claims concerning New Zealand law and

policy affecting Māori culture and identity Ko Aotearoa tēnei: A report into claims concerning New Zealand law and policy affecting Māori culture and identity states that what is required

is a system that allows all legitimate interests (including the interests of the environment itself) to be considered against an agreed set of principles, and balanced case by case. such a system should be capable of delivering the following outcomes to kaitiaki:

- control by Māori of environmental management in respect of taonga, where it is found that the kaitiaki interest should be accorded priority;
- partnership models for environmental management in respect of taonga, where
 it is found that kaitiaki should have a say in decision-making but other voices
 should also be heard; and
- effective influence and appropriate priority to the kaitiaki interests in all areas of environmental management when the decisions are made by others.

It should be a system that is transparent and fully accountable to kaitiaki and the wider community for its delivery of these outcomes (Waitangi Tribunal, 2011b, p. 112).

He kōrero whakamutunga: Final words

The kaupapa Māori principles of tino rangatiranga (the self-determination principle) and taonga tuku iho (the principle of cultural aspirations) guided this research. As such, through the main finding and core kaupapa of the hononga tāngaengae to the marine environment, Māori need to be in the driver's seat and self-determining our own future in relation to the management of the marine environment.

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