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Kūkū te kererū, ketekete te kākā

**The role of literature in indigenous methods of naming
native and introduced birds to Aotearoa New Zealand**

A thesis
submitted in fulfilment
of the requirements for the Degree
of
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at
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by

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THE UNIVERSITY OF
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Abstract

This thesis describes the role of academic literature in indigenous epistemology with a focus on indigenous methods of naming native and introduced birds to Aotearoa New Zealand. The story of the role of academic literature in mātauranga Māori transmission presented in this thesis, describes a narrative of indigenous people being increasingly excluded from transmission of mātauranga Māori in literature production. Importantly the exclusion of original sources from participation in literature production and revision resulted in a high degree of persistent error in academic literature presenting oral narratives and te reo Māori bird names.

Currently, te reo Māori names of native and introduced birds are represented in English language academic literature, as subject matter or topic of interest predominately within a scientific research paradigm, in the fields of linguistics, ornithology, ethnology or disciplines where these are combined such as ethno-ornithology or folk-taxonomy. Research inquiry conducted in this study is influenced by a potential to explore indigenous methods of naming in terms of what they reveal about our ways of being (ontology) and our ways of knowing (epistemology).

This thesis presents two literature reviews and the findings of seven semi-structured interviews to explore the complexities of the role of academic literature in indigenous epistemology with a focus on indigenous methods of naming native and indigenous birds to Aotearoa New Zealand. Exploring indigenous methods of naming in this way provides an opportunity to tease out the influence of translation, Western scientific paradigms and the medium of academic literature on the transmission of mātauranga Māori as well as identify opportunities and limitations for indigenous epistemology offered through the medium of academic literature.

A comprehensive index of te reo Māori bird names with attention to the variety of linguistic nuances of geographically specific vernacular presented consistently in the context of indigenous methods of naming, potentially provides an accessible

and meaningful taxonomic reference document. At the present time such an index has not been published. The findings of the research presented in this thesis support the potential of academic literature to meaningfully contribute to indigenous methods of naming when it records or facilitates direct participation of hapū in indigenous epistemology rather than predetermine or prematurely theorise indigenous methods of naming native and introduced birds to Aotearoa New Zealand. Equally, it presents findings to support potential for academic literature to contribute to mātauranga Māori when it articulates indigenous epistemology as a valuable way of knowing and does not assume to replace memory arts as the primary methods of mātauranga Māori transmission. Furthermore, the application of an indigenous paradigm to the production of literature about indigenous methods of naming as an aspect of mātauranga Māori has the potential to constitute an accurate and authentic body of knowledge.

Key words: indigenous epistemology; mātauranga Māori, whakapapa, indigenous methods of naming, genealogy, Kaupapa Māori research, ecology, Aotearoa New Zealand, literature, oral literature, oral tradition, ornithology.

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Chapter 1

Ko Matawhaura te maunga

Ko Te Rotoiti-i-kitea- a-Ihenga te moana

Ko Te Arawa te waka

Ko Ngāti Pīkiao te iwi

Ko Ngāti Hinekura te hapū

Ko Wai-iti te Marae

1.1 General introduction

Considering methods of naming birds prompts thought about the many ways in which we conceptually and practically relate to birds and the ecologies we inhabit. Methods of naming are ways to label, organise, categorise and classify names in an effort to capture these relationships as well as communicate them. The topic of indigenous methods of naming birds is relative to interests in bird life, culture and language and could be approached from many paradigms and schools of thought from biology to humanities and their relative specialised fields such as ornithology, ethnology, onomastics and any combination of these such as ethno-ornithology, traditional ecological knowledge [TEK] and taxonomy for example (Atran, 1990; Berkes, 2008; Berlin, 1992; Brown, 1984; Medin & Atran, 1999, 2004; Medin, Ross, Cox, & Atran, 2007). Each approach necessarily prioritises selective categories of information and privileges ways of gaining knowledge to respond to the research imperatives of each discipline. For example an ornithology discipline may be interested in indigenous methods of naming for what they can tell us about past and present variety and prosperity of bird species and their biological features (F. B. Gill, 2007; Gordon, 2009, 2010, 2012). The linguistic field may be interested in indigenous methods of naming for the patterns they may reveal in the dispersal and movement of human populations and the changes to language resulting from social change through time (Atkinson, Meade, Venditti, Greenhill, & Pagel, 2008; Gibbons, 2001; Russel D, Bryant, & Greenhill, 2010).

My interest in presenting research conducted for this thesis is to explore indigenous methods of naming in terms of their intrinsic value. Research inquiry conducted in this study is thus influenced by a potential to explore indigenous methods of naming

in terms of what they reveal about our ways of being (ontology) and our ways of knowing (epistemology) (Wilson, 2001). The aim of this chapter is to define the scope of this thesis and state its relevance to current research in indigenous methods of naming native and introduced birds to Aotearoa New Zealand. This chapter begins with an introduction to indigenous methods of naming native and introduced birds to Aotearoa New Zealand and relevant academic literature (see 1.2 and 1.3). Supporting and principle research questions are posed (see 1.4). The methods chosen to respond to the research questions will then be stated and their selection justified (see 1.5). The aim and scope of this thesis are defined and significance of the thesis to research in indigenous methods of naming are proposed (see 1.6). Finally an overview of the thesis presented (see 1.7).

1.2 Indigenous methods of naming native and introduced birds to Aotearoa New Zealand

Indigenous methods of naming native and introduced birds to Aotearoa New Zealand are the many conceptual and practical ways people connect with and relate to birds through shared ecology (Whaanga et al., 2012). The high number of te reo Māori bird names reflects the prominence of birds in ecology and ontology. Individual bird names are used to distinguish one species from another. Names can also recognise a group of life forms as a singular entity. For example, the name *Te Tini o Hakuturi* is used to refer to forest life as a whole (Grey, 1971, p. 47) inclusive of forest birds. In this example, a holistic concept of ontology is reflected in language. When any life form of the forest is referred to as *Te Tini o Hakuturi*, it carries the semiotic importance of the forest as a whole. In other contexts, simplistic generic names may be used to refer to a variety of bird species that are so common they dominate a generic use of a name or in contrast, occupy no significant role in the identities nor geographies of whānau¹ and hapū (Whaanga et al., 2012). Indigenous methods of naming are distinct in the aspect that names are expressions of processes of becoming and are forever contextual rather than describing being as definitive and fixed, where a single entity can carry several names, each one appropriate to different contexts (Marsden & Royal, 2003). The variety of names

¹ The term whānau is used to describe as a basic social unit composed of up to four living generations; “iwi being composed of a number of hapū related by descent from a common ancestor, while each hapū was composed of a number of whānau similarly related” (Metge, 1990, p. 58).

attributed to any one culturally salient species of a specific location may indicate geographic, spiritual or utilitarian importance of the bird, resulting in a single species carrying several names, each describing different aspects of its semiotic importance (Whaanga et al., 2012). For example the name tītī (*Puffinus griseus*) is used in Rakiura (Stewart Island) to refer specifically to chicks sufficiently developed for harvest (Checklist Committee O.S.N.Z., 2010, p. 354).

As a settlement colony of the United Kingdom, European cultural heritage and English language has been supported by political and social institutions in Aotearoa New Zealand resulting in the substitution of te reo Māori names for English language names (Walker, 1969). Despite the coercive strategies to render te reo Māori names obsolete, whakapapa³ continues to be the primary organising principle of indigenous ontology and social structure in Aotearoa New Zealand (Metge, 1990; Salmond, 1983) and hence te reo Māori names continue to be an important part of contemporary language (Walker, 1969). The official and internationally recognised place name of New Zealand is used in conjunction with an indigenous name, Aotearoa, throughout this thesis in recognition of our Polynesian ancestry and location (Land Information New Zealand, n.d; Roberts, 2010).

Increased awareness of the integrity of te reo me ōna tikanga⁴ within and beyond the academy continues to be influenced by international and domestic grass roots social justice projects as well as Kaupapa Māori⁵ decolonising methodologies approaches to academic research (Royal, 2012; G. Smith, 2012; L. Smith, 2012). Kaupapa Māori research privileges mātauranga Māori⁶ as a form of historical

³ Whakapapa uses genealogy as a “cognitive template upon which the origins and history of all things can be spatially arranged in hierarchical order, a format which facilitates memorizing and retrieval”. “This construct is fundamental to Polynesian culture and worldview” (Roberts, 2010, p. 2).

⁴ The term te reo Māori me ōna tikanga is used throughout this thesis to refer to the many ways Māori language is employed by hapū to transmit mātauranga Māori and guiding principles of action (Kennedy & Jefferies, 2009).

⁵ Kaupapa Māori approaches seek culturally appropriate ways to conduct research with indigenous communities in ways that mediate relations of power, are aware of historic injustices, recognise and value the dignity of indigenous communities and seek to work collaboratively ‘with’ rather than ‘on’ communities. For a more detailed description see 3.2.

⁶ Royal (2012, p. 33) provides a succinct definition of mātauranga Māori that is employed throughout this thesis to identify a body of knowledge specific to Aotearoa New Zealand: “a modern phrase used to refer to a body or continuum of knowledge with Polynesian origins, which survives to the present day albeit it in fragmentary form”

record as well as employ principles of indigenous epistemology, ontology and axiology in research methodology (G. Smith, 2003; Wilson, 2001). Thus, there is a growing body of academic literature resulting from an indigenous decolonising Kaupapa Māori research paradigm.

1.3 Literature relevant to indigenous methods of naming native and introduced bird to Aotearoa New Zealand

European natural historians were attracted to the unique ecologies of Aotearoa New Zealand during the late 1700s, when they were familiarising themselves with the southern islands of Te Moana-nui a Kiwa (Pacific Ocean). High rates of endemism in Aotearoa New Zealand meant that European languages had no existing lexicon to name many of the life forms observed here. Natural historians actively sought out indigenous individuals and hapū to learn and document existing te reo Māori bird names. The list of te reo Māori bird names in ornithological and linguistic academic literature expanded gradually over time (W. L. Buller, 1888; H. W. Williams, 1906). As Whaanga et al. (2012, p. 14) notes:

Māori bird names have a long history in the literature with the earliest written records being that of Johann Reinhold Forster on James Cook's second expedition from 1772-1775. During this expedition he recorded some twenty-five bird names which appeared in 1778 in 'Observations made during a Voyage round the World' (Forster, 1996) Other early notable works on birds include Kendall's 'Grammar and Vocabulary' (1820), which includes a list of forty-four birds in his vocabulary; William Yate's 'An account of New Zealand' (1835), which mentions thirty-three names; the first edition of William Williams' 'Dictionary of the New Zealand language' (1844), which recorded the names of eighty-six birds and the fourth edition recorded a total of 127 bird names (W. Williams & Williams, 1892); Captain Frederick Wollaston Hutton's 'Catalogue of the birds of New Zealand, with diagnoses of the species' (1871); Walter L. Buller's 'History of the birds of New Zealand'(1888);

Edward Tregear's 'Maori-Polynesian comparative dictionary (1891), has 265 bird names; and Herbert Williams' 'Maori bird names' (1906), which also provides an overview of the above mentioned works, includes a list of 100 birds and 580 different names in Māori. A recent publication of the Ornithological Society of New Zealand, the 'Checklist of the Birds of New Zealand', included a total of 435 extant and extinct avian taxa in the Aotearoa biogeographical region (including Macquarie Island and Norfolk Is) with complete nomenclatural data including all synonyms, and distribution or occurrence notes. Appearing as an Appendix in the 4th edition is a list of 126 Māori names of birds (117 native, 5 self-introduced, 4 family-level names) (Checklist Committee O.S.N.Z., 2010). Riley (2001) estimates that approximately 600 Māori names have been recorded for 120 species of birds in Aotearoa . . . [and a] recent list compiled by Paul Scofield (Canterbury Museum) [includes] approximately 900 names.

Currently, te reo Māori names of native and introduced birds are represented in English language academic literature, as subject matter or topic of interest predominately within a scientific knowledge paradigm, in the fields of linguistics, ornithology, ethnology or discipline where these are combined such as ethno-ornithology or folk-taxonomy (see *Chapter 3*). When seeking the correct orthography and meaning of any word, a dictionary promises to offer relevant information and is considered reference material of some authority. Te reo Māori dictionaries classify te reo Māori bird names in alphabetical order amongst the entire known te reo Māori lexicon and often provide a scientific name as a unique definition (H. W. Williams, 1971). More generally, books on local avifauna provide some comparative information about bird names, habitats and associated species. These are typically classified under individual species order and family names and corresponding common names (W. L. Buller, 1888; Oliver, 1955; R. P. Scofield & B. Stephenson, 2013). Official lists of scientific taxonomy and nomenclature of native and introduced birds to Aotearoa New Zealand promise to provide the means

to rapidly and easily locate te reo Māori and common bird names and corresponding scientific names recognised nationally and internationally (Checklist Committee O.S.N.Z., 2010). Ethnology literature focuses on mātauranga Māori relative to bird life and describes te reo Māori bird names in text in relation to the social and historical context of cultural significance (Beattie, 1994; King, 1989; Shand, 1895a). Ethno-ornithology is the study of bird biology that incorporates both scientific methods and indigenous epistemology (Lyver & Moller, 2010; Moller, 2009; Phillipps, 1958).

A comprehensive index of te reo Māori bird names presented on the ordering principles of whakapapa with attention to the variety of linguistic nuances of geographically specific vernacular, potentially provides an accessible and meaningful taxonomic reference document. At the present time such an index has not been published (Checklist Committee O.S.N.Z., 2010). Literature relative to indigenous methods of naming native and introduced birds to Aotearoa New Zealand from an indigenous research paradigm could possibly be located in oral literature and mātauranga ā-hapū literature⁷(Salmond, 1983). Due to the volume of existing oral literature and mātauranga ā-hapū literature, and provided the names in the literature remain current, this method of compiling te reo Māori bird names would be an unreasonably time consuming of employing correct lexicon when indigenous methods of naming native and introduced birds to Aotearoa New Zealand is the focal point of interest.

1.4 Research questions

Indigenous epistemology describes the many ways people engage with mātauranga Māori and the principles that structure the transmission of mātauranga Māori (Royal, 2012). The complexity of indigenous methods of naming native and introduced birds to Aotearoa New Zealand is addressed by restricting the first questions posed to establishing concepts of indigenous epistemology and whakapapa in the context of indigenous methods of naming:

⁷ The term mātauranga ā-hapū in this thesis refers to mātauranga Māori specific to the genealogical relationship hapū have with ancestral geography (Metge, 1990).

- (i) What is the role of whakapapa in indigenous epistemology?
- (ii) How does whakapapa demonstrate a well organised and systematic method of naming?

Once fundamental concepts of indigenous epistemology, indigenous methods of naming and whakapapa are established by response to questions (i) and (ii) they are applied to the appreciation of literature in response to:

- (iii) What is the role of literature in indigenous epistemology?

Aspects of the complex and dynamic relationship between indigenous epistemology, indigenous methods of naming and literature articulated in response to the first three research questions culminate to inform response to the principal research question:

- (iv) What is the role of literature in indigenous methods of naming native and introduced birds to Aotearoa New Zealand?

1.5 Research methods

The research questions and methods employed in this study are shaped by the nature of available academic literature (see 1.3) and Kaupapa Māori methodology (see 3.2). A comprehensive index of te reo Māori bird names ordered by whakapapa or taxonomy does not exist (Checklist Committee O.S.N.Z., 2010). Onomastic research presents methods of naming within a scientific paradigm and describes indigenous epistemologies in simplified universal terms, see for example, (Berlin, Breedlove, & Raven, 1973). This thesis describes indigenous methods of naming in terms of indigenous epistemology in reference to specific examples of literature content and production as well as contemporary participation in indigenous epistemology. This study presents two literature reviews and the findings of seven semi-structured interviews. The first literature review (*Chapter 2*) aims to explore indigenous epistemology and indigenous methods of naming in reference to a published reproduction of a small selection of oral literature by a Te Arawa writer in circa 1849 (Curnow, 1985). Description of the oral literature by Wiremu Maihi Te Rangikāheke reproduced in the most unaltered form (Curnow, 1985; Thornton, 1987) in *Ko nga moteatea me nga hakirara o nga Maori [Nga moteatea]* (Grey,

1853) provides an example of oral tradition written from memory with no reliance on documentation (Curnow, 1985; Thornton, 1987) and with no introduction of foreign elements to the literature content (Jackson, 1968). It also offers an opportunity to describe recital and narrative forms of whakapapa (Thornton, 1985) as indigenous methods of naming (Roberts, 2010; Walker, 1969). This same literature review includes academic critical analysis of the treatment of original oral literature in the production of Greys' publications *Nga moteatea* (Grey, 1853) *Nga mahi a nga tūpuna* [*Nga mahi*] (Grey, 1971) and *Polynesian mythology and ancient traditional history of the New Zealand race* [*Polynesian mythology*] (Grey, 2005) and offers the means to describe the effect of literature production and translation on the authenticity and accuracy of mātauranga Māori transmission (Biggs, 1952; Thornton, 1987).

The second literature review (see *Chapter 4*) describes the presentation of te reo Māori bird names in terms of indigenous epistemology in an authoritative ornithology reference. *Checklist of the birds of New Zealand, Norfolk and Macquarie Islands, and the Ross Dependency, Antarctica* [*Checklist*] published by Te Papa Press in association with the Ornithological Society of New Zealand [OSNZ] (Checklist Committee O.S.N.Z., 2010) is a current academic nomenclature reference that applies established conventions of taxonomy to avifauna of our region. It is a succinct reference for 435 known extant and extinct bird species. A list of 126 te reo Māori bird names is compiled in *Appendix 3 Māori names of New Zealand birds* [*Māori names*] of the 4th Edition (2010) of *Checklist*. It is not a comprehensive index. The location of *Māori names* in *Checklist* positions it as an ornithology reference most likely to be consulted by domestic and international ornithologists to locate te reo Māori bird names. Description of OSNZ and background to the publication *Checklist* provides an introduction to a scientific paradigm, ornithology, nomenclature and taxonomy. A review of *Māori names* in *Checklist* (Checklist Committee O.S.N.Z., 2010) and individual review of each reference cited in *Māori names* provides further examples of the presentation of te reo Māori bird names and indigenous epistemology and academic literature.

Seven semi-structured interviews were conducted using a Kaupapa Māori approach (see 3.2), to explore contemporary participation in indigenous epistemology with a

focus on indigenous methods of naming native and introduced birds to Aotearoa New Zealand. The role of literature in indigenous epistemology is also explored in the interviews (see 3.5.4).

1.6 Aims, scope and significance

This Masters thesis contributes to a larger research project investigating indigenous methods of naming native and introduced bird species of Aotearoa New Zealand funded by Ngā Pae o te Māramatanga.⁸ The project intends to facilitate the meeting of experts in the fields of translation, te reo Māori me ōna tikanga and science for the purposes of developing a potential protocol for naming bird species in Aotearoa New Zealand. This thesis does not focus on the development of a protocol for naming native and introduced birds to Aotearoa New Zealand nor does it focus on te reo Māori bird names as mātauranga Māori content.

The aim of this thesis is to explore the complexities of the role of academic literature in indigenous epistemology with a focus on indigenous methods of naming native and indigenous birds to Aotearoa New Zealand. Exploring indigenous methods of naming in this way provides an opportunity to tease out the influence of translation, Western scientific paradigms and the medium of academic literature on academic literary representations of indigenous epistemology. The potential for transparent and active participation in indigenous epistemology offered through the medium of academic literature is discussed on the basis of the findings (see *Chapter 5*).

Ngāti Pīkiao and Ngāti Hinekura whakapapa is applied to delimit the scope of this thesis to an Arawa-centric description of indigenous epistemology in a review of oral literature and findings from semi-structured interviews (*Chapter 3*). The review of oral literature (*Chapter 2*) is not intended to provide an authoritative or universal theory of indigenous epistemologies or indigenous methods of naming. These examples of oral literature offer an exploration of indigenous epistemology in reference to a tangible example of the practice of memory arts in the transmission of mātauranga Māori within the limitations of this thesis. Likewise the content,

⁸ Lead by Tom Roa accompanied by Dr. Hēmi Whaanga and Dr. Paul Schofield (Canterbury Museum) at The School of Māori and Pacific Development of the University of Waikato, Aotearoa New Zealand.

summary and discussion of semi-structured interviews clearly focus on the ecological wellbeing of Te Arawa Lakes and do not represent participation in indigenous epistemology elsewhere or mātauranga Māori generally. Review of literature about te reo Māori bird names is limited to a leading academic publication in the field of ornithology in Aotearoa New Zealand (Checklist Committee O.S.N.Z., 2010). Therefore, this study provides only an indication of the role of academic literature in indigenous methods of naming native and introduced birds to Aotearoa New Zealand.

1.7 Overview of thesis

Chapter 2: The role of academic literature in the transmission of mātauranga Māori: An investigation describes whakapapa as indigenous epistemology and indigenous method of naming in reference to a reliable reproduction (Curnow, 1985; Thornton, 1987) of the manuscripts *The legend of Tama-a-Rangi* (1849a), *Tupuna, a genealogical account of some of the ancestors* (1849c) and *Maori religious ideas and observances* (1849b) written by Wiremu Maihi Te Rangikāheke of Ngāti Kererū in *He korero apiti ano no nga waiata nei no.1 [Appendix 1]* and *He korero apiti ano no nga waiata nei no.2 [Appendix 2]* in *Nga moteatea* (Grey, 1853).

These same manuscripts contribute to *Nga mahi* (Grey, 1971) and thus its English translation *Polynesian mythology* (Grey, 2005). This chapter describes the impact of literature production on the authenticity and accuracy of mātauranga Māori in these publications in terms of indigenous epistemology and the ordering principles of whakapapa.

Chapter 3: Contemporary mātauranga Māori about native and introduced birds and literature presents the findings of seven semi-structured interviews that were conducted with male and female kaumātua in Rotorua and Rotoiti during the months of November and December 2014. Selected contents of interviews presented in this chapter relate participants' engagement in indigenous epistemology and the ecologies of Te Arawa lakes (see *Appendix 1*) with a focus on native and indigenous birds to Aotearoa New Zealand.

Chapter 4: Te reo Māori bird names and indigenous methods of naming in academic literature: A selected review of the literature presents a review of *Māori names* (Checklist Committee O.S.N.Z., 2010) and references cited therein. The review begins with a background to the OSNZ and the production of *Checklist* followed by the specific context of the production of *Māori names*. The presentation of te reo Māori bird names in *Māori names* and references are reviewed individually in terms of indigenous epistemology.

Chapter 5: The potential role of academic literature in indigenous methods of naming native and introduced birds to Aotearoa New Zealand: A discussion. The principal and supporting research questions of this thesis are answered in reference to descriptions of the role of literature in indigenous epistemology and indigenous methods of naming described throughout this thesis. The potential role of academic literature in indigenous epistemology relative to indigenous methods of naming native and introduced birds to Aotearoa New Zealand is discussed. In conclusion, the limitations and contributions of this thesis to studies in indigenous methods of naming native and introduced birds to Aotearoa New Zealand are outlined and avenues of further research suggested.

Commonly used Māori words and phrases (e.g. ‘te reo Māori’) whose meaning can be recovered from the context in which they are used are not translated. Explanations are provided in footnotes where further specification is required.

Chapter 2

The role of academic literature in the transmission of mātauranga Māori: An investigation

2.1 Introduction

The literature review presented in this chapter explores the role of whakapapa in indigenous epistemology and indigenous methods of naming in reference to examples of oral literature. The review will contribute to a response to the research questions:

- (i) How does whakapapa demonstrate a well organised and systematic method of naming? and;
- (ii) What is the role of whakapapa in indigenous epistemology?

The response to all research questions including those relative to this chapter will be discussed in *Chapter 5*. This review is not intended to provide an authoritative or universal theory of indigenous epistemologies or indigenous methods of naming but rather to enable these to be explored with reference to a tangible example of the practice of memory arts in the transmission of mātauranga Māori within the limitations of this thesis. This chapter, devoted to the exploration of whakapapa as indigenous epistemology and indigenous methods of naming describes prominent features of these and describes Te Rangikāheke and Greys' contribution to academic literature in general terms. As indigenous epistemology is the focus of this review, the content of the selected material will not be described in detail, nor grammar and spelling critically reviewed. Likewise, description of literary style will only be presented in relation to indigenous epistemology, whakapapa and indigenous methods of naming. While this review of a small selection of literature offers only one scenario of indigenous methods of naming, it provides a frame of reference for further exploration of indigenous epistemology and indigenous methods of naming native and introduced birds to Aotearoa New Zealand presented in *Chapters 3 and 4*.

Academic literature presenting research in the treatment of source material, including Te Rangikāheke's manuscripts, for Greys' publications *Nga mahi a nga tupuna* [*Nga mahi*] (1971) and *Polynesian mythology and ancient traditional history of the New Zealand race* [*Polynesian mythology*] (2005) informs comparison of the most unaltered reproduction of original manuscript material (Curnow, 1985; Thornton, 1987) written by Te Rangikāheke in *He korero apiti ano no nga waiata nei no.1* [*Appendix 1*] and *He korero apiti ano no nga waiata nei no.2* [*Appendix 2*] of *Ko nga moteatea me nga hakirara o nga Maori* [*Nga moteatea*] (Grey, 1853) with reproductions of the same material in *Nga mahi* (Grey, 1971) and *Polynesian mythology* (Grey, 2005) to investigate the role of literature in the transmission of mātauranga Māori and contribute to answering the research question:

(iii) What is the role of academic literature in indigenous epistemology?

This chapter begins with a brief description of the commissioning of Te Rangikāheke to produce literature for Grey and the production of the original manuscripts and their treatment in the *Grey Collection* (see 2.2). The reproductions of *The legend of Tama-a-Rangi* (Te Rangikāheke, 1849a), *Tupuna, a genealogical account of some of the ancestors* (Te Rangikāheke, 1849c) and *Maori religious ideas and observances, incantations, legends, ancient poems, proverbs, genealogy, etc.*, (Te Rangikāheke, 1849b) in *Appendix 1 and Appendix 2* (Grey 1853), *Nga mahi* (Grey, 1971) and *Polynesian mythology* (Grey, 2005) are reviewed in chronological order and include descriptions of the employment of whakapapa in indigenous epistemology and exploration of indigenous methods of naming with reference to examples (see 2.2.1-2.2.7). Finally, a summary of the chapter is presented (see 2.3).

2.2 Te Rangikāheke's contribution to the Grey Collection

In 1853, it was necessary for representatives of the British Crown to negotiate with hapū representatives in order to establish a peaceful and economic settlement colony. The capacity to communicate directly with hapū representatives in te reo Māori as well as have an understanding of oral traditions facilitated participation in political debate and personalised negotiations (Grey, 1971; Loader, 2008; O'Leary,

2008). The following quotation from Sir George Grey (Grey, 1853, p. ix) describes oral tradition in an indigenous social setting as an important political medium:

The most favourable times for collecting these poems, and those at which most of them were in the first instance obtained, was at the great meetings of the people upon public affairs, when their chiefs and most eloquent orators addressed them. On those occasions, according to the custom of the nation, the most effective speeches were invariably principally made up from recitations of portions of ancient poems. In this case, the art of the orator was shewn by his selecting a quotation from an ancient poem which figuratively but dimly shadowed forth his intentions and opinions; as he spoke the people were pleased at the beauty of the poetry, and at his knowledge of their ancient poets, whilst their ingenuity was excited to endeavour to detect from his figurative language what were his intentions and designs, quotation after quotation as they were rapidly and forcibly chanted forth made his meaning clearer and clearer, curiosity and attention were by degrees riveted upon the speaker, and if his sentiments were in unison with the great mass of the assembly, and he was a man of influence, as each succeeding quotation gradually removed the doubts which hung upon the minds of the attentive group who were seated upon the ground around him, murmur of applause rose after murmur of applause, until at some closing quotation which left no doubt as to his real meaning, the whole assembly applauded equally the determination which he had formed, his poetic knowledge, and his oratorical art, by which under images beautiful to them, he had for so long a time veiled, and at last so perfectly manifested his real intentions.

Grey's relationship with Te Rangikāheke originated from Grey's desire to learn te reo Māori me ōna tikanga during the period that Grey was the incumbent governor (1845-1853) responsible for the establishment of a peaceful and economical settlement colony in Aotearoa New Zealand (O'Leary, 2008). Wiremu Maihi Te

Rangikāheke (1815⁹ – 1896) is Te Arawa, Ngāti Rangiwewehi and Ngāti Kererū (Curnow, 1985). “He was known as Te Rangikāheke to scholars, as Wiremu or Wii Maihi in tribal concerns, and as William Marsh to Pākehā who shared his political life” (Curnow, 1985, p. 97). Documentary evidence suggests that Te Rangikāheke was converted to the Church of England by Thomas Chapman and that with missionary instruction he became literate in the early 1840s (Curnow, 1985). Curnow (1985, p. 99) states that “there is no evidence that he ever wrote or spoke English”. In accepting responsibility for Grey’s instruction, Te Rangikāheke was able to earn a livelihood and support his immediate family as well as be in a position to participate in current affairs.

Indeed, Te Rangikāheke viewed instruction of mātauranga Māori as fundamental to Grey’s capacity to fulfil his responsibilities to the Crown and indigenous societies of Aotearoa New Zealand. During the period of 1846 to 1854, te reo Māori me ōna tikanga was introduced to Grey’s home as Te Rangikāheke and his family resided with Grey and his family. Some manuscripts describe te reo Māori grammar and the distinctions of local vernacular and may have been used as a resource to instruct Grey. The manuscripts produced for Grey from 1846 to 1854, established Te Rangikāheke’s reputation as a prolific writer (Curnow, 1985).

In addition to immediate political interest in becoming proficient in te reo Māori me ōna tikanga, Grey was an enthusiast of the academic discipline of philology and actively collected the traditions of a number of indigenous societies in indigenous languages in the belief that similarities and differences between indigenous languages could reveal the origin and evolution of humanity (O’Leary, 2008). Grey commissioned Te Rangikāheke and indigenous writers from iwi other than Te Arawa to produce manuscripts. Grey provided Te Rangikāheke and other indigenous writers with a work space separate from government offices. Each writer was supplied with stationary unique to them. Grey also received a number of manuscripts donated by indigenous writers and European ethnologists (Curnow, 1985).

⁹ Curnow’s (1985) construction of Te Rangikāheke’s biography estimates the year of his birth to be between 1800 and 1820 and likely to be 1815.

Manuscripts attributed to Te Rangikāheke, along with those similarly commissioned¹⁰ or collected by Grey, are catalogued in the *Grey Collection* currently housed at the Auckland Public Library (Biggs, 1952; Curnow, 1985; Grey, 1971; Simmons, 1966). Most of the body of original material in the *Grey Collection* is estimated to have been written between 1845 and 1854 and makes up an extensive documentary of autobiographical material, mātauranga Māori, whakapapa, karakia, historic events, tikanga, traditional arts, leadership and social structure with a focus on the events of the late 17th and 18th centuries (Biggs, 1952; Curnow, 1985; Grey, 1971; Simmons, 1966). “The total collection exceeds 9,800 pages of manuscript, of which only 196 pages of prose and 500 pages of poetry have been printed” (Simmons, 1966, p. 178). Material in the *Grey Collection* is divided into two categories: (i) Manuscripts attributed to authors (labelled GNZMMSS) and (ii) written correspondence (labelled GNZMMA) (Curnow, 1985; Simmons, 1966). The majority of material housed in the *Grey Collection* was written by indigenous writers and unsigned with few transcripts by amateur ethnologists (Biggs, 1952). Attribution of manuscripts to each writer was facilitated by reference to the collection’s catalogue, identification of personal stationary, similarities in literary style, content and penmanship (Curnow, 1985). Te Rangikāheke’s contribution, is in excess of 800 pages and includes 21 completed manuscripts (670 pages), contributions to collaborative manuscripts (100 pages) and 10 letters reporting of political matters spanning successive governors (68 pages). All original material was written in ink with few errors which “runs into hundreds of neatly written pages, the content of most of which has already been published but without any acknowledgement by Grey” (Biggs, 1952, p. 179).

Te Rangikāheke fulfils the roles of informant and recorder of historical documentary, reducing the potential of misinterpretation and inaccuracy in transcription (Simmons, 1966). Te Rangikāheke’s manuscripts are thus considered to be authentic documentary of oral tradition and oral history within the context of Ngāti Kererū. This view is supported by Te Rangikāheke’s social status, recognised skill in oratory, fulfilment of political roles during his lifetime and the likelihood that he was educated by his father who was a well-known Ngāti Rangiwewehi

¹⁰ See Simmons (1966)

tohunga (Curnow, 1985; Jackson, 1968; Simmons, 1966). Although Te Rangikāheke was already baptised in the Christian faith at the time he began to write manuscripts for Grey; Jackson (1968) and Simmons (1966) support the consideration of Te Rangikāheke's writings as authentic accounts of mātauranga Māori because the original material is largely consistent¹¹ to similar narratives and oral traditions collected throughout Aotearoa New Zealand during that period, no foreign content can be identified and Te Rangikāheke's clearly distinguishes between Christian and indigenous instruction in his writing (Thornton, 1987). Furthermore, Te Rangikāheke offers comparison and reflection on these two influences without conflating them (Loader, 2008; Orbell & Unesco., 1975).

The *Grey Collection* accompanied Grey to his new office in Cape Town, South Africa and was gifted to The South African Library in 1854 (Biggs, 1952; O'Leary, 2008; Simmons, 1966). Grey sought the expertise of Dr W.H.I. Bleek to catalogue and bind the original material of the collection. A catalogue of the collection was published in a pamphlet in 1858. In 1906, H.W. Williams collated the manuscripts of the *Grey Collection* to correspond to the contents of *Nga mahi*. An exchange of material took place in 1922 and 1923 resulting in the *Grey Collection* being repatriated to Aotearoa New Zealand. It is currently housed at the Auckland Public Library (Biggs, 1952; Curnow, 1985; Simmons, 1966) H.W. Williams is editor of the third edition of *Nga mahi* (Grey, 1928).

The repatriation of the *Grey Collection* to Aotearoa New Zealand has facilitated recognition of Te Rangikāheke and his peers for their considerable contribution to historical records (Biggs, 1952; Curnow, 1985; O'Leary, 2008) as well as transcription and translation of selected manuscripts by local academics. Under the supervision of Emeritus Professor Bruce Biggs, Jenifer Curnow (1985) comprehensively reviewed the original material in the *Grey Collection* for a Master of Arts degree with the University of Auckland. In 1985, a summary of her findings focusing on a biographical account of Te Rangikāheke and the contents of manuscript material was published in *The Journal of the Polynesian Society*. Her research (Curnow, 1985, p. 97) presents evidence to support:

¹¹ see Jackson (1968) for definition of internal and external consistency in mythology

Wiremu Maihi Te Rangikāheke was the author of the manuscripts which were the source of most of the prose material to Sir George Grey's Ko nga moteatea me nga hakirara o nga Maori (Grey, 1853), and much of the material for his Ko nga mahinga a nga tupuna (1854) and hence of its translation Polynesian Mythology (1855).

A more recent Masters thesis by Ariana Loader published by Victoria University of Wellington (Loader, 2008, p. 28) focuses on “a critical literary exploration of Te Rangikāheke the man, the writer, and his work”.

Curnow's research (1985) supports the view that *The legend of Tama-a-Rangi* (Te Rangikāheke, 1849a) and *Tupuna, a genealogical account of some of the ancestors* (Te Rangikāheke, 1849c) are two parts to a continuous whole narrative. Thus combined they constitute one integral account of history up until Te Rangikāheke's lifetime while *Maori religious ideas and observances, incantations, legends, ancient poems, proverbs, genealogy, etc.*, (Te Rangikāheke, 1849b) is another. All estimated to be written in 1849, Curnow (1985) proposes that *Maori religious ideas and observances, incantations, legends, ancient poems, proverbs, genealogy, etc* may have been written before *The legend of Tama-a-Rangi* and *Tupuna, a genealogical account of some of the ancestors*. The latter two having been catalogued by the Auckland Public Library as separate manuscripts because they were not bound. *Maori religious ideas and observances, incantations, legends, ancient poems, proverbs, genealogy, etc* was bound prior to repatriation.

2.2.1 The reproduction of oral literature by Te Rangikāheke' in Appendix 1 and Appendix 2

This literature review makes reference to a Nabu public domain reprint of the original edition of *Nga moteatea* printed in (Grey, 1853). Grey personally financed the publication of *Nga moteatea* and dedicates it as a memorial to the radical improvement of social practices and social justice brought about by the successful introduction of Christianity to indigenous society in Aotearoa New Zealand. It was Grey's intention to publish indigenous poetry and related narratives as an artefact

witnessing and reviving a memory of the ‘savagery of life’ before the introduction of Christianity. In this way, the presentation of indigenous ‘pagan poetry’ would exemplify and highlight the impact and significance of missionary work on a historic and global scale (Grey, 1853, preface). Grey’s description of indigenous peoples’ conversion to Christianity is of an indigenous population that was passively agreeable to the adoption of a new faith and in doing so completely and totally abandoned indigenous practice and belief.

Nga moteatea presents a fraction of oral literature collected by Grey (Grey, 1853; Simmons, 1966). According to Biggs (1952), the majority of content of *Nga moteatea* and *Nga mahi* can be attributed to Te Rangikāheke. Annotations on original manuscripts suggest a written dialogue between Te Rangikāheke and Grey and indicate a collaboration (Curnow, 1985; Grey, 1853). Grey (1853) advises readers to the presence of inaccuracies in his publications and attributes this in part to the incomplete and poor quality of transcripts written by indigenous writers. He also attributes the novelty of the subject matter and language, the unfamiliar cultural references featured within indigenous poetry, his personal preoccupation with other responsibilities and the printer, Mr Sutherland’s illiteracy in te reo Māori as contributing factors to errors in the literature. Te Rangikāheke and original authors of manuscripts commissioned or collected by Grey were not consulted in the drafting of material for publication in *Nga moteatea* (Curnow, 1985; Loader, 2008; Thornton, 1987).

Grey (1853) advises that poetry containing unsuitable material was excluded from *Nga moteatea*. There is a high level of violence described in detail in *Appendix 1* and *Appendix 2*. The description of Hine-nui-te-pō in *The legend of Tama-a-Rangi* (Te Rangikāheke, 1849a) was altered in *Appendix 2* (Grey, 1853, p. xlvi) and indicates that the poetic expression of sexuality is the unsuitable material vaguely alluded to by Grey.

Te Rangikāheke and other indigenous writers were active in documenting their political views and experiences of social change including the political implications of the introduction of Christianity (Loader, 2008; Orbell & Unesco., 1975). None of this content is presented in any of Grey’s publications or their revised editions

(Biggs, 1952; Loader, 2008). This representation of mātauranga Māori perhaps accorded with a philology representation of indigenous epistemology (O'Leary, 2008). Nevertheless, according to Biggs (1952) *Appendix 1* and *Appendix 2* in *Nga moteatea* (Grey, 1853) are the most loyal reproduction of *The legend of Tama-a-Rangi* (Te Rangikāheke, 1849a), *Tupuna, a genealogical account of some of the ancestors* (Te Rangikāheke, 1849c) and *Maori religious ideas and observances, incantations, legends, ancient poems, proverbs, genealogy, etc.* (Te Rangikāheke, 1849b) in literature published by Grey. Curnow (1985, p. 120) notes that “all three manuscripts were published by Grey with relatively few alterations and omissions. However, his punctuation and paragraphing distort meaning considerably”. *Appendix 1* and *Appendix 2* are the first of a total of twelve appendices to *Nga moteatea* (Grey, 1853) and are included therein to expand on and give context to the material of the main body of the publication. *Maori religious ideas and observances, incantations, legends, ancient poems, proverbs, genealogy, etc* is reproduced in *Appendix 1* with no titles or subtitles and *The legend of Tama-a-Rangi* and *Tupuna, a genealogical account of some of the ancestors* are reproduced in *Appendix 2* under the subtitles ‘Ko tama a Rangi’, ‘Maui’, ‘Tuupuna’, ‘Ko te korero mo nga waka’, ‘Ko Poutini me Whaiapu’, ‘Ko te hekenga mai’.

2.2.2 The role of whakapapa in indigenous epistemology exemplified *Appendix 1* and *Appendix 2*

Whakapapa is fundamental to indigenous epistemology because it orders and articulates the kin-centric relationships that shape reality in mnemonic form that can be recalled from memory (Roberts, 2010). Curnow (1985, p. 141) provides a succinct description of the role of whakapapa in Te Rangikāheke’s narratives:

Genealogical recital and narrative are the two techniques used to recount the events. Genealogies have a two-fold purpose for Te Rangikāheke: they are the dates of history, marking time-spans through generations; they are also the connections between epochs, being the links between the cosmogonic ancestral being and man and between man and the figures of tribal history. Narrative is used to tell of the establishment of

natural phenomena, the reason for migration, the origin of gods, springs and volcanoes and the occupation of Te Arawa land.

Academic attention to literary style in oral literature in Te Rangikāheke's manuscripts describes a minimal impact of the act of writing on the capacity of oral literature to transmit mātauranga Māori. Emeritus Professor Agathe Thornton (1985) identifies genealogy and narrative as two important aspects of oral tradition. She identifies these in oral traditions indigenous to Aotearoa New Zealand and Hawaiki (Polynesian) as well as classical Greek oral traditions (Gray, 1989). She adds that oral literature indigenous to Aotearoa New Zealand closely resembles the style and content of oral tradition (Thornton, 1987). This is supported by Biggs cited in Thornton, (1987, p. 1) "Maoris were literate in their own language and the material collected was, for the most part, written by Maoris themselves. These scribes wrote as they spoke. The new medium seems to have had little effect on the style or content of the narratives"¹². Thus, whakapapa can be understood as a mnemonic in the practice of oral traditions that applies equally to the representation of mātauranga Māori in written form.

Te Rangikāheke writes from the position of literate orator, tailoring the delivery of narrative to the expectations of an anticipated readership and emphasising elements likely to strengthen the relationship between the reader, writer and the content of the narratives presented (Thornton, 1987). Hence, oral literature is produced according to the principles of mātauranga Māori transmission as a social exchange. Mātauranga Māori was produced by Te Rangikāheke for Grey with the conscious expectation of provisioning an indigenous frame of reference to facilitate the social and political co-operation between indigenous and colonial society in Aotearoa New Zealand (Gray, 1989; Loader, 2008). Initiated by Te Rangikāheke's meeting with Māui Tione in the Governor's offices in Auckland, *The legend of Tama-a-Rangi* (Te Rangikāheke, 1849a) and *Tupuna, a genealogical account of some of the ancestors* (Te Rangikāheke, 1849c) were intended to be delivered by Tione for verification by an indigenous readership as well as a means to share history unique

¹² For an indication of prominent indigenous writers categorised by hapū and the attribution of material of *Nga mahi* see Simmons (1966).

to Aotearoa New Zealand from first settlement onward and promote the prestige of Ngāti Kererū and Te Arawa (Curnow, 1985; Thornton, 1987). Reproductions of *Maori religious ideas and observances, incantations, legends, ancient poems, proverbs, genealogy, etc* (Te Rangikāheke, 1849b) in *Appendix 1* and *The legend of Tama-a-Rangi* (Te Rangikāheke, 1849a) and *Tupuna, a genealogical account of some of the ancestors* (Te Rangikāheke, 1849c) successively in *Appendix 2* include much of the same content¹³, Te Rangikāheke emphasises different elements of the same narratives in different versions to respond to the readers' cultural frame of reference and to engage the reader in a moderately fast paced account of history (Thornton, 1987).

Appendix 1 addresses the cultural reference of a foreign readership genealogically distanced from the narratives by providing whakapapa in the form of prose narrative, including definitions, qualifications or descriptions of the content (Thornton, 1987). *Appendix 2* acknowledges common cultural references by featuring recital whakapapa and karakia and less definition or explanation on the relevance of importance of events, beliefs and practices. The political contexts for the migration of descendants of Houmaitawhiti are generalised in this account, perhaps in consideration of the political sensitivities of an indigenous readership. Likewise whakapapa connections of Te Arawa descendants to those of other waka, hapū and iwi are elaborated on in *Appendix 2* (Thornton, 1987). Nowhere in Grey's publications is Te Rangikāheke personally acknowledged (Loader, 2008). Whakapapa in the content of *Appendix 1* and *Appendix 2* connects the narratives with Te Rangikāheke as a descendant of Rangitihi.

Te Rangikāheke's whakapapa provides the scope of history recounted in narrative and genealogy. It is not an all-inclusive comprehensive account of Polynesian mythology, nor is it written in the intention of informing philology. It is an Arawa-centric ontological perspective (Curnow, 1985; Loader, 2008). Te Rangikāheke's account of the conflicts between Tamatekapua, Whakaturia and Uenuku, that were the background context to the immigration of descendants of Houmaitawhiti to Aotearoa New Zealand, are transparently told from the point of view of

¹³ With the exception of the narratives of Māui included in *Appendix 2* only

Houmaitawhiti, and Tamtatekaupua from whom Te Rangikāheke descends. Likewise the description of Te Arawa as the progenitors of ensuing generations in Aotearoa New Zealand is a method of articulating the relationship of Te Arawa ancestors with those of other iwi and hapū (Curnow, 1985).

In most of the content of *Appendix 1* and *Appendix 2* events are recounted in a linear sequence corresponding to the order in which they would have occurred in the past¹⁴ (Thornton, 1987). The content is written in such a way as to emphasise relationships significant to Te Rangikāheke's process of becoming and to position himself within the kin-centric nature of reality. In employing whakapapa as the structure of historical account, Te Rangikāheke is not only providing an account of Te Arawa history, he is telling the reader who he is. Hence, the transmission of mātauranga Māori is directly related to ontology.

2.2.3 Whakapapa as indigenous method of naming exemplified in *Appendix 1* and *Appendix 2*

Mātauranga Māori generally and mātauranga ā-hapū specifically continue to be regenerated in the art of naming to symbolise, conceptualise and order mātauranga Māori about the world and our part in it. Names are attributed to people, events, periods of time, processes, places, features of the landscape and ecology, man-made objects and metaphysical qualities that position them within indigenous ontology and epistemology (Roberts, 2010; Walker, 1969). Therefore, names within indigenous epistemology are points of association that describe reality as relational. The description of indigenous methods of naming provided by Walker (1969, p. 405) is particularly relevant to an understanding of the role of names in Te Rangikāheke's oral literature:

personal and place names were of functional significance in pre-literate Māori society as the fixed points of reference for orally transmitted traditions. They were immutable, tangible markers of tradition. However much details of traditions were exaggerated, embellished or minimised (e.g. numbers killed in victory or loss

¹⁴ With the exception of the narratives of Māui which are told employing techniques of appositional expansion (Thornton)

sustained in defeat) the main events were kept intact through their association with personal or a place name. In this way proper names were a reminder of the past and constitute guides for future action.

In *Appendix 2* the reader is introduced to protagonists as they become active in the narrative. The reader adopts a subjective rather than overall perspective of the progression of events and naming occurs in association with actions and relationships. Te Rangikāheke often summarises and repeats the attribution of significant events with the names of the protagonists. The naming of Tāwhiri's offspring beginning with the prefix 'Ao' denotes their common origin, unique name endings distinguish each offspring (Grey, 1853, p. xxii). This method of naming is consistent for the son's of Taranga (Grey, 1853). Common prefix in names denotes commonality but does not always indicate unique identities, for example, Te Rangikāheke explicitly states that Tūtewehiwehi and Tūtewanawana are two names for the one entity (Grey, 1853, p. xii). Naming in narrative whakapapa is indicative of ontology. For example, in the context of the Māui narrative, Te Ika a Māui is simultaneously Papatūānuku and a fish. In this way identity and naming relies on association with action, the fishing up, the emergence of Aotearoa New Zealand from the sea. The name in narrative describes Te Ika a Māui as a portion of Papatūānuku herself (Thornton, 1987). Similarly, the fishing up of pounamu in the narratives of Poutini and Whaiapū is also ontologically identified as a portion of Papatūānuku (Thornton, 1987). Ontology is thus derived from whakapapa origins while attribution of different names to the one entity at different periods in time indicates a specific context or the status of change in the process of becoming.

The dynamic of duality is a repeated theme throughout Te Rangikāheke's narratives and articulated in association with names. In *Appendix 2*, Te Rangikāheke describes the actions of protagonists in the context of two choices; the offspring of Ranginuietūnei and Papatūānuku are divided by the choice to conserve the current state of being or radically change it. The descendants of Houmaitawhiti choose between peace and war, to stay in Hawaiki or to establish themselves in Aotearoa New Zealand (Jackson, 1968). In *Appendix 2*, Hine-nui-te-pō is the ancestor from whom Māui retrieves fire and the ancestor from whom Māui attempts to gain

immortality. The naming of Hine-nui-te-pō in the narratives of Māui concisely recounted by Te Rangikāheke provides an even and literal gender opposition to Māui's successful taming of Tama-nui-te-rā. Indeed, duality and division are the regenerating forces of whakapapa (Jackson, 1968).

In the narrative of the separation of Ranginuietūnei and Papatūānuku in *Appendix 2* are points of reference to describe the dynamics of ecology and principles for the human use of natural resources (Jackson, 1968). Reactions to the separation are personalised with the naming of offspring and their choice to hide or attack. In this way names are also associated with opposing locations such as whenua, rangi, “ki uta, ki tai” (Grey, 1853, p. xxxii). Mediators present a negotiation between binary opposite positions. Jackson (1968, p. 156) explains “Māui as the mediator brings about a conciliatory relationship between birth and death, parents and children, culture and nature, that was previously established as more dialectical in the narratives of *Nga tama a Rangi*”.

In *Appendix 1*, names remain associated with actions but narratives are summarised to feature significant outcomes and some descriptions are omitted. In *Appendix 2*, Māui is synonymous with the duration of daylight, the emergence of Aotearoa New Zealand from the sea, human use of fire and mortality as the natural order as well as the themes of innovation and conservation. Many place names throughout Aotearoa New Zealand are dedicated to Māui and are geographic and cartographic memorials to the narratives of the process of fishing up Te Ika a Māui. Ngahue and pounamu are associated with the identification of Aotearoa New Zealand as a potential location for immigration. Ohomairangi, Te Arawa, Tamatekapua, Ngātoroirangi and many other names are immediately associated with the immigration of first settlers of Te Arawa waka to Aotearoa New Zealand. Toponyms from Maketu to Tongariro and other locations associated with Tamatekapua and Ngātoroirangi, Ihenga, Kuiwai and Haungaroa and more are explained in the context of early inland exploration and settlement and identify geographies with ancestors and ecologies by name. As such, names in the context of whakapapa are simultaneously performance cartography as well as the nomenclature of indigenous societies which include eponymous ancestors in the context of settlement and dispersion (Metge, 1990; Roberts, 2010; Salmond, 1983).

The prominence of recital whakapapa in *Appendix 2*, demonstrates how names are concentrated points of reference, an economy of language for recital. The enumeration of names or the repetition of names in recital whakapapa, builds tension as well as describing a lengthy and gradual process of becoming (Thornton, 1987). Those already familiar with the contexts and details of mātauranga Māori and whakapapa implicitly associate names with events, actions, significant relationships and more. The association of names with significant events and principles of action enable orators like Te Rangikāheke to recount narratives from different points in time, *Mauī* in *Appendix 2* relies on prior knowledge of the narrative on the part of the intended readership and demonstrates Te Rangikāheke's skill in oratory (Thornton, 1987). This exemplifies memory arts as creative recounting and performance while names and whakapapa conserve consistency in intergenerational transmission of mātauranga Māori (Jackson, 1968; Walker, 1969).

2.2.4 The reproduction of oral literature by Te Rangikāheke in *Nga mahi*

Nga mahi was the first publication of indigenous traditional narratives of Aotearoa New Zealand (O'Leary, 2008). Financed by Grey it contained a number of misprints and the use of awkward punctuation that 'obscured the sense' of the narratives (Grey, 1928, p. v). Unnecessary corrections were incorporated, punctuation improved but misprints remained in the printing of a second edition in Auckland in 1885 under the supervision of Dr Shortland" (Biggs, 1952; Grey, 1928). In the process of correcting misprints and punctuation for the third edition, H.W. Williams also altered or eliminated locutions, dialect forms, inconsistent employment of o and a forms of the possessive, irregular constructions and the use of the proposition 'me' in an effort to homogenise te reo Māori for language learners (Grey, 1928). A fourth edition with additions from Emeritus Professor Bruce Biggs and Pei Hurinui Jones was published in 1971 to provide a correct academic literature for learners of te reo Māori and Māori studies (Grey, 1971).

According to Biggs (1952), the majority of content of *Nga mahi* can be attributed to Te Rangikāheke. From a comparative review with original manuscripts, Simmons (1966) constructed an index to locate contributions to *Nga mahi* and

categorises these according to region and writer and finds that, “at least 50 of 198 pages of *Nga mahi a nga tupuna* (Grey, 1928) can be attributed to Te Rangikāheke’s MSS” (Simmons, 1966, p. 179). Other Arawa contributors to the *Grey Collection* and associated publications have been identified as Hohepa Paraone (Joseph Brown), Te Haupapa or Hikaro from Te Ngae and the ‘natives of Mokoia Island’. Simmons confirms that there is a small portion of material whose writer or informer remain unidentified (Simmons, 1966).

Content from manuscripts *The legend of Tama-a-Rangi* (Te Rangikāheke, 1849a), *Tupuna, a genealogical account of some of the ancestors* (Te Rangikāheke, 1849c) and *Maori religious ideas and observances, incantations, legends, ancient poems, proverbs, genealogy, etc* (Te Rangikāheke, 1849b) are incorporated into *Nga mahi* (Grey, 1928) Simmons identifies:

- *Maori religious ideas and observances, incantations, legends, ancient poems, proverbs, genealogy, etc* and *The legend of Tama-a-Rangi* are both sources of *Nga tama a Rangi* (pp.1-5) except the last paragraph;
- *Maori religious ideas and observances, incantations, legends, ancient poems, proverbs, genealogy, etc* is incorporated into *Toi-te-Hutahi ratou ko Tama, Ko Whakaturia* (pp. 54-57), except the text about moa, as well as *Te haerenga mai o Ngahue* (p. 58), *Te korero mo nga waka* (p. 59) except for lines 14-16;
- *Maori religious ideas and observances, incantations, legends, ancient poems, proverbs, genealogy, etc* *Religious ideas* and *Tupuna, a genealogical account of some of the ancestors* are both sources for *Te hekenga mai* (pp.60-70) interwoven with content from other sources;
- *Maori religious ideas and observances, incantations, legends, ancient poems, proverbs, genealogy, etc* is the source of a karakia inserted in a narrative of *Manaia raua ko Ngatoroirangi* from other sources; and
- *Maori religious ideas and observances, incantations, legends, ancient poems, proverbs, genealogy, etc* is the source for *Hatupatu* (pp. 81-89).

When compared to oral literature as presented in *Appendix 1* and *Appendix 2*, Te Rangikāheke's account of history is interrupted significantly after narratives of Māui with the insertion of half a dozen narratives that are a combination of other sources (Thornton, 1987).

Manuscripts *The legend of Tama-a-Rangi* (Te Rangikāheke, 1849a), *Tupuna, a genealogical account of some of the ancestors* (Te Rangikāheke, 1849c) and *Maori religious ideas and observances, incantations, legends, ancient poems, proverbs, genealogy, etc.* (Te Rangikāheke, 1849b) are consistent with Thornton's (1987) definition of oral literature as literature produced from memory with no reference to written material. Biggs (Biggs, 1952) identifies the manipulation of original material in the production of *Nga mahi* (Grey, 1928) under the categories: rearranging and combining, omission of indigenous writers' critical awareness, and alteration of sentence construction. I propose that the amalgamation and manipulation of manuscript contents of the *Grey Collection* in *Nga mahi*, excludes it from the genre of oral literature as it is improbable that the entirety of *Nga mahi* could be recited from memory.

Annotations on original manuscript material indicate that Grey and indigenous writers such as Te Rangikāheke collaborated on manuscript material (Curnow, 1985; Grey, 1928). Consistent with the production of *Nga moteatea*, Te Rangikāheke and his peers did not participate in the preparation of material for publishing (Loader, 2008). Indeed, the chronology of events in the production of literature suggest that Grey and his collection of manuscripts from Aotearoa New Zealand were in South Africa at the time *Nga mahi* was being prepared for publication (Curnow, 1985). The writer is thus replaced by the manuscripts as the principal source in the production of *Nga mahi*. This approach was applied to all sources of the *Grey Collection* in the production of *Nga mahi* (Simmons, 1966).

In the preface of the original edition of *Nga mahi* (Grey, 1854), Grey is transparent about the process of combining narratives from various sources throughout Aotearoa New Zealand in the production of *Nga mahi*. He justifies this approach as a medium in which readers can benefit from the richness of the collection in the publication of complete narratives. It appears that Grey's understanding of

complete narratives is an exhaustive account of all events that occurred within a defined period of time that amalgamated, are nationally representative (Jackson, 1968). Combining narratives from a range of social and geographic sources necessitates editing, altering and interpreting to produce an apparently seamless account. Grey does not disclose this process of literature production (Biggs, 1952; Thornton, 1987).

Consistent with the treatment of original material in *Nga moteatea*, any suggestion that indigenous writers were aware and reflective of European language, culture and the social changes surrounding them were omitted in the published literature. This includes the translation of transliterations to language considered to be more indigenous (Biggs, 1952).

2.2.5 The role of whakapapa in indigenous epistemology exemplified in *Nga mahi*

Jackson (1968) applies a structuralist model of social change to the analysis of Māori myth in reference to manuscripts *The legend of Tama-a-Rangi* a (Te Rangikāheke, 1849a) and *Tupuna, a genealogical account of some of the ancestors* (Te Rangikāheke, 1849c) that could be reasonably applied to indigenous epistemology and the function of whakapapa in the transmission of mātauranga Māori as exemplified in *Appendix 1* and *Appendix 2*. Jackson (1968) borrows from Levis Strausse (1963) to describe the importance of structure and order. According to this theoretical perspective, the diversity of versions of oral narratives of the same subject are all equally valuable because they arrange the same elements in the same structure on the basis of the same principles. Hence, change occurs in traditional narratives when the structure of narratives is disturbed by introducing a new or foreign element thus altering the dynamic of relationship in the original narrative or “where the principles which generate the form and arrange the elements into the system are altered” (Jackson, 1968, p. 149). Jackson’s could not identify any foreign or new elements in Te Rangikāheke’s accounts but that new principles governing the arrangement of elements have introduced change in the accounts presented in *Polynesian mythology*(Grey, 1956)¹⁵.

¹⁵ The English translation of *Nga mahi* used for Jacksons analysis

Te Rangikāheke's selective Arawa-centric scope of narrative and recital whakapapa is compromised by expanding the scope the inclusion of whakapapa other than Te Arawa. The interruption of the progression of the narrative with the insertion of other narratives and details also alters the relationship between existing elements of within the original narratives. For example, Te Rangikāheke's process of becoming and the historical background contributing to the events of the 1850s are accounted in an uninterrupted and straight forward manner over 28 pages in *Appendix 1*. This content is incorporated into and extended over seven separate titles, interrupted after Māui by foreign content for 6 titles (Thornton, 1987). The titles featuring Te Rangikāheke content from the manuscripts selected for this review have a combined total of 87 pages. The elements and relationships significant to Te Arawa, Ngāti Kererū and Te Rangikāheke thus become overwhelmed with detail and external points of reference.

Although significant, the effects of combining are not limited to the introduction of a variety of whakapapa. When manuscripts treated collectively supersede individual writers as the principal source of mātauranga Māori, an accumulation of content produced in literature does not offer greater knowledge of, or clarity about the narratives. For example, although both from original manuscripts attributed to Te Rangikāheke, in combining the accounts of the *The legend of Tama-a-Rangi*, (Te Rangikāheke, 1849a) and *Maori religious ideas and observances, incantations, legends, ancient poems, proverbs, genealogy, etc* (Te Rangikāheke, 1849b) in *Nga mahi*, the emphasis, so carefully crafted by Te Rangikāheke to engage different audiences is overwhelmed and the narrative style becomes fragmented and laboured (Thornton, 1987). Biggs (1952, p. 180) evaluated alterations made by Grey "detracted from their [MSS.] value as accurate original versions of the traditions as told by the older generations of Maori experts".

Events and people are gradually introduced to add emphasis, build tension or establish relevant conceptual or social relationships within the overall and smaller composite narratives of Māui in *Appendix 2*. Te Rangikāheke's account of Māui demonstrates the sophistication of the art or oral tradition and his oratory expertise. Māui was included in the manuscript *The legend of Tama-a-Rangi* (Te

Rangikāheke, 1849a) because it was suitable for the intended indigenous readership familiar with the content and the techniques of oral tradition (Thornton, 1987). *Nga mahi* presents a Māui narrative reconfigured in linear sequence, in the order in which events would have occurred. Thornton (1987) and Biggs (1952) argue that Grey's reconfiguration is unsuccessful because actions are no longer motivated and there are discontinuities within and between narratives. This analysis suggests that successful reproduction of oral traditions in literature or other media requires the writer or producer to be skilled in the recitation of the oral traditions from memory in order to have a working knowledge of how they are structured. In addition to a disjointed representation of Māui narratives, the opportunity to witness the literary style and meaning conveyed through the medium of oral literature is denied in Grey's version in *Nga mahi*. Thornton (1987, p.81) reflects on the significance of this to national literature.

Its [original Māui narratives] carefully crafted oral structure is dissolved into a more or less chronological, in fact biographical sequence, with stories from other authors inserted, of how Māui gained possession of Muriwhenua's jawbone, and how he turned his sister's husband into a dog. It is a great pity that most New Zealanders, both Maori and Pakeha, only know that magnificent story in this mutilated form.

The level of combining demonstrated in the index constructed by Simmons (1966) shows the degree to which the narratives are dislocated from their social and geographic contexts. The presentation of indigenous oral tradition as homogenous collective, is a construct that depersonalises active participation in indigenous epistemology. Williams identifies the role of autonomy and integrity in oral tradition saying that "there was generally a reason for local variation" and describing Grey's combining of material from different sources as "misleading" (Grey, 1928, p. vii).

Biggs (Biggs, 1952; Grey, 1971) identifies regional vernacular and idiom as indicator of hapū, iwi or geographic location of source material. The dislocation of tradition from origin is exacerbated by the artificial homogenisation of te reo Māori

text by H.W. Williams in the third edition of *Nga mahi* (Grey, 1928). H.W. Williams (Grey, 1928) justifies the corrections applied to the revision of *Nga mahi* with a description of the historical context within which indigenous writers developed a literary style. According to H.W. Williams (Grey, 1928) The *Holy Bible* was one of the first books to be translated and was one of the few examples of a literary style of te reo Māori. As an initial attempt at translation, early te reo Māori copies of the bible contained grammar that was incorrect and would never have been employed in speech. These grammatical errors were adopted by indigenous writers who mistakenly believed them to be exemplary of literary style that would appeal to a European readership. Hence, an inferior form of te reo Māori introduced error to the literary style of Indigenous writers who otherwise display mastery of te reo Māori me ōna tikanga. Ngāpuhi and Waikato dialects were considered standard te reo Māori because early missionaries learnt te reo in those regions and produced translated copies of the bible in Ngāpuhi and Waikato vernacular (Grey, 1971). Therefore, for the third edition of *Nga mahi* Williams corrected grammatical errors as well as homogenise te reo Māori text that according to Biggs was correct in the original form (Grey, 1971).

The trend to homogenise te reo Māori for academic literature implemented by H.W. Williams (Grey, 1928) in revision of *Nga mahi* was reversed in the revision of the same publications by H.W. Williams, Biggs and Pei Hurinui Jones (Grey, 1971) who argue that a uniform, classic or standardised te reo Māori is an academic construction and does not represent the reality of social and cultural diversity of whānau, hapū and iwi. Furthermore, Biggs is of the view that the attempt at homogenisation for the third edition of *Nga mahi* (Grey, 1928) is an effort to disguise or harmonise the disjointed collage of a variety of source material assembled by Grey. Biggs in Grey (1971) stated that the attempt to produce coherence and consistency through homogenisation of te reo Māori is unsuccessful as the combination of various sources can still be detected in localised use of idiom, vocabulary and literary style.

2.2.6 Whakapapa as indigenous method of naming in *Nga mahi*

The re-arrangement and combining of narratives in *Nga mahi* produced problems of continuity and coherence including continuity of language and names (Thornton,

1987). The prominence of names in *Nga mahi* prompted the publication of a names and word index (Harlow, 1990). As fixed points of reference, names, are understood in association with action, events, time and people contextualised in narrative (Walker, 1969). Perhaps the prominence of names in original narrative traditions prevented a greater degree of literary manipulation (Jackson, 1968). Names are conserved as titles in *Nga mahi*, indicating that the names of protagonists continue to be strongly associated significant historical events. However, combining of content for a diversity of sources, complicates the efficiency of original accounts and weakens the association of protagonists from actions, location and time (Jackson, 1968). For example in *Appendix 2*, Hine-nui-te-pō is the ancestress from whom Māui gains fire and this confrontation is a prelude to his later fatal encounter with her. In *Nga mahi* (Grey, 1971, p. 17), Hine-nui-te-po is replaced by Mahuika who may be the appropriate ancestress Māui gains fire from in the oral traditions of hapū other than Ngāti Kererū (Thornton, 1987). The connotations of extinguishing Hine-nui-te-pō's fire and his later attempts to conquer her are disassociated when Hine-nui-te pō is substituted with Mahuika (Jackson, 1968; Thornton, 1987). In terms of naming in epistemology it is important to note the associations of actions and the progression of events in the narrative written by Te Rangikāheke has been significantly altered by the substitution of another name. *Appendix 1* presents another example of substitution of name Manaia (p.vi) as a place name and Manahua is the name of the husband of Kuiwai in (p.xvi). Manahua is replaced by the name Manaia in "Manaia raua ko Ngatoroirangi" in *Nga mahi*.

2.2.7 Translation of mātauranga Māori in *Polynesian mythology*

Polynesian mythology (Grey, 1855) is an English language translation of *Nga mahi* (Grey, 1971). First published 1855 and currently available online as part of the *New Zealand Electronic Texts Collection*, (Grey, 2005) Victoria University Wellington (<http://nzetc.victoria.ac.nz/>)

While *Nga moteatea* (Grey, 1853) and *Nga mahi* (Grey, 1971) appeal to a restricted readership literate in te reo Māori and interested in philology, *Polynesian mythology* (Grey, 2005) is targeted to a larger popular English speaking readership eager to satisfy their curiosity for the exotic (O'Leary, 2008):

...those who do not understand the Maori language, and are yet anxious to become acquainted with the religious rites and belief, and the fabulous traditions of a savage and idolatrous race, as handed down by their High Priests through many successive generations, will thus have an opportunity to gratify their curiosity. (Grey, 1928, p. x)

By publishing several versions of the material in *The Grey Collection*, Grey can cross promote each publication. For example, readers of *Nga mahi* are directed to *Nga moteatea* to gain a greater understanding of “ancient traditional poetry and mythology of the Polynesian race” (Grey, 1971, p. ix), as well as alluding to an upcoming translation of the same material.

The ‘Table of contents’ of *Nga mahi* demonstrates an economy of language afforded by names and methods of naming where the names of familiar protagonists are synonymous with historic events. In the English language ‘Table of contents’ of *Polynesian mythology* (Grey, 2005), a brief label indicating the nature of the narrative are added to the names of protagonists. For example the title ‘Ko Wahieroa, Ko Rata, Ko Whakatau’ in *Nga mahi* is translated in *Polynesian mythology* as ‘The adventures of Rata and the enchanted tree’. The title ‘Ko Toi-te-Huatahi, Ko Tama-te Kapua, Ko Whakaturia’ in *Nga mahi* is translated as ‘The Quarrels in Hawaiki’. The titles for *Nga mahi* rely on names to communicate the nature of the narratives because the protagonists are synonymous with these significant events and personalise them. The addition of a description in some titles carries connotations of a fantastic or fictional, rather than historic, presentation of narratives (Mahuika, 2012)

Alteration of original narratives and creative translation contributes to a lack of motivation of actions of protagonists. In Te Rangikaheke’s narratives the development of ideas and thoughts are described as motivation for action. Abbreviated and combined accounts in *Nga mahi* and *Polynesian mythology* prioritises outcomes and abbreviates account of events leading up to them (Thornton, 1987). According to Biggs (1952), problems in translation occur when

the reader is not able to infer meaning from immediate and general contexts. A high level of interpretation occurs, when in translation and comprehension, texts are taken out of their original contexts as they are in *Nga mahi*. Biggs (1952, p. 178) remarks that translation is a negotiation between literal representation of intended meaning and harmonious literary style:

In scientific publications the translation should conform as closely as possible to the sense of the original, sacrificing, if necessary, style to accuracy. Elaborate explanations of native terms should be confined to footnotes and where there is no English equivalent of the term, the translator should sometimes retain the original rather than use an English word which is not a true equivalent

Examples of curious and repeated translations include “carved two handed sword” perhaps for taiaha and “apron” for maro (Grey, 2005). Te Ika a Maui is qualified as an Island. Some place names like “The Fish Hook of Māui” are explained in relation to the narrative and only the English translation of the place name is given (Grey, 2005, p. 27). An extreme application of a European cultural lens most relevant to this thesis is the depiction of Māui’s transformation into the form of a fleet winged Eagle (Grey, 2005, p. 29). At the same position in the narrative in *Nga mahi* (Grey, 1971, p. 18) Māui transforms into a kahu.

Te Rangikāheke identifies gender when it is relevant and used gender neutral terms such as *ia*, *tāngata*, and *tangata* in the majority of the text. These are consistently translated into male gendered words in English translation (him, man, and mankind) and significantly alter meaning. For example in *Polynesian mythology*, Hine-nui-te-pō is described, “her body is like that of a man” (Grey, 2005, p. 34) in *Nga mahi* (Grey, 1971, p. 22) and *Appendix 2* (Grey, 1853, p. xlvi) she is described as “ko te tinana, he tangata anō” meaning that her body is in human form as opposed to other aspects of her physical appearance which are not. The trend of representing a gendered oral tradition by using gendered English language continues in academic literature by men and women indigenous and non-indigenous writers.

2.3 Summary

Description of the political background to the commissioning of manuscripts by Grey as well as the different presentations of *Appendix 1* and *Appendix 2* (Grey, 1853) indicate that Te Rangikāheke viewed oral literature as a social exchange in a similar way to oratory (Thornton, 1987). Therefore in *Appendix 1* and *Appendix 2*, Te Rangikāheke occupies the position of principle source of mātauranga Māori presenting history and ontology to maximise potential engagement of specific readerships.

In *Appendix 1* and *Appendix 2*, the scope of narratives is anchored by Te Rangikāheke's whakapapa. These examples of oral literature illustrate that oral traditions are not intended to provide a balanced objective overview, they are transparently iwi centric expressions of whakapapa and ontology (Curnow, 1985; Loader, 2008). Thus *Appendix 1* and *Appendix 2* are examples of oral literature as a practice of memory arts which thus shapes the style of oral literature. Whakapapa and names provide the structure and references for consistent accounts of history as well as allow for the creative addition of details (Jackson, 1968; Walker, 1969). Likewise oral literature conserves the style of oral tradition reliant on memory arts, prioritising selective elements to emphasis relationships, and giving context to names, strengthening the association of names with specific events, times and places as well as personalising dynamic relationships (Jackson, 1968; Walker, 1969).

Once mātauranga Māori in the form of oral literature was purchased by or donated to Grey, he treated it as his property. It was physically distanced from original writers when gifted to The South African Library. Grey also combined, altered, edited and reproduced mātauranga Māori in published literature with no collaboration with original writers. The transmission of mātauranga Māori in the form of oral literature changes considerably when mātauranga Māori is presented in a literary style presenting accumulated information reliant on documents rather than memory arts. When presented in an overall generic literary style, mātauranga Māori becomes popular non-fiction rather than a personalised expression of history, tradition and ontology. The repatriation of The *Grey Collection* prompted indigenous and non-Indigenous academics to produce transcriptions and

translations that perpetuated the form and content of the original material as well as recognise indigenous writers and their contribution to historic record. Likewise the trend to homogenise te reo Māori was reversed in this example of literature production to recognise the diversity of regional vernacular as an expression of whakapapa and ontology (Biggs, 1952; Grey, 1971; Loader, 2008; Simmons, 1966; Thornton, 1987).

The review of this selection of literature suggests that experts of oral tradition, ideally original writers or oral literature should be principle sources of mātauranga Māori when transcribing, translating or preparing literature for publication to reduce the risk of error or discontinuity in literature. The literature reviewed supports expanding representations of mātauranga Māori to include documented awareness of non-indigenous cultures, current affairs or the use of transliterations, as these reflect engagement of indigenous societies with social and political environments and are personalised realistic representations of mātauranga Māori. The statement that te reo Māori should be conserved when there is no English language equivalent (Biggs, 1952) is relevant to the role of literature in indigenous methods of naming. It also provided an example of the implications of translating of gender neutral te reo Māori words to gender specific English language words.

Chapter 3

Contemporary mātauranga Māori about native and introduced birds and literature

3.1 Introduction

Seven semi-structured interviews were conducted with male and female kaumātua in Rotorua and Rotoiti during November and December 2014. Selected contents of interviews presented in this chapter relate participants' experiences of indigenous epistemology and transmission of mātauranga Māori about native and indigenous birds to Aotearoa New Zealand with a focus on the ecologies of Te Arawa Lakes (see *Appendix 1*). Inquiry into participants' experience of indigenous epistemology and mātauranga Māori aims to describe the role of literature in the transmission of mātauranga Māori about native and introduced birds and contributes to answering the research questions:

- (i) What is the role of whakapapa in indigenous epistemology?
- (ii) What is the role of literature in indigenous epistemology?
- (iii) What is the role of literature in indigenous methods of naming native and introduced birds to Aotearoa New Zealand?

The response to all research questions including those relative to this chapter will be discussed in *Chapter 5*. Almost all participants of semi-structured interviews conducted for this thesis are descendants of Te Arawa waka and reside in proximity to Te Arawa Lakes. (see *Appendix 1*) A short introduction of each participant is presented in this chapter to describe my relationship to each participant, the relationship of each participant to native and introduced birds to Aotearoa New Zealand as well as describe the social context of the semi-structured interviews as an exchange between kaumātua (participant) and mokopuna (researcher) (see 3.4).

3.2 Research Methodology – Kaupapa Māori

Kaupapa Māori approaches seek culturally appropriate ways to conduct research with Indigenous communities in ways that mediate relations of power, are aware of historic injustices, recognise and value the dignity of indigenous communities and seek to work collaboratively ‘with’ rather than ‘on’ communities. The overarching principle is that research undertaken by Māori researchers that relates to Māori people and Māori communities should be culturally appropriate and of benefit to all of those involved. A defining feature of kaupapa Māori is the fact that the research is grounded in kaupapa Māori concepts, values, practices and processes throughout (L. Smith, 2012). As Te Awekotuku (1991, p. 13) highlights, research is ultimately about power and control. S/he who controls what is being researched, who is conducting the research, how the research is being done, how it is funded and how it gets disseminated, shapes how the knowledge is created. Kaupapa Māori allows researchers to exercise control over that which in the past has been largely controlled by Pākehā. Within Kaupapa Māori there is great potential to use a variety of research methods to elicit appropriate data and information. As a theory it continues to evolve through a process of reflective engagement and analysis (Pihama, 2001). The greatest strength of this approach is that Māori are able to define the processes used, conduct the research in a culturally appropriate manner benefitting Māori whānau, hapū and iwi. Kaupapa Māori theory is based on a number of key principles initially developed by Graham Hingangaroa Smith (1990), and expanded on by other theorists such as Linda Smith (2012), Leonie Pihama (2001) and Taina Pohatu (2005). These principles include (Pihama, Cram, & Walker, 2002):

- *Tino Rangatiratanga* (The Principle of Self-determination): This principle relates to sovereignty, autonomy and mana motuhake, self-determination and independence. This notion asserts and reinforces the goal of allowing Māori to control their own culture, aspirations and destiny.
- *Taonga Tuku Iho* (The Principle of Cultural Aspiration): This principle asserts the centrality and legitimacy of te reo Māori, mātauranga Māori, tikanga and āhuatanga Māori. The paradigms of knowing, doing and understanding the world are considered valid in their own right.

- *Ako Māori* (The Principle of Culturally Preferred Pedagogy): This principle acknowledges and promotes teaching and learning practices that are inherent and unique to tikanga Māori. It also acknowledges practices that may not be traditionally derived but are preferred by Māori.
- *Kia piki ake i ngā raruraru o te kāinga* (The Principle of Socio-Economic Mediation): This principle asserts the need to mediate and assist in the need for Kaupapa Māori research to be of positive benefit to Māori communities.
- *Whānau* (The Principle of Extended Family Structure): This principle, like tino rangatiratanga, sits at the core of Kaupapa Māori. It acknowledges the relationships that Māori have to one another and to the world around them. The whānau and the process of whanaungatanga are integral elements of Māori society and culture. The cultural values, customs and practices related to the whānau and collective responsibility uphold the intrinsic connection between the researcher, the researched and the research.
- *Kaupapa* (The Principle of Collective Philosophy): This principle refers to the collective vision, aspiration and purpose of Māori communities. This vision connects Māori aspirations to political, social, economic and cultural well-being.

These principles are essential to ensuring that our stakeholders are engaged and acknowledged in the research process in a way that is consistent with tikanga Māori. Researchers such as Smith (L. Smith, 2012), Bishop and Glynn (Bishop, 1999) have developed a set of core Māori concepts and tikanga that provide an overall ethical and structural framework for the research:

- *Aroha ki te tangata* (Respect for people);
- *Kanohi kitea* (Face-to-face interaction);
- *Titiro, whakarongo ... kōrero* (Look and listen before speaking);
- *Manaaki ki te tangata* (Share and host people);
- *Kia tūpato* (Be cautious);
- *Kaua e takahia te mana o te tangata* (Do not humiliate others);

- *Kaua e whakaputa mōhio* (Do not flaunt your knowledge).

For this research, seven semi-structured interviews were conducted to explore the contemporary practice of indigenous epistemologies and the features of contemporary mātauranga Māori relative to native and indigenous birds to Aotearoa New Zealand. Five kaumātua of Ngāti Hinekura and Ngāti Pikiāo constitute the principle group of participants of semi-structured interviews conducted for this thesis. Ngāti Whakaue and Ngai Te Rangi are hapū represented by the remaining two participants. Therefore all but one participant is a descendant of first immigrants to Aotearoa New Zealand on Te Arawa Waka. The cohort includes three women and four men who are generally over fifty years of age. All participants contribute directly to the wellbeing of Te Arawa lakes ecology as well as assume responsibilities of delivering and teaching oral tradition within hapū and educational social settings. Whakapapa common to participants focuses the scope of mātauranga Māori shared about native and indigenous birds to ecologies of Te Arawa Lakes. Likewise participant experience of indigenous epistemology is centred on Te Arawa whakapapa. Whakapapa thus provides a framework for the methodology of conducting primary research in this thesis to present mātauranga Māori that is relational and comprehensive although the number of participants is modest. Quotations selected for the interviews to illustrate each theme are only an indication of the richness of material provided by interview participants. Given that most participants are my direct kaumātua and all participants are my elders I refer to them here, as I would conversationally as whaea, matua or koro. The names of birds used throughout this chapter are the names given by participants.

In most cases participants had at least a week to consult and reflect on questions potentially asked to generate discussion during the interview. Consequently, very few questions were posed during some interviews. Participants that had very little time to consult potential prompts responded to questions in a way similar to everyday informal dialogue. In all cases, the interview process intended to provide an opportunity for a personal exchange of mātauranga Māori as well as prioritise aspects of mātauranga Māori interviewees were most willing to describe or discuss. The themes presented in this chapter emerge from the opportunity to think about the interview prompts sometime before the interview taking place. However, the

complexity of each theme such as observation of change on the wellbeing of ecologies including that of human populations and accounts of personal interaction with birds was volunteered from interview participants without prompting and influenced inquiry into similar aspects of mātauranga Māori in later interviews.

Each participant received a transcript of their interview and a draft showing how content from the interview is presented in this chapter including the text introducing them as a participant. Participants responded by email or personally to confirm consent for the content to be included in this thesis. The summary of findings of this chapter will also be communicated to organisations supportive of this inquiry such as Department of Conservation [DOC], Te Arawa Lakes Trust, Te Pūkenga Koeke o Te Arawa, Te Reo Irirangi o Te Arawa.

3.3 Ethics

Ethics application was initially submitted to Te Manu Tāiko ethics committee toward the end of September, after some corrections were made to the original application, the ethics application for this study was approved Tuesday 18th November 2014 (see *Appendix 2*). Research participants were supplied with the supporting documents of an information sheet, consent form and interview prompts about a week prior to interviews taking place. On two occasions supporting documents were supplied immediately before the recording of the interview.

3.4 Research participants and the interview process

On Friday 20th November I phoned Leilani Ngāwhika, Executive Manager at Te Arawa Lakes Trust to ask if the trust had or knew of any iwi generated literature on bird life or indigenous methods of naming. Whaea Leilani inquired further about the research project and suggested some contacts at related offices such as the DOC and invited me to attend the Te Arawa Lakes Trust Annual General Meeting. The meeting was chaired by Sir Toby Curtis and held at 9am, 23rd November 2014 at Pakira Marae, Whakarewarewa. During the general business session of the meeting I introduced this research project, provided contact details and invited research participants. At the conclusion of the meeting I was approached by Kīngi Biddle to participate in a pre-recorded interview about the project to be aired on Te Reo Irirangi o Te Arawa.

On Monday the 24th November I meet with Joseph Tahana, Ranger of Treaty Implementation at Central North Island Region DOC office located in Rotorua. Matua Joseph is also Ngāti Hinekura and a relation of mine. He gave me some suggestions of participants, offered to assist in scheduling interviews if needed and suggested I attend a Pūkenga Koeke o Te Arawa Meeting at 10am Friday 28th November, 2014 at Tangatarua Marae, Waiariki Institute of Technology. I approached one of our Ngāti Hinekura kaumātua who offered to liaise with those organising the Te Pūkenga Koeke o Te Arawa meeting, who in turn permitted me to introduce the research and make a request for interview participants during the meeting. Unfortunately I was unable to contact the meeting organisers to obtain contact information of attendees. At 2pm on the same day I participated in a pre-recorded interview with Kīngi Biddle on Te Reo Irirangi o Te Arawa that aired at about 5.30pm the same day. No inquiries or offers of participation were received as a result of the radio interview.

In most cases, my request for interview participation were responded to by return email and phone call. Not all requests for interview participation received a favourable response. The time of year interviews were conducted, approaching Christmas and New Year celebrations, may also have influenced the availability of potential research participants. At times there was an initial reluctance from some participants as they perceived they could offer little knowledge about birds and indigenous methods of naming until it was clarified that life experience, oral tradition and mātauranga Māori are important aspects of the interviews. Conversation always took place before interviews and always continued after interviews were completed. It was agreed that each interview be maximum one hour in duration. The set of seven completed interviews range from thirty-five to seventy minutes in duration.

3.4.1 Mark Joseph Harawira

A friend of mine works at the Central North Island branch of the DOC in Rotorua. At 9am, Monday, 24th November, I went to see him at the Rotorua DOC office and he introduced me to Paul Warbrick (Integrator Iwi Relations and Partnerships) and Huia Lloyd (Pou Tairangahau). Matua Paul and Whaea Huia offered some

suggestions for research participants and contact information. From those suggestions, I sent an email to Joe Harawira later that day introducing the research project and requesting his participation in an interview. Matua Joe replied to the email and consented to be interviewed. An information sheet, consent form and interview prompts were emailed to him. The interview took place at the Rotorua DOC office at 11am Tuesday 2nd December 2014.

Matua Joe is Ngāti Maniapoto, Ngāi Te Rangi, Ngāti Awa and resides in Whakatāne. Matua Joe provides professional development in cultural safety for DOC staff throughout the country to facilitate collaboration of DOC staff with whānau, hapū and iwi. Before the interview commenced, Matua Joe described his previous long time involvement in kapahaka at the School of Māori and Pacific Development at the University of Waikato. He describes himself as a storyteller and I learned during the course of the interview that as part of a wider team, he performs storytelling and facilitates storytelling workshops in te reo Māori and English nationally and internationally. Matua Joe describes storytelling as a range of genres and content including pūrākau, pakiwaitara, oral history, dialogue as well as improvisation.¹⁶

3.4.2 Paraone Pirika

Matua Paraone is familiar with my whānau as my paternal grandparents and their children lived in the same neighbourhood of Hinemoa Point in Owhata, Rotorua. Matua Paraone was a lecturer and instructor for the certificate in kaihoe waka and the certificate in waka ama at Te Whare Wānanga o Aotearoa, Turipuku campus when I completed these in 2009 and 2010. My personal experience of Matua Paraone's lectures and his approach to sharing mātauranga Māori prompted me to seek out his participation in this research. Matua Paraone grew up close to Owhata Marae situated on the shores of Lake Rotorua. He is actively involved in the management and activities of Owhata Marae, as well as being the kaikōrero for the paepae. He is manager of a local organisation that provides social support to young people. I met with Matua Paraone at 10am Wednesday 26th November at his office

¹⁶ The performance art of storytelling includes song, poetry, music and other traditional and contemporary art forms to initiate audience engagement and participation.

to talk about the research and provide supporting documents. The interview took place at his workplace at 10am Wednesday 3rd December 2014.

3.4.3 Norma Rāpana Sturley

A Te Arawa kuia and mentor recommended I contact Whaea Norma and request her participation in this research. Whaea Norma grew up under the guidance of her tūpuna at Waikuta Marae on the shores of Lake Rotorua. She is Ngāti Whakaue and Ngāti Pīkiao. Whaea Norma delivers and teaches karanga, waiata and mōteatea at Te Papaīouru Marae, Ohinemutu and makes korowai on request for whānau and marae throughout Aotearoa New Zealand. I telephoned Whaea Norma on Wednesday 26th November and met her at her home the following day to introduce the research project and provide supporting documents. The interview took place at Norma's home at 11am 4th December 2014.

3.4.4 Stormy Iharaira Hohepa

Koro Stormy is Ngāti Tamatutahikawiti, Ngāti Rangiwewehi and Ngāti Hinekura. He was born and grew up near Tapuwaeharuru marae on Lake Rotoiti and has an extensive career in crafting headstones. He is resident kaumātua, kaikōrero and kaitaiaki of Waiiti Marae of Ngāti Hinekura. I called into Koro Stormy's home at Waiiti Marae on the 25th November 2014 and provided the supporting documents to my research. The interview was scheduled by telephone on Tuesday 2nd December. The interview took place at my home in Rotorua at 9am, 5th December 2014. Koro Stormy suggested I ask Whaea Ngāwhakawairangi to participate in this research.

3.4.5 Ngāwhakawairangi Hohepa

Whaea Ngāwhakawairangi is Ngāti Hinekura, Ngāti Rongomai and Ngāti Pīkiao. Te reo Māori is her first language and she is kaumātua and kaikaranga at Ngā Pūmanawa o Te Arawa marae and Waiiti marae. Whaea Ngāwhakawairangi was introduced to the research project by telephone and provided with supporting documents just before the interview began at her home at on the shores of Ruato Bay, Lake Rotoiti at 10am Monday, 15th December 2014.

3.4.6 Michael Toka Kīngi

Koro Toka worked in the forestry industry for many years before assuming the roles of kaumātua and kaikōrero at Waiti Marae of Ngāti Hinekura on the shores of Lake Rotoiti. I went to visit him at his home in Rotoiti on the 15th December 2014 and he consented to be interviewed. Supporting documents were provided and the interview took place immediately.

3.4.7 Tūi Matira Ranapiri-Ransfield

Whaea Norma Sturley suggested I ask Whaea Tūi to participate in this research. Whaea Tūi is Ngāti Ohomairangi. She grew up in Rotorua and affiliates most strongly to Rotokawa and currently resides in Rotoiti. She performs and teaches karanga. I sent an email to Whaea Tūi on Tuesday 2nd of December introducing myself, the research project and providing supporting documents. She consented to an interview and provided further contact details. The interview took place at Whaea Tūi's home at Lake Rotoiti at 2pm the 17th December 2014.

3.5 Reporting the interviews

Selective examples of interview content have been grouped into four themes that respond to the aim of this chapter and include: mātauranga Māori about indigenous and native birds; developing mātauranga Māori, delivering mātauranga Māori and the role of literature in mātauranga Māori transmission. Each theme groups similar content across interviews to demonstrate the most prominent features of each theme. The first theme presents mātauranga Māori about native and introduced birds to Aotearoa New Zealand shared by participants (see 3.5.1). It demonstrates participants' observation of the impact of environmental change on ecological wellbeing including human social wellbeing. The second theme explores participants' identification of sources of mātauranga Māori about native and introduced birds, description and demonstration of forms in which mātauranga Māori is received as well as descriptions of settings where participants receive mātauranga (see 3.5.2). It includes descriptions of direct interaction between participants and birds. The theme of delivery of mātauranga Māori explores the variety of ways mātauranga Māori received is negotiated and applied to participants' delivery of mātauranga Māori during interviews as well as participants' reflections on their experience of delivering and teaching a range of

oral traditions to whānau, hapū and other audiences (see 3.5.3). The theme of delivery of mātauranga Māori ends with exploration and reflection on the imperative of social context in shaping delivery methods and content of mātauranga Māori. The fourth and final theme emerging from the semi-structured interviews describes ways literature contributes to participants' mātauranga Māori of indigenous and native birds, ways literature compliments or informs indigenous epistemologies in the reception and delivery of mātauranga Māori, as well as the potential for literature to contribute to mātauranga Māori and indigenous methods of naming native and introduced birds to Aotearoa New Zealand (see 3.5.4). Where the initials **TU** are used, denotes interviewer dialogue.

3.5.1 Mātauranga Māori about native and introduced birds to Aotearoa New Zealand

This theme explores mātauranga Māori shared by participants about introduced and native birds to Aotearoa New Zealand. Included in this theme is observation of change in ecological wellbeing inclusive of human social wellbeing. Participants shared mātauranga Māori about birds gained through the senses of hearing, taste and sight. **Whaea Tūi** shared mātauranga Māori about the habitat of different bird species according to sound:

And then to the mountains he banished the kāiaia¹⁷ and the kea for neither bird had a voice anyone would want to listen to, to the sea he sent the tōroa and the karoro and other birds, to the swam he sent the pūkeko, the mātuku and the kōtuku, to the rivers he sent the parerā and the whio; of the remaining birds, several impressed upon their uncle, so you know they had singing potential, the tieke, the riroriro or the pihipihi is what Tūhoe call the riroriro, the tūi, the kākā, the kiwi, the rūrū, the kererū and the huia. However for Tāwhiri' only one bird stood above the

¹⁷ Kāiaia (not located); kea (*Nestor notabilis*); pūkeko (*Porphyrio porphyrio*); matuku (not located); kōtuku (*Egretta alba modesta*); parerā (*Anas supercilliosa supercilliosa*); whio (*Hymenolaimus malacorhynchos*); tieke (*Philesturnus carunculatus*); riroriro (*Gerygone igata*); tūi (*Prothemadera novaeseelandiae*); kākā (*Nestor meridionalis*); kiwi (*Apteryx mantelli*); rūrū (*Ninox novaeseelandiae*); kererū (*Hemiphaga novaeseelandiae*); huia (*Heteralocha acutirostris*), korimako (*Anthronis melenura*)

others to be the most melodious the best singer of all the birds and that would be the korimako and then Tāwhiri' continued to teach these birds to sing, he also gave them times to sing so that his mother would have her mokopuna close to her heart and her ears.

Koro Toka described how the appearance of pīpīwharauoa¹⁸ in spring instigates noisy bird chases in the bush as birds like tūi try to prevent pīpīwharauoa from laying eggs in their nest because pīpīwharauoa chicks grow faster and larger than the natural offspring of the tūi and push the smaller chicks out of the nest. **Koro Toka** can locate birds in the bush by sound. He noted that a person looking for birds must go into the bush alone as going as a group is too noisy and the sound of flapping wings and feeding birds will be harder to hear. He described the sound of wings flapping as lethargic kererū fat with miro¹⁹ berries try to walk on foliage:

the kererū, he is around at about 10 o'clock in the morning and at about 2 o'clock in the afternoon. In between then, they are sleeping in nice secluded areas where there's no wind. As soon as you walk into a place like that and if you give them a fright, they'll have a crap, well its only berries anyway, you just hear the berry falling and you think 'oh well he's given himself away'.

Many participants describe the taste of native and introduced birds. **Koro Stormy** recalled eating kererū prepared by his parents:

Well as long as they got the berries in them, they sort of stuff them, the bird and then put the berries back in with the stuffing and that gives...because the berries they give a beautiful flavour ...

TU: *and how did you cook them?*

Koro Stormy: *oh just boil them. Mum used to just boil them and then just bake them in her coal range, she used to bake hers just to, yeah used to just half cook them, boil them and then she used*

¹⁸ Pipiwharauoa (*Chrysococcyx lucidus*)

¹⁹ Miro (*Prumnopitys ferruginea*)

to put them in there because we never had any dripping in those days, it was all pork fat she used to render down and... it was beautiful.

Whaea Ngāwhakawairangi recounted similar memories:

Well my mother would just put it in boiling water and cook it up and if the bird, when they cleaned it, if it had seeds in it, you know the seeds they ate, they would leave them in there for flavour and it was a beautiful bird to eat. Now the taste was totally different to chicken you know but they had that game taste so it was a delicacy.

Whaea Tūi also described how a range of bird species taste:

So I've eaten pūkeko, I've eaten swan, which is not a native bird but I've eaten it. The poho of the swan is absolutely beautiful in the hāngī, that's right. Those swans out there they can offer you a good meal.

All birds are red meat, very much the colour of liver, all the native birds, I haven't had all the native birds but I've had kiwi when I lived in the north at the Mangamuka, they used to eat kiwi up there, it's similar to the weka²⁰. They've all got a similar taste and they don't have fat in them, the meat is very lean, like the pūkeko is very sinewy, you got to take the sinews out, that was a job I had when we used to go duck shooting. And the kiwi, parts of the kiwi were fat and so the fat in the kererū and those birds that are scrumptious to eat, they were succulent and tender in the way we used to cook it and tasty for eating is that the fat is like a, like a strong yellow colour.

Participants described the appearance and behaviour of birds. For example, **Matua Joe** sang *Kiwi Nguturoa* by Hirini Melbourne to describe the physical appearance and behaviour of kiwi. **Matua Paraone** informed me that the stance and gait of

²⁰ Weka (*Gallirallus australis*)

pūkeko is a model adopted by kaumātua in the delivery of whaikōrero. A kererū also appeared outside the window of **Whaea Ngāwhakawairangi** house during the interview and she described its regular appearance and behaviour. She described the feeding habits of the kererū and expected to see one to five kererū landing on a tree fruiting in front of her kitchen window every morning. She explained how the kererū will not let the berries ripen and will continue eating them until there are none left. She noted how the environment near her house is an ideal landing place for birds because they can feed there undisturbed.

Participants shared a range of mātauranga Māori related to the harvesting and preparing of birds for eating. Thus, **Koro Stormy** identified birds as a major food source in the past:

Well apart from the kererū, the pork and the deer, well that was the only kai that we used to...well not afford but that was the only kai that we used to go out and get and apart from the odd rabbit too, I mean the kererū was the ultimate that one.

TU: How did you... How did you get them?

Koro Stormy: Oh well we had a 22. But then again it became a law that you weren't able to shoot them and then that was it. Well that was one of our main diets in those days. Yeah the kererū.

Matua Joe listed kiwi, kākā, tūī and weka as birds harvested for food in the past and related mātauranga Māori he heard about the use of supplejack²¹ in the preparation of kererū for eating:

in the old days they used to get kererū for food and they used to chop this supplejack. There was a type of supplejack that had quite a lot of water in it and about a meter and a half long and they would put the supplejack through the mouth and it would come out the nono, you know out the backside, and they would put two or three on a supplejack and hang them over hot ashes,

²¹ Supplejack (*Ripogonum scandens*)

the water from inside the supplejack would heat up and cook the bird from the inside out. It's sort of like a microwave effect.

Matua Joe also recounted how the growth of population of kuia²² on Mautohora Island from a few pairs in 1965 to an estimated eighty thousand pairs currently has contributed to the revitalisation of tikanga in the sustainable harvesting of kuia birds after almost fifty years of prohibition. He described the implications of this:

Ngāti Awa have decided that we will only go over there for one day and our limit will be two hundred, now there are eighty thousand pairs said to be on that island, and then we'll come off. And those birds are used for special occasions like rūnanga hui and kaumātua kai and you know that sort of thing. Somewhere down the track, once we get a bit better with our understanding of the manu and the like, the harvesting processes and the karakia and everything that goes with it, it may be that ten years down the track, that we might be going out there for a week.

Participants identify birds surrounding their current residence as well as reflect on birds that were commonly seen in the places they grew up in. For example, **Matua Paraone** listed the birds commonly seen around the Owhata marae as pūkeko, koau²³, quail, thrush, tīrairaka²⁴, morepork, the introduced hawk, duck and geese. According to him tūī, kererū and kiwi were rarely if ever seen in the area. **Whaea Norma** named kiwi, rūrū, fantail, weka and pūkeko as birds she often saw during her childhood growing up at Waikuta. Participants also related their observation of change in bird population in these same areas saying that some birds that were quite significant during their childhood are only rarely seen these days. **Matua Paraone** made a direct connection between bird population and environmental change:

Fifty years ago, we were still drinking out of the lake, we were still drinking out of the rivers, we could drink out of them and be not effected. Now, no. So you see now how that lake over, in just fifty years, you can't do that, well it was even less than that and

²² Kuia (*Procellaria cinerea*)

²³ Koau (*Phalacrocorax carbo novaehollandiae*)

²⁴ Tīrairaka (*Rhipidura fuliginosa*)

then you saw these birds disappearing. So now we are seeing a lot of the environment, you know we are trying to clean it up and you see these birds coming back now.

Matua Paraone also observed the return of many birds to Owhata and attributed this to maturation of native trees in suburban areas. From **Matua Paraone's** perspective the return of birds indicated the restoration of ecology to health. **Whaea Tūi** recounted how climate change has affected the migrating patterns of birds. **Matua Joe** described similar observations relating to the tūi:

Last year wasn't a very good year, they were very skinny and that has more to do with, we think, with climate change and the like, lack of food around. And it was the same for Kai Tahu actually, they didn't get any birds off their islands. And we seem to think, you might remember a big chunk of this iceberg fell off down in the Antarctic. Well just before the tūi season, that was breaking down and the temperature of the water got colder and colder and it actually floated past the South Island's tūi islands and dropped the temperature of the water by about half a degree which meant that the fish weren't there and so the adults didn't have anything to take back and so they just abandoned all the nests there and took off somewhere else and you know it's all of that sort of stuff. Our people who know the manu think that that's the reason, you know and it's their understanding around that whole kaupapa around the manu and the breeding patterns and the whole....the knowledge systems they had in place from the old times which are getting through to us who are only just getting back into this particular practice.

In the context of mātauranga Māori, ecological change includes change in collective human wellbeing. **Matua Paraone** described the responsibility of preparing food in hāngī was once practiced with reverence. For instance, after completing preparation of food in hāngī, ringawera cleansed themselves to remove the state of tapu. The place of birds and ecology in whakapapa provides the context of tikanga practiced in the preparation and consumption of food and supported the holistic

wellbeing of our ancestors. He compared this with contemporary practice of drinking beer during the preparation of hāngī, and a modern “K Fry mentality”²⁵ where food is appreciated as a convenience commodity, with little ontological meaning. Consequently the state of our holistic wellbeing is poor. Hence, he noted:

the hāngī was treated as something significant, even though you know you were eating it but it was treated as something significant and I suppose that's where we get a lot of our behaviour today because we don't, we don't treat food in the same way as it used to be back then. Like a manu, treated so it was a privilege to eat a manu, you know back then. (Matua Paraone)

Koro Toka was brought up to bring kererū home for women of the household:

I just give them. Yeah, I just say, 'I'll go and get you one eh?' Because you know all of our children, she carried them, and I fed her with the kererū all the time.

Koro Toka recounted how duck and kahawai²⁶ bodies are disposed of at the local dump by people who regard fishing and shooting as a sport rather than a means to share a natural resource with neighbours and relatives.

Some mātauranga Māori shared about birds by participants was based on te reo Māori me ōna tikanga. **Matua Paraone** explained the word hihiri as a bright light and a vibrant energy as a basis for the word manuhiri, and likens a distinguished guest or visitor's proclamation of pēpeha to a bird that “displays his finer parts”. **Matua Joe** referred to a design on his facial tāmoko and related his understanding the words manu kōrero:

it actually alludes to me and my travels around the world and the metaphor is a bird and that I speak as I fly around the world to the different cultures to make connections with our culture. And so I talk to them about that. Anybody who could read this would

²⁵ Kentucky Fried chicken

²⁶ Kahawai (*Arripis trutta*)

know, would see that design there, right there and say 'ah! repository of stories'.

Whaea Norma shared the origin and meaning of place names that described bird habitat:

When Ihenga went exploring and discovering the different areas and naming the different areas around Rotorua, he lost his flock of shags on one of his journeys and it just happened to be that he did eventually find them in the kahikatea trees in Waikuta. Through his finding the flock of shags, seeing the kuta there and the wai so it become Waikuta. The stream itself is actually called Te Ahipūkahu but it's always regarded as being the area of Waikuta.

Mātauranga Māori shared by participants in relation to te reo Māori me ōna tikanga included bird names. During her childhood, **Whaea Ngāwhakawairangi** was told that seeing a pheasant at night was an indication of oncoming earthquake and referred to the te reo Māori name for pheasant as peihana. She clarified that the name for fantail in Ruato Bay is tīrairaka. **Whaea Tūi** shared mātauranga Māori of some methods of naming of te reo Māori bird names:

Now there are two genders for every bird, so for the tūi, see what was clever about the tūi was the parson bird was also referred to as a kōkō and tute was the male tūi bird. You know the kererū, that's a kererū when it's flying around but when it's ready to eat, we call it a kūkupa, so these, knowledge like that, that you know, if you were a hunter of the birds. So when you ate the kūkupa, that's because it was fat and it was ready to eat.

3.5.2 Developing mātauranga Māori

This theme explores reception of mātauranga Māori as an aspect of indigenous epistemology and includes sources of mātauranga Māori, forms of mātauranga Māori and settings where participants receive mātauranga. Birds are identified as a source of mātauranga in the context of participants' experience of interaction and communication with birds. Direct personal observation was a primary source of

mātauranga Māori reported by interview participants. Thus, for example, **Matua Joe** identified observation as a source of mātauranga Māori:

In the environment that I work in I have a lot of contact with a lot of our native species and it's about the aural, the hearing the stories and the seeing the birds and the movements, watching their movements because those tell a story as well.

Matua Paraone identified observation as a preferred source of mātauranga Māori:

the best classroom or the best book is observe them, see what they are doing, seeing what a tīrairaka is doing, seeing what a duck is doing, seeing what a swan is doing

Whaea Tūi described the role of direct personal observation in her understanding of oral tradition:

So also from your own life experiences, you learn through observation, someone's told you something, you observe something, you see something for yourself, you hear something for yourself, you smell something for yourself, you taste something for yourself, all your own senses come into play with how you remember those stories and how you gather your own understandings from hands on experience.

Mātauranga Māori transmitted from past to present generations and applied to accessing natural resources today is recognised as a source of mātauranga Māori.

Matua Joe recounted how first settlers must have learnt about the properties of plants and identified natural resources through a process of trial and error. **Whaea Norma** reflected on observation and experimentation as another source of knowledge in the arts of whatu and raranga:

when we think about our people back in the day, you know you imagine they came from a place, Hawaiki, they had to redevelop their senses and making new clothing

Mātua and pakeke were also identified by participants as major sources of mātauranga Māori. **Whaea Tūi** gained some of her mātauranga Māori about birds and ecology from her mātua and pakeke:

I knew all of that, we knew all of that, now that came from direct education in the bush from my dad, based on the knowledge that he had been given, or he had learned himself through experience.

Koro Toka learned some of his skills in hunting and the value of game from his father. **Koro Stormy** reported that most of his mātauranga Māori about birds comes from his parents gathering, harvesting and preparing food from the bush and lakes as well as from kaumātua around Lake Rotoiti. Almost all participants recounted personal experience of receiving messages or communication from birds themselves. Some participants were encouraged to believe that the appearance of birds like Morepork and fantail was a bad omen announcing imminent death. However, these same participants reported that as they matured and had numerous personal experience and interaction with these birds, that the appearance of these birds sometimes had no meaning, sometimes protected them by alerting them to danger and sometimes were experienced as a means for ancestors to visit and ‘have a chat’. The same participants that once feared certain birds by reputation, rejected the identification of birds with negative experience and conversed with birds in certain circumstances. **Matua Paraone** describes a particular experience with tīrairaka:

about ten years ago when we went over to Mokoia and that’s when I saw a fantail. We paddled over there to plant a tree over there for Rotorua Lakes High and we paddled over on the waka ama and we got there and these tīrairaka were just flying around our feet and we went and planted this tree and they were just flying around the tree.

The following description from **Whaea Ngāwhakawairangi** shows how interaction with rūrū is contextual and related to whakapapa:

Well our pakeke at that time, now in the old days our pakeke actually spoke to those [rūrū], you know I suppose it was because

it was our kaitiaki they were able to talk to it. You know how Māori are...people say 'you're crazy' but that's the way of Māori life. You know that's, well, we could say, well not really tikanga, but it's something that's sort of handed down. So, yeah but then, personally, I don't mind seeing it in there [whare tūpuna] but I don't like hearing it at night. It's only me. It doesn't affect anyone else

TU: *and why don't you like hearing it at night time?*

Whaea Ngāwhakawairangi: *to me it's a message, a message that someone's passing on and that's the only reason I don't like hearing it at night. Because when you hear the rūrū call, there's a call that's, you don't worry about it, you know but then there's a.... sometimes you hear it and then you know you take notice, and our pakeke would talk to the bird so it's another interesting thing in our marae*

TU: *yes and that's shared with the marae sort of on this side of the lake would you say or?*

Whaea Ngāwhakawairangi: *No each marae have their own, it's like each marae, you have your tikanga ā-marae, so when it comes to the rūrū, it's only, that's only for us personally, you know, another marae might have something else*

Participants in Rotorua and Rotoiti described rūrū attending poroporoaki and tangihanga, flying into tūpuna whare to assist the departed to begin the journey to Hawaiki. **Koro Toka** recounted an occasion involving a rūrū intervening in events at Ngā Pūmanawa o Te Arawa marae. He described how a relative was sitting on the pae talking to his father and the relative's tuakana was angry at him, the teina, for sitting on the pae and was urging the teina to remove himself. As the discussion intensified and hostility was anticipated, a rūrū flew between the two brothers:

Well everything just went quiet and the rūrū landed on the poutokomanawa. He sat there for a while and then he swooped out and he landed on the pare by the door there and he was

looking at everybody and then he swooped out and that was just after lunch. And all he left was a feather floating down. [name withheld] was there. There was a feather floating down and the next words that came out of [the tuakana's] mouth were nice and sweet.

Participants described receiving mātauranga Māori in a variety of forms. **Matua Joe** discussed several forms of mātauranga Māori:

if you have a look at a lot of our compositions, our songs, on the marae, our whaikōrero, our karanga they all make reference to the natural world in some way and a lot of it is referenced back to birds, the elements, weather and that sort of thing. Probably in terms of connection to the natural world and someone who is a great story teller through his music is Hirini Melbourne and so you'll find if you have a look at a lot of his, probably 70 to 80% of his words, his stories, his kupu, are about biodiversity about the taonga, the treasures, of the natural world.

Matua Joe also provided a traditional narrative personal to his whakapapa:

Because the whale is an important part of my psyche, my growing up, we of course have got whale stories Te Tahi o te rangi is the well-known one.

Whaea Tūi also identified storytelling as a major form of mātauranga Māori:

well certainly storytelling, storytelling, builds that desire to know more and it also has your mind imagining and creating and the excitement, the passion that goes with all that

I remember all the stories too because we heard them a million times when I was growing up so the purpose of that is to, you know I guess some of the stories are fabricated but the lesson, the learning in the story is what it is really about, you see.

Matua Paraone gained knowledge about birds from whakapapa describing the role of birds in assisting Tāne to retrieve Ngā Kete o te Wānanga. **Whaea Norma**

described the role of oral tradition about Ihenga and identification of hapū with the shag and ecology in the naming of a part of Lake Rotorua named Waikuta. **Koro Stormy** discussed the role of place names in containing mātauranga Māori about birds:

in the old days there used to be a cave at the back of Haroharo mountain and that's where these two rūrū, owls used to perch themselves. At tangihanga i roto i Te Waiiti Marae in Ngāti Hinekura, they used to go back. They used to take their tūpāpaku back to Te Puke, back to Maketū and every time they journeyed back to wherever they were taken, there were these rūrū that used to accompany them every tangihanga and the amazing thing about it what I heard was, day and night, which is very unusual for rūrū ... and then they used to perch themselves on a certain tree where the tūpāpaku lay and on the way back, they used to come back with Ngāti Hinekura and that's when they used to get back they used to perch themselves at the cave and not many people have been up there, to where that cave is but my father, when he and taku pōtiki [name withheld] pointed out exactly where those caves were or where that cave was, that's how Ngā Rūrū got its name; Te Urupā o Ngā Rūrū o Hinekura

Matua Joe explained how his tāmoko and pūhoro designs illustrate oral traditions of his parentage and the importance of the whale in his whakapapa and ontology. **Whaea Ngāwhakawairangi** explained that it is rare to see graphic representation of rūrū inside tūpuna whare and that Ngā Pūmanawa e Waru o Te Arawa is unique in this respect. **Matua Paraone** talked about the role of graphic arts in learning about whakapapa:

the old Hinemoa, that was the previous one to Tūtānekai, that was the previous wharenuī, and that one had a lot of pictures of the environment and had manu pictured on them, like the tūi and all those, and all the different birds of that time, some of them were lost. They had them in pictures on the poupou and those have all been lost. Yeah, I think when was Hinemoa ... I think

1903. So they had a lot of those, a lot of what was in the environment like the harakeke²⁷, the toetoe²⁸, all the plant life, bird life, you know and everything that's in the repo.

Participant response indicates that receiving mātauranga Māori occurs in a variety of social settings. Most participants reported receiving mātauranga Māori while participating in mahi kai activities with mātua and pakeke at home, in the bush or on the lake. Growing up on a self-sufficient marae was how **Whaea Norma** observed birds as a child:

Waikuta marae had a natural bush, a native bush land there for a lot of years, when we were growing up as kids, so that was our playground and within that bush were a number of these birds. My dad was a bushman who hunted regularly so we actually went into the bush with him to hunt and so a lot of it has just come from that really.

Whaea Ngāwhakawairangi grew up near Lake Okataina which influenced her gathering of mātauranga Māori about birds:

In the earlier part of my life, we lived up in, oh about two kilometres out of Lake Okataina. We lived in the bush, sort of, now the whānau had a farm there and māra kai and we lived off the land and of course where we were you had all sorts of birds there, like you had the kererū, you had the tūi. We never saw it, no we never ventured deep into the bush to where the kākā is. But there was plenty of tūi and kererū on the fringes of the bush.

Whaea Tūi reflected on her experiences in the bush as a setting for receiving mātauranga Māori:

my father has always been an avid hunter and so my father told us lots of stories when we were camping at the bush and at home and when we used to go hunting with our father, to read the signs

²⁷ Harakeke (*Phormium tenax*)

²⁸ Toetoe (*Carex diandra*)

in the bush, he'd talk about certain birds and trees and to observe the birds and what they eat.

Marae were also identified as a focal setting for receiving mātauranga Māori. Participants described a differentiation of mātauranga Māori received in tūpuna whare and mātauranga Māori gained in kauta. Some participants described how, during their youth, young people were selected to be trained for different roles of the marae. Some young people were selected to receive mātauranga Māori, were raised by kaumātua and participated in hui, wānanga, tangihanga and other hapū gatherings. Others were trained to assume practical responsibilities and did other tasks including chopping wood, cleaning grounds and preparing food. Some participants found themselves unexpectedly assuming the role of kaikōrero or karanga when tuakana with speaking or karanga rights suddenly passed away. Participants related how they currently seek out opportunities to develop language proficiency and the art of delivering whaikōrero or karanga. Participants identified a range of hapū gatherings at marae throughout the country as an ideal social setting to listen to te reo Māori in the context of social exchange within and between hapū. **Koro Stormy** participated at a variety of hapū and social gatherings as an opportunity to learn:

when he [my father] talked about that to my big brother 'kōrero, kei konei ngā kōrero', straight from the heart. So I thought well that's the only way I can combat that in just translating what my father said. Well I need to go to these wānanga, I need to go to these hura kōhatu, I need to go to these hui, tangihanga, whenever I can and then sit at the back and then listen, whakarongo ki ngā kōrero.

Participants also identify organised wānanga was an important setting to receive mātauranga Māori. **Matua Joe** described the role of wānanga in the revival of traditional sustainable kuia bird harvesting and preparation:

a process that Ngāti Awa have been working through in terms of reorganising wānanga to train our young people to learn how to, well to understand the kuia bird first and to learn how to take the bird, how to kill them, how to gut them, how to pluck them and bring back all of that mātauranga Māori from the past. There a

very few people who have still got that and we've had to call somebody up from the South Island to take us through that whole process.

3.5.3 Delivering mātauranga Māori

The forms of performing and graphic arts in which participants develop mātauranga Māori are employed in the delivery of mātauranga. This theme describes the variety of ways participants critically appraise and regenerate mātauranga Māori in the delivery of mātauranga Māori in performing arts. Examples of mātauranga Māori as a process and outcome of active participation in social exchange were provided by interview participants. This demonstrates how mātauranga Māori gained from personal observation and experience, mātua and pakeke and traditional performing and graphic arts as well as birds themselves were applied to a variety of ways to share mātauranga Māori during the interviews. Participants also describe a similar process when sharing mātauranga Māori with whānau, hapū and other audiences. Engagement with mātauranga Māori is described by participants as active and personal in the process of delivering mātauranga. Thus, **Whaea Tūi** described her experience of storytelling:

And so when I tell stories it comes from a very knowledgeable state of understanding and so therefore when I'm speaking, I'm really tied up in my own story myself and passionate and excited because I understand what I was told so well and in my own learnings. The story perhaps has grown a little bit or just got more eloquent or just got more thorough so that the story that I'm now passing on to another person has got a bit of myself imbued in it, would be fair to say. So also from your own life experiences, you learn through observation, someone's told you something, you observe something, you see something for yourself, you hear something for yourself, you smell something for yourself, you taste something for yourself, all your own senses come into play with how you remember those stories and how you gather your own understandings from hands on experience. Makes a

difference, makes a difference. And therefore you speak from an absolute place of truth, of authenticity, of knowing.

For all participants the art of delivering mātauranga Māori in a variety of forms is an important part of ontology. For **Matua Joe**, storytelling is an important aspect of a sense of self:

So my role while still alive on this earth and being a story teller who has travelled the world for the last thirty plus years is to heal the world through story, to reconnect people who are listening to the stories, to their past, by using stories and the like from the past to develop some sort of a foundation for them to begin. Well it's a transmission of knowledge, transfer of knowledge because all of our stories have got themes, they've got different themes in them, they have emotion in them, they have social issues, they've got a whole range of things. And so you've got tikanga involved in a lot of our stories about manu.

Matua Joe explained that audiences here in Aotearoa New Zealand and overseas prefer to receive mātauranga Māori in storytelling form in te reo Māori. As part of a team, **Matua Joe** continues to provide workshops and performs storytelling in te reo Māori as a means to promote and improve te reo Māori proficiency as well as maintain the connection between mātauranga Māori and te reo Māori me ōna tikanga. **Matua Joe** recounted making a suggestion to incorporate the song *Kiwi Nguturoa* by Hirini Melbourne in the performance of storytelling about birds and sung it during the interview to demonstrate the relevance of the song to mātauranga Māori about birds as well as the technique of combining different performing arts in the delivery of storytelling:

So the manu is very strong in our culture in terms of symbolism. And I talked to him about one of Hirini's songs and I said to 'Oh do you know that song Kiwi Nguturoa?' and he said 'Oh no I don't' and I said, well I just talked to him about, and I sung it to him actually.

Kiwi nguturoa

Torotoro ngāngara kai

Roto ngāherehere

Ki te kite kapō mau tiri pou

Torotoro hīkoi haere

Kāore koe e rere

Ko tō reo anake

E rere mei te pō

Kiwi, Kiwi, Kiwi

He said 'Oh bro! I wish I had known that song!' You can base a whole story about the kiwi around that he said 'oh geez!' Storytellers are about painting pictures with words that's the art of the storyteller

Matua Paraone employed the layout of tūpuna whare in Te Arawa to demonstrate meaning in oral tradition as a guide for tikanga at Owata marae:

So in a wharenui you've got a representation of not only the tūpuna but you've got a representation of the inside of a person, you know those ones, the inside of a person and a representation of a tūpuna, but you also got a representation of the environment. Ranginui up above and Papatūānuku down below on the papa, so also on the walls, you've got the four walls and then one of the walls is Tānewhakaripi and that's the realm of Tāne. And that's, normally in Te Arawa, that's the south wall. And then Whiro, you'll find that Whiro is on the west wall. That's where Whiro sits so when we have our tangihanga, our tūpāpaku sit on that west wall, on the third pou on the west wall. So that's when they go to a place called Rorohenga and that's where Whiro resides to receive our mate.

Now if you know the environment, you know from the south normally you will get cold, it's cold but normally its calm too, normally the weather is calm, normally, not all the time but normally. And on the west you get, that's where most of your

weather comes from, that's where the weather, and that's where you will get most of your strong winds come from so they come from there, so as they are climbing, well Tāne's got the, he's doing better than Whiro because he's got an easier route.

Whaea Norma referred to kaikaranga as manu tioriori and used bird names and analogy in her language when teaching the art of karanga:

I just tell them 'we are not all larks' or 'we're not all robins, some of us are crows' but we can still do the mahi and it's really just about how you control your voice . . . it's just about toning it down and then a crow actually becomes a lark. And so it's quite nice to be able to hear the differences, the different sounds and realise that not everybody is the same and to let them realise it; the women that are learning, realise that they don't have to sound like me or like one of the other ladies that has a beautiful high sounding voice because we are not all like that. Every bird and every song is different, but that does not mean that we can't karanga or do that mahi, or sing for instance.

In the transmission of mātauranga Māori, the context of any social exchange is imperative, taking priority consideration over the quantity of mātauranga Māori shared. For those who deliver whaikōrero and karanga there is an expectation of awareness of the context of social exchange of mātauranga Māori and the appropriate contextualisation of mātauranga content. **Koro Toka** talked about the importance of social context and having accurate information to support the delivery of whaikōrero. He also identified the role of regional vernacular and pronunciation as a means to identify a person or group's whakapapa and hapū location. He therefore speaks in the vernacular used by his pakeke and kaumātua as an expression of Ngāti Pīkiao whakapapa to identify himself with the geography of Rotoiti. **Koro Stormy** emphasised that a kaikōrero needs to be aware of the nature of the event and relevant factors that contribute to the event taking place as well as be familiar with attendees. He stressed that it is important for the kaikōrero to have accurate sources of information about these aspects in order to deliver a kōrero that

is correct and appropriate. In some cases Koro Stormy is asked on the spur of the moment to deliver whaikōrero at a whānau, hapū or iwi event. Consistent participation with organisations in the community often means that he is able to deliver whaikōrero with little preparation time as he has existing knowledge of relevant factors as well as the ability to recognise those present at a variety of hapū and social gatherings. **Koro Stormy** shared an observation of the importance of social setting:

there is a pattern there but depending on what the take is, you know you get a hura kōhatu which is different, you get a tangihanga which is totally different, you get a whakatau to a hui which is totally different, so you just got to be aware of te kaupapa o te hui

Participants described the transmission of mātauranga Māori as an interpersonal, participatory social exchange. According to **Matua Joe**:

There's nothing will replace the person, that intimacy of connection of the people. A book can't do that and a voice without a person there can't do that either.

As resident kaitiaki of Waiiti marae alongside his many other responsibilities, **Koro Stormy** and his whānau are called on by relatives as a source of mātauranga about whakapapa. He emphasised that whakapapa is best transmitted personally and discussed to ensure that whānau fully understand their immediate whakapapa before receiving wider whakapapa:

Well I'd rather pass that on, rather than giving them the pepa and them not understanding whakapapa. Well, I'd rather talk to them about it, you know person to person, because they need to, even if they get their own line. And then all the other lines that come off it well, they can pick that up at any time but talking about their own line.

His accounts of attending whānau reunion explain that delivering whakapapa sometimes takes the form of question and response. Delivering whakapapa personally intends to ensure that mātauranga Māori is contextualised with

geographical location, history as well as providing a means for social connection with living relatives. Personal transmission of whakapapa extends to the exclusion of modern communications technology from wānanga:

And we thought that everything was alright but the second one [wānanga] that we had, that's when [name withheld] turned up and he must have been informed about that first wānanga and he did say that he was, well not disappointed but 'when you have a wānanga for whakapapa, you keep your machines outside, pai mō te hītori, for the history, but not for whakapapa, because once you get whakapapa on your machines, next thing it's on facebook, next thing it's out there to the whole world' and he said 'you got to stop that, that should not happen.' (Koro Stormy)

Once it was accepted that recording of whakapapa is not permitted. **Koro Stormy** explained that there was an increase in attendance at whakapapa wānanga and attributes this increase to the exclusion of recording media as well as conducting wānanga on sites where historic events occurred:

I said 'I wonder if everybody turned up because we had a visit on the launch at Houmai?' and we sat in the middle of the lake identifying ngā whenua o Hinekura, so we thought 'well, maybe that would have attracted a lot of Hinekura to come to the wānanga'.

Mokopuna, kōhanga reo and kura kaupapa are encouraged to participate in wānanga about hapū history and whakapapa and thus wānanga is identified by Koro Stormy as a medium of delivering mātauranga Māori to younger generations.

3.5.4 The role of literature in mātauranga Māori content and informing indigenous epistemologies

This theme describes ways literature contributes to participants' mātauranga Māori of indigenous and native birds to Aotearoa New Zealand, ways literature compliments or informs indigenous epistemologies in the reception and delivery of mātauranga, as well as the potential for literature to contribute to mātauranga Māori and indigenous methods of naming native and introduced birds to Aotearoa New

Zealand. Almost all participants reported not referring to literature as a source of mātauranga Māori about native and introduced birds to Aotearoa New Zealand in any consistent or significant way. **Matua Joe** noted that he will occasionally consult literature if necessary and that he prefers direct experience as a source of mātauranga Māori relevant to birds:

I very rarely go to books for information. In the environment that I work in I have a lot of contact with a lot of our native species and it's about the aural, the hearing the stories and the seeing the birds and the movements, watching their movements because those tell a story as well.

Matua Paraone referred to literature about the immigration of first settlers to Aotearoa New Zealand and literature written by some non-indigenous authors about indigenous history and society as inaccurate. Therefore, when reading literature he critically reviews the contents by taking into account the writer and their motivations for writing. He also observed change in the production of literature about indigenous history and society:

there's a lot of Māori writers out there now and there's a lot of Māori scientists out there now that are writing books now, you know and there's a lot of Pākehā now writing it from a non-political stance. They are writing actuals and not,.. and then you get Māori who are telling stories and people are writing that down exactly how it is instead of putting in certain interpretations of their opinion in there, you know how they drop their opinion in there so there are a lot of writers in there that are a lot better today and so there is plenty of information out there.

Whaea Tūi referred to literature as a source of mātauranga Māori and compares the contents of books with mātauranga Māori gained from personal experience:

I appreciate the authors that have written over the years but it doesn't always resonate, it doesn't always make sense because, and in actual experience, that has not been the case so I wonder if the story was told to someone and they wrote about it and it's

missing elements but if you have that hands on experience yourself then you know what's missing. It's no big deal.

Matua Joe used material from literature as a basis in the performance of pūrākau:

So in terms of my storytelling, all of my stories come from a book.

They're the well-known stories, they're the Māui stories, Rata and the canoe, the naughty Patupaiarehe, the naughty fairy, Ponga and Puhī Huia, Hinemoa and Tūtānekai, all of mine have come mainly from the books. I'll pick up a book and I'll read the story of the moki, ten, fifteen, twenty times over a year or what have you and then I will just put the book aside and then rephrase that story in my own mind so that I am that story without changing the story, and I'll put in my own idiosyncrasies or whatever you want to call them to bring that story alive without changing the message of the original person who put that story together.

Matua Joe's reference to literature is related to availability:

I don't know whether, in the early days it was because there wasn't much literature in te reo Māori other than hidden in the Turnbull Library which I didn't have time to go and do that sort of thing. A good reference for me was the Te Ao Hou articles. There's some great stories in there in te reo Māori . . . but basically all the stories that I did when I first got into storytelling were in English. Those were the books on the shelves in the libraries and I did a whole lot of libraries, book weeks, you know and that sort of thing.

Matua Joe also described how reference to written material in performance can be a barrier between speaker and audience and hinders collective participation:

That's the difference between reading a story and telling a story. It's that telling a story or reading a story you've got to, you know if you've got kids sitting there or adults sitting there, you've got to look at the book and then you've got to look at them and then

you've got to look for the words and you become disconnected. But telling a story you can, I can look at you and I can look at everybody in there and pull them into the story, get a bit of participation, audience participation and actually get them to own the story and become part of that for a moment. So a story jumps out off the book, off the pages at them and they become the story and that's the power, that's the power of story.

Most participants recognised a potential for literature to fulfil a limited function in the dissemination and preservation of mātauranga Māori. **Whaea Ngāwhakawairangi** equated transmission of mātauranga Māori with the vitality of the subject of mātauranga Māori. She noted that literature in the form of children's books picturing birds for example in conjunction with other media such as song and story will 'keep the birds alive' for children who may have rare occasions to see certain birds first hand. **Koro Stormy** also recounts that summary of wānanga can be produced by kaumātua and compiled into a booklet as a keepsake for younger generations and their whānau.

Participants were asked about appropriate forms of presentation and sources to inform literature about native and indigenous birds to Aotearoa New Zealand. This was a difficult line of inquiry as many participants, referring rarely to literature, had no frame of reference from which to make suggestions about how mātauranga Māori could be best presented in literature and perceived literature to be completely different and separate from interpersonal transmission of mātauranga Māori. During the interview **Koro Toka** and I tried to identify a bird by using Schofield and Stephenson P. R. Schofield and B. Stephenson (2013) *Birds of New Zealand: A photographic guide* with mixed results. We tried to identify a bird by, size, behaviour (climbing and swooping), location of habitat and colour, and it was not easy to locate a photo of the bird in mind with this information as the book contents are ordered by scientific species name as well as common English names. This experience supports **Matua Joe's** view about the role of literature in the dissemination of mātauranga Māori about native and introduced birds to Aotearoa New Zealand:

I suppose the importance would be the wairua in which that information [about te reo Māori bird names] is conveyed, the spirit in which, you can get very technical about things and it'll just throw, it won't connect with a lot of the people who aren't into that technical language scientific stuff so I tend to see us breaking that technical language down into ..what's a good word, more of a story that can connect with the heart.

Most kaumātua suggested producing literature as a product of collective debate and discussion from whānau and hapū about bird life in areas around marae rather than offering individual contributions or sourcing information from authors from socio-geographic backgrounds not related to the immediate ecologies being described in literature. **Whaea Ngāwhakawairangi** explained her understanding of how mātauranga Māori can be generated in literature:

well, you know I think everything that's gathered and compiled it becomes good kōrero, you know and you see how that one reacts to this and you know oh and they can.. you know see what the reaction is

TU: you know like having a bit of a wānanga, having a bit of a conversation?

Whaea Ngāwhakawairangi: yeah, that's it. Other people might contest what I say and you know that's good because Oh someone's listening, you know

3.6 Summary of interviews

3.6.1 Mātauranga Māori of native and introduced birds to Aotearoa New Zealand

Although some participants expressed an initial reluctance to participate in the interview as they perceived their knowledge of birds to be a limited contribution to this study, the content of all interviews included mātauranga Māori about birds. Bird are identified by participants by common English and te reo Māori bird names. Mātauranga Māori of sensorial experience of birds through hearing, sight and taste featured in participant responses. Participants shared mātauranga Māori of the most

common bird species seen in the areas they grew up in, source food from or live in, describing intimate knowledge of shared ecologies with bird species prominent in habitats of lake, stream, swamp and bush. Birds resilient to environmental change and accustomed to living in close proximity to humans were distinguished from birds that are likely to live in more isolated dense bush.

Sharing of mātauranga Māori about birds as a food source was often shared with a sense of nostalgia describing how parents prepared birds for participants during their childhood or how men would feed pregnant wives with kererū. Although hunting native birds for consumption is currently outlawed, some participants continued to retrieve a native bird occasionally. Mātauranga Māori relative to retrieving birds as a food source includes strategies for sustainable harvesting, such as bird behaviour, feeding habits, nesting seasons, locations and habitat. Participants shared observations of human and environmental factors contributing to changes in bird population numbers such as climate change, pollution and land clearing. Several participants expressed the view that prohibition of harvesting or hunting birds that are traditionally a major food source has led to a disconnection between hapū, birds and ecology and contributes to a decline in hapū holistic wellbeing. Some participants shared their observation of recent progress in the regeneration of ecological health and consideration of contemporary ecological and social contexts in the revitalisation of harvesting and hunting tikanga. Therefore, mātauranga Māori shared by participants explores the role of human behaviour in nurturing or neglecting ecological wellbeing and the consequences on collective human wellbeing. For example, the meaning of the words manu kōrero and manuhiri, mutually describing human and bird behaviour, where people take on the characteristics of birds or become bird-like, are examples of indigenous methods of naming that expresses holistic ontology.

3.6.2 Developing mātauranga Māori

All participants identified several sources of mātauranga, Māori and engaged with mātauranga Māori in a variety of ways in a variety of settings. Indigenous epistemology is described in the interviews as an ongoing processes of negotiation of meaning, incorporation of tradition and innovation and comparison with personal experience.

Personal experience and observation, mātua and pakeke, as well as birds themselves were sources of mātauranga Māori most often described by participants. Waiata, whaikōrero, karanga, oral history, kōrero whakapapa, storytelling, place names as well as graphic arts of tā moko, whakairo and painted images represented a range of traditional and contemporary art forms containing mātauranga Māori. Mātauranga Māori contained in the variety of forms was often critically cross-referenced for internal and external consistency. Participants practice discernment and critical analysis of generic concepts of traditional indigenous belief with individual personal experience, observation and reflection. Participants talked about receiving and engaging in mātauranga Māori in the settings of whānau home, bush, garden, lake, marae and wānanga. The social contexts of marae gatherings such as tangihanga, hura kōhatu, hui, whakangahau and wānanga are settings where mātauranga Māori and exemplars of tikanga are experienced from generation to generation.

The sources of mātauranga Māori and the settings where mātauranga Māori take place are influenced by participants' whakapapa and immediate social and physical environments. The reception of mātauranga Māori within the scope of whakapapa provides a range of creative opportunities to continuously incorporate the gradual reception of mātauranga Māori with personal and collective experiences of feeling, belief, knowing, and reflection. Participants' personal reflections of gaining mātauranga Māori reveal that the experience of receiving mātauranga Māori varies through time as well as within the same whānau and hapū and that opportunities to learn were not equally distributed in the past.

3.6.3 Delivering of mātauranga Māori

Content of interviews demonstrate that the forms in which mātauranga Māori are received such as song, whaikōrero, karanga, oral history, whakapapa, storytelling, place names as well as graphic arts of tā moko, whakairo and painted images, are applied and combined in the delivery of mātauranga Māori about native and introduced birds to Aotearoa New Zealand as well as the delivery of mātauranga Māori to whānau, hapū and other audiences. Participants describe the role of delivering mātauranga Māori as active engagement where mātauranga Māori

received is not simply replicated but critically appraised and selectively combined to reflect personal observation and experience. The heart was referred to several times by various participants as the ultimate source of significance and meaning in the sharing of mātauranga Māori. The personalisation of mātauranga Māori and the role of delivering mātauranga Māori becomes an expression of individual and collective ontology.

Whakapapa provides a framework for the context of social exchange to be imperative in the transmission of mātauranga Māori. Participants shared the value of personal participation in mātauranga Māori transmission as an extension of the ontological aspect of indigenous epistemology as well as a technique in tailoring the delivery of mātauranga Māori to the needs of the audience. Individual and collective participation in mātauranga Māori transmission in hapū and social settings such as marae, wānanga and hui for example are sites of change in mātauranga Māori transmission. Participants described witnessing the selection of individuals to receive mātauranga Māori from kaumātua in the past. Today younger generations as a whole are encouraged to participate in marae and wānanga activities as a means of intergenerational transmission of mātauranga Māori. Likewise kaumātua host and attend a range of hapū and social gatherings as an opportunity to deliver, develop as well as receive mātauranga Māori. The personal delivery of whakapapa and the prohibition of recording recital whakapapa provides the means to adequately contextualise mātauranga Māori and intends to ensure accurate and relevant intergenerational transmission.

3.6.4 The role of literature in mātauranga Māori content and informing indigenous epistemologies

Participants reported generally not referring to literature as a source of mātauranga Māori about native or introduced birds to Aotearoa New Zealand. The few references to literature as source of mātauranga Māori made by participants are directly relevant to the participants' whakapapa or the only available means by which to receive certain traditional narratives. As with oral traditions, participants consistently negotiate knowledge received from literature with their own experiences and observations. With few exceptions, participants did not regard literature to be an accurate source of mātauranga Māori generally or a rewarding

means of transmission of mātauranga Māori. A perception of literature about mātauranga Māori being more widely available in the English language in comparison to the availability of literature written in te reo Māori was also a factor. Most participants viewed the potential for literature to preserve mātauranga Māori and fulfil an archival role for mātauranga Māori in danger of being obsolete due to past or future social or ecological change, but it was not generally regarded as always being relevant to contemporary mātauranga Māori.

As participants did not refer to any form of literature in any significant way as contributory to mātauranga Māori generally or about birds specifically. Inquiry into the role of literature in mātauranga Māori about native and introduced birds was difficult because there was no shared frame of reference to critically discuss the presentation of mātauranga Māori or indigenous methods of naming native and introduced birds to Aotearoa New Zealand in literature. Respondents were reluctant to give a definitive individual opinion as to how mātauranga Māori should be presented and pointed to collective kaumātua participation in debate, discussion, and wānanga in hapū settings to ascertain the form and content of mātauranga Māori about native and introduced birds to Aotearoa New Zealand in literature. Therefore potential for literature to have a significant role in the transmission of mātauranga Māori increases when it is an outcome of collective, participatory wānanga. Posing hypothetical questions about the literary presentation of mātauranga Māori with no frame of reference highlighted the nature of sharing mātauranga Māori as occurring within a directly relevant and immediate context or in the direct application of mātauranga Māori being discussed. In other words, there is no relevance in inquiring into ways to present mātauranga Māori about birds in literature if the inquirer is not in the process of doing so. Therefore response to this avenue of inquiry made it apparent that the presentation of mātauranga Māori in literature or oral tradition is not predetermined or fixed but is rather the outcome of a collective, participatory process. Ultimately, most participants had the opinion that depending on the intention with which such literature is produced, it could be a potential means of recording or preserving mātauranga Māori but that the sustainable and meaningful transmission of mātauranga Māori is primarily shared by direct participation in social settings as well as a reliance on personal observation.

3.7 Some concluding comments

The response to all research questions including those relative to this chapter will be discussed in *Chapter 5*. The aim of presenting the findings of semi-structured interviews in this chapter is to describe the contemporary context of indigenous epistemology and mātauranga Māori about native and indigenous birds to Aotearoa New Zealand and to describe how literature informs these. The thematic presentation of interview content demonstrates whakapapa as a site where ontology, epistemology and mātauranga Māori overlap and the dynamic relationship between them. The findings presented in this chapter indicate that indigenous epistemology relies on personal and sensorial experience to critically and meaningfully engage with mātauranga Māori transmitted by older or previous generations. In this way the more contact particular species of birds have with tangata whenua, the more mātauranga Māori about them is likely to be maintained. For example, in the context of Lake Rotorua, the tīrairaka and the pūkeko seem to be prominent and in Lake Rotoiti, the kererū, the pīpīwharau and the rūrū seem to be prominent.

Indigenous epistemology is described throughout these interviews as a process of continuous personal negotiation of meaning and an expression of ontology. Thus, aspects of mātauranga Māori particular resonant and affirming of personal and social experience are likely to be sustainably and accurately transmitted while aspects that are not a reflection of current social and physical environments are likely to drop away. In this way ecological and economic change has a direct effect on mātauranga Māori content. Common to all settings of mātauranga Māori transmission described by participants, is a facility for mātauranga Māori to be continually reproduced and presented in the context of social exchange requiring direct interpersonal communication and participation. Indeed holistic mātauranga Māori transmission relies on the specifics of social exchange in any given context of mātauranga Māori transmission as imperative. Interview participants did not refer to any form of literature in any significant way as a form of epistemology generally or about birds specifically. With few exceptions, participants did not regard literature to be an accurate source of mātauranga Māori generally or a rewarding means of engaging with or transmitting mātauranga Māori. Most participants viewed the potential for literature to preserve mātauranga Māori in danger of being obsolete due to past or future social or environmental change.

Chapter 4

Te reo Māori bird names and indigenous methods of naming in academic literature: A selected review of the literature

4.1 Introduction

Understandings of whakapapa and indigenous epistemology explored in *Chapter 2* and *Chapters 3* are applied to an analysis of academic reference literature about te reo Māori bird names. The aim is to describe the role of academic literature in the transmission of mātauranga Māori about indigenous methods of naming native and introduced birds to Aotearoa New Zealand. The review presented in this chapter will respond to the principal research questions:

- (i) What is the role of literature in indigenous methods of naming native and introduced birds to Aotearoa New Zealand?

The response to all research questions including those relative to this chapter will be discussed in *Chapter 5. Appendix 3: Māori names of New Zealand birds* located in *Checklist of the Birds of New Zealand, Norfolk and Macquarie Islands, and the Ross Dependency, Antarctica [Checklist]* (Checklist Committee O.S.N.Z., 2010), is chosen as the leading piece of literature for this review.²⁹ As an official national source of nomenclature in Aotearoa New Zealand, it is an ornithology reference most likely to be consulted by domestic and international ornithologists. Although *Māori names* is not an index of te reo Māori bird names, it is the most recent and comprehensive list of te reo Māori bird names and corresponding scientific names (Whaanga et al., 2012). Review of the list and references cited in the list provide an opportunity to explore the relationship between mātauranga Māori, indigenous methods of naming and literature about te reo Māori bird names.

To gain an understanding of the relationship between the writers of the literature, the intended readership and the contents, the review begins with a background to the *Ornithological Society of New Zealand [OSNZ]* and the production of *Checklist*

²⁹ The Appendix is referred to as *Māori names* in the remainder of this chapter.

(Checklist Committee O.S.N.Z., 2010) (see 4.2). The presentation of te reo Māori bird names in *Māori names* in terms of mātauranga Māori (as established in *Chapters 2 and 3*) is described (see 4.3) followed by similar review of each reference cited to explore the role of mātauranga Māori in the production of literature about te reo Māori bird names (see 4.4.1-4.2.3). A summary of the selected review of the literature concludes this chapter (see 4.5).

4.2 Background to OSNZ and publications of *Checklist*

The OSNZ was established in 1940 as a collaborative community of academic ornithologists and popular bird enthusiasts throughout Aotearoa New Zealand independently from the already existing Royal Australasian Ornithologists Union (RAOU) founded in 1901 and the Royal Forest and Bird Protection Society (RFBPS) founded in 1923. As quoted in B. Gill (1990, p. 4), the OSNZ is distinct in entity and agenda from the RAOU and the RFBPS in that its object is to:

encourage, organise and carry out field work on birds on a national scale. The collecting of specimens of birds or their eggs plays no part in the activities of the society, which is concerned with the study of living birds in their natural state. Though in favour of bird protection the society is not actively concerned with this work, which is the province of an already existing body.

The OSNZ follows international tradition of comparable ornithological societies like the British Ornithological Society and the Canadian Ornithological Society. OSNZ early research projects collected data on the nesting habits and population distribution of introduced European bird species of particular interest to ornithologist in Britain and Europe curious about the adaptability of exotic species to new and far away habitats (B. Gill, 1990). OSNZ membership is composed of the general public willing to participate in quantitative data collection projects, interested in environmental management as well as academics of ecology, zoology, history and natural history, museum of natural history directors and curators. Modelled on ornithological societies overseas, OSNZ is a social organisation facilitating participation of members in field research through subscriptions which finance the publication of annual reports, newsletters, field guides, atlas and a

quarterly journal, since 1950, titled *Notornis*. Publications share the results of collaborative research and prioritise public participation by reporting collected data, investigating suggested project proposals as well as maintaining membership subscriptions at an affordable cost (B. Gill, 1990). List of contributors to OSNZ publications as well as current and former counsellors indicate that the OSNZ agenda and projects are dominated by the interests of natural history and natural science disciplines and receives indirect and direct institutional support from universities and museums. Literature published by OSNZ (B. Gill, 1990) about participation, aims and purpose of the society does not describe any deliberate or structured collaboration with hapū and does not describe the place of mātauranga Māori or indigenous epistemology in national ornithology.

The original publication of *Checklist* in 1953 was prepared by the society's subcommittee largely composed of accomplished academic scientists of various disciplines, as a reference to guide the quantitative data collection reported by society membership throughout the country. The revision and publication of the second edition of *Checklist* in 1970, shortly followed OSNZ affiliation with the Royal Society of New Zealand in 1968 (B. Gill, 1990). The Royal Society of New Zealand is "constituted under the *Royal Society of New Zealand Act 1965*, and continued by the *Royal Society of New Zealand Act 1997*, amended in 2012, for the purpose of advancing and promoting science, technology and the humanities in New Zealand" (Royal Society of New Zealand, 2012). Since 1867, the Royal Society has published research and developed international collaborations amongst other projects to promote science and technology in New Zealand (Royal Society of New Zealand, 2012).

The regular revision and publication of *Checklist* establishes it as an authoritative ornithological and taxonomic reference due to the collaborative contribution from leading scientists and its association with natural history museum directors and curators (B. Gill, 1990). Thus, the purpose of *Checklist* (Checklist Committee O.S.N.Z., 2010) is to enable local and international, popular and academic bird enthusiasts to locate the scientific names of 435 native and introduced birds in Aotearoa New Zealand. In addition, it also offers the novice an understanding of Linnaean taxonomy and nomenclature in relation to avifauna and teases out some

of the linguistic debates present in this field. OSNZ as a local authority and reference on bird nomenclature and taxonomy privileges Aotearoa New Zealand nomenclature. While the conventions of Linnaean taxonomy of class, order, family, species and sub species are internationally recognised, justification of the use of Aotearoa New Zealand species names articulates the semiotics species taxonomic nomenclature. Nonetheless, *Checklist* (Checklist Committee O.S.N.Z., 2010) prioritises Aotearoa New Zealand nomenclature for the naming of endemic species, where international conventions often privilege American nomenclature. Furthermore, *Checklist* favours species with a higher population in Aotearoa New Zealand geographic regions, and in the interest of consistency considers, Australian nomenclature for geographically shared species (Checklist Committee O.S.N.Z., 2010).

Debates about technical and grammatical issues of Aotearoa New Zealand nomenclature are ongoing. The emergence of molecular biology since the second edition (1968) has influenced the revision of recent editions (3rd, 1990 and 4th, 2008) (Checklist Committee O.S.N.Z., 2010). Molecular biology is continuously identifying more species as distinct and providing evidence to reclassify some species and uses taxonomy as a means to represent biodiversity (Wilkins, 2009; Yoon, 2010). Thus, a favouring of a splitting approach to taxonomic categories of classification, attributing unique species, sub species and further categorisations of specificity with unique scientific names (Philip, 2004). The introduction to the (2010, p. 4) edition provides justification for limiting taxonomic classification to the sub-species level and prioritising “stability of nomenclature” and a cautious approach to the adoption of innovative taxonomic categories.

Checklist (Checklist Committee O.S.N.Z., 2010) represents common names for birds in Aotearoa New Zealand. While the rationale for inclusion of selective scientific names is explicitly justified, the *Checklist* does not explain how the most popular common names are selected for inclusion in *Checklist*. International consensus takes priority for the common nomenclature of non-native and non-endemic species even in cases when it is not the more popular name used in Aotearoa New Zealand. An index of taxonomic synonyms and an index of current names enable quick cross referencing between previously used, now defunct names

(taxonomic synonyms) to current names and their location to relevant text in *Checklist* 2010 (Checklist Committee O.S.N.Z., p. 6) revised prior documentation of synonyms “by checking original references wherever possible, [we] found and corrected several long-standing transcription errors and incorrect citings of authorship”.

Introduction to *Checklist* (Checklist Committee O.S.N.Z., 2010) describes the meticulous process of documenting OSNZ taxonomy and scientific bird nomenclature and affirms the aim of *Checklist* to conserve historical continuity and consistency in the representation of accepted and established nomenclature precedents. Therefore, the role of the OSNZ and publication of the *Checklist* as an official reference document is to represent established taxonomic and nomenclature practice rather than investigate the validity of new findings or incorporate alternative or innovative nomenclature to ornithological taxonomies. Consistent with this role, the OSNZ does not break new ground in the indexation of common names or te reo Māori bird names. The OSNZ does not explicitly state the role of te reo Māori bird names in national common nomenclature nor does it state the purpose of providing a list of te reo Māori bird names in *Māori names*. The OSNZ notes that should a comprehensive index of te reo Māori bird names be established that it would be included in or at least referred to in *Checklist* (Checklist Committee O.S.N.Z., 2010).

4.3 Māori names

The history of the OSNZ describes an original influence of European ornithology tradition. Natural science and natural history academics constitute the society’s executive and accounts by OSNZ of their activities do not describe any consistent practice of informal or formal collaboration with hapū or direct interest in the study of indigenous methods of naming birds (B. Gill, 1990). The role of *Checklist* is to compile established nomenclature in current taxonomic practice for the easy identification of species for domestic and international ornithologists or bird enthusiasts (Checklist Committee O.S.N.Z., 2010). The understanding gained from this description (see section 4.2) is that *Checklist* does not present the findings of research or introduce emerging research. Importantly, the summary introduction to indigenous methods of naming in *Māori names* identifies an absence of literature

indexing te reo Māori bird names with corresponding scientific names (Checklist Committee O.S.N.Z., 2010). *Māori Names* is a list of 111 te reo Māori bird names for 356 species of birds in Aotearoa New Zealand. *Māori names* is the result of a collaborative effort of Dr. R. P. Scofield, Dr. G.K. Chambers and Te Taura Whiri i te Reo Māori (The Māori Language Commission). Dr. R. P. Scofield is Curator of Vertebrate Zoology at Canterbury Museum, Christchurch and was co-opted into the checklist committee in 2004. He is the main contributor for the checklist sections of Galliformes, Ciconiiformes and *Appendix 2: Failed introductions of foreign New Zealand birds*. Dr. G.K. Chambers is from the School of Biological Sciences, Victoria University, Wellington and main contributor to the Psittaciformes section and advisor to the committee on molecular biology and species concepts (Checklist Committee O.S.N.Z., 2010). Te Taura Whiri i te Reo Māori was established under the *Māori Language Act 1987* to establish orthographic conventions and standards for writing te reo Māori in te reo Māori and English language texts (Te Taura Whiri i te Reo Māori, n.d.).

Introduction to *Checklist* (Checklist Committee O.S.N.Z., 2010) refers to the inclusion of *Māori names* in association with alternative, competing and regional common names. This implies that there is no intersection with common and scientific nomenclature and no relationship between indigenous methods of naming, taxonomy and ornithology. The purpose of including *Māori names* as an appendix to *Checklist* (Checklist Committee O.S.N.Z., 2010) is not clearly stated. The way in which *Māori names* is introduced, presented and referenced lends to an understanding that transparent correction of orthography and nomenclature is the impetus for including *Māori names* as an appendix to *Checklist*. This implied purpose is supported by the format of presentation of *Māori names*; a four column table. The first column lists bird species scientific names in alphabetical order. The second lists a singular preferred te reo Māori name with attention to correct orthography including the correct use of macrons. The third column lists corresponding te reo Māori names presented in text in the 1990 (3rd) edition of *Checklist* previously documented with occurrences of erroneous spelling and omission of macrons. The fourth column lists the main reference material from which the current edition of te reo Māori names were sourced (Checklist Committee O.S.N.Z., 2010).

In *Māori names*, correction of orthography is specifically presented in the table. The process of correcting orthography with the collaboration of *Te Taura Whiri o te Reo Māori*, and the significance of this would have been relative to indigenous methods of naming and mātauranga Māori as well as a an outcome of genuine engagement of OSNZ with mātauranga Māori and indigenous epistemology. None of this information is offered in the introduction to *Māori names*. Instead, a page of text preceding the tabulated list of scientific names and corresponding te reo Māori bird names outlines general conventions in indigenous methods of naming that are distinctly different from scientific taxonomy and offers explanations of why these are not incorporated in *Māori names* (Checklist Committee O.S.N.Z., 2010).

A description of general features of indigenous methods of naming native and introduced birds to Aotearoa New Zealand in the page of text in *Māori names* and the presentation of *Māori names* as an appendix to *Checklist* (Checklist Committee O.S.N.Z., 2010), gives the impression that the referenced list of scientific names and corresponding te reo Māori bird names points to literature supporting the currency of te reo Māori bird names listed in the context of indigenous methods of naming. From an initial exploration of indigenous epistemology and indigenous methods of naming presented in *Chapter 2* and *Chapter 3* of this thesis, we could expect a list or index of te reo Māori bird names present a relationship between birds and the employment of bird names in the context of whakapapa. For instance, references focused on the practical application of mātauranga Māori about native and introduced birds to Aotearoa New Zealand as well as descriptions contained in hapū specific performing and graphic art material would point to literature associating te reo Māori bird names with geographic distribution, habitat, sound, appearance, behaviour, season and life stage. Review of references cited in *Māori Names* (Checklist Committee O.S.N.Z., 2010) in terms of indigenous methods of naming as described above may provide details clarifying the role of mātauranga Māori in literature about te reo Māori bird names. Detailed review of reference material used to compile *Māori names* is presented here in terms of transmission of mātauranga Māori (see *Chapter 2* and *Chapter 3*). As transparent correction of orthography and identification of te reo Māori names of birds with scientific

nomenclature is an implied aim of presenting *Māori names* in *Checklist* (Checklist Committee O.S.N.Z., 2010), these aspects will also be a focus of review.

4.4 Review of cited references to *Māori names*

The references cited in *Māori names* (Checklist Committee O.S.N.Z., 2010) can be grouped into three broad academic fields of research: linguistics, ornithology and ethnography. In terms of a linguistic approach, the majority of entries in *Māori names* is supported with reference to three dictionaries (Tregear, 1891; H. W. Williams, 1957, 1971), and an article by Herbert William Williams (1906), which retrospectively corrects the documentation of te reo Māori bird names by cross-referencing the records of early natural historians. Ornithological approaches (W. L. Buller, 1888; Checklist Committee O.S.N.Z., 1990), include paleo-ornithology (Tennyson & Martinson, 2007) and illustrated field guides (Crowe & Gunson, 2001; Heather & Robertson, 1996). Ethnography literature referenced in *Māori names* contains historic accounts of custodial practice of harvesting birds in Aotearoa New Zealand. In an intersection of ornithology and ethnology, Phillipps (1958) approached custodial harvesting practices from a desire to record indigenous knowledge of bird biology. In Beattie (1994), Shand (1895b) and King (1989), harvesting of birds is described in the context of socialisation and cultural practice in indigenous societies.

In the review that follows, H. W. Williams (1906) and H. W. Williams (1957) combined, provide the supporting references to over one hundred of the one hundred and eleven entries in *Māori names* (Checklist Committee O.S.N.Z., 2010). As the largest contributor of reference material to *Māori names*, the review begins with these sources under the subheading *Language literature* (see 4.4.1) and includes references to H. W. Williams (1971) and Tregear (1891). The review of *Ornithology Literature* (see 4.4.2) references include the work of Oliver (1955), a major contributor to the revision of bird nomenclature in H. W. Williams (1957) and replicated H. W. Williams (1971), which is supplemented with the work of W. L. Buller (1888), Checklist Committee O.S.N.Z. (1990), Tennyson and Martinson (2007), Heather and Robertson (1996), and Crowe and Gunson (2001). The field of *Ethnography literature* (see 4.4.3) includes reviews of Phillipps (1958), Beattie (1994), (Shand, 1895b) and King (1989). Phillipps (1958) could be categorised as

an ornithology and ethnology reference. The final three authors (i.e. Beattie, 1994; Shand, 1895b; and King, 1989) adopt an historical approach to the study of hapū located in the southern regions of Te Waipounamu (The South Island) as well as Rekohu (Chatham Islands) which at times also includes findings from the discipline of archaeology (see 4.4.3).

4.4.1 Language literature

A major contributor and reference for 53 entries in *Māori names* (Checklist Committee O.S.N.Z., 2010), is H. W. Williams (1906) ‘*Maori bird names*’ which appeared in *The Journal of the Polynesian Society*. Therein two lists of bird names are provided, one lists scientific names of bird species and corresponding te reo Māori names, the other is a comparable numerated list of te reo Māori bird names. Both lists are alphabetically ordered in English. The list is the result of names compiled from literature comprehensively cross referenced and reviewed by H.W. Williams. Sources reviewed were literature produced by early natural historians (W. L. Buller, 1888; Dieffenbach, 2013; Forster, 1996; Hutton, 1871; Kendall, 1820; Lesson, 1829; Nicholas, 1817; Polack, 2011; Quoy, 1835; Taylor, 1848; Yate, 1835) who documented and compiled lists of te reo Māori bird names for endemic species and as well as Kendall (1820) Archdeacon (later Bishop) William Williams of the 1st and 2nd editions of *A dictionary of the New Zealand language* (1852), and Bishop William Leonard Williams of the 3rd edition (1871), and (Tregear, 1891).

In H. W. Williams (1906), he identified discrepancies in early orthography and documentation and traced the sources of error perpetuated in subsequent literature in these early works. The earliest orthography (Forster, 1996; H. W. Williams, 1971) can be described as a phonetic like scripture of te reo Māori sounds, at times easily transferred to conventional orthography and at times unrecognisable. By 1820 spelling of te reo Māori was established except for the continued practice of writing *d* for the letter *r* and French naturalists characteristically writing *ou* for *u* and *w*. The use of the macron is not consistently documented until the publication of 7th edition of *A dictionary of the Māori language* (Williams, 1971). Excluding these conventions of orthography as well as the omission or inclusion of the aspirate in writing, Williams identifies many additional spelling mistakes or transcription

errors in Yate (1835), Polack (2011), Hutton (1871) Taylor (1848). The value of H. W. Williams (1906) analysis is evident as it highlights the perpetuation of misspellings from earlier works. For example, in Yate's (1835) list, 33 names are errors of transcription from Kendall (1820), and Polack's (2011) list includes 23 errors also sourced from Yate (1835). In summary, H. W. Williams (1906, pp. 196-197) finds in this review that:

It will be clear from the foregoing remarks that the matter offered by these writers varies much in amount and value, and that the use of it presents some interesting problems. All the lists are subject, in greater or lesser degree, to errors of ear, producing misspellings in the first instance, and errors of eye, resulting further in faulty transcriptions and misprints. In the attempt to eliminate these errors, the fact must be born in mind that each writer is not, in every instance, an independent authority. For example, Dieffenbach was indebted to the work of his predecessors, while Taylor, Buller and Tregear have in turn drawn upon Dieffenbach.

Early natural historians unfamiliar with endemic life forms in Aotearoa New Zealand ecologies sought out and kept extensive records of mātauranga Māori that they gathered from local Māori. The majority of documentation on te reo Māori bird names was recorded in this way (W. L. Buller, 1888). However, H.W. Williams consciously decided to exclude indigenous speakers of te reo Māori in the process of verification of te reo Māori bird names for this journal article. He (1906, p. 197) provides justification for the exclusion of indigenous people in the verification process by citing a lack of skill in identifying “the nice distinctions which appeal to the trained ornithologist”, the uneven distribution of knowledge in indigenous society as well as a perceived degradation of the quality of mātauranga Māori at that time. Instead, H.W. Williams puts forward his view on the use of te reo Māori in nomenclature based on his knowledge of te reo Māori grammar and semantics. According to him there is no distinct method or pattern in the construction of te reo Māori bird names. He believes te reo Māori bird names commonly feature onomatopoeia, some homonyms for fish and tree species and the reduplication of

dissyllables similarly used in any other aspect of te reo Māori and not usually distinguishing a difference in meaning.

Although H.W. Williams' (1906) review attributes the frequency of error in documentation of te reo Māori bird names to the record keeping practices of early natural historians as well as replication of error from continued reliance on literature as the unique knowledge medium consulted, he corresponded with ethnographers and ornithologists, such as Buller and Best, to clarify nomenclature and documentation sourced in their respective publications. H.W. Williams remarks that Buller's documentation of names is "curious" inferring that it is inaccurate. It is notable that he does not clarify or explain these remarks given that he also recognises Buller as a "storehouse of information on the subject" (H. W. Williams, 1906, p. 196).

At a glance, this article by Williams H. W. Williams (1906) could be perceived as authoritative literature on te reo Māori bird names. Moreover, although Williams' approach corrected the various misspellings of earlier lists, his justification of consciously excluding potential contribution from native language informants clarifies that the work does not present primary research supporting the list as evidence of the currency of te reo Māori bird names and the contexts of their use in everyday language.

The names tarapirohe (*Chlidonias albostratus*), tutukiwi (*Coenonorypha huegeli*) and kaoriki (*Lxobrychus novaezelandiae*) listed in *Māori names* (Checklist Committee O.S.N.Z., 2010) referenced to H. W. Williams (1906) were not located. Reference to H. W. Williams (1906) as the source of 53 entries in *Māori names* (Checklist Committee O.S.N.Z., 2010) enables the identification of further changes in documentation. *Māori names* (Checklist Committee O.S.N.Z., 2010) includes a few corrections in scientific classification from the previous edition of *Checklist* (Checklist Committee O.S.N.Z., 1990) (e.g., pohowera, tawaki, kawau tikitiki, tītī) and retains H. W. Williams (1906) as the unique source. Te reo Māori bird names documented in H.W. Williams (1906) as one word are documented in *Māori names* (Checklist Committee O.S.N.Z., 2010) as two words (e.g., matuku hūrepo, matuku moana, toroa pango). These are hyphenated in the current edition of *A dictionary of*

the Maori language (H. W. Williams, 1971). The other trend in correction being the five cases of adding macrons (e.g., tūturiwhatu, tīeke, tāiko, hākoakoa, pīwauwau). In that there are no macrons in any part of the H.W. Williams (1906) text, the reader can assume that these corrections are the result of advisory from Te Taura Whiri i te Reo Māori. However, retaining H.W. Williams (1906) as a reference does not support entries in *Māori names* where orthography and scientific classification has changed.

H. W. Williams (1957) 6th edition of *A dictionary of the Maori language* is referenced as the source of 54 te reo Māori bird name entries in *Māori names* (Checklist Committee O.S.N.Z., 2010). Initiated by then President of the Polynesian Society, Sir Apirana Ngata, the society revised previous editions of the dictionary authored by Bishop William Williams (the 1st and 2nd editions), his son Bishop William Leonard Williams (the 3rd and 4th editions) and his son Herbert William Williams (the 5th edition) (H. W. Williams, 1957). The amendment of scientific names was a focal point of revision as many names of flora and fauna were not identified with scientific names. As J. M McEwen explains in the preface (H. W. Williams, 1957, p. xxi):

Revised classifications by scientists, and operation of law of priority in scientific nomenclature, required alteration of names of many birds, trees, insects, etc. but unfortunately, owing to the absence of clues to scientific identity, many Maori names of such things remain defined in general terms only.

Mr W.T. Ngata oversaw the continuation of the revision after the death of his father Sir Apirana Ngata. The membership of the subcommittee was widened to include an increasing representation of exclusively male indigenous academics and members of parliament. Mr Morris Jones is acknowledged for checking all the scientific names in the 6th edition. The 2nd edition of *New Zealand birds* (Oliver, 1955), whose author also assisted checking scientific names and 2nd edition of *Native Animals of New Zealand* (Powell, 1951), are referenced as main sources for te reo Māori bird nomenclature classified in alphabetical order in the dictionary (H. W. Williams, 1957). Where it appears that H.W Williams (1957) provides a

linguistic reference to inclusion of te reo Māori bird names in the *Māori names* table, it too indexes te reo Māori bird names from ornithology publications (e.g., Oliver, 1955), that in turn refers to documentation dated from the late 1700s to late 1800s (see 4.4.2 *Ornithology literature*).

H. W. Williams (1957) 6th edition of *A dictionary of the Maori language* was revised to produce the 7th edition (H. W. Williams, 1971). A 7th edition was initially intended to correct longstanding misprints and erroneous orthography perpetuated throughout previous editions. While Pei Hurinui Jones, later Chairman of the revision committee, was translating *Nga moteatea* (Ngata, 1928-1929) he identified discrepancies in definition in the 1957 version of the dictionary and upon further investigation the revision committee asserted the need to comprehensively revise the 6th edition. The extensive revision includes accurate documentation of macrons and the revision of reference material exemplifying vocabulary in sentences. Where regional vernacular was replaced by a standardised te reo Māori in Grey (1928), other reference material is used to demonstrate the use of vernacular in sentence (H. W. Williams, 1971). The 7th edition also added in appendix a defined list of regional transliterations featured in oral literature. There is no suggestion that te reo Māori names of flora and fauna were a focus of revision for the 7th edition and as a consequence we can assume that nomenclature identified and defined in the 6th edition is replicated in the current edition (H. W. Williams, 1971). This would support using H. W. Williams (1957) as a substantial reference for *Māori names*. (H. W. Williams, 1971, p. 129) is the source of a single entry for *Māori names*, kōkā is therein described as “A sea bird” and this brief definition is an exact replication of the same entry in H. W. Williams (1957). However, the allocation of kōkā to the species name *Callaeas cinera* cannot be attributed to the H. W. Williams (1957) or H. W. Williams (1971).

Tregear's (1891) *Māori-Polynesian comparative dictionary* [*Comparative dictionary*] was published in Wellington by Lyon and Blair, is referenced as the source of one entry in *Māori names* (Checklist Committee O.S.N.Z., 2010). Tregear (1891) compiled *Comparative dictionary* as part of his interest in philology and the close relationships between Polynesian languages to te reo Māori which in turn provided coincidental evidence of a possible geographical origin of people

indigenous to Aotearoa New Zealand. Most of the vocabulary within *Comparative dictionary* is transferred and compiled from dictionaries such as Williams (1871). A long list of writers, academics and administrators including one or two individuals of indigenous descent (assumed from te reo Māori first or surnames) are acknowledged as contributors or advisors. Tregear provides no description of methodical consultation with indigenous speakers of te reo Māori or indigenous speakers of other Polynesian languages. Instead, a list of “works consulted” for *Comparative dictionary* is presented before the body of the work and lists a string of publications one after the other in paragraph form (Tregear, 1891, pp. x-xi). There are a few titles suggesting oral literature authored by indigenous people in region of the South Pacific but there is no clear preference indicated for oral literature produced by indigenous writers over literature such as translations of the bible and existing literature produced by early settlers on oral traditions like Grey (Grey, 1853) and (Grey, 1855).

The format of *Comparative dictionary* is based on that of the first two editions of *A dictionary of the New Zealand language* (W. Williams, 1844) (William Williams, 1852) and vocabulary is ordered alphabetically in English (except for wh and ng). Tregear consciously chooses to not qualify vocabulary as noun, adverb etc. and also excludes recording transliterations preferring to record a “pure and undefiled” version of te reo Māori and Polynesian languages (Tregear, 1891, p. xxiv). Long vowels are indicated by the use of an accent above the vowel rather than scribing double vowels.

Nomenclature of flora and fauna in *Comparative dictionary* draws from existing literature by early natural historians such as, (Forster, 1996), and his contemporaries such as (W. L. Buller, 1888) , which is Tregear’s self-proclaimed greatest contribution to the indexation of te reo Māori vocabulary (Tregear, 1891, pp. ix-x):

the scientific nomenclature of plants, birds, fishes, &c., has received much careful attention, and although this branch of the subject is not absolutely perfect, a long stride has been made in the direction of completeness.

Māori names (Checklist Committee O.S.N.Z., 2010) references (Tregear, 1891, p. 171) for the name koroātito (*Bowdleria punctata vealeae*) where it is simply listed as “KOROATITO, the fern bird (*Orn, Sphenoeacus punctatus*)”.

4.4.2 Ornithology literature

Ornithology is the study of the biology of birds. Specimens of preserved birds, birds in captivity, birds in natural habitat and in the case of paleo-ornithology, fossils and remains are measured, examined or quantified to identify bird species (Oliver, 1955). Mapping the distribution, migrating patterns and possible geographic origin of birds is also a focus of ornithology and paleo-ornithology (Checklist Committee O.S.N.Z., 1990; B. Gill, 1990). Ornithology literature like *Checklist* (Checklist Committee O.S.N.Z., 2010), *New Zealand birds* (Oliver, 1955) and *A history of the birds of New Zealand* (W. L. Buller, 1888) record, compile and apply the latest developments in taxonomic classification of extant and extinct species and feature illustrations, photographs or diagrams. Information is organised in ornithology literature alphabetically by order name, and corresponding sub-categories of family, species and sub-species. In general terms, ornithology literature like *Checklist* (Checklist Committee O.S.N.Z., 2010) and *New Zealand birds* (Oliver, 1955) draws exclusively from knowledge produced by natural historians and ornithologists within a scientific paradigm.

In the initial stages of natural history research about Aotearoa New Zealand during the late 1700s, mātauranga Māori provided by individuals and societies was a unique and reliable source of information and facts about ecologies and the high rate of endemic life forms within them. In the period of the late 1700s to 1800s, mātauranga Māori was gathered, documented, interpreted and written about by early researchers of natural history (Oliver, 1955). Mātauranga Māori was transformed into a form acceptable to ornithology through integration of suitable mātauranga Māori content with scientific methodologies. Ornithology literature is then considered by academic and amateur scientists as authoritative and reference to original sources of mātauranga Māori discontinues (Checklist Committee O.S.N.Z., 2010; H. W. Williams, 1906). Hence, indigenous epistemologies, although rarely documented in ornithology literature, are not recognised as

contributing to the methodology of ornithology. Mātauranga Māori content may inform ornithology but mātauranga Māori as an integral and autonomous form of knowledge is not recognised as equivalent in value to scientific knowledge. Therefore, while pioneering ornithologists such as W. L. Buller (1888) may feature mātauranga Māori content and description of the context in which it is gathered, the more recent the ornithology publication the less likely immediate descriptions of mātauranga Māori gathered as a result of primary research are likely to be included.

W. L. Buller (1888) *A history of the birds of New Zealand* is the most historical reference cited in *Māori names* (Checklist Committee O.S.N.Z., 2010) and is currently available online as part of the *New Zealand Electronic Texts Collection* through the Victoria University of Wellington website (<http://nzetc.victoria.ac.nz/>). 500 copies of the 1st edition of *A History of the Birds of New Zealand* published in 1873 were purchased by private subscribers before printing. The quality and rarity of the publication contributed to a continued increase in the volumes' economic value. 1000 copies of the 2nd edition were initially distributed only to subscribers in 13 volumes, each featuring additional illustrations by Keulemans (W. L. Buller, 1888).

Accounts by Buller (W. L. Buller, 1888, p. pvii) describe a personal investment in the study of native and introduced birds to his birthplace of Aotearoa New Zealand which is supported by a lifetime dedication to ornithology. In the production of the 2nd edition, Buller aimed to present ornithology in Aotearoa New Zealand as a discipline comparable to that practiced in Europe. W. L. Buller (1888, p. lx):

I have endeavoured to make the technical part of the work as exhaustive and exact as possible. After the diagnostic character of each species (rendered, according to the usual custom, in Latin), I have given full description of both sexes, with their seasonal changes of plumage, (if any), followed by an account of the young, commencing with the nestling, or fledgling, and noting the various adolescent states of plumage in the progress of the bird towards maturity. Under the head of 'Varieties', I have been careful to record every appreciable departure from the normal

character that has come under my notice during an acquaintance with this peculiar Ornithology extending over the best part of my life.

Attention to and revision of scientific nomenclature and taxonomic classification of native and introduced birds to Aotearoa New Zealand contributes to the sophistication of ornithology in Aotearoa New Zealand and is a principle aspect of Buller's literature. Te reo Māori, common English and scientific nomenclature are simultaneously employed in Buller's literature. W. L. Buller (1888) states that besides the migratory cuckoo, there are few land birds common to Aotearoa New Zealand and Polynesian islands. A brief comparative table of te reo Māori and Fijian names of five bird species is provided on page 55.

Preface and introductory sections of both editions reflect Buller's travels around Aotearoa New Zealand to record observations of avifauna in their natural habitat in addition to employing indigenous people to gather information or specimens. His relationship and interaction with hapū enabled the personal gathering and recording of data from indigenous informants. Hapū and indigenous individuals are named in literature published by Buller and the context in which they were gathered meticulously documented. Illustrations featuring figures of indigenous people are named. For example, the caption to illustration on (W. L. Buller, 1888, p. xix), reads:

The figure of the Maori, clothed in dogskin mat and 'wrapt in contemplation', is taken from the portrait of the old Ngapuhi chief, Tamati Waka Nene, as given in Angas's 'New Zealanders illustrated'

Consulting relative literature, examinations of specimens from museum collections and observation of birds in captivity were also methods employed by Buller to identify and describe species. Membership of European academic societies such as the British Ornithologists Union and relationship with museums and libraries domestically and in Europe facilitated Buller's capacity to produce ornithology research to the standards expected in the discipline at that time.

In addition to recording the biology, distribution and nomenclature of native and introduced birds to Aotearoa New Zealand, through the publication of scientific literature and accompanying illustrations, W. L. Buller (1888, p. v) endeavoured to archive descriptions of endangered species before potential extinction:

Under the changed physical conditions of the country, brought about by the operations of colonization, some of these remarkable forms have already become almost, if not already extinct, and others are fast expiring. It has been the author's desire to collect and place on record a complete life-history of these birds before their final expiration shall have rendered such a task impossible; and it will be his aim to produce a book at once acceptable to scientific men in general and useful to his fellow-colonists.

W. L. Buller (1888) attributes the endangerment of species to an increased encroachment of human activities and the introduction of foreign bird species on ecologies. Potential extinction is written about in a tone of acceptance and regrettable inevitability and critical reflection on human impact on ecologies to instigate a change in social mores and behaviour seems to have not yet emerged in the period of the late 1800s. He himself confesses to have assisted the deliberate introduction of species like the black swan and the sparrow to Aotearoa New Zealand. In the case of the black swan, a pair was gifted by him to the Ngāi Tiraukawa to assist monitoring the acclimatisation of the introduced swan to the Horowhenua lake.

W. L. Buller (1888, pp. 121, 122) is the reference provided for the entry of moeraki (*Gallirallus dieffenbachia*), in *Māori names* (Checklist Committee O.S.N.Z., 2010). The scientific name is the major heading with the English common names beside it in brackets. Sir George Grey is attributed for the application of common nomenclature *Diffenbach's Rail*. After a list of referenced scientific synonyms "Native name- Moeraki" is the subheading for the text content of the entry. A transcription accompanied by an English translation of a section of correspondence with Kirihipu Rōiri Te Rangipuaoho (dated August 1863), relates that the

moeraki frequently seen in the past now rarely make an appearance, and a belief that the species is extinct. Te Rangipuahoaho also clarifies that the name for moeraki in Rekohu (Chatham Islands), where he is located, is popotai. Te Rangipuahoaho also stated that if he saw a popotai he would catch it for Buller. Although this never eventuates, Buller himself describes shooting rare birds to collect as specimens reflecting a priority on preservation of knowledge while the practice of conservation or regeneration were not yet conceived of in scientific research or colonial society (Walter L. Buller, 1882). While Te Rangipuahoaho and the name popotai is not contextualised in whakapapa, a general location of Rekohu (Chatham Islands), is provided. While the name moeraki is still retained as the 'native name' in the literature, Buller provides an alternative name and an opportunity for the reader to develop mātauranga Māori from original sources such as Te Rangipuahoaho.

Oliver (1955) is not referenced as source material for *Māori names*, (Checklist Committee O.S.N.Z., 2010) however it may be a source contributing indirectly and significantly to the majority of entries in *Māori names*. Te reo Māori bird names can be located in the index to *New Zealand birds* (Oliver, 1955) and the definitions therein are identical to those offered in (H. W. Williams, 1957). Incidentally, the publication of Oliver (1955) is concurrent with the publication of (H. W. Williams, 1957) and Oliver is attributed as a major contributor to the revision of te reo Māori bird names for the 6th edition of the *A dictionary of the Maori language* (see *Language literature section 4.4.1*).

The 2000 copies of the first edition (Oliver, 1930), having been exhausted was revised for the publication of a second edition in 1955. Oliver's *New Zealand birds* (1955) is simultaneously intended for a readership of academic ornithologist and popular avian enthusiasts to provide a medium between the first edition of *Checklist* (1953), which Oliver described as suitable for expert ornithologists and simplified guide books to identify birds targeted for the general public. However, *New Zealand Birds* (Oliver, 1955) is a substantial and comprehensive compendium that claims to compile the canon of contemporary academic knowledge about extant and extinct bird species of Aotearoa New Zealand. In addition to descriptions of anatomy and distribution, similarly to Buller, Oliver focuses on description of birds in the context

of ecology and discussion of the impact of deliberately introduced species of flora and fauna and human activity on bio-diversity and avifauna population numbers. The opportunity for readers to locate bird names in the index by the te reo Māori name sets *New Zealand birds* (Oliver, 1955) apart from contemporary and current publications that conventionally index or tabulate te reo Māori bird names under corresponding English language common names or scientific names only. However, Oliver (1955) does not claim to be an authority on te reo Māori bird names or indigenous methods of naming. Much like H. W. Williams (1906) and (Tregear, 1891), Oliver (1955) relies heavily on the documentation of early natural historians to support documentation of te reo Māori bird names.

The third edition of *Checklist* (Checklist Committee O.S.N.Z., 1990) is cited as the reference for tāiko (*Pterdroma magenta*; *Chatham Islands Tāiko*). Te reo Māori bird names are presented in brackets next to common English bird names as a subheading to scientific names in *Checklist* (Checklist Committee O.S.N.Z., 1990). There are no macrons in Checklist Committee O.S.N.Z. (1990). Apart from presenting te reo Māori names in this way and providing a list of references, there is no description of the use te reo Māori bird nomenclature. The list of references under each bird species indicates ornithology literature that may contain identification of species name to te reo Māori bird names and the general location of use, in this case Rekohu (Chatham Islands). The specific source of the te reo Māori name or indigenous methods of naming is not identified. Therefore, while correction of the 1990 *Checklist* documentation of te reo Māori bird names is an implied aim of the (Checklist Committee O.S.N.Z.) 2010 *Checklist*, it is not clear how Checklist Committee O.S.N.Z. (1990) is a reference to support the documentation of the name tāiko (*Pterdroma magenta*; *Chatham Islands Tāiko*), even though it is cited in addition to H. W. Williams (1957).

Tennyson and Martinson (2007) is the only reference from the discipline of paleo-ornithology cited in *Māori names* (Checklist Committee O.S.N.Z., 2010). It is a publication targeted at a popular readership presenting information in a non-technical and accessible way. Tennyson and Martinson (2007, p. 84) refer to early records indicating that moho (*Porphyrio mantelli*) was an alternative named used for the North Island takahē. Rather than providing a specific reference to support

this statement, a list of corresponding reference material is listed on page 151. Further investigation into these half a dozen references for moho (*Porphyrio mantelli*, North Island takahē), may reveal the geographical location, the person(s), hapū or iwi as well as the historical period(s) of the use while the description in text is general and anecdotal.

Crowe and Gunson (2001) and Heather and Robertson (1996) are ornithology literature designed to guide simple and easy identification of birds in their natural habitats, tailored for popular avifauna enthusiast and general readerships. Practical guides feature coloured illustrations, photographs and diagrams to assist readers to recognise and identify bird species as well as presenting written summaries of prominent features of avifauna unencumbered by technical detail. Therefore, while literature like Buller (1888), Oliver (1955) and (Checklist Committee O.S.N.Z., 1990, 2010), focus on technical application of nomenclature in taxonomy as well as the comprehensive representation of the canon of knowledge within the discipline, field guide books aim to easily and effectively communicate the distinguishing features of bird life likely to be seen by the general public. Thus, field guide books, although informed by ornithology research and literature are presented in the style of popular non-fiction. Common names usually feature in bold type and major heading while scientific names are italicised in brackets.

Listed in *Māori names* (Checklist Committee O.S.N.Z., 2010) as tuanui (*Puffinus carneipes*), consultation of the reference *The field guide to the birds of New Zealand* Heather and Robertson (1996, p. 186) reveals the ‘other name’ for *Puffinus carneipes* as toanui. The Heather and Robertson (1996) text focuses on bird morphology and biology for the purposes of popular bird watching and gives no information about the ‘other’ (i.e., te reo Māori) bird name. Crowe and Gunson (2001) is referenced to support hoiho (*Magadypetes antipodes*, yellow-eyed penguin).

Which New Zealand bird? A simple step by step guide to the identification of New Zealand's native and introduced birds. (Crowe & Gunson, 2001) is written by a well-known author of children’s non-fiction books and illustrated by an artist specialising in wildlife and children’s book illustrations. *Which New Zealand Bird?*

A simple step by step guide to the identification of New Zealand's native and introduced birds (Crowe & Gunson, 2001, p. 2) contains a brief description of 'Māori and Birds' that is generic, vague and anecdotal and lists 760 te reo Māori bird names (pp. 94-95), under the categories of English common names with no contextual information about their use or provenance. The name hoiho (*Magadypes antipodes*, yellow-eyed penguin) is referenced in Crowe and Gunson (2001) to personal communication with R.K Rikihana and H. Melbourne, who are also thanked in acknowledgements in the reverse of cover page for "patiently gathering from the elders hitherto unrecorded traditional Māori bird names". Other than reference to Rikihana and Melbourne, no further reference information is provided. Citation of indigenous informants alone does not clarify the whakapapa context of te reo Māori bird names.

4.4.3 Ethnology literature

Phillipps (1958) journal article in the OSNZ *Notornis* could be categorised as informing both ornithology and ethnography disciplines. The article contains content from interviews of indigenous people about custodial practices of harvesting tītī (*Pterodroma macroptera gouldi* [chick], Grey Faced Petrel) to monitor bird population numbers, locate distribution, breeding sites and identify breeding seasons. Phillipps (1958) presents an early form of TEK literature and describes indigenous harvesting practices in terms of ecology which incidentally includes anecdotal descriptions of meaning of custodial harvesting practice to people of specific locations.

Phillipps (1958) describes accounts of harvesting practice in Kāwhia, Whakaari, Kāpiti, Te Kaha, Hokianga and Te Araroa gathered from oral history provided by local indigenous people and Phillipps' personal observations. Individual informants are acknowledged by name and significant relatives are also named in association with the location of harvesting practices. Affiliation of individual informants with hapū, harvesting practiced by identified hapū as well as names used by identified hapū are absent. The article presents information within historical context about past harvesting practices in locations where harvesting had become outlawed as well as locations where it was legally practiced in 1958. Phillipps (1958) is referenced to support the entry of tītī (*pterodroma macroptera gouldi* [chick], Grey

Faced Petrel) in *Māori names* (Checklist Committee O.S.N.Z., 2010) more commonly known in Aotearoa New Zealand as Muttonbird (P. R. Scofield & B. Stephenson, 2013). The Phillipps (1958) article contains no macrons and suggests that while tītī identifies a muttonbirds' stage of growth as a chick, kuia is the name of young tītī in the region of Whakaari, and perhaps the name taiko is a name commonly used by hapū in Ngā Puhi.

Published episodically in *The Journal of the Polynesian Society* (accessible to the general public on line www.jps.auckland.ac.nz), *The Moriori people of the Chatham Islands: Their traditions and history* presents the author's perspective of Moriori societies in Rekohu also named Wharekauri (Chatham Islands) and compares them with Māori and Polynesian societies. According to Shand (1895a) there were only 25 living Moriori in 1895 and the majority of content of the article was gained from Moriori as a resource for students in ethnology, philology and folk-lore. Generic descriptions of Moriori society are categorised under headings such as physical characteristics, moral characteristics, marriage, villages and houses, social relations, occupations and ailments, clothing, arms, tool and utensils, canoes, amusement, tribal divisions etc. While the text includes names of individuals and hapū, mātauranga Māori is not presented within the context of whakapapa and acknowledgement of informants is not forthcoming. The translation of the oral traditional narrative of Rākei presented in English, te reo Māori and Moriori (Shand, 1895b) is the reference for the entry tōrea tai (*Haematopus chathamensis*, Chatham Island Oyster Catcher) in *Māori names* (Checklist Committee O.S.N.Z., 2010). The protagonists in the Rākei narrative are identified with hapū. Tamahiwa is identified as Rauru and Tama-tc-hokopa as Wheteina. The narrative centred on events of custodial harvesting of forest birds contains Moriori names of flora and fauna and includes names of several birds. In some instances the scientific name and te reo Māori or common name are presented in brackets accompanying the corresponding te reo Māori name. For example (Shand, 1895b, p. 89).

*Going out they found a tree growing, a manuka, full of birds-kōkō
(Prosthemadera Novce-zealandioe), parē (Pigeon; Maori,*

kereru), *kakariki* (paroquet), *tchitake* (fan-tail), *miromiro*, and *komako* (bell-bird).

The name *torē* (Moriōri) and *torea* (te reo Māōri entry in *Māōri names*) appears in an account of dialogue between the *torea* and Tama-tc-hokopa with no English or scientific name given in text but identified as the Pied Oyster Catcher *Hoematopus longirostris* in a footnote (Shand, 1895b) It is curious that a written version of an oral tradition from Moriōri is used as a reference for a te reo Māōri name in *Māōri names*. Reference to Shand does not support the use of macrons in the orthography of (Checklist Committee O.S.N.Z., 2010).

Held in the Hoken Collections, *Manuscript 181* is an unpublished collection of notes of ethnological fieldwork conducted in the Murihiku region, North Canterbury and from Nelson to Westland in Te Wai Pounamu (South Island) by James Herries Beattie for the Otago Museum in 1920 and published for the first time in *Traditional Lifeways of the Southern Maori* (Beattie, 1994). Similar to Shand (1895), Beattie (1994) aimed to produce historic documentary in the form of academic literature. *Manuscript 181* contains documentary of whakapapa, tradition, cross referencing of historical notes in whakapapa records, original place names and southern Māōri nomenclature of flora and fauna recorded from Ngāi Tahu men and women recognised as knowledgeable while Beattie resided with them in Murihiku, Temuka, Rangiora, Tuahiwi and Pāraki. A willing local participant sometimes assisted Beattie to transcribe interviews, oral histories and oral traditions verbatim in te reo Māōri as Beattie had limited skills in te reo Māōri. Once Beattie had translated and transformed mātauranga Māōri into a usual structure and literary style of academic ethnography, he destroyed his detailed and meticulous notes.

The contents of *Manuscript 181* is presented by geographic region (Beattie, 1994). Names of informants are listed in the book's introduction in association with knowledge about a geographic location as well as a brief biography including the names of parents and family members. For significant long-term informants, portrait photographs are presented with captions naming them. In some cases Beattie transcribed correspondence or archived notebooks written by Ngāi Tahu with the consent of the writer's whānau. He also integrated information from

several sources “for the sake of completeness” (Beattie, 1994, p. 16). Although not all published literature was accessible from the locations Beattie was conducting fieldwork or wrote the manuscript, he compared his findings with ethnographies published by prominent contemporaries such as Percy Smith and John White (Beattie, 1994, p. 18).

...and by the time he had re-worked his notes and collated them under the numerous headings of his draft manuscripts, both the flavour of the spoken word and the identity of the informant concerning particular items had been largely lost. Yet there can be no doubt that Beattie was a scrupulous honest recorder whose appreciation of the privilege he was accorded by Maori elders was repaid by assiduous attention to getting their information down accurately, even when he thought his informants were wrong or confused.

Appendix 2 of *Traditional Lifeways of the Southern Maori* (Beattie, 1994) is a glossary of flora and fauna nomenclature indexed alphabetically by the te reo Māori name, collated by the Otago Museum and supported by about 40 references. However, the glossary does not claim to be authoritative:

In the first column are names from the manuscript and in the second column are either Beattie’s description of the item or a brief designation of its general class (fish, bird, plant etc.), according to the context in which the name occurred. In the third column are suggested scientific names based on the references at the end of the glossary. In many cases these are educated guesses and none should be accepted as certain. Atholl Anderson in Beattie (1994, p.579)

Beattie (1994) is cited as the reference supporting *kakariwai* (*Petroica australis*) and *tarāpuka* (*Larus bulleri*) in *Māori names* (Checklist Committee O.S.N.Z., 2010). *Kakariwai* is identified as the common name *Robin* and the same scientific names listed in *Māori names*. *Tarāpuka* is written as *tara puka* in two separate words in the glossary of Beattie (1994), common name *Black bill gull* and the same scientific name as that listed in *Māori names*. In the main body of the book, elongated vowels

are signified by the use of double vowels. This was not applied to the glossary and macrons are not used anywhere within. The index to Beattie (1994) does not index individual bird names but groups them in a generic category. Therefore, the specific reference to support the documentation for kakariwai and tarāpuka cannot be easily located in the list of forty references for the glossary provided and the complete reference for these entries in *Māori names* gives no page number indicating where they may feature in Beattie's text.

The Moriori name tchaik for The Chatham Islands Tāiko (*Pterodroma magenta*) is reviewed here as a source listed in *Māori names* (Checklist Committee O.S.N.Z., 2010). *Moriori: A people rediscovered* (King, 1989) is included in this review under the category of ethnology but it could equally be described as academic literature of Aotearoa New Zealand history. King was invited by Moriori (Rekohu, Chatham Islands) to produce a literature documentary about their history in order to challenge the derogatory and inaccurate accounts of Moriori history perpetuated in schools and universities as well as recognise Moriori as “tchakat henu – indigeneous people and guardians of the mana of Rekohu” (King, 1989, p. 16). Thus *Moriori: A people rediscovered* was produced “with the active collaboration of Moriori descendants” and participants are listed extensively in acknowledgement (King, 1989, p. 11). Methods employed in King's research include literature review and archives including Shand (1895), and transcriptions of oral histories. History in King (1989) is sometimes presented the form of biography of an individual in the context of social, hapū and whānau life and so the names of participants can be identified with a historical period, hapū and geographic location. King's (1989) research of Moriori history is presented in *Moriori: A people rediscovered* in chronological order. It contains indigenous place names and Moriori dialect is employed wherever possible. There is no use of macron throughout the book.

The citation for Moriori name tchaik for The Chatham Islands Tāiko (*Pterodroma magenta*) in *Māori names* (Checklist Committee O.S.N.Z., 2010) could not be located in *Appendix I: A Moriori vocabulary list* (King, 1989) which is presented from English to Moriori and corresponding te reo Māori vocabulary. The descriptive entry for *Procellaria parkinsoni* in (Checklist Committee O.S.N.Z., 2010) reveals the common name to be the *Black Petrel*. The Moriori name tchaik

could not be located in *Appendix 1: A Moriori vocabulary list* in King (1989) by English common names such as *Petrel* or *Muttonbird* or the te reo Māori name of tāiko. Tāiko is locatable in the index to King (1989) and directs the reader to page 28 where a description of tāiko harvesting is presented as indicated from material remains of an archaeological excavation of a 16th century Moriori village named Waihora (Douglas Sutton in King, 1989). Another reference located in index to King (1989) recounts the Rehe whānau history which includes a description of tāiko harvesting provided by William Bauke. The Moriori name tchaik was not located in either section indicated in the index for tāiko.

4.5 Summary

Review of references in *Māori names* provides examples of academic literature that rely heavily on documentation of te reo Māori bird names recorded by early natural historians. Practices of documentation of te reo Māori bird names during the late 1700s were pioneering and understandably inconsistent and inaccurate (H. W. Williams, 1906). Academic literature reviewed in this chapter also described the exclusion of indigenous people from informing ornithology research since the late 1800s and for a major contributor (H. W. Williams, 1906) native speakers of te reo Māori were consciously excluded from the process of correcting orthography of te reo Māori bird names. Ethnology literature contextualises te reo Māori bird names in oral tradition or in reference to a specific geographic location and presents more recent primary research in co-operation with hapū. However mātauranga Māori continues to be interpreted and framed to inform a scientific paradigm and does not reflect mātauranga Māori about native and introduced birds to Aotearoa New Zealand in the context of whakapapa. Most of the literature reviewed in this chapter was informed by mātauranga Māori and presented within a scientific paradigm providing a means for academic authors to assume an expert role in the academic representation of te reo Māori and mātauranga Māori.

The introduction to the nomenclature table in *Māori names* and the prominence of te reo Māori dictionary references give the impression that *Māori names* as an appendix to *Checklist* (Checklist Committee O.S.N.Z., 2010) reflects the currency of te reo Māori bird names in Aotearoa New Zealand as an aspect of indigenous methods of naming. However the table of *Māori names* and supporting references

index the documentation of te reo Māori bird names for scientific purposes that occurred as long as two centuries ago. Furthermore, although some entries support the allocation of te reo Māori names with current scientific names, and dated references match te reo Māori bird names with taxonomic synonyms, it is difficult for a person unfamiliar with taxonomy to clearly identify how dated literature such as Tregear (1891) and (H. W. Williams, 1906) reflects current practice of te reo Māori bird names and implies that te reo Māori bird nomenclature is static.

The position of *Māori names* as an index to *Checklist* (Checklist Committee O.S.N.Z., 2010) gives the impression that Māori names includes mātauranga Māori relative to indigenous nomenclature of native and introduced birds to Aotearoa New Zealand. The presentation format of *Māori names* however suggests that the purpose of the appendix is to provide a reference documenting correction of orthography of the previous edition of *Checklist* (Checklist Committee O.S.N.Z., 1990). The references cited in *Māori names* (Checklist Committee O.S.N.Z., 2010) do not support these. Furthermore the references cited provide little transparency in the identification of original sources of te reo Māori names. The presentation of *Māori names* as an amendment to the incorrect orthography of *Checklist* (Checklist Committee O.S.N.Z., 1990) would have clarified the purpose of the tabulated list of scientific names and corresponding te reo Māori names. A text contextualising the amendment process with Te Taura Whiri o te Reo Māori would also provide the opportunity to gain insight into quality and quantity of available literature relative to the relationship between scientific nomenclature, taxonomy and te reo Māori in the context of extant and extinct native and introduced birds to Aotearoa New Zealand.

Chapter 5

The potential role of academic literature in indigenous methods of naming native and introduced birds to Aotearoa New Zealand

5.1 Introduction

Indigenous individuals and hapū were important sources of information for early natural historians documenting observations of the many endemic species of Aotearoa New Zealand. However, these same indigenous informants did not participate in designing research inquiry or publishing academic literature. Similar to the exclusion of indigenous individuals and hapū in ornithology research, academic literature about indigenous ways of being, ways of knowing and ways of doing has, until a few decades ago, been dominated by scientists and amateur researchers (L. Smith, 2012).

The aim of this chapter is to reflect on the extent to which the methods employed in this study respond to the research questions and contribute to current studies in indigenous methods of naming. The chapter begins with restating the research questions and the aim of the thesis (see 5.2), followed response to each question from the findings of *Chapters 2, 3 and 4* (see 5.2.1, - 5.2.4). The potential role of academic literature in indigenous methods of naming native and introduced birds to Aotearoa New Zealand is proposed (see 5.3). In conclusion, the limitations and contribution of this thesis to studies in indigenous methods of naming native and introduced birds to Aotearoa New Zealand are outlined and avenues of further research suggested (see 5.4).

5.2 Restatement of the research questions and aims

The aim of this study was to explore the complexities of the role of academic literature in indigenous epistemology with a focus on indigenous methods of naming native and indigenous birds to Aotearoa New Zealand. Exploring indigenous methods of naming in this way provided an opportunity to tease out the influence of translation, Western scientific paradigms and the medium of academic

literature on the transmission of mātauranga Māori as well as identify opportunities and limitations for indigenous epistemology offered through the medium of academic literature. The complexity of indigenous methods of naming native and introduced birds to Aotearoa New Zealand is addressed by restricting the first questions posed to establishing concepts of indigenous epistemology and whakapapa in the context of indigenous methods of naming:

- (i) What is the role of whakapapa in indigenous epistemology?
- (ii) How does whakapapa demonstrate a well organised and systematic method of naming?

Once fundamental concepts of indigenous epistemology, indigenous methods of naming and whakapapa were established in response to questions (i) and (ii) they were applied to the appreciation of literature in response to:

- (iii) What is the role of literature in indigenous epistemology?

Aspects of the complex and dynamic relationship between indigenous epistemology, indigenous methods of naming and literature articulated in response to the first three research questions culminated to inform response to the principal research question:

- (iv) What is the role of literature in indigenous methods of naming native and introduced birds to Aotearoa New Zealand?

5.2.1 The first research question: What is the role of whakapapa in indigenous epistemology?

- *Whakapapa provides the structure of indigenous epistemology because it is a system of ordering relationships for memory recall in the transmission of mātauranga Māori.*

Mātauranga Māori provided by Te Rangikāheke (Grey, 1853) and interview participants demonstrated how whakapapa describes ecology as holistic and inclusive of both physical and human geographies. Oral literature written by Te Rangikāheke's and reproduced by Grey (1853) in *Ko nga moteatea me nga hakirara o nga Maori [Nga Moteatea]* demonstrated how whakapapa provides the

structure of oral narrative exclusively dependant on memory arts. Academic literature critically reviewing the treatment of original sources in literature produced by Grey in *Nga mahi a nga tūpuna* [*Nga mahi*] (Grey, 1971) and *Polynesian mythology and ancient traditional history of the New Zealand race* [*Polynesian mythology*] (Grey, 2005), demonstrated disruption to consistency and order in original narrative accounts when whakapapa is displaced as the structuring mechanism of mātauranga Māori by combining narratives from a range of other sources.

Whakapapa was employed by interview participants to support and contextualise the importance of specific ecologies to human wellbeing with specific reference to Tāne and marae. The importance of whakapapa in the transmission of mātauranga Māori in interviews was often inferred and taken for granted as a fundamental structure of ordering participants' relationship with mātauranga Māori.

Taxonomic classification of te reo Māori bird names according to order, family, species and subspecies in *Appendix 3 Māori names of New Zealand birds* [*Māori names*] (Checklist Committee O.S.N.Z., 2010) informs a scientific paradigm and is an immediate indication that the references cited were not the result of indigenous epistemology.

- ***Transmission of mātauranga Māori occurs within the context of whakapapa.***

This in turn provides a conceptual map of mātauranga Māori within the contexts of place and time. Te Rangikāheke is not acknowledged in any literature published by Grey (Loader, 2008). It is in the inclusion of whakapapa that the reader can locate mātauranga Māori transmitted in oral literature with hapū, historic period and geographic location.

Interview participants identified mātauranga Māori with the ecologic and social contexts of sources which were always related by whakapapa and included ancestral ecologies, marae, parents, elders and direct ancestors. For interview participants, mātauranga Māori includes the context of engagement or practice of indigenous epistemology. For example, mātauranga Māori about preparation of birds for eating was related to the resources available to different generations and the effect of ecologic and economic change on hapū engagement in physical geographies. Therefore, whakapapa inclusive of awareness of varying contexts of indigenous

epistemology over time provides opportunities for engagement with mātauranga Māori in contexts of ecological and social change.

- ***Mātauranga Māori is authentic and authoritative when transmitted within the limited scope of whakapapa of an identifiable person or hapū.***

Likewise, whakapapa in indigenous epistemology restricts the authority of mātauranga ā-hapū to relative contexts. Te Rangikāheke's oral literature reproduced in *Nga moteatea* (Grey, 1853) is clearly delimited by the writer's Te Arawa whakapapa. It is not and does not intend to account for mātauranga Māori of other iwi and hapū. By delimiting the scope of accounts to those relative to the immigration of first settlers of Te Arawa waka and their descendants enables the reader to easily and swiftly understand the relevance of whakapapa to the events of the 1850s. The deliberately Arawa-centric account of history provides transparency through the presentation of whakapapa narrative. An iwi-centric account also validates the oral literature because Te Rangikāheke is sharing mātauranga Māori that is directly relative to himself and is his ontology (Curnow, 1985). The use of mātauranga Māori to support theories about philology is an inappropriate representation of mātauranga Māori because it was not shared in this intention.

Transmission of mātauranga Māori within a hapū or iwi centric scope enables content in the variety of performing and graphic arts to be cross referenced within the same whakapapa to reaffirm mātauranga Māori content as well as a measure of internal and external consistency in mātauranga Māori transmission through time (Jackson, 1968).

The ability to articulate one's relationship to others from a thorough understanding of one's immediate whakapapa was identified by interview participants as imperative in the social context of mātauranga Māori transmission. Interview participants suggested that mātauranga Māori relative to bird life and indigenous methods of naming should be gathered as a result of wānanga and collective discussion at each marae.

The generic and non-descriptive list of te reo Māori bird names in *Māori names* (Checklist Committee O.S.N.Z., 2010) provided little information about indigenous methods of naming because it relied on historical documentation that generally did not record from whom and where the bird names were recorded or documentary

about indigenous methods of naming. The names presented in the tabulated format of *Māori names* did not articulate the relationship hapū shared with birds in their local ecologies. Furthermore, *Māori names* was of limited significance as it did not provide a description of the relativity of te reo Māori bird names with ornithology in Aotearoa New Zealand throughout history.

- ***Whakapapa ensures that mātauranga Māori is a component of ontology.***

Indigenous epistemology is not uniquely the transmission of knowledge, information and facts, it also tells the reader how mātauranga Māori is part of a person's sense of self and way of being. Accounts of direct interaction between birds and hapū, the identification of particular species with the role of kaitiaki for individuals and hapū, as well as the use of language such as manu kōrero, manuhiri and manu tioriori provided examples of how birds are an aspect of ontology. Participants exercise critical reflection of mātauranga Māori received by parents, elders and ancestor with their own observations and experiences and thus indigenous epistemology is flexible enough to accommodate the conservation and innovation of mātauranga Māori in the delimited context of whakapapa. Thus, the restricted scope of whakapapa facilitates the relevance and direct application of mātauranga Māori.

Te Rangikāheke's oral literature reproduced in *Nga moteatea*, (Grey, 1853) provides context of the significance of mātauranga Māori, place and ancestry to a Te Arawa way of being through the medium of Te Rangikāheke. Through the employment of whakapapa, Te Rangikāheke tells readers who he is and the process of his becoming.

Review of *Māori names* (Checklist Committee O.S.N.Z., 2010) and supporting references did not offer any information on how endemic species or te reo Māori bird names are significant to our national identity or national character.

5.2.2 The second research question: How does whakapapa demonstrate a well organised and systematic method of naming?

The findings in relation to the role of whakapapa as indigenous epistemology are as equally significant to the role of whakapapa in indigenous methods of naming. indigenous methods of naming thus occur:

- Within the organisational structure of whakapapa to articulate reality as relational
 - Through the intergenerational transmission of mātauranga Māori from parents, elders and direct ancestors
 - From active participation of hapū in indigenous epistemology relative to delimited geography and genealogy
 - Reflect a way of being that is continuously critically reviewed in terms of direct experience and relevance
- ***Naming in the context of whakapapa personalises mātauranga Māori.***

This was demonstrated most strongly in the prolific use of names in (Grey, 1853) and the depersonalisation of mātauranga Māori through alteration and editions of names in *Nga mahi* (Grey, 1971) and *Polynesian mythology* (Grey, 2005) (see Chapter 2.).

The names for birds referred to by interview participants are a genuine reflection of their participation in indigenous and non-indigenous epistemologies. Names of people, places and periods of time located mātauranga Māori in whakapapa through identification with ecology and ancestors. For example the importance of rūrū in ontology of Ngāti Hinekura is memorised in name the place name Te Urupā o Ngā Rūrū o Hinekura. The place name Waikuta is a reference to exploration and claiming of sites by Ihenga and describes the significance of kuta (*Eleocharis sphacelata*) and shag (*Phalacrocorax varius*) to the ecology of Waikuta. The use of bird names to describe human behaviour in the words manu kōrero, manuhiri, manu tioriori personalise the significance of bird to indigenous ontology.

Māori names (Checklist Committee O.S.N.Z., 2010) offers a general explanation of indigenous methods of naming without direct reference to the table of names presented therein.

- ***Names are a point of reference that articulate how one element of whakapapa is related to others and related to a holistic ontology.***

This was demonstrated most strongly in the prolific use of names in *Nga moteatea* (Grey, 1853) . In this case names of protagonists were directly associated with historic events and were used in *Nga mahi* (Grey, 1971) as narrative titles. Names

in Grey (1853) in the narrative of the separation of Ranginuietūnei and Papatūanuku are points of reference to describe the dynamics of ecology and human use of natural resources; Māui is synonymous with the duration of daylight, the emergence of Aotearoa New Zealand from the sea, human use of fire and mortality as the natural order as well as the themes of innovation and conservation. Ngahue and pounamu are associated identification of Aotearoa New Zealand as a potential location for migration. Ohomairangi, Te Arawa, Tamatekapua and Ngātoroirangi and many other names are immediately associated with the immigration of first settlers of Te Arawa waka to Aotearoa New Zealand. Place names referring to the narrative of fishing up Te Ika a Māui provides cartography (Roberts, 2010). Toponyms from Maketu to Tongariro and other locations associated with Tamatekapua, Ngātoroirangi, Ihenga and others are explained in the context of early inland exploration and settlement and identify geographies with ancestors and ecologies by name. In this way names in the context of whakapapa simultaneously classify the landscape as well as the geographies of indigenous society (Metge, 1990; Salmond, 1983).

Interviews conducted in this study related how people and places were named in the context of whakapapa to record historic events or practices which included the relationship of hapū with ecologies.

The majority of reference used to support *Māori names* (Checklist Committee O.S.N.Z., 2010), did not identify the original source of te reo Māori names or associate them with hapū or physical geography.

- ***Names in the context of whakapapa are an economic use of language and a mnemonic device for performing arts.***

The prominence of recital whakapapa in Grey (1853) demonstrates how names are concentrated points of reference that enable an economy of language in the recital of a progression of events (Walker, 1969). By connotation and association, names are an economic use of language as a mnemonic device that relies on prior knowledge of wider context and significant relationships within and between whakapapa (Thornton, 1987).

An interview participant reinforced the necessity for recital whakapapa to be explained and contextualised in a social exchange of mātauranga Māori within whānau or hapū settings to ensure that recital whakapapa is accurately understood

in context. Findings from interviews conducted for this study suggest that names of ancestors, places and hapū are as equally significant to personal identity as a person's individual name. Names are remembered in association with relative people, places and events as well as the frequency of interaction with specific birds.

- ***Names are an aspect of regional vernacular and reflect the diversity of te reo Māori me ōna tikanga and the diversity of mātauranga Māori as well as reflect the impact of ecologic and social change.***

The review of treatment of original manuscripts in literature published by Grey described the homogenisation of te reo Māori in the third edition of *Nga mahi* (Grey, 1928) which was later challenged by Biggs (1952) in a revision for the fourth edition (Grey, 1971). Biggs (1952) asserted that regional vernacular and idioms be maintained as originally scribed as a reflection of genuine and realistic use of language rather than confined to a classic or standard te reo Māori which is an academic construction only.

The interviews demonstrated how ecologic and social change directly affect the transmission of mātauranga Māori which is consistently reflected in the use of language and names. I interpret the use of English common names of bird species by participants as a reflection of the social and ecologic change experienced by participants. Interview content indicated that te reo Māori bird names were most likely to be used for endemic species who are known by these names by the general public. For example mātauranga Māori shared by interview participants demonstrate engagement with indigenous epistemologies through subsistence activities with parents and elders as well as an unequal dissemination of mātauranga Māori. One participant highlighted his view that his was “the worst generation” and I interpret this statement as a perception of that generation as the worst effected in terms of intergenerational transmission of te reo Māori in the home and selective dissemination of mātauranga Māori within hapū.

Although the introductory text to *Māori names in Checklist* (Checklist Committee O.S.N.Z., 2010) explains the differences between indigenous and scientific methods of naming. The representation of a singular te reo Māori name for each species of bird in Aotearoa New Zealand has been consistent in academic literature in the fields of natural history and contemporary ornithology. Likewise accumulating the variety of te reo Māori bird names under each species rather than

in the structure of whakapapa does not inform patterns within or between the diversity of mātauranga Māori.

- *Names are an indication of the prominence of bird species in specific ecologies and their significance to hapū.*

Te Rangikāheke's oral literature recorded names that were significant to his process of becoming in the context of whakapapa (Thornton, 1987).

Interview content demonstrated that indigenous epistemology relies on personal and sensorial experience to critically and meaningfully engage with mātauranga Māori transmitted by previous generations. A pattern of indigenous methods of naming may emerge from understanding bird names in the context of specific physical environments as well as human geographies and are directly affected by ecologic and social change. The use of te reo Māori names of birds, plants and water life is often a reflection of the prominence of species in specific ecologies and the specific social and ecological context of participants' engagement with birds, wildlife and ecology. For instance the more hapū rely on natural resources for subsistence, the more hapū participate in local ecology and the more mātauranga Māori is likely to be transmitted by mutual participation across generations. Prohibition of custodial harvesting of birds effects transmission of relative mātauranga Māori.

As *Checklist* (Checklist Committee O.S.N.Z., 2010) is an index for scientific nomenclature and established practice of taxonomy, *Māori names* does not immediately associate te reo Māori bird names with bird distribution in Aotearoa New Zealand which would be directly relevant to indigenous methods of naming. Furthermore, the variety of bird names in indigenous methods of naming native and introduced birds to Aotearoa New Zealand as indicative of species that interact frequently with human geographies or who are semiotically important contrasts to current trends in scientific nomenclature and taxonomy where concentrated effort is applied to differentiating species as well as naming newly classified species that may have a remote relationship to human geographies.

5.2.3 The third research question: What is the role of literature in indigenous epistemology?

- *Academic literature as accurate or reliable source of mātauranga Māori.*

Review of reproduction of Te Rangikāheke's oral literature in *Nga moteatea* (Grey, 1853) demonstrated that the medium of literature has the capacity for oral traditions to be meaningfully and accurately transmitted (Thornton, 1987). Indeed recent academic attention to the treatment of original manuscripts in the construction of *Nga mahi* (Grey, 1971) and *Polynesian mythology* (Grey, 2005) identify that issues of combining, adaptation, cultural interpretation and inaccurate translation are more likely to effect the reliability and accuracy of mātauranga Māori in academic literature (Biggs, 1952).

Interview participants reported not referring to literature in any consistent or significant way as a source of mātauranga Māori. Several interview participants identified literature in the past has portrayed mātauranga Māori in ways that were historically and factually inaccurate as well as demeaning as one reason why literature is not a preferred source. Other participants indicated that literature was of limited relevance to the transmission of mātauranga Māori.

The literature review of the list of *Māori names* in *Checklist* (Checklist Committee O.S.N.Z., 2010) and supporting references emphasised the lack of transparency in the identification of mātauranga Māori content including te reo Māori bird names in scientific literature. Consequently scientific literature reviewed described a high rate of error in documentation that continued at least up until the previous edition of *Checklist* in (Checklist Committee O.S.N.Z., 1990).

- ***The value of literature as a source of mātauranga Māori and reflection of ontology***

Grey (1853) describes in detail his motivations for collecting manuscripts and producing literature, which are quite different from the motivations of Te Rangikāheke in providing original material (Curnow, 1985). Furthermore Grey does not reveal how mātauranga Māori was significant to his personal development and therefore the underlying intention in which the literature is produced is not transparent. The treatment of Te Rangikāheke's oral literature in *Nga mahi* (Grey, 1971) and *Polynesian mythology* (Grey, 2005) provided an example of lack of transparency in the representation of mātauranga Māori in Grey's publications. Original content was liberally restructured and modified for *Nga mahi* and translations were creatively employed in *Polynesian mythology* which changed the nature of the literature from authentic mātauranga Māori in the form of oral

literature in *Nga moteatea* (Grey, 1853) to indigenous narratives presented in popular non-fiction in *Polynesian mythology*.

Interview participants critically analysed literature as a source of mātauranga Māori in comparison with mātauranga Māori gained from parents, elders and ancestors as well as their own direct observations and experience. The intention with which literature is written and the degree to which it connects to indigenous readers' ontology were significant measures of appreciation of literature.

Historic examples of literature from natural history, linguistics and Grey's publications demonstrate a pattern of lack of recognition of the significance of mātauranga Māori to academic study. Recent publication of *Checklist* (Checklist Committee O.S.N.Z., 2010) provides a recent example of continuation of this approach. In *Māori names* the role of te reo Māori bird names in New Zealand ornithology is not recognised nor is the importance of spelling and grammar conventions explained.

- ***The limited role of literature as historical documentary***

Te Rangikāheke produced the manuscripts reproduced in (Grey, 1853) from memory with no reference to written material. Findings from the interviews indicate that collective participation in indigenous epistemology including harvesting and subsistence activities as well as performing and graphic arts, wānanga and debate were preferred methods of mātauranga Māori transmission. The physical inclusion of literature in these settings was perceived of as irrelevant or a physical barrier to social exchange and mātauranga transmission.

The rare occasions when literature is a source of mātauranga Māori for interview participants, it is compared to personal experience and observation in the same way as other forms of mātauranga Māori from parental and ancestral sources. Mātauranga Māori received from a variety of sources is then synthesised then transmitted from memory in different genres of performing arts or practically applied. Literature was never physically included in the performance of oral traditions. The physical presence of literature in social engagements was perceived of as a lack of skill in oral tradition as well as a physical barrier to engaging with audiences.

Participants limited the role of academic literature in indigenous epistemology to historical documentary. Participants expressed concern that mātauranga Māori is

directly affected by ecologic and social change and literature was seen as a way to record mātauranga Māori at risk of becoming obsolete and in memory of the prestige and principles practiced by past generations. Potential for academic and non-academic literature to provide hapū participants in wānanga and social events with a momentum such as a leaflet or a pamphlet with photos was stated by participants and it was clear that literature could not replace the function of collective participation in mātauranga Māori transmission.

5.2.4 The fourth research question: What is the role of literature in indigenous methods of naming native and introduced birds to Aotearoa New Zealand?

- ***Exclusion and ownership***

Chapter 4 presents the role of academic literature in mātauranga Māori transmission with a focus on indigenous methods of naming native and introduced birds to Aotearoa New Zealand presented in the findings of this thesis describes a narrative of original sources of mātauranga Māori being increasingly excluded from the transmission of mātauranga Māori in literature production. Early natural historians, linguists (including philology) and ethnologists relied on mātauranga Māori for a basic understanding of physical and human geographies for which they had little frame of reference. Once mātauranga Māori was documented, early academics of these scientific fields of study assumed ownership and authority over collected written material. From that point on, the recognition of the sophistication and flexibility of mātauranga Māori was consistently suppressed in academic literature in the artificial representation of ‘classic’ or ‘uncontaminated’ te reo Māori and mātauranga Māori (Grey, 1928). Importantly the exclusion of original indigenous sources from participation in revision process and literature production resulted in a high degree of persistent error in academic literature presenting both oral narratives as well as te reo Māori bird names (H. W. Williams, 1906).

- ***The contribution of mātauranga Māori***

Review of *Māori names* in *Checklist* (Checklist Committee O.S.N.Z., 2010) revealed that literature featuring records of te reo Māori names focused on mātauranga Māori in terms of content rather than indigenous epistemology as a valuable way of knowing about birds and ecology. While this lack of appreciation

for the value of indigenous epistemology may have been a reflection of the period of early natural history in the late 1700s to late 1800s this attitude remains current practice through the continued reference to literature dating from that period in the recent publication of *Māori names*. Furthermore, the historical practice of suppressing the value of indigenous epistemology continues in *Checklist* (Checklist Committee O.S.N.Z., 2010) that defines te reo Māori names as alternative nomenclature thus implying that there is no relationship between te reo Māori bird names, indigenous epistemology and the study of ornithology in Aotearoa New Zealand. The review of *Māori names* identifies sources that relied heavily on indigenous informants to gain knowledge about bird names and biology.

A text contextualising the amendment process of *Māori names* with Te Taura Whiri o te Reo Māori would also provide the opportunity to gain insight into quality and quantity of available literature relative to the relationship between scientific nomenclature, taxonomy and te reo Māori in the context of extant and extinct native and introduced birds to Aotearoa New Zealand.

- ***Anonymity and depersonalisation***

The absence of names identifying significant people, places and events in academic literature about te reo Māori bird names reviewed in *Chapter 4* is a way of depersonalising and thus reducing the authority of mātauranga Māori. Academic literature relative to indigenous methods of naming native and introduced birds to Aotearoa New Zealand consistently represents mātauranga Māori dislocated from human and physical geographies and historical contexts. Often the scope of recording te reo Māori bird names is too broad in terms of trying to describe te reo Māori bird names on a national scale and classifying mātauranga Māori in terms of avifauna order, family and species categories. Consistent with a scientific research paradigm the onus of te reo Māori bird names in academic literature is on matching a single name as representative of a te reo Māori bird name for a particular species which does not reflect the social practice of te reo Māori and indigenous methods of naming. Different hapū will refer to the same species by a variety of names. Conversely academic literature will list all the te reo Māori bird names associated with a species with no further contextual information. Therefore, academic literature about mātauranga Māori and te reo Māori bird names is the presentation of mātauranga Māori content within a scientific paradigm and does not inform

diachronic development of mātauranga Māori or inform indigenous methods of naming.

5.3 The potential of academic literature in indigenous methods of naming native and introduced birds to Aotearoa New Zealand

The review of Te Rangikāheke's oral literature reproduced in *Nga moteatea* (Grey, 1853) provides an example of academic literature as a result of active participation in indigenous epistemology and therefore a valuable means of transmitting mātauranga Māori. Academic literature specifically about indigenous methods of naming native and indigenous birds to Aotearoa New Zealand from an indigenous research paradigm has not been published and therefore is a field of study and medium with unexplored potential in terms of indigenous epistemology. The finding from this study suggest that academic literature has potential to be a valuable contribution to indigenous epistemology and indigenous methods of naming when:

- Whakapapa remains the central structure and scope of the transmission of mātauranga Māori in academic literature. Thus hapū rather than bird species are the research imperative when writing about te reo Māori bird names in terms of indigenous methods of naming native and introduced birds to Aotearoa New Zealand.
- It is the result of collective hapū based active participation in indigenous epistemology through a variety of practical applications of mātauranga Māori in natural ecologies. This could include documenting the importance of natural resources for subsistence and ontology to describe hapū as part of ecology.
- It is the result of collective hapū based active participation in indigenous epistemology through a variety of oral traditions and graphic arts
- Provides the means for hapū to express critical reflection on their participation in indigenous epistemology
- Provides the means for hapū participation in indigenous epistemology to exercise critical reflection on the impact of ecologic and social change on ontology and mātauranga Māori

- Provides the means for hapū to directly participate in the critical review and employment of te reo Māori me ōna tikanga in literature and conventions of written te reo Māori.

In summary, academic literature has the potential to play a valuable role in indigenous methods of naming when it records or facilitates direct participation of hapū in indigenous epistemology rather than predetermine or prematurely theorise indigenous methods of naming native and introduced birds to Aotearoa New Zealand. Equally, academic literature has the potential to be valuable when it articulates indigenous epistemology as a valuable way of knowing and does not assume to replace memory arts as the primary methods of mātauranga Māori transmission. The application of an indigenous paradigm to the production of literature about indigenous methods of naming as an aspect of mātauranga Māori has the potential to constitute an accurate and authentic body of knowledge. The production of academic literature in this way would require a significant investment in time and resources and would therefore reflect the significance of mātauranga Māori for literature production. In the spirit of whakapapa such a body of knowledge would develop in layers over time and at its own pace in different locations throughout Aotearoa New Zealand. However production of academic literature about indigenous methods of naming as an aspect of indigenous epistemology would be relative to similar studies about indigenous epistemology worldwide and combined have the potential to collectively challenge current conventions in literary representations of indigenous knowledge in the scientific paradigm (Salmon, 2000).

5.4 Limitations of the research, research contribution and potential avenues for further research

This study provides only an indication of the role of academic literature in indigenous methods of naming native and introduced birds to Aotearoa New Zealand. A number of sources and methods could potentially address the research questions posed in this thesis as well as further inform the study of indigenous methods of naming native and introduced birds to Aotearoa New Zealand. Some of these are suggested in this section.

This Masters thesis contributes to a larger research project investigating indigenous methods of naming native and introduced bird species of Aotearoa New Zealand funded by Ngā Pae o te Māramatanga.³⁰ The project intends to facilitate the meeting of experts in the fields of translation, te reo Māori me ōna tikanga and science for the purposes of developing a potential protocol for naming bird species in Aotearoa New Zealand. This thesis does not focus on the development of a protocol for naming native and introduced birds to Aotearoa New Zealand nor does it focus on te reo Māori bird names as mātauranga Māori content. My interest in completing this research is to explore indigenous methods of naming in terms of their intrinsic value. Hence, research inquiry conducted in this study is thus influenced by a potential to explore indigenous methods of naming in terms of what they reveal about our ways of being (ontology) and our ways of knowing (epistemology).

The research questions and methods employed in this study are shaped by the nature of relevant academic literature and Kaupapa Māori research methodology (Bishop, 1999; L. Smith, 2012). A comprehensive index of te reo Māori bird names ordered by whakapapa or taxonomy does not exist (Checklist Committee O.S.N.Z., 2010). Onomastic research presents methods of naming within a scientific paradigm describing indigenous epistemologies in simplified universal terms (Berlin et al., 1973). Due to an absence of literature immediately relevant to the aims of this research, findings are drawn from primary research, literary exemplars of mātauranga Māori and publications of te reo Māori bird names to explore the complexities of the role of academic literature in indigenous epistemology with a focus on indigenous methods of naming native and indigenous birds to Aotearoa New Zealand.

Te Arawa whakapapa delimits the scope of this thesis to an Arawa-centric description of indigenous epistemology in a review of oral literature and findings from semi-structured interviews (see *Appendix 1*). The review of oral literature (*Chapter 2*) is not intended to provide an authoritative or universal theory of indigenous epistemologies or indigenous methods of naming. Likewise the content, summary and discussion of semi-structured interviews clearly focus on the

³⁰ Lead by Tom Roa accompanied by Dr. Hēmi Whaanga from The School of Māori and Pacific Development of the University of Waikato and Dr. Paul Schofield (Canterbury Museum).

ecological wellbeing of Te Arawa Lakes and do not represent participation in indigenous epistemology elsewhere or Mātauranga Māori generally. Review of literature about te reo Māori bird names (*Chapter 4*) is limited to a leading academic publication in the field of ornithology in Aotearoa New Zealand. Therefore, this study provides only an indication of the role of academic literature in indigenous methods of naming native and introduced birds to Aotearoa New Zealand.

The findings of this thesis explore and describe the significance of whakapapa in indigenous epistemology and indigenous methods of naming in reference to accessible examples of mātauranga Māori oral literature (see *Chapter 2*). Examples of oral literature demonstrate whakapapa as an ordering structure for mātauranga Māori designed to facilitate memory recall. Exploring indigenous epistemology and indigenous methods of naming in this way established a frame of reference to critically review the role of academic literature in indigenous methods of naming. Examples of oral literature, literature reproduction (Grey, 1971) and translation (Grey, 2005) demonstrate the impact of interrupting or fragmenting the ordering structure of whakapapa and by comparison, highlight the significance of whakapapa in indigenous epistemology and methods of naming. In addition to describing the importance of ontology in mātauranga Māori, this thesis contributes to mātauranga Māori by demonstrating the imperatives of indigenous epistemology on the grounds of accuracy. The importance of whakapapa in indigenous epistemology and indigenous methods of naming was exemplified in this thesis in a narrow sample of literature. There is potential to demonstrate the ordering principles of whakapapa in all forms of mātauranga Māori transmission in performing and graphic arts.

The findings and discussion of this thesis reiterate the principles of Kaupapa Māori research (see 3.2) (Bishop, 1999). The review of recently published ornithology literature (Checklist Committee O.S.N.Z., 2010) provides an example of the continued appropriation of mātauranga Māori in scientific publications. This thesis identifies the relevance of continued critical review of the presentation of mātauranga Māori in academic literature in terms of indigenous epistemology. The literature reviews presented here articulate an estranged relationship between indigenous epistemology and academic literature. There is a recent body of knowledge that articulates a developing intersection between ornithology and

indigenous epistemology (Moller, Kitson, & Downs, 2009). The fields of traditional ecological knowledge [TEK] and ethno-ornithology continue to publish mātauranga Māori within a scientific paradigm and exercise a higher degree of critical reflection on the capacity of scientific paradigm to appropriately and accurately represent mātauranga Māori (Moller et al., 2009). For example, TEK produces academic literature about the biology of birds based on data and observations from custodial harvesting practices of kererū in Tuhoe, of tītī in Rakiura and Oi in Hauraki and is a form of academic literature relative to this study (Lyver & Moller, 2010). Academic literature relative to mātauranga Māori in the management of environmental resources would be relative to exploring the role of academic literature in indigenous epistemology in Aotearoa New Zealand. Developing the potential for academic literature to be a meaningful contribution indigenous epistemology applies equally to a protocol for indigenous methods of naming to be the result of active and recognised participation in indigenous epistemology.

Limited by the small number of interviews conducted, the findings nevertheless emphasised the importance of participation in indigenous epistemology in social settings as a process of continual individual and collective analysis and synthesis of mātauranga Māori. This thesis contributes to the mutual contributory relationship of research in mātauranga Māori in academic and social settings to encompass the impact of social and ecological change on mātauranga Māori transmission. This approach also encourages protocols for indigenous methods of naming to prioritise the participation of kaumātua and teachers of performing and graphic arts within hapū settings, rather than the exclusive contribution of expert ornithologists, translators and taxonomists.

The review of *Māori names* (Checklist Committee O.S.N.Z., 2010) and supporting references indicate that te reo Māori bird names have currency in the practice of common names for many endemic species. This suggests that the first priority of exploring indigenous methods of naming native and introduced birds to Aotearoa New Zealand for a naming protocol could be to investigate te reo Māori bird names that remain consistently current throughout social and ecological change as this is

an outstanding feature that only mātauranga Māori can meaningfully inform and represents a nexus between te reo Māori and popular language.

This exploration of the role of literature in indigenous methods of naming articulates a caveat for protocols of naming. Methods of naming that reflect language practice in the reality of social communication including regional vernacular and transliterations are valid. Academically constructed standardized language has no relevance to reality. Innovation is introduced to mātauranga Māori as a result of active participation in change rather than imposed by outside parties or principles.

Protocols of naming have the potential to articulate the relationship between bird species and hapū ontology. As such, if a species has a distant relationship with hapū or iwi then perhaps it should remain nameless or generically named as a reflection of the nature of that relationship. This rationale also allows new names for introduced species that have become significant as a resource or semiotically important to be recognised. This approach to methods of naming is contrary to scientific nomenclature and taxonomy which prioritises accumulating knowledge about endangered or extinct species as well as providing new names for newly classified species. In the scientific paradigm kudos is to be gained in the discovery and identification of new species, the credit is sometimes immortalised in scientific nomenclature (Wallis & Trewick, 2009). Indigenous methods of naming reflect the interaction between human societies and common species and do not prioritise species that rarely interact with people unless they are culturally or semiotically significant.

Wānanga, focus group discussion and open debate were research methods suggested by interview participants to further explore contemporary participation in mātauranga Māori about local ecologies and indigenous methods of naming.

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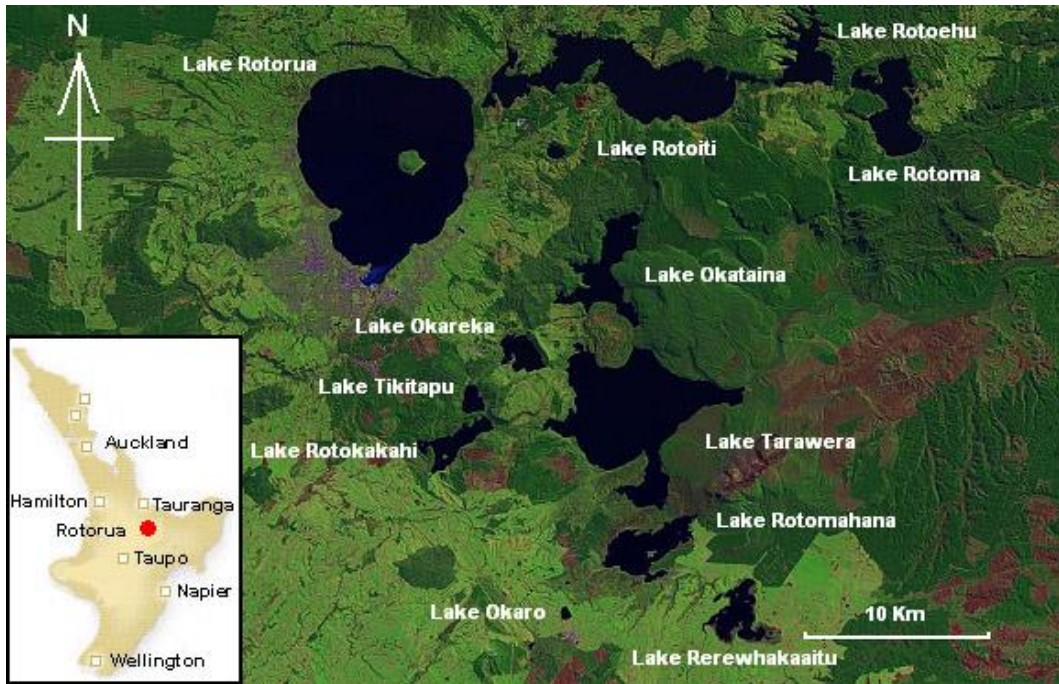
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**Appendix 1: Map of Te Arawa Lakes and Te Arawa Lakes
Settlement Act 2006 Preamble**

Map of Te Arawa Lakes



<http://www.lernz.co.nz/uploads/rotorua-lakes-map.jpg>

Te Arawa Lakes Settlement Act 2006

Preamble

- (1) Recitals (2) to (12) of this Preamble present, in summary form, the background to the Te Arawa lakes claims that is set out in Part 7 of the deed of settlement:

Background

- (2) In 1840, lakes Ngāhewa, Ngāpourī, Ōkareka, Ōkaro, Ōkataina, Rerewhakaaitu, Rotoehu, Rotoiti, Rotomā, Rotomahana, Rotorua, Tarawera, Tikitapu, and Tutaeinanga provided food, shelter, economic resources, and primary transport routes for Te Arawa. To Te Arawa, the lakes were taonga, and their relationship with the lakes and environs was, and continues to be, the foundation of their identity, cultural integrity, wairua, tikanga, and kawa:
- (3) Between 1840 and 1880, Te Arawa played a major role in the developing tourism industry in the area, retaining a significant degree of control over access and transport to the attractions of the area. Te Arawa considered that the Crown's initiatives such as the Fenton agreement of 1880 and the Thermal-Springs Districts Act 1881 protected and acknowledged their relationship with the lakes:
- (4) Over time, however, a number of Crown actions and omissions in relation to the lakes have caused grievance to Te Arawa:
- (5) Trout and other exotic fish were introduced into the lakes from the 1870s, seriously depleting the indigenous fisheries and forcing Te Arawa to rely increasingly on the introduced species. The introduction of a fishing licence regime in 1888 and the ongoing propagation of trout drew protests and petitions from Te Arawa in the late 19th and early 20th centuries:
- (6) In 1908, the Government legislated to address issues Te Arawa had raised regarding the depletion of indigenous fish, the introduction of fishing licence fees, and the resulting hardship experienced by some Te Arawa. The Fisheries Amendment Act 1908 provided Te Arawa with 20 fishing licences at a nominal fee. At the second reading of that Bill, Premier Ward stated that there were Māori in the thermal-springs district whose condition required natural food to be provided to them:
- (7) In 1909, following what Te Arawa regarded as a series of challenges to their customary rights to the lakes, Te Arawa decided to seek clarification from the courts as to the ownership of the lakes. The Crown disputed Te Arawa's claim to ownership of the lakes:
- (8) In 1912, the Supreme Court upheld Te Arawa's rights to have their claims to ownership of the lakes investigated by the Native Land Court. Te Arawa filed an application for a title investigation in 1913. Delays, including those caused by the Crown's refusal to provide the necessary survey plan to the court, meant that the Native Land Court

did not begin hearing Te Arawa's application for title until 1918. The proceeding was adjourned after several weeks of hearing. In 1920, on the eve of the hearings being resumed, the Crown approached Te Arawa to negotiate a settlement of their respective claims to ownership of the lakes:

- (9) In 1922, Te Arawa and the Crown reached an out-of-court agreement on the ownership question. Under the agreement, Te Arawa admitted that the fee simple of the lakes was vested in the Crown. In return, the Crown admitted the rights of Te Arawa to the burial reserves in all the lakes and their ancient fishing rights. The agreement also included provision by the Crown to Te Arawa of 40 licences to fish for trout at a nominal fee, together with an annuity of £6,000:
- (10) There was no provision in the 1922 agreement for the annuity to be reviewed. The value of the annuity paid to the Arawa Māori Trust Board diminished over time, to the point where it did not make a significant contribution to the affairs of the Board:
- (11) Both before and after the 1922 agreement, the Crown and local government, acting under legislation, increasingly assumed responsibility for regulating activities, including discharges, impacting on the lakes:
- (12) From the late 19th century, native timber around the edges of Lakes Rotorua and Rotoiti was milled and vegetation cleared for farming. Later, septic tanks were installed. These developments resulted in an increased nutrient load flowing into the lakes. Excess nitrogen and phosphorus led to the growth of blue-green algae in the lakes. Te Arawa state that environmental degradation of the lakes has affected the mana and wairua of the lakes for Te Arawa:

Treaty of Waitangi claim and settlement negotiations

- (13) The Arawa Māori Trust Board, on behalf of Te Arawa, registered a claim (Wai 240) in relation to the annuity issue and other lakes-related grievances with the Waitangi Tribunal in April 1987, after the legislation was amended to allow the hearing of claims dating back to 1840:
- (14) In 1989, the Arawa Māori Trust Board entered into preliminary discussions about direct negotiations with the Crown to settle Te Arawa's claims. In September 1997 the Crown agreed to negotiate Te Arawa's lakes claims separately from their other historical claims:
- (15) In December 1998, the Crown recognised the mandate of the Arawa Māori Trust Board to represent Te Arawa in negotiations for a settlement with the Crown. Terms of negotiation specifying the scope, objectives, and general procedures for negotiations were signed by the negotiators appointed to represent the Board in March 1999:
- (16) In May 2001, the Crown made an offer to the Arawa Māori Trust Board in settlement of Te Arawa's historical Treaty grievances in relation to the Te Arawa lakes. The Crown's offer was rejected by the Board:

- (17) New terms of negotiation were signed by the Crown and the Arawa Māori Trust Board in July 2001. At that time the parties agreed that the settlement would address both Te Arawa's historical Treaty grievances in relation to the lakes and any remaining annuity issues. In December 2003 the Crown made a second settlement offer to the Board. The Board accepted the offer in principle:
- (18) The Crown and the Arawa Māori Trust Board initialled a draft deed of settlement on 15 October 2004. Te Arawa ratified the Crown's settlement offer and entered into a deed of settlement on 18 December 2004. The deed records the matters that give effect to the final settlement of all Te Arawa's historical lakes claims and remaining annuity issues:

Retrieved from <http://www.tearawa.iwi.nz/about/key-documents>

Appendix 2: Approval letter for ethics

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Te Manu Taiko: Human Research Ethics Committee
Centre of Māori and Pacific Research
Te Pua Wānanga ki te Ao
School of Māori and Pacific Development

19/02/15

Ethics Approval

Tēnā koe e te manū hakahaka e whai atu ana i te whānuitanga me te rētōtanga o ngā kaupapa rangahau o te wā.

This letter is to confirm that Te Urukeiha Raharuhi has received ethical approval for the study, Indigenous Methods of Naming. The ethics application was reviewed by members of Te Manu Taiko and was signed off by the chair of the committee on 19/11/14. Good luck to you embark on your research.

Kimihia, rangahaua!



Associate Professor Rangi Matamua
Chair, Te Manu Taiko
Te Pua Wānanga ki te Ao
School of Māori and Pacific Development

