JUNE 2018

Chris Pairama
Director - Project Manager
Kaipara Rohe – Te Whiti te Rā o Rēweti Marae Wānanga 2
1105 State Highway 16
Waimauku
Auckland 0883
0210400072
chris.pairama@gmail.com

E NGA MATE HAERE.
E MOKIMOKI ANA MATOU
KAPUA POURI I TENEI WA.
HAERE NGA MATE.
RERE ATU I RUNGA I TE MATIMATI
O TE TUPUNA MANU
O WAITEMATA.
TENEI TE TANGI I A MATOU
NGA URI O TE MAUNGA TAPU TAUWHARE ME TE
TUPUNA MANU KAIPARA.
KA AO KA AO KA AWATEA

Chris Pairama / Te MAMAI O KAURI pilot project report #2 / 2

TE MAMAI O KAURI PILOT PROJECT REPORT #2

by

Chris Pairama (Te Taoū, Ngāti Whātua)

Te Uhi Table of Contents

Te MAMAI O KAURI pilot project report #2	2
Wānanga Report	4
Kupu Whakataki / Introduction	10
Terms of the Work Authorisation	10
Project Objectives	10
MPI Terms of Procurement	11
Kupu Whakamārama	12
Terms of Reference	12
Conclusions	19
APPENDIX I	20
Significant Flora & Fauna within Kaipara Rohe	22
Key Words	22
Ngā Tāpiringa	24
Glossary & Terminology	24
Bibliography	
Panui	

WĀNANGA REPORT

Tauwhare to Maunga Waipatukahu koi awa ka rere atu Ko Kaipara te Moana Whiti te ra o Reweti te Marae Ko te hapu Te Taou Ngati Whatua he Tangata Christopher Pairama ahau.

To begin this kaupapa, myself and Te Kahu-iti, went to Te Kia Ora Marae, at Kakanui to tono for their manaaki to the kaupapa, addressing te Mamai o Kauri. A unanimous tautoko was given.

At 4.00pm on Friday, 14th September 2018, we welcomed a number of visitors onto our marae, Whiti te ra o Reweti Marae.

The attendee list:

Chris Pairama

Te Kahu-iti Morehu

Te Wehi Pairama

Charmaine Wiapo (arrived Saturday)

Tracey Te Paa (arrived Saturday)

Te Rangi Kaihoro

Lorna Rikihana

Hone Ratana

Hone's wife

Peter Hoev

Ian Mitchell

Aprilanne Boner (arrived Saturday)

Monica Gerth (arrived Saturday)

Wayne Patrick (arrived Saturday)

Following the powhiri, finger food and refreshments were provided, and our visitors settled in. Some time later, we shared whakawhanauga.

In a timely nature, Ngati Whatua o Kaipara, led by Nga Maunga Whakahii o Kaipara (PSGE), had announced the placing of a Rahui, on Atuanui Reserve (as described further on). Te kahu-iti Morehu along with Te Rangi Kaihoro, decided to attend this taake (photo 1&2), whilst we remained at the marae to receive our visitors/scientists, Monica and Wayne.

Monica and Wayne arrived at approximately 1.00pm, and also by this time Te Kahu-iti and Te Rangi had returned from the Atuanui Reserve.

At around 2.00pm, we set off to a nearby Kauri Reserve (photo7), on the private property of local members of the community, whom I had already met through, parental interaction at the soccer club. This is the home of Nicholas and Lizzy Travis at 200 School Rd, where a fenced covenanted reserve of some four acres, where many Kauri are thriving (photo). On site, karakia were enacted prior to entry, by Te kahu-iti Morehu. (photo3&4).

It was very welcoming of Travis and Lizzie, to allow us to walk into their "backyard", as was acknowledged, in closing korero, on departing. Our native plant/rongoa specialists from the Kaipara, Charmaine and Tracey, made plans to return to this site to harvest and prepare rongoa prior to the end of November 2018.

At around 3.00pm, we all returned to the Marae. At around 4,00pm, Monica and Wayne, provided us with a scientific presentation on recent findings around phytophera agathadista (PowerPoint provided, further reference through this link -

https://www.youtube.com/watch?v=z9w71bjs3ms). Strong questions and discussions occurred throughout this valuable exchange (photo 5&6).

.

Also, from an education perspective, Monica and Wayne introduced their latest, mbie funding application, around a mobile container classroom to go to schools and events, sharing our current work and work to date, on this/our threatened species. This idea garnered much feedback. The Mana Whenua representation from Reweti Marae, had not only engaged with the local community of Kauri caretakers, but also were presented with some up to date scientific/matauranga research information.

Monica and Wayne were very clear, in inviting ongoing input into our research programme which we are so readily able to facilitate.

The presentation/visitor interaction took us to dinner time at around 6.00pm. Following dinner free time was enjoyed by all.

On Sunday, we took part in a further wider marae engagement by way of a Kauri information stall, which we set up within the Reweti Marae market day, held monthly, on the marae. Some twenty whanau were able to discuss Kauri and Kauri dieback and receive merchandise, which was obtained, from the MPI national response, and which was on display at the stall. The market day ended at 12.00 midday.

- Around that time, we shared a poroporoaki, before departure. This concluded the wananga. Many attendees are keen to do labs.
- We need to educate and be educated. This could possibly take the form of a mobile classroom.
- Ongoing wananga in our respective rohe
- Maintain Te Mana o te Rakau e Te Mana o te Rongoa through Matauranga
- Restoration planting of Rongoa plants
- The Kauri Dieback response should be changed to Kauri Ora, thus platforming a positive cry for response rather than "DIEback".

Photo 1 Photo 2



Photo 3 Photo 4

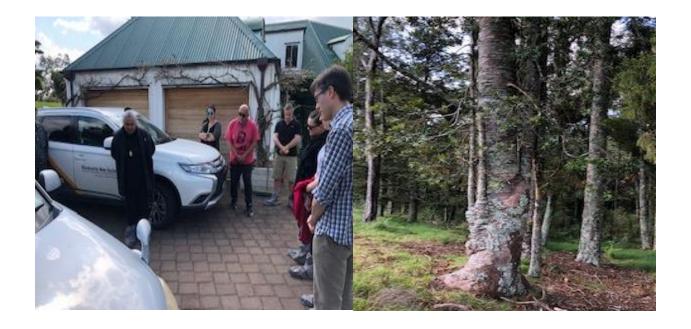
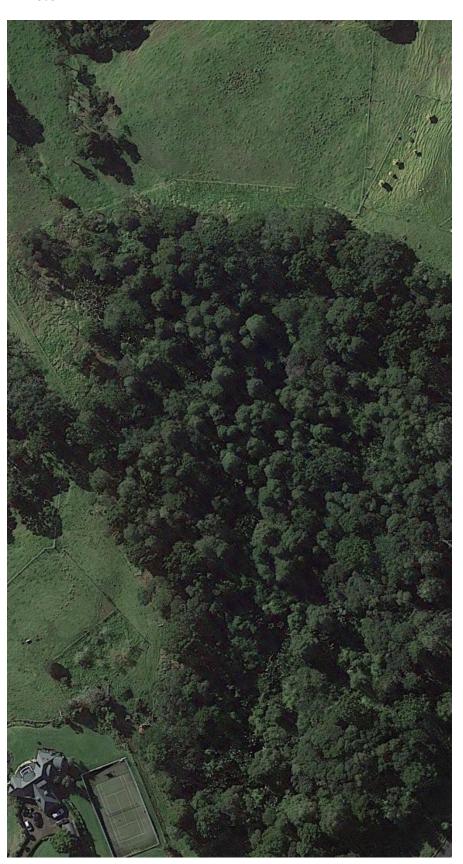




Photo 5

Photo 6

Photo 7



KUPU WHAKATAKI / INTRODUCTION

Terms of the Work Authorisation

17990 Rongoaā Selection & Engagement Framework is a Ministry of Primary Industries (MPI) Work Authourisation with ChrisP Ltd. for the provision of:

- A Kawanga Engagement Framework that will assist western research scientists, government officials and consultants to engage with mana whenua.
- A number of rongoā that are expected to significantly benefit kauri as well as the process used in creating rongoā.

Under this Agreement the Contractor will conduct a series of initiation wānanga, undertake related site visits to kauri ngāhere, and conduct follow up wānanga from Mātai Whetū Marae in the Coromandel and run a comparable parallel process from Whiti te Ra o Reweti Marae, Waimauku.

Project Objectives

This project will utilise wānanga and site visits to kauri ngāhere to conduct appropriate cultural whakaritenga praxis.

The development of an engagement framework will enable sharing and alignment of mātauranga Māori with western practices to provide a mechanism for joint participatory decision making in the field of environmental management.

MPI Terms of Procurement

This agreement is subject to MPI's Standard Purchase Terms (version August 2016) as currently published online at www.mpi.govt.nz/about-mpi/information-for-suppliers/.

Clause 9 'Intellectual Property' is varied by the addition of the following:

IP known at the outset will remain the property of that party.

It is acknowledged that the purpose of wānanga is to bring into the public arena, both the known mātauranga Māori knowledge relating to kauri dieback disease and to potentially develop new IP for the benefit of kauri.

It is agreed that any new IP will be jointly owned by those directly participating in the wānanga, and their employer/organisations/iwi etc. as individually agreed between each participant and their iwi/organisation/employer etc.

However, it is agreed that in recognition of the Kauri Dieback Programme facilitating the creation of this IP, and in the interests of the greater good of kauri and New Zealand, a royalty free, irrevocable and perpetual licence to use this IP, specifically for the purposes of improving the mauri of kauri, will be granted to the Kauri Dieback Programme.

KUPU WHAKAMĀRAMA

Terms of Reference

Chris Pairama is the director of ChrisP Ltd, which is the principal contract holder of the aforementioned research project 17990 Work Authorisation. This report #2 is to fulfil the contracted outcomes of the second Kaipara Rohe Wānanga held during 14th-16th August 2018 at Whiti te rā o Reweti Marae.

See attached pānui which was circulated throughout our networks to secure participation of local Mana Whenua, Rongoā Māori practioners, leading PA western scientists and our own facilitators and whanau. There were several special features that enhanced the delivery of this project both on the marae and in terms of building capability, exercising the engagement framework as well as on flow iwi hui where valuable dissemination and feedback to this project occurs.

Some of the special features includes the following:

- Engagement with a private "kauri reserve", landowner.
- Delegation of our wananga rongoā to attend an auspicious South Kaipara 'Rahul' ceremony on Maunga Atuanui.
- Informed western science presentation to the wananga regarding the latest microbial research projects currently being undertaken by the bioscience faculties of the Otago and Victoria Universities.
- Follow up presentations of initial findings to Kaipara Rohe marae and iwi group meetings with respect to maintaining clear communication lines and relationship management

In summary, this report is quite succinct and fulfils the brief under the contracted terms of reference. Should you (MPI) require further information not summarized in this report, please contact the writer, at your earliest convenience.

Current significant ecosystem values of the ED include:

- Coastal wetlands (i.e. mangroves and saltmarshes) and terrestrial ecosystems dominant the ED.
- Lower Hoteo River cliffs and gorges. The river is unique in the ED and Auckland region and is of high geomorphic value as the largest and most natural of wild rivers in the

Auckland Region. It contains numerous meanders and rapids with deeply incised river gorges.

- The natural forest landscape associated with the Hoteo River, namely Atuanui (Mt Auckland) conservation land.
- Most natural areas lie on moderately steep land, with severe representation of north facing and flat land or on productive land.
- The ecological district survey of Rodney identified Priority Places for Protection (PPP) (Mitchell et al. 1992). This approach identified natural areas that best represented the ecological character and range of ecosystems using certain criteria:
 - (1) Representativeness (this also included sites that were unique and rare);
 - (2) Size and connectivity;
 - (3) Resilience. Left alone, successional and regenerating forests will thrive, and sites were chosen with such characteristics so that they could return to their natural 'state.

In the Kaipara catchment, PPP include, running from the north to the south of the ED, the following:

- Ryan Road regenerating totora–kahikatea forest on lowland hill country buffering a stream (40 ha)
- Louges Bush has covenant protection with regenerating totora bordering a river and steep ridges. Presence of few old kauri and kauri rockers.
- Way by wetland, Waiwhiu forest, Sunnybrook forest, and most of the Dome Valley—Conical Peak forest are found in the Kaipara catchment, which is one of the largest connected estuarine—lowland forest sites in the entire ED and the Kaipara catchment. The Sunnybrook forest and Dome Conservation Area includes over 400 ha of remnant and regenerating podocarp hardwood forest with a mature canopy of rimu, northern rata and kahikatea over rewarewa, hinau, tawa and taraire. There are plantation pine areas linking the Sunnybrook forest with Dome Valley forest and Mt Tamahunga, which has its west face draining into the Kaipara. Mt Tamahunga forest sits on the eastern boundary of the Kaipara catchment. Native frogs exist throughout the area along with kaka, pied tit and native parakeets.

Hoteo River—Mt Atuanui is the largest Conservation Area (public conservation land, 615 ha) of indigenous vegetation on the west coast of the upper North Island between the

Waitakere Ranges and Waipoua forest. Mt Atuanui Conservation Area has been protected since the early 1900's and retains most of its ecological character. The site provides the only continuous sequence of estuarine to hilltop vegetation (at 305 m). Taraire is common in the canopy along with tawa and rimu. Wayby Wetland is also located here which provides an example of intact raupo swamp with no open water bounded by kahikatea swamp forest. Kereru, tui, fantail, ruru and tomtits are some of the birds seen and heard throughout Atuanui.

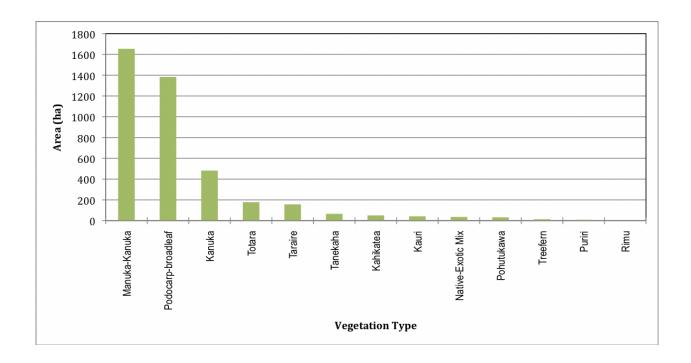


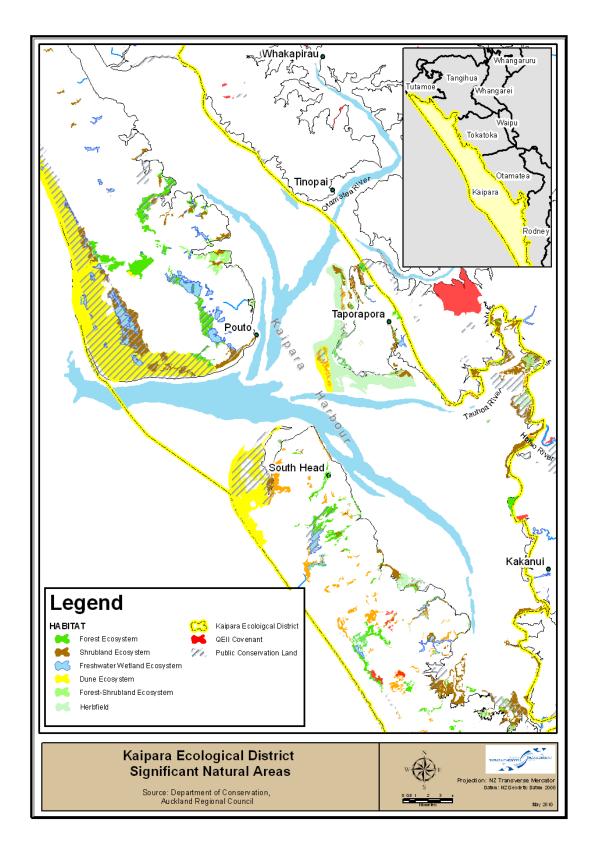
http://www.kaiparaforestandbird.org.nz/Atuanui.html

- There are many hotspots of biodiversity within the site including king fern, stalked adders tongue fern, and several species of orchid (e.g. Yoania australis). The site also has cultural significance, as the summit was once a Pa with ¹⁴ fortifications including defensive ditches, terraces, middens and pits. Pa sites were also established along the Hoteo River.
- The Hoteo River is the longest river in the Kaipara ED and meanders through broken, steep hill country for some 30 km. The edge is heavily modified, with the remaining patches of indigenous vegetation being primarily taraire and kanuka.
- The Atuanui Restoration Project ¹⁴ has been established to monitor and restore forest health, and is a community partnership project between the Kaipara branch of the Forest and Bird Society, local residents, Auckland Regional Council, Department of Conservation (DoC) and the Rodney District Council. Pest control is underway for possum, but not rodents and stoats. DoC issues hunting permits for goat and deer.
- The Moirs Hill site contains two large areas (~400 ha) of regenerating kanuka, and podocarp—broadleaf forest centred on the hill. Pine plantations border most of the site. This outstanding ranked site is subject to 35% protection under a public conservation land scenic reserve. Kauri land snail, pied tit, and native frogs are known to occur here.

- The Haruru significant natural area is an extensive and spectacular 4 km long lowland hill country forest complex. Taraire and kahikatea extend to a cliff with some pohutukawa present, which is unusual for most coastal zone vegetation.
- At the mouth of the Kaukapakapa Estuary is a large, completely forested south facing hillslope, which extends down to alluvial areas on the river margin. This is the best example of coastal regenerating kauri forest on hills in the ED. Coastal taraire forest is also present along with kowhai occurring all along the river margin. The site is currently public conservation land.
- Mangakura Stream site provides the best example of kanuka forest on lowland hill country in the ED. There are large areas of regenerating kauri.

Figure 20. Indigenous vegetation types cleared in Rodney Ecological District between 1983 and 1998 (Source. Bellingham 2008).

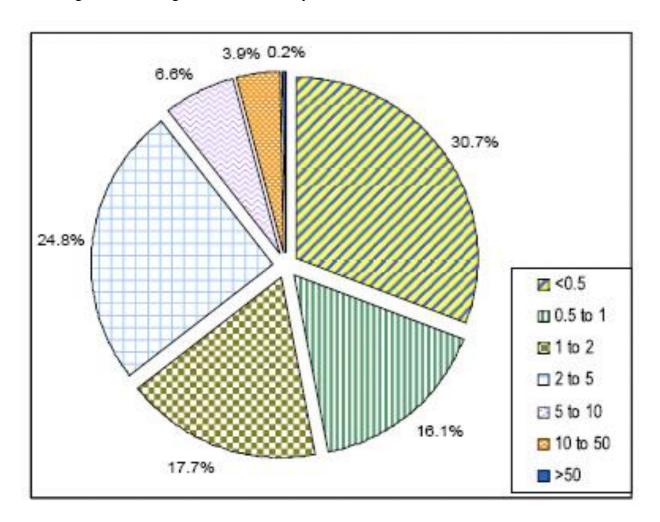




Kaipara catchment landscape has been significantly modified since European settlement with 15.6% of forest ecosystems remaining. This has resulted in considerable loss of indigenous biodiversity in coastal, lowland and rolling hill environments

Figure 21. Proportion of Rodney District Council bush lot covenants by size (Rodney District Council 2008c).

Restoring and Protecting Native Biodiversity



Significant wetland areas of the Kaipara include:

- Omamari Government Purpose Wildlife Management Reserve and surrounds (177.5 ha)
- Maitahi Wetland Scientific Reserve and surrounds (323 ha)
- Atuanui Conservation Area (607ha)
- Papakanui Stewardship Area (1,113.5 ha)
- Ōkahukura Stewardship Area & Taporapora Wildlife Management Reserve (1,320 ha)
- Tauhoa Scientific Reserve (301 ha)
- Pouto Peninsula (6,000 ha)
- Taporapora Big Sand Island
- Rat Island
- Moturemu Island
- Largest remaining wetland in the northern part of the Kaipara. Extremely important site (Smale et al. 2009) for its size, diversity, intactness, presence of threatened and regionally significant species. Contains 59.1 ha of Acutely Threatened land environments.
- Most significant mesotrophic—oligotrohpic wetland remaining in Northland because of its size, intactness, range of wetland types that it supports. Contains largest remaining gumland remaining in the Kaipara ecological district.
- Is the largest area of indigenous forest left adjoining the harbour
- One of the largest relatively unmodified coastal sand dune systems left in New Zealand and a key breeding sites for a number of coastal bird species, including two endangered and one threatened species.
- Significant bird breeding and roosting areas
- Contains 75% mangroves in Kaipara Harbour and contains associated saltmarsh and salt meadows.
- Pouto wetlands are particularly good representative examples of freshwater sand dune lakes and swamps, ephemeral wetland characteristic of Northland. Contains threatened and endemic plant and bird species. Special habitat to waterfowl at critical stage in their lifecycle.
- Significant breeding areas. Significant breeding areas.
- Last wild population of kaka beak and significant colony of oi or grey-faced petrel.

CONCLUSIONS

We include for your edification a few recommendations that have arisen because of this research project within our Kaipara rohe. Please note we have summarised these into the following bullet points.

- Wananga with Kaipara Kaumatua
- Identify specific siblings of Kauri
- To identify the tuakana/teina for Kauri.
- Recreate kianga Kauri

APPENDIX I

Scientific Names of Plants Mentioned in the Report Indigenous Species

Botanical Name Common Name

Agathis australis kauri

Alectryon excelsa titoki

Austrofestuca littoralis Sand tussock

Baumea tenax

Baumea teretifolia common twig rush

Beilschmiedia tawa tawa

Blechnum minus swamp kiokio

Brachyglottis kirkii var. kirkii Kirks daisy

Calochilus paludosus bearded orchid

Calochilus robertsonii red bearded orchid

Carex secta pukio

Carex virgata swamp sedge

Coprosma dodonaeifolia

Coprosma propinqua mingimingi

Coprosma robusta karamu

Coprosma tenuicaulis swamp coprosma

Cordyline australis cabbage tree

Corynocarpus laevigatus karaka

Cyathea dealbata silver fern

Dacrydium cupressinum rimu

Dacrydium dacrydioides kahikatea

Desmoschoenus spiralis pingao

Dicksonia squarrosa wheki

Drosera binata forked sundew

Drosera spatulata sundew

Dysoxylum spectabile kohekohe

Elaeocarpus hookerianus pokaka

Empodisma minus wire rush

Epacris pauciflora tamingi

Goebelobryum unguiculatum liverwort

Hebe pubescens subsp. pubescens Coromandel koromiko

Ixerba brexioides tawari

Knightia excelsa rewarewa

Kunzea ericoides kanuka

Laurelia novae-zelandiae pukatea

Lepidothamnus intermedius yellow silver pine

Leptecophylla juniperina subsp. juniperina prickly mingimingi

Leptospermum scoparium manuka

Leucopogon fasciculatus mingimingi

Linguella puberula dwarf greenhood

Litsea calicaris mangeao

Loxsoma cunninghamii

Lycopodiella serpentina bog clubmoss

Marattia salicina king fern

Chris Pairama / Te MAMAI O KAURI pilot project report #2 / 21

Melicope ternata wharangi

Metrosideros carminea carmine rata

Metrosideros excelsa pohutukawa

Myriophyllum robustum stout water milfoil

Neopanax laetus

Nothofagus fusca red beech

Nothofagus menziesii silver beech

Nothofagus truncata hard beech

Phormium tenax flax

Phyllocladus trichomanoides tanekaha

Pittosporum eugenioides tarata

Pittosporum kirkii Kirk's kohuhu

Plumatichilos tasmanicum plumed greenhood

Podocarpus hallii Hall's totara

Podocarpus totara totara

Pomaderris rugosa Pomaderris

Prasophyllum aff. patens swamp leek orchid

Prumnopitys ferruginea miro

Prumnopitys taxifolia matai

Pterostylis micromega swamp greenhood

Pterostylis paludosa swamp greenhood

Raukaua edgerleyi Raukawa

Schoenus brevifolius bog schoenus

Sophora microphylla kowhai

Sphagnum cristatum

Sporadanthus ferrugineus giant wire rush

Syzygium maire swamp maire

Utricularia australis yellow bladderwort

Vitex lucens puriri

Weinmannia racemosa kamahi

Weinmannia silvicola towai

Adventive species

Botanical Name Common Name

Acacia mearnsii black wattle

Acacia melanoxylon blackwood

Glyceria maxima floating sweetgrass

Ligustrum lucidum tree privet

Ligustrum sinense Chinese privet

Lonicera japonica Japanese honeysuckle

Osmunda regalis royal fern

Phytolacca octandra inkweed

Pinus pinaster cluster pine

Pinus radiata radiata pine

Salix cinerea grey willow

Salix fragilis crack willow

Solanum mauritianum woolly nightshade

Ulex europaeus gorse

Significant Flora & Fauna within Kaipara Rohe

New Zealand's physical environment is extremely diverse, and this diversity is reflected in the indigenous plant and animal communities (ecosystems). The concept of dividing New Zealand into a series of Ecological Regions and Districts evolved because of the need for the establishment of a representative system of reserves which would encompass this ecological diversity¹. One purpose of the Reserves Act 1977 is to ensure the following:

"Preservation of representative samples of all classes of natural ecosystems and landscapes which in the aggregate originally gave New Zealand its own recognisable character."²

Of special significance to Te Whiti te ra o Rēweti Marae is our ancestral association with Omokoroa Reservation (Goldies Bush). This is where our ancestor Te Pairama Mū, maintained his relationship with the Waitakere Ranges and the connected takiwa of Te Taou, and the residing flora and fauna.

Key Words

New Zealand; maps; ecological districts; ecological regions; topography; geology; climate; soils; vegetation; flora, fauna.

¹ ECOLOGICAL regions and districts of New Zealand / editor, W. Mary McEwen. - 3rd rev. ed in four 1:500 000 maps. - Wellington, N.Z. : Dept. of Conservation, 1987. - 4 v. - (Publication / New Zealand Biological Resources Centre, 0111-9982; no. 5)

² Reserves Act 1977, Section 3(1) (b).

Chris Pairama / Te MAMAI O KAURI pilot project report #2 / 23 $\,$

NGĀ TĀPIRINGA

Glossary & Terminology	
Abbreviations	
1080 Sodium Monofluoroacetate	
acngt Advisory Committee on Novel Genetic Techniques	
ajhr Appendices to the Journals of the House of Representatives	
arc Auckland Regional Council	
cbd Convention on Biological Diversity	
ccsbt Commission for the Conservation of Southern Bluefin Tuna	
cfe Commission for the Environment	
cgiar Consultative Group on International Agricultural Research cites Convention on International Trade in Endangered Species of Wild	
Flora and	
Fauna	
coa Court of Appeal	
dc District Court dia Department of Internal Affairs	
dls Department of Lands and Survey	
dma Department of Maori Affairs	
doc Document	
doc Department of Conservation	
dsir Department of Scientific and Industrial Research	
dti Department of Trade and Industry	
ec Environment Court	
epep Environmental Protection and Enhancement Procedures	
epi Environmental Performance Indicators	
ermanz Environmental Risk Management Authority New Zealand	
fao Food and Agriculture Organisation of the United Nations	
forst Foundation for Research, Science and Technology	
gatt General Agreement on Tariffs and Trade	
gdc Gisborne District Council	
gef Global Environment Facility	
gmo Genetically Modified Organism	
hbrc Hawke's Bay Regional Council	
he High Court	
hsno Hazardous Substances and New Organisms Act 1996	
icgeb International Center for Genetic Engineering and Biotechnology	
ibac Independent Biotechnology Advisory Council	
iucn International Union for the Conservation of Nature	
iwc International Whaling Commission	
lgnz Local Government New Zealand	
maf Ministry of Agriculture and Fisheries (Ministry of Agriculture and	
Forestry	
after 1996)	
mdc Marlborough District Council	
med Ministry for Economic Development	
mfe Ministry for the Environment	
mfat Ministry of Foreign Affairs and Trade	
[vii]	
Abbreviations	
mot Ministry of Transport	
morst Ministry of Research, Science and Technology	

mwd Ministry of Works and Development	
mwrc Manawatu-Wanganui Regional Council	
na National Archives	
ncbi National Center for Biotechnology Information	
ncc Nature Conservation Council	
npra National Parks and Reserves Authority	
nrac National Research Advisory Council	
nrc Northland Regional Council	
nzbs New Zealand Biodiversity Strategy	
nzca New Zealand Conservation Authority	
nzg New Zealand Gazette	
nzlc New Zealand Law Commission	
nzoda New Zealand Overseas Development Assistance	
nzpd New Zealand Parliamentary Debates	
nzrma New Zealand Resource Management Appeals	
occlg Officials Co-ordinating Committee on Local Government	
oecd Organisation for Economic Cooperation and Development	
orc Otago Regional Council	
ots Office of Treaty Settlements	
palr Protected Areas Law Reform	
pcfe Parliamentary Commissioner for the Environment	
pgsf Public Good Science Fund	
pt Planning Tribunal	
ramsar Convention on Wetlands of International Importance Especially as	
Waterfowl Habitat	
rfbps Royal Forest and Bird Protection Society	
rma Resource Management Act 1991	
rmlr Resource Management Law Reform	
rs&t Research, Science and Technology	
sprep South Pacific Regional Environmental Programme	
ssc State Services Commission	
tpk Te Puni Kokiri	
un United Nations	
unep United Nations Environment Programme	
unesco United Nations Educational Scientific and Cultural Organisation	
upov International Convention for the Protection of New Varieties of	
Plants	
Wai Waitangi Tribunal Claim	
wcs World Conservation Strategy	
whc World Heritage Convention	
wrc Wellington Regional Council	
wto World Trade Organisation	
wwf World Wildlife Fund for Nature	

Bibliography

Atkinson, I.A.E. 1997: Problem weeds on New Zealand Islands. Science for Conservation No. 45. Department of Conservation.

Brandon, A.; de Lange, P. & Townsend, A. 2004: Threatened plants of Waikato Conservancy. DoC Science Publishing, Wellington.

Bellingham, P. 2001: Evaluating methods for the Protected Natural Areas Programme. Pp. 32. Science and Research Internal Report 190.

Bull, P.C.; Gaze, P.D.; Robertson, C.J.R. 1985: The Atlas of Bird Distribution in New Zealand. Ornithological Society of New Zealand, Wellington. 296 p.

Burns, B.; Smale, M. 2002: Lowland Forests. In: Clarkson, B; Merrett, M; Downs, T eds. Botany of the Waikato. Waikato Botanical Society Inc. University of Waikato, Hamilton, New Zealand.

Champion, P.D. 1997: An Overview of the Lower Waikato/Hauraki Plains Wetlands and Issues Relating to their Management. NIWA Consultancy Report DC80216.

Clarkson, B.D.; Clarkson, B.R.; Downs, T.M. 2007: Indigenous vegetation Types of Hamilton Ecological District. CBER

Contract report 58, University of Waikato, Hamilton.

Clarkson, B.D.; Downs, T.; Merrett, M. (compilers). 2002: Botany of the Waikato. Waikato Botanical Society, Hamilton.

Clout, M.N.; Lowe, S.J. 1996: Biodiversity loss due to biological invasion: prevention and cure. pp. 29-40 In: Conserving Vitality and Diversity. Proceedings of the World Conservation Congress Workshop on Alien Invasive Species. Canadian Wildlife Service, Environment Canada, Ottawa, Canada. 96 p.

Collins, L.S. 1998: The ecology of kauri-hard beech forest in the Hapuakohe Ecological District. Unpublished MSc thesis, The University of Waikato, Hamilton.

Collins, L; Burns, B. 2001: The dynamics of Agathis australis-Nothofagus truncata forest in the Hapuakohe

Ecological District, Waikato Region, New Zealand. NZ Journal of Botany Vol.39: pp423-433. Department of Conservation. 1987: Ecological Regions and Districts of New Zealand. NZMS 242, Sheet 2, 1:500000. Government Printer, Wellington.

Dowding, J.E. 2006: Management of northern New Zealand dotterels on Coromandel Peninsula. DoC Research & Development Series 252. Environment Waikato 2005: Regional Policy Statement.

Harding, M. 1997: Waikato Protection Strategy – A Report to the Heritage Fund Committee. Forest Heritage Fund, Wellington.

Hitchmough, R.; Bull, L; Cromarty, P. (comp.). 2007: New Zealand Threat Classification System lists—2005. Science & Technical Publishing, Department of Conservation, Wellington.

Humphreys, E.A.; Tyler, A.M. 1990: Coromandel Ecological Region. Survey report for the protected natural areas programme. Department of Conservation, Waikato Conservancy, Hamilton.

Kessels, G.H.A. 2006: Analysis of Indigenous Vegetation & Habitats of Indigenous Fauna. Report for Hauraki District Council, Kessels & Associates Ltd., Hamilton.

Kessels, G.H.A.; Stanway, E.A. 1993: An outline of the unprotected conservation values within the Hauraki District Council. Department of Conservation, Waikato Conservancy, Hamilton.

Kessels, G. 1999: Assessment of Criteria for Determining areas of Significant Indigenous Vegetation and Significant Habitats for Indigenous Fauna. Results of a Trial on 4 sites in South Waikato. Report prepared for Environment Waikato, Kessels & Associates Ltd., Hamilton.

King, M. 2003: The Penguin History of New Zealand. Penguin Books.

Leathwick, J.R.; Clarkson, B.D.; Whaley, P.T. 1995: Vegetation of the Waikato Region: current and historical perspectives. Landcare Research Contract Report LC9596/022. Manaaki Whenua - Landcare Research, Hamilton.

Marsh, S. 2003: Coromandel kiwi survey. Unpublished Report for the Department of Conservation, Hamilton.

McDowall, R.M. 1990: New Zealand freshwater fishes. Heinemann, Auckland.

McDowall, R.M. 2000: The Reid Field Guide to New Zealand freshwater fishes. Reed, Auckland.

McEwen, W. M. ed. 1987: Ecological Regions and Districts of New Zealand (third revised edition in four 1:500,000 maps). New Zealand Biological Resources Centre publication no. 5. Department of Conservation, Wellington.

McGowan, R. 2002: Treasures of the forest: traditional uses of native plants. In: Botany of the Waikato, Waikato Botanical Society, Hamilton.

Meurk C.D. 1984: Bioclimatic zones for the Antipodes and beyond? New Zealand. Journal of Ecology 7: 175–181.

Ministry for the Environment. 2000: Final Report of the Ministerial Advisory Committee on Biodiversity on Private Land, August 2000.

Myers, S.; Park, G.; Overmars, F. 1987: A guidebook for the rapid ecological survey of natural areas. Department of Conservation, Wellington. 113 pp.

Nicholls, J.L. 1979: Waikato Forest Class Map. Forest Service Mapping Series 6, Sheet No. 4. Owen, S.J. 1997: Ecological plant pests on conservation land in New Zealand: a database. January 1997 working draft. Department of Conservation.

Park, G. 1995: Nga Uruora - Ecology and History in a New Zealand Landscape. Victoria University Press.

Payton, I.J.; Pekelharing, C.J.; Frampton, C.M. 1999: Foliar Browse Index: A Method for Monitoring Possum Damage to Plant Species and Forest Communities. pp. 61. Landcare Research (NZ) Ltd Lincoln, New Zealand.

Pickard, C.R.; Towns, D.R. 1988: Atlas of the Amphibians and Reptiles of New Zealand. Conservation Sciences Publication No. 1. Science and Research Directorate, Dept of Conservation, Wellington. 59 pp.

Regnier, C. 1987: Coromandel Ecological Region Protected Natural Areas Programmes Phase 1. Department of Conservation, Wellington.

Resource Management Act 1991.

Robertson, C.J.R. (editor) 1985: The Readers Digest Complete Book of New Zealand Birds. Readers Digest Services, Sydney.

Roberston, C.J.R; Hyvönen, P.; Fraser, M.J.; Pickard, C.R. 2007: Atlas of Bird Distribution in New Zealand. 1999-2004. The Ornithological Society of New Zealand, Inc., Wellington, New Zealand.

Stanway, E.A.; Kessels, G.H.A.; Christie, K. 2000: Key Ecological Sites in the Coromandel Ecological Region. Internal report Biosecurity Unit, Environment Waikato. EcoFX and Kessels & Associates Ltd., Hamilton.

Walker, S.; Price R.; & Rutledge, D. 2005: New Zealand's remaining indigenous cover: recent changes and biodiversity protection needs. Landcare Research, Christchurch.

Whaley, K.; Clarkson B.D.; Leathwick, J.R. 1995: Assessment of the criteria used to determine 'significance' of natural areas in relation to section 6(c) of the Resource Management Act (1991). Landcare Research contract report no.LC9596/021, Hamilton. 34 pp. Williams, P.A. 1997: Ecology and Management of Invasive weeds. Conservation Sciences Publication No. 7. Department of Conservation (Pub).

PANUI



Kia Tupato, Whakawhanaunga, Kia Toitu

te Kauri – (Be aware and share)

A three day hui to share up to date information around Kauri, and rongoa plant collection for preparation (expected to significantly benefit Kauri), will be held on Whiti te ra o Reweti Marae; ko Te Taou, te hapu, te rohe o Ngati Whatua:

Date: Time: Location: Purpose:

14 th September 2018	4.00pm Powhiri	Whiti te Ra o Reweti Marae	We will be sharing about how hapu/mana whenua are working, and seeking to keep kauri standing, through rongoa collection and preparation.
---------------------------------------	-------------------	-------------------------------------	---

15 th September	Day 2 - 1.00pm	Ra o	Presentations by:Dr Monica Gerth and Dr Wayne Patrick around their current work with Kauri.
16 th September	Day 3- 10.00am	Ra 0 Reweti	A conversation on how we weave together, an effective response against Phytophra Agathadista.

^{*}To make the most out of this journey, it would be of an advantage, but not essential to attend all three hui*

Day one will be for those who will be travelling some distance and would like to stay at our Marae, and Kaitiaki who want to engage in informal discussion the night before the hui. Those staying are asked to bring, blankets and/or sleeping bags, with linen.

You have received this invitation because you are vital to the effectiveness of this kaupapa. Come to whakawhanaungatanga on our marae, 1285 State Highway 16, Waimauku, Auckland.

Please reply to Chris Pairama re your attendance: Email:chris.pairama@gmail.com. cell/txt 0210400072.