

THE VEGETATION AND FLORA OF MATATA SCENIC RESERVE

Sarah M. Beadel

Introduction

Matata Scenic Reserve comprises about 491 hectares, located behind Matata, about 22 km west of Whakatane on the Whakatane-Te Puke highway. The reserve encompasses an area of steep hill country, dissected by several small streams, with bluffs throughout. The reserve is in the Otanewainuku Ecological District (Northern Volcanic Plateau Ecological Region) (see McEwen 1987).

Vegetation History

This reserve was once part of a large forest tract, extending west to the Pongakawa plains and inland to Lakes Rotoma, Rotoiti, Rotoehu and beyond. It is now the largest coastal forest remnant in the Otanewainuku Ecological District and the Northern Volcanic Plateau Ecological Region.

The vegetation in the reserve has been modified by Maori and European activities. There are several Pa sites in the reserve and several of the areas of secondary vegetation (i.e., tall kanuka forest and rewarewa dominant forest) are probably the result of pre-European fires and disturbance. There is an old disused logging track running alongside the Awatarariki Stream leading from the quarry and podocarps, mainly rimu, have been lightly logged. Nicholls (1965) mapped the forest as tawa-kohekohe-kamahi-pohutukawa-hard beech.

Part of the reserve was formerly the water supply catchment for Matata until a landslide in 1973 forced the closure of the waterworks.

Hard beech (with pohutukawa and kanuka) forest now covers much of the reserve. Pohutukawa-kanuka forest occurs along the north-west side, while on the eastern side

there is an area of kanuka forest. Small pockets of both these types are scattered locally throughout the reserve, particularly near bluffs. Manuka-mingimingi-prickly mingimingi scrub and scrublands are common along the margins of the reserve, and also occur above bluffs and locally along steep ridge and side ridge crests. Bluffs are a feature of the reserve and they have a distinctive flora; species present include wharariki, *Morelotia affinis*, *Gaultheria oppositifolia*, *Dracophyllum strictum*, akepiro, prickly mingimingi, mingimingi, *Schoenus tendo*, *Lycopodium deuterodensum*, manuka, *Machaerina sinclairii* and kiokio.

There is small area of pohutukawa/brush wattle-mahoe forest on the steep hill face west of the subway. Japanese honeysuckle is common in the understorey along the northeastern boundary of the reserve and there are a few small areas of Japanese honeysuckle vineland on the northern side of the reserve. There is a small area of pasture on the north-west side of the reserve.

The vegetation of the reserve is described in more detail in Beadel 1991.

Flora

Indigenous plant taxa and adventive taxa have been recorded in the reserve (these are listed in the Appendix). The diversity of the flora reflects the size of the reserve and the habitat variation, i.e., bluffs, coastal forest, stream beds, hard beech forest, and secondary forest and shrublands. Most of the species are relatively common lowland and coastal species; however one species classed as nationally uncommon occurs in the reserve. *Pimelea tomentosa* occurs as scattered individuals throughout the reserve. More than 50 plants have been recorded. It is classed as declining in de Lange *et al.* 1999 on a national basis. This category is used for taxa that are numerically abundant but which are either under threat from serious adverse factors throughout their range, or occur as widely scattered, typically small populations, many of which are undergoing declines through loss of reproductive ability, recruitment failure, predation, or through other processes of often subtle habitat change. Declining taxa are listed to highlight their

plight, for without some level of management they are destined to become the future threatened plants of New Zealand.

Significance

The reserve is ecologically a very important site in the coastal Bay of Plenty. It contains the largest area of coastal forest remaining in the Otanewainuku Ecological District and Northern Volcanic Plateau Ecological Region. Much of it is in relatively good condition and it contains representative examples of the vegetation of the ecological district and region.

The main forest type (coastal hard beech forest with pohutukawa common) only occurs along the Bay of Plenty coast (Nicholls 1968, 1976) and Matata Scenic Reserve contains the largest remaining example of this type.

REFERENCES

Beadel, S.M. 1991: Vegetation and flora of Matata Scenic Reserve. Department of Conservation, Rotorua. 25 pp.

de Lange P.J.; Heenan P.B.; Given D.R.; Norton D.A.; Ogle C.C.; Johnson P.N.; Cameron E.K. 1999: Threatened and uncommon plants of New Zealand. *New Zealand Journal of Botany* 37: 603-628.

McEwen, W.M. 1987: Ecological Regions and District of New Zealand. 3rd revised edition and 4 1:500 000 maps. *Biological Resources Centre Publication* No. 5, Department of Conservation, Wellington.

Nicholls, J.L. 1965: Forest Map of New Zealand 1:63360 Map Sheet N68 and Pt N59: Matata. Forest Research Institute.

Nicholls J.L. 1968: Forest Types and Scenic Reserves; South Auckland Land District. Unpublished report (held on file 31/6). Forest Research Institute, Rotorua. 18 pp.

Nicholls J.L. 1976: A revised classification of the North Island indigenous forests. *New Zealand Journal of Forestry* 21(1): 105-32.

VASCULAR PLANTS OF MATATA SCENIC RESERVE

Based on visits in 1991 (see Beadel 1991) and 2000

Indigenous species

Gymnosperms

Dacrydium cupressinum rimu

Prumnopitys ferruginea miro

Monocot. trees and shrubs

Cordyline australis ti kouka

Cordyline banksii ti ngahere, forest cabbage tree

Phormium cookianum wharariki, mountain flax

Rhopalostylis sapida nikau

Dicot. trees and shrubs

Alectryon excelsus var. *excelsus* titoki

Alseuosmia macrophylla toropapa

Aristotelia serrata makomako, wineberry

Beilschmiedia tawa tawa

Brachyglottis repanda s.s. rangiora

Carmichaelia australis makaka, maukoro

Coprosma grandifolia kanono

Coprosma lucida karamu

Coprosma robusta

Corynocarpus laevigatus karaka

Cyathodes juniperina prickly mingimingi

Dodonaea viscosa akeake

Dracophyllum strictum totorowhiti

Dysoxylum spectabile kohekohe

<i>Elaeocarpus dentatus</i> (incl <i>E. d.</i> var. <i>obovatus</i>)	hinau
<i>Entelea arborescens</i>	whau
<i>Fuchsia excorticata</i>	kotukutuku
<i>Gaultheria antipoda</i>	tawiniwini
<i>Gaultheria oppositifolia</i>	kama
<i>Gaultheria antipoda</i> × <i>G. oppositifolia</i>	koropuka
<i>Geniostoma rupestre</i> var. <i>ligustrifolium</i>	hangehange
<i>Griselinia lucida</i>	puka
<i>Hebe stricta</i> var. <i>stricta</i>	koromiko
<i>Hedycarya arborea</i>	porokaiwhiri
<i>Helichrysum lanceolatum</i>	niniao
<i>Knightia excelsa</i>	rewarewa
<i>Kunzea ericoides</i> var. <i>ericoides</i>	kanuka
<i>Laurelia novae-zealandiae</i>	pukatea
<i>Leptospermum scoparium</i>	manuka
<i>Leucopogon fasciculatus</i>	mingimingi
<i>Leucopogon fraseri</i>	patotara
<i>Litsea calicaris</i>	mangeao
<i>Macropiper excelsum</i> var. <i>excelsum</i>	kawakawa
<i>Melicytus ramiflorus</i> subsp. <i>ramiflorus</i>	mahoe
<i>Metrosideros excelsa</i>	pohutukawa
<i>Metrosideros robusta</i>	northern rata
<i>Metrosideros excelsa</i> × <i>M. robusta</i>	
<i>Mida salicifolia</i> (incl <i>M. s.</i> var. <i>myrtifolia</i>)	mida
<i>Myrsine australis</i>	mapou
<i>Myoporum laetum</i>	ngaio
<i>Nestegis lanceolata</i>	white maire
<i>Nothofagus solandri</i> var. <i>solandri</i>	black beech
<i>Nothofagus truncata</i>	hard beech, tawhai raunui

<i>Olearia furfuracea</i>	akepiro
<i>Olearia rani</i>	heketara
<i>Streblus heterophyllus</i>	turepo
<i>Pimelea tomentosa</i>	
<i>Pittosporum tenuifolium</i> subsp. <i>colensoi</i>	rautawhiri
<i>Pittosporum tenuifolium</i> subsp. <i>tenuifolium</i>	kohuhu
<i>Pomaderris phyllicifolia</i>	
<i>Pseudopanax arboreus</i> var. <i>arboreus</i>	whauwhaupaku, five finger
<i>Pseudopanax crassifolius</i>	horoeaka, lancewood
<i>Pseudopanax lessonii</i>	houpara
<i>Pseudopanax crassifolius</i> × <i>P. lessonii</i>	
<i>Schefflera digitata</i>	pate
<i>Toronia toru</i>	toru
<i>Vitex lucens</i>	puriri
<i>Weinmannia racemosa</i>	kamahi
<u>Monocot. lianes</u>	
<i>Freycinetia banksii</i>	kiekie
<i>Ripogonum scandens</i>	kareaao, supplejack
<u>Dicot. lianes</u>	
<i>Clematis cunninghamii</i>	ngakau-kiore
<i>Clematis forsteri</i>	poananga
<i>Clematis paniculata</i>	puawananga
<i>Metrosideros diffusa</i>	rata
<i>Metrosideros fulgens</i>	rata
<i>Metrosideros perforata</i>	aka
<i>Muehlenbeckia australis</i>	puka
<i>Parsonsia</i> sp.	
<i>Rubus cissoides</i>	tataramoa

Lycopods and psilopsids

<i>Lycopodiella cernua</i>	maatukutuku
<i>Lycopodium deuterodensum</i>	puakarimu
<i>Lycopodium varium</i>	
<i>Lycopodium volubile</i>	waewaekoukou
<i>Tmesipteris elongata</i>	
<i>Tmesipteris tannensis</i>	

Ferns

<i>Adiantum cunninghamii</i>	huruhuru tapairu
<i>Adiantum hispidulum</i>	
<i>Anarthropteris lanceolata</i>	
<i>Arthropteris tenella</i>	
<i>Asplenium bulbiferum</i> s.s.	mouku
<i>Asplenium flaccidum</i> s.s.	makawe
<i>Asplenium oblongifolium</i>	huruhuruwhenua
<i>Asplenium polyodon</i>	petako
<i>Blechnum novae-zelandiae</i>	kiokio
<i>Blechnum chambersii</i>	rereti
<i>Blechnum filiforme</i>	panako
<i>Blechnum vulcanicum</i>	korokio
<i>Cardiomanes reniforme</i>	kidney fern
<i>Ctenopteris heterophylla</i>	
<i>Cyathea cunninghamii</i>	punui
<i>Cyathea dealbata</i>	ponga
<i>Cyathea medullaris</i>	mamaku
<i>Dicksonia squarrosa</i>	wheki
<i>Doodia media</i>	
<i>Gleichenia microphylla</i>	waewaekaka

<i>Grammitis billardierei</i>	
<i>Hymenophyllum demissum</i>	irirangi
<i>Hymenophyllum dilatatum</i>	matua mauku
<i>Hymenophyllum multifidum</i>	mauku
<i>Hymenophyllum rarum</i>	mauku
<i>Hymenophyllum sanguinolentum</i>	piripiri
<i>Hymenophyllum scabrum</i>	mauku
<i>Lastreopsis glabella</i>	
<i>Lastreopsis hispida</i>	
<i>Lastreopsis velutina</i>	
<i>Leptopteris hymenophylloides</i>	heruheru
<i>Lindsaea linearis</i>	
<i>Lygodium articulatum</i>	mangemange
<i>Microsorium diversifolium</i>	hound's tongue
<i>Microsorium scandens</i>	
<i>Paesia scaberula</i>	matata
<i>Pneumatopteris pennigera</i>	pakau
<i>Polystichum richardii</i>	pikopiko (hard shield fern)
<i>Pteridium esculentum</i>	rarahu (bracken)
<i>Pteris macilenta</i> (of NZ authors)	
<i>Pteris tremula</i>	turawera (shaking brake)
<i>Pyrrosia eleagnifolia</i>	leather-leaf fern
<i>Rumohra adiantiformis</i>	
<i>Trichomanes venosum</i>	

Orchids

<i>Acianthus sinclairii</i>	
<i>Bulbophyllum pygmaeum</i>	piripiri
<i>Caladenia</i> sp. (aff. <i>C. catenata</i>)	
<i>Drymoanthus adversus</i>	

<i>Earina autumnalis</i>	raupeka
<i>Earina mucronata</i> s.s.	peka-a-waka
<i>Microtis unifolia</i>	maikaika
<i>Orthoceras novae-zeelandiae</i>	maikaika
<i>Pterostylis banksii</i>	tutukiwi
<i>Pterostylis trullifolia</i>	
<i>Thelymitra carnea</i>	
<i>Thelymitra longifolia</i>	maikuku
<i>Winika cunninghamii</i>	

Grasses

<i>Deyeuxia avenoides</i> (incl. <i>D. a.</i> var. <i>brachyantha</i>)	
<i>Dichelachne crinita</i>	patiti
<i>Microlaena avenacea</i>	bush rice grass
<i>Microlaena stipoides</i>	patiti
<i>Oplismenus imbecillis</i>	
<i>Poa anceps</i> subsp. <i>anceps</i>	
<i>Rytidosperma gracilis</i>	

Sedges

<i>Carex breviculmis</i>	
<i>Carex flagellifera</i>	manaia
<i>Carex geminata</i>	
<i>Carex solandri</i>	
<i>Carex spinirostris</i>	
<i>Cyperus ustulatus</i>	toetoe upokotangata
<i>Gahnia pauciflora</i>	takahikahi
<i>Gahnia setifolia</i>	mapere
<i>Lepidosperma australe</i>	
<i>Machaerina sinclairii</i>	tuhara

<i>Morelotia affinis</i>	
<i>Schoenus maschalinus</i>	
<i>Schoenus tendo</i>	wiwi
<i>Uncinia banksii</i>	matau
<i>Uncinia gracilentata</i>	matau
<i>Uncinia scabra</i>	matau
<i>Uncinia uncinata</i>	kamu, matau a Maui

Rushes

<i>Juncus sarophorus</i>	wi
<i>Luzula picta</i> var. <i>picta</i>	

Monocot. herbs (other than orchids, grasses, sedges and rushes)

<i>Astelia fragrans</i>	kakaha
<i>Astelia solandri</i>	kowharawhara
<i>Astelia trinervia</i>	mauri
<i>Collospermum hastatum</i>	kahakaha
<i>Collospermum microspermum</i>	
<i>Dianella nigra</i>	turutu
<i>Libertia grandifolia</i>	mikoikoi

Composite herbs

<i>Gnaphalium gymnocephalum</i>	
<i>Pseudognaphalium luteoalbum</i> agg.	pukatea

Dicot. herbs (other than composites)

<i>Acaena anserinifolia</i>	piripiri
<i>Cardamine debilis</i>	panapana
<i>Drosera peltata</i> subsp. <i>auriculata</i>	
<i>Epilobium nerteroides</i>	
<i>Epilobium pedunculare</i>	

<i>Gunnera monoica</i>	
<i>Haloragis erecta</i> subsp. <i>erecta</i>	toatoa
<i>Hydrocotyle moschata</i>	
<i>Nertera depressa</i>	
<i>Oxalis</i> sp.	
<i>Pelargonium inodorum</i>	kopata
<i>Peperomia urvilleana</i>	
<i>Pratia angulata</i>	panakenake
<i>Ranunculus reflexus</i>	maruru
<i>Stellaria parviflora</i>	
<i>Wahlenbergia violacea</i>	

Adventive Plants

Gymnosperms

<i>Pinus patula</i>	patula pine
<i>Pinus pinaster</i>	maritime pine
<i>Pinus radiata</i>	radiata pine

Dicot. trees and shrubs

<i>Berberis glaucocarpa</i>	barberry
<i>Buddleja davidii</i>	buddleia
<i>Cotoneaster glaucophyllus</i>	cotoneaster
<i>Erica lusitanica</i>	Spanish heath
<i>Ligustrum sinense</i>	Chinese privet
<i>Lupinus arboreus</i>	lupin
<i>Lycium ferrocissimum</i>	African boxthorn
<i>Malus × domestica</i>	apple tree
<i>Paraserianthes lophantha</i>	brush wattle

<i>Populus alba</i> cv. Nivea	silver poplar
<i>Prunus persica</i>	peach tree
<i>Racosperma (Acacia) mearnsii</i>	black wattle
<i>Racosperma (Acacia) verticillatum</i>	prickly Moses
<i>Salix cinerea</i>	grey willow
<i>Solanum mauritianum</i>	woolly nightshade
<i>Tecomaria capensis</i>	Cape honeysuckle
<i>Ulex europaeus</i>	gorse

Dicot. lianes

<i>Lonicera japonica</i>	Japanese honeysuckle
<i>Rubus</i> sp. (<i>R. fruticosus</i> agg.)	blackberry

Grasses

<i>Anthoxanthum odoratum</i>	sweet vernal
<i>Cortaderia selloana</i>	pampas
<i>Festuca arundinacea</i>	tall fescue
<i>Holcus lanatus</i>	Yorkshire fog

Sedges

<i>Carex divulsa</i>	
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Rushes

<i>Juncus articulatus</i>	
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Monocot. herbs (other than orchids, grasses, sedges and rushes)

<i>Allium triquetrum</i>	three-cornered garlic
<i>Asparagus scandens</i>	climbing asparagus
<i>Crocsmia × crocosmiiflora</i>	montbretia
<i>Hedychium gardnerianum</i>	wild ginger
<i>Zantedeschia aethiopica</i>	arum lily

Composite herbs

<i>Cirsium vulgare</i>	Scotch thistle
<i>Conyza albida</i>	fleabane
<i>Gnaphalium coarctatum</i>	cudweed
<i>Hypochaeris radicata</i>	catsear
<i>Senecio bipinnatisectus</i>	Australian fireweed
<i>Senecio jacobaea</i>	ragwort
<i>Taraxacum officinale</i>	dandelion

Dicot. herbs (other than composites)

<i>Centaurium erythraea</i>	centaury
<i>Galium aparine</i>	cleavers
<i>Foeniculum vulgare</i>	fennel
<i>Lotus pedunculatus</i>	lotus
<i>Phytolacca octandra</i>	inkweed
<i>Ranunculus repens</i>	creeping buttercup
<i>Trifolium repens</i>	white clover
<i>Verbena bonariensis</i>	purpletop