

VEGETATION AND FLORA OF MATATA SCENIC RESERVE

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Introduction

Matata Scenic Reserve covers c. 491 hectares and is located behind the small township of Matata, about 22 km west of Whakatane, on the Whakatane-Te Puke highway. The reserve is in the Otanewainuku Ecological District (Northern Volcanic Plateau Ecological Region) (refer to McEwen 1987), and encompasses an area of steep hill country dissected by several small streams. Bluffs are locally common. A Rotorua Botanical Society field trip to the reserve was held on 12 March 2000 (Beadel 2000).

Vegetation History

Matata Scenic Reserve was formerly part of a much larger forest tract, extending west to the Pongakawa plains and inland to Lakes Rotoma, Rotoiti, Rotoehu and beyond. The former larger tract has now been reduced to a series of smaller remnants, of which the reserve is the largest example of coastal forest.

The extant vegetation shows evidence of modification as a result of both Maori and European activities. There are several pa sites in the reserve and the examples of tall kanuka (*Kunzea ericoides*) forest and rewarewa (*Knightsia excelsa*) -dominant forest are the result of regeneration following fires and other disturbance.

There is an old disused vehicle track alongside the Awatarariki Stream, that used to provide access to a quarry. Podocarps, mainly rimu (*Dacrydium cupressinum*), have been lightly logged where the terrain allowed timber extraction. Part of the reserve was formerly the water supply catchment for Matata, until a landslide in 1973 forced the closure of the waterworks.

Present Day Vegetation

Nicholls (1965) broadly mapped the vegetation as tawa (*Beilschmiedia tawa*)-kohekohe (*Dysoxylum spectabile*)-kamahi (*Weinmannia racemosa*)-pohutukawa (*Metrosideros excelsa*)-hard beech (*Nothofagus truncata*) forest. More detailed mapping was undertaken in 1991 (Beadel 1991) and hard beech forest, in association with pohutukawa and kanuka, covers much of the reserve. Pohutukawa-kanuka forest occurs along the north-west side, while on the eastern side there is area of kanuka forest. Small pockets of both these types are scattered locally throughout the reserve, particularly on steep country near bluffs. Detailed vegetation and habitat type descriptions are provided below and a vegetation and habitat type map is presented in Figure 1.

1. Hard beech forest

Hard beech forest covers much of the reserve. Hard beech (up to about 20 m high) is generally the sole canopy component, with local pohutukawa and kanuka throughout, particularly near bluffs. Tawa, rewarewa and mangeao (*Litsea calicaris*) occur very locally. Kamahi, mida (*Mida salicifolia*), *Pseudopanax crassifolius* x *P. lessonii*, mapou (*Myrsine australis*), heketara (*Olearia rani*), and hard beech often form a subcanopy, 10-12 m high. Hangehange (*Geniostoma rupestre* var. *ligustrifolium*), *Coprosma lucida*, mingimingi (*Leucopogon fasciculatus*), toropapa (*Alseuosmia macrophylla*), prickly mingimingi (*Cyathodes juniperina*), bush cabbage tree (*Cordyline*

Figure 1

Figure 1 contd

banksii), bracken (*Pteridium esculentum*) and *Helichrysum lanceolatum* are common in the understorey, with local ponga (*Cyathea dealbata*). Leaf litter dominates the groundcover with scattered turutu (*Dianella nigra*), hound's tongue fern (*Microsorium pustulatum*), *Acianthus sinclairii*, *Astelia fragrans*, hooked sedges (*Uncinia* species), *Schoenus tendo*, and *Gabnia pauciflora*.

In steep gullies, the canopy includes pate (*Schefflera digitata*), ponga, mamaku (*Cyathea medullaris*), heketara, kamahi, kanuka, mapou, kanono (*Coprosma grandifolia*), *Pittosporum tenuifolium* subsp. *tenuifolium*, and kiokio (*Blechnum novae-zelandiae*).

At a few sites the canopy is dominated by tawa, rewarewa, mangeao, mamaku and pukatea (*Laurelia novae-zelandiae*), up to about 20 m in height. The largest of these examples is in the south-west corner of the reserve, adjacent to the Awatarariki Stream. The subcanopy (4-10 m) comprises nikau (*Rhopalostylis sapida*), ponga, mahoe (*Melicytus ramiflorus* subsp. *ramiflorus*), tawa, kawakawa (*Macropiper excelsum*), kanono and porokaiwhiri (*Hedycarya arborea*). Kawakawa is common in the shrub tier, in association with pate, ponga, rewarewa, and toropapa (*Alseuosmia macrophylla*).

The groundcover comprises *Pneumatopteris pennigera*, kawakawa, *Blechnum filiforme*, *Lastreopsis hispida*, bush rice grass (*Microlaena avenoides*), hooked sedges (*Uncinia* spp.), *Hymenophyllum demissum*, nikau, and *Blechnum chambersii*. Supplejack (*Ripogonum scandens*) is common throughout. Other lianes and epiphytes present include kiekie (*Freycinetia baueriana* subsp. *banksii*), rata vines (*Metrosideros perforata*, *M. fulgens*, and *M. diffusa*), *Blechnum filiforme*, *Microsorium scandens*, *Hymenophyllum demissum*, and *Trichomanes venosum* (on tree ferns).

Secondary forest and scrub occurs at a few sites, often adjacent to bluffs. Canopy components at these sites include rewarewa, *Pittosporum tenuifolium* subsp. *colensoi*,

mamaku, kanuka, kamahi, mapou, and *Coprosma robusta*. Hangehange, *Coprosma robusta*, ponga, whauwhaupaku (fivefinger; *Pseudopanax arboreus* var. *arboreus*), porokaiwhiri, mapou, rangiora (*Brachyglottis repanda*), toropapa, and *Gahnia setifolia* are common in the understorey. Hooked sedges, hangehange, mingimingi, kiokio, turutu and seedlings of the above species are common as groundcover.

2. Pohutukawa-kanuka forest

Pohutukawa-kanuka forest occurs along the north-east side of the reserve. Pohutukawa (up to about 15 m in height) and kanuka (up to about 10 m) form the canopy, with occasional puriri (*Vitex lucens*), mapou, mahoe and kamahi and local houpara (coastal five finger, *Pseudopanax lessonii*). Rewarewa is locally emergent. Mamaku is common in gullies, with scattered whau. The understorey comprises mapou, hangehange, whauwhaupaku, ponga, mamaku, and kawakawa. *Coprosma lucida* is common on side ridges. *Adiantum hispidulum*, *Pteris macilenta*, kiokio, hooked sedges and seedlings of mahoe, hangehange and porokaiwhiri are common as groundcover. *Coprosma lucida* dominates the understorey on steep ridge crests in association with prickly mingimingi, mingimingi, mapou, and koromiko. The groundcover comprises *Morelotia affinis*, *Poa anceps* subsp. *anceps*, hound's tongue, hooked sedges, and seedlings of *Coprosma lucida* and hangehange.

On steep side ridge crests there is often a low (2-3 m) canopy comprising manuka (*Leptospermum scoparium*), mingimingi, akepiro (*Olearia furfuracea*), *Coprosma lucida*, kamahi, and rewarewa. Understorey and groundcover components include *Morelotia affinis*, *Lycopodium volubile*, turutu, *Thelymitra longifolia*, *Astelia solandri*, sundew (*Drosera peltata* subsp. *auriculata*), bracken, *Poa anceps* subsp. *anceps*, *Machaerina sinclairii*, and seedlings and shrubs of the canopy species.

Japanese honeysuckle (*Lonicera japonica*) is common along the reserve boundary.

3. Kanuka forest

Kanuka is the dominant canopy component in this type. Emergent rewarewa is scattered throughout and is locally common. Other canopy components include scattered pohutukawa, mahoe, mangeao, mapou, puriri, mamaku, *Pittosporum tenuifolium* subsp. *tenuifolium*, kamahi, and local hard beech.

The variable understorey and groundcover includes mingimingi, prickly mingimingi and wharariki (*Phormium cookianum*), often in association with akepiro and rangiora. Groundcover comprises leaf litter, *Lycopodium deuterodensum*, hangehange, *Poa anceps* subsp. *anceps*, and hooked sedges. Locally, shrub tier comprises *Coprosma lucida*, mapou, *Pseudopanax crassifolium* x *P. lessonii*, kamahi, kohuhu, mingimingi, rewarewa, whauwhaupaku, porokaiwhiri, hangehange, ponga and mahoe, with a groundcover of leaf litter, *Asplenium oblongifolium*, seedlings of shrub species, hooked sedges, *Polystichum richardii*, kiokio, and *Adiantum cunninghamii*.

Epiphytes are common on rewarewa and include several orchids (*Bulbophyllum pygmaeum*, *Dendrobium cunninghamii*, and *Earina mucronata*), lichens, and *Pyrrhosia eleagnifolia*.

4. Manuka-mingimingi-prickly mingimingi scrub and shrubland

Manuka-mingimingi-prickly mingimingi scrub and shrubland occurs at various sites in the reserve: above bluffs, along reserve margins, and on the crests of steep side ridges. Manuka, mingimingi and prickly mingimingi are generally dominant, in association with whauwhaupaku, kanuka, akepiro, *Coprosma robusta*, *C. lucida*, mapou, hangehange, bracken, koromiko, wharariki, *Pittosporum tenuifolium* subsp. *colensoi*, and *Astelia solandri*. There are local emergent rewarewa, radiata pine (*Pinus radiata*), maritime pine (*Pinus pinaster*), patula pine (*Pinus patula*), and scattered bush

cabbage tree. Groundcover includes *Morelotia affinis*, ground orchids, lichens (*Cladia retipora*, *Cladina leptoclada*, *Cladonia capitellata*) and moss (*Hypnum cupressiforme*), *Lycopodium deuterodensum* and seedlings of the above canopy species.

Black wattle is a common emergent at the northern end of the reserve, gorse is locally common, and there is scattered pampas. Local variation in this type is represented by sub-types 4a, b & c in Figure 1. Brief descriptions of each sub-type is provided below:

- 4a. Black wattle (*Acacia mearnsii*) and radiata pine are common at this site.
- 4b. Japanese honeysuckle is common at these sites.
- 4c. Exotic species are common along the north-west margin of the reserve. Japanese honeysuckle is common and other species present include wild ginger (*Hedychium gardnerianum*), *Coprosma robusta*, *Cotoneaster glaucophyllus*, prickly Moses (*Acacia verticillata*), silver poplar (*Populus alba* var. "Nivea"), fruit trees, radiata pine, black wattle, banana palm (*Musa* sp.), pampas (*Cortaderia selloana*), buddleia (*Buddleja davidii*), gorse (*Ulex europaeus*), mahoe, whauwhaupaku, kawakawa, mamaku, bracken, tutu (*Coriaria arborea*), koromiko, kanuka, pohutukawa, mingimingi, and porokaiwhiri.

5. Pohutukawa/brush wattle-mahoe forest

Pohutukawa/brush wattle-mahoe forest occurs on a steep face above State Highway 2, at the northern end of the reserve. Scattered large pohutukawa, up to about 14 m, are emergent over a canopy dominated by brush wattle (*Paraserianthes lophantha*) (about 4 m). Other canopy components include mahoe, kanuka, manuka, pampas, kawakawa, radiata pine, and *Coprosma robusta*. Exotic grasses and

herbs dominate the groundcover, with local *Doodia australis* and *Machaerina sinclairii*. Japanese honeysuckle is scattered throughout and is locally abundant.

6. Japanese honeysuckle vineland

Japanese honeysuckle is dominant, forming a dense cover 0.2-1 m high, scrambling over exotic grasses and herbs, e.g. lotus (*Lotus pedunculatus*), tall fescue (*Festuca arundinacea*), creeping buttercup (*Ranunculus repens*), Yorkshire fog (*Holcus lanatus*) and cleavers (*Galium aparine*), with occasional bracken. There are a few scattered shrubs and small trees, 2 to 6 m high, including koromiko, kawakawa, mahoe, pohutukawa, Chinese privet (*Ligustrum sinense*), and *Coprosma robusta*.

7. Pasture

A small area of pasture occurs in the north-west sector of the reserve, dominated by exotic grasses and herbs.

8. Bluffs

Large, sheer bluffs - refer to Figure 1 for locations. There is often little vegetative cover but there are examples of low, occasionally sparse, cover of wharariki, *Morelotia affinis*, *Gaultheria oppositifolia*, *Dracophyllum strictum*, akepiro, prickly mingimingi, mingimingi, *Schoenus tendo*, *Lycopodium deuterodensum*, manuka, and local ground orchids (including *Thelymitra carnea*). A luxuriant cover of *Machaerina sinclairii* and kiokio is generally associated with seepages.

Flora

One hundred and eighty-nine indigenous and 48 adventive taxa have been recorded and these are listed in the Appendix. The diversity of the flora reflects the relatively large size of the reserve and the variety of habitats, 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 nationally uncommon species is present (see below).

Conservation Significance

In ecological terms, the reserve is a very important site in the coastal Bay of Plenty. The main forest type, coastal hard beech forest with pohutukawa common, occurs only along the Bay of Plenty coast (Nicholls 1968, 1976) and Matata Scenic Reserve contains the largest remaining example of this type in the Otanewainuku Ecological District and the Northern Volcanic Plateau Ecological Region. Most of the vegetation type is in relatively good condition, providing a good quality representative example of this vegetation type.

Individuals of *Pimelea tomentosa* are scattered throughout the reserve, with more than 50 plants recorded to date. It is classed as declining on a national basis by de Lange *et al.* 1999. 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 active management they are destined to become the future threatened plants of New Zealand.

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VASCULAR PLANTS OF MATATA SCENIC RESERVE

Based on Beadel 1991 and a visit in March 2000

Indigenous speciesGymnosperms

<i>Dacrydium cupressinum</i>	rimu
<i>Prumnopitys ferruginea</i>	miro

Monocot. trees and shrubs

<i>Cordyline australis</i>	ti kouka
<i>Cordyline banksii</i>	ti ngahere, forest cabbage tree
<i>Phormium cookianum</i>	wharariki, mountain flax
<i>Rhopalostylis sapida</i>	nikau

Dicot. trees and shrubs

<i>Alectryon excelsus</i> var. <i>excelsus</i>	titoki
<i>Alseuosmia macrophylla</i>	toropapa
<i>Aristotelia serrata</i>	makomako, wineberry
<i>Beilschmiedia tawa</i>	tawa
<i>Brachyglottis repanda</i> s.s.	rangiora
<i>Carmichaelia australis</i>	makaka, maukoro
<i>Coprosma grandifolia</i>	kanono
<i>Coprosma lucida</i>	karamu
<i>Coprosma robusta</i>	karamu
<i>Corynocarpus laevigatus</i>	karaka
<i>Cyathodes juniperina</i>	prickly mingimingi

<i>Dodonaea viscosa</i>	akeake
<i>Dracophyllum strictum</i>	totorowhiti
<i>Dysoxylum spectabile</i>	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>	kareao, 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>	tataramoia

Lycopods and psilopsids

<i>Hyperzia varia</i> (<i>Lycopodium varium</i>)	
<i>Lycopodiella cernua</i> (<i>Lycopodium cernuum</i>)	maatukutuku
<i>Lycopodium deuterodensum</i>	puakarimu
<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 pustulatum</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>Pyrrhosia eleagnifolia</i>	leather-leaf fern
<i>Rumohra adiantiformis</i>	
<i>Trichomanes venosum</i>	

Orchids

Acianthus sinclairii

<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>Deyouxia avenoides</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
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<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 Species

Gymnosperms

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

Dicot. trees and shrubs

<i>Acacia mearnsii</i>	black wattle
<i>Acacia verticillata</i>	prickly Moses
<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>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>

Rushes

<i>Juncus articulatus</i>

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

<i>Allium triquetrum</i>	three-cornered garlic
<i>Asparagus scandens</i>	climbing asparagus
<i>Crocasmia</i> × <i>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>Hypochoeris 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>Centaureum 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