

Botanical Notes re Whareroa Farm Reserve

Pat Enright May 2015.

Whareroa Farm has a number of relatively small and scattered bush blocks and a number of areas where regeneration is taking place through areas of gorse. Most of bush blocks have been fenced and protected by a DoC covenant in recent years but the Ramaroa block has been protected for about 27 years and can be used as a yardstick for the other blocks. The 2005 photo showed the state the blocks were in before fencing with mostly bare ground under the kohekohe canopy and the situation now with very good regeneration. Comparison with the Ramaroa block shows that things have quite a ways to go as yet with some species currently out competing others for dominance and the rate of weed infestation both exotic and native. Kawakawa is doing the best at present but longer term thins out somewhat and other species catch up albeit slowly. Life is tough under the kohekohe and a coming problem is the proliferation of karaka (<http://www.conservation.org.nz/documents/science-and-technical/DSIS101.pdf>) with its even better ability to shade out competition. Control of this species can be a contentious issue especially as the basis for control would require removal of mature fruiting specimens. As a food source (http://kete.pukekura.org.nz/documents/0000/0000/0284/Karaka_fruits_as_bird_food.pdf) this could be mitigated by the removal of possums and the subsequent increase of kohekohe and tawa fruit and the drupes on the coprosmas. Short term use of tree lucerne is also used in some situations as food source for native pigeons (<http://nzbirdsonline.org.nz/species/new-zealand-pigeon>)

All the bush areas surveyed so far are on the lower slopes on Whareroa farm and are dominated by kohekohe. Scattered tawa, titoki and rewarewa on the slopes and pukatea in the gullies have a varying presence but other emergent species e.g the podocarps (matai, kahikatea, rimu and totara) are uncommon. Of note is the presence of the large leaved milktree with isolated specimens probably of both sexes as there are some juvenile plants although birds may be responsible for the seed transfer. The only flowering specimen seen may be male as there is no regen obvious in that area. Having said that, it is present in a small bush patch (Little Bush) that is not currently protected by a stock fence and a covenant. This bush patch also contains a mature totara which is regenerating and a solitary kahikatea which is not. It is also the only site so far where the small sedge *Carex breviculmis* grows. Nikau palm is relatively common in most blocks where there is sufficient moisture. Solitary white and narrow leaved maire have so far been seen.

The rasp fern (*Blechnum parrisiae*) is another species that is rather uncommon locally and it is seen in both Big Bush and Little Bush. *Deparia petersenii* subsp *congrua* is another fern that has a scattered presence on the Kapiti Coast which seems to be its southern limit in the Wellington area. Tree ferns were obviously once more common in the area as evidenced by the number of dead tree fern trunks. The open nature of the blocks when grazed would have been a major contributor to their demise and the removal of juveniles would have compounded this. There are enough mature and juvenile tree ferns remaining to remedy this over time. The gully fern *Cyathea cunninghamii* is never common in any area in my experience and the presence of at least three mature plants augers well for its future. The hard tree fern *Dicksonia fibrosa* is currently known from a single juvenile plant but it may well exist in better numbers in the higher bush blocks. There are three maidenhair species (*Adiantum*)(four if you count the exotic *A. raddianum*) present in the bush blocks. The rough maidenhair (*A. viridescens*) is locally common in several blocks and the small maidenhair (*A. diaphanum*) is present in the same blocks but much rarer. The common maidenhair (*A. cunninghamii*) is the most uncommon species locally on Whareroa.

Along the bottom boundary of Upper Bush there are a number of plants that vegetatively look to be *Solanum aviculare* var. *aviculare* (poroporo) which is currently nationally as "At Risk – Declining". In the flowering season next summer a check of the flowers will confirm/correct the id.

List of vascular weeds and planted exotic species at Whareroa Farm Topo 50 BP32 672622

Pat Enright, Chris Hopkins 11/4/15 (6hrs) Kohekohe Bush. Through the kohekohe forest near the lookout and adjacent block with the forest walk. Then back around the access road to the carpark

Pat Enright, Chris Hopkins 19/4/15 (5½hrs) Matai Bush. Through the bush block.

Pat Enright, Chris Hopkins 25/4/15 (7hrs) Through the Ramaroa bush block, over the fence and up the Ramaroa stream Valley for a ways.

unc = uncommon. Only 1 or 2 plants or a single patch seen

* = herbarium specimen taken

f = in flower at date specified

fr = in fruit at date specified

s = in seed at date specified

Adventives

Gymnosperm trees and shrubs

Pinus radiata p Monterrey pine

Cupressus macrocarpa p macrocarpa

Dicotyledonous trees and shrubs

Acacia melanoxylon Tasmanian
blackwood

Acer pseudoplatanus sycamore

Casuarina cunninghamiana subsp miodon ? p sheoak

Chamaecytisus palmensis tree lucerne

Eucalyptus leucoxylon subsp. megalocarpa "Carnea" (f 25/4/15) p yellow gum

Juglans ailantifolia (s 25/4/15) (juveniles under parent tree) Japanese walnut

Lupinus arboreus tree lupin

Phytolacca octandra (fr 11/4/15) inkweed

Populus alba silver poplar

Salix cinerea (unc) grey willow

Salix fragilis crack willow

Sambucus niger elderberry

Ulex europaeus (f 11/4/15) gorse

Dicotyledonous lianes and related trailing plants

Calystegia silvatica bindweed

Lonicera japonicus Japanese
honeysuckle

Passiflora tripartita var. *mollissima* banana
passionfruit

Rubus procerus blackberry

Rumex sagittatus (f & s 19/4/15) climbing dock

Vicia sativa vetch

Psilopsids, Lycopods and Quillworts

None recorded

Ferns

Adiantum raddianum (unc) maidenhair fern

Dryopteris filix-mas (unc) male fern

Grasses

Agrostis capillaris browntop

Agrostis stolonifera creeping bent

Anthoxanthum odoratum sweet vernal

Arrhenatherum elatius subsp. *elatius* tall oat grass

Cortaderia selloana (unc) pampas grass

Critesion murinum subsp. *lepinorum* barley grass

Cynodon dactylon Bermuda grass

Cynosurus cristatus crested dog's tail

Dactylis glomerata cocksfoot

Ehrharta erecta veld grass

Holcus lanatus Yorkshire fog

Lolium perenne perennial rye
grass

Paspalum dilatatum paspalum

Rytidosperma racemosum wallaby grass

Schedonorus arundinaceus tall fescue

Sporobolus africanus rats tail grass

Sedges

Cyperus eragrostis umbrella sedge

Isolepis sepulcralis

Rushes and allied plants

Juncus articulatus jointed rush

Juncus effusus var. *effusus* soft red rush

Juncus tenuis subsp. *tenuis* track rush

Remaining Monocotyledonous plants

Agapanthus praecox subsp *orientalis* agapanthus

Allium triquetrum onion weed

Tradescantia fluminensis wandering Willie

Zantedeschia aethiopica arum lily

Daisy-like herbs (Composites)

Achillea millefolium (f 11/4/15) yarrow

Anthemis cotula (f 11/4/15) stinking mayweed

Cichorium intybus (f 25/4/15) chicory

Cirsium palustre marsh thistle

Cirsium vulgare (f 11/4/15) Scotch thistle

Conyza sumatrensis (f 11/4/15) fleabane

Crepis capillaris (f 11/4/15) hawksbeard

Gamochaeta calviceps cudweed

Gamochaeta coarctata cudweed

| | |
|--|---------------------|
| <i>Gamochaeta purpurea</i> (f 25/4/15) | CUDWEED |
| <i>Helminthotheca echioides</i> (f & s 11/4/15) | ox tongue |
| <i>Hypochoeris radicata</i> (f 11/4/15) | cats ear |
| <i>Jacobeaea vulgaris</i> (f 11/4/15) | ragwort |
| <i>Lapsana communis</i> | nipplewort |
| <i>Leontodon taraxacoides</i> (f 11/4/15) | lesser hawkbit |
| <i>Mycelis muralis</i> | wall lettuce |
| <i>Senecio bipinnatisectus</i> (f 11/4/15) fireweed | Australian |
| <i>Silybum marianum</i> | variegated thistle |
| <i>Sonchus asper</i> (f 11/4/15) | prickly sow thistle |
| <i>Sonchus oleraceus</i> | sow thistle |
| <i>Taraxacum officinale</i> (f 11/4/15) | dandelion |

Dicotyledonous herbs other than Composites

| | |
|---|-------------------|
| <i>Anagallis arvensis</i> subsp. <i>arvensis</i> var. <i>arvensis</i> (f 11/4/15) | scarlet pimpernel |
| <i>Apium nodiflorum</i> | water celery |
| <i>Callitricha stagnalis</i> | star weed |
| <i>Conium maculatum</i> | hemlock |
| <i>Daucus carota</i> (f 11/4/15) | carrot |
| <i>Digitalis purpurea</i> (f 11/4/15) | foxglove |
| <i>Epilobium tetragonum</i> subsp. <i>tetragonum</i> (s 11/4/15) | willow weed |
| <i>Erodium moschatum</i> | storksbill |
| <i>Erythranthe moschata</i> | musk |
| <i>Foeniculum vulgare</i> | fennel |
| <i>Fumaria muralis</i> subsp. <i>muralis</i> (f 25/4/15) | wall fumitory |
| <i>Galium aparine</i> | cleavers |
| <i>Galium uliginosum</i> (unc s 25/4/15) | bedstraw |

| | |
|-------------------------------------|------------------------|
| Geranium molle | dove |
| geranium | foot |
| Geranium robertianum (f 11/4/15) | herb Robert |
| Lepidium didymum ? | twin cress |
| Lotus pedunculatus (s 11/4/15) | lotus |
| Marrubium vulgare | horehound |
| Medicago arabica | spotted medick |
| Modiola caroliniana | creeping mallow |
| Oxalis sp. | |
| Persicaria hydropiper (f 11/4/15) | willow weed |
| Physalis peruviana (f & fr 11/4/15) | Cape gooseberry |
| Plantago lanceolata | narrow leaved plantain |
| Plantago major | broad leaved plantain |
| Polygonum aviculare | wireweed |
| Polygonum hydropiper (f 11/4/15) | water pepper |
| Prunella vulgaris | selfheal |
| Ranunculus repens | buttercup |
| Rumex acetosella (s 11/4/15) | sheep sorrel |
| Rumex brownii (s 25/4/15) | hooked dock |
| Rumex crispus | curled dock |
| Rumex pulcher | fiddle-leaved dock |
| Sagina procumbens | pearlwort |
| Sisymbrium officinale | hedge mustard |
| Solanum chenopodioides (f 11/4/15) | velvet groundsel |
| Solanum diflorum (fr 11/4/15) | Jerusalem cherry |
| Solanum nigrum (f 11/4/15) | black nightshade |
| Solanum pseudocapsicum (fr 11/4/15) | Jerusalem cherry |
| Stachys sylvatica (f 11/4/15) | hedge woundwort |

| | |
|--|-------------------|
| <i>Stellaria media</i> | chickweed |
| <i>Trifolium pratense</i> (f 11/4/15) | red clover |
| <i>Trifolium repens</i> (f 11/4/15) | white clover |
| <i>Tropaeolum majus</i> (f 11/4/15) | garden nasturtium |
| <i>Urtica urens</i> | nettle |
| <i>Verbena bonariensis</i> (unc f 11/4/15) | purple-top |
| <i>Veronica serpyllifolia</i> (f 11/4/15) | turf speedwell |

List of vascular plants at Whareroa Farm in “Big Bush” block and surrounds.

Topo 50 BP32 675633

Pat Enright, Chris Hopkins 02/5/15 (7hrs) through the block on both sides of Big Bush Stream and side streams.

Site description.

Big Bush is on the northern boundary of Whareroa Farm and occupies the valley on both sides of Bi Stream. It is predominantly kohekohe (*Dysoxylum spectabile*) forest with some tawa (*Beilschmiedia tawa*) on the slopes with a solitary kahikatea (*Dacrycarpus dacrydioides*) and the odd pukatea (*Laurelia novae-zelandiae*) on the valley floor. There is also a small stand of matai on the ridge between two of the branches of the stream. The bush pinches out before Emerald Road is reached and is quite weedy in the lower extremes with a lot of blackberry (*Rubus procerus*). A radiata pine (*Pinus radiata*) forest and some planted Douglas fir (*Pseudotsuga menziesii*) form the northern boundary. To the west the bush ends as it merges with the gorse although the native species are progressively taking over. To the south the boundary is marked by a branch of Big Stream with once again gorse and blackberry predominant on the true left of that stream. A small wetland is situated just out of the bush on the northern branch of the stream

Regeneration is good especially in the bush area to the south of the laneway. There is browse apparent on the likes of the native broom (*Carmichaelia australis*) on the bush on the northern side. As most of the bush is surrounded by deer fencing it is not evident where stock or deer are entering the area. There were fresh sheep droppings noted.

A number of species unique to this area so far were seen. *Carmichaelia australis*, the hard fern (*Dicksonia fibrosa*) and the small grass *Oplismenus hirtellus* subsp. *imbecillus*. The last two only noted the once. The filmy fern (*Hymenophyllum flabellatum*) is also unique to this area and is probably a relict population as it is present only as a small patch growing on a rotting log in open but sheltered grassland near the bush edge. A good population of rasp fern (*Blechnum parrisiae*) was seen in the southern block upstream from the junction of two branches of Big Stream. This species has a spasmodic occurrence in the Wellington area but is more common on the Kapiti coast.

The main weed in the bush area itself is *Cotoneaster coriaceous*. There are several mature bushes near the broken bridge in the laneway. At the time of the survey they were covered in berries. Juvenile plants of varying ages were seen throughout the whole area and were removed where possible. Karaka (*Corynocarpus laevigatus*) seedlings are also proliferating in places. There are a number of large mature trees with their fruit providing food for the native pigeons that are no doubt the source of the spread of this species

unc = uncommon. Only 1 or 2 plants or a single patch seen

* = herbarium specimen taken

f = in flower at date specified

fr = in fruit at date specified

p = planted

s = in seed at date specified

x = species not native to the local area

| Species name | Maori name | Common name |
|---|------------|-------------|
| <u>Gymnosperm trees and shrubs</u> | | |
| <i>Dacrycarpus dacrydioides</i> (unc) | kahikatea | kahikatea |
| <i>Prumnopitys taxifolia</i> | matai | matai |
| <u>Monocotyledonous trees and shrubs</u> | | |
| <i>Rhopalostylis sapida</i> | nikau | nikau |
| <u>Dicotyledonous trees and shrubs</u> | | |
| <i>Alectryon excelsus</i> subsp. <i>excelsus</i> | titoki | titoki |
| <i>Beilschmiedia tawa</i> | tawa | tawa |
| <i>Brachyglottis repanda</i> | rangiora | rangiora |
| <i>Carmichaelia australis</i> (s 2/5/15) | tainoka | N.Z. broom |
| <i>Coprosma areolata</i> | | |
| <i>Coprosma grandifolia</i> | känono | |
| <i>Coprosma propinqua</i> subsp. <i>propinqua</i> (unc) | mingimingi | |
| <i>Coprosma repens</i> | taupata | taupata |
| <i>Coprosma rhamnoides</i> | | |
| <i>Coprosma robusta</i> (fr 02/5/15) | karamu | karamu |
| <i>Coprosma propinqua</i> x <i>C. robusta</i> | | |
| <i>Corynocarpus laevigatus</i> x | karaka | karaka |
| <i>Dysoxylum spectabile</i> (f & fr 02/5/15) | kohekohe | kohekohe |
| <i>Geniostoma ligustrifolium</i> var. <i>ligustrifolium</i> | hangehange | hangehange |

| | | |
|--|--------------|---------------|
| <i>Griselinia lucida</i> | puka | broadleaf |
| <i>Hedycarya arborea</i> (fr 02/5/15) | porokaiwhiri | pigeonwood |
| <i>Knightia excelsa</i> | rewarewa | rewarewa |
| <i>Kunzea robusta</i> (unc seedling) | kanuka | kanuka |
| <i>Laurelia novae zelandiae</i> | pukatea | pukatea |
| <i>Melicope ternata</i> (s 2/5/15) | wharangi | wharangi |
| <i>Melicytus ramiflorus</i> (fr 02/5/15) | mähoe | mähoe |
| <i>Myoporum laetum</i> | ngaio | ngaio |
| <i>Myrsine australis</i> | mäpou | red matipo |
| <i>Olearia solandri</i> (s 2/5/15) | | coastal daisy |
| <i>Ozothamnus leptophyllus</i> (f 02/5/15) | tauhinu | tauhinu |
| <i>Pennantia corymbosa</i> | kaikömako | kaikömako |
| <i>Piper excelsum</i> subsp. <i>excelsum</i> | kawakawa | kawakawa |
| <i>Pittosporum eugenioides</i> (juveniles) | tarata | lemonwood |
| <i>Pittosporum tenuifolium</i> (seedlings) | kohuhu | black matipo |
| <i>Pseudopanax arboreus</i> (unc) | whauwhaupaku | five finger |
| <i>Pseudopanax crassifolius</i> | horoeka | lancewood |
| <i>Pseudopanax laetum</i> hybrids (unc) x | | |

Monocotyledonous lianes

| | | |
|----------------------------|--------|------------|
| <i>Freycinetia banksii</i> | kiekie | kiekie |
| <i>Ripogonum scandens</i> | kareao | supplejack |

Dicotyledonous lianes and related trailing plants

| | | |
|---|----------|------------|
| <i>Metrosideros diffusa</i> | | white rata |
| <i>Metrosideros fulgens</i> (unc) | | |
| <i>Metrosideros perforata</i> (f 02/5/15) | akatea | white rata |
| <i>Muehlenbeckia australis</i> | pöhuehue | |
| <i>Muehlenbeckia complexa</i> | pöhuehue | |

Parsonia heterophylla kaihua N.Z. jasmine

[Psilopsids, Lycopods and Quillworts](#)

None recorded

Ferns

| | | |
|--|----------------|-----------------------|
| <i>Arthropteris tenella</i> | | jointed fern |
| <i>Asplenium appendiculatum</i> subsp <i>maritimum</i> (unc) | | |
| <i>Asplenium bulbiferum</i> (unc) | manamana | hen and chickens fern |
| <i>Asplenium flabellifolium</i> (unc) | | necklace fern |
| <i>Asplenium flaccidum</i> | makawe | hanging spleenwort |
| <i>Asplenium gracillimum</i> | manamana | |
| <i>Asplenium hookerianum</i> var. <i>colensoi</i> | | |
| <i>Asplenium hookerianum</i> var. <i>hookerianum</i> | | |
| <i>Asplenium oblongifolium</i> | huruhuruwhenua | shining spleenwort |
| <i>Asplenium polyodon</i> | petako | sickle spleenwort |
| <i>Blechnum chambersii</i> | nini | |
| <i>Blechnum filiforme</i> | pänako | thread fern |
| <i>Blechnum fluviatile</i> | kiwakiwa | |
| <i>Blechnum membranaceum</i> | | |
| <i>Blechnum novae-zelandiae</i> (unc) | kiokio | kiokio |
| <i>Blechnum parrisiae</i> (E1767634 N5463147) | pukupuku | rasp fern |
| <i>Blechnum chambersii</i> x <i>B. membranaceum</i> | | |
| <i>Cyathea dealbata</i> | ponga | silver fern |
| <i>Cyathea medullaris</i> | mamaku | black tree fern |
| <i>Deparia petersenii</i> subsp. <i>congrua</i> | | |
| <i>Dicksonia fibrosa</i> (unc) | wheki-ponga | hard tree fern |
| <i>Dicksonia squarrosa</i> | whekī | hard tree fern |
| <i>Histiopteris incisa</i> (unc) | mätä | water bracken |

| | | |
|---|---------------|--------------------|
| Hymenophyllum flabellatum (unc) (E1767679) N5463223 | | filmy fern |
| Hypolepis ambigua | | |
| Lastreopsis glabella | | smooth shield fern |
| Lastreopsis microsora | | |
| Lastreopsis velutina | | velvet shield fern |
| Microsorum pustulatum subsp. pustulatum | kōwaowao | hounds tongue |
| Microsorum scandens | mokimoki | scented fern |
| Paesia scaberula | matata | scented fern |
| Pellaea rotundifolia | tarawera | button fern |
| Polystichum neozelandicum subsp. zerophyllum | pikopiko | shield fern |
| Pneumatopteris pennigera | pakauroharoha | gully fern |
| Pteridium esculentum | rarauhe | bracken |
| Pteris macilenta | titipo | sweet brake |
| Pteris tremula | turawera | shaking brake |
| Pyrrosia eleagnifolia | ota | leather-leaf fern |

Orchids

None seen

Grasses

| | | |
|--|--|-------------------|
| Dichelachne crinita (unc) | | plume grass |
| Echinopogon ovatus | | hedgehog grass |
| Microlaena stipoides | | meadow rice grass |
| Oplismenus hirtellus subsp. imbecillus | | |
| Rytidosperma biannulare ? | | |

Sedges

| | | |
|-------------------------------|--|--|
| Carex flagellifera (unc) | | |
| Carex virgata | | |
| Carex sp. (unnamed “raotest”) | | |

Eleocharis acuta spike sedge

Isolepis prolifer

Uncinia uncinata watu hook grass

Rushes and allied plants

Juncus australis wiwi leafless rush

Juncus edgariae wiwi leafless rush

Juncus sarophorus wiwi leafless rush

Remaining Monocotyledonous plants

Collospermum hastatum (unc) kahakaha

Daisy-like herbs (Composites)

Euchiton involucratus (unc) cudweed

Euchiton japonicus cudweed

Pseudognaphalium luteoalbum Jersey cudweed

Dicotyledonous herbs other than Composites

Dichondra brevifolia agg.

Hydrocotyle moschata var. *moschata*

Hydrocotyle novae-zelandiae agg.

Oxalis exilis yellow oxalis

Parietaria debilis

Ranunculus reflexus maruru hairy buttercup

Birds:

Indigenous:

Anthus novaeseelandiae *novaeseelandiae* pihoihoi N.Z. pipit

Anthornis merula *merula* korimako bellbird

Gerygone igata riroriro grey warbler

Prosthemadera novaeseelandiae *novaeseelandiae* tūī tūī

| | | |
|--|--------------|--------------------|
| <i>Rhipidura fuliginosa placabilis</i> | pīwakawaka | North Island. |
| <i>Tadorna variegata</i> | putangitangi | paradise shelduck |
| <i>Todiramphus sanctus vagans</i> | kotare | kingfisher |
| <i>Vanellus miles</i> | | spur winged plover |
| <i>Zosterops lateralis lateralis</i> | tauhou | waxeye |

Introduced:

| | |
|-------------------------------------|---------------------|
| <i>Gymnorhina tibicen tyrannica</i> | white backed magpie |
| <i>Platycercus eximius eximius</i> | Eastern rosella |
| <i>Turdus merula merula</i> | blackbird |
| <i>Turdus philomelos clarkei</i> | song thrush |

List of vascular plants at Whareroa Farm in “Little Bush” block and surrounds.

Topo 50 BP32 675631

Pat Enright 04/5/15 (3hrs)

Site description.

Little Bush is a small area of kohekohe (*Dysoxylum spectabile*) forest situated on a steep slope above Emerald Road. It has a westerly aspect and is bounded on the south by a deeply incised seasonal watercourse. Himalayan cedar (*Cedrus deodara*) and Lawson’s cypress (*Chamaecyparis lawsoniana*) have been planted in and around the area and now provides protection from the wind although there is evidence of some wind damage. Removal of these trees would expose the area to a high risk of future wind damage.

Protection for the area has been relatively recent so regeneration is just beginning to take affect after a regime of stock grazing. Most of the main tree species have seedlings present except for the kahikatea (*Dacrycarpus dacrydioides*) and the large leaved milktree (*Streblus banksii*) which both have a solitary presence. The lone mature totara (*Podocarpus totara*) has several seedling specimens. There are two cabbage trees (*Cordyline australis*) that are not in good shape but may recover as damage to one has been caused by a windfall rather than the likes of cabbage tree disease. The large leaved milktree is on the southern boundary and was in flower at the time of the initial survey.

The understory and ground cover is very sparse except near the top of the area where there is a seepage that has some mature nikau palms (*Rhopalostylis sapida*) and the sedge *Carex dissita* which is relatively common. Two other small sedges *Carex breviculmis* and *C. inversa* are present as two isolated patches but will no doubt thrive and spread with the exclusion of stock. *Carex forsteri* is the most common sedge in the area and grows on the southern boundary doing especially well on the banks of the watercourse. *C. breviculmis* is unique to this bush patch at the moment. Ferns apart from *Asplenium hookerianum* are also sparse with some such as rasp fern (*Blechnum parrisiae*) and shining spleenwort (*Asplenium oblongifolium*) having single occurrences. The only herbs noted were *Oxalis exilis* and *Hydrocotyle moschata* var. *moschata*.

Veld grass (*Ehrharta erecta*) and inkweed (*Phytolacca octandra*) are the most prolific weeds but along with blackberry (*Rubus procerus*), gorse (*Ulex europaeus*) and Jerusalem cherry (*Solanum pseudocapsicum*) are restricted to the margins where the light intensity is best suited to their growth.

Pest control at present is with leg hold traps which were unset at the time of the visit. A number of fresh possum carcasses were present minus their fur indicate a recent

unc = uncommon. Only 1 or 2 plants or a single patch seen

***** = herbarium specimen taken

f = in flower at date specified

fr = in fruit at date specified

p = planted

s = in seed at date specified

x = species not native to the local area

| Species name | Maori name | Common name |
|---|-------------------|--------------------|
| <u>Gymnosperm trees and shrubs</u> | | |
| <i>Dacrycarpus dacrydioides</i> (unc) | kahikatea | kahikatea |
| <i>Podocarpus totara</i> | totara | totara |
| <u>Monocotyledonous trees and shrubs</u> | | |
| <i>Cordyline australis</i> | ti kouka | cabbage tree |
| <i>Rhopalostylis sapida</i> | nikau | nikau |
| <u>Dicotyledonous trees and shrubs</u> | | |
| <i>Alectryon excelsus</i> subsp. <i>excelsus</i> | titoki | titoki |
| <i>Beilschmiedia tawa</i> | tawa | tawa |
| <i>Coprosma areolata</i> (unc) | | |
| <i>Coprosma grandifolia</i> | känono | |
| <i>Coprosma repens</i> | taupata | taupata |
| <i>Coprosma rhamnoides</i> | | |
| <i>Coprosma robusta</i> | karamu | karamu |
| <i>Coprosma propinqua</i> x <i>C. robusta</i> | | |
| <i>Corynocarpus laevigatus</i> x | karaka | karaka |
| <i>Dysoxylum spectabile</i> (f & fr 04/5/15) | kohekohe | kohekohe |
| <i>Geniostoma ligustrifolium</i> var. <i>ligustrifolium</i> | hangehange | hangehange |
| <i>Hedycarya arborea</i> | porokaiwhiri | pigeonwood |

| | | |
|--|-----------|-----------------------|
| <i>Melicope ternata</i> | wharangi | wharangi |
| <i>Melicytus ramiflorus</i> | mähoe | mähoe |
| <i>Myoporum laetum</i> | ngaio | ngaio |
| <i>Myrsine australis</i> | mäpou | red matipo |
| <i>Olearia solandri</i> | | coastal daisy |
| <i>Ozothamnus leptophyllus</i> | tauhinu | tau hinu |
| <i>Pennantia corymbosa</i> | kaikömako | kaikömako |
| <i>Piper excelsum</i> subsp. <i>excelsum</i> | kawakawa | kawakawa |
| <i>Pittosporum crassifolium</i> | karo | karo |
| <i>Pittosporum eugenoides</i> (juveniles) | tarata | lemonwood |
| <i>Pittosporum tenuifolium</i> (seedlings) | kohuhu | black matipo |
| <i>Pseudopanax crassifolius</i> | horoeka | lancewood |
| <i>Streblus banksii</i> (unc f 4/5/15) | ewekuri | large leaved milktree |

Monocotyledonous lianes

None recorded

Dicotyledonous lianes and related trailing plants

| | | |
|---|----------|------------|
| <i>Metrosideros perforata</i> (f 04/5/15) | akatea | white rata |
| <i>Muehlenbeckia australis</i> | pöhuehue | |
| <i>Muehlenbeckia complexa</i> | pöhuehue | |

Psilopsids, Lycopods and Quillworts

None recorded

Ferns

| | | |
|---|----------|-----------------------|
| <i>Asplenium appendiculatum</i> subsp <i>appendiculatum</i> (unc) | | |
| <i>Asplenium bulbiferum</i> (unc) | manamana | hen and chickens fern |
| <i>Asplenium flabellifolium</i> (unc) | | necklace fern |
| <i>Asplenium flaccidum</i> | makawe | hanging spleenwort |
| <i>Asplenium hookerianum</i> var. <i>colensoi</i> | | |

| | | |
|--|----------------|--------------------|
| <i>Asplenium hookerianum</i> var. <i>hookerianum</i> | | |
| <i>Asplenium oblongifolium</i> (unc) | huruhuruwhenua | shining spleenwort |
| <i>Asplenium polyodon</i> (unc) | petako | sickle spleenwort |
| <i>Asplenium flaccidum</i> x <i>A. hookerianum</i> (unc) | | |
| <i>Blechnum filiforme</i> (unc) | pänako | thread fern |
| <i>Blechnum parrisiae</i> (unc) | pukupuku | rasp fern |
| <i>Lastreopsis glabella</i> | | smooth shield fern |
| <i>Lastreopsis velutina</i> (unc) | | velvet shield fern |
| <i>Microsorum scandens</i> | mokimoki | scented fern |
| <i>Pellaea rotundifolia</i> | tarawera | button fern |
| <i>Polystichum neozelandicum</i> subsp. <i>zerophyllum</i> | pikopiko | shield fern |
| <i>Pneumatopteris pennigera</i> | pakauroharoha | gully fern |
| <i>Pteris tremula</i> | turawera | shaking brake |
| <i>Pyrrosia eleagnifolia</i> | ota | leather-leaf fern |

Orchids

None seen

Grasses

| | |
|----------------------------------|-------------------|
| <i>Dichelachne crinita</i> (unc) | plume grass |
| <i>Microlaena stipoides</i> | meadow rice grass |

Sedges

| | |
|--|----------------|
| <i>Carex breviculmis</i> (unc) | |
| <i>Carex dissita</i> | |
| <i>Carex forsteri</i> | |
| <i>Carex inversa</i> (unc) | |
| <i>Carex lambertiana</i> (unc) | |
| <i>Carex</i> sp. (unnamed “raotest”) (unc) | |
| <i>Cyperus ustulatus</i> (unc) | umbrella sedge |

Rushes and allied plants

| | | |
|-----------------------|------|---------------|
| Juncus australis | wiwi | leafless rush |
| Juncus pallidus (unc) | wiwi | leafless rush |

Remaining Monocotyledonous plants

None recorded

Daisy-like herbs (Composites)

| | |
|--------------------|---------|
| Euchiton japonicus | cudweed |
|--------------------|---------|

Dicotyledonous herbs other than Composites

Cardamine debilis agg. ("Narrow petal of Pritchard 1957) (unc)

Hydrocotyle moschata var. moschata

| | |
|---------------|---------------|
| Oxalis exilis | yellow oxalis |
|---------------|---------------|

Adventives

Gymnosperm trees and shrubs

| | |
|----------------------------|-----------------|
| Cedrus deodara p | Himalayan cedar |
| Chamaecyparis lawsoniana p | |

Dicotyledonous trees and shrubs

| | |
|---------------------------------|------------|
| Phytolacca octandra (fr 4/5/15) | inkweed |
| Sambucus niger (unc) | elderberry |
| Ulex europaeus (f 4/5/15) | gorse |

Dicotyledonous lianes and related trailing plants

| | |
|----------------|------------|
| Rubus procerus | blackberry |
|----------------|------------|

Psilopsids, Lycopods and Quillworts

None recorded

Ferns

Grasses

| | |
|-----------------------|--------------|
| Agrostis capillaris | browntop |
| Anthoxanthum odoratum | sweet vernal |

| | |
|----------------------------------|---------------|
| <i>Cortaderia selloana</i> (unc) | pampas grass |
| <i>Dactylis glomerata</i> | cocksfoot |
| <i>Ehrharta erecta</i> | veld grass |
| <i>Rytidosperma racemosum</i> | wallaby grass |

Sedges

Rushes and allied plants

Remaining Monocotyledonous plants

| | |
|--------------------------------|-----------|
| <i>Zantedeschia aethiopica</i> | arum lily |
|--------------------------------|-----------|

Daisy-like herbs (Composites)

| | |
|--|--------------------|
| <i>Achillea millefolium</i> (f 4/5/15) | yarrow |
| <i>Cirsium vulgare</i> | Scotch thistle |
| <i>Conyza sumatrensis</i> (f 4/5/15) | fleabane |
| <i>Crepis capillaris</i> (f 4/5/15) | hawksbeard |
| <i>Hypochoeris radicata</i> (f 4/5/15) | cats ear |
| <i>Jacobeae vulgaris</i> | ragwort |
| <i>Lactuca</i> sp. | acid lettuce |
| <i>Mycelis muralis</i> | wall lettuce |
| <i>Silybum marianum</i> | variegated thistle |
| <i>Sonchus oleraceus</i> | sow thistle |
| <i>Taraxacum officinale</i> | dandelion |

Dicotyledonous herbs other than Composites

| | |
|-------------------------------|------------------------|
| <i>Chenopodiastrum murale</i> | nettle-leaved |
| fathen | |
| <i>Digitalis purpurea</i> | foxglove |
| <i>Geranium molle</i> | dove foot geranium |
| <i>Lotus pedunculatus</i> | lotus |
| <i>Physalis peruviana</i> | Cape gooseberry |
| <i>Plantago lanceolata</i> | narrow leaved plantain |

| | |
|---|------------------|
| <i>Prunella vulgaris</i> | selfheal |
| <i>Ranunculus repens</i> | buttercup |
| <i>Solanum chenopodioides</i> (f 4/5/15) | velvet groundsel |
| <i>Solanum nigrum</i> (f 11/4/15) | black nightshade |
| <i>Solanum pseudocapsicum</i> (fr 4/5/15) | Jerusalem cherry |
| <i>Stellaria media</i> | chickweed |
| <i>Trifolium pratense</i> | red clover |
| <i>Trifolium repens</i> (f 4/5/15) | white clover |
| <i>Veronica serpyllifolia</i> (f 4/5/15) | turf speedwell |

Birds:

Indigenous:

| | | |
|--|--------------|-----------------------|
| <i>Anthus novaeseelandiae novaeseelandiae</i> | pihoihoi | N.Z. pipit |
| <i>Anthornis merula merula</i> | korimako | bellbird |
| <i>Gerygone igata</i> | riroriro | grey warbler |
| <i>Prosthemadera novaeseelandiae novaeseelandiae</i> | tūī | tūī |
| <i>Rhipidura fuliginosa placabilis</i> | pīwakawaka | North Island. fantail |
| <i>Tadorna variegata</i> | putangitangi | paradise shelduck |
| <i>Todiramphus sanctus vagans</i> | kotare | kingfisher |
| <i>Vanellus miles</i> | | spur winged plover |
| <i>Zosterops lateralis lateralis</i> | tauhou | waxeye |

Introduced:

| | |
|-------------------------------------|---------------------|
| <i>Gymnorhina tibicen tyrannica</i> | white backed magpie |
| <i>Platycercus eximius eximius</i> | Eastern rosella |
| <i>Turdus merula merula</i> | blackbird |
| <i>Turdus philomelos clarkei</i> | song thrush |

List of vascular plants at Whareroa Farm in “Pukatea Bush” block

Topo 50 BP32 686622 260m a.s.l.

Pat Enright, Chris Hopkins 20/5/15

unc = uncommon. Only 1 or 2 plants or a single patch seen

* = herbarium specimen taken

f = in flower at date specified

fr = in fruit at date specified

o = only seen on the other side of CMR beside the narrow tongue of bush beside the road

s = in seed at date specified

x = species on not native to the local area

Site Description:

Pukatea Bush is 3.8 hectare part of a 39.17ha bush block (K099 KCDC Heritage register, DoC 708 part protected by covenant)

Gymnosperm trees and shrubs

None recorded

Monocotyledonous trees and shrubs

| | | |
|----------------------|-------|-------|
| Rhopalostylis sapida | nikau | nikau |
|----------------------|-------|-------|

Dicotyledonous trees and shrubs

| | | |
|---------------------|----------|-----------|
| Aristotelia serrata | makomako | wineberry |
|---------------------|----------|-----------|

| | | |
|--------------------------|------|------|
| Beilschmiedia tawa (unc) | tawa | tawa |
|--------------------------|------|------|

| | | |
|-----------------------|----------|----------|
| Brachyglottis repanda | rangiora | rangiora |
|-----------------------|----------|----------|

| | | |
|---------------------|--------------|------------|
| Carpodetus serratus | putaputaweta | marbleleaf |
|---------------------|--------------|------------|

| | | |
|----------------------|--------|--|
| Coprosma grandifolia | känono | |
|----------------------|--------|--|

| | | |
|-----------------|--------|----------------|
| Coprosma lucida | karamu | shining karamu |
|-----------------|--------|----------------|

| | | |
|---------------------|--|--|
| Coprosma rhamnoides | | |
|---------------------|--|--|

| | | |
|------------------|--------|--|
| Coprosma robusta | karamu | |
|------------------|--------|--|

| | | |
|---|--------------|---------------|
| <i>Corynocarpus laevigatus</i> X | karaka | karaka |
| <i>Dysoxylum spectabile</i> | kohekohe | kohekohe |
| <i>Geniostoma ligustrifolium</i> var. <i>ligustrifolium</i> | hangehange | hangehange |
| <i>Griselinia lucida</i> (unc) | puka | broadleaf |
| <i>Hebe stricta</i> var. <i>atkinsonii</i> | koromiko | |
| <i>Hedycarya arborea</i> | porokaiwhiri | pigeonwood |
| <i>Knightia excelsa</i> | rewarewa | rewarewa |
| <i>Laurelia novae zelandiae</i> | pukatea | pukatea |
| <i>Melicope ternata</i> (unc) o | wharangi | wharangi |
| <i>Melicytus ramiflorus</i> | mähoe | mähoe |
| <i>Myoporum laetum</i> | ngaio | ngaio |
| <i>Myrsine australis</i> | mäpou | red matipo |
| <i>Olearia rani</i> var. <i>colorata</i> | heketara | |
| <i>Olearia solandri</i> | | coastal daisy |
| <i>Ozothamnus leptophyllus</i> | tauhinu | tau hinu |
| <i>Pennantia corymbosa</i> | kaikōmako | kaikōmako |
| <i>Piper excelsum</i> subsp. <i>excelsum</i> | kawakawa | kawakawa |
| <i>Pittosporum eugenioides</i> (unc) o | tarata | lemonwood |
| <i>Pseudopanax arboreus</i> | whauwhaupaku | five finger |
| <i>Pseudopanax crassifolius</i> | horoeka | lancewood |
| <i>Schefflera digitata</i> | pate | seven finger |
| <i>Solanum laciniatum</i> (unc) ? | poroporo | poroporo |
| <i>Weinmannia racemosa</i> | kamahi | kamahi |
| <u>Monocotyledonous lianes</u> | | |
| <i>Freycinetia banksii</i> (unc) | kiekie | kiekie |
| <i>Ripogonum scandens</i> | kareao | supplejack |

Dicotyledonous lianes and related trailing plants

| | | |
|------------------------------------|-------------|--------------|
| <i>Clematis paniculata</i> (unc) o | puawhananga | |
| <i>Metrosideros diffusa</i> | | white rata |
| <i>Metrosideros fulgens</i> (unc) | | |
| <i>Metrosideros perforata</i> | akatea | white rata |
| <i>Muehlenbeckia australis</i> | pōhuehue | |
| <i>Muehlenbeckia complexa</i> | pōhuehue | |
| <i>Parsonsia heterophylla</i> | kaihua | N.Z. jasmine |
| <i>Passiflora tetrandra</i> | kohia | passion vine |
| <i>Rubus cissoides</i> | tatramoa | bush lawyer |

Psilopsids, Lycopods and Quillworts

| | | |
|------------------------------------|----------------|--|
| <i>Lycopodium volubile</i> (unc) o | wae wae kaukau | |
|------------------------------------|----------------|--|

Ferns

| | | |
|--|----------------|------------------------|
| <i>Adiantum cunninghamii</i> | | common maidenhair fern |
| <i>Asplenium bulbiferum</i> | manamana | hen and chickens fern |
| <i>Asplenium flaccidum</i> | makawe | hanging spleenwort |
| <i>Asplenium gracillimum</i> | manamana | |
| <i>Asplenium hookerianum</i> var. <i>hookerianum</i> (unc) | | |
| <i>Asplenium oblongifolium</i> | huruhuruwhenua | shining spleenwort |
| <i>Blechnum chambersii</i> | nini | |
| <i>Blechnum discolor</i> (unc) | | crown fern |
| <i>Blechnum filiforme</i> | pānako | thread fern |
| <i>Blechnum fluviatile</i> | | |
| <i>Blechnum membranaceum</i> | | |
| <i>Blechnum novae-zelandiae</i> | kiokio | kiokio |
| <i>Blechnum procerum</i> (unc) o | | |
| <i>Blechnum vulcanicum</i> (unc) o | | |

Blechnum chambersii x *B. membranaceum*

| | | |
|--|---------------|---------------------|
| <i>Cyathea cunninghamii</i> | pūnui | gully tree fern |
| <i>Cyathea dealbata</i> | ponga | silver fern |
| <i>Cyathea medullaris</i> | mamaku | black tree fern |
| <i>Cyathea smithii</i> | katote | soft tree fern |
| <i>Dicksonia squarrosa</i> | whekī | |
| <i>Hymenophyllum demissum</i> | | |
| <i>Hymenophyllum dilatatum</i> (unc) o | | |
| <i>Hymenophyllum flexuosum</i> (unc) | | |
| <i>Hymenophyllum rarum</i> o | | |
| <i>Hypolepis ambigua</i> | | |
| <i>Lastreopsis glabella</i> | | smooth shield fern |
| <i>Lastreopsis hispida</i> (unc) | | |
| <i>Leptopteris hymenophylloides</i> | | single crepe fern |
| <i>Loxogramme dictyopteris</i> (unc) | | lance fern |
| <i>Microsorum pustulatum</i> subsp. <i>pustulatum</i> | kōwaowao | hounds tongue |
| <i>Microsorum scandens</i> | mokimoki | scented fern |
| <i>Notogrammitis ciliata</i> o | | |
| <i>Paesia scaberula</i> | matata | scented fern |
| <i>Pellaea rotundifolia</i> | tarawera | button fern |
| <i>Polystichum neozelandicum</i> subsp. <i>zerophyllum</i> | pikopiko | shield fern |
| <i>Polystichum silvaticum</i> | | |
| <i>Polystichum vestitum</i> | pūnui | prickly shield fern |
| <i>Pneumatopteris pennigera</i> | pakauroharoha | gully fern |
| <i>Pteridium esculentum</i> | rarahu | bracken |
| <i>Pteris macilenta</i> | titipo | sweet brake |
| <i>Pteris tremula</i> | turawera | shaking brake |

Pyrrosia eleagnifolia ota leather-leaf fern

Orchids

Earina mucronata (unc)

Grasses

Austroderia fulvida

toetoe

Dichelachne crinita

plume grass

Microlaena stipoides

meadow rice grass

Poa anceps agg. (unc) o

Sedges

Carex forsteri

Uncinia uncinata

watu hook grass

Rushes and allied plants

None recorded

Remaining Monocotyledonous plants

Astelia solandri (unc) o

Collospermum hastatum (unc)

kahakaha

Daisy-like herbs (Composites)

Euchiton audax

cudweed

Euchiton japonicus

cudweed

Pseudognaphalium luteoalbum agg.

cudweed

Dicotyledonous herbs other than Composites

Acaena anserinifolia

piripiri bidibidi

Centella uniflora

Epilobium rotundifolium (unc) o

Hydrocotyle heteromeria

Hydrocotyle moschata var. *moschata*

Oxalis exilis

yellow oxalis

Parietaria debilis

| | | |
|--|----------|-----------------|
| <i>Ranunculus reflexus</i> | mārūrū | hairy buttercup |
| <i>Stellaria parviflora</i> | kohukohu | N.Z. chickweed |
| <i>Wahlenbergia gracilis</i> (unc includes <i>W. rupestris</i> & <i>W. violacea</i> F 20/5/15) | | harebell |

Birds:

Indigenous:

| | | |
|--|--------------|-------------------|
| <i>Anthornis melanura melanura</i> | korimako | bellbird |
| <i>Circus approximans</i> | kahu | marsh harrier |
| <i>Egretta novaehollandiae novaehollandiae</i> | matuku moana | white faced heron |
| <i>Falco novaeseelandiae</i> | karearea | N.Z. falcon |
| <i>Gerygone igata</i> | riroriro | grey warbler |
| <i>Hemiphaga novaeseelandiae novaeseelandiae</i> | kereru | wood pigeon |
| <i>Hirundo neoxena neoxena</i> | warou | welcome swallow |
| <i>Prosthemadera novaeseelandiae novaeseelandiae</i> | tūī | tūī |
| <i>Rhipidura fuliginosa placabilis</i> fantail | pīwakawaka | North Island. |
| <i>Tadorna variegata</i> | putangitangi | paradise shelduck |
| <i>Zosterops lateralis lateralis</i> | tauhou | waxeye |

Introduced:

| | | |
|------------------------------------|--|-----------------|
| <i>Platycercus eximius eximius</i> | | Eastern rosella |
| <i>Turdus merula merula</i> | | blackbird |
| <i>Turdus philomelos clarkei</i> | | thrush |

Adventives

[Gymnosperm trees and shrubs](#)

None recorded

[Dicotyledonous trees and shrubs](#)

Leycesteria formosa (unc) Himalayan honeysuckle

Phytolacca octandra (fr 20/5/15) inkweed

Ulex europaeus (f 20/5/15) gorse

Dicotyledonous lianes and related trailing plants

Vicia sativa vetch

Psilopsids, Lycopods and Quillworts

None recorded selaginella

Ferns

None recorded

Grasses

Agrostis capillaris browntop

Anthoxanthum odoratum sweet vernal

Dactylis glomerata cocksfoot

Ehrharta erecta veld grass

Holcus lanatus Yorkshire fog

Poa annua Yorkshire fog

Sedges

Cyperus eragrostis o umbrella sedge

Rushes and allied plants

Juncus effusus var. *effusus* soft red rush

Remaining Monocotyledonous plants

Zantedeschia aethiopica arum lily

Daisy-like herbs (Composites)

Achillea millefolium (f 20/5/15) yarrow

Cirsium vulgare (f 20/5/15) Scotch thistle

Conyza sumatrensis (f 20/4/15) fleabane

Crepis capillaris (f 11/5/15) hawksbeard

| | |
|---|----------------|
| <i>Hypochoeris radicata</i> (f 20/5/15) | cats ear |
| <i>Jaccea vulgaris</i> | ragwort |
| <i>Leontodon taraxacoides</i> | lesser hawkbit |
| <i>Mycelis muralis</i> | wall lettuce |

Dicotyledonous herbs other than Composites

| | |
|---|------------------------|
| <i>Conium maculatum</i> | hemlock |
| <i>Digitalis purpurea</i> | foxglove |
| <i>Galium aparine</i> | cleavers |
| <i>Geranium molle</i> | dove foot geranium |
| <i>Geranium robertianum</i> (f 20/5/15) | herb Robert |
| <i>Lotus pedunculatus</i> (s 20/5/15) | lotus |
| <i>Physalis peruviana</i> | Cape gooseberry |
| <i>Plantago lanceolata</i> | narrow leaved plantain |
| <i>Prunella vulgaris</i> | selfheal |
| <i>Ranunculus repens</i> | buttercup |
| <i>Rumex acetosella</i> (s 20/5/15) | sheep sorrel |
| <i>Rumex crispus</i> | curled dock |
| <i>Sagina procumbens</i> | pearlwort |
| <i>Solanum chenopodioides</i> (f 20/5/15) | velvet groundsel |
| <i>Solanum nigrum</i> (f 20/5/15) | black nightshade |
| <i>Stellaria media</i> | chickweed |
| <i>Trifolium repens</i> (f 20/5/15) | white clover |

List of vascular plants at Whareroa Farm in the vicinity of “Carex Gully”

Topo 50 BP32

Pat Enright, Chris Hopkins 20/5/15 (1hr) noted while walking the track to visit Pukatea Bush

unc = uncommon. Only 1 or 2 plants or a single patch seen

* = herbarium specimen taken

f = in flower at date specified

fr = in fruit at date specified

p = planted

s = in seed at date specified

x = species on not native to the local area

Site Description:

The track to Pukatea Bush runs up Carex Gully from beside the gum trees and terminates at Campbell's Mill Road (CMR). It is a broad based valley in its lower reaches with Carex Stream following a narrow channel down the valley floor. At the time of the visit (20/5/15) there was a lot of flood damage and obvious evidence of the amount of water that flowed down the valley in the previous week's storms. The valley runs NW to SE with the stream joining the Whareroa Stream at the gums.

Species growing along the track and on the banks were noted along with the more obvious trees and shrubs visible from the track. There are a number of rock faces and wetlands along the track.

Gymnosperm trees and shrubs

Podocarpus totara (unc) totara totara

Monocotyledonous trees and shrubs

None recorded

Dicotyledonous trees and shrubs

Brachyglossis repanda rangiora rangiora

Coprosma rhamnoides

Coprosma robusta karamu

Genistoma ligustrifolium var. *ligustrifolium* hangehangehangehange

| | | |
|--|--------------|---------------|
| <i>Griselinia lucida</i> (unc) | puka | broadleaf |
| <i>Hebe stricta</i> var. <i>atkinsonii</i> | koromiko | |
| <i>Hedycarya arborea</i> | porokaiwhiri | pigeonwood |
| <i>Knightia excelsa</i> | rewarewa | rewarewa |
| <i>Laurelia novae zelandiae</i> | pukatea | pukatea |
| <i>Melicytus ramiflorus</i> (fr 20/5/15) | mähoe | mähoe |
| <i>Myoporum laetum</i> | ngaio | ngaio |
| <i>Myrsine australis</i> | mäpou | red matipo |
| <i>Olearia solandri</i> (s 20/5/15) | | coastal daisy |
| <i>Ozothamnus leptophyllus</i> (s 20/5/15) | tauhinu | tauhinu |
| <i>Pennantia corymbosa</i> | kaikömako | kaikömako |
| <i>Piper excelsum</i> subsp. <i>excelsum</i> | kawakawa | kawakawa |
| <i>Pseudopanax arboreus</i> (unc) | whauwhapaku | five finger |
| <i>Pseudopanax crassifolius</i> (unc) | horoeka | lancewood |
| <i>Solanum aviculare</i> var. <i>aviculare</i> (f 20/5/15) | poroporo | poroporo |

Monocotyledonous lianes

None recorded

Dicotyledonous lianes and related trailing plants

| | | |
|-----------------------------------|-----------|--------------|
| <i>Metrosideros fulgens</i> (unc) | | white rata |
| <i>Metrosideros perforata</i> | akatea | white rata |
| <i>Muehlenbeckia complexa</i> | pöhuehue | |
| <i>Parsonsia heterophylla</i> | kaihua | N.Z. jasmine |
| <i>Rubus cissoides</i> (unc) | tätarämoa | bush lawyer |

Psilopsids, Lycopods and Quillworts

None recorded

Ferns

| | | |
|----------------------------|--------|--------------------|
| <i>Asplenium flaccidum</i> | makawe | hanging spleenwort |
|----------------------------|--------|--------------------|

| | | |
|--|----------------|---------------------|
| <i>Asplenium gracillimum</i> | manamana | |
| <i>Asplenium oblongifolium</i> | huruhuruwhenua | shining spleenwort |
| <i>Asplenium polyodon</i> (unc) | petako | sickle spleenwort |
| <i>Blechnum chambersii</i> | nini | |
| <i>Blechnum discolor</i> (unc) | | crown fern |
| <i>Blechnum filiforme</i> | pānako | thread fern |
| <i>Blechnum fluviatile</i> | | |
| <i>Blechnum novae-zelandiae</i> | kiokio | kiokio |
| <i>Cyathea dealbata</i> | ponga | silver fern |
| <i>Cyathea medullaris</i> | mamaku | black tree fern |
| <i>Cyathea smithii</i> (unc) | katote | soft tree fern |
| <i>Dicksonia squarrosa</i> | whekī | |
| <i>Diplazium australe</i> | | |
| <i>Hypolepis ambigua</i> | | |
| <i>Lastreopsis glabella</i> | | smooth shield fern |
| <i>Microsorum pustulatum</i> subsp. <i>pustulatum</i> | kōwaowao | hounds tongue |
| <i>Microsorum scandens</i> | mokimoki | scented fern |
| <i>Paesia scaberula</i> | matata | scented fern |
| <i>Pellaea rotundifolia</i> | tarawera | button fern |
| <i>Polystichum neozelandicum</i> subsp. <i>zerophyllum</i> | pikopiko | shield fern |
| <i>Pneumatopteris pennigera</i> | pakauroharoha | gully fern |
| <i>Pteridium esculentum</i> | rarahu | bracken |
| <i>Pteris tremula</i> | turawera | shaking brake |
| <i>Pyrrrosia eleagnifolia</i> | ota | leather-leaf fern |
| <u>Orchids</u> | | |
| <i>Thelymitra longifolia</i> ? | | sun orchid |
| <i>Microtis unifolia</i> ? | | onion leaved orchid |

Grasses

| | | |
|-----------------------------|--------|-------------------|
| <i>Austroderia fulvida</i> | toetoe | toetoe |
| <i>Microlaena stipoides</i> | | meadow rice grass |

Sedges

| | | |
|--|---------------|----------------|
| <i>Carex dipsacea</i> (unc) (probably planted as <i>C. virgata</i>) | | |
| <i>Carex virgata</i> | | |
| <i>Cyperus ustulatus</i> | upoko-tangata | umbrella sedge |
| <i>Eleocharis acuta</i> | | spike sedge |
| <i>Isolepis prolifer</i> | | |
| <i>Isolepis subtilissima</i> ? (0.5mm channelled leaves 1 stamen. 0.7mm trigonous nut with ribs, unsure about style branches | | |
| <i>Schoenus maschalinus</i> | | |

| | | |
|-------------------------|------|------------|
| <i>Uncinia uncinata</i> | watu | hook grass |
|-------------------------|------|------------|

Rushes and allied plants

| | | |
|--------------------------|------|---------------|
| <i>Juncus sarophorus</i> | wiwi | leafless rush |
|--------------------------|------|---------------|

Remaining Monocotyledonous plants

| | | |
|--------------------------|----------|------------|
| <i>Lemna minor</i> | | duckweed |
| <i>Phormium tenax</i> p? | harakeke | swamp flax |

Daisy-like herbs (Composites)

| | |
|---|---------|
| <i>Euchiton audax</i> | cudweed |
| <i>Euchiton japonicus</i> | cudweed |
| <i>Pseudognaphalium luteoalbum</i> agg. | cudweed |
| <i>Senecio glomeratus</i> | |
| <i>Senecio hispidulus</i> (f & s 20/5/15) | |

Dicotyledonous herbs other than Composites

| | |
|--|-------------|
| <i>Epilobium insulare</i> (f & s 20/5/15) | willow herb |
| <i>Hydrocotyle moschata</i> var. <i>moschata</i> | |
| <i>Hydrocotyle novae-zelandiae</i> agg. | |

| | |
|---|---------------|
| Oxalis exilis | yellow oxalis |
| Parietaria debilis | |
| Wahlenbergia gracilis (unc includes W. rupestris & W. violacea f 20/5/15) | harebell |

Adventives

Gymnosperm trees and shrubs

None recorded

Dicotyledonous trees and shrubs

| | |
|----------------------------------|---------|
| Phytolacca octandra (fr 20/5/15) | inkweed |
| Ulex europaeus (f 20/5/15) | gorse |

Dicotyledonous lianes and related trailing plants

| | |
|--------------|-------|
| Vicia sativa | vetch |
|--------------|-------|

Psilopsids, Lycopods and Quillworts

| | |
|---------------|-------------|
| None recorded | selaginella |
|---------------|-------------|

Ferns

Grasses

| | |
|--------------------------------------|----------------|
| Agrostis capillaris | browntop |
| Agrostis stolonifera | creeping bent |
| Anthoxanthum odoratum | sweet vernal |
| Arrhenatherum elatius subsp. elatius | tall oat grass |
| Dactylis glomerata | cocksfoot |
| Ehrharta erecta | veld grass |
| Holcus lanatus | Yorkshire fog |

Sedges

| | |
|--------------------|----------------|
| Cyperus eragrostis | umbrella sedge |
|--------------------|----------------|

Rushes and allied plants

None recorded

Remaining Monocotyledonous plants

| | |
|---|------------------------|
| Zantedeschia aethiopica | arum lily |
| <u>Daisy-like herbs (Composites)</u> | |
| Achillea millefolium (f 20/5/15) | yarrow |
| Cirsium vulgare (f 20/5/15) | Scotch thistle |
| Conyza sumatrensis (f 20/5/15) | fleabane |
| Crepis capillaris (f 20/5/15) | hawksbeard |
| Gamochaeta coarctata | cudweed |
| Hypochoeris radicata (f 20/5/15) | cats ear |
| Jacobeae vulgaris (f 20/5/15) | ragwort |
| Leontodon taraxacoides (f 20/5/15) | lesser hawkbit |
| Senecio bipinnatisectus (f 20/5/15) | Australian fireweed |
| Silybum marianum | variegated thistle |
| Soliva sessilis | Onehunga weed |
| Taraxacum officinale (f 20/5/15) | dandelion |
| <u>Dicotyledonous herbs other than Composites</u> | |
| Conium maculatum | hemlock |
| Digitalis purpurea (f 20/5/15) | foxglove |
| Galium aparine | cleavers |
| Geranium molle | dove's foot geranium |
| Lotus pedunculatus (s 20/5/15) | lotus |
| Nepeta cataria (f 20/5/15) | catnip |
| Persicaria hydropiper (f 20/5/15) | willow weed |
| Physalis peruviana (f & fr 20/5/15) | Cape gooseberry |
| Plantago lanceolata | narrow leaved plantain |
| Plantago major | broad leaved plantain |
| Prunella vulgaris | selfheal |

| | |
|---|------------------|
| <i>Ranunculus repens</i> | buttercup |
| <i>Rumex acetosella</i> (s 20/5/15) | sheep sorrel |
| <i>Sagina procumbens</i> | pearlwort |
| <i>Solanum chenopodioides</i> (f 20/5/15) | velvet groundsel |
| <i>Solanum nigrum</i> (f 20/5/15) | black nightshade |
| <i>Stachys sylvatica</i> (f 20/5/15) | hedge woundwort |
| <i>Stellaria media</i> | chickweed |
| <i>Trifolium pratense</i> | red clover |
| <i>Trifolium repens</i> (f 20/5/15) | white clover |
| <i>Verbascum thapsus</i> (s 20/5/15) | woolly mullein |

List of vascular plants at Whareroa Farm in “The Gums”

Topo 50 BP32 674621

Pat Enright, Chris Hopkins 23/5/15 (6½hrs)

Site Description:

This site is a 4.4ha area of eucalypts (*E. botryoides* and *E. viminalis*) planted out in the mid 1980's. There is one gully with some mature native vegetation but the area under the gums and along Carex stream at the bottom of the area are mainly regrowth and some exotic grass areas. A small area of wetland exists where the gully on the NE boundary meets Carex Gully. The area consists of a NE to SE ridges and the intervening gully running down to the valley. There is small area of flat ground either side of the Carex stream at the bottom. Kohekohe Bush forms the western boundary.

At the time of the survey there were a lot of fallen trees mainly the taller eucalypt *E. viminalis* and in the gully at least one large tawa (*Beilschmiedia tawa*). The fern flora is the most notable feature of the area at this stage but regeneration of native tree and shrub species augers well for the future. Six species of tree fern were seen along with rasp fern (*Blechnum parrisiae*) and *Deparia petersenii* subsp. *congrua* both of which were uncommon. The wetland has an uncommon pennywort (*Hydrocotyle pterocarpa*) growing in it but is mostly populated by weeds the worst of which are Californian thistle (*Cirsium arvensis*) and wandering Willie (*Tradescantia fluminensis*) on the bush edge. Spot spraying would kill the thistle and save the hydrocotyle but the wandering Willie will need more care to protect the fern *Deparia petersenii* and a single specimen of the gully tree fern (*Cyathea cunninghamii*) growing in close proximity. Other species present and uncommon on the farm are shining karamu (*Coprosma lucida*) pate (*Schefflera digitata*) and toro (*Myrsine salicina*).

There are a few patches of problem weeds notably old man's beard (*Clematis vitalba*), Japanese honeysuckle (*Lonicera japonica*) and wandering Willie (*Tradescantia fluminensis*). The areas affected are relatively small and would be easily eradicated. The clematis has been removed as far as possible

unc = uncommon. Only 1 or 2 plants or a single patch seen

* = herbarium specimen taken

? = to be confirmed

f = in flower at date specified

fr = in fruit at date specified

p = planted

s = in seed at date specified

x = species on not native to the local area

| <u>Species name</u> | <u>Maori name</u> | <u>Common name</u> |
|--|-------------------|--------------------|
| <u>Gymnosperm trees and shrubs</u> | | |
| <i>Dacrycarpus dacrydioides</i> (1 large tree several seedlings) | kahikatea | kahikatea |
| <i>Podocarpus totara</i> | totara | totara |
| <u>Monocotyledonous trees and shrubs</u> | | |
| <i>Rhopalostylis sapida</i> | nikau | nikau |
| <u>Dicotyledonous trees and shrubs</u> | | |
| <i>Alectryon excelsus</i> subsp. <i>excelsus</i> | titoki | titoki |
| <i>Beilschmiedia tawa</i> | tawa | tawa |
| <i>Brachyglottis repanda</i> | rangiora | rangiora |
| <i>Carpodetus serratus</i> (unc) | putaputaweta | marbleleaf |
| <i>Coprosma grandifolia</i> | känono | |
| <i>Coprosma lucida</i> | karamu | shining karamu |
| <i>Coprosma repens</i> | taupata | taupata |
| <i>Coprosma rhamnoides</i> | | |
| <i>Coprosma robusta</i> | karamu | |
| <i>Coprosma propinqua</i> x <i>C. robusta</i> | | |
| <i>Corynocarpus laevigatus</i> X | karaka | karaka |
| <i>Dysoxylum spectabile</i> (f 23/5/15) | kohekohe | kohekohe |
| <i>Elaeocarpus dentatus</i> var. <i>dentatus</i> | hīnau | hinau |
| <i>Fuchsia excorticata</i> (unc f 23/5/15) | kotukutuku | tree fuchsia |
| <i>Geniostoma ligustrifolium</i> var. <i>ligustrifolium</i> | hangehange | hangehange |
| <i>Griselinia lucida</i> | puka | broadleaf |
| <i>Hebe stricta</i> var. <i>atkinsonii</i> | koromiko | |
| <i>Hedycarya arborea</i> | porokaiwhiri | pigeonwood |
| <i>Knightia excelsa</i> | rewarewa | rewarewa |
| <i>Laurelia novae zelandiae</i> | pukatea | pukatea |

| | | |
|--|--------------|-----------------------|
| <i>Melicytus ramiflorus</i> (fr 23/5/15) | mähoe | mähoe |
| <i>Melicope ternata</i> | wharangi | wharangi |
| <i>Myoporum laetum</i> | ngaio | ngaio |
| <i>Myrsine australis</i> | mäpou | red matipo |
| <i>Myrsine salicina</i> (unc seedlings) | toro | toro |
| <i>Ozothamnus leptophyllus</i> (unc) | tauhinu | tauhinu |
| <i>Pennantia corymbosa</i> | kaikömako | kaikömako |
| <i>Piper excelsum</i> subsp. <i>excelsum</i> | kawakawa | kawakawa |
| <i>Pittosporum crassifolium</i> x | karo | karo |
| <i>Pittosporum eugenoides</i> (unc) | tarata | lemonwood |
| <i>Pittosporum tenuifolium</i> | kohuhu | black matipo |
| <i>Pseudopanax arboreus</i> | whauwhaupaku | five finger |
| <i>Pseudopanax crassifolius</i> | horoeka | lancewood |
| <i>Pseudopanax laetum</i> hybrid (unc) x | | |
| <i>Schefflera digitata</i> | pate | seven finger |
| <i>Solanum laciniatum</i> | poroporo | poroporo |
| <i>Streblus banksii</i> p | ewekuri | large leaved milktree |

Monocotyledonous lianes

| | | |
|---------------------------------|--------|------------|
| <i>Ripogonum scandens</i> (unc) | kareao | supplejack |
|---------------------------------|--------|------------|

Dicotyledonous lianes and related trailing plants

| | | |
|--------------------------------|----------|--------------|
| <i>Muehlenbeckia australis</i> | pöhuehue | |
| <i>Muehlenbeckia complexa</i> | pöhuehue | |
| <i>Parsonsia heterophylla</i> | kaihua | N.Z. jasmine |
| <i>Passiflora tetrandra</i> | kohia | passion vine |

Psilopsids, Lycopods and Quillworts

None recorded

Ferns

Asplenium appendiculatum subsp *appendiculatum* (unc)

| | | |
|--|----------------|-----------------------|
| <i>Asplenium bulbiferum</i> | manamana | hen and chickens fern |
| <i>Asplenium flaccidum</i> | makawe | hanging spleenwort |
| <i>Asplenium gracillimum</i> | manamana | |
| <i>Asplenium hookerianum</i> var. <i>colensoi</i> | | |
| <i>Asplenium hookerianum</i> var. <i>hookerianum</i> (unc) | | |
| <i>Asplenium oblongifolium</i> | huruhuruwhenua | shining spleenwort |
| <i>Asplenium polyodon</i> | petako | sickle spleenwort |
| <i>Asplenium flaccidum</i> x <i>A. hookerianum</i> (unc) | | |
| <i>Blechnum discolor</i> (unc seedling) | | crown fern |
| <i>Blechnum membranaceum</i> (unc) | | |
| <i>Blechnum chambersii</i> | nini | |
| <i>Blechnum filiforme</i> (unc) | pānako | thread fern |
| <i>Blechnum fluviatile</i> | | |
| <i>Blechnum novae-zelandiae</i> | kiokio | kiokio |
| <i>Blechnum parrisiae</i> (unc) | | rasp fern |
| <i>Blechnum procerum</i> (unc) | | |
| <i>Cyathea cunninghamii</i> | pūnui | gully tree fern |
| <i>Cyathea dealbata</i> | ponga | silver fern |
| <i>Cyathea medullaris</i> | mamaku | black tree fern |
| <i>Cyathea smithii</i> (unc) | katote | soft tree fern |
| <i>Deparia petersenii</i> subsp. <i>congrua</i> (unc) | | |
| <i>Dicksonia fibrosa</i> (unc) | wheki-ponga | hard tree fern |
| <i>Dicksonia squarrosa</i> | whekī | hard tree fern |
| <i>Diplazium australe</i> | | |
| <i>Histiopteris incisa</i> (unc) | mätä | water bracken |
| <i>Hypolepis ambigua</i> | | |

| | | |
|--|---------------|---------------------|
| <i>Lastreopsis glabella</i> | | smooth shield fern |
| <i>Lastreopsis microsora</i> | | |
| <i>Lastreopsis velutina</i> | | |
| <i>Microsorum pustulatum</i> subsp. <i>pustulatum</i> | kōwaowao | hounds tongue |
| <i>Microsorum scandens</i> | mokimoki | scented fern |
| <i>Paesia scaberula</i> | matata | scented fern |
| <i>Pellaea rotundifolia</i> | tarawera | button fern |
| <i>Polystichum neozelandicum</i> subsp. <i>zerophyllum</i> | pikopiko | shield fern |
| <i>Polystichum vestitum</i> (unc) | pūnui | prickly shield fern |
| <i>Polystichum neozelandicum</i> x <i>P. vestitum</i> | | |
| <i>Pneumatopteris pennigera</i> | pakauroharoha | gully fern |
| <i>Pteris tremula</i> | turawera | shaking brake |
| <i>Pyrrrosia eleagnifolia</i> | ota | leather-leaf fern |

Orchids

| | | |
|----------------------------|--|---------------------|
| <i>Microtis unifolia</i> ? | | onion leaved orchid |
|----------------------------|--|---------------------|

Grasses

| | | |
|-----------------------------|--|-------------------|
| <i>Dichelachne crinita</i> | | plume grass |
| <i>Microlaena stipoides</i> | | meadow rice grass |

Sedges

| | | |
|--|---------------|----------------|
| <i>Carex virgata</i> | | |
| <i>Carex</i> sp. unnamed (“raotest”) (unc) | | |
| <i>Cyperus ustulatus</i> | upoko-tangata | umbrella sedge |
| <i>Eleocharis acuta</i> | | spike sedge |
| <i>Isolepis prolifer</i> | | |
| <i>Uncinia uncinata</i> | watu | hook grass |

Rushes and allied plants

| | | |
|-------------------------|------|---------------|
| <i>Juncus australis</i> | wiwi | leafless rush |
|-------------------------|------|---------------|

Juncus edgariae wiwi leafless rush

Juncus sarophorus wiwi leafless rush

Remaining Monocotyledonous plants

Phormium cookianum subsp *hookeri* (unc) p? wharariki coastal flax

Daisy-like herbs (Composites)

Euchiton japonicus cudweed

Dicotyledonous herbs other than Composites

Hydrocotyle heteromeria

Hydrocotyle moschata var. *moschata*

Hydrocotyle novae-zelandiae agg.

Hydrocotyle pterocarpa

Oxalis exilis yellow oxalis

Parietaria debilis

Ranunculus reflexus (unc s 23/5/15) mārūrū hairy buttercup

Wahlenbergia gracilis (unc includes *W. rupestris* & *W. violacea*) harebell

Birds:

Indigenous:

| | | |
|--|------------|-----------------------|
| <i>Anthornis melanura melanura</i> | korimako | bellbird |
| <i>Gerygone igata</i> | riroriro | grey warbler |
| <i>Hirundo neoxena neoxena</i> | warou | welcome swallow |
| <i>Ninox novaeseelandiae novaeseelandiae</i> | ruru | morepork |
| <i>Prosthemadera novaeseelandiae novaeseelandiae</i> | tūī | tūī |
| <i>Rhipidura fuliginosa placabilis</i> | pīwakawaka | North Island. fantail |
| <i>Todiramphus sanctus vagans</i> | kotare | kingfisher |
| <i>Zosterops lateralis lateralis</i> | tauhou | waxeye |

Introduced:

| | |
|-------------------------------------|---------------------|
| <i>Fringilla coelebs gengleri</i> | chaffinch |
| <i>Gymnorhina tibicen tyrannica</i> | white backed magpie |
| <i>Platycercus eximius eximius</i> | Eastern rosella |
| <i>Turdus merula merula</i> | blackbird |
| <i>Turdus philomelos clarkei</i> | thrush |

Adventives**Gymnosperm trees and shrubs**

None recorded

Dicotyledonous trees and shrubs

| | |
|---|---------------------|
| <i>Acacia melanoxylon</i> p | Tasmanian blackwood |
| <i>Cytisus scoparius</i> (unc) | broom |
| <i>Eucalyptus botryoides</i> p | manna gum |
| <i>Eucalyptus viminalis</i> p | southern mahogany |
| <i>Phytolacca octandra</i> (fr 23/5/15) | inkweed |
| <i>Prunus</i> sp. (unc) | plum |
| <i>Sambucus niger</i> | elderberry |
| <i>Ulex europaeus</i> (f 23/5/15) | gorse |

Dicotyledonous lianes and related trailing plants

| | |
|-------------------------------|----------------------|
| <i>Clematis vitalba</i> (unc) | old man's beard |
| <i>Lonicera japonica</i> | Japanese honeysuckle |
| <i>Rubus procerus</i> | blackberry |
| <i>Rumex sagittatus</i> | climbing dock |
| <i>Vicia sativa</i> | vetch |

Psilopsids, Lycopods and Quillworts

None recorded

Ferns

None recorded

Grasses

| | |
|--|--------------------|
| <i>Agrostis capillaris</i> | browntop |
| <i>Agrostis stolonifera</i> | creeping bent |
| <i>Anthoxanthum odoratum</i> | sweet vernal |
| <i>Arrhenatherum elatius</i> subsp. <i>elatius</i> | tall oat grass |
| <i>Cynosurus cristatus</i> | crested dog's tail |
| <i>Dactylis glomerata</i> | cocksfoot |
| <i>Ehrharta erecta</i> | veld grass |
| <i>Holcus lanatus</i> | Yorkshire fog |
| <i>Rytidosperma racemosum</i> | wallaby grass |
| <i>Schedonorus arundinaceus</i> | tall fescue |

Sedges

| | |
|---------------------------|----------------|
| <i>Cyperus eragrostis</i> | umbrella sedge |
|---------------------------|----------------|

Rushes and allied plants

| | |
|---------------------------|--------------|
| <i>Juncus articulatus</i> | jointed rush |
|---------------------------|--------------|

Remaining Monocotyledonous plants

| | |
|---|------------------|
| <i>Tradescantia fluminensis</i> (f 23/5/15) | wandering Willie |
|---|------------------|

| | |
|--------------------------------|-----------|
| <i>Zantedeschia aethiopica</i> | arum lily |
|--------------------------------|-----------|

Daisy-like herbs (Composites)

| | |
|---|---------------------|
| <i>Achillea millefolium</i> (f 23/5/15) | yarrow |
| <i>Cirsium arvense</i> | Californian thistle |
| <i>Cirsium vulgare</i> | Scotch thistle |
| <i>Conyza sumatrensis</i> (f 23/5/15) | fleabane |
| <i>Hypochoeris radicata</i> (f 23/5/15) | cats ear |
| <i>Jacobeaea vulgaris</i> (f 23/5/15) | ragwort |

| | |
|--|---------------------|
| <i>Mycelis muralis</i> | wall lettuce |
| <i>Senecio bipinnatisectus</i> (f 23/5/15) | Australian fireweed |

Dicotyledonous herbs other than Composites

| | |
|--|-------------------|
| <i>Apium nodiflorum</i> | water celery |
| <i>Conium maculatum</i> | hemlock |
| <i>Digitalis purpurea</i> | foxglove |
| <i>Epilobium tetragonum</i> subsp. <i>tetragonum</i> (s 23/5/15) | willow weed |
| <i>Galium aparine</i> | cleavers |
| <i>Lotus pedunculatus</i> (s 23/5/15) | lotus |
| <i>Physalis peruviana</i> | Cape gooseberry |
| <i>Plantago lanceolata</i> plantain | narrow leaved |
| <i>Ranunculus repens</i> | buttercup |
| <i>Rumex acetosella</i> (s 23/5/15) | sheep sorrel |
| <i>Rumex brownii</i> (s 23/5/15) | hooked dock |
| <i>Rumex crispus</i> | curled dock |
| <i>Rumex obtusifolius</i> | broad leaved dock |
| <i>Solanum chenopodioides</i> (f 23/5/15) | velvet groundsel |
| <i>Solanum diflorum</i> (fr 23/5/15) | Jerusalem cherry |
| <i>Solanum nigrum</i> (f 23/5/15) | black nightshade |
| <i>Solanum pseudocapsicum</i> (fr 23/5/15) | Jerusalem cherry |
| <i>Stellaria media</i> | chickweed |
| <i>Trifolium repens</i> (f 23/5/15) | white clover |

List of vascular plants at Whareroa Farm in “Kamahi Bush” block and the Dell

Topo 50 BP32

Pat Enright, Chris Hopkins 23/5/15 (½hrs)

unc = uncommon. Only 1 or 2 plants or a single patch seen

* = herbarium specimen taken

f = in flower at date specified

fr = in fruit at date specified

p = planted

s = in seed at date specified

x = species on not native to the local area

Site Description: (not completed)

Gymnosperm trees and shrubs

| | | |
|--------------------------|--|-----------|
| Dacrycarpus dacrydioides | | kahikatea |
|--------------------------|--|-----------|

| | | |
|-------------------|--------|--------|
| Podocarpus totara | totara | totara |
|-------------------|--------|--------|

Monocotyledonous trees and shrubs

| | | |
|----------------------|-------|-------|
| Rhopalostylis sapida | nikau | nikau |
|----------------------|-------|-------|

Dicotyledonous trees and shrubs

| | | |
|------------------------------------|--------|--------|
| Alectryon excelsus subsp. excelsus | titoki | titoki |
|------------------------------------|--------|--------|

| | | |
|--------------------|------|------|
| Beilschmiedia tawa | tawa | tawa |
|--------------------|------|------|

| | | |
|-----------------------|----------|----------|
| Brachyglottis repanda | rangiora | rangiora |
|-----------------------|----------|----------|

| | | |
|----------------------|--------|--|
| Coprosma grandifolia | känono | |
|----------------------|--------|--|

| | | |
|-----------------------|--------|----------------|
| Coprosma lucida (unc) | karamu | shining karamu |
|-----------------------|--------|----------------|

| | | |
|-----------------|---------|---------|
| Coprosma repens | taupata | taupata |
|-----------------|---------|---------|

| | | |
|---------------------|--|--|
| Coprosma rhamnoides | | |
|---------------------|--|--|

| | | |
|------------------|--------|--|
| Coprosma robusta | karamu | |
|------------------|--------|--|

Coprosma propinqua x C. robusta (unc)

| | | |
|---|--------------|--------------|
| <i>Corynocarpus laevigatus</i> X | karaka | karaka |
| <i>Dysoxylum spectabile</i> (f 23/5/15) | kohekohe | kohekohe |
| <i>Elaeocarpus dentatus</i> var. <i>dentatus</i> | hīnau | hīnau |
| <i>Fuchsia excorticata</i> (unc) | kotukutuku | tree fuchsia |
| <i>Geniostoma ligustrifolium</i> var. <i>ligustrifolium</i> | hangehange | hangehange |
| <i>Griselinia lucida</i> (unc) | puka | broadleaf |
| <i>Hedycarya arborea</i> | porokaiwhiri | pigeonwood |
| <i>Kunzea robusta</i> | kanuka | kanuka |
| <i>Melicytus ramiflorus</i> | māhoe | māhoe |
| <i>Myoporum laetum</i> | ngaio | ngaio |
| <i>Myrsine salicina</i> (unc seedling) | toro | toro |
| <i>Pennantia corymbosa</i> | kaikōmako | kaikōmako |
| <i>Piper excelsum</i> subsp. <i>excelsum</i> | kawakawa | kawakawa |
| <i>Pittosporum crassifolium</i> X | karo | karo |
| <i>Pseudopanax crassifolius</i> | horoeka | lancewood |
| <i>Pseudopanax laetum</i> hybrid (unc) X | | |
| <i>Weinmannia racemosa</i> | kamahi | kamahi |

Monocotyledonous lianes

None recorded

Dicotyledonous lianes and related trailing plants

| | | |
|---|----------|--------------|
| <i>Metrosideros fulgens</i> (f 23/5/15) | | scarlet rata |
| <i>Metrosideros perforata</i> | akatea | white rata |
| <i>Muehlenbeckia australis</i> | pōhuehue | |
| <i>Muehlenbeckia complexa</i> | pōhuehue | |
| <i>Parsonsia heterophylla</i> | kaihua | N.Z. jasmine |

Psilopsids, Lycopods and Quillworts

None recorded

Ferns

| | | |
|--|----------------|--------------------|
| <i>Asplenium flaccidum</i> | makawe | hanging spleenwort |
| <i>Asplenium hookerianum</i> var. <i>colensoi</i> (unc) | | |
| <i>Asplenium hookerianum</i> var. <i>hookerianum</i> | | |
| <i>Asplenium oblongifolium</i> | huruhuruwhenua | shining spleenwort |
| <i>Asplenium polyodon</i> | petako | sickle spleenwort |
| <i>Asplenium flaccidum</i> x <i>A. hookerianum</i> (unc) | | |
| <i>Blechnum filiforme</i> | pānako | thread fern |
| <i>Cyathea dealbata</i> | ponga | silver fern |
| <i>Cyathea medullaris</i> | mamaku | black tree fern |
| <i>Dicksonia squarrosa</i> (unc) | whekī | |
| <i>Microsorum pustulatum</i> subsp. <i>pustulatum</i> | kōwaowao | hounds tongue |
| <i>Microsorum scandens</i> | mokimoki | scented fern |
| <i>Paesia scaberula</i> | matata | scented fern |
| <i>Pellaea rotundifolia</i> | tarawera | button fern |
| <i>Polystichum neozelandicum</i> subsp. <i>zerophyllum</i> | pikopiko | shield fern |
| <i>Pneumatopteris pennigera</i> | pakauroharoha | gully fern |
| <i>Pteris tremula</i> | turawera | shaking brake |
| <i>Pyrrosia eleagnifolia</i> | ota | leather-leaf fern |

Orchids

None recorded

Grasses

| | | |
|-----------------------------|--|-------------------|
| <i>Microlaena stipoides</i> | | meadow rice grass |
|-----------------------------|--|-------------------|

Sedges

Carex inversa

| | | |
|-------------------------|------|------------|
| <i>Uncinia uncinata</i> | watu | hook grass |
|-------------------------|------|------------|

Rushes and allied plants

None recorded

Remaining Monocotyledonous plants

Phormium tenax p? harakeke swamp flax

Daisy-like herbs (Composites)

Euchiton japonicus cudweed

Dicotyledonous herbs other than Composites

Hydrocotyle moschata var. *moschata*

Oxalis exilis yellow oxalis

Parietaria debilis

Wahlenbergia gracilis (unc includes *W. rupestris* & *W. violacea*) harebell

Adventives

Gymnosperm trees and shrubs

None recorded

Dicotyledonous trees and shrubs

Phytolacca octandra (fr 23/5/15) inkweed

Ulex europaeus (f 23/5/15) gorse

Dicotyledonous lianes and related trailing plants

Rumex sagittatus climbing dock

Psilopsids, Lycopods and Quillworts

None recorded selaginella

Ferns

None recorded

Grasses

Agrostis capillaris browntop

Dactylis glomerata cocksfoot

Ehrharta erecta veld grass

Sedges

None recorded

Rushes and allied plants

None recorded

Remaining Monocotyledonous plants

None recorded

Daisy-like herbs (Composites)

| | |
|---|----------------|
| <i>Achillea millefolium</i> (f 23/5/15) | yarrow |
| <i>Cirsium vulgare</i> (f 23/5/15) | Scotch thistle |
| <i>Conyza sumatrensis</i> (f 23/5/15) | fleabane |

Dicotyledonous herbs other than Composites

| | |
|---|--------------------|
| <i>Geranium molle</i> | dove foot geranium |
| <i>Lotus pedunculatus</i> (s 23/5/15) | lotus |
| <i>Solanum chenopodioides</i> (f 23/5/15) | velvet groundsel |
| <i>Trifolium repens</i> (f 23/5/15) | white clover |

List of vascular plants at Whareroa Farm in “Upper Bush” block and wetland below.

Topo 50 BP32 672622

Pat Enright, Chris Hopkins 9/7/15 (6½hrs) Through the bush block and the wetland in the valley.

Site description.

Upper Bush lies on the east facing slope above Whareroa Stream South. It is kohekohe (*Dysoxylum spectabile*) forest with a few emergent tawa (*Beilschmiedia tawa*) and a solitary rewarewa (*Knightia excelsa*). The slope is steep but the previous grazing regime has meant there are numerous stock tracks sidling back and forth across the slope making progress a bit easier. There is a narrow and in places deep seasonal watercourse running down through the bush.

Along the bush edge beside the stream there is a good population of poroporo, probably (*Solanum aviculare* var. *aviculare*). The identity will need to be verified when the plants are flowering but it's undivided leaves and the seeds in the range 1-2 mm indicate this species. The national status of the species is “At Risk – Declining” so an accurate id is needed. There are a couple of juvenile plants inside the forest that vegetatively look to be *S. laciniatum*. A number of other species of note for Whareroa were seen along the top bush edge. Narrow leaved maire (*Nestegis montana*) and the sweet smelling clematis (*Clematis foetida*) growing through the maire are currently the only specimens seen so far seen in the reserve. A hybrid between prickly shield fern (*Polystichum vestitum*) and another shield fern (*Polystichum neozelandicum* subsp. *zerophyllum*) is also found here. Another unusual hybrid between *Asplenium flaccidum* and *A. oblongifolium* was seen near the eastern edge of the bush. Single specimens of mature wharangi (*Melicope ternata*) and lancewood (*Pseudopanax crassifolius*) grow here as well and provide the only seed source for these species. Regeneration is very good especially for the wharangi.

Weeds are not a big problem in the forested area with scattered Jerusalem cherry (*Solanum pseudocapsicum*) and the odd *Pseudopanax lessonii* hybrid but in light wells and around the margins inkweed (*Phytolacca octandra*), gorse (*Ulex europaeus*) and at the western end grey sedge (*Carex divisa*) are locally common. Karaka (*Corynocarpus laevigatus*) is a native weedy species that is proliferating throughout the whole area. Single examples of two exotic ferns were seen, the maidenhair *Adiantum raddianum* and Cretan brake (*Pteris cretica*) were seen and the latter removed.

unc = uncommon. Only 1 or 2 plants or a single patch seen

* = herbarium specimen taken

f = in flower at date specified

fr = in fruit at date specified

p = planted

s = in seed at date specified

x = species not native to the local area

| Species name | Maori name | Common name |
|--|-------------------|--------------------|
| <u>Gymnosperm trees and shrubs</u> | | |
| <i>Dacrycarpus dacrydioides</i> (unc seedling) | kahikatea | kahikatea |
| <u>Monocotyledonous trees and shrubs</u> | | |
| <i>Cordyline australis</i> (unc) | ti kouka | cabbage tree |
| <i>Rhopalostylis sapida</i> | nikau | nikau |
| <u>Dicotyledonous trees and shrubs</u> | | |
| <i>Alectryon excelsus</i> subsp. <i>excelsus</i> (unc seedlings) | titoki | titoki |
| <i>Aristotelia serrata</i> (unc) | makomako | wineberry |
| <i>Beilschmiedia tawa</i> | tawa | tawa |
| <i>Brachyglottis repanda</i> | rangiora | rangiora |
| <i>Coprosma grandifolia</i> | känono | |
| <i>Coprosma lucida</i> (unc) | karamu | shining karamu |
| <i>Coprosma repens</i> | taupata | taupata |
| <i>Coprosma rhamnoides</i> | | |
| <i>Coprosma robusta</i> | karamu | karamu |
| <i>Corynocarpus laevigatus</i> x | karaka | karaka |
| <i>Dysoxylum spectabile</i> (f & fr 9/5/15) | kohekohe | kohekohe |
| <i>Geniostoma ligustrifolium</i> var. <i>ligustrifolium</i> | hangehange | hangehange |
| <i>Griselinia lucida</i> | puka | broadleaf |
| <i>Hedycarya arborea</i> | porokaiwhiri | pigeonwood |
| <i>Knightia excelsa</i> (unc) | rewarewa | rewarewa |

| | | |
|--|-----------|-------------------|
| <i>Laurelia novae zelandiae</i> (unc) | pukatea | pukatea |
| <i>Melicope ternata</i> | wharangi | wharangi |
| <i>Melicytus ramiflorus</i> | mähoe | mähoe |
| <i>Myoporum laetum</i> | ngaio | ngaio |
| <i>Myrsine australis</i> | mäpou | red matipo |
| <i>Nestegis montana</i> | maire | narrow leaf maire |
| <i>Olearia solandri</i> | | coastal daisy |
| <i>Pennantia corymbosa</i> | kaikömako | kaikömako |
| <i>Piper excelsum</i> subsp. <i>excelsum</i> | kawakawa | kawakawa |
| <i>Pittosporum crassifolium</i> X | karo | karo |
| <i>Pseudopanax crassifolius</i> | horoeka | lancewood |
| <i>Pseudopanax laetum</i> hybrids (unc) X | | |
| <i>Solanum aviculare</i> var. <i>aviculare</i> (fr 9/5/15) | poroporo | poroporo |
| <i>Solanum laciniatum</i> (unc) ? | poroporo | poroporo |

Monocotyledonous lianes

| | | |
|----------------------------------|--------|------------|
| <i>Freycinetia banksii</i> (unc) | kiekie | kiekie |
| <i>Ripogonum scandens</i> | kareao | supplejack |

Dicotyledonous lianes and related trailing plants

| | | |
|--------------------------------|------------|----------------------|
| <i>Clematis foetida</i> (unc) | puawananga | large white clematis |
| <i>Metrosideros diffusa</i> | | white rata |
| <i>Metrosideros perforata</i> | akatea | white rata |
| <i>Muehlenbeckia australis</i> | pöhuehue | |
| <i>Muehlenbeckia complexa</i> | pöhuehue | |
| <i>Parsonsia heterophylla</i> | kaihua | N.Z. jasmine |

Psilopsids, Lycopods and Quillworts

None recorded

Ferns

| | | |
|---|----------------|-----------------------|
| <i>Adiantum viridescens</i> (unc) | | rough maidenhair fern |
| <i>Arthropteris tenella</i> | | jointed fern |
| <i>Asplenium flaccidum</i> | makawe | hanging spleenwort |
| <i>Asplenium gracillimum</i> | | manamana |
| <i>Asplenium hookerianum</i> var. <i>hookerianum</i> | | |
| <i>Asplenium oblongifolium</i> | huruhuruwhenua | shining spleenwort |
| <i>Asplenium polyodon</i> | petako | sickle spleenwort |
| <i>Asplenium flaccidum</i> x <i>A. oblongifolium</i> (unc) | | |
| <i>Blechnum chambersii</i> | nini | |
| <i>Blechnum filiforme</i> | pänako | thread fern |
| <i>Blechnum membranaceum</i> | | |
| <i>Blechnum novae-zelandiae</i> (unc) | kiokio | kiokio |
| <i>Blechnum chambersii</i> x <i>B. membranaceum</i> | | |
| <i>Cyathea dealbata</i> (unc juveniles) | ponga | silver fern |
| <i>Cyathea medullaris</i> | mamaku | black tree fern |
| <i>Diplazium australe</i> (unc) | | |
| <i>Histiopteris incisa</i> | mätä | water bracken |
| <i>Hypolepis ambigua</i> | | |
| <i>Lastreopsis glabella</i> | | smooth shield fern |
| <i>Microsorum pustulatum</i> subsp. <i>pustulatum</i> | kōwaowao | hounds tongue |
| <i>Microsorum scandens</i> | mokimoki | scented fern |
| <i>Pellaea rotundifolia</i> | tarawera | button fern |
| <i>Polystichum neozelandicum</i> subsp. <i>zerophyllum</i> | pikopiko | shield fern |
| <i>Polystichum neozelandicum</i> subsp. <i>zerophyllum</i> x <i>P. vestitum</i> (unc) | | |
| <i>Pneumatopteris pennigera</i> | pakauroharoha | gully fern |
| <i>Pteris macilenta</i> | titipo | sweet brake |
| <i>Pteris tremula</i> | turawera | shaking brake |

Pyrrosia eleagnifolia ota leather-leaf fern

Orchids

None recorded

Grasses

| | | |
|----------------------------------|--------|-------------------|
| <i>Austroderia fulvida</i> (unc) | toetoe | toetoe |
| <i>Echinopogon ovatus</i> | | hedgehog grass |
| <i>Microlaena stipoides</i> | | meadow rice grass |

Sedges

| | | |
|----------------------------|------|-------------|
| <i>Carex dissita</i> | | |
| <i>Carex forsteri</i> | | |
| <i>Carex inversa</i> (unc) | | |
| <i>Eleocharis acuta</i> | | spike sedge |
| <i>Isolepis prolifer</i> | | |
| <i>Uncinia uncinata</i> | watu | hook grass |

Rushes and allied plants

| | | |
|--------------------------|------|---------------|
| <i>Juncus australis</i> | wiwi | leafless rush |
| <i>Juncus edgariae</i> | wiwi | leafless rush |
| <i>Juncus sarophorus</i> | wiwi | leafless rush |

Remaining Monocotyledonous plants

| | | |
|------------------------------|----------|--|
| <i>Collospermum hastatum</i> | kahakaha | |
|------------------------------|----------|--|

Daisy-like herbs (Composites)

| | | |
|---------------------------|---------|--|
| <i>Euchiton japonicus</i> | cudweed | |
|---------------------------|---------|--|

Dicotyledonous herbs other than Composites

Cardamine debilis agg. ("narrow Petal" of Pritchard 1957)

Hydrocotyle moschata var. *moschata*

Hydrocotyle novae-zelandiae agg.

Parietaria debilis

Persicaria decipiens

| | | |
|---|--------|-----------------|
| <i>Ranunculus reflexus</i> (unc) | maruru | hairy buttercup |
| <i>Stellaria parviflora</i> (unc) | | |
| <i>Wahlenbergia gracilis</i> (unc includes <i>W. rupestris</i> & <i>W. violacea</i>) (f 19/4/15) | | harebell |

Birds:

Indigenous:

| | | |
|--|--------------|-----------------------|
| <i>Circus approximans</i> | kahu | marsh harrier |
| <i>Egretta novaehollandiae novaehollandiae</i> | matuku moana | white faced heron |
| <i>Gerygone igata</i> | riroriro | grey warbler |
| <i>Prosthemadera novaeseelandiae novaeseelandiae</i> | tūī | tūī |
| <i>Rhipidura fuliginosa placabilis</i> | pīwakawaka | North Island. fantail |
| <i>Tadorna variegata</i> | putangitangi | paradise shelduck |
| <i>Todiramphus sanctus vagans</i> | kotare | kingfisher |
| <i>Zosterops lateralis lateralis</i> | tauhou | waxeye |

Introduced:

| | |
|-------------------------------------|---------------------|
| <i>Gymnorhina tibicen tyrannica</i> | white backed magpie |
| <i>Platycercus eximius eximius</i> | Eastern rosella |
| <i>Sturnus vulgaris vulgaris</i> | starling |
| <i>Turdus merula merula</i> | blackbird |

Adventives

[Gymnosperm trees and shrubs](#)

None recorded

[Dicotyledonous trees and shrubs](#)

| | |
|--|------------|
| <i>Phytolacca octandra</i> (fr 9/5/15) | inkweed |
| <i>Sambucus niger</i> (unc) | elderberry |

Ulex europaeus (f 11/4/15) gorse

Dicotyledonous lianes and related trailing plants

Rubus procerus blackberry

Vicia hirsuta (s 9/5/15) hairy vetch

Psilopsids, Lycopods and Quillworts

None recorded selaginella

Ferns

Adiantum raddianum (unc) maidenhair fern

Pteris cretica (unc) Cretan brake

Grasses

Agrostis capillaris browntop

Agrostis stolonifera creeping bent

Anthoxanthum odoratum sweet vernal

Arrhenatherum elatius subsp. *elatius* tall oat grass

Dactylis glomerata cocksfoot

Ehrharta erecta veld grass

Holcus lanatus Yorkshire fog

Rytidosperma racemosum wallaby grass

Sedges

Carex divulsa grey sedge

Rushes and allied plants

None recorded

Remaining Monocotyledonous plants

None recorded

Daisy-like herbs (Composites)

Achillea millefolium (f 9/4/15) yarrow

Anthemis cotula (f 9/4/15) stinking mayweed

| | |
|--|---------------------|
| <i>Cirsium vulgare</i> | Scotch thistle |
| <i>Conyza sumatrensis</i> (f 9/4/15) | fleabane |
| <i>Crepis capillaris</i> (f 9/4/15) | hawksbeard |
| <i>Erigeron karvinskianus</i> | Mexican daisy |
| <i>Helminthotheca echioides</i> (f & s 9/4/15) | ox tongue |
| <i>Hypochoeris radicata</i> (f 9/4/15) | cats ear |
| <i>Jacobeae vulgaris</i> | ragwort |
| <i>Mycelis muralis</i> | wall lettuce |
| <i>Senecio bipinnatisectus</i> (f 9/4/15) | Australian fireweed |
| <i>Sonchus asper</i> | prickly sow thistle |
| <i>Taraxacum officinale</i> | dandelion |

Dicotyledonous herbs other than Composites

| | |
|---|------------------------|
| <i>Conium maculatum</i> | hemlock |
| <i>Daucus carota</i> (f 9/4/15) | carrot |
| <i>Digitalis purpurea</i> | foxglove |
| <i>Epilobium</i> sp. | willow weed |
| <i>Foeniculum vulgare</i> | fennel |
| <i>Galium aparine</i> | cleavers |
| <i>Galium palustre</i> | marsh bedstraw |
| <i>Geranium molle</i> | dove |
| geranium | foot |
| <i>Lotus pedunculatus</i> (s 9/4/15) | lotus |
| <i>Persicaria hydropiper</i> (f 9/4/15) | willow weed |
| <i>Physalis peruviana</i> (f & fr 9/4/15) | Cape gooseberry |
| <i>Plantago lanceolata</i> | narrow leaved plantain |
| <i>Prunella vulgaris</i> | selfheal |
| <i>Ranunculus repens</i> (f 9/5/15) | buttercup |
| <i>Rumex crispus</i> | curled dock |

| | |
|---|------------------|
| <i>Sagina procumbens</i> | pearlwort |
| <i>Solanum chenopodioides</i> (f 9/4/15) | velvet groundsel |
| <i>Solanum diflorum</i> (fr 9/4/15) | Jerusalem cherry |
| <i>Solanum nigrum</i> (f 9/4/15) | black nightshade |
| <i>Solanum pseudocapsicum</i> (fr 9/4/15) | Jerusalem cherry |
| <i>Stachys sylvatica</i> (f 9/4/15) | hedge woundwort |
| <i>Stellaria media</i> | chickweed |
| <i>Trifolium pratense</i> (f 9/4/15) | red clover |
| <i>Trifolium repens</i> (f 9/4/15) | white clover |

List of vascular plants at Whareroa Farm in “Matai Bush” block and wetland below.

Topo 50 BP32 666617

Pat Enright, Chris Hopkins 19/4/15 (5½hrs) Through the bush block. Only recorded weeds species not already seen on previous surveys on the farm.

Site description.

Matai Bush is a xx hectare area of bush that has been fenced off since June 2007. Regeneration since then is very apparent. Matai (*Prumnopitys taxifolia*), kahikatea (*Dacrycarpus dacrydioides*), totara (*Podocarpus totara*), hīnau (*Elaeocarpus dentatus*), kohekohe (*Dysoxylum spectabile*), rewarewa (*Knightia excelsa*), tawa (*Beilschmiedia tawa*) and large leaved milktree (*Streblus banksii*) were noted. Rimu (*Dacrydium cupressinum*) and small leaved milktree (*Streblus heterophyllus*) were amongst those species not seen to be regenerating to date. The ferns and the understory have recovered well.

The area is north facing slope with a watercourse running down the eastern side and has a small swamp containing raupo (*Typha orientalis*) and cutty grass (*Carex lessoniana*). The valley below is a carex wetland with exotic grasses and a small patch of blackberry (*Rubus fruticosus* agg.) now growing back after being sprayed. It is mainly kohekohe/tawa forest with some emergent podocarps. Planting has been done on the margins and plans are to continue this planting in the area between Matai Bush and Upper Bush (a small bush area further up the valley). *Coprosma* sps, kawakawa (*Piper excelsum*) and regenerating species form the understory. Unfortunately karaka (*Corynocarpus laevigatus*) seedlings are prolific in patches, and will need attention to prevent a takeover by this species in years to come. The fern flora is similar to Kohekohe Bush but with less species and some small differences such as the presence of *Adiantum cunninghamii* and the absence of the two species seen in Kohekohe Bush. A small patch of *Deparia petersenii* was also noted on the bush edge above the valley floor. The gully tree fern (*Cyathea cunninghamii*) and the soft tree fern (*Cyathea smithii*) are uncommon with one specimen of the former and two of the latter noted. Sedge species were more common than in kohekohe Bush especially in the number of species. *Carex inversa* was locally quite common as were *C. lessoniana* and *C. dissita* but *C. lambertiana* and *C. flagellifera* were less so.

Of some note is the presence of two large *Pittosporum cornifolium* plants. In 2007 when the Wellington BotSoc visited the site there was mention and a photograph of a large tawa with a mass of adventive roots hanging from it. Subsequently this tree has fallen down and it appears the root mass was supporting the two perching pittosporums. They currently appear to be quite healthy.

A couple of weed species present the only real problem with climbing dock (*Rumex sagittatus*) the most problematic in the surrounding areas evidenced by the way it is climbing and smothering some of the young planted specimens. It is not a big area on the western side and could possibly be controlled locally at this time before the seed sets. Jerusalem cherry (*Solanum diflorum* and *S. pseudocapsicum*) along with inkweed are the other species in need of attention.

unc = uncommon. Only 1 or 2 plants or a single patch seen

* = herbarium specimen taken

f = in flower at date specified

fr = in fruit at date specified

p = planted

s = in seed at date specified

x = species not native to the local area

Gymnosperm trees and shrubs

| | | |
|------------------------------------|-----------|-----------|
| <i>Dacrycarpus dacrydioides</i> | kahikatea | kahikatea |
| <i>Dacrydium cupressinum</i> (unc) | rimu | rimu |
| <i>Podocarpus totara</i> | totara | totara |
| <i>Prumnopitys taxifolia</i> | matai | matai |

Monocotyledonous trees and shrubs

| | | |
|-----------------------------|-------|-------|
| <i>Rhopalostylis sapida</i> | nikau | nikau |
|-----------------------------|-------|-------|

Dicotyledonous trees and shrubs

| | | |
|---|--------------|------------|
| <i>Alectryon excelsus</i> subsp. <i>excelsus</i> | titoki | titoki |
| <i>Aristotelia serrata</i> | makomako | wineberry |
| <i>Beilschmiedia tawa</i> | tawa | tawa |
| <i>Brachyglottis repanda</i> | rangiora | rangiora |
| <i>Carpodetus serratus</i> (fr 19/4/15) | putaputaweta | marbleleaf |
| <i>Coprosma grandifolia</i> (fr 19/4/15) | känono | |
| <i>Coprosma repens</i> (fr 19/4/15) | taupata | taupata |
| <i>Coprosma rhamnoides</i> | | |
| <i>Coprosma robusta</i> (fr 19/4/15) | karamu | karamu |
| <i>Coprosma rotundifolia</i> (unc) | | |
| <i>Coprosma propinqua</i> x <i>C. robusta</i> (unc) | | |
| <i>Corynocarpus laevigatus</i> x | karaka | karaka |

| | | |
|---|--------------|-----------------------|
| <i>Dysoxylum spectabile</i> (f & fr 19/4/15) | kohekohe | kohekohe |
| <i>Elaeocarpus dentatus</i> var. <i>dentatus</i> | hīnau | hinau |
| <i>Geniostoma ligustrifolium</i> var. <i>ligustrifolium</i> | hangehange | hangehange |
| <i>Griselinia lucida</i> | puka | broadleaf |
| <i>Hedycarya arborea</i> (fr 19/4/15) | porokaiwhiri | pigeonwood |
| <i>Knightia excelsa</i> | rewarewa | rewarewa |
| <i>Kunzea robusta</i> (unc) | kanuka | kanuka |
| <i>Laurelia novae zelandiae</i> | pukatea | pukatea |
| <i>Melicytus ramiflorus</i> (fr 19/4/15) | mähoe | mähoe |
| <i>Myoporum laetum</i> | ngaio | ngaio |
| <i>Myrsine australis</i> | mäpou | red matipo |
| <i>Ozothamnus leptophyllum</i> (f 19/4/15) | tauhinu | tauhinu |
| <i>Pennantia corymbosa</i> | kaikōmako | kaikōmako |
| <i>Piper excelsum</i> subsp. <i>excelsum</i> | kawakawa | kawakawa |
| <i>Pittosporum cornifolium</i> (unc) | täwhirikaro | perching pittosporum |
| <i>Pittosporum crassifolium</i> X | karo | karo |
| <i>Pittosporum tenuifolium</i> (unc seedling) | kohuhu | black matipo |
| <i>Pseudopanax arboreus</i> (unc) | whauwhaupaku | five finger |
| <i>Pseudopanax crassifolius</i> | horoeka | lancewood |
| <i>Pseudopanax laetum</i> hybrids (unc) X | | |
| <i>Schefflera digitata</i> (unc) | pate | seven finger |
| <i>Solanum laciniatum</i> (unc) | poroporo | poroporo |
| <i>Streblus banksii</i> (unc juveniles) | ewekuri | large leaved milktree |
| <i>Streblus heterophyllus</i> (unc) | turepo | small leaved milktree |
| <u>Monocotyledonous lianes</u> | | |
| <i>Freycinetia banksii</i> | kiekie | kiekie |
| <i>Ripogonum scandens</i> | kareao | supplejack |

Dicotyledonous lianes and related trailing plants

| | | |
|---|------------|----------------------|
| <i>Clematis paniculata</i> (unc) | puawananga | large white clematis |
| <i>Metrosideros diffusa</i> | | white rata |
| <i>Metrosideros perforata</i> (f 19/4/15) | akatea | white rata |
| <i>Muehlenbeckia australis</i> | pōhuehue | |
| <i>Muehlenbeckia complexa</i> (unc) | pōhuehue | |
| <i>Muehlenbeckia australis</i> x <i>M. complexa</i> | | |
| <i>Parsonsia heterophylla</i> | kaihua | N.Z. jasmine |
| <i>Passiflora tetrandra</i> (unc) | kohia | passion vine |

Psilopsids, Lycopods and Quillworts

None recorded

Ferns

| | | |
|--|----------------|-----------------------|
| <i>Adiantum cunninghamii</i> | tawatawa | maidenhair fern |
| <i>Asplenium bulbiferum</i> | manamana | hen and chickens fern |
| <i>Asplenium flaccidum</i> | makawe | hanging spleenwort |
| <i>Asplenium hookerianum</i> var. <i>colensoi</i> | | |
| <i>Asplenium hookerianum</i> var. <i>hookerianum</i> | | |
| <i>Asplenium oblongifolium</i> | huruhuruwhenua | shining spleenwort |
| <i>Asplenium polyodon</i> | petako | sickle spleenwort |
| <i>Blechnum membranaceum</i> (unc) | | |
| <i>Blechnum chambersii</i> | nini | |
| <i>Blechnum filiforme</i> | pānako | thread fern |
| <i>Blechnum fluviatile</i> | kiwakiwa | |
| <i>Blechnum minus</i> (of NZ authors) | kiokio | swamp kiokio |
| <i>Blechnum novae-zelandiae</i> | kiokio | kiokio |
| <i>Cyathea cunninghamii</i> (unc) | pūnui | gully tree fern |
| <i>Cyathea dealbata</i> | ponga | silver fern |

| | | |
|--|---------------|-------------------|
| <i>Cyathea medullaris</i> | mamaku | black tree fern |
| <i>Cyathea smithii</i> (unc) | katote | soft tree fern |
| <i>Deparia petersenii</i> subsp. <i>congrua</i> | | |
| <i>Dicksonia squarrosa</i> | whekī | hard tree fern |
| <i>Diplazium australe</i> | | |
| <i>Histiopteris incisa</i> | mätä | water bracken |
| <i>Hypolepis ambigua</i> | | |
| <i>Lastreopsis glabella</i> fern | | smooth shield |
| <i>Microsorum pustulatum</i> subsp. <i>pustulatum</i> | kōwaowao | hounds tongue |
| <i>Microsorum scandens</i> | mokimoki | scented fern |
| <i>Paesia scaberula</i> | matata | scented fern |
| <i>Pellaea rotundifolia</i> | tarawera | button fern |
| <i>Polystichum neozelandicum</i> subsp. <i>zerophyllum</i> | pikopiko | shield fern |
| <i>Pneumatopteris pennigera</i> | pakauroharoha | gully fern |
| <i>Pteris macilenta</i> | titipo | sweet brake |
| <i>Pteris tremula</i> | turawera | shaking brake |
| <i>Pyrrosia eleagnifolia</i> | ota | leather-leaf fern |

Orchids

| | | |
|---|-------------|---------------------|
| <i>Earina mucronata</i> (Ann Evans per. comm.) | peka-a-waka | spring orchid. |
| <i>Microtis unifolia</i> (Ann Evans per. comm.) | | onion leaved orchid |

Grasses

| | | |
|-----------------------------|--|-------------------|
| <i>Echinopogon ovatus</i> | | hedgehog grass |
| <i>Microlaena stipoides</i> | | meadow rice grass |
| <i>Rytidosperma gracile</i> | | |
| <i>Rytidosperma unarede</i> | | |

Sedges

| |
|----------------------|
| <i>Carex dissita</i> |
|----------------------|

| | | |
|----------------------------------|---------|-------------|
| <i>Carex lessoniana</i> | rautahi | cutty grass |
| <i>Carex inversa</i> | | |
| <i>Carex lambertiana</i> | | |
| <i>Carex secta</i> | pūrei | |
| <i>Carex virgata</i> | | |
| <i>Eleocharis acuta</i> | | spike sedge |
| <i>Isolepis prolifer</i> | | |
| <i>Isolepis inundata</i> (unc) ? | | |
| <i>Uncinia uncinata</i> | watu | hook grass |

Rushes and allied plants

| | | |
|--------------------------|------|---------------|
| <i>Juncus edgariae</i> | wiwi | leafless rush |
| <i>Juncus pallidus</i> | wiwi | leafless rush |
| <i>Juncus sarophorus</i> | wiwi | leafless rush |

Remaining Monocotyledonous plants

| | | |
|------------------------------------|---------------|---------------|
| <i>Astelia solandri</i> (unc) | kaiwharawhara | perching lily |
| <i>Collospermum hastatum</i> (unc) | kahakaha | |
| <i>Lemna minor</i> | | duckweed |
| <i>Typha orientalis</i> | raupo | bulrush |

Daisy-like herbs (Composites)

| | |
|------------------------|----------|
| <i>Senecio minimus</i> | fireweed |
|------------------------|----------|

Dicotyledonous herbs other than Composites

| | |
|--|--|
| <i>Centella uniflora</i> | |
| <i>Dichondra brevifolia</i> agg. | |
| <i>Galium propinquum</i> | |
| <i>Hydrocotyle heteromeria</i> | |
| <i>Hydrocotyle moschata</i> var. <i>moschata</i> | |
| <i>Hydrocotyle novae-zelandiae</i> agg. | |

| | |
|---|---------------|
| <i>Oxalis exilis</i> | yellow oxalis |
| <i>Parietaria debilis</i> | |
| <i>Persicaria decipiens</i> (f 19/4/15) | willow weed |
| <i>Wahlenbergia gracilis</i> (unc includes <i>W. rupestris</i> & <i>W. violacea</i>) (f 19/4/15) | harebell |

Birds:

Indigenous:

| | | |
|--|--------------|-----------------------|
| <i>Gerygone igata</i> | riroriro | grey warbler |
| <i>Prosthemadera novaeseelandiae novaeseelandiae</i> | tūī | tūī |
| <i>Rhipidura fuliginosa placabilis</i> | pīwakawaka | North Island. fantail |
| <i>Tadorna variegata</i> | putangitangi | paradise shelduck |
| <i>Todiramphus sanctus vagans</i> | kotare | kingfisher |
| <i>Zosterops lateralis lateralis</i> | tauhou | waxeye |

Introduced:

| | |
|-------------------------------------|---------------------|
| <i>Gymnorhina tibicen tyrannica</i> | white backed magpie |
| <i>Platycercus eximius eximius</i> | Eastern rosella |
| <i>Sturnus vulgaris vulgaris</i> | starling |
| <i>Turdus merula merula</i> | blackbird |

List of vascular plants at Whareroa Farm in “Kohekohe Forest” block and wetland below bounded by the main track

Topo 50 BP32 672622

Pat Enright, Chris Hopkins 11/4/15 (6hrs) through the kohekohe forest near the lookout and adjacent block with the forest walk. Then back around the access road to the carpark

unc = uncommon. Only 1 or 2 plants or a single patch seen

* = herbarium specimen taken

f = in flower at date specified

fr = in fruit at date specified

p = planted

s = in seed at date specified

x = species on not native to the local area

Site Description:

The site is a south facing hillslope of moderate steepness with area of wetland below where the Whareroa Stream flows. This wetland area has been substantially planted out. Water celery (*Apium nodiflorum*) clogs up the stream itself and rank exotic grasses are prevalent in the more open areas where planting has not taken place. Some pukatea (*Laurelia novaezelandiae*) are present on the flatter forest area beside the wetland

The hillside is covered by kohekohe (*Dysoxylum spectabile*) forest with some tawa and a scattering of other species such as rewarewa (*Knightia excelsa*). The understory is sparse except where windfalls have created light gaps where kawakawa (*Piper excelsum* subsp. *excelsum*) and scattered coprosma have established. The ground cover is likewise rather sparse except for areas where the climbing blechnum (*Blechnum filiforme*) has established making it the most common fern species. A number of seepage area also provide a suitable habitat for the most common sedge (*Carex dissita*). The understory and ground cover thins out as you progress up the slope. Near the fenceline between the stand of gum trees and the kohekohe forest and towards the top of the forest area several species of tree ferns are to be found with black tree fern (*Cyathea medullaris*), silver fern (*Cyathea dealbata*) and single specimens of the soft tree fern (*Cyathea smithii* and *Cyathea cunninghamii*) can be found. Of interest is the presence of two less common maidenhair species. The small maidenhair (*Adiantum diaphanum*) was seen in three small areas and the rough maidenhair (*Adiantum viridescens*) was seen in scattered small patches with a larger area beside the steps running up towards the lookout. Several other species were only seen at this latter site including the hairy buttercup (*Ranunculus reflexus*), harebell (*Wahlenbergia gracilis*) and a number of grasses.

The majority of the rushes (*Juncus* sps.) are growing in areas of grassland and along the main track from the carpark.

Two flowering specimens of pampas grass (*Cortaderia selleona*) are present with some tree lupin (*Lupinus arboreus*) in a paddock between the track and the stream. One specimen each of introduced ferns were noted. Male fern (*Dryopteris filix-mas*) was growing towards the bottom of the small kohokohe are near the Lookout and one specimen of the maidenhair fern (*Adiantum raddianum*) was seen on a rock face in the main area of kohekohe forest. Arum lilies (*Zantedeschia aethiopica*) are scattered about in some of the wetland areas. The older plantings of Tasmanian blackwood (*Acacia melanoxylon*) are seeding and a number of young plants were noted giving some cause for removal of the older trees.

Gymnosperm trees and shrubs

| | |
|--------------------------------|-----------|
| Dacrycarpus dacrydioides (unc) | kahikatea |
|--------------------------------|-----------|

Monocotyledonous trees and shrubs

| | | |
|---------------------------|----------|--------------|
| Cordyline australis (unc) | te köuka | cabbage tree |
|---------------------------|----------|--------------|

| | | |
|----------------------|-------|-------|
| Rhopalostylis sapida | nikau | nikau |
|----------------------|-------|-------|

Dicotyledonous trees and shrubs

| | | |
|------------------------------------|--------|--------|
| Alectryon excelsus subsp. excelsus | titoki | titoki |
|------------------------------------|--------|--------|

| | | |
|--------------------|------|------|
| Beilschmiedia tawa | tawa | tawa |
|--------------------|------|------|

| | | |
|-----------------------|----------|----------|
| Brachyglottis repanda | rangiora | rangiora |
|-----------------------|----------|----------|

| | |
|----------------------|--------|
| Coprosma grandifolia | känono |
|----------------------|--------|

| | | |
|-----------------------|---------|---------|
| Coprosma repens (unc) | taupata | taupata |
|-----------------------|---------|---------|

| | |
|---------------------|--|
| Coprosma rhamnoides | |
|---------------------|--|

| | |
|------------------|--------|
| Coprosma robusta | karamu |
|------------------|--------|

| | |
|---------------------------------------|--|
| Coprosma propinqua x C. robusta (unc) | |
|---------------------------------------|--|

| | | |
|---------------------------|--------|--------|
| Corynocarpus laevigatus X | karaka | karaka |
|---------------------------|--------|--------|

| | | |
|---------------------------------------|----------|----------|
| Dysoxylum spectabile (f & fr 11/4/15) | kohekohe | kohekohe |
|---------------------------------------|----------|----------|

| | | |
|---|------------|------------|
| Geniostoma ligustrifolium var. ligustrifolium | hangehange | hangehange |
|---|------------|------------|

| | | |
|-------------------------|------|-----------|
| Griselinia lucida (unc) | puka | broadleaf |
|-------------------------|------|-----------|

| | |
|------------------------------|----------|
| Hebe stricta var. atkinsonii | koromiko |
|------------------------------|----------|

| | | |
|-------------------|--------------|------------|
| Hedycarya arborea | porokaiwhiri | pigeonwood |
|-------------------|--------------|------------|

| | | |
|------------------|----------|----------|
| Knightia excelsa | rewarewa | rewarewa |
|------------------|----------|----------|

| | | |
|--------------------------|---------|---------|
| Laurelia novae zelandiae | pukatea | pukatea |
|--------------------------|---------|---------|

| | | |
|--|--------------|---------------|
| <i>Melicytus ramiflorus</i> (fr 11/4/15) | mähoe | mähoe |
| <i>Myoporum laetum</i> | ngaio | ngaio |
| <i>Myrsine australis</i> | mäpou | red matipo |
| <i>Olearia solandri</i> | | coastal daisy |
| <i>Ozothamnus leptophyllum</i> (f 11/4/15) | tauhinu | tauhinu |
| <i>Pennantia corymbosa</i> | kaikōmako | kaikōmako |
| <i>Piper excelsum</i> subsp. <i>excelsum</i> | kawakawa | kawakawa |
| <i>Pittosporum crassifolium</i> x | karo | karo |
| <i>Pittosporum eugenioides</i> (unc) | tarata | lemonwood |
| <i>Plagianthus regius</i> p? | manatu | ribbonwood |
| <i>Pseudopanax arboreus</i> (unc) | whauwhaupaku | five finger |
| <i>Pseudopanax crassifolius</i> | horoeka | lancewood |
| <i>Pseudopanax laetum</i> hybrid (unc removed) x | | |
| <i>Solanum laciniatum</i> (unc) | poroporo | poroporo |

Monocotyledonous lianes

| | | |
|----------------------------------|--------|------------|
| <i>Freycinetia banksii</i> (unc) | kiekie | kiekie |
| <i>Ripogonum scandens</i> | kareao | supplejack |

Dicotyledonous lianes and related trailing plants

| | | |
|--------------------------------|----------|--------------|
| <i>Metrosideros diffusa</i> | | white rata |
| <i>Metrosideros perforata</i> | akatea | white rata |
| <i>Muehlenbeckia australis</i> | pöhuehue | |
| <i>Muehlenbeckia complexa</i> | pöhuehue | |
| <i>Parsonsia heterophylla</i> | kaihua | N.Z. jasmine |

Psilopsids, Lycopods and Quillworts

None recorded

Ferns

| | |
|---------------------------------|-----------------------|
| <i>Adiantum diaphanum</i> (unc) | small maidenhair fern |
|---------------------------------|-----------------------|

| | | |
|--|----------------|-----------------------|
| <i>Adiantum viridescens</i> | | hairy maidenhair fern |
| <i>Arthropteris tenella</i> (unc) | | |
| <i>Asplenium appendiculatum</i> subsp <i>appendiculatum</i> (unc) | | |
| <i>Asplenium bulbiferum</i> | manamana | hen and chickens fern |
| <i>Asplenium flaccidum</i> | makawe | hanging spleenwort |
| <i>Asplenium gracillimum</i> | manamana | |
| <i>Asplenium hookerianum</i> var. <i>colensoi</i> | | |
| <i>Asplenium hookerianum</i> var. <i>hookerianum</i> | | |
| <i>Asplenium oblongifolium</i> | huruhuruwhenua | shining spleenwort |
| <i>Asplenium polyodon</i> | petako | sickle spleenwort |
| <i>Asplenium bulbiferum</i> x <i>A. hookerianum</i> (unc) (with bulbils) | | |
| <i>Asplenium flaccidum</i> x <i>A. hookerianum</i> (unc) | | |
| <i>Blechnum membranaceum</i> | | |
| <i>Blechnum chambersii</i> | nini | |
| <i>Blechnum filiforme</i> | pänako | thread fern |
| <i>Blechnum novae-zelandiae</i> | kiokio | kiokio |
| <i>Cyathea cunninghamii</i> (unc) | pūnui | gully tree fern |
| <i>Cyathea dealbata</i> | ponga | silver fern |
| <i>Cyathea medullaris</i> | mamaku | black tree fern |
| <i>Cyathea smithii</i> (unc) | katote | soft tree fern |
| <i>Dicksonia squarrosa</i> | whekī | |
| <i>Diplazium australe</i> | | |
| <i>Histiopteris incisa</i> (unc) | mätä | water bracken |
| <i>Hypolepis ambigua</i> | | |
| <i>Lastreopsis glabella</i> | | smooth shield fern |
| <i>Lastreopsis microsora</i> | | |
| <i>Lastreopsis velutina</i> | | |

| | | |
|--|---------------|---------------------|
| <i>Microsorum pustulatum</i> subsp. <i>pustulatum</i> | kōwaowao | hounds tongue |
| <i>Microsorum scandens</i> | mokimoki | scented fern |
| <i>Paesia scaberula</i> | matata | scented fern |
| <i>Pellaea rotundifolia</i> | tarawera | button fern |
| <i>Polystichum neozelandicum</i> subsp. <i>zerophyllum</i> | pikopiko | shield fern |
| <i>Polystichum vestitum</i> (unc) | pūnui | prickly shield fern |
| <i>Pneumatopteris pennigera</i> | pakauroharoha | gully fern |
| <i>Pteridium esculentum</i> | rarahu | bracken |
| <i>Pteris macilenta</i> | titipo | sweet brake |
| <i>Pteris tremula</i> | turawera | shaking brake |
| <i>Pyrrosia eleagnifolia</i> | ota | leather-leaf fern |

Orchids

| | | |
|---|----------|------------------|
| <i>Pterostylis banksii</i> (photograph on Whareroa website) | tutukiwi | greenhood orchid |
|---|----------|------------------|

Grasses

| | | |
|------------------------------|--------|-------------------|
| <i>Austroderia fulvida</i> | toetoe | toetoe |
| <i>Austroderia toetoe</i> p? | toetoe | toetoe |
| <i>Echinopogon ovatus</i> | | hedgehog grass |
| <i>Microlaena stipoides</i> | | meadow rice grass |
| <i>Rytidosperma gracile</i> | | |
| <i>Rytidosperma unarede</i> | | |

Sedges

| | | |
|----------------------------|---------------|----------------|
| <i>Carex dissita</i> | | |
| <i>Carex geminata</i> agg. | | cutty grass |
| <i>Carex secta</i> | | |
| <i>Carex virgata</i> | | |
| <i>Cyperus ustulatus</i> | upoko-tangata | umbrella sedge |
| <i>Eleocharis acuta</i> | | spike sedge |

Isolepis prolifer

| | | |
|-------------------------|------|------------|
| <i>Uncinia scabra</i> | | hook grass |
| <i>Uncinia uncinata</i> | watu | hook grass |

Rushes and allied plants

| | | |
|--------------------------|------|---------------|
| <i>Juncus australis</i> | wiwi | leafless rush |
| <i>Juncus distegus</i> | wiwi | leafless rush |
| <i>Juncus edgariae</i> | wiwi | leafless rush |
| <i>Juncus sarophorus</i> | wiwi | leafless rush |

Remaining Monocotyledonous plants

| | | |
|---|-----------|--------------|
| <i>Collospermum hastatum</i> | kahakaha | |
| <i>Lemna minor</i> | | duckweed |
| <i>Phormium cookianum</i> subsp <i>hookeri</i> p? | wharariki | coastal flax |
| <i>Phormium tenax</i> p? | harakeke | swamp flax |

Daisy-like herbs (Composites)

| | |
|---|---------|
| <i>Euchiton involucratus</i> | cudweed |
| <i>Euchiton japonicus</i> | cudweed |
| <i>Pseudognaphalium luteoalbum</i> agg. | cudweed |

Dicotyledonous herbs other than Composites

| | |
|--|---------------|
| <i>Dichondra brevifolia</i> agg. | |
| <i>Dichondra repens</i> | |
| <i>Geranium</i> aff. <i>microphyllum</i> | |
| <i>Hydrocotyle heteromeria</i> | |
| <i>Hydrocotyle moschata</i> var. <i>moschata</i> | |
| <i>Hydrocotyle novae-zelandiae</i> agg. | |
| <i>Oxalis exilis</i> | yellow oxalis |
| <i>Parietaria debilis</i> | |
| <i>Persicaria decipiens</i> (f 11/4/15) | willow weed |

| | | |
|---|----------|-----------------|
| <i>Ranunculus reflexus</i> (unc s 11/4/15) | mārūrū | hairy buttercup |
| <i>Stellaria parviflora</i> | kohukohu | N.Z. chickweed |
| <i>Wahlenbergia gracilis</i> (unc includes <i>W. rupestris</i> & <i>W. violacea</i>) | | harebell |

Birds:

Indigenous:

| | | |
|--|--------------|-----------------------|
| <i>Anthornis melanura melanura</i> | korimako | bellbird |
| <i>Gerygone igata</i> | riroriro | grey warbler |
| <i>Hemiphaga novaeseelandiae novaeseelandiae</i> | kereru | wood pigeon |
| <i>Hirundo neoxena neoxena</i> | warou | welcome swallow |
| <i>Prosthemadera novaeseelandiae novaeseelandiae</i> | tūī | tūī |
| <i>Rhipidura fuliginosa placabilis</i> | pīwakawaka | North Island. fantail |
| <i>Tadorna variegata</i> | putangitangi | paradise shelduck |
| <i>Todiramphus sanctus vagans</i> | kotare | kingfisher |
| <i>Zosterops lateralis lateralis</i> | tauhou | waxeye |

Introduced:

| | | |
|---|--|-----------------|
| <i>Carduelis carduelis britannica</i> | | goldfinch |
| <i>Fringilla coelebs gengieri</i> | | chaffinch |
| <i>Gymnorhina tibicen tyrannica</i> magpie | | white backed |
| <i>Platycercus eximius eximius</i> | | Eastern rosella |
| <i>Sturnus vulgaris vulgaris</i> | | starling |
| <i>Turdus merula merula</i> | | blackbird |
| <i>Turdus philomelos clarkei</i> | | thrush |

Adventives

Gymnosperm trees and shrubs

None recorded

Dicotyledonous trees and shrubs

| | |
|----------------------------------|---------------------|
| Acacia melanoxylon | Tasmanian blackwood |
| Chamaecytisus palmensis | tree lucerne |
| Eucalyptus sp. | gum tree |
| Lupinus arboreus | tree lupin |
| Phytolacca octandra (fr 11/4/15) | inkweed |
| Salix cinerea (unc) | grey willow |
| Salix fragilis | crack willow |
| Sambucus niger (unc) | elderberry |
| Ulex europaeus (f 11/4/15) | gorse |

Dicotyledonous lianes and related trailing plants

| | |
|----------------|------------|
| Rubus procerus | blackberry |
| Vicia sativa | vetch |

Psilopsids, Lycopods and Quillworts

| | |
|---------------|-------------|
| None recorded | selaginella |
|---------------|-------------|

Ferns

| | |
|----------------------------|-----------------|
| Adiantum raddianum (unc) | maidenhair fern |
| Dryopteris filix-mas (unc) | male fern |

Grasses

| | |
|--------------------------------------|--------------------|
| Agrostis capillaris | browntop |
| Agrostis stolonifera | creeping bent |
| Anthoxanthum odoratum | sweet vernal |
| Arrhenatherum elatius subsp. elatius | tall oat grass |
| Cortaderia selloana (unc) | pampas grass |
| Cynodon dactylon | Bermuda grass |
| Cynosurus cristatus | crested dog's tail |
| Dactylis glomerata | cocksfoot |

| | |
|---|---------------------|
| <i>Ehrharta erecta</i> | veld grass |
| <i>Holcus lanatus</i> | Yorkshire fog |
| <i>Rytidosperma racemosum</i> | wallaby grass |
| <u>Sedges</u> | |
| <i>Cyperus eragrostis</i> | umbrella sedge |
| <u>Rushes and allied plants</u> | |
| <i>Juncus effusus</i> var. <i>effusus</i> | soft red rush |
| <i>Juncus tenuis</i> subsp. <i>tenuis</i> | track rush |
| <u>Remaining Monocotyledonous plants</u> | |
| <i>Zantedeschia aethiopica</i> | arum lily |
| <u>Daisy-like herbs (Composites)</u> | |
| <i>Achillea millefolium</i> (f 11/4/15) | yarrow |
| <i>Anthemis cotula</i> (f 11/4/15) | stinking mayweed |
| <i>Cirsium vulgare</i> (f 11/4/15) | Scotch thistle |
| <i>Conyza sumatrensis</i> (f 11/4/15) | fleabane |
| <i>Crepis capillaris</i> (f 11/4/15) | hawksbeard |
| <i>Gamochaeta calviceps</i> | cudweed |
| <i>Gamochaeta coarctata</i> | cudweed |
| <i>Helminthotheca echioides</i> (f & s 11/4/15) | ox tongue |
| <i>Hypochoeris radicata</i> (f 11/4/15) | cats ear |
| <i>Jacobeaea vulgaris</i> (f 11/4/15) | ragwort |
| <i>Leontodon taraxacoides</i> (f 11/4/15) | lesser hawkbit |
| <i>Mycelis muralis</i> | wall lettuce |
| <i>Senecio bipinnatisectus</i> (f 11/4/15) | Australian fireweed |
| <i>Silybum marianum</i> | variegated thistle |
| <i>Sonchus asper</i> (f 11/4/15) | prickly sow thistle |
| <i>Sonchus oleraceus</i> | sow thistle |

Taraxacum officinale (f 11/4/15)

dandelion

Dicotyledonous herbs other than Composites

| | |
|---|------------------------|
| <i>Anagallis arvensis</i> subsp. <i>arvensis</i> var. <i>arvensis</i> (f 11/4/15) | scarlet pimpernel |
| <i>Apium nodiflorum</i> | water celery |
| <i>Callitricha stagnalis</i> | star weed |
| <i>Conium maculatum</i> | hemlock |
| <i>Daucus carota</i> (f 11/4/15) | carrot |
| <i>Digitalis purpurea</i> (f 11/4/15) | foxglove |
| <i>Epilobium tetragonum</i> subsp. <i>tetragonum</i> (s 11/4/15) | willow weed |
| <i>Foeniculum vulgare</i> | fennel |
| <i>Galium aparine</i> | cleavers |
| <i>Geranium molle</i> | dove foot geranium |
| <i>Geranium robertianum</i> (f 11/4/15) | herb Robert |
| <i>Lotus pedunculatus</i> (s 11/4/15) | lotus |
| <i>Persicaria hydropiper</i> (f 11/4/15) | willow weed |
| <i>Physalis peruviana</i> (f & fr 11/4/15) | Cape gooseberry |
| <i>Plantago lanceolata</i> | narrow leaved plantain |
| <i>Plantago major</i> | broad leaved plantain |
| <i>Polygonum aviculare</i> | wireweed |
| <i>Polygonum hydropiper</i> (f 11/4/15) | water pepper |
| <i>Prunella vulgaris</i> | selfheal |
| <i>Ranunculus repens</i> | buttercup |
| <i>Rumex acetosella</i> (s 11/4/15) | sheep sorrel |
| <i>Rumex crispus</i> | curled dock |
| <i>Rumex pulcher</i> | fiddle-leaved dock |
| <i>Sagina procumbens</i> | pearlwort |
| <i>Sisymbrium officinale</i> | hedge mustard |

| | |
|--|-------------------|
| <i>Solanum chenopodioides</i> (f 11/4/15) | velvet groundsel |
| <i>Solanum diflorum</i> (fr 11/4/15) | Jerusalem cherry |
| <i>Solanum nigrum</i> (f 11/4/15) | black nightshade |
| <i>Solanum pseudocapsicum</i> (fr 11/4/15) | Jerusalem cherry |
| <i>Stachys sylvatica</i> (f 11/4/15) | hedge woundwort |
| <i>Stellaria media</i> | chickweed |
| <i>Trifolium pratense</i> (f 11/4/15) | red clover |
| <i>Trifolium repens</i> (f 11/4/15) | white clover |
| <i>Tropaeolum majus</i> (f 11/4/15) | garden nasturtium |
| <i>Verbena bonariensis</i> (unc f 11/4/15) | purple-top |
| <i>Veronica serpyllifolia</i> (f 11/4/15) | turf speedwell |

List of vascular plants at Whareroa Farm in “Ramaroa Bush” block and surrounds including the Ramaroa Stream Valley.

Topo 50 BP32 672622

Pat Enright, Chris Hopkins 254/15 (7hrs) Through the bush block areas over the fence and up the Ramaroa stream Valley for a ways.

Site description.

Ramaroa Bush is situated along a section of the lower reaches of the Ramaroa Stream. It comprises of a narrow strip on the true left bank and a much larger area on the hillslope above the stream. The area has a westerly aspect has been fenced for about 27 years. The stream valley has a north/south axis and lies just below the farm boundary in the south west. There are several wetland and steep banks along the course of the stream. A short way up the valley is a stand of mature pohutakawa (*Metrosideros excelsa*) trees which are the source of the numerous seedlings seen further upstream. Stock keep the seedlings under control but on the other hand they hammer the wetlands especially the cattle. There are few large sedges and rushes present except for a couple of old *C. secta* plants with quite tall pedestals and some of the smaller and ground hugging species such as *Schoenus maschalinus* and the small spike sedge (*Eleocharis gracilis*). Other herbaceous species are hanging on both in the wetlands and on the steep banks but a lot of these are in very small numbers. It is a Catch 22 situation really with stock eating the plants but if the stock were removed altogether the rank exotic grasses would probably overwhelm what you were trying to save.

The bush area is primarily kohekohe (*Dysoxylum spectabile*) forest with some tawa (*Beilschmiedia tawa*) and on the wetter flats some pukatea (*Laurelia novae zelandiae*). There is a nice stand of wharangi (*Melicope ternata*) outside the fenced area on the uphill boundary. It is seeding into a small strip of flat ground between the old and new fences and occasionally further downslope. The understory is pretty typical for kohekohe being relatively scant with kawakawa (*Piper excelsum* subsp. *excelsum*), coprosma sps. a lot of velvet fern (*Lastreopsis velutina*) and climbing fern (*Blechnum filiforme*), scattered rough maidenhair (*Adiantum viridescens*). Of interest was one bank above the stream with a mixed population of *Blechnum chambersii*, *B. membranaceum* and a few putative hybrids. Podocarps are scarce with single kahikatea (*Dacrycarpus dacrydioides*) and matai (*Prumnopitys taxifolia*) noted.

Jerusalem cherry (*Solanum diflorum* & *S. pseudocapsicum*) are present as scattered plants under the main forest canopy but the main weed problem lies along the western margin. Japanese or Manchurian walnut (*Juglans ailantifolia* or *J. mandshurica*), agapanthus (*Agapanthus praecox* subsp. *orientalis*), onion weed (*Allium triquetrum*) just through the

ground and bindweed (*Calystegia sylvatica*) are all present in this area. The odd sycamore (*Acer pseudoplatanus*) is also in need of attention.

unc = uncommon. Only 1 or 2 plants or a single patch seen

* = herbarium specimen taken

f = in flower at date specified

fr = in fruit at date specified

o = outside the fenced area

p = planted

p? = may have been planted

s = in seed at date specified

v = up the Ramaroa Stream valley only

x = species not native to the local area

| <u>Species name</u> | <u>Maori name</u> | <u>Common name</u> |
|--|-------------------|--------------------|
| <u>Gymnosperm trees and shrubs</u> | | |
| Dacrycarpus dacrydioides (unc) | kahikatea | kahikatea |
| Prumnopitys taxifolia | matai | matai |
| <u>Monocotyledonous trees and shrubs</u> | | |
| Cordyline australis p? | ti kouka | cabbage tree |
| Rhopalostylis sapida | nikau | nikau |
| <u>Dicotyledonous trees and shrubs</u> | | |
| Alectryon excelsus subsp. excelsus | titoki | titoki |
| Beilschmiedia tawa | tawa | tawa |
| Brachyglottis repanda | rangiora | rangiora |
| Coprosma grandifolia | känono | |
| Coprosma repens (fr 25/4/15) | taupata | taupata |
| Coprosma rhamnoides | | |
| Coprosma robusta (fr 25/4/15) | karamu | karamu |

| | | |
|---|--------------|-----------------------|
| <i>Corynocarpus laevigatus</i> x | karaka | karaka |
| <i>Dysoxylum spectabile</i> (f & fr 25/4/15) | kohekohe | kohekohe |
| <i>Geniostoma ligustrifolium</i> var. <i>ligustrifolium</i> | hangehange | hangehange |
| <i>Griselinia lucida</i> | puka | broadleaf |
| <i>Hedycarya arborea</i> | porokaiwhiri | pigeonwood |
| <i>Knightia excelsa</i> | rewarewa | rewarewa |
| <i>Laurelia novae zelandiae</i> | pukatea | pukatea |
| <i>Melicope ternata</i> | wharangi | wharangi |
| <i>Melicytus ramiflorus</i> (fr 25/4/15) | mähoe | mähoe |
| <i>Metrosideros excelsa</i> x | pohutakawa | pohutakawa |
| <i>Myoporum laetum</i> | ngaio | ngaio |
| <i>Myrsine australis</i> | mäpou | red matipo |
| <i>Ozothamnus leptophyllus</i> (f 19/4/15) | tauhinu | tauhinu |
| <i>Pennantia corymbosa</i> | kaikömako | kaikömako |
| <i>Piper excelsum</i> subsp. <i>excelsum</i> | kawakawa | kawakawa |
| <i>Pittosporum crassifolium</i> x | karo | karo |
| <i>Pseudopanax crassifolius</i> p? | horoeka | lancewood |
| <i>Pseudopanax laetum</i> hybrids (unc) x | | |
| <i>Streblus banksii</i> (unc juvenile) | ewekuri | large leaved milktree |

Monocotyledonous lianes

| | | |
|---------------------------|--------|------------|
| <i>Freyinetia banksii</i> | kiekie | kiekie |
| <i>Ripogonum scandens</i> | kareao | supplejack |

Dicotyledonous lianes and related trailing plants

| | | |
|-------------------------------------|----------|------------|
| <i>Metrosideros diffusa</i> | | white rata |
| <i>Metrosideros fulgens</i> (unc) o | | |
| <i>Metrosideros perforata</i> | akatea | white rata |
| <i>Muehlenbeckia australis</i> | pöhuehue | |

| | | |
|-------------------------------------|----------|--------------|
| <i>Muehlenbeckia complexa</i> (unc) | pōhuehue | |
| <i>Parsonsia heterophylla</i> | kaihua | N.Z. jasmine |
| <i>Passiflora tetrandra</i> (unc) | kohia | passion vine |

[Psilopsids, Lycopods and Quillworts](#)

None recorded

Ferns

| | | |
|---|----------------|-----------------------|
| <i>Adiantum diaphanum</i> | tawatawa | small maidenhair fern |
| <i>Adiantum viridescens</i> | tawatawa | rough maidenhair |
| <i>Arthropteris tenella</i> | | jointed fern |
| <i>Asplenium bulbiferum</i> | manamana | hen and chickens fern |
| <i>Asplenium flabellifolium</i> | | necklace fern |
| <i>Asplenium flaccidum</i> | makawe | hanging spleenwort |
| <i>Asplenium gracillimum</i> | manamana | |
| <i>Asplenium hookerianum</i> var. <i>colensoi</i> | | |
| <i>Asplenium hookerianum</i> var. <i>hookerianum</i> | | |
| <i>Asplenium oblongifolium</i> | huruhuruwhenua | shining spleenwort |
| <i>Asplenium polyodon</i> | petako | sickle spleenwort |
| <i>Blechnum chambersii</i> | nini | |
| <i>Blechnum filiforme</i> | pānako | thread fern |
| <i>Blechnum fluviatile</i> | kiwakiwa | |
| <i>Blechnum membranaceum</i> | | |
| <i>Blechnum minus</i> (of NZ authors) | kiokio | swamp kiokio |
| <i>Blechnum novae-zelandiae</i> | kiokio | kiokio |
| <i>Blechnum penna-marina</i> subsp <i>alpina</i> <i>v</i> | | |
| <i>Blechnum chambersii</i> x <i>B. membranaceum</i> | | |
| <i>Cyathea cunninghamii</i> (unc) | pūnui | gully tree fern |
| <i>Cyathea dealbata</i> | ponga | silver fern |

| | | |
|---|---------------|--------------------|
| <i>Cyathea medullaris</i> | mamaku | black tree fern |
| <i>Diplazium australe</i> | | |
| <i>Histiopteris incisa</i> | mätä | water bracken |
| <i>Hypolepis ambigua</i> | | |
| <i>Hypolepis distans</i> (unc) v | | |
| <i>Hypolepis rufobarbata</i> (unc) | | |
| <i>Lastreopsis glabella</i> | | smooth shield fern |
| <i>Lastreopsis microsora</i> | | |
| <i>Lastreopsis velutina</i> | | velvet shield fern |
| <i>Microsorum pustulatum</i> subsp. <i>pustulatum</i> | kōwaowao | hounds tongue |
| <i>Microsorum scandens</i> | mokimoki | scented fern |
| <i>Paesia scaberula</i> | matata | scented fern |
| <i>Pellaea rotundifolia</i> | tarawera | button fern |
| <i>Polystichum neozelandicum</i> subsp. <i>zerophyllum</i> | pikopiko | shield fern |
| <i>Pneumatopteris pennigera</i> | pakauroharoha | gully fern |
| <i>Pteris macilenta</i> | titipo | sweet brake |
| <i>Pteris tremula</i> | turawera | shaking brake |
| <i>Pyrrosia eleagnifolia</i> | ota | leather-leaf fern |
| <i>Rumohra adiantiformis</i> (unc) v | | |

Orchids

Grasses

| | | |
|---|--|-------------------|
| <i>Dichelachne crinita</i> (unc) v | | plume grass |
| <i>Echinopogon ovatus</i> | | hedgehog grass |
| <i>Microlaena stipoides</i> | | meadow rice grass |
| <i>Rytidosperma gracile</i> | | |
| <i>Rytidosperma unarede</i> v | | |

Sedges

| | | |
|--------------------------------------|-------|----------------|
| <i>Carex dissita</i> (unc) | | |
| <i>Carex inversa</i> | | |
| <i>Carex secta</i> (unc) v | pūrei | |
| <i>Carex virgata</i> (unc) ? | | |
| <i>Carex</i> sp. (unnamed “raotest”) | | |
| <i>Cyperus ustulatus</i> | | umbrella sedge |
| <i>Eleocharis acuta</i> | | spike sedge |
| <i>Eleocharis gracilis</i> v | | |
| <i>Isolepis prolifer</i> | | |
| <i>Schoenus maschalinus</i> | | |
| <i>Uncinia uncinata</i> | watu | hook grass |

Rushes and allied plants

| | | |
|-----------------------------------|------|---------------|
| <i>Juncus edgariae</i> v | wiwi | leafless rush |
| <i>Juncus pallidus</i> v | wiwi | leafless rush |
| <i>Juncus planifolius</i> (unc) v | | |
| <i>Juncus sarophorus</i> v | wiwi | leafless rush |

Remaining Monocotyledonous plants

| | | |
|---|----------|-------------|
| <i>Collospermum hastatum</i> | kahakaha | |
| <i>Lemna minor</i> v | | duckweed |
| <i>Phormium tenax</i> p? | harakeke | swamp flax |
| <i>Triglochin striata</i> (s 25/4/15) v | | arrow grass |

Daisy-like herbs (Composites)

| | |
|---|---------|
| <i>Euchiton audax</i> (f 25/4/15) v | cudweed |
| <i>Euchiton japonicus</i> (f 25/4/15) v | cudweed |
| <i>Helichrysum filicaule</i> (unc) v | |

Dicotyledonous herbs other than Composites

| | | |
|---|--------|---------------------------|
| Dichondra brevifolia agg. | | |
| Dichondra repens | | |
| Epilobium nummulariifolium v | | willowherb |
| Hydrocotyle moschata var. moschata | | |
| Hydrocotyle novae-zelandiae agg. | | |
| Leptostigma setulosa v | | |
| Oxalis exilis (f 25/4/15) | | yellow oxalis |
| Parietaria debilis (f 25/4/15) | | |
| Ranunculus reflexus v | maruru | hairy buttercup |
| Solanum nodiflorum subsp. nutans (f 25/4/15) | | small flowered nightshade |
| Wahlenbergia gracilis (unc includes W. rupestris & W. violacea) (f 25/4/15) | | harebell |

Birds:

Indigenous:

| | | |
|---|--------------|----------------------|
| Gerygone igata | riroriro | grey warbler |
| Prosthemadera novaeseelandiae novaeseelandiae | tūī | tūī |
| Rhipidura fuliginosa placabilis | pīwakawaka | North Island fantail |
| Tadorna variegata | putangitangi | paradise shelduck |
| Todiramphus sanctus vagans | kotare | kingfisher |
| Zosterops lateralis lateralis | tauhou | waxeye |

Introduced:

| | | |
|------------------------------|--|---------------------|
| Emberiza citrinella | | yellowhammer |
| Gymnorhina tibicen tyrannica | | white backed magpie |
| Passer domesticus | | house sparrow |
| Platycercus eximius eximius | | Eastern rosella |
| Sturnus vulgaris vulgaris | | starling |
| Turdus merula merula | | blackbird |