

PAPAMOA HILLS FIELD TRIP

Gael Donaghy & Graeme Jane

The August 2015 field trip visited two forest remnants in the Papamoa Hills, one on the Papamoa Hills Regional Park and one on the adjoining Summerhill farm. Both areas continue to be managed as farms with plantation areas.

Papamoa Hills Regional Park was a farm taken over by the local authority about a decade ago and is heavily used by walkers, although mainly on one track. It began to be popular after a major storm closed the Mount walks for over 3 months in that year. Currently the main track to the highest point is very popular but other parts are little used. Steeper eroded gullies are gradually being fenced off and replanted in native species. Three gullies contain natural stands of native species, which have only recently been fenced off. In addition there are areas of radiata plantation.

Summerhill is a private farm developed primarily by mountain bikers but also used for horse riding and walking. There are several gullies containing natural stands of native species and extensive areas of plantation. Much of the radiata pine is mature and progressively being felled. We visited the largest native remnant, which lies close to Papamoa Hills Regional Park.

We started at the main carpark of Papamoa Hills Regional Park. The initial uphill was through mature radiata pine marked with sample plots that suggest it will soon be felled. The plantation contains a 3-4 m tall understorey of hangehange, kawakawa and scattered plants of potential canopy plants such as puriri, mangeo, pigeonwood, rewarewa, and titoki. Along the track we were confronted by a feast of ferns including *Asplenium polyodon*, *A. oblongifolium*, *Diplazium australe*, *Deparia petersonii*, large terrestrial *Rumohra adiantiformis* and surprisingly, this close to the coast, *Cyathea smithii*. All this, though, was of little interest to most in the group as they were eager to get on and see some real forest.

Over the first ridge we descended through young pines into a deep gully to near the lower edge of the gully forest and a small stand of puriri. Here the tiny *Adiantum diaphanum* put in its first appearance along with *Lastropsis glabella*. Although the gully has been largely free of grazing for less than 5 years the dense forest contained few weeds. The dense main canopy contained mangeo, kohekohe and rewarewa. Relatively few undershrubs were present but instead a good scattering of ferns. The gully itself was deeply entrenched and difficult to follow. Nevertheless we were rewarded with whau and a nice lot of ferns near our crossing of the main path. Here large rocks below the culvert were graced with *Hymenophyllum flexuosum*, *H. dilatatum*, *Trichomanes enderlicherianum* and *Loxogramme dictyopteris*. A debate developed over distinguishing the last, with its clumps of leaves along a thin rhizome, from small *Microsorium scandens*, with single leaves scattered along a somewhat stouter rhizome. Epiphytes included occasional *Earina*

mucronata and *Astelia microspermum*.

A short detour along the track took us to kohekohe which still appeared to be in bud although it usually flowers in mid June and the buds were there in May. Along the track edge *Adiantum diaphanum* was quite abundant. Also, the usual weeds were common - including selfheal, watercress, foxglove and mouse-eared chickweed.

The next section of the gully was equally challenging. The forest was initially similar to the lower part. At the waterfall top *Adiantum raddianum* was spotted and we were soon into a supplejack tangle. Rewarewa became dominant as the boundary fence was approached and *Microlaena stipoides* was dominant in the more open areas. After the final ascent through pasture we lunched on picnic tables near the park summit and admired the views. The only plants of note were the dead heads and rosettes of the very local *Verbascum pulverulentum*.

After lunch we crossed a long stretch of pasture into Summerhill. At the boundary we were greeted by a large group of large bulls guarding the stile. After we disturbed them, we crossed more pasture to a stand of Tasmanian blackwood. We descended down part of the maze of bike tracks through a carpet of *Microlaena stipoides* into another forest gully, dodging areas with a dense understorey of plants such as hangehange, kawakawa, rangiora, pigeonwood and mahoe. Finally we entered old forest dominated by tawa, mangleo, titoki, kohekohe and karaka. In the depths of the gully new species included young nikau, heketara, kiekie, and the odd *Astelia solandri* perched on the branches.

We emerged out the other side of the gully under a huge old puriri laden with *Astelia microsperma*. Here we encountered *Adiantum hispidulum* and *A. raddianum*. The latter, looking like *A. aethiopicum* but with lobate pinnules, was quite common. The highlight of the trip though was at first finding a small *Peperomia tetraphylla* on a rewarewa and then, as we climbed out above a small gully, noting it as locally in good abundance on mangleo. This is the most western record for the species in the Bay of Plenty.

The loop back to the main ridge and to the summit of the Papamoa Hills Regional Park was at first through plantation and then across pasture, then followed a final descent on the main track to our vehicles.

Species of Papamoa Hills Forest Remnants

Map: U14 Grid Ref: 27986 63793

Graeme Jane & Rotorua Botanical Society

*	<i>Acaena novae-zelandiae</i>	red bidibid; piri-piri
	<i>Adiantum cunninghamii</i>	maiden hair fern
	<i>Adiantum diaphanum</i>	small maidenhair
	<i>Adiantum hispidulum</i>	rosy maidenhair fern
*	<i>Adiantum raddianum</i>	
	<i>Alectryon excelsus</i> subsp. <i>excelsus</i>	titoki

*	<i>Anthoxanthum odoratum</i>	sweet vernal
	<i>Aristolelia serrata</i>	wineberry; makomako
	<i>Arthropteris tenella</i>	jointed fern
	<i>Asplenium bulbiferum</i>	hen and chickens fern; moku
	<i>Asplenium flaccidum</i>	hanging spleenwort; makawe
	<i>Asplenium hookerianum</i> var. <i>hookerianum</i>	lacy spleenwort
	<i>Asplenium oblongifolium</i>	shining spleenwort
	<i>Asplenium polyodon</i>	sickle spleenwort; petako
	<i>Astelia hastata</i>	kahakaha
	<i>Astelia microsperma</i>	
	<i>Astelia solandri</i>	kowharawhara
	<i>Beilschmiedia tawa</i>	tawa
*	<i>Berberis glaucocarpa</i>	barberry
	<i>Blechnum chambersii</i>	nini; lance fern
	<i>Blechnum filiforme</i>	climbing hard fern; thread fern
	<i>Blechnum fluviatile</i>	kiwakiwa; kiwikiwi
	<i>Blechnum membranaceum</i>	
	<i>Blechnum novae-zelandiae</i>	kiokio
	<i>Blechnum parrisiae</i>	pukupuku; rasp fern
	<i>Brachyglottis repanda</i>	rangiora; bushman's friend
*	<i>Briza minor</i>	shivery grass
*	<i>Callitriche stagnalis</i>	starwort
	<i>Cardamine</i> 'long style'	
	<i>Carex dipsacea</i>	
	<i>Carex forsteri</i>	
	<i>Carex solandri</i>	
	<i>Carex virgata</i>	
	<i>Carpodetus serratus</i>	putaputaweta; marbleleaf
*	<i>Cerastium glomeratum</i>	annual mouse-eared chickweed
*	<i>Cirsium arvense</i>	Californian thistle
*	<i>Conyza sumatrensis</i>	fleabane
	<i>Corynocarpus laevigatus</i>	karaka; kopi
*	<i>Crepis capillaris</i>	hawksbeard
	<i>Cyathea dealbata</i>	ponga; silver fern
	<i>Cyathea medullaris</i>	mamaku; korau; black tree fern
	<i>Cyathea smithii</i>	soft-leaved tree fern; katote
	<i>Deparia petersenii</i> subsp. <i>congrua</i>	
	<i>Dicksonia squarrosa</i>	wheki; harsh tree fern
*	<i>Digitalis purpurea</i>	foxglove
	<i>Diplazium australe</i>	
	<i>Drymoanthus adversus</i>	
	<i>Dysoxylum spectabile</i>	kohekohe
	<i>Earina mucronata</i>	spring orchid; peka-a-waka
	<i>Entelea arborescens</i>	whau
	<i>Epilobium pedunculare</i>	

	<i>Freycinetia banksii</i>	kiekie
*	<i>Galium aparine</i>	cleavers
	<i>Geniostoma ligustrifolium</i> var. <i>ligustrifolium</i>	hangehange; privet
*	<i>Hedera helix</i> subsp. <i>helix</i>	ivy
	<i>Hedycarya arborea</i>	pigeonwood; porokaiwhiri
	<i>Histiopteris incisa</i>	water fern
	<i>Hymenophyllum demissum</i>	piripiri; irirangi
	<i>Hymenophyllum dilatatum</i>	lop-sided filmy fern
	<i>Hymenophyllum flexuosum</i>	
	<i>Hypolepis ambigua</i>	
	<i>Isolepis subtilissima</i>	
*	<i>Jacobaea vulgaris</i>	ragwort
*	<i>Jasminum polyanthum</i>	jasmine
	<i>Juncus edgariae</i>	wiwi
	<i>Knightia excelsa</i>	rewarewa; NZ honeysuckle
	<i>Lastreopsis glabella</i>	felted fern
	<i>Lastreopsis microsora</i> subsp. <i>pentangularis</i>	
	<i>Laurelia novae-zelandiae</i>	pukatea
	<i>Leptopteris hymenophylloides</i>	single crepe fern; heruheru
*	<i>Ligustrum sinense</i>	Chinese privet
	<i>Litsea calicaris</i>	mangeo
*	<i>Lolium perenne</i>	perennial ryegrass
*	<i>Lotus pedunculatus</i>	lotus major
	<i>Loxogramme dictyopteris</i>	
	<i>Melicytus ramiflorus</i>	mahoe
	<i>Metrosideros diffusa</i>	white climbing rata; akatea
	<i>Metrosideros fulgens</i>	scarlet rata; winter rata
	<i>Metrosideros perforata</i>	aka; small white rata; torotoro
	<i>Microlaena stipoides</i>	forest rice grass
	<i>Microsorium pustulatum</i> subsp. <i>pustulatum</i>	hounds tongue; kowaowao
	<i>Microsorium scandens</i>	mokimoki; fragrant fern
	<i>Muehlenbeckia australis</i>	poheuheu
*	<i>Mycelis muralis</i>	wall lettuce
	<i>Myoporum laetum</i>	ngaio
	<i>Myrsine australis</i>	red matipo; mapou
*	<i>Nasturtium officinale</i>	watercress
	<i>Olearia rani</i> var. <i>rani</i>	heketara
	<i>Oplismenus hirtellus</i> subsp. <i>imbecillis</i>	oat grass
	<i>Oxalis rubens</i>	
	<i>Paesia scaberula</i>	scented fern; matata; ring fern
	<i>Parsonsia heterophylla</i>	Maori jasmine; kaihu; kaiwhiria
*	<i>Passiflora tripartita</i> var. <i>mollissima</i>	banana passionfruit
	<i>Peperomia tetraphylla</i>	
	<i>Peperomia urvilleana</i>	wharanui
	<i>Phlegmariurus varius</i>	hanging clubmoss; iwituna

	<i>Piper excelsum</i> subsp. <i>excelsum</i>	kawakawa; pepper tree
	<i>Pneumatopteris pennigera</i>	gully fern; pakau; pakauharoha
*	<i>Poa pratensis</i>	Kentucky blue grass
*	<i>Potentilla indica</i>	Indian strawberry
*	<i>Prunella vulgaris</i>	selfheal
*	<i>Prunus campanulata</i>	Taiwan cherry
	<i>Pseudopanax arboreus</i> x <i>lessonii</i>	
	<i>Pteridium esculentum</i>	bracken; rauaruhe
	<i>Pteris macilenta</i>	sweet fern
	<i>Pteris tremula</i>	turawera
	<i>Pyrrosia eleagnifolia</i>	leather-leaf fern
	<i>Rhopalostylis sapida</i>	nikau
	<i>Ripogonum scandens</i>	supplejack; kareao
*	<i>Rubus fruticosus</i>	blackberry
	<i>Rumohra adiantiformis</i>	butcher's fern
	<i>Schefflera digitata</i>	pate; patae; kotete
*	<i>Senecio bipinnatisectus</i>	Australian fireweed
*	<i>Solanum chenopodioides</i>	velvety nightshade
*	<i>Solanum mauritianum</i>	woolly nightshade
*	<i>Solanum pseudocapsicum</i>	Jerusalem cherry
*	<i>Stellaria media</i> subsp. <i>media</i>	chickweed
	<i>Stellaria parviflora</i>	
	<i>Streblus heterophyllus</i>	turepo; milk tree
	<i>Trichomanes endlicherianum</i>	rock mat fern
*	<i>Ulex europaeus</i>	gorse
	<i>Uncinia uncinata</i>	watu
	<i>Urtica incisa</i>	stinging nettle
*	<i>Verbascum pulverulentum</i>	hoary mullein
*	<i>Verbena bonariensis</i>	purple-top
	<i>Vitex lucens</i>	pururi; kauere
	<i>Weinmannia racemosa</i>	kamahi; towai; tawhero
*	<i>Zantedeschia aethiopica</i>	arum lily