

Kaharoa gully crawl, Saturday 18th March 2023

Paul Robbins

With bad weather forecast, a hardy few met at the end of Kapukapu Road shelter for 9am, where Graeme Young kindly met the group and gave a talk on the history and amazing work the Kaharoa Kōkako Trust have been doing at the reserve.

Taking Graeme's 4x4 we were taken to see a potential site for a 20x20 m vegetation plot with a lone king fern *Ptisana salicina* within. The plan is to have a plot to demonstrate herbivore pressure on native forests for visiting school groups.



Gael with the lone king fern

Next stop in the 4x4 was some terrestrial tāwahiri karo, *Pittosporum cornifolium*, where a fence had been erected around the original plant but had since been made redundant by a stray branch. Thankfully this does not appear to be to the detriment of the plant as it (and others) appeared to be flourishing.



Pittosporum cornifolium fenced-off

Graeme then led the group down a steep gully to see a healthy king fern population.

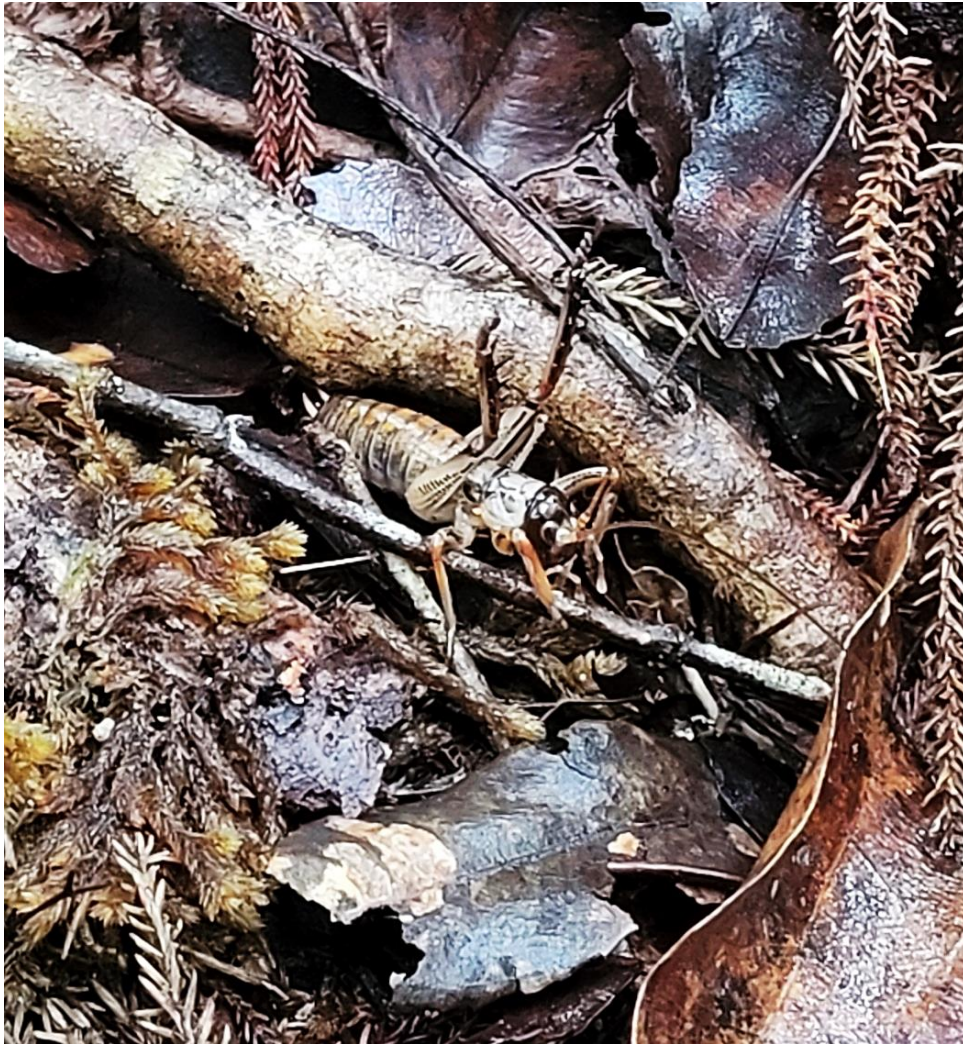


The two Graemes inspecting the king fern

Upon returning and thanking Graeme Young for guiding and driving, our group went down the Kōkako track and began the species list in earnest.

Not even making it into the forest, a certain hairy *Lotus* was discussed with both *L. suaveolens* and *L. subbiflorus* put forward. More on this later.

We travelled down the track through a broadleaf-podocarp forest to have lunch by a particularly large *Passiflora tetrandra*. We were re-joined by the trailblazing Semra who had heard the track's namesake and witnessed a skirmish between a robin and tree wētā, which managed to dissuade its assailant.



Tree wētā striking a defensive posture. *Photo by Semra Jasser.*

We continued down the track adding to the list when we reached the base of a small bluff. I wrongly called out *Hymenophyllum lyalli* only to be corrected; it was the very convincing liverwort *Hymenophyton flabellatum*.

Though sure enough on further inspection, the bluff gave up *Hymenophyllum lyalli*.



Hymenophyton flabellatum



Hymenophyllum lyallii

A little further and the track ended at a beautiful forest stream. A previous report of *Hymenophyllum australe* had been made here, however Graeme Young had prior warned us that the water contains high effluent levels from the farm upstream. One fool-hardy botanist keen to see his first *H. australe* went along the stream in search....



And struck botanical gold.



Hymenophyllum australe

A small sample was brought back for Graeme's confirmation which is now at the Scion herbarium. A big thank you to Graeme Young for taking the time to meet and show around the BotSoc and to Graeme, Gael, Semra and Rob for your company and expertise.

In regard to the *Lotus*, Graeme Jane did some digging and found *L. suaveolens* to be synonymous with *L. subbiflorus*, both names being used in New Zealand. This was reported to Landcare who have now implemented the name change.

Kaharoa kōkako area and track species list

Graeme Jane & Gael Donaghy

Visits: G Jane 14-06-2003; RBS: 18-03-2023

Map: BE37 Grid Ref: 1889806 5794798

* = exotic or introduced species

A column = G Jane visit 2003

B column = RBS visit 2023

A,B

Psilopsids, Lycopods & Quillworts

x_	<i>Lycopodium deuterodensum</i>	puakarimu
x_	<i>Lycopodium volubile</i>	waewae-koukou; climbing clubmoss
xx	<i>Phlegmariurus varius</i>	hanging clubmoss; iwituna

Ferns

_x	<i>Adiantum cunninghamii</i>	maidenhair fern
xx	<i>Asplenium bulbiferum</i>	hen and chickens fern; moku
xx	<i>Asplenium flaccidum</i>	hanging spleenwort; makawe
xx	<i>Asplenium oblongifolium</i>	shining spleenwort
xx	<i>Asplenium polyodon</i>	sickle spleenwort; petako
xx	<i>Blechnum chambersii</i>	nini; lance fern
xx	<i>Blechnum discolor</i>	crown fern; piupiu; petipeti
xx	<i>Blechnum filiforme</i>	Climbing hard fern; thread fern
xx	<i>Blechnum fluviatile</i>	kiwakiwa; kiwikiwi
_x	<i>Blechnum membranaceum</i>	
xx	<i>Blechnum novae-zelandiae</i>	kiokio
_x	<i>Blechnum parrisiae</i>	pukupuku; rasp fern
_x	<i>Cyathea dealbata</i>	ponga; silver fern
xx	<i>Cyathea medullaris</i>	mamaku; korau; black tree fern
xx	<i>Cyathea smithii</i>	soft-leaved tree fern; katote
_x	<i>Deparia petersenii</i> ssp. <i>congrua</i>	
xx	<i>Dicksonia squarrosa</i>	wheki; harsh tree fern
xx	<i>Diplazium australe</i>	
xx	<i>Hymenophyllum australe</i>	
xx	<i>Hymenophyllum demissum</i>	piripiri; irirangi
xx	<i>Hymenophyllum dilatatum</i>	lop-sided filmy fern
xx	<i>Hymenophyllum flabellatum</i>	fan fern
xx	<i>Hymenophyllum frankliniae</i>	
xx	<i>Hymenophyllum lyallii</i>	
xx	<i>Hymenophyllum multifidum</i>	
xx	<i>Hymenophyllum nephrophyllum</i>	kidney fern; raurenga
xx	<i>Hymenophyllum rarum</i>	wire-stemmed filmy fern
x_	<i>Hymenophyllum revolutum</i>	
xx	<i>Hymenophyllum sanguinolentum</i>	blood-scented filmy fern
xx	<i>Hymenophyllum scabrum</i>	coarse-haired filmy fern
xx	<i>Lastreopsis hispida</i>	hairy fern, hairy legs
_x	<i>Lecanopteris pustulata</i> ssp. <i>pustulata</i>	hound's tongue; kowaowao
xx	<i>Lecanopteris scandens</i> (<i>Microsorium</i>)	mokimoki; fragrant fern
xx	<i>Leptopteris hymenophylloides</i>	single crepe fern; heruheru

xx	<i>Lindsaea trichomanoides</i>	
x_	<i>Lindsaea viridis</i>	
xx	<i>Loxogramme dictyopteris</i>	sexy fern
xx	<i>Lygodium articulatum</i>	mangemange; bushman's mattress
xx	<i>Notogrammitis heterophylla</i>	
xx	<i>Paesia scaberula</i>	scented fern; matata; ring fern
_x	<i>Pakau pennigera</i>	gully fern; pakau; pakauharoha
_x	<i>Parapolystichum glabellum</i>	felted fern
x_	<i>Parapolystichum microsorum</i>	
_x	<i>Pellaea rotundifolia</i>	tarawera; button fern
x_	<i>Polystichum wawranum</i>	common shield fern; pikopiko
x_	<i>Pteridium esculentum</i>	bracken; rauaruhe
_x	<i>Ptisana salicina</i>	king fern; para; horseshoe fern
xx	<i>Pyrrhosia elaeagnifolia</i>	leather-leaf fern
xx	<i>Rumohra adiantiformis</i>	butcher's fern
xx	<i>Tmesipteris elongata</i>	
_x	<i>Tmesipteris lanceolata</i>	
x_	<i>Trichomanes colensoi</i>	
_x	<i>Trichomanes elongatum</i>	bristle fern
x_	<i>Trichomanes strictum</i>	
xx	<i>Trichomanes venosum</i>	veined bristle fern

Gymnosperm trees and shrubs

xx	<i>Dacrycarpus dacrydioides</i>	kahikatea, white pine
xx	<i>Dacrydium cupressinum</i>	rimu, red pine
xx	<i>Phyllocladus trichomanoides</i>	tanekaha; celery pine
_x	<i>Podocarpus laetus</i>	Hall's totara; thin bark totara
xx	<i>Prumnopitys ferruginea</i>	miro; brown pine

Dicotyledonous trees and shrubs

xx	<i>Alectryon excelsus</i> ssp. <i>excelsus</i>	titoki
xx	<i>Alseuosmia macrophylla</i>	toropapa; shrubby honeysuckle
xx	<i>Aristolelia serrata</i>	wineberry; makomako
xx	<i>Beilschmiedia tawa</i>	tawa
_x	* <i>Berberis glaucocarpa</i>	barberry
_x	<i>Brachyglottis repanda</i>	rangiora; bushmans friend
xx	<i>Carpodetus serratus</i>	putaputaweta; marbleleaf
xx	<i>Coprosma autumnalis</i>	raurekau; kanono; mamono
_x	<i>Coprosma lucida</i>	karamu; shining karamu
xx	<i>Coprosma robusta</i>	karamu
xx	<i>Coriaria arborea</i> var. <i>arborea</i>	tree tutu
xx	<i>Didymocheton spectabilis</i> (<i>Dysoxylum</i>)	kohekohe
x_	<i>Dracophyllum strictum</i>	totorwhiti; grass tree
xx	<i>Elaeocarpus dentatus</i> var. <i>dentatus</i>	hinau
_x	* <i>Erica lusitanica</i>	Spanish heath
_x	<i>Geniostoma ligustrifolium</i> var. <i>ligustrifolium</i>	hangehange; privet
x_	<i>Griselinia littoralis</i>	broadleaf; kapuka
xx	<i>Griselinia lucida</i>	puka
x_	<i>Hebe stricta</i> var. <i>stricta</i>	koromiko
xx	<i>Hedycarya arborea</i>	pigeonwood; porokaiwhiri

xx	<i>Ixerba brexioides</i>	tawari
xx	<i>Knightia excelsa</i>	rewarewa; NZ honeysuckle
x_	<i>Kunzea robusta</i>	kanuka
_x	<i>Laurelia novae-zelandiae</i>	pukatea
_x	<i>Leptospermum scoparium</i> var. <i>scoparium</i>	manuka; red teatree
xx	<i>Leucopogon fasciculatus</i>	mingimingi; kaikaitau
xx	* <i>Leycesteria formosa</i>	himalayan honeysuckle
xx	<i>Litsea calicaris</i>	mangeo
xx	<i>Melicytus ramiflorus</i> ssp. <i>ramiflorus</i>	mahoe
xx	<i>Mida salicifolia</i>	willow-leaved maire
xx	<i>Myrsine australis</i>	red matipo; mapou
_x	<i>Nestegis lanceolata</i>	white maire
xx	<i>Piper excelsum</i> ssp. <i>excelsum</i>	kawakawa; pepper tree
_x	<i>Pittosporum colensoi</i>	
_x	<i>Pittosporum cornifolium</i>	tawhirikaro; perching kohukohu
_x	* <i>Prunus serrulata</i>	Japanese hill cherry
xx	<i>Pseudopanax arboreus</i>	five finger; puhou; whaupaku
xx	<i>Pseudopanax crassifolius</i>	lancewood; horoeka
xx	<i>Pterophylla racemosa</i>	kamahi; towai; tawhero
xx	<i>Schefflera digitata</i>	pate; patae; kotete
_x	* <i>Ulex europaeus</i>	gorse

Dicotyledonous lianes and related trailing plants

_x	<i>Clematis paniculata</i>	clematis; puawhananga
xx	<i>Metrosideros diffusa</i>	white climbing rata; akatea
xx	<i>Metrosideros fulgens</i>	scarlet rata; winter rata
xx	<i>Metrosideros perforata</i>	aka; small white rata; torotoro
_x	<i>Muehlenbeckia australis</i>	pohuehue
xx	<i>Parsonsia heterophylla</i>	Maori jasmine; kaihu; kaiwhiria
_x	<i>Passiflora tetrandra</i>	passionfruit; kohia
xx	* <i>Rubus fruticosus</i>	blackberry

Daisy-like herbs

xx	<i>Anaphalioides trinervis</i>	puatea
_x	* <i>Crepis capillaris</i>	hawksbeard
xx	* <i>Erigeron sumatrensis</i>	broad-leaved fleabane
x_	<i>Euchiton involucreatus</i>	creeping cudweed
x_	<i>Euchiton sphaericus</i>	Japanese cudweed
xx	* <i>Gamochaeta americana</i>	purple cudweed
x_	* <i>Hypochaeris radicata</i>	catsear
x_	* <i>Jacobaea vulgaris</i>	ragwort
x_	<i>Pseudognaphalium luteoalbum</i>	Jersey cudweed
_x	<i>Senecio bipinnatisectus</i>	Australian fireweed
_x	* <i>Sonchus oleraceus</i>	sow thistle; puha; puka
x_	* <i>Taraxacum officinale</i>	dandelion

Dicotyledonous herbs other than Daisies

x_	<i>Acaena anserinifolia</i>	bidibid
x_	* <i>Acaena novae-zelandiae</i>	red bidibid; pipiriri
x_	* <i>Callitriche stagnalis</i>	starwort

x_	<i>Cardamine debilis</i>	
xx	* <i>Digitalis purpurea</i>	foxglove
x_	<i>Epilobium nerteroides</i>	
x_	<i>Epilobium pedunculare</i>	
x_	<i>Galium perpusillum</i>	bedstraw
x_	<i>Haloragis erecta</i> ssp. <i>erecta</i>	toatoa
xx	<i>Hydrocotyle heteromeria</i>	wax weed
x_	<i>Hydrocotyle pterocarpa</i>	
x_	* <i>Linum bienne</i>	pale flax
xx	<i>Lobelia angulata</i>	panakenake
x_	* <i>Lotus pedunculatus</i>	lotus major
x_	* <i>Ludwigia palustris</i>	water purslane
xx	<i>Nertera depressa</i>	common nertera
_x	* <i>Phytolacca octandra</i>	inkweed
x_	* <i>Plantago lanceolata</i>	ribwort; narrow-leaved plantain
x_	* <i>Plectranthus ecklonii</i>	
x_	* <i>Prunella vulgaris</i>	selfheal
x_	* <i>Ranunculus flammula</i>	spearwort
xx	* <i>Ranunculus repens</i>	creeping buttercup

Monocotyledonous trees and shrubs

x_	<i>Cordyline pumilio</i>	ti rauriki; dwarf cabbage tree
_x	<i>Rhopalostylis sapida</i>	nikau

Monocotyledonous lianes

xx	<i>Freycinetia banksii</i>	kiekie
_x	<i>Ripogonum scandens</i>	supplejack; kareao

Sedges

x_	<i>Carex banksiana</i>	
x_	<i>Carex corynopidea</i>	fish-hooks
x_	<i>Carex dipsacea</i>	
x_	<i>Carex geminata</i>	
x_	<i>Carex secta</i>	pukio
xx	<i>Carex uncinata</i>	watu
x_	<i>Cyperus ustulatus</i>	coastal cutty grass
_x	<i>Gahnia pauciflora</i>	
_x	<i>Isolepis inundata</i>	
x_	<i>Isolepis reticularis</i>	

Rushes and allied plants

x_	* <i>Juncus articulatus</i>	jointed rush
x_	<i>Juncus planifolius</i>	
x_	* <i>Juncus tenuis</i> ssp. <i>tenuis</i>	track rush

Grasses

x_	* <i>Agrostis capillaris</i>	browntop
_x	* <i>Anthoxanthum odoratum</i>	sweet vernal
x_	<i>Austroderia fulvida</i>	kakaho; toetoe
_x	* <i>Bromus catharticus</i> var. <i>catharticus</i>	prairie grass
xx	* <i>Dactylis glomerata</i>	cocksfoot
_x	* <i>Holcus lanatus</i>	Yorkshire fog

xx	<i>Microlaena avenacea</i>	bush rice grass; oat grass
_x	<i>Microlaena stipoides</i>	forest rice grass
_x	<i>Oplismenus hirtellus</i> ssp. <i>imbecillis</i>	oat grass
_x	* <i>Paspalum dilatatum</i>	paspalum
xx	<i>Rytidosperma gracile</i>	forest fairy grass
x_	<i>Rytidosperma unarede</i>	cliff fairy grass
_x	* <i>Sporobolus africanus</i>	needle grass; rats tail

Remaining Monocotyledonous herbs

xx	<i>Astelia hastata</i>	kahakaha
_x	<i>Astelia microsperma</i>	
xx	<i>Astelia solandri</i>	kowharawhara
x_	<i>Astelia trinervia</i>	
xx	<i>Dianella nigra</i>	blueberry; turutu

Orchids

x_	<i>Bulbophyllum pygmaeum</i>	
xx	<i>Dendrobium cunninghamii</i>	bamboo orchid
_x	<i>Drymoanthus adversus</i>	
xx	<i>Earina mucronata</i>	spring orchid; peka-a-waka
_x	<i>Microtis unifolia</i>	onion orchid
_x	<i>Orthoceras novae-zeelandiae</i>	

Okareka mistletoe restoration project Weed control/plant releasing work day for 2023

Come and join Rotorua Botanical Society to control weeds threatening mistletoe sites and plant new host trees.

Activities will involve hand-pulling, cutting, sawing of vines, climbers and small trees.

When: Sat 14 October – Weed control/plant releasing

Meet: Corner Summit and Loop Roads (lake end) @ 8:45 am

**Grade: medium-hard – activities suitable for all ages
and abilities will be provided**

Please contact the organiser Paul Cashmore
027 650 7264 (mob) or 07 349 7432 (work) to RSVP.
Equipment to bring will be advised.