

FIELD TRIP TO MT TAWHIUAU, GALATEA FOOTHILLS

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On Sunday 6 April 2014 seven keen souls headed into the Galatea foothills of Te Urewera National Park to tackle the 800 m plus climb to the top of Mt Tawhiuau, one of the highest peaks in the area. Turning off the Galatea foothills track, which we had botanised the previous year, the climb began. It didn't take long before someone commented that it was lucky we were in the middle of a drought and it hadn't rained in ages meaning the steep track was not as slippery as it would normally have been.

The first part of the track traversed rewarewa - kanuka - five-finger - kohuhu forest common on the lower slopes of the Galatea foothills, having regenerated from historic burns. Mapou (*Myrsine australis*), mahoe (*Meliclytus ramiflorus*), soft mingimingi (*Leucopogon fasciculatus*), shining karamu (*Coprosma lucida*) and karamu (*Coprosma robusta*) were common in the subcanopy. The understorey was comprised of mountain flax (*Phormium cookianum* subsp. *cookianum*), five-finger (*Pseudopanax arboreus*), hangehange (*Geniostoma ligustrifolium* var. *ligustrifolium*), karamu, with occasional *Senecio banksii*, *Coprosma crassifolia*, shining spleenwort (*Asplenium oblongifolium*), and button fern (*Pellaea rotundifolia*). Once onto a ridge button fern, shining spleenwort, and hound's tongue (*Microsorium pustulatum* subsp. *pustulatum*) were very common in the understorey.

The track then sidled into a deep stream gully crossing the stream in mature tawareware forest which had obviously escaped the historic burns. Mahoe and pigeonwood (*Hedycarya arborea*) were present in the sparse subcanopy. Kawakawa (*Piper excelsum* subsp. *excelsum*), tawa (*Beilschmiedia tawa*), five-finger, hangehange, *Blechnum chambersii*, and *Lastreopsis velutina* were abundant in the dense understorey. After crossing the stream the track headed up the ridge back into rewarewa – kanuka - five-finger - kohuhu forest similar to that seen on the lower foothills.

Eventually a picnic table was reached on a ridge with views south into the Mangamate Stream faces. Tawheowheo (*Quintinia serrata*) was spotted for the first time here. Also noted were a black beech (*Fuscospora solandri*) and a younger northern rata (*Metrosideros robusta*) tree. From here the track continued to climb back into more rewarewa-kanuka forest on the ridge before edging into red beech (*Fuscospora fusca*) forest at about 600 m. Black beech and hard beech (*Fuscospora truncata*) were locally common. The subcanopy was dominated by tawheowheo, red beech, soft mingimingi, tawari (*Ixerba brexioides*), needle-leaved neinei (*Dracophyllum latifolium*), and occasional toatoa (*Phyllocladus toatoa*). *Astelia solandri*, red beech, shining karamu and occasional tawari dominated the understorey.

By the time we reached 800 m altitude the forest was dominated by red beech with occasional miro (*Prumnopitys ferruginea*). Needle-leaved neinei, tawari, kamahi (*Weinmannia racemosa*), and toatoa dominated the subcanopy. Stinkwood (*Coprosma foetidissima*) and haumakaroa were also present at this altitude. Crown fern (*Blechnum discolor*), *Dicksonia lanata*, peppertree (*Pseudowintera colorata*), tawheowheo, kanono (*Coprosma grandifolia*), and needle-leaved neinei were common in the understorey.

Eventually the track swung left and followed a ridge to what appeared to be a high point. It was now getting into early afternoon and we had promised ourselves lunch at the trig so there was an incentive to push on as the trig was nearing. The high point turned out to not be the trig, as the track swung off to the right, back into the forest, before emerging at the actual trig soon after.

Surprisingly the trig at 1017 m did not look out over the dairy farms of Galatea as one may have expected but actually faced east looking from White Island in the north across the Urewera ranges with the farm at Ruatuhuna visible to the south. The group reassembled at the trig enjoying lunch and the views across the Ureweras on a lovely fine day and taking some photos before beginning the trek back down the big hill.



Figure 1: Happy members at Mt Tawhiuau trig looking north



Figure 2: Assessing potential locations in the Mangamate Stream for next trip!

Interesting plants noted in and around the summit included *Hymenophyllum pulcherrimum*, *Blechnum procerum*, *Leptopteris superba* and mountain toatoa (*Phyllocladus alpinus*). Upon re-entering the lower parts of the red beech forest a debate re-ignited about the finer points of distinguishing red and hard beech from each other, given that the more we looked at, the more confused we got. Some level of agreement was reached as we continued further downhill into the lower forest. A few additional species were picked up on the way down that we had missed heading uphill. Some lovely *Earina autumnalis* specimens were noted as well.

We eventually reached the cars late afternoon, not quite matching the 3-4 hours return which the DOC sign suggested. Everyone had enjoyed the trip and was pleased we tackled it in the dry conditions. The track provides a good altitudinal sequence of vegetation and a varied range of habitats for the botanist who is fit enough to tackle the climb. All agreed the trip lived up to its 'hard' classification!

**Tawhiuau Track, Galatea Foothills,
Te Urewera National Park**

NZMS 260 V17 405980

G. Jane & G. Donaghy

* = naturalised species

Psilopsids, Lycopods & Quillworts

Lycopodium volubile	waewae-koukou
Phlegmariurus varius	hanging clubmoss

Ferns

<i>Asplenium appendiculatum</i> subsp. <i>appendiculatum</i>	ground spleenwort
<i>Asplenium bulbiferum</i>	hen and chickens fern
<i>Asplenium flabellifolium</i>	butterfly fern; walking fern
<i>Asplenium flaccidum</i>	hanging spleenwort
<i>Asplenium flaccidum</i> × <i>A. gracillimum</i>	
<i>Asplenium gracillimum</i>	
<i>Asplenium hookerianum</i> var. <i>hookerianum</i>	lacy spleenwort
<i>Asplenium oblongifolium</i>	shining spleenwort
<i>Asplenium polyodon</i>	sickle spleenwort; petako
<i>Blechnum chambersii</i>	nini; lance fern
<i>Blechnum discolor</i>	crown fern; piupiu; petipeti
<i>Blechnum filiforme</i>	Thread fern
<i>Blechnum fluviatile</i>	kiwakiwa; kiwikiwi
<i>Blechnum novae-zeelandiae</i>	kiokio
<i>Blechnum procerum</i>	kiokio; small kiokio
<i>Blechnum vulcanicum</i>	
<i>Cardiomanes reniforme</i>	kidney fern; raurenga
<i>Cyathea dealbata</i>	ponga; silver fern
<i>Cyathea medullaris</i>	mamaku; black tree fern
<i>Cyathea smithii</i>	soft-leaved tree fern; katote
<i>Dicksonia lanata</i> var. <i>lanata</i>	tuokura; stumpy tree fern
<i>Dicksonia squarrosa</i>	wheki; harsh tree fern
<i>Diplazium australe</i>	
<i>Histiopteris incisa</i>	water fern
<i>Hymenophyllum bivalve</i>	
<i>Hymenophyllum demissum</i>	piripiri; irirangi
<i>Hymenophyllum flabellatum</i>	fan fern
<i>Hymenophyllum flexuosum</i>	
<i>Hymenophyllum multifidum</i>	
<i>Hymenophyllum pulcherrimum</i>	
<i>Hymenophyllum rarum</i>	wire-stemmed filmy fern

<i>Hymenophyllum revolutum</i>	
<i>Hymenophyllum sanguinolentum</i>	blood-scented filmy fern
<i>Lastreopsis glabella</i>	felted fern
<i>Lastreopsis hispida</i>	hairy fern, hairy legs
<i>Lastreopsis velutina</i>	velvet fern
<i>Leptopteris hymenophylloides</i>	single crepe fern; heruheru
<i>Leptopteris superba</i>	Prince of Wales feather
<i>Lindsaea trichomanoides</i>	
<i>Loxogramme dictyopteris</i>	
<i>Microsorium pustulatum</i> subsp. <i>pustulatum</i>	hound's tongue; kowaowao
<i>Microsorium scandens</i>	mokimoki; fragrant fern
<i>Notogrammitis angustifolia</i> subsp. <i>nothofagei</i>	
<i>Notogrammitis billardierei</i>	common strap fern
<i>Notogrammitis ciliata</i>	hairy strap fern
<i>Notogrammitis heterophylla</i>	
<i>Notogrammitis pseudociliata</i>	
<i>Paesia scaberula</i>	matata; ring fern
<i>Pellaea rotundifolia</i>	tarawera; button fern
<i>Pneumatopteris pennigera</i>	gully fern; pakau
<i>Polystichum wawranum</i>	common shield fern
<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>Rumohra adiantiformis</i>	butcher's fern
<i>Tmesipteris elongata</i>	
<i>Tmesipteris tannensis</i>	chain fern; fork fern

Gymnosperm trees and shrubs

<i>Dacrycarpus dacrydioides</i>	kahikatea, white pine
<i>Dacrydium cupressinum</i>	rimu, red pine
<i>Phyllocladus alpinus</i>	mountain toatoa
<i>Phyllocladus toatoa</i>	toatoa
<i>Podocarpus cunninghamii</i>	thin-barked totara
<i>Prumnopitys ferruginea</i>	miro; brown pine
<i>Prumnopitys taxifolia</i>	matai; black pine

Dicotyledonous trees and shrubs

<i>Alectryon excelsus</i> subsp. <i>excelsus</i>	titoki
<i>Aristotelia serrata</i>	wineberry; makomako
<i>Beilschmiedia tawa</i>	tawa
<i>Brachyglottis repanda</i>	rangiora; bushman's friend
<i>Carpodetus serratus</i>	putaputaweta; marbleleaf

<i>Coprosma colensoi</i>	springy coprosma
<i>Coprosma crassifolia</i>	
<i>Coprosma</i> × <i>cunninghamii</i>	
<i>Coprosma foetidissima</i>	stinkwood; hupiro
<i>Coprosma grandifolia</i>	raurekau; kanono; mamono
<i>Coprosma lucida</i>	karamu; shining karamu
<i>Coprosma rhamnoides</i>	thorny coprosma
<i>Coprosma robusta</i>	karamu
<i>Coprosma tenuifolia</i>	wavy-leaved coprosma
<i>Dodonaea viscosa</i>	akeake
<i>Dracophyllum latifolium</i>	needle-leaved neinei
<i>Dracophyllum traversii</i>	neinei
<i>Elaeocarpus dentatus</i>	hinau
<i>Elaeocarpus hookerianus</i>	pokaka
* <i>Erica lusitanica</i>	Spanish heath
<i>Fuchsia excorticata</i>	fuchsia; kotukutuku
<i>Fuscospora fusca</i>	red beech
<i>Fuscospora solandri</i>	black beech
<i>Fuscospora truncata</i>	hard beech; tawhairaunui
<i>Gaultheria antipoda</i>	snowberry; tawiniwini
<i>Geniostoma ligustrifolium</i> var. <i>ligustrifolium</i>	hangehange; privet
<i>Griselinia littoralis</i>	broadleaf; kapuka
<i>Griselinia lucida</i>	puka
<i>Hebe stricta</i> var. <i>stricta</i>	koromiko
<i>Hedycarya arborea</i>	pigeonwood; porokaiwhiri
<i>Helichrysum lanceolatum</i>	niniao
<i>Hoheria sexstylosa</i>	houhere
<i>Ixerba brexioides</i>	tawari
<i>Knightia excelsa</i>	rewarewa; NZ honeysuckle
<i>Kunzea ericoides</i> var. <i>ericoides</i>	kanuka; white teatree
<i>Laurelia novae-zealandiae</i>	pukatea
<i>Leptecophylla juniperina</i> subsp. <i>juniperina</i>	prickly mingimingi
<i>Leptospermum scoparium</i> var. <i>scoparium</i>	manuka; red teatree
<i>Leucopogon fasciculatus</i>	mingimingi
<i>Melicytus ramiflorus</i>	mahoe
<i>Metrosideros robusta</i>	northern rata
<i>Mida salicifolia</i>	willow-leaved maire
<i>Myrsine australis</i>	red matipo; mapou
<i>Neomyrtus pedunculata</i>	rohutu
<i>Nestegis lanceolata</i>	white maire
<i>Olearia furfuracea</i>	akepiro
<i>Olearia rami</i> var. <i>colorata</i>	heketara
<i>Piper excelsum</i> subsp. <i>excelsum</i>	kawakawa; pepper tree
<i>Pittosporum ralphii</i>	karo

<i>Pittosporum tenuifolium</i>	black matipo; kohuhu
<i>Pomaderris amoena</i>	tauhinu
<i>Pseudopanax arboreus</i>	five-finger; whaupaku
<i>Pseudopanax crassifolius</i>	lancewood; horoeka
<i>Pseudowintera axillaris</i>	horopito
<i>Pseudowintera colorata</i>	mountain horopito
<i>Raukawa simplex</i>	haumakaroa
<i>Quintinia serrata</i>	tawheowheo
<i>Sophora tetraptera</i>	large-leaved kowhai
<i>Weinmannia racemosa</i>	kamahi; towai; tawhero

Dicotyledonous lianes and related trailing plants

<i>Clematis cunninghamii</i>	scented clematis; pokopoko
<i>Clematis foetida</i>	scented clematis
<i>Clematis paniculata</i>	clematis; puawhananga
<i>Metrosideros perforata</i>	aka; small white rata
<i>Muehlenbeckia australis</i>	poheuheu
<i>Parsonsia capsularis</i> var. <i>capsularis</i>	small flowered jasmine
<i>Rubus cissoides</i>	bush lawyer; tataramoa
* <i>Rubus fruticosus</i>	blackberry

Daisy-like herbs

* <i>Cirsium vulgare</i>	Scotch thistle
* <i>Conyza sumatrensis</i>	
* <i>Erechtites hieraciifolia</i>	American fireweed
<i>Euchiton japonicus</i>	
* <i>Gamochaeta coarctata</i>	
<i>Lagenophora pumila</i>	
<i>Senecio banksii</i>	
* <i>Senecio bipinnatisectus</i>	Australian fireweed
* <i>Sonchus oleraceus</i>	sow thistle; puha; puka

Dicotyledonous herbs other than Daisies

<i>Haloragis erecta</i> subsp. <i>erecta</i>	toatoa
<i>Hydrocotyle elongata</i>	
<i>Hydrocotyle moschata</i> var. <i>moschata</i>	
<i>Nertera depressa</i>	common nertera
<i>Nertera villosa</i>	
<i>Parietaria debilis</i>	
<i>Pelargonium inodorum</i>	
<i>Ranunculus reflexus</i>	maruru; hairy buttercup
<i>Solanum nodiflorum</i>	small-flowered nightshade

Stellaria parviflora
Wahlenbergia rupestris
Wahlenbergia violacea

blue harebell; rimu-roa

Monocotyledonous trees and shrubs

Cordyline banksii
Cordyline indivisa

forest cabbage tree
broad-leaved cabbage tree

Monocotyledonous lianes

Ripogonum scandens

supplejack; kareao

Sedges

Carex breviculmis
Carex spinirostris
Gabnia pauciflora
Gabnia setifolia
Morelotia affinis
Uncinia gracilentata
Uncinia rupestris
Uncinia scabra
Uncinia uncinata

watu

Rushes and allied plants

* *Juncus tenuis* subsp. *tenuis*
Luzula decipiens
Luzula subclavata

track rush

Grasses

* *Agrostis capillaris*
Anthosachne multiflorus subsp. *multiflorus*
Austroderia fulvida
Dichelachne crinita
Echinopogon ovatus
* *Holcus lanatus*
Microlaena avenacea
Microlaena stipoides
Poa anceps subsp. *anceps*
Poa breviglumis
Poa imbecilla
Rytidosperma gracile
Rytidosperma unarede

browntop
blue wheat grass; patiti
kakaho; toetoe
long-hair plume grass
hedgehog grass
Yorkshire fog
bush rice grass; oat grass
forest rice grass
coastal poa
fine poa
weak poa
forest fairy grass
cliff fairy grass

Orchids

<i>Diplodium alobulum</i>	
<i>Diplodium trullifolium</i>	trowel leaved orchid
<i>Drymoanthus adversus</i>	
<i>Earina autumnalis</i>	Easter orchid; raupeka
<i>Earina mucronata</i>	spring orchid; peka a waka
<i>Ichthyostomum pygmaeum</i>	
<i>Simpliglottis cornuta</i>	green bird orchid
<i>Thelymitra pauciflora</i>	
<i>Winika cunninghamii</i>	bamboo orchid

Remaining Monocotyledonous herbs

<i>Arthropodium candidum</i>	star lily; repehinapapa
<i>Astelia nervosa</i>	kahakaha
<i>Astelia solandri</i>	kowharawhara
<i>Dianella nigra</i>	blueberry; turutu
<i>Libertia grandiflora</i>	
<i>Luzuriaga parviflora</i>	lantern berry; puwatawata
<i>Phormium cookianum</i> subsp. <i>cookianum</i>	mountain flax; wharatiki