

Maungaongaonga Scenic Reserve, Waiotapu

Martin Pearce and Paul Cashmore

After two unsuccessful attempts to make it onto Maungaongaonga, this year the weather held off and on Sunday 7 July 2019 we headed out to Bennybee Tearooms to meet with Russell Berry (the adjoining landowner). He kindly led us up across his farmland to the base of the DOC Scenic Reserve. Previously unvisited by either the Rotorua or Waikato Botanical Societies and high on Paul's list of places to visit, eight of us made the trip (four from Waikato and four from Rotorua). We had a sketch and species list by Bruce Clarkson from 1981 as a base to work from.

The reserve is bounded by farmland and forestry. There is a small geothermal area on the southern slopes which we did not visit. The hill rises to a trig at just over 800 m. The lower areas of the reserve near the forest edge and adjoining the farm, were heavily browsed with very little regeneration remaining, probably by deer, wallabies and possums, though there was very little sign of them. We made our way up one of the steep ridges moving through mangeao (*Litsea calicaris*) and rewarewa (*Knightia excelsa*) forest until we came across our first emergent rimu (*Dacrydium cupressinum*).



Figure 1: Checking out the first large rimu we came across.

As we headed further up we passed a couple more large rimu emergent over more mangeao and rewarewa forest. We followed the ridge up through more abundant rimu regrowth in the canopy with smaller miro (*Prumnopitys ferruginea*) and horopito (*Pseudowintera colorata*) in the understory along with a good variety of fungi.



Figure 2: Fungi on forest floor.

The group was impressed by the sheer number and size of rimu on this narrow ridge. It was quite surprising that such a large area of millable rimu had survived in the Waioapu area where most of the more accessible remnants had been milled and cleared many decades ago. Further up the ridge the terrain flattened off briefly before climbing again. This area was dominated by tawa (*Beilschmiedia tawa*) – rewarewa forest.



Figure 3: Lunch in clearing on edge of Douglas-fir plantation.

As we moved higher towards the main ridgeline the forest canopy became much lower and was mainly dominated by shrub hardwoods – pate (*Schefflera digitata*) - kanono (*Coprosma grandifolia*)- mahoe (*Melicactus ramiflorus*)-kohuhu (*Pittosporum*

tenuifolium) -wineberry (*Aristotelia serrata*) -horopito- broadleaf (*Griselinia littoralis*) forest. We then climbed an old fence and popped out onto a small area of old rank pasture in a clearing at the edge of a Douglas-fir plantation still within the Scenic Reserve. The sun was shining and it was the perfect spot for lunch.



Figure 4: Great views over the surrounding district including Tarawera and Rotomahana.



Figure 5: At Maungaongaonga Trig.

After lunch we carried onto the trig skirting the Douglas-fir plantation, trying to avoid bush lawyer (*Rubus cissoides*). Browsing was again evident. Vegetation consisted of same mix of shrub hardwoods described above.

From the trig we continued down the ridge following an old bulldozer track on and off. The steep slope below us on the eastern side was tawa-dominated with the Douglas-fir plantation on western slope over the ridge. As we did not want to end up in the geothermal area, we left the main ridge and headed into some younger secondary vegetation.

Clarkson (1981) had mapped this area as bracken fern and rank pasture, obviously reflecting that the site had been grazed in the past. Thirty-eight years later the vegetation had developed somewhat. The face leading down from the ridge was mostly regenerating (rewarewa)/fivefinger (*Pseudopanax arboreus*) -kamahi (*Weinmannia racemosa*)-mahoe shrubland. There were still areas of bracken and kiokio (*Blechnum novae-zelandiae*) fernland interspersed amongst it. In the gully leading down to one of the main streams rank pasture still persisted although it appeared the secondary shrubland was gradually closing in around the edges. The ridge to the southeast was also covered in regenerating shrubland dominated by manuka (*Leptospermum scoparium*)-fivefinger-kohuhu-kamahi with a few emergent wilding pines present.

After following the grassy gully down for some distance we quickly entered the stream margins and into the tall tawa-rewarewa-mangaeo forest once again. We followed the stream down for a little way as the forest understorey became more open until we came to the fenceline. Following along the base of the slope through similar open forest brought us back to our vehicles.

In summary all participants agreed it was a very worthwhile day to visit a reserve which we had all driven past many times but had never ventured into. It is unusual in that the western half of the reserve is Douglas-fir plantation but the indigenous forest part to the east was quite the opposite. It includes some hidden gems which surprised us – namely the quality and quantity of rimu trees which dominate in places on and off the main ridge within the eastern half of the reserve. It had definitely been worth the wait to botanise this area.

References

- Clarkson, B.D. 1981a: Maungaongaonga Scenic Reserve. *Unpublished Report*. Botany Division, D.S.I.R., Rotorua. Copy held on Department of Conservation, Rotorua. 6pp.

Species list for Maungaongaonga Scenic Reserve

John F.F. Hobbs

7th July 2019

Pteridophytes

<i>Asplenium bulbiferum</i>	hen and chickens fern, mouku
<i>Asplenium flaccidum</i> subsp. <i>flaccidum</i>	hanging spleenwort, makawe
<i>Asplenium oblongifolium</i>	shining spleenwort, huruhuruwhenua
<i>Asplenium polyodon</i>	sickle spleenwort, petako
<i>Blechnum chambersii</i>	lance fern, nini
<i>Blechnum discolor</i>	crown fern, petipeti
<i>Blechnum filiforme</i>	climbing hard fern, pānako
<i>Blechnum fluviatile</i>	creek hard fern, kiwakiwa
<i>Blechnum novae-zelandiae</i>	kiokio
<i>Cyathea cunninghamii</i>	gully tree fern, ponga
<i>Cyathea dealbata</i>	silver fern, ponga
<i>Cyathea medullaris</i>	black tree fern, mamaku
<i>Cyathea smithii</i>	soft tree fern, kātote
<i>Dicksonia fibrosa</i>	whekī-ponga
<i>Dicksonia squarrosa</i>	harsh tree fern, whekī
<i>Diplazium australe</i>	southern ladyfern
<i>Histiopteris incisa</i>	water fern, mātātā
<i>Hymenophyllum dilatatum</i>	lop-sided filmy fern, matua mauku
<i>Hymenophyllum flabellatum</i>	fan-shaped filmy fern
<i>Hymenophyllum multifidum</i>	much-divided filmy fern
<i>Hymenophyllum nephrophyllum</i>	kidney fern, konehu
<i>Hymenophyllum rarum</i>	thin filmy fern
<i>Hymenophyllum revolutum</i>	filmy fern
<i>Hymenophyllum sanguinolentum</i>	blood-scented filmy fern, piri-piri
<i>Hypolepis ambigua</i>	pig fern
<i>Lastreopsis microsora</i> subsp. <i>pentangularis</i>	
<i>Leptopteris hymenophylloides</i>	single crepe fern, heruheru
<i>Loxogramme dictyopteris</i>	lance fern
<i>Microsorium pustulatum</i> subsp. <i>pustulatum</i>	hound's tongue fern, kōiwaowao
<i>Notogrammitis billardierei</i>	
<i>Paesia scaberula</i>	lace fern, mātātā
<i>Pellaea rotundifolia</i>	button fern, tarawera
<i>Phlegmariurus varius</i>	hanging clubmoss, iwituna
<i>Pneumatopteris pennigera</i>	gully fern, pākau
<i>Polystichum vestitum</i>	prickly shield fern, pūniu
<i>Pteridium esculentum</i>	bracken, rārahu
<i>Pteris macilenta</i>	sweet fern, turawera
<i>Pyrrhosia elaeagnifolia</i>	leather-leaf fern
<i>Rumohra adiantiformis</i>	leather-leaf shield fern
<i>Tmesipteris elongata</i>	fork fern
<i>Trichomanes venosum</i>	veined filmy fern

Gymnosperms

<i>Dacrydium cupressinum</i>	red pine, rimu
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* <i>Pinus radiata</i>	radiata pine
<i>Prumnopitys ferruginea</i>	miro

Dicotyledons

<i>Acaena novae-zelandiae</i>	red bidibid, piripiri
<i>Aristotelia serrata</i>	wineberry, makomako
<i>Beilschmiedia tawa</i>	tawa
<i>Brachyglottis repanda</i> var. <i>repanda</i>	bushman's friend, rangiora
<i>Carpodetus serratus</i>	
* <i>Centaurium erythraea</i>	
* <i>Cirsium vulgare</i>	Scotch thistle, pūngitangita
<i>Clematis cunninghamii</i>	
<i>Clematis paniculata</i>	
<i>Coprosma grandifolia</i>	large-leaved coprosma, kanono
<i>Coprosma robusta</i>	karamū
<i>Coprosma tenuifolia</i>	
* <i>Crepis capillaris</i>	
* <i>Cytisus scoparius</i>	
* <i>Digitalis purpurea</i>	
* <i>Erigeron sumatrensis</i>	broad-leaved fleabane, kāka
<i>Fuchsia excorticata</i>	tree fuchsia, kōitukutuku
<i>Geniostoma ligustrifolium</i> var. <i>ligustrifolium</i>	hangehange
<i>Griselinia littoralis</i>	broadleaf, kapuka
<i>Hedycarya arborea</i>	pigeonwood, porokaiwhiri
<i>Hydrocotyle dissecta</i>	
<i>Hydrocotyle microphylla</i>	
* <i>Jacobaea vulgaris</i>	ragwort
<i>Knightia excelsa</i>	New Zealand honeysuckle, rewarewa
<i>Kunzea robusta</i>	white tea tree, kānuka
<i>Leucopogon fasciculatus</i>	soft mingimingi, mingimingi
<i>Litsea calicaris</i> mangeao	
<i>Melicytus lanceolatus</i>	narrow-leaved mahoe, mahoe-wao
<i>Melicytus ramiflorus</i> subsp. <i>ramiflorus</i>	whitey wood, māhoe
<i>Metrosideros diffusa</i>	white rata vine, rātā
<i>Muehlenbeckia australis</i>	puka
* <i>Mycelis muralis</i>	wall lettuce
<i>Myrsine australis</i>	red matipo, māpou
<i>Myrsine salicina</i>	toro
<i>Pittosporum tenuifolium</i>	kohuhu, kōhūhū
<i>Pseudopanax arboreus</i>	five-finger,
<i>Pseudopanax crassifolius</i>	lancewood, horoeka
<i>Pseudowintera axillaris</i>	lowland horopito, horopito
<i>Pseudowintera colorata</i>	mountain horopito
* <i>Ranunculus repens</i>	creeping buttercup
<i>Raukawa edgerleyi</i>	rauikawa
<i>Rubus cissoides</i>	bush lawyer, tātarāmoa
* <i>Rubus fruticosus</i>	blackberry
<i>Rubus schmidelioides</i> var. <i>schmidelioides</i>	lawyer

<i>Schefflera digitata</i>	patē
* <i>Senecio bipinnatisectus</i>	Australian fireweed
* <i>Solanum chenopodioides</i>	velvety nightshade
<i>Solanum laciniatum</i>	poroporo
* <i>Urtica dioica</i> subsp. <i>dioica</i>	perennial nettle
<i>Veronica stricta</i> var. <i>stricta</i>	hebe, koromiko
<i>Weinmannia racemosa</i>	kamahi

Monocotyledons

<i>Astelia fragrans</i>	bush flax, kakaha
<i>Astelia microsperma</i>	
<i>Astelia solandri</i>	perching astelia, kaiwharawhara
<i>Carex uncinata</i>	common bastard grass, kamu
<i>Cordyline australis</i>	cabbage tree, tī kōuka
<i>Cordyline banksii</i>	forest cabbage tree, tī ngahere
* <i>Dactylis glomerata</i>	cocksfoot
<i>Dendrobium cunninghamii</i>	ladies' slipper orchid, winika
<i>Drymoanthus adversus</i>	green fleshy orchid
<i>Earina autumnalis</i>	Easter orchid, raupeka
<i>Earina mucronata</i>	spring orchid, peka-a-waka
<i>Gahnia pauciflora</i>	cutting sedge
<i>Hierochloa redolens</i>	holy grass, kāretu
* <i>Holcus lanatus</i>	Yorkshire fog
<i>Microlaena avenacea</i>	bush rice grass
<i>Phormium tenax</i>	flax, harakeke
<i>Ripogonum scandens</i>	supplejack, kareao