

BOTANICAL EXPEDITION TO MT TAUHARA

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It was a small keen group of botanists and walkers that visited Mt Tauhara in September this year. Mt Tauhara is a very prominent feature behind Taupo attaining an altitude of 1,088m, and visible from a long distance on the main roads into Taupo.

The vegetation cover on the mountain is relatively modified, with secondary forest on the margins and lower slopes. Broadleaf (*Griselinia lucida*), kamahi (*Weinmannia racemosa*), and Hall's totara (*Podocarpus hallii*) are common on the mid to upper slopes. However, it is the vegetation on the top of the mountain and on the open bluffs below the summit that makes the short sharp climb worthwhile. Here we found an interesting assemblage of shrubs, including *Brachyglottis elaeagnifolia*, *Hebe stricta* var. *egmontiana*, *Pseudopanax colensoi*, *Raukawa simplex*, broadleaf, and *Epacris alpina*. *Lycopodium fastigiatum* was a prominent groundcover, along with local *Celmisia gracilentata*, *Euphrasia cuneata*, and *Helichrysum filicaule*. Pygmy pine (*Lepidothamnus laxifolius*), down on the bluffs, was one of the highlights of the day. On the far side of the mountain, below the bluffs, is a remnant stand of black beech (*Nothofagus solandri* var. *solandri*), and we could not leave the mountain without exploring this interesting habitat. Clarkson & Nicholls (1992) provide a good outline and discussion of the distribution of black beech in the East Taupo Zone.

The Botanical Society has visited Tauhara twice before, once in 1984 (Regnier 1984) and again in 1993 (Nicholls 1994), and Tony Druce visited the mountain in 1959, 1961, and 1980 (Druce 1980). On this basis, we thought that it was likely that most of what was to be found would already have been recorded. On the way up the mountain, however, we found a hybrid of *Gaultheria antipoda* x *G. paniculata*. We also found *Blechnum vulcanicum* in a few places on the way up the track, which must have been overlooked during previous visits to the mountain. Down in the beech forest we found two additions to the list: two species of *Earina* (*E. autumnalis* and *E. mucronata*). In total, we found 12 additions to

the previous list of indigenous species on the mountain: *Gaultheria antipoda* x *G. paniculata*, mahoe-wao (*Meliclytus lanceolatus*), puawananga (*Clematis paniculata*), korokio (*Blechnum vulcanicum*), mokimoki (*Microsorium scandens*), *Polystichum silvaticum*, *Trichomanes venosum*, *Earina autumnalis*, *Earina mucronata*, *Carex geminata*, *Anaphalioides bellidioides* and *Euchiton collinus*. Seven new adventive species were recorded: tall fescue (*Schedonorus phoenix*), *Juncus effusus*, Australian fireweed (*Senecio bipinnatisectus*), sheep's sorrel (*Rumex acetosella*), centaury (*Centaureum erythraea*), mouse-ear chickweed (*Cerastium fontanum*), and creeping buttercup (*Ranunculus repens*). We also saw many of the previously recorded species (refer to attached species list).

Several indigenous species have been planted in the pasture just below the start of the track, including kowhai (*Sophora* sp.), ribbonwood (*Plagianthus regius*), and manuka (*Leptospermum scoparium*). Planted species are also listed in the attached species list.

Several indigenous bird species were seen during the day, including tui, korimako (bellbird), riroriro (grey warbler), and one karearea (falcon).

Mt Tauhara remains an interesting botanical destination, and the Society will no doubt be back there again within the next ten years or so.

REFERENCES

- Clarkson B.D. and Nicholls J.L. 1992: The distribution of beech (*Nothofagus*) species in the east Taupo zone after the 1850 BP volcanic eruptions. *Rotorua Botanical Society Newsletter No. 25*: 18-33.
- Druce A.P. 1980: Vascular plants of Mt Tauhara, Taupo. Unpublished species list held on www.nzpcn.co.nz 5 pp.
- Nicholls J. 1994: Mt Tauhara field trip: 2 May 1993. *Rotorua Botanical Society Newsletter No. 29*. p 5
- Regnier C. 1984: Mt Tauhara field trip. *Rotorua Botanical Society Newsletter No. 2*. pp 2-3.

VASCULAR PLANTS OF MT TAUHARA

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GRID REFERENCE NZMS 260 U18 851 740

Indigenous Species

Gymnosperms

<i>Lepidothamnus laxifolius</i>	pygmy pine	
<i>Phyllocladus alpinus</i>	mountain toatoa	(Regnier 1984)
<i>Podocarpus hallii</i>	Hall's totara	

Monocot. trees and shrubs

<i>Cordyline australis</i>	ti kouka	
<i>Cordyline banksii</i>	ti ngahere, forest cabbage tree	
<i>Cordyline indivisa</i>	mountain cabbage tree	
<i>Phormium cookianum</i>	wharariki, mountain flax	(Druce 1972)
<i>Phormium tenax</i>	harakeke, flax	

Dicot. trees and shrubs

<i>Androstoma empetrifolia</i>		
<i>Aristotelia serrata</i>	makomako, wineberry	
<i>Brachyglottis elaeagnifolia</i>		
<i>Brachyglottis repanda</i> s.s.	rangiora	
<i>Carmichaelia australis</i>	makaka, maukoro	
<i>Carpodetus serratus</i>	putaputaweta	
<i>Coprosma cheesemanii</i>		
<i>Coprosma foetidissima</i>	hupiro	
<i>Coprosma grandifolia</i>	kanono	
<i>Coprosma lucida</i>	karamu	
<i>Coprosma propinqua</i> subsp. <i>propinqua</i> × <i>C. robusta</i>		(Druce 1972)
<i>Coprosma robusta</i>	karamu	
<i>Coprosma tayloriae</i>		
<i>Coprosma tenuifolia</i>		
<i>Coriaria arborea</i> var. <i>arborea</i>	tutu	
<i>Dracophyllum subulatum</i>	monoao	
<i>Elaeocarpus dentatus</i> (incl <i>E. d.</i> var. <i>obovatus</i>)	hinau	
<i>Elaeocarpus hookerianus</i>	pokaka	
<i>Epacris alpina</i>		
<i>Fuchsia excorticata</i>	kotukutuku	

<i>Gaultheria antipoda</i>	tawiniwini	
<i>Gaultheria antipoda</i> × <i>G. depressa</i> var. <i>novae-zelandiae</i>		
<i>Gaultheria depressa</i> var. <i>novae-zelandiae</i>	snowberry	
<i>Gaultheria oppositifolia</i>	kama	
<i>Geniostoma ligustrifolium</i>	hangehange	
<i>Griselinia littoralis</i>	kapuka	
<i>Hebe stricta</i> var. <i>egmontiana</i>		
<i>Hebe stricta</i> var. <i>stricta</i>	koromiko	
<i>Hedycarya arborea</i>	porokaiwhiri	
<i>Knightia excelsa</i>	rewarewa	
<i>Kunzea ericoides</i>	kanuka	(Druce 1972)
<i>Leptecophylla juniperina</i>	prickly mingimingi	
<i>Leucopogon fasciculatus</i>	mingimingi	
<i>Leucopogon fraseri</i>	patotara	
<i>Melicytus ramiflorus</i> subsp. <i>ramiflorus</i>	mahoe	
<i>Microlaena avenacea</i>	bush rice grass	
<i>Myrsine divaricata</i>		(Druce 1972)
<i>Neomrytus pedunculata</i>	Rohutu	(Druce 1972)
<i>Nothofagus fusca</i> × <i>N. solandri</i>	tawhai	(Druce 1972)
<i>Nothofagus solandri</i> var. <i>solandri</i>	black beech	
<i>Olearia arborescens</i>		
<i>Olearia arborescens</i> × <i>O. ilicifolia</i>		(Druce 1972)
<i>Olearia rani</i>	heketara	
<i>Pimelea prostrata</i> s.s.	pinatoro	(Druce 1972)
<i>Pittosporum eugenioides</i>	tarata	
<i>Pittosporum tenuifolium</i> subsp. <i>tenuifolium</i>	kohuhu	
<i>Pomaderris</i> aff. <i>phyllicifolia</i>		
<i>Pseudopanax arboreus</i> var. <i>arboreus</i>	whauwhaupaku, five finger	
<i>Pseudopanax colensoi</i>	orihou	
<i>Pseudopanax crassifolius</i>	horoeka, lancewood	
<i>Pseudowintera colorata</i>	horopito	
<i>Raukawa simplex</i>		
<i>Schefflera digitata</i>	pate	
<i>Weinmannia racemosa</i>	kamahi	
 <u>Dicot. lianes</u>		
<i>Clematis forsteri</i>	poananga	
<i>Metrosideros</i> sp.		(Druce 1972)
<i>Muehlenbeckia australis</i>	puka	
<i>Muehlenbeckia australis</i> × <i>M. axillaris</i>		
<i>Muehlenbeckia axillaris</i>		
<i>Muehlenbeckia complexa</i>	pohuehue	(Druce 1972)
<i>Rubus cissoides</i>	tataramoa	

Rubus schmidelioides

akatataramoa

Lycopods and psilopsids

Huperzia varia

Whiri-o-Raukatauri

Lycopodium fastigiatum

Lycopodium scariosum

matukutuku

Lycopodium volubile

waewaekoukou

Tmesipteris elongate

(Druce 1972)

Tmesipteris tannensis

(Druce 1972)

Ferns

Asplenium bulbiferum s.s.

mouku

Asplenium flaccidum s.s.

makawe

Asplenium gracillimum

petako-paraharaha

Asplenium bookerianum

petako-paraharaha

Asplenium oblongifolium

huruhuruwhenua

Asplenium polyodon

petako

Asplenium terrestre subsp. *terrestre*

Blechnum chambersii

rereti

Blechnum colensoi

peretao

Blechnum discolor

petipeti, crown fern

Blechnum fluviatile agg.

kiwikiwi

Blechnum novae-zelandiae s.s.

kiokio

Blechnum penna-marina subsp. *alpina*

Blechnum procerum

Ctenopteris heterophylla

Cyathea dealbata

ponga

Cyathea medullaris

mamaku

Cyathea smithii

katote, soft tree fern

Dicksonia squarrosa

wheki

Grammitis billardierei

Grammitis magellanica subsp. *nothofageti*

Histiopteris incisa

matata

Hymenophyllum demissum

irirangi

Hymenophyllum dilatatum

matua mauku

Hymenophyllum flabellatum

mauku

Hymenophyllum multifidum

mauku

Hymenophyllum pulcherrimum

Hymenophyllum rarum

mauku

Hymenophyllum sanguinolentum

piripiri

Hymenophyllum scabrum

mauku

Hypolepis rufobarbata

(Druce 1972)

Lastreopsis glabella

Leptolepia novae-zelandiae

<i>Leptopteris hymenophylloides</i>	heruheru	
<i>Microsorium pustulatum</i>	kowaowao, hounds tongue fern	
<i>Paesia scaberula</i>	matata	
<i>Pellaea rotundifolia</i>	tarawera, button fern	(Druce 1972)
<i>Pneumatopteris pennigera</i>	pakau	
<i>Polystichum neozelandicum</i> subsp. <i>neozelandicum</i> (N/NI)		
<i>Polystichum vestitum</i>	puniu, shield fern	
<i>Pteridium esculentum</i>	bracken, rarahu	
<i>Pyrrosia eleagnifolia</i>	leather-leaf fern	
<i>Sticherus cunninghamii</i>	waekura	
<i>Trichomanes endlicherianum</i>		

Orchids

<i>Microtis unifolia</i> agg. (includes <i>M. aff. unifolia</i>)		
<i>Prasophyllum hectorii</i>		(Druce 1972)
<i>Thelymitra hatchii</i>		(Druce 1972)
<i>Thelymitra longifolia</i>	maikuku	

Grasses

<i>Cortaderia fulvida</i>	toetoe	
<i>Dichelachne avenoides</i>		
<i>Dichelachne crinita</i>	patiti	
<i>Hierochloa redolens</i>	karetu	
<i>Lachnagrostis filiformis</i>		
<i>Poa anceps</i> subsp. <i>anceps</i>		
<i>Poa breviglumis</i>		
<i>Poa cita</i>	silver tussock	
<i>Rytidosperma gracile</i>		
<i>Rytidosperma clavatum</i>		(Druce 1972)
<i>Rytidosperma setifolium</i>		(Druce 1972)
<i>Rytidosperma unarede</i>		
<i>Rytidosperma viride</i>		
<i>Trisetum</i> sp. (unnamed; aff. <i>T. antarcticum</i>)		(Druce 1972)

Sedges

<i>Carex breviculmis</i>		
<i>Carex dissita</i>		
<i>Carex forsteri</i>		
<i>Carex solandri</i>		
<i>Carex testacea</i>		(Druce 1972)
<i>Morelotia affinis</i>		
<i>Uncinia clavata</i>		(Druce 1972)
<i>Uncinia gracilentia</i>	matau	

Uncinia zotovii matau

Rushes

Empodisma minus (Druce 1972)

Luzula picta var. *picta*

Luzula subclavata

Monocot. herbs (other than orchids, grasses, sedges and rushes)

Astelia fragrans kakaha

Dianella nigra turutu

Libertia grandiflora mikoikoi

Libertia ixiooides mikoikoi (Druce 1972)

Composite herbs

Celmisia gracilentia var. *gracilentia* pekapeka

Craspedia minor var. *minor* (incl. *C. major*) (Druce 1972)

Craspedia viscosa (Druce 1972)

Euchiton audax

Helichrysum filicaule

Lagenifera pumila papataniwhaniwha

Microseris scapigera (Druce 1972)

Pseudognaphalium luteoalbum agg. pukatea

Senecio glaucophyllus sp. toa (Druce 1972)

Senecio glomeratus (Druce 1972)

Senecio minimus

Dicot. herbs (other than composites)

Acaena anserinifolia piripiri

Cardamine debilis

Epilobium alsinoides s.s. (Druce 1972)

Epilobium atriplicifolium s.s. (Druce 1972)

Epilobium cinereum (Druce 1972)

“*Epilobium minutiflorum*” (Druce 1972)

Epilobium nummulariifolium

Epilobium pedunculare

Epilobium pubens

Epilobium rotundifolium

Epilobium tenuipes s.s. (Druce 1972)

Euphrasia cuneata

Geranium microphyllum (Druce 1972)

Geranium potentilloides var. *potentilloides*

Geranium sessiliflorum (Druce 1972)

Gonocarpus aggregatus (Druce 1972)

Haloragis erecta subsp. *erecta* toatoa

<i>Hydrocotyle heteromeria</i>		
<i>Hydrocotyle moschata</i>		
<i>Nertera ciliata</i>		
<i>Ourisia macrophylla</i> subsp. <i>robusta</i>		(Druce 1972)
<i>Ranunculus reflexus</i>	maruru	
<i>Stellaria decipiens</i> (incl. <i>S. minuta</i> and <i>S. parviflora</i>)	kohukohu	
<i>Urtica incisa</i>		(Druce 1972)
<i>Wahlenbergia</i> sp.		

Adventive Species

Gymnosperms

Pinus radiata radiata pine

Dicot. trees and shrubs

Cytisus scoparius broom
Erica lusitanica Spanish heath

Grasses

Agrostis capillaris browntop
Aira caryophylla silvery hairy grass (Druce 1972)
Bromus hordeaceus
Dactylis glomerata cocksfoot
Holcus lanatus Yorkshire fog
Poa annua annual poa

Rushes

Juncus bufonius
Juncus tenuis track rush

Composite herbs

Achillea millefolium yarrow
Cirsium arvense California thistle
Gamochaeta spicata cudweed
Hypochoeris radicata catsear
Mycelis muralis wall lettuce
Senecio jacobaea ragwort

Dicot. herbs (other than composites)

Callitriche stagnalis starwort (Nicholls 1993)
Linum catharticum
Lotus pedunculatus lotus

<i>Parentucellia viscosa</i>	tarweed
<i>Prunella vulgaris</i>	selfheal
<i>Sagina procumbens</i>	pearlwort
<i>Stellaria media</i>	chickweed
<i>Trifolium dubium</i>	suckling clover
<i>Trifolium pratense</i>	red clover
<i>Trifolium repens</i>	white clover
<i>Trifolium subterraneum</i>	
<i>Wahlenbergia marginata</i>	

Planted

Indigenous

Gymnosperms

<i>Podocarpus totara</i>	totara
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Dicot. trees and shrubs

<i>Coprosma robusta</i>	karamu
<i>Leptospermum scoparium</i>	manuka
<i>Pittosporum eugenioides</i>	tarata
<i>Pittosporum tenuifolium</i> subsp. <i>tenuifolium</i>	kohuhu
<i>Plagianthus regius</i>	ribbonwood
<i>Sophora tetraptera</i>	kowhai

Adventive

Dicot. trees and shrubs

<i>Rosa</i> sp.	rose bush
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