

<i>Cornus florida</i>	flowering dogwood	<i>Styrax japonicus</i>	snow drop tree
<i>Corylus avellana</i>	hazelnut	<i>Taxodium distichum</i>	swamp cypress
<i>Dacrycarpus dacrydioides</i>	kahikatea		
<i>Dacrydium cupressinum</i>	rimu		
<i>Dendrobenthamia capitata</i>	Himalayan strawberry tree		
<i>Diospyros lotus</i>	date plum persimmon		
<i>Fraxinus americana</i>	white ash		
<i>F. angustifolia</i>	narrowleaf ash		
<i>F. excelsior</i>	european ash		
<i>F. ornus</i>	manna ash		
<i>F. pennsylvanica</i>	green ash		
<i>Gleditsia triacanthos</i>	honey locust		
<i>Hoheria populnea</i>	lacebark		
<i>Juglans ailantifolia</i>	Japanese walnut		
<i>J. nigra</i>	black walnut		
<i>Maclura pomifera</i>	osage orange		
<i>Nestegis lanceolata</i>	white maire		
<i>Nothofagus menziesii</i>	silver beech		
<i>Nyssa sylvatica</i>	tupelo		
<i>Paulownia elongata</i>	Lankao paulownia		
<i>Prunus avium</i>	wild cherry, mazzard		
<i>P. laurocerasus</i>	cherry laurel		
<i>P. mahaleb</i>	mahaleb cherry		
<i>Quercus canariensis</i>	Algerian oak		
<i>Q. cerris</i>	Turkey oak		
<i>Q. ilex</i>	holm oak		
<i>Q. nigra</i>	water oak		
<i>Q. palustris</i>	pin oak		
<i>Salix fragilis</i>	crack willow		
<i>S. matsudana</i> 'Tortuosa'	corkscrew willow		
<i>Sorbus aucuparia</i>	rowan, mountain ash		
<i>Styphnolobium japonica</i>	pagoda tree		

Wetland and marginal plants

There are numerous sedges present, those recorded being *Baumea articulata*, *Bolboschoenus fluviatilis*, *Carex lurida*, *Carex lessoniana*, *Carex subdola* (in flower), *Carex scoparia* and *Cyperus eragrostis*. Other wetland plants observed were reed sweetgrass (*Glyceria maxima*), parrot's feather (*Myriophyllum aquaticum*), beggar's ticks (*Bidens frondosa*), spearwort (*Ranunculus flammula*), lady's smock (*Cardamine pratensis*), primrose willow (*Ludwigia peploides*), willow herb (*Epilobium tetragonum*), creeping jenny (*Lysimachia nummularia*) and rootless duckweed (*Wolffia australiana*).

In the weedy fringes of the wetland was meadow foxtail (*Alopecurus pratensis*), very prominently in flower, tall fescue (*Schedonorus phoenix*), cocksfoot (*Dactylis glomerata*), marsh bedstraw (*Galium palustre*), wild radish (*Raphanus raphanistrum*), Queen wild carrot (*Daucus carota*), hemlock (*Conium maculatum*), prickly sow thistle (*Sonchus asper*), periwinkle (*Vinca major*), creeping buttercup (*Ranunculus repens*), creeping cinquefoil (*Potentilla reptans*), Japanese honeysuckle (*Lonicera japonica*), onion weed (*Allium triquetrum*), and red dead nettle (*Lamium purpureum*). A weed to catch particular attention was lily of the valley vine (*Salpichroa origanifolia*) which formed rampant colonies on old burning heaps.

Field Trip: Mt Te Aroha. 17/10/04

Mike Wilcox

Our group assembled at the foot of Mt Te Aroha and 8 am on Sunday 17th October 2004, ready to spend the day on the mountain. We were most fortunate in striking a rare fine, warm day for the climb. For the record book, we took 4 hours to get up to the top at 950 m, and about 3 hours to get down, thus filling in the day without difficulty. Those in the ascent party were Doug Ashby, Jane Ashby, Lisa Clapperton, Brian Cumber, Bev Davidson, Geoff Davidson, Leslie Haines, Graeme Hambly, Anthony Keen, Joan Kember, Alistair MacArthur, Juliet Richmond, Doug Shaw, Shirley Tomlinson, Alison Wesley, Mike Wilcox and Maureen Young. Another group – Enid Asquith, Paul Asquith, Jan Butcher, Jane Hart and Graeme Jane – explored the lower slopes and also ventured across to the Tui Road area.

The first part of the track – from the Te Aroha Domain (30 m asl) to Bald Spur (Whakapipi Lookout, 350 m) – goes through lowland forest with plentiful kohekohe (*Dysoxylum spectabile*), puriri (*Vitex lucens*), mangeao (*Litsea calicaris*), rewarewa (*Knightia excelsa*), kanuka (*Kunzea ericoides*) and tawa (*Beilschmiedia tawa*) as

the dominant native trees. There are numerous old planted exotic trees here as well, including radiata pine (*Pinus radiata*), maritime pine (*Pinus pinaster*), macrocarpa (*Cupressus macrocarpa*), lawsoniana (*Chamaecyparis lawsoniana*), white peppermint (*Eucalyptus pulchella*), tree privet (*Ligustrum lucidum*), and cherry laurel (*Prunus laurocerasus*). Perhaps the most spectacular botanical highlight along the Bald Spur Track was "parataniwha gully" – a large steep, shaded face clothed in a pure stand of parataniwha (*Elatostema rugosum*).

Other items of particular interest were *Carex spirostris* in flower, towards the start of the walk, colonies of the prostrate liverwort-like moss *Achrophyllum quadrifarium* on damp banks, good patches of *Corybas macranthus* in flower (and a magnificent *Corybas acuminatus*), and lowland ferns such as *Cyathea medullaris*, *Cyathea dealbata*, *Asplenium lamprophyllum*, *Blechnum chambersii*, *Blechnum novae-zelandiae*, *Adiantum cunninghamii*, and *Adiantum fulvum*.



Figure 1. Mt Te Aroha

The commonest understorey or trackside shrubs were hangehange (*Geniostoma ligustrifolium*), kawakawa (*Macropiper excelsum*), turipo, (*Rhabdothamnus sinclairii*), *Pomaderris phyllicifolia* var. *ericifolia*, akepiro (*Olearia furfuracea*), *Alseuosmia macrophylla*, and *Coprosma rhamnoides*. Beside the lookout platform we saw the sedge *Morelotia affinis*, and the shrub *Helichrysum lanceolatum*, but did not notice these species again during the day. Montpellier broom (*Teline monspessulana*) can also be seen at the platform.

The track continues on at first through tall kanuka, with plentiful clubmoss (*Lycopodium deuterodensum*) and *Dianella nigra*, and then on up through an impressive broadleaved forest from 400 to 600 m in which tawa, kohekohe and pukatea (*Laurelia novae-zelandiae*) were the dominants. There was one spectacular pukatea enveloped in a northern rata (*Metrosideros robusta*), and two large rimu (*Dacrydium cupressinum*). Pigeonwood (*Hedycarya arborea*), heketara (*Olearia rani*), mahoe (*Meliccytus ramiflorus*) and pate (*Schefflera dentata*) were abundant in the subcanopy, mangeao was still present, and *Cyathea smithii* had become the dominant tree fern. Hen and chickens fern (*Asplenium bulbiferum*) was the most abundant ground fern, and we also noted *Blechnum fluviatile*, *Blechnum nigrum* and *Leptopteris hymenophylloides*.



Figure 2. Parataniwha (*Elatostema rugosum*)

The sudden transition to the montane zone at about 650 m was marked by the first appearance of tawari (*Ixerba brexioides*), broadleaf (*Griselinia littoralis*), neinei (*Dracophyllum latifolium*), raukawa (*Raukawa edgerleyi*), lowland horopito (*Pseudowintera axillaris*), Hall's totara (*Podocarpus hallii*), and miro (*Prumnopitys ferrugina*). From 700-950 m the montane forest becomes increasingly luxuriant (and stunted), the dominant trees and shrubs being tawari, silver beech (*Nothofagus menziesii*), red beech (*Nothofagus fusca*), kamahi (*Weinmannia racemosa*), tawheowheo (*Quintinia serrata*), broadleaf, toro (*Myrsine salicina*), *Coprosma grandifolia*, *Coprosma colensoi*, *Coprosma foetidissima*, *Coprosma lucida*, mahoe, pate, mountain horopito (*Pseudowintera colorata*), mingimingi (*Leucopogon fasciculatus*), mountain nei nei (*Dracophyllum traversii*), *Raukawa simplex* var. *sinclairii*, *Raukawa anomalus* and *Pseudopanax colensoi*. The handsome *Pseudopanax laetus* occurs at the summit, and on rock faces we found the small composite *Anaphalioides trinervis*. The rich Araliaceae shrub flora is clearly a special botanical feature of the mountain.



Figure 3. The montane scrubland at the summit

The bronzy foliage of tawari was most striking – mentioned, too from the previous Auckland Botanical Society trip (Preston-Jones 1990) to the mountain in July 1989 – but we were many weeks too early for flowering. Conifers were represented by mountain toatoa (*Phyllocladus* aff. *alpinus*), toatoa (*Phyllocladus toatoa*) and kaikawaka (*Libocedrus bidwillii*).

The undergrowth had a profusion of ferns (*Blechnum procerum*, *Blechnum discolor*, *Blechnum fluviatile*) and we saw *Hymenophyllum pulcherrimum* and *Microsorium novae-zelandiae*. One liverwort – among the many mosses, liverworts, lichens and filmy ferns that cloth every tree trunk and ground hummock – stood out for its beauty and abundance. It was *Schistochila nobilis*, which carpeted the banks in the upper zone of the mountain.



Figure 4. Our triumphant group at the top



Figure 5. The liverwort *Schistochila nobilis*



Figure 6. Another picture of our group at the top

Monocot herbs were very prominent, the most noteworthy being *Microlaena avenacea*, *Luzuriaga parviflora*, *Libertia micrantha*, *Phormium cookianum*,

References

Boase, M. R.; Beadel, S. M. 1988. Checklist of the vascular taxa of Mt Te Aroha (NZMS N57 234777; 12 m – 953 m asl). *Rotorua Botanical Society Newsletter* 13:8-17.
 Preston-Jones, H. 1990. Field trip – Mt Te Aroha – 15 July 1989. *Auckland Botanical Society Journal* 45(1):28.

Gahnia procera, *Astelia grandis*, and *Collospermum microspermum*, and on the summit and the upper eastern slopes – *Cordyline indivisa* and *Cortaderia fulvida*. The very robust *Astelia grandis* was much admired – a most striking terrestrial plant.



Figure 7. *Astelia grandis*



Figure 8. *Cordyline indivisa*

We did not attempt to make a full species list of our visit, being content with just admiring the beautiful and varied vegetation of the mountain, and identifying and noting what we could along the track. The lists of A.P. Druce and Boase & Beadel (1988) were very helpful guides. We descended by the same track and a strenuous day – physically and botanically – ended in relaxation in the Te Aroha hot pools.