

References

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Trip Report: Mt Donald McLean Walk, Puriri Ridge Track and Omanawanui Link Track, Southern Waitakere Ranges, 20 February 2016

Bruce Calvert

Participants: *Paul Bell-Butler, Bruce Calvert, Ewen Cameron, Brian Cumber, Bev and Geoff Davidson, Neil Davies, Frances Duff, Frank and Mary Frazer, Robert Hoare (EntSoc), Sarah Gibbs, Bill Goldstone, Sharen Graham, Sandra Jones (leader), Anna and Richard Mairs, Nicholas Martin (EntSoc), Helen Nicholson with her baby Lachlan, Dhahara Ranatunga, Joshua Salter, Jenni Shanks, Ian and Lydia Smith, Vijay Soma, Adrienne Stanton, Cheryl Taylor, Valerie Tomlinson, Alison Wesley, Maureen Young.*

Who better to lead the Auckland Botanical Society section of this combined field trip than Sandra Jones, for she has been getting to know the species along the local Waitakere tracks for decades. She had done a botanising walk along the Omanawanui Link Track eleven times (see Appendix), so, when I stopped to observe a northern rata (*Metrosideros robusta*) at the end of the trip, I learned that the host tree fern had perished in 2005. Leading the Entomological Society contingent on this trip was Nicholas Martin, who was a pleasure to listen to as he told us stories of insects, and showed me lots of white fly he found on a

Meliccytus macrophyllus. Then he spotted a young *Pittosporum ellipticum*, about a metre high.

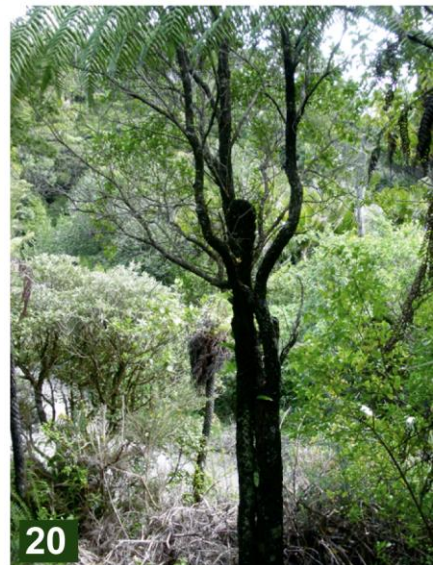
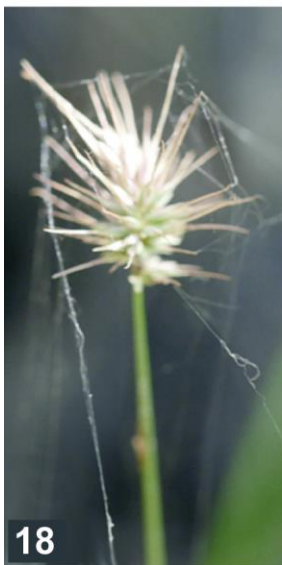
For those who do not know the region, it is native bush (Figs. 1, 2) which was cleared for kauri about a century ago, and has re-grown, safe in its Regional Park status. These tracks are all within 1 km of the Manukau Harbour, and are 200-400 m asl, exposed to the wind from the Tasman Sea.

It was back in 1972 or so that my wife, baby and I stayed in the house on Mt Donald McLean, now long gone, and I always feel a pleasant link with the mountain. I felt quite differently when I read one of Mr McLean's letters to important Maori New Zealanders back at the time of the Treaty; I thought I had seldom read anything more hostile.

The bush here is still so full of light nowadays that the flowers and fruit are sometimes only head high, or at least visible a metre or two up. You would never get this in the more mature bush of the North-eastern Waitakere Ranges that I work in, so I enjoyed being back on the mountain, and spent the long day scuttling along, trying to take an iPad photo

Figs. 1-10: **1.** The view NE, up the Manukau Harbour. Photo: J. Salter, 20 Feb 2016. **2.** The view SW to Whatipu and the Manukau mouth. Photo: J. Salter, 20 Feb 2016. **3.** Sandra's card for a moss (arrows) that was sharing a rock with a white crustose lichen, on the Puriri Ridge Track. Photo: C. Taylor, 20 Feb 2016. **4.** *Olearia furfuracea* in flower at the car park. Photo: B. Calvert, 20 Feb 2016. **5.** *Hebe bishopiana*, endemic to these ranges. Photo: B. Calvert, 20 Feb 2016. **6.** The maroon underside of a *H. bishopiana* leaf. Photo: N. Davies, 20 Feb 2016. **7.** *Phyllocladus toatoa* with *P. trichomanoides*. Photo: B. Calvert, 20 Feb 2016. **8.** *Dracophyllum sinclairii*. Photo: N. Davies, 20 Feb 2016. **9.** My favourite shot. Josh called it the entomologists' lunch. Photo: J. Salter, 20 Feb 2016. **10.** *Litsea calicaris*. Photo: B. Calvert, 20 Feb 2016.





and occasionally a macro as well. I was able to snap some of the plants that Sandra had marked with signs. Her practice of leaving on the track a large card with a plant name written in felt pen (Fig. 3) is much appreciated, and it has caught on with Maureen Young too.

Sandra asked me to write this report and say what appealed to me, so here goes with a personal account. The 500 m long gentle track from the car park to the summit started with an *Olearia furfuracea* (Fig. 4) and a *Hebe stricta* var. *stricta*, both in flower, conveniently at head and waist height. They have both been in flower around the forest; I saw this *Olearia* flowering at the beginning of February and this *Hebe* flowering in mid-February, both at 250 m. After a bit, we saw the petite mauve flowering *Lobelia anceps* growing on the track side. *Dianella latissima* was growing every 30 m or so, its intense blue fruit looking splendid. *Gahnia pauciflora* grew trackside too, and my first *Morelotia affinis* rose 30 cm and hid its panicles amongst its leaves. A *Hymenophyllum flabellatum* was noted here, and later in the day we would see *H. dilatatum* and *H. demissum*. We observed small plants of *Dawsonia superba*, reminding me how I restrict myself to vascular flora, while Vijay has been extending his botany to include rather more. A *Dodonaea viscosa* in fruit caught the eye too; as Wikipedia says: "the fruit is a capsule 1.5 cm broad, red ripening brown, with two to four wings". At this time of year many species were of special interest for being in fruit. Somewhere on the ascent we saw plenty of *Blechnum procerum* and later Neil told me of some with fertile fronds. I did not think I could find time to look carefully and slowly at all these specimens, so I decided that I would have to come back some time to ID some of these independently for my own satisfaction.

Wow, what excitement I felt on seeing *Hebe bishopiana* (Figs. 5, 6). Three weeks later I chatted with a sprayer called John, who was working to protect them. "Where are they mostly?" I asked. "West side of the hill", he replied.

A little further up the hill *Phyllocladus toatoa* (Fig. 7) grew in at least two spots right by the track, handily with a *P. trichomanoides* beside it, to

compare or contrast. *Nestegis lanceolata* was seen in flower, both then and later in the day when we were on Puriri Ridge Track. I note that *Nestegis cunninghamii* is given on the Puriri Ridge Track species list. I would love to find one in this forest, but have only seen them growing at Geoff and Bev's nursery in Oratia. On the north side of the mountain there was a *Dracophyllum sinclairii* (Fig. 8), its light foliage nicely visible against a dark trunk. A clump of *Gahnia setifolia* grew near the summit, and its large rich brown plumes led the eye out to the distant valley and beyond it the sea. On the summit, Sharen showed me where there grew *Muehlenbeckia australis* in flower and *Haloragis erecta* at the end of its fruiting season.

We all walked back down to the car park, and continued on to the 2 km Puriri Ridge Track, which is all at over 200 m asl. *Gahnia xanthocarpa* grew there, which I checked by the basal bracts, and a 4 m high *Melicytus micranthus*, which I checked by the pale patch on the small leaves. *Dodonaea viscosa* was in fruit here too. At foot level, *Lycopodium deuterodensum* grew by the track side looking like tiny rimu.

We all stopped for lunch (Fig. 9) under tall *Kunzea robusta* but soon pressed on. A *Pseudopanax crassifolius* was in fruit, and I remember two years ago looking through binoculars at the clusters of flowers at the ends of the branches. *Litsea calicaris* (Fig. 10) grew here too; it is always a plant that draws a smile for its good looks. Some *Carmichaelia australis* (Fig. 11) was in fruit, and these have always had visual appeal for their colour and shape. The saddest plant was an *Astelia banksii* (Fig. 12) whose fruit head lay beside it on the track, cut off by people clearing the track. There was speculation that it had been cleared for an upcoming "trail run".

Ewen Cameron told us some handy hints for spotting a *Prumnopitys taxifolia* at a distance – to look for the primary branches sloping steeply upwards, and a lighter hue for the foliage than on *P. ferruginea*. A *Melicope ternata* grew here, being close enough to the sea. It was a highlight for our day to see the 'At risk and naturally uncommon' *Pittosporum ellipticum* (Figs. 13, 14), these two spotted by Josh and Vijay.

Figs. 11-20: **11.** *Carmichaelia australis* with ripe pods. Photo: B. Calvert, 20 Feb 2016. **12.** *Astelia banksii*. Fruiting spike and cut leaves piled in front. Photo: B. Calvert, 20 Feb 2016. **13.** *Pittosporum ellipticum* juvenile leaves. Photo: J. Salter, 20 Feb 2016. **14.** *Pittosporum ellipticum*, 4m tall. Photo: J. Salter, 20 Feb 2016. **15.** *Dendrobium cunninghamii* in fruit. Photo: B. Calvert, 20 Feb 2016. **16.** *Helichrysum lanceolatum*, with lax habit and pale abaxial leaf surfaces. Photo: B. Calvert, 20 Feb 2016. **17.** *Olearia albida* leaves, showing leaf damage. Photo: N. Davies, 20 Feb 2016. **18.** *Echinopogon ovatus* seedhead draped with a web. Photo: B. Calvert, 20 Feb 2016. **19.** *Metrosideros robusta* trunk with tree-fern host remnant at the base. Photo: B. Calvert, 20 Feb 2016. **20.** The same *M. robusta* as in Fig. 19, eight years ago, with the dead *Cyathea dealbata* trunk still standing. Photo: S. Jones, 24 Sep 2008.

Sandra Jones drew my attention to an old fence which must have been 100 years old, which used to fence in the bullocks used for timber extraction. *Lindsaea trichomanoides* grew delicately at the track side. We saw *Dendrobium cunninghamii* (Fig. 15) in fruit just off this track, and at the road, where the Omanawanui Link Track began, we found *Earina mucronata* in fruit too.

On this 500 m-long Link Track (between Puriri Ridge Track and Omanawanui Track proper) Sandra pointed out to us, with her cards, my first *Helichrysum lanceolatum* (Fig. 16), first *Olearia albida* (Fig. 17), and first *Echinopogon ovatus* (Fig. 18). *Pteris saxatilis* grew prettily. My first *Wahlenbergia violacea* grew here, and later I recorded one with only four corolla lobes. My first *Hydrocotyle elongata* grew here at the track side, and had an intriguing inflorescence. A *Lastreopsis velutina* deserved a special printing on velvet, it was so smooth to touch.

Finally, at the track end, was the *Metrosideros robusta* mentioned earlier, now about 20 cm dbh, with its remnant tree fern almost gone (Fig. 19). Figure 20 shows that in 2008 the tree fern trunk was still standing, some three years after it died.

Sandra and I wanted to include Robert Hoare's information about moth damage to *Microsorium pustulatum* sori, so Ewen emailed Robert and asked him an additional question about moths on the fern sori. Robert replied "The moth on *Microsorium pustulatum* is *Thylacosceles radians* Philpott (family Stathmopodidae). The one on *Asplenium* is an unnamed species in the family Batrachedridae, currently referred to as *Batrachedra* sp. near *psithyra* Meyrick. It is easiest to find on *A. oblongifolium*, but is also recorded from *A. flaccidum*, *A. bulbiferum* and I think *A. polyodon*." I was happy to see Robert on our trip because I had recently attended his moth evening field trip with pleasure, and last year found a lot of enjoyment in his presentation to the Bot Soc in October, entitled "Hunches about munches, a whatmothdunnit of leaf-mines, nibblings and caterpillar signs for the botanical Poirot".

Vijay, Val and I carpoled, and we would have all got home by about 5 o'clock, having had a long and worthwhile day. Thanks to Vijay for walking at the back and collecting all the cards. I liked all the good company and friendly chat with lots of different people, and vowed to go again on any Bot. Soc. and Entomological Society trip.

Appendix. Species lists for the Mt. Donald McLean Walk, the Puriri Ridge Track and the Omanawanui Link Track (between Puriri Ridge Track and the start of Omanawanui Track proper), as observed on the Auckland Botanical Society/Entomological Society field trip on 20 Feb 2016. The initial species lists were compiled by Sandra Jones during many visits over a number of decades.

Key:

DMW = Mt Donald McLean Walk (to summit)
 PRT = Puriri Ridge Track
 OLT = Omanawanui Link Track
 + = initial list compiled by Sandra Jones

[ABS] = additional species recorded 20 Feb 2016
 ns = species not seen during field trip, including seasonal orchids.

	DMW	PRT	OLT				
Ferns and Lycopods							
<i>Adiantum cunninghamii</i>		+	+	<i>Asplenium polyodon</i>	+	+	+
<i>Adiantum fulvum</i>	+	[ABS]		<i>Blechnum discolor</i>	+	+	
<i>Adiantum viridescens</i>			+	<i>Blechnum filiforme</i>	+	+	+
<i>Arthropteris tenella</i>		ns		<i>Blechnum fluviatile</i>	+		
<i>Asplenium bulbiferum</i>		+	+	<i>Blechnum fraseri</i>	+	+	
<i>Asplenium flaccidum</i>	+	+	+	<i>Blechnum membranaceum</i>	+	+	
<i>Asplenium gracillimum</i> var <i>laxum</i>		ns		<i>Blechnum novae zelandiae</i>	+	+	
<i>Asplenium hookerianum</i>			ns	<i>Blechnum parrisiae</i>		+	
<i>Asplenium lamprophyllum</i>		+		<i>Blechnum procerum</i>	+	+	
<i>Asplenium oblongifolium</i>	+	+	+	<i>Cardiomanes reniforme</i>		+	
				<i>Cyathea dealbata</i>	+	+	+
				<i>Cyathea medullaris</i>	+	+	+

<i>Cyathea smithii</i>	+	+		<i>Coprosma arborea</i>	+	+	+
<i>Dicksonia squarrosa</i>	+			<i>Coprosma grandifolia</i>	+	+	+
<i>Hymenophyllum demissum</i>	+	+		<i>Coprosma lucida</i>	+	+	+
<i>Hymenophyllum dilatatum</i>		+		<i>Coprosma macrocarpa</i> x <i>C. propinqua</i>		ns	
<i>Hymenophyllum flabellatum</i>	+	+		<i>Coprosma rhamnoides</i>	+	+	+
<i>Hymenophyllum lyallii</i>	+	+		<i>Coprosma robusta</i>	+	+	+
<i>Hymenophyllum revolutum</i>		ns		<i>Corokia buddleioides</i>	+	+	
<i>Hypolepis rufobarbata</i>			ns	<i>Corokia cotoneaster</i>		ns	
<i>Lastreopsis hispida</i>	+	+	+	<i>Corynocarpus laevigatus</i>		+	+
<i>Lastreopsis velutina</i>			+	<i>Dichondra repens</i>	[ABS]		
<i>Lindsaea trichomanoides</i>		+		<i>Dodonaea viscosa</i>	+	+	
<i>Loxogramme dictyopteris</i>	+	+	+	<i>Dracophyllum latifolium</i>	ns	[ABS]	
<i>Lycopodiella cernua</i>	+			<i>Dracophyllum sinclairii</i>	+	+	
<i>Lycopodium deuterodensum</i>	+	+		<i>Drosera auriculata</i>	+		
<i>Lygodium articulatum</i>	+	+	+	<i>Dysoxylum spectabile</i>	+	+	+
<i>Microsorium pustulatum</i>	+	+	+	<i>Elaeocarpus dentatus</i>	+	+	+
<i>Microsorium scandens</i>	+			<i>Euchiton japonicus</i>	[ABS]		
<i>Paesia scaberula</i>	+	+		<i>Geniostoma ligustrifolium</i>	+	+	+
<i>Phlegmariurus varius</i>		+		<i>Gonocarpus incanus</i>		+	
<i>Pneumatopteris pennigera</i>	+	+		<i>Griselinia lucida</i>	+	+	+
<i>Polystichum neozealandicum</i>		[ABS]		<i>Haloragis erecta</i>	+	+	
<i>Polystichum wawranum</i>			+	<i>Hebe bishopiana</i>	+		
<i>Pteridium esculentum</i>	+	+	+	<i>Hebe macrocarpa</i>	+	+	+
<i>Pteris macilenta</i>	+	+		<i>Hebe stricta</i>	+		
<i>Pteris saxatilis</i>		+	+	<i>Hedycarya arborea</i>	+	+	+
<i>Pyrrosia eleagnifolia</i>			+	<i>Helichrysum lanceolatum</i>	+		+
<i>Rumohra adiantiformis</i>	+	+		<i>Hoheria populnea</i>	+	+	+
<i>Tmesipteris elongata</i>	+	+	+	<i>Hydrocotyle dissecta</i>	+	+	
<i>Tmesipteris tannensis</i>	+	+	+	<i>Hydrocotyle elongata</i>		+	+
Gymnosperms				<i>Hydrocotyle moschata</i>	+	+	
<i>Agathis australis</i>	+	+	+	<i>Knightia excelsa</i>	+	+	+
<i>Dacrycarpus dacrydioides</i>	+	+	+	<i>Kunzea robusta</i>	+	+	+
<i>Dacrydium cupressinum</i>	+	+	+	<i>Leionema nudum</i>	ns	ns	
<i>Libocedrus plumosa</i>		+		<i>Leptecophylla juniperina</i>	+	+	+
<i>Phyllocladus toatoa</i>	+	+		<i>Leptospermum scoparium</i>	+	+	
<i>Phyllocladus trichomanoides</i>	+	+	+	<i>Leucopogon fasciculatus</i>	+	+	+
<i>Podocarpus laetus</i>	[ABS]	+	+	<i>Litsea calicaris</i>	+	+	+
<i>Podocarpus totara</i>		+	+	<i>Lobelia anceps</i>	+		
<i>Prumnopitys ferruginea</i>	[ABS]	+	+	<i>Lophomyrtus bullata</i>	+	+	
<i>Prumnopitys taxifolia</i>		+	+	<i>Melicope simplex</i>			ns
Dicotyledons				<i>Melicope ternata</i>		+	
<i>Alectryon excelsus</i>		+	+	<i>Melicytus macrophyllus</i>	+	+	
<i>Alseuosmia macrophylla</i>	+	+	+	<i>Melicytus micranthus</i>		+	
<i>Beilschmiedia tarairi</i>		+	+	<i>Melicytus ramiflorus</i>	+	+	+
<i>Beilschmiedia tawa</i>	+	+	+	<i>Metrosideros diffusa</i>	+	+	
<i>Brachyglottis kirkii</i> var <i>angustior</i>		+	+	<i>Metrosideros fulgens</i>	+	+	+
<i>Brachyglottis repanda</i>	+	+	+	<i>Metrosideros perforata</i>	+	+	+
<i>Carmichaelia australis</i>	+	+	+	<i>Metrosideros robusta</i>		+	+
<i>Centella uniflora</i>	+	+		<i>Muehlenbeckia australis</i>	+		
<i>Clematis paniculata</i>	+	+	+	<i>Myrsine australis</i>	+	+	+
				<i>Myrsine salicina</i>	+	+	

<i>Nertera dichondrifolia</i>		+	
<i>Nestegis cunninghamii</i>		ns	
<i>Nestegis lanceolata</i>	+	+	+
<i>Olearia albida</i>		ns	+
<i>Olearia furfuracea</i>	+	+	+
<i>Olearia rani</i>	+	+	+
<i>Parsonsia capsularis</i>	+	+	+
<i>Passiflora tetrandra</i>	+	+	+
<i>Peperomia urvilleana</i>		+	
<i>Piper excelsum</i>		+	+
<i>Pittosporum cornifolium</i>		ns	+
<i>Pittosporum crassifolium</i>	+		
<i>Pittosporum ellipticum</i>		+	
<i>Pittosporum eugenioides</i>		+	
<i>Pittosporum tenuifolium</i>	+	+	+
<i>Pseudopanax arboreus</i>	+	+	+
<i>Pseudopanax crassifolium</i>	+	+	+
<i>Pseudopanax crassifolius</i> x <i>P. lessonii</i>		+	+
<i>Pseudopanax lessonii</i>	+	+	+
<i>Quintinia serrata</i>	+	[ABS]	
<i>Ranunculus reflexus</i>			+
<i>Raukava edgerleyi</i>	ns		
<i>Rhabdothamnus solandri</i>		+	
<i>Rubus australis</i>		+	
<i>Rubus cissoides</i>	+	+	+
<i>Schefflera digitata</i>	+	+	
<i>Sophora fulvida</i>		+	+
<i>Vitex lucens</i>		+	+
<i>Wahlenbergia violacea</i>	[ABS]	+	+
Monocotyledons (excl. orchids)			
<i>Arthropodium cirratum</i>		+	
<i>Astelia banksii</i>	+	+	+
<i>Astelia hastata</i>	+	+	+
<i>Astelia solandri</i>	+	+	+
<i>Astelia trinervia</i>	+	+	+
<i>Carex dissita</i>	+	[ABS]	[ABS]
<i>Carex lambertiana</i>		[ABS]	[ABS]
<i>Carex solandri</i>		[ABS]	[ABS]
<i>Cordyline australis</i>	+	+	+
<i>Cordyline banksii</i>	+	+	+
<i>Dianella latissima</i>	[ABS]	[ABS]	
<i>Dianella nigra</i>	+	+	+
<i>Echinopogon ovatus</i>	+		+
<i>Freycinetia banksii</i>	+	+	+
<i>Gahnia lacera</i>	+	+	+

<i>Gahnia pauciflora</i>	+	+	+
<i>Gahnia setifolia</i>	+		
<i>Gahnia xanthocarpa</i>	+	+	+
<i>Isolepis reticularis</i>		+	
<i>Lepidosperma laterale</i>	+	+	
<i>Libertia grandiflora</i>		+	
<i>Microlaena avenacea</i>		+	+
<i>Microlaena stipoides</i>	+		
<i>Morelotia affinis</i>	+		
<i>Oplismenus hirtellus</i>	[ABS]	+	+
<i>Phormium cookianum</i>	[ABS]	+	+
<i>Phormium tenax</i>	+	+	+
<i>Rhopalostylis sapida</i>	+	+	+
<i>Ripogonum scandens</i>	+	+	+
<i>Rytidosperma gracile</i>	[ABS]		
<i>Rytidosperma unarede</i>	[ABS]		
<i>Rytidosperma</i> sp.		+	
<i>Schoenus maschalinus</i>		+	
<i>Schoenus tendo</i>	+		
<i>Uncinia banksii</i>	+	+	+
<i>Uncinia uncinata</i>	+	+	
Orchids			
<i>Acianthus sinclairii</i>	ns	ns	ns
<i>Bulbophyllum pygmaeum</i>		[ABS]	
<i>Corybas macranthus</i>	+	ns	
<i>Corybas oblongus</i>	ns		
<i>Corybas trilobus</i>	+	ns	
<i>Dendrobium cunninghamii</i>		+	+
<i>Earina mucronata</i>		+	+
<i>Microtis unifolia</i>	ns		
<i>Orthoceras novae-zeelandiae</i>	ns		
<i>Pterostylis agathicola</i>			ns
<i>Pterostylis alobula</i>		ns	
<i>Pterostylis banksii</i>	ns	+	+
<i>Pterostylis cardiostigma</i>	ns	ns	
<i>Pterostylis graminea</i>		+	
<i>Thelymitra longifolia</i>	+		
<i>Thelymitra</i> sp.		+	
Mosses (not a comprehensive list)			
<i>Dawsonia superba</i>	+		
<i>Dicranoloma menziesii</i>		+	
<i>Leucobryum candidum</i>		+	
<i>Ptychomnion aciculare</i>		+	