Labour Weekend 2016 – Pirongia-based trip to Mt Karioi, Raglan, and Hillary Hope Reserve

Geoff Davidson (editor)

In Feb 2014 Bot Soc enjoyed the comforts of the Pirongia Forest Park Lodge, so we returned to use it as our base on the slopes of Mt Pirongia, to explore further afield. The group of 23 consisted of Hugo and Lou Baynes; Jan Butcher; Bruce Calvert; Lisa Clapperton; Janeen Collings; Bev and Geoff Davidson; Shelley Heiss-Dunlop; Leslie Haines; Richard Hursthouse; Margi Keys; Christine Major; Philip Moll; Colleen Pilcher; Helen Preston Jones; Juliet Richmond; John and Stella Rowe; Peter Scott; Jenni Shanks; Alison Wesley; Maureen Young .

Saturday 22nd October – Mt Karioi

Maureen Young

After driving from our lodge to Raglan, where we were to meet up with our local guides, Julia Brown and John Lawson, it was beyond our collective willpower to resist buying an early morning coffee. A word of advice – on Saturday morning of a long holiday weekend the cafés of Raglan have standing room only. After a few words from our guides we headed SW of the town to the clifftop parking area intended for those heading toward the summit of Mt Karioi (756 m, Fig. 1). Straight away a plant of interest was seen growing quite commonly around the cliff edge; this was *Olearia albida*, a small coastal tree of the northern North Island with defining features of undulate leaves backed with thick white tomentum.

We started on the track clutching a species list from 1985 compiled by Clayton-Greene and Wilson that tested our knowledge of old, outdated plant names. This list, with names updated, and additions noted, is shown in Appendix 1. The scrubby early vegetation included some bushes of *Corokia cotoneaster* and *Ozothamnus leptophyllus*. We began to climb through rather sparse kanuka trees *(Kunzea robusta)* on a track that was treacherously slippery from the recent rain, and thoughts of descending that way later in the day did not cheer. Before too long both the track and the vegetation began to improve with a more varied canopy and ground cover, the fern *Blechnum fluviatile* being a rather common species. The old name of *Polystichum richardii* was on our list, but the *Polystichum* on the trackside did not obviously show the features which are needed to decide whether it was *P. wawranum* or *P. neozelandicum*.

Where there was a gap in the canopy several rata vines were identified as *Metrosideros diffusa, M. fulgens, M. perforata*, and one that if it hadn't been flowering nicely probably wouldn't have been noticed, *M. carminea*. Later "over-the-top" Hugo (who was the only one to make it right across the mountain) showed us a stunning photo of a large rock smothered in the carmine flowers of this rather rare vine. Both *Parsonsia heterophylla* and *P. capsularis* were conveniently in flower so we could confidently distinguish between the two. *Hebe stricta* had been seen here and there, but when a plant was found with an obvious sinus on the final pair of leaves, the words of Peter de Lange echoed in my memory, "*Hebe macrocarpa* with a cold", and I concluded that we were seeing *H. corriganii. Astelia banksii* was growing on the ground near the coast, and later a few clumps of *A. trinervia* appeared, but with altitude the robust member of the Asteliaceae proved to be *A. fragrans*, with two prominent raised lateral veins on the abaxial surface. A plant or two of kaikomako (*Pennantia corymbosa*) demanded

Fig. 1. View of Mt Karioi from the Raglan foreshore. Photo: Bev Davidson, 22 Oct 2016.

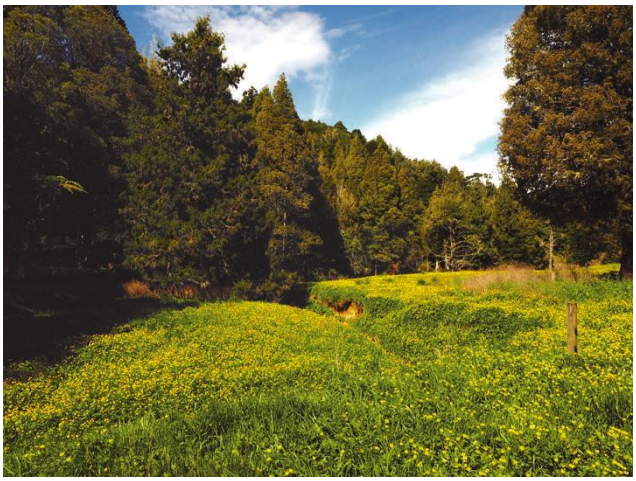

Fig. 2. Podocarp hillside encompassing the Old Mountain Rd entrance. Southern Reserve. Photo: Bev Davidson, 23 Oct 2016.

study, we became familiar with the local lacebark, *Hoheria sexstylosa,* and we found that mangeao (*Litsea calicaris*) is much more common in this area than around Auckland.

While contemplating the vegetation at our lunch stop, I decided that the *Dracophyllum latifolium* named on our list was actually *D. traversii*, with which I had become familiar on the summit of Hauturu (Little Barrier). From that point onwards, higher-altitude species began to appear – *Phormium tenax* gave way to *P. cookianum*, *Griselinia lucida* to *G. littoralis, Blechnum procerum* became common on the trackside, *Raukaua edgerleyi* made an odd appearance as did *Coprosma foetidissima* and *Quintinia serrata.* Search as I might, I could not find the listed *Dicksonia lanata*, but I did spot an unlisted *Astelia microsperma*.

The ridge terminated as an open knoll with *Gaultheria antipoda* on the trackside. It was obvious from the view over adjoining slopes that fires had raced up them in the past, leaving patterns of regenerating vegetation. A ladder led down from the knoll, but after climbing the next slope my legs decided that they were out of condition and I turned around. Several of the party carried on to a lookout and the track became steep and muddy again, meaning that feet had to be carefully placed, which made botanising difficult. However, an epiphytic *Brachyglottis kirkii* var. *kirkii* was spied. From the lookout were views out to Raglan and Pirongia in one direction, and a snowy Mt Taranaki towering to the south-west.

After retracing our steps for some way, a welcome sight was our guide John Lawson on the other side of the fence, redirecting the foot traffic down through kanuka forest to the road, thus avoiding the possibility of breaking a leg on the wet muddy slope.

Fig. 3. Farm track through tawa forest with Jan Butcher, Richard Hursthouse, Jenni Shanks and Leslie Haines. Southern Reserve. Photo: Bev Davidson, 23 Oct 2016.

Sunday 23rd October – Ed Hillary Hope Reserve South of SH23

Geoff Davidson

After precise instructions on where we were heading and how best to get there, individual drivers chose their own route and fortuitously none got lost, all arriving in the newly installed carpark on Old Mountain Road, where the sign announced that we were entering the 466 ha Ed Hillary Hope Reserve, recently purchased by the NZ Native Forests Restoration Trust. Ten years previously the Waikato Regional Council had offered to assist the Trust financially if they bought the 200 ha of standing tawa (*Beilschmiedia tawa*) broadleaf forest. Negotiations took time, the vendors died, the adjacent farm land was included in the purchase and eventually, the land was acquired. Divided by State Highway 23 the property is in two halves, and today's excursion focused on the southern portion.

The Regional Council's interest in the forest was because of its proximity to Hamilton and it is the largest piece of bush within a 20 km radius of the city. The Project Halo is designed to bring tui and other native birds to the city, and this property represented the largest potential source of birds. Pest control had been carried out for many years and the property's potential for restoration on the pasture areas was already evident in the regrowth in valleys and the remnant bush.

On arrival we were all impressed by the amphitheatre of rimu (*Dacrydium cupressinum*) and kahikatea (*Dacrycarpus dacrydioides*) that rose in front of us (Fig. 2). Wasting no time, we forded the streams and proceeded up the valley floor. The 200 ha of forest has been cut over but the remaining bush is rich in variety and health. We diverted up the first ridge on the right and grunted our way to the skyline where we got good views over the reserve. Here we split into two groups with the majority following old farm tracks to circle their way back down to the valley (Fig. 3). A small band of hardy souls/soles followed my footprints into the steep and uncharted southeast corner of the property. The tough going slowed us, but we were amazed to find ourselves 2 or 3 hours later coming out on to a knoll only a couple of hundred metres from where we had left the other group.

Re-orienting our position, we made a hasty descent to the stream, then out onto the road, and returned to the carpark only to find that the others had departed homeward; all except one lone stray, who had followed his own route and returned to the cars just as we were preparing to leave. It was an arduous day but the additions to the species list (Appendix 2) made it well worthwhile.

Fig. 4. Southern Reserve mixed tawa-podocarp forest, looking across to 'The Divvy' (SH23) and the northern block. Photo: Bev Davidson, 23 Oct 2016.

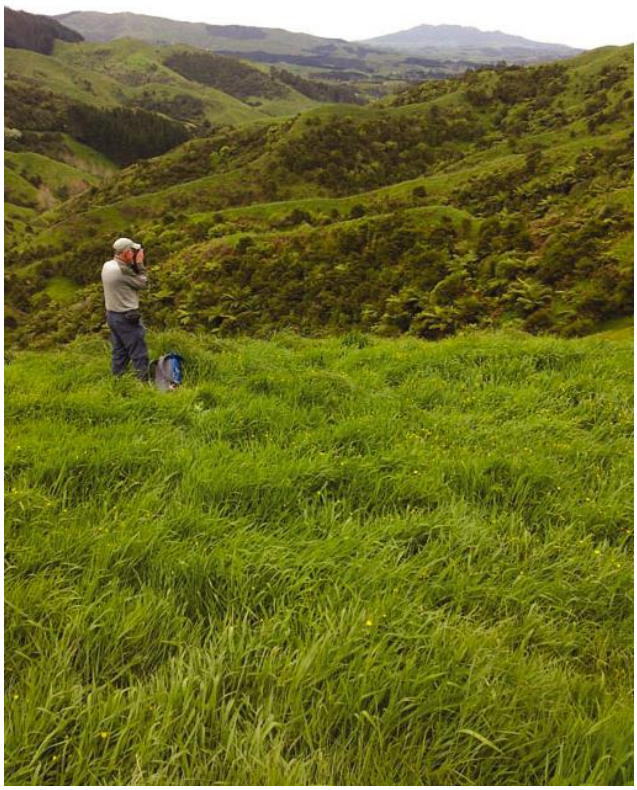

Fig. 5. Philip Moll establishing photo points for monitoring. Northern reserve. Photo: Geoff Davidson, 24 Oct 2016.

Fig. 6. Hillary Hope Reserve showing regrowth. Northern reserve. Photo: Geoff Davidson, 24 Oct 2016. (See cover)

The consensus amongst the members was that the property was a great addition to the conservation estate and would prove to be popular with Hamilton residents as their closest forest experience with a natural beauty worth discovering (Fig. 4).

What was the plant of the day? Well having seen the vibrant displays Karioi offered yesterday, I would emphatically say *Metrosideros carminea,* and I know what we can look forward to as the reserve improves over time with stock removed and pest control taking effect.

Monday 24th October – Ed Hillary Hope Reserve North of SH23

Geoff Davidson

Returning along the now familiar roads we convened at the 'Top of the Divvy' as the locals have referred to it for at least the past 103 years. In an article of the Waikato Times of 26th March 1914, there is a reference to the local Raglan Chambers of Commerce calling on the Government to not only set aside the Government reserve on Mt Karioi as a sanctuary for birds, but to also declare the 400–500 acres [approx. 200 ha] of Education Endowment on the south side of the Deviation as a Scenic Reserve. Well, the Deviation (abbreviated to 'The Divvy') was the new road (SH23) built to link Hamilton to Raglan and thus avoid the more tortuous route along the 'Old Mountain Road'. And the Education endowment had long since been sold to the Hope family, so when in May 2015 the Native Forest Restoration Trust opened the 'Ed Hillary Hope Reserve' it incorporated the 400–500 acres deemed important enough in 1914 to be worthy of Scenic Reserve status. Additionally the new reserve included 260 ha of rough farmland, of which 160 ha is to the north of 'The Divvy'.

How much grander would the bush have been in 1914? What has been lost in the ensuing century? We may not know the answers, but we have established the baseline of what exists now (Fig. 5), and we can monitor changes over the next century. In fact, we have already seen improvements on the northern side of the highway over the ten years it has taken to negotiate the purchase, as paddocks have reverted naturally from grass and *Paesia scaberula* to a diverse assemblage of genera such as *Coprosma, Rubus* and *Metrosideros* (Fig. 6). The gullies have long held treasures safely protected from browsing stock. *Dicksonia fibrosa* have slowly emerged under the kanuka cover, and, now that stock have been removed altogether, smaller ground ferns, such as species of *Asplenium, Blechnum* (Fig. 7), and *Lygodium articulatum* have established. The relatively short species list (Appendix 2) reflects the damaging land use of the past century, but with the 200 ha of well-

established forest just south of the highway, we can expect a rapid colonising of the northern block by many more species. The landscape in the north is almost as rugged as the south block, and energy levels were low, so it was a unanimous decision at midday to circle back to the vehicles and depart. Some headed straight home to Auckland while some slowly returned to the Pirongia Forest Park Lodge via caffeine outposts. The weather had been superb, the company fine, and another amazing corner of New Zealand had revealed some of its secrets.

Fig. 7. *Blechnum filiforme* recovering from trampling. Northern Reserve. Photo: Geoff Davidson, 24 Oct 2016.

Appendix 1: Mount Karioi - Checklist of Vascular Indigenous Plants
Compiled by Clayton-Greene & Wilson, 1985. Additions by ABS, 22 October 2016, marked +

Lycophytes

Lycopodium deuterodensum
Phlegmariurus varius

Ferns

Adiantum aethiopicum
Adiantum fulvum
Asplenium bulbiferum
Asplenium flaccidum
Asplenium lamprophyllum +
Asplenium oblongifolium
Asplenium polyodon
Blechnum chambersii
Blechnum colensoi
Blechnum discolor
Blechnum filiforme
Blechnum fluviatile
Blechnum fraseri
Blechnum membranaceum
Blechnum minus
Blechnum novae-zelandiae
Blechnum nigrum
Blechnum procerum +
Cardiomanes reniforme
Cyathea dealbata
Cyathea medullaris
Cyathea smithii
Dicksonia fibrosa
Dicksonia lanata
Dicksonia squarrosa
Histiopteris incisa
Hymenophyllum demissum
Hymenophyllum dilatatum
Hymenophyllum flabellatum
Hymenophyllum flexuosum
Hymenophyllum frankliniae
Hymenophyllum minimum
Hymenophyllum multifidum
Hymenophyllum pulcherrimum
Hymenophyllum rarum
Hymenophyllum revolutum
Hymenophyllum rufescens
Hymenophyllum sanguinolentum
Lastreopsis glabella
Lastreopsis hispida
Lastreopsis microsora
Leptopteris hymenophylloides
Leptopteris superba
Lindsaea trichomanoides
Lindsaea linearis
Loxogramme dictyopteris
Lygodium articulatum
Microsorum novae-zelandiae
Microsorum pustulatum
Microsorum scandens
Notogrammitis billardierei
Notogrammitis heterophylla
Paesia scaberula
Pneumatopteris pennigera
Polystichum sp.
Pteridium esculentum
Pteris macilenta
Pyrrosia elaeagnifolia
Rumohra adiantiformis
Sticherus cunninghamii
Trichomanes colensoi
Trichomanes elongatum
Trichomanes venosum
Tmesipteris tannensis

Gymnosperms

Dacrycarpus dacrydioides
Dacrydium cupressinum
Podocarpus laetus
Podocarpus totara
Prumnopitys ferruginea

Dicotyledons

Acaena novae-zelandiae
Alectryon excelsus
Alseuosmia macrophylla
Aristotelia serrata
Beilschmiedia tarairi
Beilschmiedia tawa
Brachyglottis kirkii var. *kirkii*
Brachyglottis repanda
Calystegia sepium
Calystegia tuguriorum
Carpodetus serratus
Centella uniflora +
Clematis forsteri
Clematis paniculata
Coprosma arborea
Coprosma foetidissima
Coprosma grandifolia
Coprosma lucida
Coprosma repens
Coprosma rhamnoides
Coprosma robusta
Corokia cotoneaster +
Corynocarpus laevigatus
Dichondra repens +
Dodonaea viscosa +
Dracophyllum traversii
Dysoxylum spectabile

Elaeocarpus dentatus		*Myrsine australis*		**Monocotyledons**	
Elatostoma rugosum		*Myrsine salicina*		*Astelia banksii*	
Entelea arborescens		*Nertera depressa*		*Astelia fragrans*	+
Euchiton japonicus	+	*Nertera dichondrifolia*		*Astelia hastata*	
Fuchsia excorticata		*Nestegis cunninghamii*		*Astelia microsperma*	+
Galium propinquum	+	*Nestegis lanceolata*		*Astelia solandri*	
Gaultheria antipoda	+	*Olearia albida*	+	*Astelia trinervia*	
Geniostoma ligustrifolium		*Olearia furfuracea*		*Austroderia splendens*	+
Gonocarpus incanus	+	*Olearia rani*		*Carex solandri*	+
Griselinia littoralis		*Oxalis exilis*	+	*Carex banksiana* (was *Uncinia banksii*)	
Griselinia lucida		*Ozothamnus leptophyllus*		*Carex uncinata* (was *U. uncinata*)	
Hebe corriganii	+	*Parsonsia capsularis*		*Cordyline australis*	+
Hebe stricta		*Parsonsia heterophylla*		*Cordyline banksii*	
Hedycarya arborea		*Passiflora tetrandra*		*Corybas trilobus*	
Hoheria sexstylosa		*Pennantia corymbosa*	+	*Dendrobium cunninghamii*	
Hydrocotyle dissecta	+	*Piper excelsum*		*Dianella nigra*	
Hydrocotyle microphylla	+	*Pittosporum eugenioides*		*Earina autumnalis*	
Knightia excelsa		*Pseudopanax arboreus*		*Earina mucronata*	
Kunzea robusta		*Pseudopanax colensoi*		*Freycinetia banksii*	
Lagenophora pumila	+	*Pseudopanax crassifolius*		*Gahnia lacera*	+
Laurelia novae-zelandiae		*Pseudowintera axillaris*		*Gahnia pauciflora*	
Leptecophylla juniperina		*Pseudowintera colorata*		*Gahnia xanthocarpa*	
Leptospermum scoparium		*Quintinia serrata*		*Lepidosperma australe*	+
Leptostigma setulosa	+	*Ranunculus reflexus*	+	*Libertia grandiflora*	+
Leucopogon fasciculatus		*Raukaua edgerleyi*		*Libertia ixioides*	+
Leucopogon fraseri	+	*Raukaua simplex*		*Libertia pulchella*	
Litsea calicaris		*Rhabdothamnus solandri*		*Luzuriaga parviflora*	
Lophomyrtus bullata		*Rubus australis*		*Microlaena avenacea*	+
Melicytus macrophyllus		*Rubus cissoides*	+	*Microlaena stipoides*	+
Melicytus ramiflorus		*Rubus schmidelioides*		*Phormium cookianum*	
Metrosideros carminea	+	*Schefflera digitata*		*Phormium tenax*	
Metrosideros diffusa		*Solanum aviculare*		*Poa anceps*	+
Metrosideros fulgens		*Sophora microphylla*		*Rhopalostylis sapida*	
Metrosideros perforata		*Stellaria parviflora*	+	*Ripogonum scandens*	
Metrosideros robusta		*Vitex lucens*		*Thelymitra longifolia*	+
Muehlenbeckia australis	+	*Weinmannia racemosa*			
Muehlenbeckia complexa	+				

Appendix 2: Ed Hillary Hope Reserve, south of SH23 - Checklist of Vascular Indigenous Plants
Compiled by G Jane and G Donaghy, 29 May 2016. Additions by ABS, 23 Oct 2016, marked +

Lycophytes		*Blechnum chambersii*		*Blechnum procerum*	
Lycopodium deuterodensum		*Blechnum discolor*		*Cyathea cunninghamii*	+
Lycopodium volubile		*Blechnum filiforme*		*Cyathea dealbata*	
Phlegmariurus varius		*Blechnum fluviatile*		*Cyathea medullaris*	
Ferns		*Blechnum fraseri*		*Cyathea smithii*	
Asplenium bulbiferum	+	*Blechnum membranaceum*	+	*Deparia petersenii*	
Asplenium oblongifolium		*Blechnum novae-zelandiae*		*Dicksonia squarrosa*	
Asplenium polyodon		*Blechnum parrisiae*	+	*Diplazium australe*	

Hymenophyllum demissum	
Hymenophyllum flabellatum	
Hymenophyllum flexuosum	+
Hymenophyllum frankliniae	+
Hymenophyllum multifidum	
Hymenophyllum revolutum	+
Hymenophyllum sanguinolentum	
Lastreopsis hispida	+
Lastreopsis glabella	+
Leptopteris hymenophylloides	
Loxogramme dictyopteris	+
Lygodium articulatum	
Microsorum pustulatum	
Microsorum scandens	
Paesia scaberula	
Pellaea rotundifolia	+
Pneumatopteris pennigera	
Pteridium esculentum	
Pteris macilenta	
Pyrrosia elaeagnifolia	
Rumohra adiantiformis	+
Tmesipteris elongata	
Tmesipteris lanceolata	+
Tmesipteris tannensis	

Gymnosperms

Dacrycarpus dacrydioides	
Dacrydium cupressinum	
Libocedrus plumosa	
Phyllocladus trichomanoides	
Podocarpus laetus	
Podocarpus totara	
Prumnopitys ferruginea	
Prumnopitys taxifolia	

Dicotyledons

Acaena anserinifolia	
Acaena novae-zelandiae	
Alectryon excelsus	+
Aristotelia serrata	
Beilschmiedia tawa	
Brachyglottis repanda	+
Carpodetus serratus	
Centella uniflora	
Clematis paniculata	
Coprosma arborea	
Coprosma grandifolia	+
Coprosma lucida	+
Coprosma rhamnoides	
Coprosma robusta	
Coprosma rotundifolia	
Coprosma spathulata	
Dysoxylum spectabile	
Elaeocarpus dentatus	
Elatostoma rugosum	
Euchiton japonicus	
Fuchsia excorticata	
Galium perpusillum	
Geniostoma ligustrifolium	
Griselinia lucida	
Hebe stricta	+
Hedycarya arborea	
Hoheria sexstylosa	
Hydrocotyle dissecta	
Hydrocotyle microphylla	+
Hydrocotyle moschata	
Knightia excelsa	
Kunzea robusta	
Lagenophora pumila	
Laurelia novae-zelandiae	
Leucopogon fasciculatus	
Litsea calicaris	+
Lobelia anceps	
Lophomyrtus bullata	
Melicytus micranthus	+
Melicytus ramiflorus	
Metrosideros carminea	+
Metrosideros diffusa	
Metrosideros fulgens	
Metrosideros perforata	
Mida salicifolia	
Myrsine australis	
Myrsine salicina	
Nertera depressa	
Nertera dichondrifolia	
Nestegis lanceolata	
Olearia rani	
Parsonsia heterophylla	
Passiflora tetrandra	
Peperomia urvilleana	+
Piper excelsum	
Pittosporum cornifolium	
Pseudognaphalium luteoalbum	
Pseudopanax crassifolius	
Quintinia serrata	+
Ranunculus reflexus	
Rubus cissoides	
Schefflera digitata	+
Senecio glomeratus	+
Senecio minimus	
Stellaria parviflora	+
Streblus heterophyllus	+
Urtica sykesii	+
Veronica plebeia	
Weinmannia racemosa	

Monocotyledons

Astelia hastata	
Astelia microsperma	
Astelia solandri	
Bulbophyllum pygmaeum	
Carex banksiana	+
Carex dissita	
Carex flagellifera	
Carex imbecilla	
Carex lessoniana	+
Carex solandri	
Carex subviridis	+
Carex uncinata	
Carex zotovii	
Cordyline banksii	
Corybas trilobus	+
Dendrobium cunninghamii	
Dianella nigra	
Drymoanthus adversus	
Earina autumnalis	+
Earina mucronata	
Echinopogon ovatus	
Freycinetia banksii	
Gahnia pauciflora	
Gahnia setifolia	
Juncus edgariae	
Libertia grandiflora	
Luzula picta var. *limosa*	
Microlaena avenacea	
Microlaena stipoides	
Microtis unifolia	
Oplismenus hirtellus	
Poa anceps	
Pterostylis alobula	
Pterostylis banksii	+
Pterostylis trullifolia	
Rhopalostylis sapida	
Ripogonum scandens	
Rytidosperma gracile	
Thelymitra longifolia	
Thelymitra nervosa	