

Microlaena stipoides
Microtis unifolia
Oplismenus hirtellus
*Paspalum dilatatum**
*Paspalum distichum**
Phormium tenax

*Poa trivialis**
Pterostylis banksii
Rhopalostylis sapida
Ripogonum scandens
*Schedonorus arundinaceus**
Schoenoplectus tabernaemontani

Schoenus maschalinus
*Sporobolus africanus**
Thelymitra aff. *pauciflora* ABS
"Darkie"
Triglochin striata
Typha orientalis

South Island trip to Molesworth, 3–10 January 2016

Maureen Young (editor)

Introduction

Participants: *Chris and Noel Ashton, Jan Butcher, Ewen Cameron, Lisa Clapperton, Louise Cotterall, Bev and Geoff Davidson, Gael Donaghy, Anne Fraser, Anne Grace, Leslie Haines, Barbara Hammonds, Shelley Heiss-Dunlop, Graeme Jane, John Millett, Helen Preston Jones, John and Stella Rowe, Jenni Shanks (organiser), Valerie Smith, Julia Stace, Claire Stevens, Cheryl Taylor, Alison Wesley, Anthony Wright (leader), Maureen Young.* The ages ranged from 50 to 87.

All the photographs were taken during the trip by: Alison (AWe), Anthony (AWr), Bev (BD), Cheryl (CT), Ewen (EC), Julia (JS) and Shelley (SH-D).

Twenty-eight members of the Auckland Botanical Society met at Christchurch Airport, then travelled north by two vans and a 4WD to Hanmer Springs. The town was in summer mode, with cafés and bars crowded and walkways and cycleways busy. We headed east to our accommodation for the week, the Hanmer Springs Forest Camp.

This well-equipped park suited our needs to perfection, and the friendly staff did all they could to make our stay enjoyable, including granting us their largest kitchen for our sole use. Apart from cooking and dining there, it also became our meeting place and science lab (Fig. 1), with the usual display of named species (Fig. 2) to help us identify South Island plants unfamiliar to us northerners. It was with sadness that we learned that our friend and proposed leader, Cathy Jones, was unwell and unable to lead us, but Anthony Wright stepped in and took over the role with his usual flair.

For an introduction to the vegetation of the area, Lucy Moore's Bulletin is highly recommended (Moore 1976).

Monday 4th January – Sedgemere Kettlehole and Bert's Creek

Alison Wesley

The 28 intrepid botsoccers departed the Hanmer Forest Park camp in three vehicles after assembling according to the leader's orders at 8.30 am. The route to our destination went via Jacks Pass, at which point we paused briefly to view the destination for another day – Dumblane mountain, unfortunately obscured by low cloud. As we drove further to our destination it was notable how much snow had fallen during the previous night when the temperature at Hanmer was reported to have declined to 2°C. Everyone was dressed warmly and was well prepared for the low temperatures and fortunately there was no further rain after 8 am. However, as the day advanced, the clouds parted and the sun shone, causing the need to reduce the layers of clothing. Indeed those who failed to use some sunscreen experienced mild sunburn.

The roadside flowers commented on as we drove along included profuse viper's bugloss (*Echium vulgare*) and at higher altitude *Bulbinella hookeri*. Various celmisias were spotted amongst the tussock and also the many flowering *Gentianella corymbifera* (Fig. 3). Unfortunately the colourful yellow broom (*Cytisus scoparius*) was also widespread. We observed the signs to the St James cycle track, drove over Island Pass and made a brief stop at the site of Bot Soc's former camp in 2002 – now with a facelift as a stopover for the new cycleway and called the Sedgemere Chalet and shelter behind which many of us had previously camped (Benham 2002).

We arrived at our first destination – the Sedgemere Kettlehole (Figs. 4, 5) – at about 11am, and the exploration of the minuscule herbaceous plants here became the highlight of the day. Ewen remarked that, compared with our previous visit

there in 2002, more of the herbs were in flower this time and it was sufficiently dry to explore more fully (Fig. 6). We understood from Cathy Jones that considerable weeding has been done to remove the exotic *Carex ovalis*. There were favourite plants reported which included the blue-flowering *Lobelia ionantha* (Fig. 7), *Chaerophyllum colensoi*, *Epilobium angustum*, *Myosotis brevis*, *Ranunculus* "macrophyllum", *Coprosma atropurpurea* with red shiny fat berries (Fig. 8) and *Stackhousia minima* (Fig. 9). It was amazing to view *Myosotis brevis* through a lens, as to the naked eye it was greyish and virtually dead, but when magnified the very hairy leaves and tiny yellow to cream flowers were very distinctive (Fig. 10). *Ophioglossum coriaceum* was found amongst the tiny plants but was rarely fertile on this occasion. By lunch time the sun was out and the wind had dropped so we ate our lunch in the very pleasant surroundings.

We then proceeded to Bert's Creek (Fig. 11), again visited in 2002 where we had enjoyed gin-and-tonics in less than ideal weather. Walking up Bert's Creek leads to a waterfall flowing through a narrow gulch and fringed on both sides by a number of alpine plants out of reach from the mammalian browsers. These included *Ourisia macrophylla*, *Helichrysum coralloides* (Fig. 12), *Parahebe decora*, *Dolichoglottis Iyallii*, *Gingidia montana* and *Traversia baccharoides* covered in buds, but showing evidence of past flowering with dead heads of daisy flowers. This plant is endemic to the northern South Island and is nationally recorded as 'At Risk, Declining' (de Lange et al. 2013).

Because of the long drive to get to these places (over 60 km one way) it was a long day, but a very enjoyable one. One vehicle took a more adventurous route which included a number of spectacular water crossings observed by other botsoccers from on the high road.

Tuesday 5th January – Crimea Range

Maureen Young

Today's plan was to stop at Island Saddle and do a circuit of the hills, gullies and scree of the Crimea Range as carried out in 2002. With sunny, clear and calm weather we headed north from Hanmer, with a stop at the Molesworth Gate and then on to the Saddle.

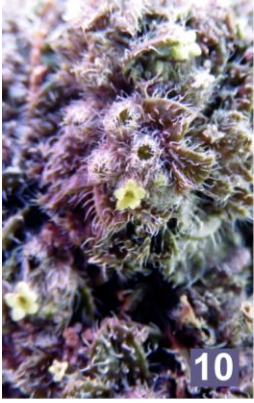
We headed first for a scree slope (Figs. 13, 14), walking over the ubiquitous and very slippery carpet grass (*Chionochloa australis*), which in places bore attractive flowering stems. Also common were taller tussock grasses, including *C. macra*, and the prostrate *Dracophyllum prunum*. With careful searching, the bare-looking scree surrendered its cryptic treasures; the grey coloured plants, *Lignocarpa carnosula* (Fig. 15), *Stellaria roughii* (Fig. 16), *Lobelia roughii* (Fig. 17) and *Haastia sinclairii* (Fig. 18); the yellow-flowered *Leptinella dendyi* (Fig. 19); the darker leptinellas, however, were not *L. atrata* subsp. *luteola* which tends to grow a bit more eastern and has shorter capitula bracts (Cathy Jones pers. comm.); *Epilobium pycnostachyum* and *Myosotis traversii* (with white flowers). But as always the Queen of the Scree was the penwiper, *Notothlaspi rosulatum*, locally common, perfumed and flowering to perfection (Fig. 20). The rosette of overlapping leaves is reminiscent of the overlapping triangles of felt sewn together by little girls in Victorian times to give as a present to their Papas for cleaning inky pen nibs.

Before the summit of the first hill was reached the party separated, with nearly half heading upwards to complete the whole circuit, and the others with more modest aims, dispersing here and there. The second hill repeated the pattern of a mosaic of carpet grass, *Dracophyllum*, tussocks and patches of bare, shattered rock. Several species of celmisia grew on the slope, including *Celmisia gracilentia*, *C. incana*, *C. laricifolia*, *C. sessiliflora*, *C. spectabilis*, *C. viscosa* and the giant *C. semicordata*, with beautiful silvery leaves and large white daisy flowerheads. The fragrant *Lobelia macrodon* with fleshy, split corollas and bright green toothed leaves hugged the ground in occasional patches. An indication that higher altitudes were being reached were hummocks of the cushion plant, *Phyllachne colensoi*, studded with starry white flowers, and the tiny speargrass, *Aciphylla monroi*.

The circuit party lunched when they reached the highest peak. The chasm between this peak and the opposing Turk Ridge was wide and deep, with a contrast between the glacier-smoothed hills they were standing on and the summit of the rugged range opposite, which had been above the glacial flow (Fig. 21). Along the summit ridge were many

Figs. 1-9: 1. Maureen, Anthony and Ewen, hard at work. SH-D. 2. Our roomy kitchen area at the Hanmer Springs Forest Camp with the ubiquitous nature table of named plant 'trimmings' from the day's adventures. Photo: SH-D. 3. *Gentianella corymbifera* nearly 0.5 m tall were locally common along the Molesworth roadside. SH-D. 4. Receiving our instructions from Anthony before we carefully spread over the botanically outstanding Sedgemere Kettlehole. EC. 5. The treeless landscape, backed by snow-dusted peaks – an amazing setting for the kettlehole. SH-D. 6. The tiny plants, often intertwined, took a very close inspection before their identity could be revealed. CT. 7. A few patches of the blue-flowering *Lobelia ionantha* were present along with abundant plants of *Epilobium angustum*. BD. 8. The fleshy fruit of *Coprosma atropurpurea* nestled in the sward with *Stackhousia minima* and a dozen other species. BD. 9. The diminutive orange flowers of *Stackhousia minima*, and a rabbit dropping for scale. AWe.





vegetable sheep, including *Haastia pulvinaris* (Fig. 22) and *Raoulia eximia*. After some dispute the promised tarn was located (Figs. 23, 24), with *Oreobolus pectinatus*, *Drosera arcturi*, *Carpha alpina*, *Carex gaudichaudiana*, *Argyrotegium (Euchiton) mackayi* and *Plantago triandra*. Some had knees that complained bitterly on the long scree descent, but the 5.2 km circuit was soon completed.

One intrepid party, with a suitably high wheel-based 4WD, returned to camp via the rarely-opened Tarndale Road.

Wednesday 6th January – Lake Tennyson Barbara Hammond

Another day dawned with a chorus of bellbirds greeting the early risers, before we got organised for the day's outing, planned to be more 'restful' with an earlier return than usual.

Lake Tennyson, tucked in below high mountains on three sides, with flat terraces of tussockland to the south, was looking splendid when we arrived, apparently unusually calm under a sunny sky. This was in marked contrast to later in the day when the wind was whipping up the surface. First on the agenda was a visit to the stand of mountain beech (*Fuscospora cliffortioides*) on the western side of the lake to look for red mistletoe (*Peraxilla tetrapetala*).

Most of us were ferried across the lake outlet (the Clarence River) by Anthony in his inimitable style, with many also getting a ride around the lake edge to the far end of the 4WD track. The drifts of pretty white flowers seen from the vehicle were later found to be *Parahebe decora*, growing close to the lake shore. *Oxalis magellanica* and *Bulbinella hookeri* (Fig. 25) were also putting on a fine display along the damp banks, and a single flowering plant of *Myosotis australis* "yellow" was seen. Anthony collected lakeshore drift, which, back at base, revealed a fine assemblage of species, including two water ferns, the diminutive *Pilularia novae-hollandiae* and the larger *Isoetes kirkii*, two or possibly three myriophyllums, *Myriophyllum propinquum*, *M. triphyllum* and *M.* "small" (possibly the form of *M. propinquum* with simple, linear leaves), and a *Lilaeopsis*, possibly *L. novae-zelandiae*.

Gooseberry bushes (*Ribes uva-crispa*) with unripe fruit, and blackcurrants (*R. nigrum*), which looked to have been well picked over, were found in openings

at the start of the walk through the beeches, presumably remnants from a long-gone dwelling. Anthony led us to the first mistletoe, in glorious flower (Fig. 26) high up in the host tree. Many photographs later the area was searched for more plants, with a satisfying total of nineteen being found. Bellbirds were in fine form, and several brown creepers were also seen and heard. Sadly the forest did not look in great shape, with very little undergrowth apart from small plants of *Muehlenbeckia axillaris* and the odd beech seedling. A small patch of *Lagenophora strangulata* was also seen.

Then it was back across the river (Fig. 27) to the vehicles for lunch before heading on-foot <0.5 km for the kettleholes perched on the flats above the river. The first one visited was more quaking bog than open water and had a great diversity of plants. Many were flowering or fruiting, including *Utricularia dichotoma* (Fig. 28), which had to get the 'prettiest plant award' for its show of purple flowers with yellow 'eyes', *Drosera arcturi*, *Abrotanella fertilis*, *Celmisia alpina*, and cushions of *Centrolepis ciliata*. There was also one bog pine (*Halocarpus biformis*) on the edge of this kettlehole.

Another habitat was found over the lip of this kettlehole in the overflow down towards the river, where a quick sortie revealed *Gingidia montana* and the exotics *Rumex brownii* and *Epilobium ciliatum*. A much-admired flowering *Aciphylla colensoi* (Fig. 29) was also on the riverbank. Except for the willowherb the rest were additions to the list.

Two other kettleholes were visited. Both had large open bodies of standing water, a different habitat again from the first one. One contained *Myriophyllum pedunculatum* subsp. *novae-zelandiae* in large patches of red or green, some plants stranded on the mud left by the receding water. The other had yet another surprise for us – another *Myriophyllum*, this time *M. propinquum* with the simple leaf form, in flower and fruit. Some flowers were above the water, some under the water.

Not surprisingly, the tussockland surrounding the kettleholes had an almost completely different plant assemblage from the previous two habitats. Small mats of *Raoulia grandiflora* (Fig. 30) and *Pimelea mesoa* were present amongst the tussocks, and *Herpolirion novae-zelandiae* was discovered in flower, a cream form rather than the blue most of us

Figs. 10-18: **10.** The small brown patches of *Myosotis brevis* looked dead until examined closely. The diminutive yellow to cream flowers measured only 0.5-1.0 mm across. AWe. **11.** The dampness and rocky walls of Bert's Creek supported a different flora away from browsing mammals. SH-D. **12.** *Helichrysum coralloides* on the rocky bluffs at Bert's Creek, with a single flowerhead. BD. **13.** Ascending the first scree slope searching for cryptic species, at first hard to see. BD. **14.** View from the scree with the vans below at Island Saddle – a rocky treeless landscape. CT. **15.** *Lignocarpa carnosula* (Apiaceae) has a long, stout taproot like many scree species. EC. **16.** *Stellaria roughii* (Caryophyllaceae). SH-D. **17.** *Lobelia roughii* – the white flowers give it away. SH-D. **18.** *Haastia sinclairii* occurred in the more stable scree areas. AWR.

had seen in other places. This was another addition to the list, along with five celmisias, *Celmisia sinclairii*, *C. discolor*, *C. incana*, *C. semicordata* (Fig. 31), and *C. spectabilis*, making a total of seven celmisia species for the area.

The only downside to the day was seeing a thrill-seeker on a trail bike high up on the scree above the road to the campsite. If this is a regular occurrence, perhaps DoC signage could include information about the special scree plants and a request to walk, not ride up there.

Lessons for the day: purposefully visit different habitats – different species are likely to be found in each; and don't ignore lakeshore drift – who knows what delights it might contain.

Thursday 7th January – Dumblane (1303 m) **Julia Stace, Claire Warren and Shelley Heiss-Dunlop**

On a hot, cloudless morning, 28 of us stepped out of the vehicles parked at the top of Jack's Pass (870 m). Tourists throwing biodegradable waste out of car windows were shamed into picking up the mess of orange peel and apple cores by this group of ardent conservationists. We headed up to the summit of Dumblane following a steep 3.5 km route (433 vertical metres) marked with poles and cairns.

After passing through young mountain beech forest we then encountered a mix of flowering manuka (*Leptospermum scoparium*) and kanuka (*Kunzea serotina*) scrub with other low growing natives (*Acaena inermis*, *Celmisia discolor*, *Hebe lycopodioides* (Fig. 32), *H. brachysiphon*, *Craspedia incana* and *Myrsine nummularia*); the montane zone with many species seen on previous days (*Celmisia semicordata*, *C. traversii* (Fig. 33), *Gaultheria antipoda*, *G. crassa* and *Podocarpus nivalis*); and finally the open windswept tops (*Chionochloa australis*, *C. ?macra*, *Dracophyllum rosmarinifolium* and *Celmisia incana*). The botanising and the walk up to the summit (Fig. 34) took three hours. Tucked below the summit out of the wind, we had lunch (Fig. 35) among the spectacular panoramas of the Hanmer and Amuri plains to the south, the Boddington Range and Spenser Mountains to the north and Seaward Kaikoura Range to the east.

The whole area must have been cleared, perhaps by burning, and the beech forest is probably still a long way below its original forest line. Several

wilding pines, *Pinus contorta* and *Pseudotsuga menziesii* (Douglas fir) growing up to the summit zone, met their ends that day.

Common along the track were *Forstera tenella*, *Celmisia* species, with the occasional *Lobelia macrodon* and *Wahlenbergia albomarginata*, all beautifully flowering at this time of year. The special plant of the day was mountain sandalwood (*Exocarpos bidwillii*) (Fig. 36), a root parasite of species unknown, but possibly *Dracophyllum rosmarinifolium*. The sandalwood was abundant near the start and also present half way up the track.

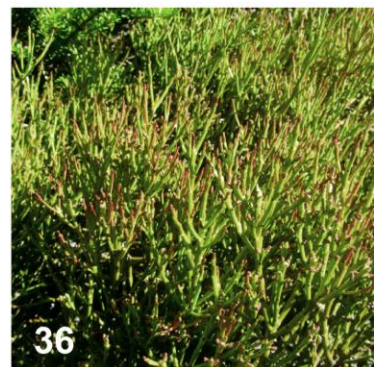
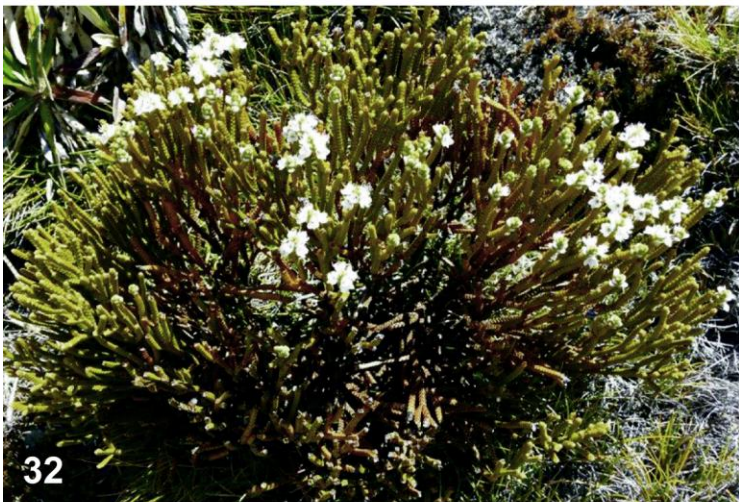
The species list of some 130 species that we were using was compiled by Graeme Jane on 31 January 2013. Because we went further and higher up the track than Graeme had initially, we added more than 40 species, including single plants of both *Pseudopanax colensoi* and *Clematis forsteri*, and two ferns - *Notogrammitis crassior* and *Hymenophyllum multifidum*.

Other highlights were several orchids, namely *Gastrodia cunninghamii*, *Aporostylis bifolia*, *Prasophyllum colensoi*, *Thelymitra hatchii*, *T. longifolia* and *T. nervosa*; and two additional *Pimelea* species (*P. mesoa* and *P. concinna*) spotted on the way up. Coral broom (*Carmichaelia crassicaulis*) (Fig. 37), with a conservation status of 'At Risk – Declining' (de Lange et al. 2013), was also seen flowering on a rocky outcrop near the side of the track.

A small tarn 100 m below the track near the summit was visited by a few of us as we either ascended or descended. *Lobelia angulata* was found here, flowering under water after some recent heavy rain in the area. The exotic *Juncus effusus* seemed to be the most abundant wetland species, with the sedge *Carex coriacea* growing on the outer edges of the pond where stock may have grazed in the past. The exotic brown top (*Agrostis capillaris*) was also seen in the pond and the mat-forming herb *Argyrotegium mackayi* was also present. *Aciphylla aurea* framed the lower edge of the pond where it dropped away. It was on a rocky outcrop near this tarn that the ferns *Notogrammitis crassior* and *Hymenophyllum multifidum* were seen. At the summit we saw several large patches of *Celmisia incana*, its brightness highlighted by the golden brown grasses and *Dracophyllum* bushes.

Figs. 19-27: **19.** *Leptinella dendyi* – some colour variation occurred between plants. AWe. **20.** Penwiper (*Notothlaspi rosulatum*, Brassicaceae) with its scented flowers will now set seed and die. SH-D. **21.** View from the Crimea Range looking north over the Wairau headwaters to the more rugged Turk Ridge. AWr. **22.** *Haastia pulvinaris*, a vegetable sheep, were scattered along the summit ridge of the Crimea Range. AWe. **23.** Searching for the tarn, from the summit ridge. JS. **24.** Crimea Range tarn with interesting wetland herbs, draining into the Wairau. BD. **25.** The flowering *Bulbinella hookeri* on a wet bank beside Lake Tennyson, being 'captured' by Geoff and Anthony. JS. **26.** Red mistletoe (*Peraxilla tetrapetala*) on a stand of mountain beech by Lake Tennyson. BD. **27.** Passengers being ferried back across the Clarence River by Anthony. CT.





As the way down was both steep and slippery on the loose rubble, little botanising was done. Upon reaching the beech below, all parched explorers were greeted with the welcome sight of a finish line of chilled gin-and-tonics (Figs. 38) in luminous green, blue and yellow cups, with which to toast HM the Queen ("knocked the bastard off!"); a tradition (the gin-and-tonics that is) instigated by Anthony Wright. After finishing our drinks, we merrily headed back to the camp in time to spruce up and all go out for dinner in Hanmer at *Coriander's* (Fig. 39) – an excellent Indian restaurant.

Friday 8th January – Fowlers Pass

Lisa Clapperton

Participants: hmmm, that would depend on the start or the finish. The weather was inclement as we gathered on the flat beside the historic Fowlers Pass Hut (Figs. 40, 41), a two-roomed tin hut lined with tongue-and-groove timber situated adjacent to the Top House Road.

We followed a well-developed benched track with a gentle contour up the valley, open to horse traffic attested to by the hoof prints and the abundant *Lotus* spp. and other pasture species along the edges at the lower altitudes.

As we climbed, the vegetation gradually changed (as did the weather); mounds of *Dracophyllum rosmarinifolium*, *Hebe macrantha* (in flower), *Astelia nervosa*, and *Olearia cymbifolia* created a carpet across the slopes. Where various creeks crossed the track, semi-submerged flowering mats of the herb *Montia fontana* subsp. *montana* were frequent. *Podocarpus nivalis* appeared as we gained height. Along the track *Hebe lycopodioides* was in flower, and *Myrsine nummularia* resplendently in fruit. A pretty little stream in a sheltered gully provided habitat for *Polystichum vestitum* and *Aristotelia fruticosa*. Here we lost a sizable portion of the party, which had dwindled since setting off, due to the deteriorating nature of the weather (Fig. 42) and inability to take notes or photographs.

As we got closer to the saddle the head-wind and rain became more persistent and botanists fewer, but the Pass at 1296 m was attained by an intrepid five, who continued on into the next valley to an area of mountain beech forest. The track was considerably steeper on the other side, zig-zagging down a steep gravel slope. On this side of the pass in the steep valley we were following, large red flaky-

barked shrubs attracted attention. Anthony climbed across to them, identifying them as *Brachyglottis cassinioides*. *Coriaria angustissima* was common along the track on the western side of the pass adjacent to the stream edge. In the shelter of the beech *Gingidia montana* was seen by the stream edge, together with very long fronds of *Blechnum penna-marina*.

A horse with a very young, bright-pink-helmeted rider passed us while we huddled in the rain having lunch, and we chatted to the child's father, who had worked for DoC and spoke of *Pittosporum patulum* being in the area. We had no luck locating it.

The less intrepid had retreated to the Fowlers Pass Hut earlier in the piece, and found a paperback novel, but unfortunately the plot was difficult to pick up given that the first 154 pages had been previously used as fire starters. A fire was kindled (Fig. 43) to be enjoyed as wet, cold boots trailed in, in dribs and drabs (Fig. 44).

The hut windowsill was decorated with some irises, which Shelley informed those present were "wild" by the homestead. This caused one of the returning vans to stop at the St James Homestead to view the strongly rhizomatous irises (*Iris orientalis*) surviving in the open river flat, and take in the historic buildings, including the cobbled horse stable and the three chimneys and old coal range – the remnants of the original homestead (Fig. 45).

Saturday 9th January – Molesworth Station

Bev and Geoff Davidson

Another sunny Kaikoura day brought us to the last day to explore Molesworth. Our intrepid leader, Anthony, announced that he wanted to show us expansive fields of gentians (*Gentianella corymbifera*) which grew half way along the main Molesworth Road on the banks of the Acheron River. Having repeatedly travelled over the Clarence Valley Road and Jacks Pass, it was decided to risk the route over Jollies Pass. Its awesome reputation was belied and all vehicles safely negotiated the twisting road to the summit, where we stopped to admire the regenerating beech forest.

The ubiquitous black fungus covered every trunk and sun glistened on the honey dew that dripped from the anal tube extensions of the hidden scale insects (*Ultracoelostoma assimile*, Margarodidae). They were busy, deep in fissures in the bark, sucking

Figs. 28-36: **28.** *Utricularia dichotoma* amongst *Drosera arcturi* and *Celmisia alpina* in a quaking bog. AWe. **29.** *Aciphylla colensoi* in full glory on the side of the Clarence River. AWr. **30.** A mat of the flowering *Raoulia grandiflora* with woolly moss *Racomitrium* on the tussockland by the tarns. CT. **31.** *Celmisia semicordata* – the largest of the many *Celmisia* species growing in and around the tarns. CT. **32.** *Hebe lycopodioides* frequent in the rocky slopes of Dumblane mountain. AWr. **33.** *Celmisia traversii* on Dumblane – back of leaf and leaf margins with ferruginous hairs. BD. **34.** Maureen and Anne pleased to reach the Dumblane summit. BD. **35.** Lunch out of the wind on the Dumblane summit. AWe. **36.** *Exocarpus bidwillii* – locally common by the start of the Dumblane track. EC.

the plant's sap having pierced the phloem cells with their stylets to access the nitrogen and sugars within. But, as with humans, too much sugar is not good for them. We may call it white death, but the scale insects no doubt refer to it as the black death, because the black sooty mould that grows on the excreted sugars would suffocate them. To avoid such a fate they have developed the long anal tubes, several times their body length, to ensure that the honeydew is dripped far away from the body. The problem is that the bug further up the trunk is equally busy evacuating its surplus sugar through a tube, too. It was discovered that not just wasps and bees, and kaka and bellbirds, like tasting the excreted product, but botanists do too. We then turned our attention to other plant species. The limited range of understory species gradually revealed its charms, among them *Leucopogon fasciculatus* quite unlike our northern form.

Moving on we got back on to the Clarence River road and inspected a couple of dried-out ephemeral tarns where the sole native species seemed to be *Crassula sinclairii* in flower. Next, a roadside rocky cliff face attracted our attention (Figs. 46, 47) and the species diversity increased considerably, out of reach of browsing mammals. Notably in this barren, arid site there were ferns, *Asplenium flabellifolium*, *A. richardii* and *A. trichomanes*, *Cheilanthes distans* and also some bracken (*Pteridium esculentum*).

For Aucklanders the prize for the most interesting plant went to *Clematis marata* with its hairy sepals and fluffy seed heads (Fig. 48), although *Heliohebe raoulii* was such a close second-place-getter that we happily awarded it local endemic of the day. The dedicated botanists pursued the elusive rock species *Brachyglottis monroi*, *Carex breviculmis*, *Celmisia gracilentia* and *C. monroi*, *Coprosma intertexta*, *Corokia cotoneaster* and *Gingidia trifoliata*.

With due respect to those who prefer 'lumping' species under one name, the *Carmichaelia australis* was so very different from our Auckland form that some of us converted on the spot to the 'splitters united' club. Meantime others wandered across the alluvial flats avoiding the *Aciphylla squarrosa* plants in a search and destroy mission to uproot all the wilding pine seedlings spreading across the grassy plain. Small shrubs of fruiting *Pimelea concinna* were located sheltering under low matagouri bushes (*Discaria toumatou*). Wildling pines were prominent on the hills on the other side of the Clarence River (Fig. 49).

Having answered the curious questioning of passing tourists as to why so many aged people were scaling the cliff faces, we reluctantly moved on to the junction of the Clarence and the Acheron Rivers, then where the Clarence turned east, we continued north through the heart of Molesworth Station to seek the vast expanse of gentians we had been lured to. Alas, at Isolated Flat the visual delight was not to be. We wondered whether there had been a change to the farming practices that had benignly protected the botanical wonder for over 100 years.* Lunch by a meandering brook (Fig. 50) under willows by bushes of sweet briar (*Rosa rubiginosa*) assuaged the pain, and to compensate we decided to continue over Wards Pass to the historic Cob Cottage on Molesworth's north-east boundary (for the history of this station see McCaskill 1969).

As we approached the station a large green field stood out in this brown landscape – it turned out to be lucerne (*Medicago sativa*), and on the other side of the road a paddock of oats (*Avena sativa*) had just been harvested, presumably for the station's horses. After sampling gooseberries and red currants (*Ribes rubrum*), also enjoyed by silvereyes, we headed south, back along the 85 km we had just come.

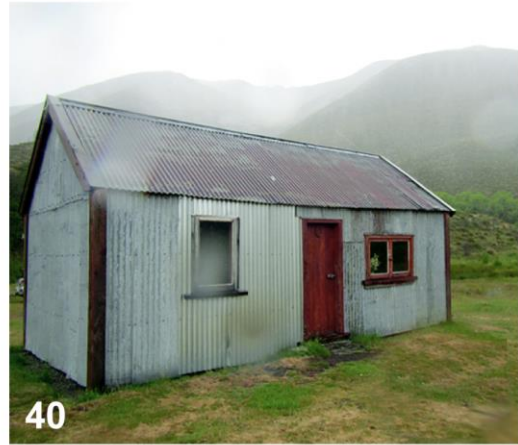
Stopping on a bridge across the Saxton River, most of the group scrambled down to explore the river flat where the abundant viper's bugloss formed a blue-purple haze. Amongst the weeds there did not appear to be much of interest, but botanists are a persevering lot and after getting 'their eye in' the cryptic species began to appear. Patches of *Raoulia australis* and *R. tenuicaulis* were found with some of the former in golden flower attracting dozens of copper butterflies, native bees and flies. Presumably in those minute flowers there was nectar worth the effort of the probing proboscises.

Another mat-forming plant, *Scleranthus uniflorus*, occurred occasionally along with Anna's bells (*Anaphaloides bellidioides*). Numerically the most

*** Footnote – Anthony Wright**

The abundance or otherwise of the *Gentianella* may not be entirely due to changes in farming practice – it might be timing as well. In the last week of January, Anthony retraced parts of our journeys and took some of his family to stay at Island Gully Hut. Both the tussock flats alongside Top House Road and over on the Molesworth Road sported many more flowering *Gentianella* than we saw during the Bot Soc week, though still not the 'superabundance' seen 10-20 years ago.

Figs. 37-44: **37.** A small plant of coral broom (*Carmichaelia crassicaulis*) flowering well on a rocky outcrop by Dumblane track. SH-D. **38.** Anthony preparing his traditional G&Ts in the beech forest, near the summit of Jacks Pass. CT. **39.** Our night out on the town -- *Coriander's*, Hanmer. BD. **40.** Historic Fowlers Pass Hut. CT. **41.** The day started mildly damp. EC. **42.** Discussing whether to turn back, on the walk up to Fowlers Pass. JS. **43.** The warm smoky Fowlers Hut was a welcome shelter to eat lunch. CT. **44.** Wet and cold but glad to be out of the weather. CT.





common were the four species of epilobiums, *Epilobium melanocaulon*, *E. nummularifolium*, *E. pernitans*, *E. pycnostachyum*. There also was one *Hoheria lyallii* seedling which must have travelled on a very strong wind to arrive at this river side so remote from the nearest bush, and one flowering plant of the daisy, *Vittadinia australis*.

On the way back to Hanmer we paused at the old Acheron homestead for a group photo (Fig. 51), before heading homewards over Jacks Pass. A minor hitch occurred as our lead driver pulled to the side of the road with sudden stomach problems. After a short time and a consultation with our in-house physician, it was deemed all was well and we proceeded to our camp. This last day had covered a lot of miles, but we were a contented lot that night as we sorted the specimens of the day and catalogued our finds.

The next morning there was a hive of activity, breakfast, packing, cleaning, recycling, hugs and good byes and another wonderful South Island field trip was all over with most departing camp by 9.30 am.

Some birds of Molesworth Station

Stella Rowe

Most birds were seen in open country along broad valleys of the Clarence and Acheron Rivers. It has to be said, however, that nowhere was birdlife abundant either in density or number of species, not surprising perhaps in a mountainous region where it can snow at any time of the year. In fact it had snowed on the tops overnight when I made my rough count of birds along the Clarence River between the old St James Station homestead site and Island Saddle (c.24 km), taken from our moving vehicle.

The numbers reinforce an impression of an avian fauna thinly spread: 11 Paradise shelduck; 5 mallard or grey duck; 1 black shag; 6 swamp harrier; 2 pied stilt; 5 spur-winged plover; 4 black-back gull; 3 magpie; 9 skylark; 1 welcome swallow; 1 blackbird; 1 yellowhammer; 46 black-fronted tern which appeared to be breeding on shingle islands in the Clarence riverbed.

Later species additions in the valleys of both the Clarence and the Acheron Rivers were again in low numbers: mallard (confirmed); white-faced heron; South Island pied oystercatcher; starling; and 3 New Zealand scaup, the latter spotted by Shelley and Julia. A small number of banded dotterel were seen together on the Tarndale Road and three were seen on the Clarence River road just west of the Jollies Pass Road turnoff by Ewen.

Bush birds were found in subalpine scrub and beech forest remnants of Jollies Pass Road, at Lake Tennyson just outside the Molesworth boundary and on the slopes of Dumblane. At Lake Tennyson brown creeper were seen and heard and John Millett reported South Island robin with young. Bellbird, grey warbler, blackbird, dunnoek, chaffinch, and redpoll were noted in most bush patches. The New Zealand pipit was seen in the valleys but also above the bushline on Dumblane and Fowlers Pass – the only birds I saw in the alpine zone.

Back in Hanmer, around our accommodation morepork called at night followed each morning by a splendid chorus from bellbirds (Fig. 52), blackbirds and song thrushes. Some mornings the morepork and bellbird calls overlapped. Silvereye, starling, house sparrow, chaffinch and dunnoek were also present. Each night many huhu beetles attracted by the lights, settled on walls and furniture on our verandah. Next morning, sparrows and an occasional blackbird would fly in to pick them off for a substantial meal; only the wing cases were left.

Acknowledgements

We thank Cathy Jones for planning the itinerary, sorting out all the species lists and commenting on a few of the images; Jenni Shanks for organising the trip including the excellent accommodation; Anthony Wright for taking over as leader at short notice and also providing a botanical library, sorting out the menus, purchasing all the food and commenting on a draft of this article; and Ewen Cameron and Joshua Salter for sorting out all the images and their captions.

Figs. 45-52: **45.** Not much left of the St James Homestead. CT. **46.** The rocky bluffs on the Clarence River road. CT. **47.** The bluffs proved to harbour interesting plants out of the browsers reach. CT. **48.** A well-camouflaged *Clematis marata* fruiting in a *Discaria toumatou* bush below the rocky bluffs. BD. **49.** Wilding pines on the west side of the Clarence River opposite the rocky bluffs. In parts of Molesworth they were becoming a major problem – two brown patches show that some management trials may be happening. EC. **50.** Lunch by a gentle brook at Isolated Flat. CT. **51.** The group photo by the historic Acheron Homestead. AWE's camera. **52.** Bellbirds were active around the camp, and their dawn chorus was memorable. SH-D.

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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.