

Mt Burns (30 Dec) - by Beatrice Lee

With only a light dusting of snow on the peaks on Saturday morning, but more likely within 24 hours, it was decided that the first field trip of the week would be to Mt Burns. With Prof Alan Mark as guide we drove to the Borland Saddle, then headed off up the hill to the left on foot. The track climbs for a couple of minutes through beech forest (where the lichenologists immediately peeled off from the rest of us), then opens out into tussock country.

Looking down into the Grebe Valley on our right, the rubble of the 12000 year old Green Lake Slip was quite obvious, when pointed out (geologists had missed it for years). It fills the whole Grebe Valley floor.

Mt Burns is home to a relatively rich Fiordland flora. Alan Mark told us of a PhD botany student, Lionel Solly, who came to this area to set up experiments to study the effects of deer vs takahe grazing on *Chionochloa* species. This was partly because of the easy accessibility of the site and partly because a large number of *Chionochloa* species grow on Mt Burns – species we saw included *C. crassiuscula* spp *torta*, *C. ridgida*, *C. teretifolia*, *C. pallens*, and *C. ovata*. (One of Lionel's results was that *C. pallens* recovers much faster from takahe grazing, where the tussock tillers are pulled out from the root, than from deer grazing where the leaves are cropped off half way down.)

As we reached the tarns, *Celmisia haastii* was pointed out as a snowbank indicator species, the yellow flowers of *Ranunculus enysii* were seen and the odd shaped flowers of *Psychrophila obtusa* (once called *Caltha*) were examined. No flowers of the latter could be found here, so it was not known if the plants were male or female.

Past the tarns, someone spotted a beautiful orange and brown coloured, shiny weta, about 50mm long, that was trying to burrow into the tussocks. Nearby were *Celmisia holosericea*. These plants reward curious fingers with the lovely feel of their leaves – thick and firm, with silky smooth, white undersides.

Astelia linearis is common all around these mid-level slopes but sharp eyes were needed to spot the red “jelly bean” fruits on the female plants.

Further up above the lunch spot, clumps of *Aciphylla crosby-smithii* and *A. congesta* were growing, as was the shrub *Brachyglottis revolutus*. Smell the leaves of this plant next time you see it – it has a lovely strong smell, variously described by people I asked as sage, turpentine or lemon.

Reaching the ridge line where one can see east to Mt Eldrig, *Hectorella caespitosa* was pointed out. It is the only species in this genus in New Zealand and where it originated from is still debated – Prof. Mark suggests an Antarctic continent origin. *Euphrasia integrifolia* was also seen. This woody subshrub is one of only two *Euphrasia* species, out of the 27 species in New Zealand, to have entire leaves. The leaves under a hand lens look fleshy, a bit like an ice plant's leaves, someone said.

The snow from here up to the top of Mt Burns made further exploration up the ridge impractical so, after a quicker trip back down the slopes to the cars, we drove further along the Borland Road as far as the South Arm of L. Manapouri. The highlight of the drive was undoubtedly the first spectacular view one gets over the cliff edge into the Grebe Valley from the lookout beside the road. Nearly everyone hanging over the

lookout railings also spotted the peculiar rings of the reed *Eleocharis sphacelata* around the edges of the ponds on the valley floor.

Many people could have spent more time on Mt Burns, but at least we had relatively good weather for what we did see. More snow came in the night.



'Pyramid' Lake, at the start of the track to Green Lake, was formed by the Green Lake landslide. *Photo by Alan Mark.*

'Pyramid' Lake (6 Jan) - by Barbara Mitcalf

While climbing Mt Burns on the first day, and again from Borland Saddle later on, we saw far below us an immense tussock basin, with tarns mirroring the steep, forested slopes above. A hairpin road led to the start of the track to Green Lake. This led through a short stretch of silver beech forest, grading at the margin into small-leaved *Coprosma* species. Here we looked out over a sea of red tussock with *Hebes* scattered on the drier, rounded hillocks, and all around the forest frost inversion line very clearly drawn. We spread out, squelching over this unique landform, some bent to the ground botanising and some bent on botanising the biggest tarn ('Pyramid Lake') while having their first swim of the year. Ted found a *Myosotis* in the process.

A very striking *Ranunculus* with jet black, hairy stems was in flower beneath the tussocks. I believe it to be *R. multiscapus*. Further south and on a slightly higher level were sphagnum tarns with spectacular colours, fringed by silver beech and wet-loving shrubs such as the dainty, sprawling *Dracophyllum (prostratum?)* and a pale green, tousled tussock which I believe is *Chionochoa crassiuscula* subsp. *torta*.

A population of flowering *Olearia* shrubs puzzled us then and later, when, with microscopes, we tried to identify it. Graeme was certain it was *O. bullata*, but Pat and I couldn't see why, since it didn't have bullate leaves. Afterwards we had to agree with Graeme, because it didn't key out to be anything else, and bullate leaves are not, after all, a key characteristic.