

## **SUMMER CAMP BASED AT TAPAWERA, TASMAN DISTRICT 9 – 15 JANUARY 2015**

### **INTRODUCTION**

#### **Trevor Blogg (Camp Leader)**

As reported in the Canterbury Botanical Society Newsletter, the rainy spring had threatened to derail some of the intended activities of our Summer Camp: the paddocks leading to the 4WD access for Red Hills had been saturated just two weeks before our visit. The road to Flora Saddle had been closed for quite some time owing to land-slips. We would be dependent on enough high clearance 4WD vehicles to access three of our destinations including the charismatic Hoary Head. In the event, everything dried out and slips were cleared, and two viable 4WD vehicles were volunteered, all in time to create a perfect camp in excellent weather.

A total of ten Canterbury Botanical Society members, including an overseas visitor, arrived at the Tapawera Settle motor camp on the Friday evening. Many thanks to those who attended the Summer Camp with me: Paul Maurice, Alastair and Fleur Macdonald, Miles and Gillian Giller, George and Margaret Ridgen, Svelta Marinova, and (visitor) Maria Lijka.

### **DAY 1 SATURDAY 10 JANUARY 2015 RED HILLS, MARLBOROUGH**

#### **Trevor Blogg**

I was vaguely aware of the phenomenon of the Red Hills formation, which existed somewhere in the Nelson area, and was the same basic formation as an area found (I believed) in Fiordland, but before organising this camp I was unaware of the details or of the vegetation involved. Well, my previous ideas were in need of refinement, and the enthusiasm shown by camp attendees for getting into the area prior to the date of the camp, convinced me that this would indeed be something special.

In geological terms, the Red Hills formation in Marlborough (as it turns out) is an ultramafic remnant left behind on the edge of the Australian plate, as the majority of the same formation followed the counter-clockwise rotation of the Pacific Plate along what we call the Alpine Fault.

The two Red Hills formations from the same 'parent' are now 460 km apart – the Marlborough one to the west of the fault, and the South Westland (not quite Fiordland) one to the east. If the rate of rotation of the Pacific Plate has been unchanged at the current 38 mm/year, then the separation will have taken around 12 million years. Of course, there have been many glaciations during that period, so the chance of any pre-separation species having survived is small. According to Wikipedia, the definition of ultramafic rocks, is found in the name: they typically contain >18% MgO and a lot of FeO, and have low potassium (K) and <45% silica content.

The logistics of getting to the Red Hills by 4WD vehicles was managed by Mick Parsons of the Wellington Botanical Society, who was leading their summer camp, based at nearby St Arnaud. An 8 am start for the Tapawera contingent of 10 saw us combine with the Wellington party at 8:45 am a little east of St Arnaud.

A week earlier the access from the St Arnaud – Blenheim Highway was essentially a quagmire. It had dried out enough to get vehicles to the start of the steep uphill track, which by skilful driving allowed everyone (close to 40 people, in all) to get safely to the Red Hills DOC hut at the start of the "mineral belt" described above. When we were all assembled, DOC representative (and Nelson Botanical Society member) Shannel Courtney advised us which plants on our AP Druce species lists were specific to the mineral belt, also which had undergone name revisions since Tony Druce's list had been assembled.

Most of us set off at a 'botanical' pace, up the track from the hut. We quickly saw the mineral belt (MB) Hebe (*H. carnosula*), nicely flowering. Also in flower was (MB) "Woollyhead" *Craspedia serpentina*. It was noted that the *Dracophyllum* had an unfamiliar look and a query to Shannel revealed it to be *D. filifolium*. The low scrub also includes true *Kunzea ericoides*. A pleasant distraction right on the track was a mass flowering of deep blue *Thelymitra cyanea* orchids, which kept photographers busy for some time. The common name is the blue swamp orchid, but the area we found it on was as different from a swamp as is possible!

Miles and Gillian Giller noted the sedges *Carex uncifolia* and unfamiliar (MB) *C. devia*. Shannel believes these also hybridise giving intermediate forms. Most were impressed by the fine-leaved low growth, silvery lustre, and 'swirling' habit of *Astelia* "serpentina" cf *A. graminea* (authority Shannel Courtney). Where ground cover was complete around the tracked area (not very often), it was dominated by "comb sedge" *Oreobolus pectinatus*, and a good amount of *Pentachondra pumila*. Some of us spotted (and photographed) the (MB) forget-me-not, *Myosotis monroi*.

A theme common to the montane-to-alpine sections of our week's camp was deciding which 'porcupine-like' plant we were seeing. Was it the (Canterbury) familiar *Melicytus alpinus* or *Pittosporum anomalum*? – remarkably similar, at a glance. Morning tea break found a group of us in such a debate, and we had decided against *Melicytus*, when a Wellington member announced that it “didn't taste like *Pittosporum*”. After a few minutes' deliberation and noting the opposite branching, I decided that the only option was *Aristotelia fruticosa* (fortunately present on our species list).

After our break, I had the 'crack-growing' *Coprosma rimicola* (a newly-named species) pointed out to me, somewhat off the track. Returning to the track a soft herbaceous plant (not in flower) was identified as the (MB) gentian, *Gentianella stellata*. An uncommon plant then appeared in full flower, *Notothlaspi australe* (Fig. 1, p. 46), which I had previously seen almost in line-of-sight across Lake Rotoiti (on Robert's Ridge). While I did not personally see the (MB) N. “Red Hills”, other mineral-belt species (in flower) that I did see and photographed were the *Colobanthus* “Red Hills” (Fig. 2, p. 46) and *Montia racemosa* (a Marlborough Red Hills endemic) (Fig. 3, p. 46).

As I left the tracked area and entered the (MB) tussocks of *Chionochloa defracta*, I could not fail to notice a small intrusion of a different rock type, marked by a few southern-beech (*Fuscopora cliffortioides*).

Alastair Macdonald and a friend had gone on through the difficult terrain of the tussocks to the tarns, where Alastair located numerous cryptic examples of *Hebe odora*, and also noted *Drosera arcturi*.

In all, a remarkably satisfying day. Thanks again to Mick Parsons and Shannel Courtney.

## **DAY 2 SUNDAY 11 JANUARY 2015**

### **BROOKFIELDS COVENANT**

**Miles Giller**

Thanks to local contacts, we were able to visit a 31 ha QEII covenant on Brookfields Farm, in the Stanley Brook Valley. This remnant of lowland valley-floor podocarp-beech forest had been protected since 2000. After a short briefing from the owners we set off, only to be escorted across the paddocks by a support team of very curious (and thankfully quite