Summer Camp based at Charleston, Buller District, Nelson 14 – 16 February 2014

Warren Jowett

Sedges have edges, rushes are round, grasses have joints, all the way down.

Freddy Fungus and Alice Alga were living together
in syn…biosis
and lichen it.
But now their marriage is on the rocks.

Day 1 Friday 14 February 2014

Paul Maurice

A damp start did not put our large enthusiastic group off preparing for a day's walking in beautiful terrain and seeing many plant species unfamiliar to those of us who live on the east side of the country. The weather improved as the day went on, with some sunshine in the afternoon.

Alice first took us down to Constant Bay, where we were shown the Nationally Endangered (and somewhat unspectacular) *Lepidium flexicaule*. An attractive rush caught my attention along the roadside, which was identified, with Melissa's help, as the exotic *Juncus lomatophyllus.* The handsome native umbrella sedge, *Cyperus ustulatus,* was also growing here and the pink and white flowers of *Calystegia soldanella* were noted on the beach.

A short way north up the coastal track brought us to a rocky ridge with some species-rich patches of coastal turf. Here, Alice showed us *Gentianella scopulorum,* the Charleston gentian, a Nationally Critical northern Westland endemic. Although flowering had finished, we were able to admire a healthy population of this plant. See www.nzpcn.org.nz for the features that distinguish it from the similar, but much commoner, *G. saxosa*. Other interesting species seen on the turf were *Leptinella dioica* ssp. *dioica*, *Selliera radicans*, *Samolus repens*, *Lobelia angulata*, and *Schoenus concinnus.*

After lunch (yes, it took us all morning to do a "15-minute walk" up the coastal track!) we drove a short distance north to Four Mile Road car park, with the aim of walking back, on the coastal side of the highway, to Constant Bay. Here, we were traversing pakihi for quite some time. This is a vegetation community unfamiliar to me and is basically a wet heath with a raised water table due to previous burning off of forest cover. Species characteristic of this community were seen, including *Leptospermum scoparium*, *Coprosma tenuicaulis*, *Epacris pauciflora* (flowering nicely), *Dianella nigra*, *Lepidosperma australe*, *Empodisma minus*, *Gahnia rigida*, *G. xanthocarpa*, and various species

of *Machaerina* (formerly *Baumea*), *M. teretifolia* and *M. tenax*. Graeme Jane was able to put a name to another rush-like plant for us, the fine-leaved tussocky *Tetraria capillaris*.

One of the day's highlights was seeing and learning the differences between three species of tangle fern, *Gleichenia dicarpa*, *G. microphylla* and the newly described *G. inclusisora*. We were able to pick out *G. inclusisora* by its brighter shade of green, but the diagnostic character is the location of the sori embedded in depressed pits on the back of the lamina. All three species of *Gleichenia* were easily seen on the afternoon's walk. Another highlight for a few of us not long afterwards was a close-up view of a pair of fernbirds in the pakihi. This species is more often heard than seen.

Soon we were in mixed beech (black and hard) and podocarp forest, where there were some lovely fern species, generally unfamiliar to Cantabrians, such as *Trichomanes reniforme*, *Lindsaea trichomanoides*, *Blechnum fraseri*, *Sticherus cunninghamii*, and *Dicksonia lanata*, along with more widely distributed species such as *Lastreopsis glabella*, *L. hispida*, *Hypolepis rufobarbata*, *Blechnum vulcanicum*, and *Asplenium oblongifolium* – reliably distinguished from *A. obtusatum*, which was seen on the rocky headlands, by its very long curly hair-like stipe scales.

Other species of particular interest in the forest were *Metrosideros parkinsonii* (a species restricted to the north-west corner of the South Island and Great and Little Barrier Islands), *M. umbellata*, *M. perforata* (also seen growing as a shrub-like mound in the open), *Quintinia serrata*, *Myrsine salicina*, *Ascarina lucida*, *Pittosporum rigidum*, *Neomyrtus pedunculata*, *Coprosma colensoi*, *Melicope simplex*, *Weinmannia racemosa*, *Hedycarya arborea*, *Phyllocladus alpinus*, *Podocarpus cunninghamii*, *Lepidothamnus intermedius*, and *Manoao colensoi*. The identity of a small *Dracophyllum* tree was the subject of some debate: *Dracophyllum townsonii* seems the most likely on the basis of the inflorescences being lateral and below the leaves rather than terminal. The large climber *Freycinetia banksii* was impressive. The epiphytic orchid *Bulbophyllum pygmaeum* (also known as *Ichthyostomum pygmaeum*) with its tiny pseudo-bulbs, was admired on a tree trunk. *Libertia pulchella*, *Juncus planifolius*, *Centella uniflora*, and *Gunnera monoica* were seen here and there.

Eventually, we were back out on the coast and botanically challenged by a rock face on which were growing *Celmisia semicordata* ssp. *semicordata* (usually thought of as an alpine plant, but specifically mentioned as growing near sea level at Charleston on www.nzpcn.org.nz) and a *Brachyglottis* that was a subject for further debate, probably *Brachyglottis traversii* on the basis of the numerous hispid hairs on the upper surface of the leaf (*B. bellidioides* is supposed to have fewer). *Coprosma propinqua* was growing as a prostrate form with rounded leaves, along with *Pimelea prostrata*, *Lobelia anceps*, *Plantago triandra*, *Hebe elliptica*, and *Blechnum blechnoides*.

All in all, this was a very rewarding day in a botanically rich area and well worth another visit.