Kepler and Borland Mires (31 Dec) – *Gael Donaghy*

The botanic day started at the Manapouri airstrip where Prof Alan Mark described the structure and features of the Kepler Mire, part of the South West World heritage area. This mire is raised (6m above surrounding area) is surrounded by a natural drainage channel (or lagg), and is gently sloping. The whole ecosystem is protected.

The lagg, which has relatively fertile soils, had a cover of pasture grasses and sedges, several "hedges" of introduced broom, and a scattering of Coprosmas (*C. propinqua, C.* "tayloriae", *C. intertexta.* One plant of the unusual native grass, *Deschampsia caespitosa*, sparked the interest of the group.

On the mire, wire rush (*Empodisma minus*), manuka (*Leptospermum scoparium*), and *Dracophyllum oliveri* dominated. Other plants here were *Androstoma empetrifolia*, with its pretty red fruit, *Pentachondra pumila*, and two sundews, *Drosera binata* and *D. spathulata.* The common swamp sun orchid, *Thelymitra cyanea* was in flower everywhere, despite the heavily overcast conditions.

On the way out a few people botanised a small manuka covered moraine that stood above the level of the mire, and almost doubled their number of species. Of interest here were two ferns not seen before on the trip - Adder's Tongue (*Ophioglossum coriaceum*) and *Blechnum vulcanicum.*

After stopping off at the Mararoa control structure, where Alan Mark explained the recent history of the area in relation to the Manapouri hydro scheme, we travelled back to the Borland mire. Here Bastow Wilson explained the different structure of this mire. It had many of the same plants as the Kepler. One notable addition was the beautiful blue bladderwort, *Utricularia novae-zelandiae.*

The last area of particular interest was the edge of the mire, where bush was re-establishing among the bog pine (*Halocarpus bidwillii*). Some of the colonisers were mountain three finger (*Pseudopanax colensoi*) lancewood (*P. crassifolius*) and elder (*Sambucus nigra*). On the ground there were several flowering herbs including the little blue lily *Herpolirion novae-zelandiae*, and the white flowered *Oreostylidium subulatum.*

McKercher Stream (2 Jan) – *Graeme Jane*

After a brief introduction to the area from our guides for the day, Brian Rance and Geoff Rogers we headed off across pasture in drizzle towards distant shrubland in the Takitimu foothills. In the first part of the sparse shrubland area stock were still grazed. It was dominated by *Coprosma propinqua* and as a result we were treated to rich turf communities containing many introduced species but also a wide selection of native herbs including *Mazus radicans* (in flower), *Nertera setulosa*, *Hydrocotyle* species and *Centella uniflora.* The denser remnants contained orchids such as *Pterostylis areolata*, still in flower and as the rear of the grazed area was approached the first of the special

plants were encountered. These included *Coprosma virescens, Plagianthus regius* and *Olearia fragrantissima*. Several stops were made to explain the history of the area and theories on the history of the vegetation.

At the main valley stand we were suddenly in dense shrubland dominated by *Olearia fragrantissima,* kowhai, broadleaf and *Coprosma virescens* with emergents of *Plagianthus regius*, matai and huge lemonwood (stems nearly 2 m in diameter). Near the lunch spot there was evidence of past logging of small totara. It seems that the area was once rich podocarp forest, lacking in beech which had been disturbed 150 or so years ago (giving rise to the small totara and then logged perhaps 50-80 years ago).

From here the party began to fragment with some returning to the vehicle and the remainder climbing to about 750 m to see *Hebe annulata* in the formerly grazed shrublands. Enroute a wide variety of alpine herbs were noted, the most frequent being the strongly smelling *Gingidia decipiens* and the spiny *Aciphylla aurea.* Others of interest included *Schizeilema nitens,* the bronze *Celmisia traversii* and *Anisotome haastii.* After a break on the saddle the party split again with some returning by an easier? route and the majority climbing for a long ridge route home. New plants recorded here included *Hebe hectori, Kelleria dieffenbachii, Pimelea pseudolyallii, Myrsine nummularia* and hybrids of *Coriaria sarmentosa* and *C. angustissima.*

Dean Forest and Giant Totara (5 Jan) – *Robyn Bridges*

A much smaller group visited Dean Forest/Dean Burn and Motu Bush on Jan 5th, because a brilliant blue sky that morning, something we had not seen all week, drew a break-away group up to the alpine pastures of Mt Eldrig.

Down country a bit, turning right past the limestone of Clifden towards Lake Hauroko and then right again, the rest of us found ourselves heading back towards Lake Monowai. I later learned that in earlier days this was the old coach road to Lake Monowai. Today the road ends at the giant totara reserve. Why the old coach road ceased to be is a puzzle as it appears to run roughly parallel to the present road to Lake Monowai. The expanse of Dean Bush luxuriously covers the surrounding low-lying hills. The area of interest for us was the bush margin and the wetland that lay therein.

Of the bush margin, most noticeable were several large mature specimens of Weeping Matipo, *Myrsine divaricata.* This for me was the plant of the week and I have not before seen such large mature trees. Interesting *Coprosmas* included *C.* 'tayloriae' *C. wallii, C. obconica* and some stunning *C. rubra.*

I now view these divaricating shrubs somewhat differently since I heard a visiting Botanical Society of Otago speaker expound (and demonstrate – his mimicry of a browsing moa was impressive) his theory that the divaricating habit of these species is a survival mechanism against ravaging ratites! Of the grasses, *Hierochloe redolens* was most memorable, with its sunlight golden glumes