11 JANUARY – CURIO BAY, WAIPAPA POINT, AND WAITUNA WETLANDS

Paul Maurice

This morning, on the last day of the Camp, we set off for Curio Bay, where we were met again by Brian Rance, DoC Botanist for Southland. The remarkable fossilized forest is considered to derive from a 170 million-year-old forest of cycads, tree ferns and cone-bearing trees, that were fossilized following inundation by silica-rich volcanic ash washed down by heavy rain from nearby volcanoes. A bonus was a close-up view of two yellow-eyed penguins, possibly a non-breeding pair as adults with chicks would be out at sea gathering food during the day. Hector's dolphins were also spotted in nearby Porpoise Bay.

Brian took us to the headland beyond the campsite where the cliffs harbour a very rich flora. Species seen included two South Coast endemics, *Anisotome lyallii* and *Myosotis rakiura*, as well as *Blechnum blechnoides, Carex trifida, Ficinia nodosa, Isolepis cernua* var. *cernua, Leptinella dioica* agg.*, Crassula moschata, Gentianella saxosa, Lilaeopsis novae-zelandiae, Rumex neglectus, Samolus repens* var. *repens* and *Selliera radicans.*

After a brief lunch at Waipapa Point, we looked at the pavement around the base of the lighthouse where *Gentianella saxosa* (Fig. 7. page 32), *Lepidium tenuicaule, Ranunculus acaulis, Plantago raoulii* agg.*, Colobanthus muelleri* and *Crassula moschata* were growing. On the turf behind the dunes we found some of the species seen at Curio Bay plus *Plantago triandra, Epilobium komarovianum, Centella uniflora* and *Hierochloe fusca,* with *Calystegia soldanella* (Fig. 8, page 32) on the dunes.

We then had a long drive westwards in Southland sunshine to the remarkable Waituna Wetlands. Here, DoC has built a 4.5 km walkway through manuka scrub, as well as a boardwalk leading to a hide overlooking the Waituna Lagoon. Gay Munro, former QEII representative for Southland, joined us for the afternoon and, along with Brian, filled us in on the history of the area. This was one of New Zealand's first "wetland sites of international importance" designated following the Ramsar Convention (held in Iran in 1971). The original scientific reserve covered 3,500 hectares, but is now about 19,000 hectares. The lagoon used to be 5 m deep and overflowed into the sea naturally, but now the level is controlled at 2.2 m. If it gets deeper the outlet to the sea is opened by excavators to prevent flooding of pastoral areas in the catchment. A species of *Ruppia* which grows in the lagoon is a useful indicator of salinity as it dies off when the lagoon becomes tidal. Ongoing work and liaison with the local farming community is necessary to restrict contamination of the lagoon by nutrient-rich effluent.

On the walkway we encountered a number of species that we had not seen previously on the Camp, due to the different habitats and prevalence of peatlands and bogs. Among the more interesting were *Halocarpus bidwillii* (transplanted from local populations), *Gleichenia dicarpa, Dracophyllum longifolium, Pentachondra pumila, Gaultheria macrostigma* (formerly *Pernettya macrostigma*), *Drosera binata, D. spatulata, Nertera scapanioides, Baumea rubiginosa, B. tenax, Isolepis aucklandica, I. distigmatosa, Empodisma minus* agg., *Juncus planifolius, Thelymitra cyanea* (also seen at Lake Wilkie), *T. longifolia* agg., *Herpolirion novae-zelandiae* and *Libertia peregrinans* agg.. Of particular interest were the typically upland species seen here at sea level: *Donatia novae-zelandiae, Actinotus novae-zealandiae* and *Oreobolus strictus.* Beds of *Apodasmia similis* agg. surrounded the lagoon.

On the way home we ran into heavy rain, the first significant rainfall of the week. Many thanks to Miles and Gillian Giller for an extremely well-organised and interesting Camp.

ARTHUR'S PASS TRIP, WAITANGI WEEKEND, 3–6 FEBRUARY 2012

INTRODUCTION

Zuni Steer

Seven botanists and three partners attended the Arthur's Pass long weekend. We stayed at the well-equipped Outdoor Education Centre, where we all managed to secure a bottom bunk bed each. The weather was very kind to us really, a low covering of cloud appeared in the morning, opening up to blue sky in the afternoon, then clouding over again by evening, allowing us to experience both cool and hot temperatures each day. Arthur's Pass itself is at 920 m a.s.l., so technically we were in a sub-alpine area right by the car park. This V-shaped north-south valley is surrounded by steep slopes on either side, cut by the Bealey and Otira Valleys, which we explored on day 2.

Mountain beech (*Nothofagus solandri*) clothes the slopes to the tree line, where tall tussock species and herbs prevail. Due to the high rainfall and moist soils, red tussock (*Chionochloa rubra*) was most abundant in the bog on top of Arthur's Pass. A scattering of broad-leaved snow tussocks (*C. flavescens*), showing its flat wide blades and impressive seed heads (last year's), was present in the scrub. Shrubland was abundant up the side valleys, where several *Olearia* and *Brachyglottis* species had to be sorted out. Further up the slopes, the fitter members enjoyed the scree slopes and