

than 70 million years, whereas the evolution of most of the divaricating forms appears to have only happened relatively recently, in the last 2.5 million years, a period of great climatic change. The other was that so far the 14 moa gizzards that have been examined, from the 3 largest species of moa only, have contained fragments of tough twigs, as well flax and cabbage tree leaves, all of which appear to have been cut, not tugged.

TRIP REPORTS

Witherow & Birch Islands - by Brian Patrick

Recently-protected Birch Island (7 - 9 ha, depending on river flow!), in the Clutha River, downstream from Beaumont, has been the subject of much political debate. At the centre of this debate have been environmental columnist (ODT) Dave Witherow and local ACT MP and party spokesperson for conservation/environment Gerry Eckhoff. In a letter to the editor Gerry challenged ecologists to “visit another last remaining example just offshore from my property in the Roxburgh Gorge”. He proposed the name “Witherow Island” for it. We took up Gerry’s challenge. The chance to botanise an island that was previously unknown to us proved hard to resist.

Roxburgh locals transported thirteen BSO members, plus three Forest & Bird personnel from the Upper Clutha Branch, and Gerry, to the island on Saturday 19 May 2001. Witherow Island (G43 233 213) is about 500m long and very narrow, with two much smaller islands off its northern end. The island was created when the reservoir behind the Roxburgh Dam was filled about 45 years ago. The island has been burnt within the last 25 years, to destroy *Nassella* tussock. Although no live rabbits were evident on our visit, dead remains provided abundant evidence that they have had a part in modifying the island in the recent past.

The rocky island, with steep cliffs on its eastern margin, is mostly diverse grassland with regenerating shrubland of kanuka, *Coprosma propinqua* and *Helichrysum lanceolatum*. Woody weeds such as briar, willow, broom and gorse are present, with the enclaves of native shrubland often growing amongst the many rock outcrops. Lichens abound on the island growing on rock, vegetation and the ground. Among the latter were a *Siphula coriacea* which is under threat from *Hieracium*, and an unusual, unattached *Xanthoparmelia concomitans* not before recorded in the OTA herbarium.

A total of 64 plant species were found, of which 38 are native species typical of the drylands of Central Otago. In addition 27 species of lichen were recorded. Within the mainly exotic *Rytidosperma racemosum* grassland, the dead remains of three orchid species were common. A visit to the island in early summer would elucidate their identity, and also bring to light many herbs and grasses that by the time of our visit were undetectable.

Plant list for 'Witherow' Island, May 2001 – Brian Patrick (Vascular natives), Alan Mark (exotics), Allison Knight and Jennifer Bannister (Lichens)

<p>Native</p> <p>Dicots</p> <p><i>Acaena novae-zelandiae</i> <i>Coprosma propinqua</i> <i>Discaria toumatou</i> <i>Gnaphalium audax</i> <i>Gnaphalium ruahinicum</i> <i>Hebe rupestris</i> <i>Hebe salicifolia</i> <i>Helichrysum lanceolatum</i> <i>Leucopogon fraseri</i> <i>Meliclytus alpinus</i> <i>Muehlenbeckia complexa</i> <i>Kunzea ericoides</i> <i>Oxalis exilis</i> <i>Phormium tenax</i> <i>Raoulia subsericea</i> <i>Rubus schmidelioides</i> <i>Senecio quadridentata</i> <i>Sophora microphylla</i></p> <p>Monocots</p> <p><i>Carex breviculmis</i> <i>Dichelachne crinita</i> <i>Deyeuxia avenoides</i> <i>Elymus apricus</i> <i>Festuca novae-zelandiae</i> <i>Luzula rhadina</i> <i>Microtis unifolia</i> <i>Poa cita</i> <i>Poa colensoi</i> <i>Prasophyllum colensoi</i> <i>Rytidosperma clavatum</i> <i>Rytidosperma unarede</i> <i>Thelymitra</i> sp.</p> <p>Ferns</p> <p><i>Asplenium flabellifolium</i> <i>Asplenium richardii</i> <i>Cheilanthes humilis</i> <i>Pellaea caldirupium</i> <i>Polystichum vestitum</i> <i>Pteridium esculentum</i> <i>Pyrrosia eleagnifolia</i></p>	<p>Exotic</p> <p><i>Agrostis capillaris</i> (browntop). <i>Anthoxanthum odoratum</i> (sweet vernal) <i>Cytisus scoparius</i> (scotch broom) <i>Dactylis glomerata</i> (cocksfoot). <i>Festuca arundinacea</i> [<i>Schedonorus phoenix</i>] (tall fescue). <i>Hieracium pilosella</i> (mouse ear hawkweed) <i>Hypochoeris radicata</i> (catsear) <i>Juncus effusus</i> (rush). <i>Lagarosiphon major</i> [lakeshore] (oxygen weed). <i>Linaria ?purpurea</i> (purple linaria). <i>Lupinus arboreus</i> (tree lupin). <i>Nassella trichotoma</i> (Nassella tussock) <i>Orobanche minor</i> (broomrape). <i>Pinus radiata</i> (radiata pine). <i>Plantago lanceolata</i> (narrow-leaved plantain). <i>Rosa rubiginosa</i> (sweet brier) <i>Rumex acetosella</i> (sheeps sorrel) <i>Salix fragilis</i> (crack willow) <i>Sedum acre</i> (stone crop) <i>Teline monspessulana</i> (Montpellier broom) <i>Thymus vulgaris</i> (culinary thyme) <i>Trifolium pratense</i> (red clover) <i>Ulex europeus</i> (gorse) <i>Verbascum virgatum</i> (moth mullein). <i>Vittadinia gracilis</i> (purple fuzzweed)</p> <p>Lichens</p> <p><i>Chondropsis semiviridis</i> <i>Cladonia</i> spp x 4 <i>Cladia aggregata</i> <i>Micarea</i> sp <i>Neofuscelia</i> sp <i>Physcia adscendens</i> <i>Ramalina glaucescens</i> <i>Rhizocarpon geographicum</i> <i>Siphula coriacea</i> <i>Teloschistes velifer</i> <i>Usnea</i> sp <i>Xanthoparmelia concomitans</i> <i>Xanthoparmelia mougeotina</i></p>
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Native tussocks of *Elymus apricus*, *Dichelachne crinita*, fescue, blue and silver tussock are reasonably common together with the dryland ferns *Cheilanthes humilis* and *Pellaea calidirupium*. The exotic thyme, mouse-ear hawkweed and stonecrop are also widespread on the island. One Nassella tussock (*Nassella trichotoma*) was found and removed.

Speckled skink and common gecko were found inactive under rocks together with species of darkling and carabid beetle. It was exciting to see the survival of remnants of native dryland flora and fauna, especially the grasses, lichens, small vertebrates and invertebrates on this small island. As it would be relatively easy to keep it free of mammalian browsers and predators it could become a valuable refuge. Thank you, Gerry, for bringing it to our attention.

Later in the afternoon we drove to south of Beaumont and were transported to Birch Island, which is crowded with tall trees, appropriately enough two species of beech, black (mountain) and silver. Its under-storey is dense, and rich with shrubs, seedlings, ferns, herbs, lichens and mosses. Fallen logs are everywhere slowing the journey and providing moist habitat for noteworthy invertebrates for which the island is famous such as peripatus and springtails.

We traversed the island from one end to the other, noticing the abundance of broadleaf, matai, miro, totara, kahikatea and pokaka seedlings together with under-storey species *Pseudopanax anomalus*, *Corokia cotoneaster* and *Cyathodes juniperina*. The significantly higher rainfall, and the decreased browsing pressure here nurtures an abundance of forest fungi, moss, lichen and ferns.

Although fallow deer can swim to Birch Island, they appear to have little impact on the island's vegetation. This makes Birch Island important as a much less disturbed forest ecosystem than the surrounding forested slopes.

Within half an hour we had traveled between two starkly contrasting ecosystems – both islands in the Clutha, but that is where the similarity ended. (*Perhaps both islands are worth preserving as refuges such as Leonard Cockayne advocated* – Ed.)

Final Reports from the Otago and Wellington Botanical Societies' Summer Field Trip

This 10-day field trip was based at Borland Lodge, on the eastern boundary of Fiordland National Park, between Lakes Manapouri and Monowai. It ran from 29 Dec – 7 Jan. Newsletter 25 covered reports of visits to Pukerau Red Tussock Reserve, Green Lake Landslide, Hope Arm & Back Valley– Lake Manapouri, Clifden Limestone, Eldrig Tops, Otataru Reserve, Bushy Point and Threatened Plant Nursery, and South Borland Burn. Newsletter 26 covered visits to Kepler and Borland Mires, McKercher Creek and Dean Forest. To finish we have reports from the first and last days, on the upper and lower slopes of Mt Burns, plus a report on two of the *Ranunculus* hybrids found there.