Moore's Bush

Allison Knight

It was a hard decision; whether to linger for the afternoon tea so kindly offered by Cliff and Linda Donaldson, or to push on to explore the botany of Moore's Bush, further up Leith Valley. The botany won by a whisker and we were not disappointed. Ken Mason, who manages the reserve, gave us an outline of its history and layout, with an accompanying pamphlet.

In 1945 Percy and Ellie Moore bought 4 ha of grazed dairy farm with the aim of re-surrounding the remnant podocarps with native forest. By 1974, when the land was bequested to Forest and Bird, much of the bush cover was restored, and in 1992 the Department of Conservation vested control of the adjoining 2 ha of scenic reserve in Forest & Bird. A total animal control programme was begun in 1996, with the aim of creating a mammal-free 'mini-mainland island' to aid the regeneration of podocarps - miro, matai, totara, kahikatea and mountain cedar (*Libocedrus bidwillii*).

Armed with copies of Ken's species lists we explored the forested depths leading down to the stream. The track wound past giant podocarps. Cliff was impressed by a large *Tmesipteris* (chain fern) dangling by the track. Ellen added another fern, *Polystichum vestitum*, to the species list. Lichens were most abundant on the bush edges. A quick collection followed by a check up under the microscope yielded another 12 for Ken's list. (*Chrysothrix candelaris*, *Collema* sp., *Hypogymnia subphysodes*, *Physcia jackii*, *Pseudocyphellaria episticta*, *P. glabra*, *Ramalina celastri*, *R. glaucescens*, *R. inflexa*, *Sagenidium molle*, *Teloschistes chrysophthalmus*, *Xanthoria parietina*).

Ken would welcome any more additions to his species lists - (there's a copy in the Otago Herbarium). He can be contacted at 476 7100, Email: kdmason@xtra.co.nz

Second Geoff Baylis Lecture, 29 October 2003

reviewed by *Alan Mark*

Peter Wardle on "*New Zealand's forest limits and the vegetation above them, compared with South America and other regions.*"

With a very well known plant ecologist delivering the BSO's 2nd Annual Geoff Baylis Lecture, and joint sponsorship by the Botany Department, the turnout in the University's Commerce Building, not surprisingly, exceeded 50.

Peter first set the scene with many views of the New Zealand situation where usually sharp beech-dominated treelines are generally consistent with those in many other countries in their conformity with a mean midsummer month isotherm of 10 deg. C, though this was clearly only a "surrogate" for something more critical. Where ours differ from many (but not all) other areas is with the tall tussock grassland, usually with a range of associated megaherbs, which occupies the adjacent higher zone, which he referred to in his early writings as the "low-alpine" zone. Dominant or co-dominant shrubs may share this zone with the tussocks, occupying the steeper slopes where snow doesn't lie. Further up the mountains these taller plants are replaced by a usually sparse cover of dwarfed plants, which he had earlier referred to as the "high-alpine" zone.

This pattern was repeated on New Zealand's subantarctic islands, as Peter showed for Campbell Island, and to a more limited extent on several of the tropical high mountains: Peter showed examples from his own travels in New Guinea, on the high Andes of Ecuador, and on Mt Kenya. The tall tussock grasslands on these mountains, Peter claimed, were largely the result of fires, of human origin, over long periods. By contrast, the vegetation pattern on the high continental mountains of the northern hemisphere (North America, Europe Asia all featured), and on the central and southern Andes, showed a different pattern with the vegetation and climatic equivalent of our high-alpine zone occurring immediately above the treeline. Tall tussock grasses were essentially absent.

Invasion of the so-called low-alpine tall grasslands, characteristic of oceanic regions, particularly New Zealand, by some high-mountain tree and shrub species from continental North America and Europe, has convinced Peter that we should cast aside his "low-alpine" term in substitution for a new one, "penalpine". Reference to Christian Körner's recent book on "Alpine Plant Life" showed that the situation was far from simple and Peter acknowledged that there were still a few local sceptics but named only one, the reviewer.

Peter Wardle and David Orlovich at the 2nd Annual Geoff Baylis Lecture
Photo by Adrienne Markey