

20 JANUARY – NORTH BRANCH TEMPLE STREAM

Eleanor Bissell

It was good to see *Peraxilla tetrapetala* flowers on the ground, twisted open by melodious bellbirds who had received a pollen shower and nectar. DOC's comprehensive protection for this species involves targeting rats, stoats & possums.

Growing among shingle and smoothed boulders on the river bed were, *Muehlenbeckia axillaris*, *Anaphalioides bellidioides*, *Epilobium melanocaulon*, pink & green hiding their flowers waiting until the sun shone [but not that day!] *Acaena saccaticupula* and *A. anserinifolia*. We noted stunning crops of shining black berries on *Coriaria sarmentosa* plants along the bush edge.

Through the bush, ferns: *Hypolepis millefolium*, *Blechnum penna-marina*, *Polystichum vestitum*, *Asplenium flaccidum*, *Hymenophyllum villosum*, *Grammitis billardiarei*. The canopy of *Nothofagus solandri* var. *cliffortioides* and occasionally *N. menziesii* flourishes. *Coprosma propinqua*, *C. tayloriae*, *C. depressa* and *C. petriei*, fruiting *Aristotelia fruticosa*, and *Carmichaelia arborea* makes up the under story. Along the track *Gastrodia cunninghamii* with some flowers to be viewed by those with sharp eyes, some people [me] missed finding them! On the forest floor *Chiloglottis cornuta* and *Aporostylis bifolia* flowered among the luxuriant growth of mosses and lichens.

Bryony kindly identified some mosses we found adorning the edges of the walkway; *Dicranoloma robustum*, *Pyrobryum mnioides*, *Racomitrium pruinosum*, *Thuidium furfurosum*, *Zygodon intermedium*.

Riflemen called constantly. We saw some low and briefly close by, then another thrill as a Long Tailed Cuckoo heard first – then it flew into view! We passed several areas of flattened *Nothofagus* and speculated as to the reason; avalanches seemed less probable than a severe wind storm. *Hebe salicifolia* & *Olearia* sp. as well as seedling *Nothofagus* were re- establishing over the fallen trees.

At the head of the valley a grand sight of small waterfalls and a fresh selection of plants, from tiny *Raoulia tenuicaulis* and *Lagenifera petiolata* to showy *Senecio cassinioides* lemon with flowers and its beautiful peeling papery bark. *Hebe treadwellii*, *H. subalpina*, *Lycopodium fastigiatum*. *Celmisias* which never fail to impress me, *C. petriei*. *Dolichoglottis lyallii* bright yellow, stunning! *Carex* sp, *Geum parviflorum* with fat ripening seeds, *Anisotome pilifera* and *A. aromatica*, *Luzula traversii*, *Coprosma rugosa*, *Brachyglottis haastii*, *Parahebe decora*, *Gaultheria depressa*, *Wahlenbergia*

albomarginata, *Euphrasia laingii*. The sound of fresh water tumbling, rushing to its final destination at the Lake, fuelling plants and animals along the way. Nature wild and at its best, ours to protect, enjoy and treasure.

Huge thanks to Gillian Giller for her generous help with plant names, a most enjoyable day.

***SOPHORA* (FABACEAE) IN THE LOWER WAIMAKARIRI CATCHMENT, EASTERN SOUTH ISLAND, NEW ZEALAND**

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Abstract

Using GPS co-ordinates, the distribution of two endemic species of kowhai (Fabaceae), *S. microphylla* (tree), *S. prostrata* (shrub) and their natural hybrids was mapped in the lower catchment of the Waimakariri River, i.e. from the Waimakariri Gorge bridge across the Canterbury Plain to Yaldhurst on the outskirts of Christchurch. In this sector kowhai are almost confined to the 1–3 km wide flood-plain on the south side of the river. By contrast none were recorded in this sector by the first explorers from 1849 to 1863; and the first record on the Plain is in 1900. It is therefore suggested that the present populations originated from seed washed down in relatively recent floods from the gorge populations. Changes are recorded in a hybrid population in the Halkett conservation area since its description in 1971. A more detailed study of a similar population nearby began in 1960, when 42 numbered plants were measured for height and number of trunks (or stems). These measurements were repeated in 2005. The variation in leaf and fruit size in this hybrid swarm is shown by photographs. In 2009 after 49 years the population had decreased from 42 to 33 individuals. Continued monitoring of the survivors will give valuable information on the rate of decline. As natural regeneration is almost impossible at these sites the populations can only be saved by intervention.

Introduction

The Canterbury gravel-plain in eastern South Island is the largest plain in New Zealand. It stretches southwestwards for c. 160 km from Amberley north of Christchurch to Timaru. Within this length it is traversed from the foothills of the Southern Alps to the sea for up to 48 km by three great snow-fed braided rivers, the Waimakariri, Rakaia, and Rangitata, and by three shorter rivers arising in the foothills, the Ashley, Selwyn, and Ashburton (Lister 1976).