

DAISIES

Arctotheca calendula 173858	Leontodon taraxacoides 168205
Bidens frondosa 173868	Picris echioides 173855
Cirsium vulgare 173853	Senecio bipinnatisectus 173877
Cotula australis 168201	S. mikanioides 168191
Eupatorium sordidum 168207-8	S. skirrhodon 173871
Gnaphalium subfalcatum 173107	Soliva sessilis 173857
Hypochaeris glabra 168209	

TREES & SHRUBS

Albizia lophantha 168203-4	Lupinus arboreus 173838
Cotoneaster glaucophyllus f. serotina 173841	Polygala myrtifolia 173850
Clematis vitalba 173874	Quercus robur 173844
Hedera helix 173875	Rubus fruticosus 173840
Ligustrum ovalifolium 173842	Solanum mauritianum 173837
	Vitis vinifera 173869-70

ON THE MAINTENANCE OF A WAITAKERE STREAM

J. Mackinder

It can hardly have escaped anyone's notice that the weed Eupatorium riparium (mist flower) has invaded many Waitakere streams, in some cases, e.g. Whatipu, Karamatura and Parekura Streams, almost annihilating all other vegetation on the stream banks. Could it be that, if this invasion is allowed to continue unchecked, one day all the banks of Waitakere streams will completely smothered by mist flower, with Selaginella kraussiana the only plant growing underneath it? Should a stream be kept in a weed free state as a reference for what the Waitakeres were once like?

Some suggestions are offered here for maintaining a stream in weed free condition. First select a stream that is sufficiently wide and shallow to be easily walked and that is not already so infested with mist flower to be impossible to clear. Then make an inventory of the plants that occur on the banks, on rocks in the stream and on overhanging trees. From time to time, perhaps once a year, note any changes and remove all weeds.

The Cascade Stream above the waterfall seems a good choice. From the Cascade Loop Track at Q11:458778, where the Dawsonia superba grows, one can easily drop down onto the stream bed and walk upstream for an hour (several hours at botanist speed), until the forest canopy opens out to a thin tea-tree cover.

In a preliminary investigation that I carried out on 8 January 1987 some of the more abundant and readily identifiable plants were noted. Most immediately obvious were Corybas orbiculatus and the liverwort Monoclea. Also seen were Pratia angulata in flower, Nertera, Elatostema, Ranunculus hirtus in flower, Epilobium. The ferns that one might expect to find on a stream bank were seen: Blechnum chambersii, B. capense, Pneumatopteris pennigera, Lastreopsis hispida, Leptopteris hymenophylloides, Trichomanes elongatum, Marattia salicina. On the bank-side trees were, among other things, Trichomanes venosum and Hymenophyllum ferrugineum. Of the trees and shrubs growing on the stream banks more notable were several large Carmichaelia aligera, a few Fuchsia excorticata, and two mature Podocarpus spicatus with several seedlings. Two small boulders in the stream provided a another habitat, one partly covered by Hymenophyllum scabrum and the other completely covered with Hypopterygium filifculaeforme, the largest, most handsome umbrella moss. Other mosses seen were: Fissidens rigidulus, Pterygophyllum, Cyathophorum bulbosum, Echinodium hispidulum; on logs fallen across the stream, Dicranoloma billardieri, Racopilum strumiferum, Cladomnion ericoides; on stream-side nikau, Distichophyllum pulchellum forming a bracket-fungus-shaped clump at eye level and Hymenodon pilifer.

At a small patch of bare earth three weeds were found: a seedling Albizia lophantha, a Lotus angustissimus conveniently with both flowers and pod for positive identification, and a seedling Conyza floribunda. These weeds were removed. Some distance upstream where the canopy opens up pampas and gorse were noted.

The point where the Cascade Loop Track crosses the Stream is surprisingly free of weeds but only a short distance up the track is an abundance of selaginella. Perhaps the most useful stream maintenance to be done is to persistently gather up the selaginella growing on the track leading down to the stream. It might be argued that the best way to keep the stream weed free is to keep off it, however I found ample evidence that I was not the first person to walk up the stream nor can it be supposed that I was the last. I think there is a good case for ensuring that this stream is kept weed free.

NEXT EDITION

The deadline for the July 87 edition is 31 July 1987. Publication may be delayed a little to coincide with the 50th Jubilee celebrations. One article has been held over for that edition:

"Tuberous, Cormous and Bulbous Plants" J.S. Pate and K.W. Dixon
(1982, University of Western Australia Press, 268 pp.)

reviewed by R.O. Gardner.