THE SAXICOLOUS MOSSES OF MANGERE MOUNTAIN

Jessica E. Beever

The exposed volcanic rocks of Mangere Mountain, south Auckland, which are scattered about the pleasant pastoral scene, are an impressive reminder of the violence that took place some eighteen thousand years ago. Many of their crude shapes show how they were moulded as they hurtled through the air, solidifying in mid-trajectory. During the Botanical Society's May 1982 Field Trip we noticed that the rough surfaces of these rocks now provide a good substrate for the growth of a range of rock-dwelling, i.e. saxicolous, mosses.

Grimmia pulvinata and *Tortula princeps* can both withstand the effects of full exposure on the bare volcanic rock. Both have long hyaline hair-points on the leaves, obvious even to the naked eye in the case of *Grimmia*, and giving to the plants a grey furry appearance. The young capsules of *G. pulvinata* are quite characteristic, borne on a curved swan's neck seta, so that they are almost buried amongst the leaves, and giving one the rare chance to use that beautiful technical term - cygneous.

On the shaded sides of rocks we found *Campylopus introflexus*, easily recognisable by the long hyaline pionts on the leaves sticking out at right angles from the leaf tips - sometimes! The hair-points can unfortunately be lacking, and 'such forms are very troublesome' (Scott & Stone, 1976), confusion arising with the closely related *C. clavatus* which is also a common moss in our area. With *C. introflexus* was *Bryum campylothecium*. This is one of our larger *Bryum* species, and the long stiff spike formed by the excurrent nerve of the leaf is a good diagnostic character.

At the edges of the rocks where thin soil had accumulated, and some shelter was afforded by the surrounding pasture, lurked another *Bryum*, the small silvery *Bryum argenteum*, a common moss in pavement cracks and similar habitats in the city. Also at rock edges were *Triquetrella papillata*, *Pottia truncata*, and *Rhacopilum convolutaceum*, with *Tortula princeps* and *Bryum campylothecium* turning up again. Here too was the robust ground-dwelling form of *Hypnum cupressiforme* var. *cupressiforme*. *Thuidium furfurosum*, with its matt-finish feathery fronds straggled about the rock edges, and also flourished out in the pasture.

In the main crater where the presence of trees (mainly the troublesome introduced privet *Ligustrum lucidum*) provided shade and a higher humidity, the rocks supported one of our hardier umbrella mosses, the pale *Hypopterygium rotulatum*.

Thus a range of microhabitats occur on the same substrate, and provide niches for a variety of moss species.

Species list:

Bryum argenteum Hedw.
B. campylothecium Tayl.
Campylopus introflexus (Hedw.) Brid.
Grimmia pulvinata (Hedw.) Brid.

Hypnum cupressiforme Hedw. var. *cupressiforme*
Hypopterygium rotulatum (Hedw.) Brid.
Pottia truncata (Hedw.) Br. & Schimp.
Rhacopilum convolutaceum (C.Muell.) Reichdt. [= *strumiferum* of the
Thuidium furfurosum (Hook.f. & Wils.) Reichdt. Handbook]
Tortula princeps De Not.
Triquetrella papillata (Hook.f. & Wils.) Broth.

Reference:
Scott, G.A.M. and Stone, I.G. (1976) 'The Mosses of Southern Australia' Academic Press, London.

A LIST OF INDIGENOUS VASCULAR PLANTS IN DUDERS BUSH, CLEVEDON

A.J. Dakin

List compiled from notes made on several field trips to the area 1975-77, and incorporates a previous listing made in 1975. Contributors to this list:- Brian & Dianne Duder, Graham Falla, Eric Scanlen and members of South Auckland Section, Forest & Bird Society.

Altitude: 20 - 150 m (est)
Map ref: NZMS 1 Ponui N43 567523
Total species recorded: 155
Location plan: (sketch, not to scale)