

Also in several parts, shrublands with kanuka and some manuka, *Olearia furfuracea* &c.

Plants noted as flowering on various dates:

- 25/5/75 *Senecio kirkii*, *Pterostylis trullifolia*
 11/9/77 *Corybas trilobus*, *Pterostylis trullifolia*, *Coprosma rhamnoides* ♂ & ♀, *Gahnia lacera*, *Cyathodes fasciculata* & *C. juniperina*, *Coprosma spathulata*, *Alseuosmia macrophylla* (pink and whitish-green flowers).
 16/10/77 *Corybas oblongus* (both the common red-mauve form and also a distinctive patch of white flowered *C. oblongus* located by Dianne Duder on a ridge in kauri pole forest. E.D. Hatch regards this as a mutant form which has spread by vegetative means. *Chiloglottis cornuta*, *Caladenia carnea*.

MOSSES OF THE COATESVILLE SCENIC RESERVES

Jessica E. Beever

The two scenic reserves Coatesville North and South are located near Albany, about 20 km north of Auckland city. An account of the vegetation and a plant species list is given by Gardner *et al* (1981). The authors concentrate however on the vascular plants, and apart from a tick in the 'low' column for 'lower plants' (from a choice of none, low, medium or high) the lower plants were not included in that study. The present article seeks partly to redress the balance by describing the mosses present at Coatesville. It is based on observations made in May 1982, and on the Society trip in July.

The slopes of the Coatesville North Reserve are covered with podocarp-broadleaf forest which provides suitable shelter and substrates for many species of moss. Smooth tree trunks of species such as puriri (*Vitex lucens*) provide a site for several. The very glossy *Orthorrhynchium elegans* and *Homalia pulchella* are both common. Here also are *Wijkia extenuata*, *Papillaria crocea*, *Weymouthia cochlearifolia* and the very slender *Haplohymenium huttonii*, usually found in open coastal bush. Exposed tree roots support dense coverings of *Homalia pulchella* and *Camptochaete pulvinata*, the latter seen with capsules on the July visit. *Rhacopilum convolutaceum*, *Echinodium hispidum*, *Camptochaete arbuscula* and *Porotrichum oblongifolium*, looking rather like an undulate-leaved *Hcmalia pulchella*, also occupy exposed tree roots.

On tree fern trunks a bryophyte fur of *Calomnion laetum* or of *Hymenodon pilifer* occurs. On one large *Cyathea medullaris* near the main stream fruiting specimens of *Eriopogon brownii* were seen.

On bare earth exposed by recent soil slumping in the forest *Fissidens pallidus* is common, along with the extremely tiny *F. pungens* and *F. tenellus* which reveal their presence only by their erect capsules. Where earth banks are damp and overhung two species of *Distichophyllum* occur: *D. crispulum* and *D. microcarpum*, as well as the umbrella moss *Hypnodendron arcuatum*. In a very wet dark site, amongst thickets of *Rhipogonum scandens* another very handsome umbrella moss *Hypopterygium filiculaeforme*

grows, adjacent to a small waterfall, together with *Thamnobryum pandum*. On the wet rock the aquatic *Fissidens rigidulus* occurs, while the face of the waterfall itself is covered with a magnificent carpet of the New Zealand endemic liverwort *Monoclea forsteri*. This site was unfortunately missed on the July trip, but the descent down a dry ridge was certainly far more comfortable.

The bryophyte flora of the main stream has also been smothered under an encroaching carpet of wandering Jew (*Tradescantia fluminensis*).

Much of the Southern Reserve is of manuka scrub with associated gumland species. Here terrestrial mosses form a conspicuous part of the vegetation. *Ptychomnion aciculare* and *Dicranoloma billardieri*, which were both fruiting in July, together with the robust ground-dwelling form of *Hypnum cupressiforme* var. *cupressiforme*, and to a lesser extent *Thuidium furfurosum*, form extensive areas of ground cover.

The following list of mosses of the Coatesville Reserves is undoubtedly far from complete, particularly in the Southern Reserve where only brief incursions were made into the forested areas. Nevertheless the total of 45 species is approximately one quarter of that recorded by Linzey (1972) for the Waitakere Ranges, a much larger area with a far greater diversity of habitats. Thus the tick in the 'low' column for lower plants at the Coatesville Scenic Reserves could justifiably be moved one space to the right, to 'medium', at least as far as the mosses are concerned.

	North	South
<i>Calomnion laetum</i> H.f. & W.	+	+
<i>Camptochaete arbuscula</i> (Sm.) Reichdt.	+	+
<i>C. pulvinata</i> (H.f. & W.) Jaeg.	+	
<i>Campylopus clavatus</i> (R.Br.) Wils.		+
<i>C. introflexus</i> (Hedw.) Brid.		+
<i>Cyathophorum bulbosum</i> (Hedw.) C.Muell.	+	+
<i>Cyrtopus setosus</i> (Hedw.) H.f.	+	
<i>Dicranoloma billardieri</i> (Brid.) Par.		+
<i>D. menziesii</i> (Tayl.) Par.	+	
<i>Distichophyllum crispulum</i> (H.f. & W.) Mitt.	+	
<i>D. microcarpum</i> (Hedw.) Mitt.	+	
<i>Echinodium hispidum</i> (H.f. & W.) Reichdt.	+	
<i>Eriopus brownii</i> Dix.	+	
<i>Fissidens pallidus</i> H.f. & W.	+	+
<i>F. pungens</i> C.Muell. & Hampe	+	
<i>F. rigidulus</i> H.f. & W.	+	
<i>F. tenellus</i> H.f. & W.	+	
<i>Funaria glabra</i> Tayl.		+
<i>Haplohymenium huttonii</i> (Mitt.) Broth.	+	
<i>Homalia falcifolia</i> (H.f. & W.) H.f. & W.	+	
<i>H. pulchella</i> H.f. & W.	+	
<i>Hymenodon pilifer</i> H.f. & W.	+	+
<i>Hypnodendron arcuatum</i> (Hedw.) Lindb.	+	
<i>H. colensoi</i> (H.f. & W.) Mitt.	+	
<i>H. ?kerrii/?menziesii</i>	+	
<i>Hypopterygium filiculaeforme</i> (Hedw.) Brid.	+	
<i>H. rotulatum</i> (Hedw.) Brid.	+	
<i>Hypnum chrysogaster</i> C.Muell.	+	+
<i>H. cupressiforme</i> Hedw.		+

<i>Leptostomum macrocarpum</i> (Hedw.) Pyl.	+	
<i>Leucobryum candidum</i> (P.Beauv.) Wils.	+	+
<i>Lopidium concinnum</i> (Hook.) Wils.	+	
<i>Macromitrium prorepens</i> (Hook.) Schwaegr.	+	+
<i>Orthorrhynchium elegans</i> (H.f. & W.) Reichdt.	+	
<i>Papillaria crocea</i> C.Muell. & Hampe	+	
<i>Porotrichum oblongifolium</i> (H.f. & W.) Broth.	+	
<i>Ptychomnion aciculare</i> (Brid.) Mitt.	+	+
<i>Rhacopilum convolutaceum</i> (C.Muell.) Reichdt.	+	+
<i>Rhynchostegium tenuifolium</i> (Hedw.) Reichdt.	+	
<i>Sematophyllum amoenum</i> (Hedw.) Mitt.	+	+
<i>Thamnobryum pandum</i> (H.f. & W.) Stone & Scott	+	
<i>Thuidium laeviusculum</i> (Mitt.) Jaeg.	+	
<i>T. furfurosum</i> (H.f. & W.) Reichdt.	+	+
<i>Weymouthia cochlearifolia</i> (Schwaegr.) Dix.	+	
<i>Wijkia extenuata</i> (Brid.) Crum.	+	+

Reference:

Linzey, J.T. (1972) 'Mosses' in Mead, A.D. 'Native Flora of the Waitakere Range Auckland' Impex Press.

NEXT EDITION

The deadline for the July edition is 10 June 1983. Articles already received are:

Mosses of the Riverhead State Forest Biological Reserve
 Frost Damage to Native Plants 1982
 Vining Scenic Reserve.