

LOWRY PEAKS BRYOPHYTES

Max Visch

Over the last few years the Society has made a number of day trips to the Lowry Peaks Range with the aim of obtaining a record of the native plant species of this area. Now that the species list for the higher plants is steadily growing, it seems appropriate to supplement it with a list of bryophytes. With this in mind the author last May made a start collecting and recording the mosses of this area.

The Lowry Peaks Range form a series of relatively low hills east of Culverden. They are mainly composed of siliceous greywacke rock and have a ragged outline due to the many rocky outcrops - which with their numerous ledges and rock crevices provide a wide variety of habitats for mosses, lichens and other small plants.

As time did not permit to make an extensive collection, only a few of the rocky outcrops were examined. The following species were noted :-

<i>Barbula pseudopilifera</i>	-	on earth overlying rock.
<i>Grimmia laevigata</i>	-	on dry, sun exposed rock and hillside boulders.
<i>Hedwigia ciliata</i>	-	on dry exposed rock and rocky ledges.
<i>Hedwigia integrifolia</i>	-	on rocky ledges.
<i>Leptodon smithii</i>	-	on rock in semi-shade.
<i>Orthotrichum pulvinatum</i>	-	on dry rock and in rock crevices.
<i>Ptychomitrium australe</i>	-	on rock ledges and in crevices.
<i>Triquetrella papillata</i>	-	on earth overlying rock on steep hillside.

Hedwigia ciliata is a greyish green moss with conspicuous hyaline hairpoints to the leaves and with large, orange brown immersed capsules. This is a common species at Lowry Peaks and also grows abundantly on Cass Hill. It is probably widespread in Canterbury on dry siliceous rock but not often collected. The only other species of this genus in New Zealand *Hedwigia integrifolia* is yellow-brown and its somewhat plicate leaves are without the hyaline hairpoints. It is much rarer than *H. ciliata* and appears to prefer somewhat more sheltered situations. At Lowry Peaks the two species often grow intermingled and alongside each other - an association also noted by W. Martin and others.

Ptychomitrium australe is a small, tufted species with curled leaves, pale brown globose capsules and plicate calyptras. It has been recorded from a few places in Canterbury - Hayden Downs, Kurov and the Hurunui River, but does not seem to be common unless it has been overlooked.

Grimmia laevigata forms silvery looking patches on bare rock surfaces. The wide leaves with the broad, rough and silvery hairpoints distinguish it from other New Zealand species of *Grimmia*. I have collected this species at Lake Georgina as well as at Evans Pass and expect it to be widespread in Canterbury.

The remaining species are common in many parts of Canterbury. Orthotrichum pulvinatum has strongly papillose leaves and frequently grows in narrow rock crevices.

Leptodon smithii more often grows on bark of trees than on rock and is easily recognised by the fact that the branches roll up in a tight knot when dry.

Triquetrella papillata has its leaves typically in three rows and grows in loose patches on sandy soils. It is a common species at Birdlings Flat and on the Port Hills.

It is expected that future visits to this area will turn up many more interesting species and greatly add to this list.

NATIVE ORCHIDS IN THE CHRISTCHURCH AREA

L.J. Metcalf

Although most of metropolitan Christchurch is intensely urban it can still yield some surprises when it comes to recording species of native plants. Various species of shrubs and certain ferns are by no means uncommon, but native orchids in a city environment are, perhaps, another story.

Several years ago during one of my routine perambulations around the Christchurch Botanic Gardens an unusual plant growing in the almost bare ground beneath some rhododendron bushes caught my eye. A closer examination showed it to be Chiloglottis cornuta, an orchid which is fairly common throughout much of the country although was the first time that I had observed it in the city area. This particular plant was under the rhododendrons just a few metres west of the display case at the Woodland Bridge. It persisted for two or three years and then failed to reappear. Whether its disappearance was caused by the intense summer droughts which were being experienced then, or not I do not know. Perhaps a diligent search of other areas of the Botanic Gardens might reveal this species as still being present.

A few years ago when the Ministry of Works was undertaking some roadwork at the summit of Arthurs Pass the Christchurch Botanic Gardens was given permission to remove some plant material from the site of the road deviation. This plant material was planted in the alpine garden in the Cockayne Memorial Garden and by chance it contained one or two plants of Microtis unifolia. They flowered the following spring and since then this species has become firmly established in the alpine garden. It grows with great freedom and plants of it may be seen popping up from amongst low shrubs, between rocks and in various other situations. No doubt in time Microtis will extend its territory and appear in other parts of the Botanic Gardens.

There is a third species of native orchid to be found growing in the Botanic Gardens. About three years ago one of the gardeners asked me