

HYMENOPHYLLUM MALINGII

By John Thompson

On the Tasmanian tour we found the fern Hymenophyllum malingii at two sites, the first on rocks on the top of a stream bank in the Hartz Mountain National Park. The second site was on the base of a large tree near the Museum at Cradle Mountain. One of the members of the Tasmanian Society for growing native plants expressed the opinion that there was some difference between the New Zealand and Tasmanian plants of this fern. I have compared the specimens, very few, from the Hartz Mountains with specimens taken from three sites in New Zealand, one in the North Island and two in the South Island.

One obvious difference is in the length of the lamina. Allen gives the length of the lamina of New Zealand species as 5 to 10 cm. The Hartz Mountain specimens range from 8 to 17 mm. The smallness of the lamina is possibly due to the less favourable growing site. The New Zealand plants are usually found growing in forests.

Allen states that in the New Zealand plants the receptacle is not exerted beyond the indusium. In three Hartz Mountain fronds, the only ones with sori, the receptacles are clearly exerted to a length equalling, and in one case, exceeding the height of the sori.

Apart from the above I can find no difference between the New Zealand and Tasmanian specimens. It would be desirable to examine many more specimens than I possess including live plants.

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EDITORIAL WANDERINGS

GLAUCIUM FLAVUM

The Horned Poppy, Glaucium flavum, which can be found growing on the shingle beach near Birdlings Flat, proved to be a satisfactory garden plant for me this season. It opened its first saffron yellow blossom on the 15th October, 1976 and thereafter provided a succession of short lived blooms, almost daily, until Autumn, the last one opening on the 9th May, 1977. The grey foliage is most attractive and serves as a contrast to surrounding plants.

LEPTOSPERMUM SCOPARIUM

Bushes of Manaka are rare on the Port Hills. The only ones known to me are a dozen found on the 14th September, 1976 at Taukahara, an area of bush that is situated between Governors Bay and Rapaki. These were surrounded by a number of Leptospermum ericoides. They are difficult to see until one actually reaches them.

ANOGRAMMA LEPTOPHYLLA

Last season was a good one on the Port Hills for that most delicate and beautiful fern Anogramma leptophylla. It was noticed in 7 sites in Victoria Park, 2 sites in Bowenvale Valley, 1 site above Taylors Mistake and 1 site above Rapaki. Anogramma cannot thrive in dry conditions. The plants in the Victoria Park situations were drying off by the 15th December, 1976. A plant grown in a pot in a glasshouse, however, continued growing all through the Summer.

PTEROSTYLIS MONTANA

We were delighted to find a patch consisting of 25 flowering Pterostylis montana below Gibraltar Rock on the Port Hills on 29th December, 1976. As far as I can ascertain this is the first time this dainty ground orchid has been seen on the Port Hills.

BAUMEA TENAX and RUBIGINOSA

In the last Journal we reported finding several plants of Baumea tenax in part of Ashley Forest near Journeys End. This was then the only site in Canterbury known to me. We were pleased to discover further plants of Baumea tenax on the Berridale Road which is situated on the Amberley side of Mt. Grey. Growing in the same area were a few plants of Baumea rubiginosa.

MICROTIS OLIGANTHA

A new record for the Peninsula was the finding of a few plants of Microtis oligantha on 26th January, 1977. These were seen happily growing on the side of a small streamlet some 300 feet below the Summit rocks of Mt. Fitzgerald and above the Morice Settlement Reserve.

MICROSERIS SCAPIGERA

On the 2nd February, 1977 the boggy gullies on Mt. Herbert were most beautifully decorated with masses of orange flowers of Microseris scapigera. Together with the striped purple fruit of Pratia angulata, the black shiny seed heads of Juncus novae-zelandiae and the diminutive spikes of Eleocharis gracilis they made a sight to be enjoyed and remembered.

CYPERUS USTULATUS

I was under the impression that the only plants of Cyperus ustulatus growing in the Christchurch area were those to be found growing at one spot on each side of the highway at Motukarara. A fine clump was noticed on 26th March, 1977 growing near the arch of the bridge crossing the highway at Kaituna.

GENTIANA GRISEBACHII

Parts of the grassy slopes of the Devils Gap Reserve on the 23rd April, 1977 exhibited an abundance of Gentiana grisebachii. This annual gentian, in that situation, is slender and rarely attains a height of more than 4 inches though in the more moist shaded gullies a few plants up to 9 inches in height could be seen.

## GIBRALTAR BUSH

On the Society's trip to Gibraltar Bush, on the 14th May, 1977, three plants, rare in other parts of the Port Hills, were seen and are worth recording. Lycopodium billardieri was growing in the fork of a tree. Rumohra adiantiformis, with some 10 fronds, found the trunk of a Dicksonia squarrosa to its liking. It was interesting to observe firmly attached to the trunk of a mature tree the yellow green stems and leaves of the semi parasite Tupeia antartica.

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## FLOWERING TIMES OF SOME CULTIVATED NATIVE PLANTS

B.P.J. Molloy

During the 1976-77 season I followed the onset and duration of flowering in a number of native species established in a five-year-old rock garden at Riccarton. The garden is S-shaped in outline, about one metre tall at its highest point, with its long axis running east-west, It lies about 9 metres (30 feet) above sea-level and is constructed on the site of a Taitapu silt loam soil. This is the main soil of Riccarton, including Riccarton Bush, and is noted for its massive and mottled subsoil which is poorly aerated and slow draining in winter, and tends to dry out with extensive cracking in summer.

Flowering times were recorded at half-month intervals, so that if a species had one or more flowers between say 16 to 31 October, then it was scored for that half month, and so on until flowering was completed. With most species this was not too difficult. With some, grasses and dwarf conifers for example, flowering was recorded when the anthers were visible or when the stigmas were judged to be receptive. Records began in September when the first flowers of the new season appeared (Cotula pectinata) and continued until June when flowering had ceased in all species except Hypoxis hookeri. The results are set out in Table 1.

### Garden Construction and Maintenance

The rock garden was built simply by excavating the soil completely to the free-draining sandy parent material. The hole was then back-filled with broken concrete, bricks and other rubble mixed with the excavated soil. Large natural stones were fitted in to add interest and variety and the surface was covered with coarse river sands to help reduce weeds.

The rock garden is well drained in winter, and a fine soak hose is used constantly throughout the summer to avoid unnecessary stress on the plants, many of which occur naturally in higher rainfall districts. Periodically an all-purpose pesticide is used to help control aphids, caterpillars, etc. Weeds are controlled by hand, which also permits close observation of all planted species. The main weeds, all