BOTANISING IN THE MATIRI

EDITH SHAW

The turnoff for the Matiri Valley is 6 km north of Murchison on the north side of the Buller River. Another 16 km on is a farmhouse at the end of the road where one asks for permission to pass through the owner's property. About 1-2 km beyond the farmhouse there is a suitable flat place to park vehicles. Depending on the condition of the farm track some 4 x 4 vehicles and landrovers may continue to the track end at the West Branch of the Matiri River. This river may rise and fall quickly but usually the water is about knee deep. Two hours along a foot track beyond this is the Lake Matiri Hut (six bunks). Lake Matiri was formed when a landslide triggered by the 1929 Murchison earthquake dammed the Matiri Valley.

During an expedition in February 1994 along the Matiri River flats we saw some outstanding kowhai trees growing with red and black beech and clumps of *Hoheria populnea* var *ovata*. Also along the riverbanks are the needle-leaved totara (*Podocarpus acutifolius*) and flowering *Brachyglottis hectorii*. Away from the river the track passes through tall red beech forest with a profusion of ferns. The most uncommon ones were a hybrid of *Leptopteris superba* x *L. hymenophylloides*, *Hymenophyllum rufescens* and *H. ferrugineum*. Away from direct sunlight under a rock overhang was *Trichomanes colensoi* (the species with stalked indusia).

On the outwash fans at the head of the Lake is an amazing collection of plants. Here a serious introduced pest, field horsetail (*Equisetum arvense*) is abundant. It is a fern ally belonging to its own taxonomic order. At the mouth of the lake was a rare fern for the Nelson area *Grammitis pseudociliata*.

From just north of where Bay Creek flows into Lake Matiri a well-marked track climbs steeply through a mixed beech forest. Along with *Nothofagus fusca*, *N. menziesii* and *N. solandri* are *Metrosideros umbellata*, *Halocarpus biformis*, *Lepidothamnus intermedius*, *Dracophyllum traversii*, *Archeria traversii*, *Quintinia acutifolia*, *Weinmannia racemosa*, *Libocedrus bidwilli* and *Phyllocladus alpinus*. Moss, lichens, liverworts and ferns richly adorn the ground, trees, fallen logs and banks. A truly wonderful forest to botanise in.

DoC has a species list of the area, made by Tony Druce, containing over 400 species. With the exception of two *Grammitis* species and a *Schizaea* our group found all the ferns and added 14 more to the list, of which seven were filmy ferns. *Hymenophyllum bivalve* was growing on the ground near the first lookout. *H. demissum* and *H. rarum* are common throughout the forest, both on the ground and on fallen tree trunks. Although *H. dilatatum* is an epiphytic fern it too was mixed with *H. demissum* growing on banks and on fallen tree trunks. *H. ferrugineum*, often an epiphytic fern, was always growing with *H. rufescens* on rocky banks. *H. flabellatum* suspended itself from rocks and logs and draped itself around tree fern trunks and was often in the buttress of larger trees.

In a jumble of tree trunks and fallen logs were *H. lyallii, H. peltatum* and *H. villosum.* The slate-coloured *H. malingii* grew abundantly (see separate article). *Hymenophyllum multifidum* was common at a much higher altitude. Several times I found the tufted fern *H. pulcherrimum* usually single plants, but on one occasion 14 plants were growing luxuriantly on a big, old, gnarled *Griselinia littoralis.*

The steep forest track comes out on the Matiri Plateau where the non-forest ferns grow. Whether you are a botanist, photographer, geologist or tramper the effort to get there is amply rewarded. The landforms are most extraordinary. The Thousand Acre and Hundred Acre Plateaux are dramatic open, flat to gently-sloping snowgrass and scrub-covered areas underlain by almost horizontally-bedded marine sedimentary rocks (limestone etc). A poled route leads to Poor Peter's Hut (three bunks). My group went a little further on (about 1.5 hours) and camped beside running water. We left our tents here and went on to Larrikins Hut (six bunks).

From Larrikins Hut the Thousand Acre Plateau, Mt Misery 1396 m and the mudstone peaks, Needle 1452 m, and Haystack 1547 m can be explored. Once up on to the Thousand Acre Plateau it is only a short distance to a ridge between the Needle and the Haystack. The ancient granite basement rocks are capped by softer Tertiary rocks (mudstone, limestone, sandstone) which are prone to erosion. These rocks were severely affected by the 1929 Murchison earthquake. There are massive unvegetated landslide scars, huge rock falls and the dammed and diverted rivers cause travel away from the formed routes to be slow and dangerous. The erosion-resistant limestone above sandstone has sinkholes and trenches which, when camouflaged with tall tussock (or snow), can be a hazard to the unsuspecting tramper. Around the edge of the plateaux is an almost continuous rim of high bluffs that isolate these plateaux from the forested slopes below. Although the plateaux are developed on limestone, tarns and peat bogs occur in poorly drained hollows.

Mt Misery 1396 m rises gently from the rim of the Hundred Acre Plateau. From its summit to the west is an excellent view of the forested flats near Mokihinui Forks and the Glasgow Range. On the eastern side is a dramatic view of how Larrikin Creek has eroded down through Tertiary sediments into the underlying granite. The plateau dips off to the south-east, towards Murchison.

At the foot of the Haystack is a huge amphitheatre. It was here and amongst the rocks below Thousand Acre Plateau that I saw rock wrens. Also in this area are fossils and a magnificently rich flora. Mosses, lichens, ferns, orchids, *Myositis macrantha* (plants knee high), *Ranunculus insignus, Craspedia* sp., several species of *Parahebe* and *Cheesemania latesiliqua* rosettes the size of dinner plates, to name a few botanical treats.

The Matiri is a wonderful area, with many special hidden features. Allow two or three days for exploration. Take care with winter conditions as snow is not uncommon on the slopes. Much of the 400 cm of precipitation received there falls in this period and can isolate areas by flooding rivers in a very short time.

LIST OF MATIRI FOREST AND PLATEAU FERNS AND FERN ALLIES, FEBRUARY 1994

FERN ALLIES

Equisetum arvense (introduced)
Lycopodium australianum
L. fastigiatum
L. scariosum
L. varium
L. volubile
Tmesipteris tannensis

FERNS

Adiantum cunninghamii
Asplenium bulbiferum
A. flaccidum
Blechnum chambersii
B. colensoi
B. discolor
B. fluviatile
B. penna-marina
B. procerum
B. sp (a) *B. capense* agg. lower pinnae short
B. sp (b) *B. capense* agg. lower pinnae long
Cyathea colensoi
C. dealbata
Cystopteris tasmanica
Gleichenia dicarpa
Grammitis billardierii
G. magellanica
G. patagonica
G. poeppigiana
G. pseudociliata
Histiopteris incisa
Hymenophyllum bivalve
H. demissum
H. dilatatum
H. ferrugineum
H. flabellatum
H. lyallii
H. malingii
H. peltatum
H. pulcherrimum
H. rarum
H. rufescens
H. villosum
Hypolepis millefolium
H. rufobarbata
Leptopteris hymenophylloides
L. superba
L. superba x *hymenophylloides*
Ophioglossum coriaceum
Pneumatopteris pennigera
Polystichum vestitum
Schizaea sp. (cf *S. australis* and *S. fistulosa*)
Trichomanes colensoi