

VASCULAR PLANT RECORDS OF MT HUTT ECOLOGICAL DISTRICT

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Introduction

The following are records of rare species or species uncommon in the area recorded from Mt Hutt Ecological District on the 1988-1989 Protected Natural Area survey of the district as well as records compiled from the literature. Mt Hutt Ecological District includes the mountain ranges from the south bank of the Rakaia River to the Lake Heron Basin. It includes Mt Hutt and Mt Somers in the east and extends as far in the west as Lake Stream. It is mostly mountainous country, the highest point being Mt Taylor at 2330 m. The most common vegetation in the district is *Chionochloa macra* tall tussockland. There is little forest except the large beech forest remnants on the eastern faces of Mt Hutt and Mt Somers and limited amounts of scrub. All map references are to New Zealand Map Series 1.

Species at Risk

Notospartium torulosum (Rare)

There are a total of ten plants in Grahams Creek in the Winterslow basin (S81 946519, 580 m). They are growing in *Olearia virgata* var. *rugosa* - *Polystichum vestitum* shrubland and range from 1 to 4 m in height. The species is known elsewhere from Mt Peel, the upper Hinds River, Hae Hae te Moana gorge and Wandle Bush near Waiau.

Pleurosorus rutifolius (Rare)

Seen in an unnamed stream west of Donald Stream, S73 914804, 750 m. Two plants were seen, one still green in mid January. They were growing on bare soil on the floor of a small dry rock overhang in grassland, accompanied by the liverwort *Targionia hypophylla*, a common associate of *Pleurosorus* on the Port Hills. This is the first inland Canterbury population to be found in recent years. Earlier sites were recorded by Potts from the Ashburton Gorge area in 1868 and by Cockayne in the lower Waimakariri Gorge (Given 1972).

Corprosma intertexta (Local)

None were seen in Mt Hutt Ecological District but this species was seen on the edge of the Heron basin along the north and eastern

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foot of the Manuka Range in matagouri, *Coprosma propinqua* and *Corokia cotoneaster* shrub. There were several shrubs at each of seven sites between S81 785561 (820 m) and S81 786522 (640 m).

Species Restricted in Distribution in Canterbury

Metrosideros umbellata (southern rata)

Previously known from forest sites along the eastern front ranges:

- Awa Awa Rata Reserve, S82 025533, 550 m,
- Sharplin Falls Scenic Reserve, S81 923452, 640 m,
- Woolshed Creek (Molloy 1975), and
- forest opposite the University of Canterbury Students Association lodge near Mt Hutt, S82 045555, 640 m.

It also occurs in an unnamed creek west of Donald Stream (S73 913802, 760 m). A number of shrubs are perched on a steep cliff next to a waterfall. Other species that were not seen elsewhere in the district occurred here: *Anaphalis trinerve*, *Adiantum cunninghamii*, *Haloragis erecta*, *Coprosma acerosa* and *Echinopogon ovatus*. This is the same valley that the *Pleurosorus* was found in.

Nothofagus menziesii (silver beech)

The district has silver beech at both ends where the rainfall is highest: on the southern faces of Mt Somers and at Lake Stream. They are significant as small refuges for the species in the gap between the continuous forest stands in North Canterbury and Otago. Sites are: Ghost Stream and Chapman Creek on the south side of Mt Somers, the largest stand being in Chapman Creek (Molloy 1975).

- Charlies Stream (S73 715755, 800 m) mixed with mountain beech.
- Nell Stream (S73 727749, 740 m) a stand of pure silver beech forest.
- Leach Stream (S73 696778, 950 m) one single silver beech tree on the margin of mountain beech forest.

There is also a stand at Downs Hut on the edge of the Arrowsmith Range (Russell 1982). Russell points out that these stands have been static since the last glaciations in a region where the climate is unfavourable to the expansion of silver beech forest.

Halocarpus bidwillii (bog pine)

Bog pine occurs at a number of sites in the district. The largest of these is the extensive shrublands on the north side of Mt Somers in Bowyers Stream, S81 88-47- at 1000 m. It is a major component of a shrubland along with mountain toatoa, *Dracophyllum longifolium* and *Dracophyllum uniflorum*. A shrub of toatoa cut down at the new Pinnacles hut site there had 51 growth rings, giving a minimum age since the last fire at this site. *Gleichenia dicarpa* and

Sticherus cunninghamii, two fern species rare in the district, are also present (*Gleichenia dicarpa* is also known from lower Woolshed Creek (Molloy 1975).

There are six bog pine shrubs in short tussockland at Redcliffes Saddle (S73 965692, 930 m).

There are a few shrubs in red tussockland at Three Creeks Hut in the Winterslow basin (S81 875538, 880 m).

On the eastern side of the Manuka Range, Hakatere basin, at S81 793549, 950 m, there are twenty plants in a sparse red tussockland on an old glacial outwash surface.

Molloy (1975) reports bog pine from lower Woolshed Creek and it also occurs on Staverley Hill, north-east of Mt Somers (B P J Molloy pers. comm.).

Prumnopitys ferruginea (miro)

Found in the gorge of Colonel Stream, Double Hill Station (S73 829822, 700 m). There are three trees about 8 m high, including at least one female with fruit, growing on the edge of a bluff in a stand of forest made up of *Griselinia*, lancewood and kohuhu. Miro is rare in Canterbury. Other sites are at Mt Algidus, Wandle Bush, Banks Peninsula, and Mt Oxford and Mt Grey. At 700 m this site is one of the highest altitude sites for the species in New Zealand (Conner and Conner 1978).

Sophora prostrata (prostrate kowhai)

An extensive shrubbery occurs on the fan of Hutt Stream at S74 062705, 425 m. The shrubbery is mostly above the road but there are shrubs growing below the road. *Einadia allanii*, grows under the prostrate kowhai.

Hebe amplexicaulis

Reported by Molloy 1975 from the south slopes of Mt Somers above 900 m.

Rubus squarrosus

Seen once only in the district in the gorge of Glenariffe Stream, S73 818828, 575 m in mixed forest of kowhai, *Griselinia* and *Olearia paniculata*.

Loranthus micranthus

Seen at only one site, in scrub near the University Lodge at Mt Hutt, on *Coprosma rigida* (S82 046551, 640 m).

Carmichaelia uniflora

One site, only metres from the Double Hill homestead, S73 800835, 560 m in very well grazed grassland.

Kirkianella novae-zealandiae

Seen only at Clent Saddle at the head of the Swin River, in short tussockland, at S73 817670, 1415 m and at S73 810665, 1300 m.

Hymenophyllum atrovirens

On *Griselinia* trunk in black beech - mountain beech forest with scattered kahikatea in Reids Stream near Staverley, S81 916425, 460 m. Other species present that are usually found in higher rainfall areas were the epiphytic mosses *Schlotheimia knightii* and *Mesotus celatus*.

Uncommon Bog Species*Centrolepis pallida*

Recorded by Druce and Molloy (1983) from Mt Somers. It occurs at S81 860459, 1280 m in a cushion bog with *Oreobolus pectinatus*, *Abrotanella caespitosa*, *Sphagnum cristatum*, *Sphagnum falciculatum* and *Dicranum scoparium*. The *Dicranum* is the first Canterbury record for this moss, known previously in New Zealand only from the Central Otago mountains (A J Fife pers. comm.).

Centrolepis ciliata

Found in cushion bog in the centre of a red tussock swamp on the Alford Range at S73 829822, 700 m with *Juncus pusillus*, *Juncus antarcticus*, *Drosera arcturi*, *Riccardia lobulata*, *Campylopus bicolor* and *Celmisia glandulosa*.

Plantago obconica

Recorded by Druce and Molloy (1983) from one of the bogs of Mt Somers. The species, described recently (Sykes 1988) is known from only four other sites from the Saxton River in Molesworth to Mt Cardrona in Otago. It was also found at a new site on Turton Saddle in an *Oreobolus pectinatus* cushion bog (S74 891775, 230 m).

Gunnera densiflora

One site in the head of Pudding Hill Stream (S73 019632, 1890 m) in a *Schoenus pauciflorus* flush in *Chionochloa macra* tussockland.

Uncommon Scree and Fellfield Species*Epilobium forbesii*

This was the most exciting find of the summer's survey. It was found on black argillite scree or shattered bedrock at three sites south of Mt Taylor:

- near Quakers Saddle, Mt Somers Range, S81 812548, 1310 m with *Raoulia*.

Epilobium sp. "m" on shattered bedrock

- Mt Somers Range, Saddle Creek, S81, 844551, 1300 m on fine scree below argillite bluffs with other scree species such as *Epilobium pychnostachyum*.

- Mt Taylor Range, S81 882555, 1140 m on argillite scree.

This species was previously thought to be confined to Marlborough and North Canterbury with its southern limit at Mt Terako (Raven and Raven, 1976).

Raoulia petriensis

A new northern limit for this Otago species was found in a cirque basin at the head of Middle Creek at S73 918697, 1800 m, on fellfield with *Dracophyllum pronum*, *Drapetes dieffenbachii* and *Phyllachne colensoi*. The northern-most collection for this species in the Botany Division herbarium at Lincoln is from Mt Hay, Tekapo with the exception of one very odd distributional record from Marfell's Beach in Marlborough.

Haastia recurva

Seen at only one site in the district at Mt Hutt skifield, S81 035616, 1780 m, on scree. The species is much more common on the Craigieburn Range.

Hectorella caespitosa

Found at two sites near Godley Peak on the Palmer Range:

- In the cirque basin south of Godley Peak at S73 813769, 1800 m with *Chionocholea oreophila*, *Marsippospermum gracile* and *Raoulia grandiflora*.

- At the head of a cirque basin north west of Godley Peak at S73 781787, 1705 m at the edge of a similar stand of vegetation as at the first site.

These are very eastern records for a species which is usually found near the divide as far north as the Hawdon Valley, Arthurs Pass.

Acaena glabra

Previously collected only as far south as the Craigieburn Range, this *Acaena* is scattered throughout Coleridge E.D. and Mt Hutt E.D.

Sites we recorded it at were:

- North Black Hill Range, S74 953763, 1200 m.

- Swin River, S73 807661, 1250 m.

- Mt Somers Range, S81 825538, 1550 m,

- Ribbonwood Stream, S73 753759, 1220 m.

Chionohebe ciliolata

Only two occurrences in the district were found:

- Mt Hutt skifields, S74 034612, 1600 m, in cushionfield near flush.
- Pudding Hill stream basin, S74 002628, 1740 m, in a cushionfield on solifluction lobes.

Raoulia youngii

A species that is not uncommon in Otago and South Canterbury but with a scattered distribution in mid and north Canterbury. It grows in coarse fellfield, usually on the rounded ridge-tops.

- Godley Peak, S73 813769, 1800 m
- Godley Peak, S73 814775, 2050 m
- Smite Peak, S73 773786, 1830 m
- Mt Hutt, S74, S74 024628, 1990 m

Two other species were surprisingly uncommon. *Celmisia viscosa*, was seen only on the Old Man Range and Godley Peak. On the Craigieburn Range it is common throughout the range in the upper alpine zone and it is recorded from the mountain ranges to the south of Mt Hutt. *Chionochloa rigida* was found only at Mt Somers in the Woolshed Creek area. *Hebe venustula*, common throughout Coleridge was not seen on the south side of the Rakaia River, nor was *Hebe raoulii* var. *raoulii* which has its southern limit at the Rakaia gorge.

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