

Receptacle: Usually a crown of stiff hairs below carpels At most 1 - 2 hairs between achenes

Dr. Melville gives evidence to suggest that there are two size forms in Ranunculus glabrifolius. He places R.rivularis var. major and R.incisus under R.glabrifolius and R.amphitrichia under R.rivularis.

R.glabrifolius favours drier sites than R.rivularis and is a plant of wet ground that is not likely to be long or often submerged. Indeed near the beach to the south west of Wakanui I have found it growing happily on a ridge of gravel, well above a level where it would be even partly submerged save by a tidal wave. R.rivularis may often be found in some inches of water.

R.glabrifolius has been collected from Whangarei south to Stewart Island and in Canterbury it would seem to be more commonly found than R.rivularis. Members who visited Lake Rubicon in November 1969 may remember it in flower growing in a band a little above water level at the lake edge. Other localities in Canterbury for which it is known are: Hammer Plains, Hurunui River, Lake Janet, Spye, Cooper's Creek, Cass, Lake Pearson, Lake Hawdon, Craigieburn Cutting, Castle Hill Basin, Kowai River, Steventon, Lincoln, Lake Emma, Maclellan's Bush, Silica Quarry in Ashburton Valley, Ashburton, half a mile SW of Wakanui Beach, Bluecliffs, near Makikihi.

Raoulia australis Hook.f. on Banks Peninsula

M.J.A. Simpson *

The name Raoulia australis Hook.f. appears in most species lists for Banks Peninsula but because of name changes two different species are called by this name in different lists.

The genus Raoulia was named for Monsieur E. Raoul, surgeon on the warship l'Aube, and later the l'Allier, which accompanied settlers of the Nanto - Bordelaise Company during the settlement of Akaroa in the years 1840-3. Raoul collected specimens from which the genus Raoulia was established by J.D. Hooker in 1846. The plant Hooker named Raoulia australis from "Akaroa in montibus saxosis et altis" with leaves 1 mm long, was the common scabweed, now come to be associated with depleted high country or stony river beds.

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Later, Hooker widened his conception of this species to include material sent to him from as far north as Waikato and south to Otago and in 1864 he noted that it was "a very variable species". Kirk (1899) described part of this variable species as variety lutescens and Beauverd (1910) made this variety into a species R.lutescens. Unfortunately, Raoulia lutescens was the very plant that had been originally described as R.australis by Hooker, but this was not pointed out until 1961 (Allan 1961 p.702). In the meantime most of us had learned to know the yellow-flowered scabweed by the apt name R.lutescens and we found it hard to change. Allan (1961) provided a new name, R.hookeri, for plants that had for more than sixty years been known as R.australis Hook.f. All this makes it hard to interpret published records.

Raoulia species, other than R.australis recorded from Banks Peninsula include:

- R.subsericea (in Hooker, Laing, Wall) and still to be found in most higher grasslands.
- R.tenuicaulis (in Armstrong 1880) Laing (1919) noted "J.B.A. also records this species but I have not seen it". Not been recorded by any other author.
- R.glabra (in Laing, Wall, Burrows), probably the most common species today amongst higher rocks and stony ground or grassland.
- R.monroi (in Laing, Wall) Wall (1953) said that the formation of the Summit Road had destroyed one of the handiest localities for this species but it can still be found on Herbert Peak and in dry places elsewhere.

Under R.australis Hook.f. we have listed, besides Raouls' collection, records in Hooker, J.F. Armstrong, J.B. Armstrong, Laing and Burrows.

Hooker (1864) notes a Lyall specimen from Akaroa but this is not referred to elsewhere and I have not seen the specimen. In the Armstrong herbarium there are six specimens of Raoulia from Canterbury but none are from Banks Peninsula. Laing (1914, 1919) records R.australis Hook.f. (now R.hookeri Allan) and "R.lutescens Kirk" (now R.australis Hook.f.). For the latter he wrote (Laing 1919) "One specimen only seen, on the Lyttelton-Sumner road, about 600', possibly from seed blown up from some river bed on the plains". Two recent collections, CHR227860, from Mt. Berard, Akaroa collected by M.J.A. Simpson and B.H. Macmillan on 27.4.1972 and CHR227799 from The Monument, Purau collected by M.J.A. Simpson on 22.10.1972 indicate that this species does still occur on the

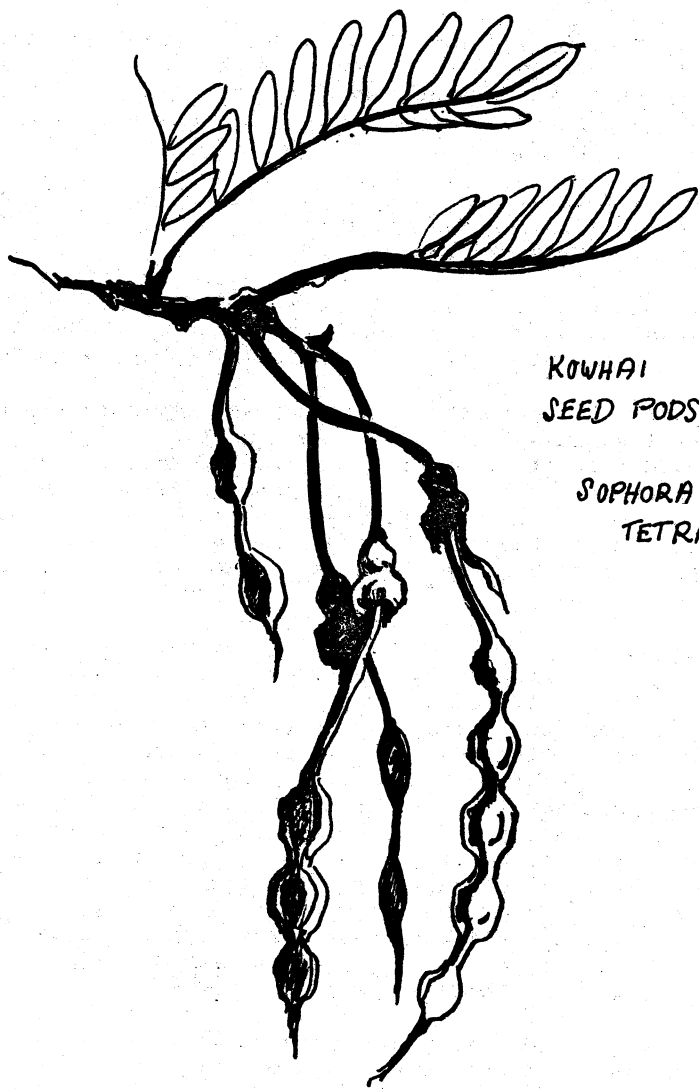
Peninsula but Laing's suggestion that it is there as the result of chance dispersal of seed is probably correct. The plant on Mt. Berard is not vigorous and the one on The Monument, although larger and healthier, is an isolated specimen. The type specimen therefore for the large important genus Raoulia is of a species which is very poorly represented in the type locality.

A specimen collected by Laing from Purple Peak, Akaroa in May 1910, CHR10134 and labelled R.australis Hook.f. is R.hookeri Allan. Of this plant (Laing 1914) wrote "Purple Peak only. Originally found by Raoul, now apparently almost extinct" and (Laing 1919) "a rare and disappearing species, one specimen only seen, on the top of Purple Peak. (Akaroa is the type locality)". We now know that this was not Raoul's plant and the Laing collection of R.hookeri Allan appears to be the only record of this species from the Peninsula.

Purple Peak, 640km lies directly behind Akaroa and presents towards the town a great rock bluff, part of the Akaroa caldera. In some lights the rocks assume the rich purple tones that give the peak its name. Locally the top of this bluff is known as Purple Peak although the highest point is on a rounded, sloping ridge towards the northwest. Today, apart from the sheer bluffs and a small area of flat rock on the lower summit almost all of Purple Peak is covered with a dense growth of gorse. I have searched, without success for R.hookeri Allan here and on other likely places on the Peninsula. Probably its occurrence here when Laing recorded the species was also the result of a chance dispersal of seed. It seems therefore that although both R.australis Hook.f. and R.hookeri Allan have been recorded for Banks Peninsula, neither can be said to be an important part of the flora or vegetation of the area.

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KOWHAI
SEED PODS

SOPHORA
TETRAPTERA.

Jean Edgar.