

ON TWO NATIVE RANUNCULI

R. Mason

Ranunculus acaulis is a low-growing, succulent buttercup, with trifoliate leaves, that spreads by white underground stems in coastal sands. According to "Allan" it occurs in the three main islands, the Chathams and the Auckland Islands in "coastal dampish sands throughout", and also on the shores of Rotorua, Tarawera and Taupo. When writing on the plants of the coast in "The Natural History of Canterbury" I had no hesitation in including it as a plant of the sandhills, for although I had not then seen it myself in Canterbury it was recorded by Wall for the sandhills in "The Botany of Christchurch", where he said "Fairly common but not easily found, is the Dune Buttercup (Ranunculus acaulis), a curious little species seen in flower only in very early spring", and also I was familiar with it elsewhere in sand. I have still not seen it in Canterbury in the dampish sandy habitats where I would expect it.

However, in November 1968 I found it in abundance about two miles WSW of the Rakaia mouth, near the edge of the low terrace where the shingle beds of the plains meet the coast. The terrace seaward of the fenceline is partly covered by a dense herbaceous sward on a layer of coarse sand or stony coarse sand which lies above loess, and it is in this very coarse sand that R. acaulis was growing. Although Wall mentioned North Brighton as a convenient place to see this Ranunculus and J.B. Armstrong in 1880 (Trans. N.Z. Inst. vol. 12, "A short Sketch of the Flora of the Province of Canterbury, with Catalogue of Species") recorded it as local in littoral and lowland habitats in Canterbury, a search for herbarium specimens from the province has revealed only one: that of Cockayne in the Dominion Museum from "Gravel of beach near mouth of Rakaia 6.11.1905". As Cockayne is reported (Hamlin, Records of the Dominion Museum, vol. 5 p.269) to have travelled from Southbridge to Balmoral on 6.11.1905, his "near mouth of Rakaia", with the travel facilities then available must have been to the NE of the river mouth. A visit to the coast must have added five to ten miles to the day's journey, depending on where he spent the night. Nothing in the published itineraries suggests that he was ever on the opposite side of the Rakaia mouth.

Armstrong has no more than an "M" in his catalogue to show that he found it in the "middle zone", that is between the littoral and alpine zones, and one wonders just where and how far inland he found it. Was it in the Sandy Knolls country south of the Waimakariri? Or in the sandy stretches inland of Lake Ellesmere in the Greenpark district? Or was it in some fine gravel bed along some river? It does not seem at all likely that R. acaulis can survive in the "middle zone" today, but there is no reason to say that it could not have been there in earlier days. That single little "M" arouses ones curiosity. In Canterbury all coastal stations are worth noting today, and an inland station would be even more noteworthy.

Ranunculus glabrifolius:

The name Ranunculus glabrifolius is one that is not familiar to most New Zealand botanists, but from now on it will keep turning up in accounts of plants of swamps and damp habitats, so it seems worthwhile to give some information about it.

If one turns to Ranunculus rivularis in Cheeseman's "Manual" there are synonyms and varietal names in what has generally been felt to be fine confusion. At any rate few collectors seem to have cared to attempt to give a varietal name to any R.rivularis they have collected. In Allan's "Flora" the approach is more cautious. The treatment of varieties is given as being the "conventional" one and the warning is given that "the status of the different forms has not been adequately studied".

We have some Ranunculi in common with Australia and a good deal of the confusion has been swept away by Dr. R. Melville in a paper on Australian Ranunculi in the Kew Bulletin for 1955. It is not necessary here to go into the misunderstandings and misidentifications of the past. It is clear that we have two species: R.rivularis Banks & Sol., ex DC. and R.glabrifolius Hook.

There are many differences between the two and some are tabulated below :

	<u>R.rivularis</u>	<u>R.glabrifolius</u>
Plant:	Never hairy	With few or many stiff appressed hairs on leaves and flower stalks
Flowers:	Yellow	Rich golden
Sepals:	4 - 5, one more or less bilobed or emarginate	5, blunt, hirsute on back
	1 - 3 nerves	3 principal nerves, branching in lower half
Petals:	4 - 5	5 - 10
Nectary:	Tumid semilunar pocket or bracket about 1/3 length above base	A distinct petaloid lobe attached at margins and forming a deep pocket with margins more or less excurrent, about 1/5 length above base
Stamens:	about 15	30 - 40
Carpels:	about 10	15 - 20
Achenes:	Obscurely wrinkled when ripe	Faces coarsely undulate with 3 - 4 rounded ridges

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

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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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