



## *Cardamine magnifica*

### Common Name(s):

Castlehill bittercress

### Distribution:

Endemic. South Island, Canterbury, Castle Hill Basin (including Castle Hill, Gorge Hill, and Prebble Hill),

### Habitat:

A plant inhabiting fine-grained limestone scree, stony colluvium, and also growing on the margins of associated sparsely vegetated, stable to semi-stable limestone rock outcrops and bluffs.

### Features\*:

Perennial herb, single rosette or with short lateral branches, stem and branches 1.0–1.5 mm diameter, strongly rhizomatous. Leaves up to 80 mm long, pinnatisect; lamina 10.2–55.0 × 12.0–28.0 mm, grey-green, light green, greenish-yellow, sometimes purplish beneath, coriaceous, usually glabrous, occasionally with sparsely hairy margins and petiole. Terminal pinna 4.0–16.0 × 4.0–17.0 mm, usually simple, sometimes with 1–2 very shallow lobes, orbicular, orbicular-rhomboid, to broadly elliptic-rhomboid, margin often irregular, apex obtuse with a conspicuous hydathode, base obtuse, truncate or weakly cordate and sometimes oblique. Lateral pinnae 2–4, 2.0–11.0 × 2.0–10.0 mm, orbicular, orbicular-rhomboid, to broadly elliptic-rhomboid, petiolule 0.5–8.0 mm long. Petiole up to 65 mm long; hairs septate and 0.3–0.4 mm long. Cauline leaves similar to rosette leaves but smaller and with fewer lateral pinnae. Inflorescence racemose, 7–15-flowered; peduncle up to 140 mm long, 0.8–1.4 mm diam. at base, upright, glabrous. Pedicels 12.0–37.0 mm long, 0.4–0.5 mm diam., glabrous. Sepals 2.6–4.5 × 1.5–2.2 mm, elliptic-oblong to broadly elliptic, ± saccate, green or red-brown, usually glabrous or occasionally sparsely hairy in distal half, margin translucent or white, membranous, apex obtuse, base truncate. Petals 7.6–11.3 × 3.8–5.0 mm, white, limb obovate to broadly elliptic; apex obtuse; base cuneate, tapering to a 1.0–1.4 mm long claw. Stamens 6; median filaments 4, 3.6–4.0 mm long; lateral filaments 2, 3.2–3.4 mm long; anthers 0.8–0.9 mm long, cream to pale yellow, when dehiscent held at a similar height to or slightly below the stigma. Ovary 3.5–4.2 mm long, 0.5–0.6 mm diam., ± terete, green, glabrous; ovules 18–22; style 2.0–4.0 mm long, ± terete; stigma 0.7–0.8 mm diam. Siliques 33.0–40.0 × 1.5–1.8 mm, glabrous, style 1.8–3.0 mm long; valves green to red-brown at maturity; straw-coloured when dehiscent, replum 0.3–0.4 mm wide. Seeds 1.4–1.9 mm long, 0.7–1.1 mm wide, 0.3–0.5 mm thick, broad-oblong, oblong to oblong-elliptic, yellowbrown to henna; wing present.

### Flowering:

October - December

### Fruiting:

December - March

### Threats:

Heenan & Molloy (2019) recommend that *Cardamine magnifica* be assessed as 'Threatened, Nationally Critical' (Criterion "A" of very small population (natural or unnatural), however they also note that following criteria for 'Nationally Critical' also apply: A(1) < 250 mature individuals and A(3) total area of occupancy ≤ 1 hectare see Townsend et al. (2008). Heenan & Molloy (2019) also advise that the species be qualified 'DP' (data poor) due to the lack of population size and trend data (see Townsend et al. 2008).

### \*Attribution:

Fact sheet prepared by P.J. de Lange (5 September 2019). Description from Heenan & Molloy (2019).

### References and further reading:

Heenan, P.B.; Molloy, B.P.J. 2019: Five new and Nationally Threatened taxa of *Brachyscome*, *Cardamine*, *Convolvulus*, *Geranium* and *Ranunculus* obligate to vulnerable limestone habitats, eastern South Island, New Zealand. *Phytotaxa* 415(1): 32-48.

Townsend, A.J., de Lange, P.J., Norton, D.A., Molloy, J., Miskelly, C. & Duffy, C. (2008) The New Zealand threat classification system manual. Department of Conservation, Wellington, 35 pp.

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