

Gentianella luteoalba

COMMON NAME

cream gentian

SYNONYMS

None (described in 2004)

FAMILY

Gentianaceae

AUTHORITY

Gentianella luteoalba Glenny

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

NVS CODE

GENLUT

CHROMOSOME NUMBER

2n = 36

CURRENT CONSERVATION STATUS

2017 | At Risk – Naturally Uncommon | Qualifiers: DP, RR

PREVIOUS CONSERVATION STATUSES

2012 | At Risk – Naturally Uncommon | Qualifiers: RR

2009 | At Risk – Naturally Uncommon

2004 | Range Restricted

DISTRIBUTION

Endemic. New Zealand. South Island: (north-west Nelson, Lookout and Hope Range)

HABITAT

Alpine, on sparse vegetated, virtually bare granite gravel exposures on steep sides, but low relief ridge tops



DETAILED DESCRIPTION

Plants monocarpic, biennial, height in flower 25–60 mm (rosette of leaves compact, 22–70 mm diameter). Caudex unbranched, to 55 mm long. Root 2.2–4.4 mm diameter at stem base. Flowering stems terminal, largest flowering stem 3.0–5.0 mm diameter at base, stem colour green or tinted purple-black, flowering stem leaves 1 pair per stem, lowest pedicels from near base of flowering stem to ½ up flowering stem. Rosette of leaves present but not very distinct or present and distinct from flowering stem leaves, leaves tongue-like, 10.5–33 × 4.2–5.2 mm, green, margins dark red-brown, channelled, recurved or not, leaf apex rounded; petiole absent, leaf 2.7–5.0 mm wide at base. Pedicels 1 per leaf axil, 1–21 mm long, 1.0–1.3 mm diameter. Flowers 14–133 per plant, 12.5–19.5 mm long. Calyx 6.7–8.4 mm long, green, tinted brown, hairs at calyx–corolla fusion line present; lobes 4.8–5.9 mm long, 2.2–2.9 mm wide at base, plane, apices acute, margins smooth or minutely denticulate at lobe base or for full length of margin, sinus hairs sparse to abundant. Corolla 11.6–14.9 mm long, uniformly pale yellow; tube 3.8–4.7 mm long; lobes 9.2–10.2 × 5.1–6.3 mm wide, hairs below sinus present; nectary 1.5–2.0 mm from corolla base. Filaments 7.8–9.9 mm long from corolla base, 0.6–0.8 mm wide. Anthers 1.0–2.1 mm long, anther wall blue-black, mouth yellow, extrorse at anthesis; pollen yellow. Stigma colourless. Ovules 9–20 per ovary, ovary turning slightly blue in maturity. Capsule 5.6–7.5 mm long.

SIMILAR TAXA

Most similar to *G. divisa* and *G. magnifica* neither of which is present in north-west Nelson. Distinguished by the biennial growth habit and overall small size (25–60 mm tall); by the thick taproot (up to 4.4 mm diameter at stem base); by the lower epidermal leaf cells which are non-zigzagged and which have thickened walls; by numerous (up to 133) uniformly pale yellow flowers; by the corolla length (up to 14.9 mm), calyx lobes which are longer than wide; and filaments up to 0.8 mm wide. In this species the flowering stem is so condensed that the main stem is not visible.

FLOWERING

February –March

FLOWER COLOURS

Blue, Yellow

FRUITING

March – May

LIFE CYCLE

Seeds dispersed by ballistic projection, wind and water (Thorsen et al., 2009)

PROPAGATION TECHNIQUE

Difficult. Should not be removed from the wild

THREATS

A Naturally Uncommon, Range-restricted endemic, which is locally abundant within its few known habitats. All known populations occur within Kahurangi National Park. There are no known threats.

ETYMOLOGY

gentianella: Little Gentiana (named after Gentius, 6th century king of Illyria, who found the roots of the yellow gentian to have a healing effect on his malaria-stricken troops)

luteoalba: Yellowish white

WHERE TO BUY

Not commercially available

ATTRIBUTION

Fact Sheet for NZPCN prepared by P.J. de Lange (1 November 2004). Description modified from Glenny (2004)

REFERENCES AND FURTHER READING

Glenny, D. 2004: A revision of the genus *Gentianella* in New Zealand. *New Zealand Journal of Botany* 42: 361–530.
Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 11: 285–309

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/gentianella-luteoalba/>