

Gentianella stellata

COMMON NAME

Ultramafic gentian

SYNONYMS

None (first described in 2004)

FAMILY

Gentianaceae

AUTHORITY

Gentianella stellata Glenny

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

CURRENT CONSERVATION STATUS

2017 | At Risk – Naturally Uncommon | Qualifiers: 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 (Nelson DUrville Island, Bryant Range, Dun Mountain, Mt Starveall, Red Hills (Richmond Range)).

HABITAT

Montane *Leptospermum scoparium* and *Lepidosperma australe* shrubland and scrub on ultramafic soils.

DETAILED DESCRIPTION

Plants monocarpic, biennial, height in flower 180–730 mm. Caudex unbranched or branched with branches short, c. 30 mm long. Root 1.8–6.0 mm diameter at stem base. Flowering stems terminal only or terminal and lateral, 1–6 per plant, largest flowering stem 1.7–5.4 mm diam. at base, stem colour green or tinted crimson, purple-black, or bronze, lateral flowering stems erect when present, flowering stem leaves 3–6 pairs per stem, lowest pedicels from near base of flowering stem or halfway up flowering stem or near apex of flowering stem. Rosette of leaves present and distinct from flowering stem leaves, leaves narrowly elliptic or elliptic, 12.0–100.0 × 3.7–19.0 mm wide, green or tinted crimson, purple-black, or bronze, flat or slightly to strongly channelled, recurved; leaf apex acute or rounded; petiole absent, leaf 2.9–5.7 mm wide at base. Flowering stem leaves similar to rosette leaves but smaller, ovate, strongly recurved and channelled. Pedicels 1 or 2 per leaf axil, 3–45 mm long (those from low on the flowering stem very long), 0.75–1.5 mm diameter. Flowers 11–59 per plant, 14–29 mm long. Calyx 6.0–13 mm long, green or crimson, hairs at calyx–corolla fusion line absent or present; lobes 3.8–8.2 mm long, 1.5–3.0 mm wide at base, recurved, apices acute, margins smooth or minutely denticulate, sinus hairs few. Corolla (10–)13–23 mm long, white, veins uncoloured; tube 3.0–6.3 mm long; lobes 11.5–19 mm long, 6.3–9.5 mm wide, hairs below sinus few or absent; nectary 1.7–2.7 mm from corolla base. Filaments 5.9–10.6 mm long from corolla base, 0.6–1.2 mm wide. Anthers 1.7–3.1 mm long, anther wall yellow or blue-black, mouth yellow, extrorse at anthesis. Stigma colourless or slightly tinted blue. Ovules 18–68 per ovary, ovary turning purple in maturity. Capsule 11.5–21 mm long.



Red Hills. Photographer: Melissa Hutchison, Date taken: 08/01/2023, Licence: CC BY-NC.



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SIMILAR TAXA

Closely related to *Gentianella tenuifolia* but *G. stellata* is distinguished by its restriction to ultramafic substrates, by the central flowering stem and unbranched caudex, and by the large white flowers with yellow anthers. The leaves are recurved, strongly channelled, and thick in texture, as are the flowering stem leaves.

FLOWERING

March – August

FLOWER COLOURS

White, Yellow

FRUITING

April – September

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 sparse to locally abundant within its montane ultramafic rock habitat.

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)

stellata: With spreading star-like rays, starry

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-stellata/>