# Gentianella corymbifera subsp. corymbifera

**COMMON NAME** grassland gentian, tall gentian

#### **SYNONYMS**

Gentiana corymbifera Kirk, Gentiana bellidifolia var. vacillata Kirk, Chionogentias corymbifera (Kirk) L.G.Adams, Gentiana pleurogynoides var. rigida Kirk, Gentiana bellidifolia var. vacillata Kirk

# FAMILY

Gentianaceae

AUTHORITY Gentianella corymbifera (Kirk) Holub subsp. corymbifera

#### FLORA CATEGORY Vascular – Native

ENDEMIC TAXON Yes

ENDEMIC GENUS No

ENDEMIC FAMILY No

STRUCTURAL CLASS Herbs - Dicotyledons other than Composites

NVS CODE GNTCOR

CHROMOSOME NUMBER 2n = 36

CURRENT CONSERVATION STATUS 2017 | Not Threatened

**PREVIOUS CONSERVATION STATUSES** 

2012 | Not Threatened 2009 | Not Threatened 2004 | Not Threatened

## DISTRIBUTION

Endemic. New Zealand: South Island (Nelson, Marlborough, Canterbury and Otago, mostly east of the Main Divide, and scarce in Otago)

## HABITAT

Montane to alpine. In short-tussock and tall-tussock grassland, rough pasture on hill slopes, within intermontane basins, along river terraces, and more rarely in ephemeral or permanent wetlands. Being unpalatable to livestock it is common in heavily browsed montane to alpine grasslands.





Tarndale, January. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



Gentianella corymbifera subsp. corymbifera, Isolation Basin. Photographer: Gillian M. Crowcroft, Licence: All rights reserved.

#### **DETAILED DESCRIPTION**

Plants biennial, monocarpic rarely polycarpic, height in flower 60–470 mm. Caudex unbranched, 15–70 mm long. Root branched or unbranched, 1.3–11.3 mm diameter at stem base. Flowering stems terminal only or terminal and lateral with more slender lateral branches from among the rosette leaves, 1-9 per plant, terminal flowering stem 3.0–11.3 mm diameter at base, green, tinted crimson or purple-black, lateral flowering stems erect, internodes 2–6 pairs per stem, lowest pedicels from near base of flowering stem, halfway up flowering stem, or near apex of flowering stem. Rosette of leaves present and distinct from flowering stem leaves, leaves narrowly elliptic to elliptic or ovate, leaf apex acute to rounded, 41.0–168.0 × 6.5–31 mm, sometimes tinted crimson or purple-black below or on the petiole, usually flat, sometimes V-shaped or channelled at the petiole, petiole indistinct, 10-40 mm long, 4.0-18.5 mm wide at leaf base. Flowering stem leaves ovate, apex acute, sessile. Flowers 7-110 per plant, 14–23 mm long, rarely female. Pedicels 1–3 per leaf axil, 3–50 mm long, 0.9–1.5 mm diameter. Calyx 6.8–18 mm long, 2.7-4.0 mm wide at base, green or tinted purple-black, crimson, or bronze; lobes 2.9-11.3 × 2.7-6.8 mm, plane, apices acute, margins smooth or minutely denticulate, hairs at sinuses present or absent. Corolla 14.0-21.1 mm long, white, rarely flushed with pink; tube 2.5-12 mm long; lobes  $7.5-15.5 \times 5.1-10.2 \text{ mm}$ , hairs below sinus present; nectary 0.7–1.5 mm from corolla base. Filaments 7.2–12.8 mm long from corolla base, 1.1–1.6 mm wide. Anthers 1.9–3.2 mm long, anther wall yellow or blue-black, mouth yellow, extrorse, rarely introrse at anthesis. Stigma colourless. Ovules 36-68 per ovary. Capsules 12-19 mm long.

#### **SIMILAR TAXA**

Distinguished from other Gentianella by the very stout terminal flowering stem (3.0-11.3 mm diameter), which may bear up to 110 flowers; by the petiole of the rosette leaves which is very wide (4.0-18.5 mm); and by the usually large, thick, fleshy, flat rosette leaves which often have a V-shaped petiole. Distinguished from subsp. gracilis by its monocarpic life form; by the terminal flowering stem 3.0-11.3 mm diameter when fresh; leaves  $41-168 \times 6.5-31 \text{ mm}$ wide; calyx lobes 2.7-4.0 mm wide; corolla 14.0-21.1 mm long; and by the filaments 1.1-1.6 mm wide.

FLOWERING December – March

FLOWER COLOURS Red/Pink, White

**FRUITING** February - 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.

#### 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) **corymbifera**: Corymb-bearing

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-corymbifera-subsp-corymbifera/