Gentianella serotina

COMMON NAMES
gentian

BIOSTATUS
Native – Endemic taxon

CURRENT CONSERVATION STATUS
2023 | Not Threatened
Jump to previous conservation statuses

CATEGORY
Vascular

STRUCTURAL CLASS
Herbs - Dicotyledons other than Composites

FLOWER COLOURS
Violet/Purple, White

DETAILED DESCRIPTION
Plants polycarpic, height in flower 80–300 mm. Caudex unbranched or branched, 10–100 mm long, shaggy with dead leaf bases. Root 2.0–6.7 mm diameter at stem base. Flowering stems lateral only, or terminal on rosette-bearing branches, 1–13 per plant, largest fl owering stem 1.9–3.0 mm diameter at base, 1.0–2.0 mm diameter when dry, stem colour green or tinted crimson or purple-black, lateral flowering stems erect or decumbent, flowering stem leaves 1–5 pairs per stem, lowest pedicels from near apex of flowering stem. Rosette of leaves present and distinct from flowering stem leaves, leaves linear to narrowly elliptic, 32.0-160.0 × 3.5–15.0 mm wide, green or tinted crimson or purple-black below and on petiole and veins, sometimes leaf surface speckled purple-black, V-shaped or channelled, recurved or not, apex acute, petiole absent to distinct, 15.0–40.0 × 1.1–3.7–4.0 mm. Flowering stem leaves narrowly elliptic, sessile. Flowers 1–130 per plant, 15–21 mm long. Pedicels 1 or 2 per leaf axil, 12–26 mm long, 0.8–1.4 mm diameter. Calyx 7.4–13.8 mm long, green or green tinted purple-black, hairs at calyx–corolla fusion line absent or present; lobes 4.6–9.7 mm long, 2.0–3.0 mm wide at base, plane, apices acute, margins smooth to denticulate, sinus hairs sparse, rarely abundant. Corolla 14.1–19.5 mm long, white or pale lilac, veins mostly uncoloured, sometime darkly striped magenta; tube 4.3–6.2 mm long; lobes 9.6–13 mm long, 5.6–9.5 mm wide, hairs below sinus present; nectary 0.3–2.2 mm from corolla base. Filaments 7.0–11.2 mm long from corolla base, 0.65–1.4 mm wide. Anthers 1.8–3.2 mm long, anther wall blue-black, mouth yellow, extrorse at anthesis. Stigma colourless. Ovules 15–64 per ovary. Capsule 13–22 mm long.

SIMILAR TAXA
Allied to G. bellidifolia from which it differs by its usually taller growth habit; longer, narrower, flatter leaves; usually more flowering stems and flowers per plant. The flowering stems of G. serotina tend to be decumbent while Otago and Southland plants of G. bellidifolia tend to be erect from the base. G. serotina resembles G. corymbifera subsp. gracilis and grows in the same habitat but differs in being polycarpic rather than biennial, in having only lateral flowering stems, and by having thinner flowering stems (2.8–3.0 mm cf. 4.2–5.3 mm diameter). Some G. serotina populations have high lilac flowers with dark magenta corolla veins

DISTRIBUTION
Endemic. New Zealand: South Island (Canterbury, Otago, Southland)

HABITAT
Montane to subalpine. Mostly in tall and short tussocklands and shrub tussocklands of Festuca novae-zelandiae, Chionochloa macra, C. rigida, and C. flavescens. Also on river terraces, valley floors, less often on hillslopes and ridges, usually in well-drained soils, sometimes fringing tarns, rarely on limestone outcrops.

GENUS
Gentianella

FAMILY
Gentianaceae

AUTHORITY
Gentianella serotina (Cockayne) T.N.Ho et S.W.Liu

SYNONYMS
Gentiana serotina Cockayne, Chionogentias serotina (Cockayne) L.G.Adams, Oreophylax serotinus (Cockayne) Á.Löve nom. inval.

ENDEMIC TAXON
Yes

ENDEMIC GENUS
No

ENDEMIC FAMILY
No

FLOWERING
February – April

FRUITING
April – June

LIFE CYCLE AND DISPERSAL
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)
serotina: Late flowering

NVS CODE
GENSER

CHROMOSOME NUMBER
2n = 36

PREVIOUS CONSERVATION STATUSES
2017 | Not Threatened
2012 | Not Threatened
2009 | Not Threatened
2004 | Not Threatened
Jump to current conservation status

REGIONAL CONSERVATION STATUSES
Otago: 2025 | Regionally At Risk – Regionally Naturally Uncommon | Qualifiers: DPR, DPS, DPT, NS, NStr, Sp Help
The regional threat classification system leverages off the national assessments in the NZTCS, providing information relevant for the regional context. Otago conservation status information is sourced from the "Conservation Status of Indigenous Vascular Plants in Otago, 2025" Jarvie S et al. (2025) report.

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

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

MORE INFORMATION

https://www.nzpcn.org.nz/flora/species/gentianella-serotina/

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