

# Gentianella lineata

## SYNONYMS

*Gentiana lineata* Kirk, *Gentiana verecunda* G.Simpson, *Chionogentias lineata* (Kirk) L.G.Adams, *Oreophylax lineatus* (Kirk) Á.Löve nom. inval.

## FAMILY

Gentianaceae

## AUTHORITY

*Gentianella lineata* (Kirk) T.N.Ho et S.W.Liu

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

## NVS CODE

GENLIN

## CHROMOSOME NUMBER

2n = 36

## CURRENT CONSERVATION STATUS

2017 | At Risk – Relict | Qualifiers: PD, RR, Sp

## PREVIOUS CONSERVATION STATUSES

2012 | At Risk – Naturally Uncommon | Qualifiers: Sp

2009 | At Risk – Naturally Uncommon

2004 | Sparse

## DISTRIBUTION

Endemic. New Zealand: South Island (Otago (Lammerlaw Range, Blue mountains and Ajax Bog) south to Southland and Fiordland), Stewart Island/Rakiura (from the north-west south to the Tin Range and also on the south western Titi Islands).

## HABITAT

A species of coastal to alpine habitats (0–1300 m a.s.l.) frequenting coastal bogs, subalpine forest and scrub, alpine tussock grasslands, or within *Schoenus*-dominated bogs and mires.

## WETLAND PLANT INDICATOR STATUS RATING

FACW: Facultative Wetland

Usually is a hydrophyte but occasionally found in uplands (non-wetlands).



Waituna wetlands, Coastal Southland.  
Photographer: Dave Toole, Licence: CC BY-NC.



Mount Rakeahua, Rakiura National Park, 430 m asl. Photographer: Jesse Bythell, Date taken: 02/01/2020, Licence: CC BY-NC.

## DETAILED DESCRIPTION

Polycarpic herb 30–180 mm tall when flowering. **Branched** from base, stoloniferous or not. **Flowering stems** terminal and lateral 1–18 per plant, tinged purple-black, lateral flowering stems erect or decumbent, flowering stem leaves 0–1 pairs per stem, lowest pedicels from near base of flowering stem to near apex of flowering stem. **Petiole** indistinct to distinct 4.5–10.4 × 0.5–0.8 mm at leaf base. **Leaves:** rosette of leaves absent or present and distinct from flowering stem leaves; basal leaves 11–16 × 1.2–3 mm, green to purple-green above, green, tinted crimson or purple black below, narrowly elliptic or elliptic, leaf apex acute, lamina flat not recurved. **Flowering stems** ebracteate or rarely with 1 pair. **Pedicels** 10–75 mm long (elongating after flowering to 30–120 mm), 0.5–0.8 mm diameter. **Flowers** 1–18 per plant, 7.7–10 mm long. **Calyx** 6.4–9 mm long, green tinged purple-black, hairs at calyx-corolla fusion linear absent or sparse; lobes 4.9–7 × 1.1–1.7 mm, plane, apices acute, margins smooth, sinus hairs absent. **Corolla** 4.6–10.5, white, veins uncoloured; tube 1.1–2.9 mm, lobes 3.7–8.1 × 2–4.6 mm, hairs below sinus absent; nectary 0.5–0.6 mm from corolla base. **Filaments** 2.4–6 × 0.35–0.45 mm, arising from corolla base. **Anthers** 0.8–1.5 mm long, anther wall blue-black, mouth yellow, introrse at anthesis; pollen yellow. **Stigma** colourless. **Ovules** 40–56 per ovary, ovary yellow in maturity. **Capsule** 7.3–14.2 mm long.

## SIMILAR TAXA

A distinctive small species recognised by the branched stem base, numerous flowering stems which usually lack bracts, solitary flowers, and small, narrow leaves. It is most likely to be confused with *Gentianella grisebachii* (Hook.f.) T.N.Ho in Ho & Liu, which has similar long, narrowly acute calyx lobes but the flowering stems of *G. grisebachii* possess leafy bracts below each flower, while *G. lineata* invariably has none.

## FLOWERING

November–January

## FLOWER COLOURS

White, Yellow

## FRUITING

January–April

## 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 widespread and at times locally common but more usually sparse species. It does not appear to be threatened and virtually all of its known habitats are within part of the conservation estate.

## 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)

**lineata:** Linear, striped with a parallel line (plumb line)

## WHERE TO BUY

Not commercially available

## ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (October 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(3): 361–530. <https://doi.org/10.1080/0028825X.2004.9512910>.

Thorsen MJ, Dickinson KJM, Seddon PJ. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 11: 285–309. <https://doi.org/10.1016/j.ppees.2009.06.001>.

## MORE INFORMATION

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