

# Gratiola concinna

## SYNONYMS

New Zealand plants have been referred to the Australian *Gratiola nana* Benth.

## FAMILY

Plantaginaceae

## AUTHORITY

*Gratiola concinna* Colenso

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

## NVS CODE

GRANAN

## CHROMOSOME NUMBER

$2n = 30$

## CURRENT CONSERVATION STATUS

2017 | Threatened – Nationally Endangered | Qualifiers: CD, DP, PD, RR

## PREVIOUS CONSERVATION STATUSES

2012 | Threatened – Nationally Vulnerable | Qualifiers: De

2009 | Threatened – Nationally Vulnerable | Qualifiers: De

2004 | Gradual Decline

## DISTRIBUTION

Indigenous. New Zealand: North Island, South Island. Very local, and it has disappeared from many earlier-known sites. Also Australia (uncommon, forms matching the New Zealand plant have only been reliably reported from Tasmania).

## HABITAT

Muddy hollows in forest clearings, streamsides or in turf at the margins of lakes, rivers or ponds; sometimes aquatic at edge of shallow lakes or rivers.

## WETLAND PLANT INDICATOR STATUS RATING

FACW: Facultative Wetland

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



*Gratiola concinna*. Photographer: Shannel Courtney, Licence: CC BY-NC.



Cold Stream, Egmont National Park. Jan 1996. Photographer: Colin C. Ogle, Licence: CC BY-NC.

## DETAILED DESCRIPTION

Procumbent, widely creeping much branched and intertangled perennial herb forming leafy mats; branches slender, rooting at nodes, filiform, usually ascending at apices, up to 200 mm long, 0.7–0.9 mm diameter, dark green, dark green purple-spotted or maroon-red, puberulent to ± glabrescent hairs at apices initially copious, sub-retrorse to patent, eglandular, 0.8–1.1 mm long, soon shedding leaving sparse to abundant subsessile to sessile, viscid, glandular admixed with sparse, longer eglandular hairs on older stems, internodes variable, usually 2.4–4.6 mm, sometimes very widely spaced, especially on longer stems. **Leaves** fleshy, nerves not evident, sessile, rarely shortly petiolate, petioles 0.8–1.2 mm, glabrous or puberulent, hairs as for stems; lamina 4.0–7.6 × 2.0–5.8 mm, oblong, obovate to suborbicular, apex obtuse, ± obtusely toothed rarely subentire or entire, yellow-green, dark green, usually with purple or maroon blotching or stitch marks near teeth, or rarely with upper lamina surface irregularly maroon spotted, puberulent, hairs mostly sessile to subsessile glandular, admixed with sparse to sometimes copious 0.6–1.0 mm, eglandular hairs. **Flowers** 10–12 mm long, solitary in bract axils, faintly sweet-scented.

**Pedicels** 2.0–2.5 mm, distal end wider than proximal, puberulent, glabrate, hairs patent, eglandular. **Bracteoles** 1.2–2.1 × 0.5–1.1 mm, linear-oblong, oblong, apex obtuse to subacute, green with dark maroon apex, puberulent, hairs patent, 0.5–0.8 mm eglandular. **Sepals** 2–3, free, erect, 0.5–0.8 × 0.2–0.6 mm, narrowly-lanceolate to oblong, acute, green with dark maroon apex, puberulent, hairs patent, 0.3–0.6 mm eglandular. **Corolla** white, throat yellow or pale pinkish yellow; tube 7.6–8.2 mm long, funnelform, veins 10–16 pale pink or maroon, externally eglandular hairy along veins, hairs patent, 0.3–0.6 mm; inner surface densely covered in tangled, weakly flexuous, eglandular, yellow or pink, hairs 0.4–0.8 mm long; lobes 5, 3.2–4.0 × 4.0–4.6 mm, orbicular to broadly obovate, emarginate, widely spreading to decurved at anthesis, glabrous. **Stamens** 2, filaments 1.8–2.2 mm, white, anthers 0.4–0.6 mm, white, pollen white; staminodes 1–2, 1.6–1.8 mm, white. **Ovary** narrowly ellipsoid, 0.3–0.6 × 0.1–0.2 mm, style 1.8–2.0 mm, caducous, stigma rather broadly 3-lobed, perpendicular to style. **Capsule** ovoid 3.5–4.0 mm diameter, 4-valved, septicial and loculicial to base. **Seed** 0.4–0.7 mm, oblong, narrow-oblong, 2–4-angled, dark brown, surface glossy, deeply reticulate, mucilaginous when fresh.

## SIMILAR TAXA

The prostrate, widely creeping mat-forming growth habit, usually very hairy stems, small leaves and conspicuous funnelform flowers readily distinguish this species from the three other indigenous *Gratiola*. New Zealand plants have been confused with the Australian *G. nana* from which they differ by their oblong, obovate to suborbicular rather than elliptic to narrow-oblong leaves, clear rather than golden glandular hairs, and larger flowers with the bracteoles longer than the sepals.

## FLOWERING

December–February

## FLOWER COLOURS

Purple, White, Yellow

## FRUITING

March–July

## LIFE CYCLE

Mucilaginous seeds are dispersed by water and possibly wind and attachment (Thorsen et al., 2009).

## PROPAGATION TECHNIQUE

Easily grow from division of whole plants and fresh seed but short-lived and difficult to maintain over time. Does best if planted in a pot which is then partially submerged in water, and kept in a sunny situation.

## THREATS

Habitat loss through wetland drainage and competition from introduced weeds.

## ETYMOLOGY

**gratiola**: Little beauty

**concinna**: Charming, elegant

## WHERE TO BUY

Not commercially available.

## TAXANOMIC NOTES

*Gratiola concinna* as currently circumscribed is extremely variable and it is possible that more than one entity lurks under that name (see images of this variation in de Lange *et al.* 2010). Further study of this variation would be worthwhile.

## ATTRIBUTION

Fact Sheet prepared for NZPCN by P.J. de Lange 3 April 2004. Description by P.J. de Lange based on live plants and herbarium specimens—see also de Lange *et al.* (2010).

## REFERENCES AND FURTHER READING

de Lange PJ, Heenan PB, Norton DA, Rolfe JR, Sawyer JWD. 2010. Threatened Plants of New Zealand. Canterbury University Press, Christchurch. 471 p.

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>.

## NZPCN FACT SHEET CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Gratiola concinna* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/gratiola-concinna/> (Date website was queried)

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/gratiola-concinna/>