

Solenogyne christensenii

SYNONYMS

Abrotanella christensenii Petrie

FAMILY

Asteraceae

AUTHORITY

Solenogyne christensenii (Petrie) de Lange, Jian Wang ter & Barkla

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledonous composites

CURRENT CONSERVATION STATUS

2017 | Threatened – Nationally Critical | Qualifiers: DP, EF

BRIEF DESCRIPTION

Diminutive, rosette-forming daisy, with hispid dark green, mottled maroon oblanceolate tridentate, serrate leaves. Inflorescences, scapose, scapes hispid, capitula c. 2 mm diameter, bracts ovate to broadly oblong with pinkish ciliate margins; ray florets tubular, cream to pale pink, disc florets pale yellow.

DISTRIBUTION

Endemic. New Zealand: South Island. Known with certainty from the type locality (Hanmer Plain where it is probably extinct), and from the headwaters of the Clutha River.

HABITAT

Recorded from 'bare spots in dry fescue (*Festuca novae-zelandiae*) tussock steppe by Petrie (1915) and from herbfield developed on a silty riverbank under dappled shade provided by 2–4 m tall kahikatoa (*Leptospermum scoparium* s.l.) by de Lange et al. (2020).



Solenogyne christensenii plant in cultivation. Photographer: Jeremy R. Rolfe, Date taken: 06/03/2016, Licence: CC BY.



Solenogyne christensenii plant in cultivation. Photographer: Jeremy R. Rolfe, Date taken: 06/03/2016, Licence: CC BY.

DETAILED DESCRIPTION

Small perennial rhizomatous tufted herb up to 30 mm tall × 50 mm across; roots and rhizomes fibrous; stem very short (leaves in basal rosette); leaves and scapes firmly attached to stem and/or rootstock. **Leaves** 15–25, oblanceolate, obdeltoid to cuneate, 10–20–(25) × 5–8 mm (10–5× longer than wide), with a winged petiole-like base 8–10 mm long; leaf apex tridentate; leaf margins serrated (rarely repand-sinuate), usually with 4–6 teeth either side, each lobe 0.5–1.0 mm long; adaxial leaf surface glossy, initially green, maturing bronze-green or brown mottled, or maroon-brown; adaxial surface pilose, hairs patent eglandular, 0.3–1.8 mm long, 3–8 per square mm; abaxial leaf surface pale glossy green, ± glabrescent; hairs present on young leaves, unevenly shedding with leaf maturation, eglandular, pubescent, ± appressed, 0.4–0.8 mm long, 0–2 per square mm, hairs; both leaf surfaces papillate, papillae c. 0.01 mm long, more or less evenly distributed; leaf margins pilose, hairs eglandular patent 3–4 per square mm, 0.2–1.0 mm long; lateral veins slightly raised and usually visible adaxially, obscure abaxially. **Scapes** terete and smooth on fresh specimens, channelled on dry ones, 4–8 per tuft, each 5–20 mm long at anthesis, 10–30 mm long at fruiting stage, 1.5–2.5 mm diameter throughout; scape bracts 0, or occasionally furnished with 1, ovate to orbicular, chartaceous c. 1.5 × 0.4 mm bract; scape indumentum including eglandular hairs 0.3–1.0 mm long, patent, spreading or mixed weakly appressed / retrorse; 1–6 hairs per mm²; and papillae to c. 0.01 mm long, scattered throughout the scape. **Capitula** 1.8–2.2 mm long, 2.8–3.0 mm diameter; involucre bracts 18–22 in 2 rows, glabrous or occasionally papillate along midrib on outer surface, ovate to broadly oblong, apex obtuse to rounded, margins pink, ciliate in upper distal ½–¾; outer bracts 1.2–1.6 × 1.0–1.6 mm, inner bracts 1.1–1.2 × 0.9–1.0 mm. **Receptacle** flat to slightly convex, 0.8–1.2 mm diameter. **Ray florets** tubular, creamy to pale pink, 18–20 in 2–3 rows; tube 0.4–0.7 mm long, 0.1–0.12 mm wide; style 0.5–0.8; stigma 2-branched c. 0.02 mm long. **Disc florets** 0–3; corolla pale yellow, tubular, c. 1 mm long, outer surface glabrous; corolla lobes 5, deltate, c. 0.1 × 0.1 mm; stamens 5, to c. 0.4 mm long; style c. 0.6 mm long; sterile ovary c. 0.3 mm long. **Achenes** glabrous, more or less flattened, narrowly obovoid, straight or slightly curved, 0.9–1.1 mm long by 0.3–0.5 mm wide excluding beak, uniformly yellow green, darkening to brown at maturity; achene edges smooth; achene beak 0.1–0.2 mm long, without obvious annular collar at its apex, c. 0.1 mm diameter.

SIMILAR TAXA

Allied to *Solenogyne gunnii* from which it differs by: the leaf size (usually 10–20 × 5–8 mm for *S. christensenii*; usually 20–100 × 5–20 mm for *S. gunnii*) and leaf shape (usually oblanceolate, obdeltoid to cuneate for *S. christensenii*; narrowly obovate and obtuse for *S. gunnii*); the obtusely serrate leaf margins (sinuate to undulate for *S. gunnii*); the short and hirsute scape to 30 mm long in fruit (up to 100 mm long in fruit and woolly for *S. gunnii*); the fewer and shorter disc florets (0–3 and c. 1 mm long for *S. christensenii*; usually 7–9 and c. 2 mm long for *S. gunnii*); the smaller achene size (0.9–1.1 mm long for *S. christensenii*; 2.0–2.5 mm long for *S. gunnii*); and the flattened achene edges (achene edges more or less thickened for *S. gunnii*). *Solenogyne christensenii* also resembles *S. dominii*, from which it differs by: the pilose leaves (glabrate for *S. dominii*); smaller leaf size (usually 30–50 × 7–12 mm for *S. dominii*); the shorter scape (up to 70 mm long in fruit for *S. dominii*); the fewer and shorter ray flower (18–20 and 0.4–0.7 mm long for *S. christensenii*; usually 35–60 and 0.8–1.2 mm long for *S. dominii*); the fewer and shorter disc flower (usually 10–14 and 2.0–2.5 mm long for *S. dominii*); the smaller achene size (2.0–2.5 mm long for *S. dominii*).

FLOWERING

January–April

FLOWER COLOURS

Red/Pink

FRUITING

April–May

ETYMOLOGY

christensenii: Commemorating Charles E. Christensen (1876–1938) as in *Solenogyne christensenii* who made a detailed exploration of the vegetation of the Hanmer Plain, Amuri District, North Canterbury.

ATTRIBUTION

Fact Sheet prepared by P.J. de Lange (1 May 2020). Description from de Lange et al. (2020)

REFERENCES AND FURTHER READING

de Lange PJ, Wang J, Barkla JW, Marshall A. 2020. *Solenogyne christensenii*, comb. nov. (Asteraceae; Astereae), a new combination for a New Zealand species. *Ukrainian Botanical Journal* 77(2): 73–80.

<https://doi.org/10.15407/ukrbotj77.02.073>.

Petrie, D. 1915 [volume of 1914]. Descriptions of New Native Phanerogams, with other Short Notices. *Transactions & Proceedings of the New Zealand Institute* 47: 48–59.

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NZPCN FACT SHEET CITATION

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<https://www.nzpcn.org.nz/flora/species/solenogyne-christensenii/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/solenogyne-christensenii/>