

Lagenophora schmidiae

COMMON NAME

Schmid's daisy

SYNONYMS

Lagenophora montana Hook.f. auct. non. N.Z. authors; *Lagenifera montana* Hook.f. auct. non. N.Z. authors, *Lagenifera stipitata* var. *montana* (Hook.f.) Cabrera auct.non. N.Z. authors

FAMILY

Asteraceae

AUTHORITY

Lagenophora schmidiae de Lange et Jian Wang ter

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledonous composites

NVS CODE

LAGMON

CHROMOSOME NUMBER

2n = 18

CURRENT CONSERVATION STATUS

2017 | Threatened – Nationally Critical | Qualifiers: DP, SO, Sp

PREVIOUS CONSERVATION STATUSES

2012 | Threatened – Nationally Endangered | Qualifiers: DP, SO, Sp

2009 | Threatened – Nationally Endangered | Qualifiers: DP, SO, Sp

2004 | Data Deficient

DISTRIBUTION

Endemic. New Zealand: North Island (South Auckland, Hawke's Bay and Wellington), South Island (Nelson, Marlborough, Canterbury, Otago and Southland).

HABITAT

Montane, subalpine to alpine seeps, cushion bogs, swamps, lake and tarn margins, wet tussock grassland and stream banks, or on damp, shaded rock shelves amongst mosses. Mostly at 600-900m a.s.l., occasionally lower.




Herbarium specimen of *Lagenophora schmidiae*. Photographer: Cathy Jones, Licence: CC BY.



Habitat of *Lagenophora schmidiae*. Kuratau. Photographer: Jeremy R. Rolfe, Date taken:

DETAILED DESCRIPTION

Perennial rhizomatous herb. **Roots** fibrous and wiry, deeply descending, 0.5–1 mm diameter; rhizomes spreading through soil, up to 8 cm long. **Stems** erect and elongated with leaves loosely attached. **Leaves** 4–8 per stem, alternate along stem; petioles slender (with winged bases), 10–17 × 0.4–0.6 mm; lamina obovate, oblanceolate or elliptical, 8–14 × 4–6 mm, base attenuate, apex obtuse often with midrib extending as a minute apiculus 0.1–0.2 mm long; leaf margins denticulate, occasionally entire or with 4–6 minute teeth, each tooth 0.2–0.4 mm long; adaxial surface bright green, abaxial surface lighter green, both surfaces glabrescent or finely, sparingly hairy, sericeous especially on the margins, hairs c. 0.1 mm long, translucent, patent; lateral veins obscure on dried material on both surfaces. **Scapes** terete, 1 per tuft, finely channelled, green with base sometimes tinged maroon, up to 140 mm long, 0.4–0.6 mm wide at anthesis, slightly longer at fruiting stage, glabrous in lower $\frac{1}{3}$ — otherwise finely hairy near or below capitulum; hairs c. 0.1 mm long, appressed, antrorse; bracts 1–2–(3), pale green, 1–(1.5) mm long, 0.2–0.4 mm wide, narrowly lanceolate, to deltoid, glabrous or occasionally furnished with a few minute, white, appressed, antrorse hairs. **Capitula** 2.5–3.5 mm long, 4–7 mm diameter; involucre bracts 31–48–(58) in 4–5 rows, the outer 2–(3) rows initially widely and unevenly spaced, the uppermost row ± forming an open, widely-spaced whorl, bracts deltoid, 1–1.3 × 0.25–0.4 mm, glabrous, greenish, with stout midrib, erect or weakly spreading with upper $\frac{1}{3}$ partially recurved, margins entire, upper $\frac{1}{3}$ finely dentate, teeth greenish or maroon/purple, up to 6 either side, not paired, uneven and unequally spaced; the bracts of inner 2–(3) series, oblong, apex subacute to obtuse, with prominent midrib, ±glabrous except for margins; margins ciliate in distal third, cilia purple, with globular apices, 1.9–2.5 × 0.5–0.6 mm. **Receptacle** convex, 0.8–1.5 mm diameter and 0.4–0.5 mm high. **Ray florets** 30–50 in 2–(3) rows; tube 0.48–0.6 × 0.2–0.25 mm, ± glandular hairy; style branches initially white, maturing cream with maroon-tinged apices, 0.5–0.8 mm long; ligules 1.8–2.0 × 0.3–0.4 mm with 1–(3) longitudinal obscure veins, tightly coiled, white, often tinged mauve, apex obtuse, or notched. **Disc florets** 16–20–(22), corolla tubular, 1–1.5 mm long, cream, outer surface sparsely furnished with short glandular hairs, lobes 5, deltate, 0.4–0.5 × 0.2–0.4 mm, apices maroon or pink; stamens 5, 0.8–1 mm long (anthers c. 0.4 mm long, filament c. 0.3 mm long); style branches, white, apices tinged maroon, 0.4–0.5 mm long; ovary sterile, 0.8–1.4 mm long. **Cypselas** narrowly obovate-elliptic to obovate, compressed, 1.7–1.9 × 0.6–0.7 mm excluding beak; apex rounded to beak; base cuneate; margins with an obtuse rib; surface orange-brown, red-brown to purple-brown at maturity, with a light yellow margin, glabrous throughout; glands densely and evenly scattered along both dorsal and ventral margins, denser on beak and toward basal areas of both faces; beak (0.5–)0.6–1.1 mm long, densely covered with glands, with a white annular collar at its apex, c. 0.2 mm diameter.

SIMILAR TAXA

Lagenophera barkeri and *L. cuneata* are similar. From these *L. schmidiae* can be distinguished by its very long, slender and wiry scapes with minute, white, pinkish or purple flowers and membranous, glabrate or glabrous usually bright green leaves. *Lagenophera barkeri* has obvious leaf hairs, consistently white flowers, and slightly pointed leaves while *L. cuneata* has white flowers, hairy leaves and grows in drier habitats.

FLOWERING

October–April

FLOWER COLOURS

Yellow, White

FRUITING

December–June

PROPAGATION TECHNIQUE

Easily grown by division of whole plants. Fresh seed if available should germinate easily.

THREATS

Field records and herbarium specimens indicate that *Lagenophora schmidiae* is extremely uncommon (de Lange & Wang 2021). The species is easily overlooked, known from very few post 1980 collections, and the majority of those have been made from sites that are now choked with or threatened by weeds.

ETYMOLOGY

lagenophora: From the Latin lagen ‘bottle or flask’ and –phora a Greek suffix denoting a carrier, possibly referring to the urceolate (urn-shaped) cypsela.

schmidiae: After Luzie M.H. Schmid (1999–) from Regensburg, Bavaria, Germany.

TAXONOMIC NOTES

The correct spelling of the genus has been the matter of some debate. Drury (1974) argued that the naming author of the genus Cassini had first spelled the genus as *Lagenifera* in 1816, and that this spelling therefore took priority over his later *Lagenophora* (proposed in 1818). Nevertheless Nicolson (1996) put forward a proposal to reject the earlier *Lagenifera* in favour of *Lagenophora*, and this proposal was accepted under the Vienna Code (see Art. 14.11 & App. III 2006). Nevertheless this ruling was accidentally overlooked by New Zealand botanists until it was drawn to their attention in 2013 (P. J. de Lange pers. comm. August 2013).

Lagenophora schmidiae has previously been referred to the Australian *L. montana* (de Lange & Wang 2021). de Lange & Wang (2021) showed that the New Zealand plants, though allied to *L. montana*, are not that species but a new endemic species which they described as *L. schmidiae*.

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (31 October 2021). Description from de Lange & Wang (2021).

REFERENCES AND FURTHER READING

de Lange PJ, Wang J. 2021. *Lagenophora schmidiae* (Asteraceae), a critically threatened new species from Aotearoa / New Zealand. *Ukrainian Botanical Journal* 78(5): 319–326. <https://doi.org/10.15407/ukrbotj78.05.319>.

Drury DG. 1974. A broadly based taxonomy of *Lagenifera* Section *Lagenifera* and *Solenogyne* (Compositae-Astereae), with an account of their species in New Zealand. *New Zealand Journal of Botany* 12(3): 365–395. <https://doi.org/10.1080/0028825X.1974.10428875>.

Nicolson DH. 1996. (1233) Proposal to conserve the name *Lagenophora* (Compositae) with a conserved spelling. *Taxon* 45(2): 341–342. <https://doi.org/10.2307/1224689>.

NZPCN FACT SHEET CITATION

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

MORE INFORMATION

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