

**OLEARIA ASTROLOBA (ASTERACEAE: ASTEREA), A NEW SPECIES
ENDEMIC TO VICTORIA**

by

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ABSTRACT

Lander, N. S. & Walsh, N. G. *Olearia astroloba* (Asteraceae: Astereae), a new species endemic to Victoria. *Muelleria* 7(1): 123–125 (1989). — *Olearia astroloba* Lander & N.G. Walsh, a new species known from a single, small population in Gippsland, Victoria, is described and illustrated. Its conservation status is discussed.

INTRODUCTION

Olearia Moench (Asteraceae: Astereae) in Australia is currently the subject of ongoing revisionary studies by the first author. A recently discovered species, '*Olearia* sp. (Nunningong)' of Forbes & Ross (1988), would appear to represent one of Victoria's most geographically restricted plants. It is described here in order to facilitate gazetting it for conservation purposes.

***Olearia astroloba* Lander & N. G. Walsh, sp. nov.**

Species *Oleariae phlogopappae* affinis a qua capitulis solitariis terminalibus sessilibusque, flosculis tubuliformibus purpureis habentibus lobos abaxialiter pilis stellatis differt. (Fig. 1).

TYPUS: Victoria, Gippsland, Marble Gully area, 200 m S. from Old Hut Ceeek, c. 6 km E. of 'Bindi', 37° 05' 05" S., 147° 51' 30" E., altitude 840 m, 30 June 1988, N.G. Walsh 2086 & D.E. Albrecht (HOLOTYPE: MEL 1557910. ISOTYPE: AD, PERTH).

Shrub to 0.5 m high. *Vestiture* of stems, leaves and outer involucre bracts densely pubescent with stellate hairs. *Stems* erect, smooth, pale green when young, becoming brown. *Leaves* alternate, crowded, inclined, sessile; lamina somewhat incurved, spatulate, 5–18 × 2–9 mm, somewhat discolourous, greyish green, abaxially paler, smooth; venation obscure apart from midrib; texture somewhat coriaceous; base attenuate; margin dentate towards the apex, thickened or revolute; apex obtuse, mucous. *Heads* solitary, terminal, sessile, conspicuously radiate, 15–32 mm in diameter; disc c. 6 mm in diameter. *Involucre* obconic; bracts 3–4-seriate, 4.0–7.2 × 1.0–1.3 mm. *Outer involucre bracts* flat, narrowly triangular; stereome green; margin chartaceous, entire; apex narrowly acute. *Inner involucre bracts* flat, narrowly ovate; stereome green; margin chartaceous, fimbriate, with scattered basally stellate hairs; apex acute. *Receptacle* slightly convex. *Ray florets* c. 20, mostly uniseriate, female, 11.1–15.5 mm long; tube with abaxial, multicellular, biseriate, eglandular hairs scattered centrally to apically; ligule narrowly elliptic, 7.4–12.5 × 1.8–3.0 mm, violet, glabrous, obtuse and minutely 3-lobed apically; staminodes absent; stilar arms filiform, 1.3–1.6 mm long. *Disc florets* c. 12–35, bisexual, purple, becoming pale basally, infundibular, 5.5–6.5 mm long, with multicellular, biseriate, simple eglandular hairs scattered abaxially; lobes 5, 1.0–1.5 mm long, acute, weakly stellate-hairy abaxially; anthers 1.9–2.2 mm long, narrowly acute basally and shorter than the filament collar, with narrowly ovate to triangular, sterile apical appendage; filament collar 0.3–0.4 mm long; stilar arms 1.3–1.5 mm long with half-conic, sterile apical appendages bearing botuliform papillae above the stigmatic lines. *Achene* narrowly obovoid, 2.1–2.5 × 0.7–1.0 mm, brown or purplish, sericeous with duplex hairs; venation distinct with 6 ribs; carpodium slightly oblique. *Pappus* biseriate with an inner row of 20–24 free, minutely barbellate bristles subequal to the

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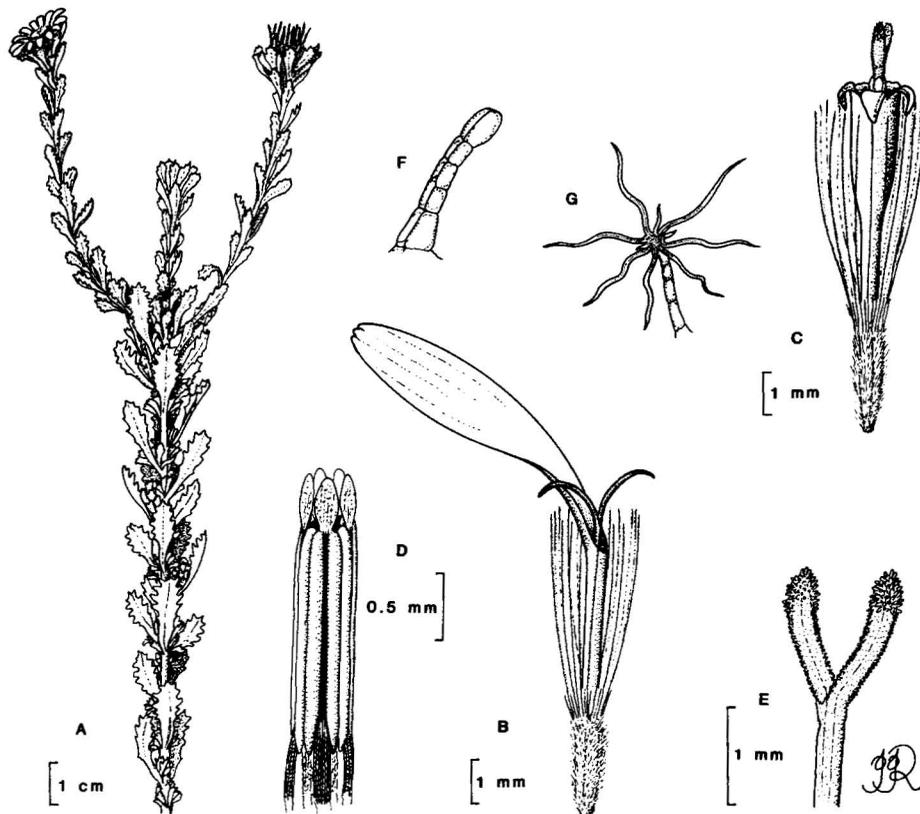


Fig. 1. *Olearia astroloba* Lander & N. G. Walsh. A — Habit. B — Ray floret. C — Disc floret. D — Anther tube. E — Stylar arms. F — Multicellular, biseriate, simple, eglandular hair from floral tube. G — Stellate hair from leaf. Drawn from the original collection, K.C. Norris & P. Kelly s.n. (MEL 1555686).

tubular florets and an outer row of many shorter, flattened, minutely barbellate bristles. *Chromosome number*: $n = 9$ (from holotype).

OTHER SPECIMENS EXAMINED (Total number examined 6):

Victoria — type locality, 30 June 1988, N.G. Walsh 2087 & D.E. Albrecht (MEL 1557922, NSW, PERTH), N.G. Walsh 2093 (MEL 1557921); Marble Creek (= Old Hut Creek) which flows into 'Bindi' below NW. extremity of Nunniong Plateau 3.5 km NE. from Mt Simson, c. 64 km due N. from Bruthen, 37° 05' 05" S., 147° 50' 45" E., Victoria, 29 June 1987, K.C. Norris & P. Kelly s.n. (MEL 1555686); same locality as previous, 29 June 1988, N.G. Walsh 2085 & D.E. Albrecht (CANB, MEL 1557919, PERTH).

DISTRIBUTION:

Olearia astroloba is known from a single population of c. 1,000 plants over an area of c. 40 ha in eastern Victoria. The area is included in the Victorian Alpine Study Area (Land Conservation Council 1977) and overlaps the boundary between the Victorian 10' Plant Grids W5 and W6 (Churchill & de Corona 1972).

ECOLOGY AND CONSERVATION STATUS:

Soils at the site are skeletal, light reddish loams derived from marble occurring at a geological interface between Silurian sediments and rhyolitic Snowy River Volcanics. Plants occur only on slopes of north to north-westerly aspect, of incline mostly more than 30°, or occasionally on sheer cliff-faces. The predominant community at the site is a dense shrubland dominated by *Pomaderris oraria* F. Muell.

sens. lat. with occasional emergents of *Allocasuarina verticillata* (Lam.) L. Johnson and *Eucalyptus nortonii* (Blakely) L. Johnson.

The site supports a unique association of rare or disjunctly occurring species, including *Helichrysum adnatum* (DC.) Benth., *Pimelea flava* subsp. *dichotoma* (Schldl.) Threlfall and *Pultenaea densiflora* F. Muell. The *Helichrysum* is known from only one other site in Victoria (near Suggan Buggan, c. 50 km to the NE. and the *Pimelea* and *Pultenaea* are not known elsewhere in eastern Victoria, being plants typically of mallee scrubs in the north-west of the state.

The site lies on unreserved crown land, approximately 2 km from a freehold grazing property. Its security from a conservation perspective is uncertain as it is currently the subject of an application for a permit to quarry marble.

Peak flowering of *Olearia astroloba* appears to be June–July, but occasional flowers have been observed as late as November.

This species is proving to be amenable to propagation from cuttings and specimens are being raised at the Royal Botanic Gardens, Melbourne, and at a private nursery at Swifts Creek in Gippsland near the Marble Gully site.

O. astroloba is regarded as a vulnerable species and its conservation code is assessed as 2V (Briggs & Leigh, in press).

NOTES:

The presence of stellate hairs on the vegetative parts of *O. astroloba* is typical of *Olearia* sect. *Asterotriche* Archer ex Benth. (Bentham 1867) where this species would seem best placed, pending the completion of revisionary studies in the genus. The characteristic leaf morphology, the solitary, terminal, sessile heads, and the blue tubular florets with their weakly stellate-hairy lobes (from which feature the specific epithet is derived) readily distinguish it from other species in the section. Its affinities would seem to lie with *O. phlogopappa* (Labill.) DC. *sens. lat.* Occasional specimens of the latter species and of *O. asterotricha* (F. Muell.) F. Muell. ex Benth. also have stellate hairs on the lobes of their tubular florets.

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