Olearia brevipedunculata (Asteraceae): a new species from alpine areas of mainland Australia

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Abstract

The illegitimate name Olearia phlogopappa (Labill.) DC. var. subrepanda (DC.) J.H. Willis has long been misapplied, at least in mainland Australia. The variety is apparently confined to Tasmania. The mainland taxon to which the name has been applied is endemic in higher subalpine and alpine areas of New South Wales and Victoria. It is described as a new species, Olearia brevipedunculata N.G. Walsh.

Introduction

Willis (1956) made the combination Olearia phlogopappa (Labill.) DC. var. subrepanda (DC.) J.H. Willis based on Eurybia subrepanda DC. (1836) for a taxon he believed occurred in the alps and subalps of mainland Australia and at lower altitudes in Tasmania. The types of Eurybia subrepanda are of Tasmanian plants (“in Novae Holl. insulâ King prope fretum Bass (itin. Baudin!) et in insulâ Van-Diemen prope Hobart-town (D’Urville! Gunn!”) (de Candolle 1836). Plants in the de Candolle herbarium, and the one illustrated in Hutchinson (1917) (as O. subrepanda (DC.) Huteh.) have narrow-oblong, discolorous leaves that appear to be glabrescent above, whitish-tomentose beneath, and have capitula in a compound, subsecund inflorescence, features typical of other taxa recognised within O. phlogopappa sens. lat. (Willis 1956, Curtis 1963), irrespective of Willis’s misinterpretation, his combination is illegitimate as the taxon had already been recognised at varietal level as Eurybia gunniana Hook. f. var. cana Hook. f. and this varietal epithet has priority under Article 11.4 of the Code (Greuter 2000).

Tasmanian specimens determined as O. phlogopappa var. subrepanda in HO accord with De Candolle’s types, as do several specimens in MEL of O. phlogopappa collected from King Is. (one of the type localities for Eurybia subrepanda) and other Bass Strait islands. However the infraspecific taxonomy in O. phlogopappa is notoriously difficult (e.g. see Curtis, 1963) and it is beyond the scope of this paper to attempt resolution of this complex. J.D. Hooker (1847) described seven varieties under Eurybia gunniana (a synonym for Olearia phlogopappa (Labill.) DC., based on Aster phlogopappus Labill.) without citing type material, and subsequently, in the Flora of Tasmania (Hooker, 1856) included an eighth. In this account he noted the difficulty of the group and in indicating his uncertainty of the distinctness of some of these varieties stated ‘some no doubt may belong to different parts of the same bush’! The possibility of this being the case is suggested by his inclusion of the same Gunn number (Gunn 273) as typifying two of his varieties (var brevipes and var. cana – the latter a synonym of Eurybia subrepanda DC.). However, as pointed out by Burns & Skemp (1961) and others, Gunn’s like-numbered specimens are not necessarily duplicates, but represent specimens of varying provenance he believed to belong to the same taxon. Curtis (1963) and Willis (1956) effected combinations of seven varieties of O. phlogopappa to accommodate Hooker’s entities and O. flavescens Huteh, and these are all maintained in recent State censuses of Tasmania and Victoria (Buchanan 1999; Ross & Walsh 2003), but no infraspecific taxa were recognised in the Flora of New South Wales (Lander 1992). As well as the confusion contained within O. phlogopappa, the
distinction between this species, *O. stellulata* and *O. lirata* is slight at the extremes of their variation (Lander 1992; Walsh & Lander 1999).

Notwithstanding the above, the plant to which the name *O. phlogopappa* var. *subrepanda* has been applied in New South Wales (Costin et al. 2000) and Victoria (Willis 1973; Walsh & Lander 1999) is a very distinctive alpine and high-subalpine taxon with more or less concolorous leaves and solitary, terminal and sessile or very shortly pedunculate capitula. It does not appear to be very closely related to any of the varieties otherwise included within *O. phlogopappa* sens. lat., all of which have more or less racemose or paniculate inflorescences and to a greater or lesser extent, discolorous leaves. Consequently, the mainland plant previously referred to *O. phlogopappa* var. *subrepanda* is here recognised at specific rank.

**Taxonomy**

*Olearia brevipedunculata* N.G. Walsh sp. nov.

Ab *O. phlogopappa* (Labill.) DC. et speciebus affinis capitulis singularibus terminalibus brevipeduncularis vel subsessilibus, foliis parvioribus argenteo-cinereis uniformiter propc differt.

*Type:* New South Wales, Southern Tablelands, Koseiuszko National Park, Charlottes Pass, K.L. McDougall 1078, 11.xii.2002 (holotype: MEL; isotypes CANI, NSW).

[Olearia phlogopappa var. subrepanda auct. non (DC.) J.H. Willis: J.H. Willis, Muelleria I: 32 (1956); A. Costin et al., Kosciuszko Alpine Flora edn 1, 365, fig. 313 (1979); edn 2, 337, fig. 204 (2000); M. Morcombe, Australian Wildflowers 22 (1970); N.G. Walsh & N.S. Lander in N.G. Walsh & T.J. Entwisle (eds), Flora of Victoria 4: 899, fig. 182h (1999), comb. illeg.]

*Aster stellulata* var. *glacialis* F. Muell. in sched. (MEL 2154359)

Foliose shrub to c. 1 m high, with stems erect, densely whitish tomentose with fine stellate trichomes in upper parts, glabrescent below. Leaves alternate, sessile to subsessile, somewhat stem-clasping at base, elliptic to obovate, 5-15 mm long, 2-6 mm wide, obtuse or rounded, margins entire or unevenly crenate, nearly concolorous, overall silvery or whitish-grey from a close tomentum of stellate trichomes, often somewhat sparser above, the undersurface often yellowish on younger leaves. **Capitula** 15-22 mm diam., solitary and terminal, sessile or on short peduncles not exceeding the subtending leaves at anthesis, but sometimes elongating to c. 15 mm in fruit. **Involucre** +hemispherical, 4-6 mm long; **bracts** 3- or 4-seriate, eglandular, grading from the shorter outermost to longer innermost; outermost bracts ovate, c. 2 mm long, densely stellate-tomentose abaxially; innermost bracts oblong or narrowly ovate, evenly tomentose, or often glabrescent in lower half and densely stellate tomentose near tip; margin glabrescent, fimbriolate near tip, often crimson, sometimes the entire bract crimson. **Ray florets** 12-22, white, ligules 5-9 mm long, entire to minutely tridentate at tip; **disc florets** 18-30, yellow, 5-6 mm long. **Cypselas** flattened-cylindric, obscurely ribbed, c. 3 mm long, sericeous; pappus bristles barbellate, 5-6 mm long, the outer row often including a few shorter bristles c. 1 mm long. Flowers Dee-Jan. (Fig. 1)

*Etymology:* The epithet refers to the very short peduncles.

*Representative specimens examined:* NEW SOUTH WALES: Munyang Mountains, F. Mueller s.n. 1.1874 (MEL); Mt Kosciuszko, J. Findley s.n., 1883 (MEL); Kosciuszko National Park, Ogilvies Ck, N.G. Walsh 5704, 18.xii.2002 (MEL); Kosciuszko National Park, c. 3 km from Charlottes Pass, K.L. McDougall 1077, 11.xii.2002 (CANB, MEL). VICTORIA: Bogong High Plains near Cope Hut, G.W. Carr 5786, 4.i.1975 (MEL); Alpine National Park, Mt Bogong area, Quartz Ridge Track, N.G. Walsh 5724, 3.i.2003 (MEL, CANB).
Figure 1. Holotype of *Olearia brevipedunculata*
Olearia brevipedunculata differs from *O. phlogopappa* and closely allied species in the smaller, nearly concolorous leaves and terminal, solitary, sessile or shortly pedunculate capitula.

The species appears to be confined to higher subalpine and alpine areas of New South Wales, in Kosciuszko National Park from near Round Mountain (and, according to unvouched survey records, perhaps Mt Selwyn), south to Mt Kosciuszko, and Victoria, in the Alpine National Park on the Bogong High Plains (including Mt Bogong) and Mt Cobberas area. It appears to be absent from areas closely adjacent to the Bogong High Plains where it might be expected to occur (e.g. Mt Hotham, Mt Wills) but further searches may indicate a broader range than is currently known. Records of *O. phlogopappa var. subreplanda* from the Baw Baws, Victoria, refer to another, probably undescribed taxon. *Olearia brevipedunculata* occurs mainly in heathland, usually in rocky sites, sometimes in association with *O. phlogopappa var. flavescens* (Hutch.) J.H. Willis, and often with *Prostanthera cuneata*, *Grevillea australis*, *Orites lancifolia*, *Pleurax squamulosum* ssp. *alpinum* and/or *Nematolepis ovatifolia*. At some sites *Eucalyptus paucijlora* is present above a similar shrubby understorey.

*Olearia brevipedunculata* is localised, probably rare (2RCA in the sense of Briggs & Leigh (1996)), but not threatened. With the exception of those areas in the Falls Creek Alpine Resort area on the Bogong High Plains, all occurrences of the species appear to be conserved in Kosciusko National Park, New South Wales, and in the Alpine National Park, Victoria.

As indicated above, the name *Olearia phlogopappa var. subreplanda* is illegitimate. This leaves Tasmanian plants previously referred to that name without a valid combination under *Olearia*, the only validly published name being *Eurybia gunniana* Hook. f. var. *cana* Hook. f. Although the appropriate combination could be made here, I believe it is preferable to await a thorough revision of *O. phlogopappa* to avoid the possibility of creating a trinomial which may turn out to be superfluous or short-lived.

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References


Hooker, J.D. (1856). *The Botany of the Antarctic Voyage of H.M. Discovery Ships Erebus and...*
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Terror: Part III, Flora Tasmaniae (vol. 1(3)). Reeve; London.