New combinations in *Minuria* DC. (Asteraceae: Astereae)

N.S. Lander

Western Australian Herbarium, George Street, South Perth, Western Australia 6151

Abstract

Lander, N.S. New combinations in *Minuria* DC. (Asteraceae: Asterae). Nuytsia 6(1):63-66 (1987). *Olearia tridens* D.A. Cooke is transferred to the genus *Minuria* DC. *M. chippendalei* Lander & R. Barry and *Olearia aspera* W. Fitzg. are shown to be conspecific with *Eurybiopsis macrorhiza* DC. The new combinations *M. tridens* (D.A. Cooke) Lander and *M. macrorhiza* (DC.) Lander are made. A new record of *M. tridens* for Western Australia is noted. A key to all species of *Minuria* is provided.

Introduction

In the course of my revisionary studies in the genus *Olearia* I have examined specimens of *O. tridens* D.A. Cooke, namely those cited by Cooke (1986). This species is clearly misplaced in *Olearia;* it must be referred instead to the genus *Minuria* DC.

It has been suggested to me (C.R. Dunlop, pers. comm.) that *Eurybiopsis macrorhiza* DC. and *Minuria chippendalei* Lander & R. Barry might be conspecific. Examination of type material and other specimens of the former and a re-examination of specimens of the latter show that this is indeed so. Further, examination of type material and other specimens of *Olearia aspera* W. Fitzg. shows that it, too, is conspecific. I believe that this taxon is best placed in *Minuria.*

Discussion

Contrary to Cooke's (1986) description of *Olearia tridens,* I find that the achene and pappus are dimorphic between its ray and disc florets. The ray achenes are fertile, terete, opaque and sericeous with appressed twin hairs; those of the disc are sterile, flattened, translucent and glabrous. The ray pappus hairs are of one kind, long and uniformly barbellate; those of the disc are of two kinds with approximately equal numbers of short, uniformly barbellate bristles and long ones with barbs longer and denser towards the tips. In several specimens, however, the achene and pappus morphology of ray and disc florets is more or less uniform: both ray and disc achenes are fertile, the former with a greater number of pappus bristles than the latter.

Further, the style arms of the disc florets of *O. tridens* conform to those of the second type of sterile style described by Grau (1977) in which the disc stigma lobes are pubescent on their dorsal surfaces with hairs which extend below the point of bifurcation. Amongst Astereae such styles are characteristic of *Calotis, Erodiophyllum, Ixiochlamys, Kippistia* and *Minuria* (Grau 1975, 1977; Dunlop 1980; Lander & Barry 1980a, b). They have not been observed in the genus *Olearia* in the course of my ongoing study of that genus, nor are they noted in any of the literature relating to it.

The characters described above are sufficient to exclude this species from *Olearia.* Indeed, in combination with the naked receptacle, biseriate ray florets and the obtuse anther bases observed in all specimens examined they indicate that *O. tridens* in fact belongs in *Minuria* (see Lander & Barry 1980b). Thus the following new combination is necessary.

Minuria tridens (D.A. Cooke) Lander, comb. nov. *Olearia tridens* D.A. Cooke, Muelleria 6: 182-3 (1986). *Type:* 4 km W of Trephina Gorge, 23° 32' S, 134° 22' E, Northern Territory, 17 July 1983, *P.K. Latz* 9589 (holo: NT; iso: AD, DNA, PERTH).

To the specimens of this taxon from the Macdonnell Ranges cited by Cooke (1986) must be added the following recent collection made in the Austin District of the Eremaean Botanical Province of Western Australia.

Additional specimen examined. WESTERN AUSTRALIA: 22 km S of Cue on Great Northern Highway, *R.M. King* 9581 (MEL, PERTH, US).

The genus *Eurybiopsis* DC. (1836) has been reinstated by Burbidge (1982) who noted its affinity with *Minuria.* Its single species, *E. macrorhiza* DC., is clearly conspecific with *Minuria chippendalei* Lander & R. Barry. So too is *Olearia aspera* W. Fitzg. However, the weakly dimorphic achene and pappus of the ray and disc florets of this species, the sterile disc achenes, and the characteristic disc stigma lobes of the type described above noted by Lander & Barry (1980) and Gray (in Burbidge 1982, footnote p. 10) argue strongly for its placement in *Minuria* rather than *Olearia* or in an isolated, monotypic genus. Thus *Eurybiopsis* is here designated a synonym of *Minuria* DC. (1836): the following new combination is necessary.

Minuria macrorhiza (DC.) Lander, comb. nov. *Eurybiopsis macrorhiza* DC., Prod. 5: 260 (1836); Burbidge, Brunonia 5: 10-11 & t. 1 (1982). *Vittadinia macrorhiza* (DC.) A. Gray, Proc. Am. Acad. Arts Sci. 5: 118 (1862); Benth., Fl. Austral. 3: 492 (1867); Beard, Descript. Cat. Western Austral. Pl., edn 2, 137 (1970); Diment et al., Cat. Nat. Hist. Drawings Joseph Banks 97 (1984); Green, Census Vasc. Pl. Western Australia, edn 2, 166 & 224 (1985). *Type:* "At the foot of cliffs, Prince Regent's river, North-west coast, Australia, lat. 15° So., Octr 1820", *A. Cunningham* 19 (holo: G-DC; iso: K — as *A. Cunningham* 279).

Aster macrorhiza A. Cunn. ex DC., loc. cit. non Thunb., pro syn. (nom. inval.).

Minuria chippendalei Lander & R. Barry, Nuytsia 3: 225-6 (1980). *Type:* Wade Creek, Vansittart Bay, Western Australia, Oct. 1921, *C.A. Gardner* 1537 (holo: PERTH).

Olearia aspera W. Fitzg., J. Proc. Roy. Soc. Western Australia 3: 220 (1919); Beard, Descript. Cat. Western Austral. Pl., edn 2, 135 (1970); Green, Census Vasc. Pl. Western Australia, edn 2, 168, 263 (1985). *Syntypes:* Packhorse Range, Western Australia, May 1905, *W.V. Fitzgerald* 1006 (NSW, PERTH); Isdell River, near Mt Barnett, Western Australia, June 1905, *W.V. Fitzgerald* 1045 (K, PERTH); Packhorse Range, Western Australia, June 1905, *W.V. Fitzgerald* s.n. (NSW); Packhorse Range, Western Australia, July 1905, *W.V. Fitzgerald* s.n. (BM); between the Isdell and Precipice Range, Western Australia, Sept. 1905, *W.V. Fitzgerald* 1505 (BM, K, PERTH).

To the collections of this species cited by Fitzgerald (1919), Lander & Barry (1980) and Burbidge (1982) can be added the following specimens from the Gardner Province of the Northern Botanical District of Western Australia and the Darwin and Gulf Pastoral District of the Northern Territory.

Additional specimens examined. WESTERN AUSTRALIA: Gibb River — Kalumburu Mission road, 11.3 km NNW of Drysdale River Crossing, *A.C. Beauglehole* 51725 (PERTH); 1 km NE of Carson River Crossing, Gibb River — Kalumburu Mission road, 175 km NW of Wyndham, *A.C. Beauglehole* 51985 (PERTH); 'Beverly Springs', 16° 43' 0" S, 125° 27' 4" E, *B.G. Muir* et al. 649 (PERTH); near Walcott Inlet, *W.R. Easton* 1139 (PERTH); 15 km W of airstrip, Mitchell Falls road, Mitchell Plateau, *T.P. Farrell* 955 (PERTH); 1.5 km SE of CRA mining campsite, Mitchell Plateau, *K.F. Kenneally* 7866 (PERTH); 26.5 km N of mining campsite, Port Warrender track, *K.F. Kenneally* 8564 (PERTH).

NORTHERN TERRITORY: 5 miles (8 km) S of Leanger Swamp, Darwin, 12° 21' S, 130° 55' E, *P.K. Latz* 3637 (NT).

A revised key to the species of *Minuria*

1. Stems and peduncles glabrous
   2. Heads large, to 35 mm in diameter when open; ray achenes with glochidial twin-hairs .....*M. macrocephala* Lander & R. Barry
   2.* Heads small, to 12 mm in diameter when open; ray achenes with notched or glochidial twin-hairs
      3. Uppermost leaves overtopping heads.....*M. annua* (Tate) Tate ex J. Black
      3.* Uppermost leaves not overtopping heads
         4. Ray pappus longer than achene; disc pappus hairs uniform with 8-10 barbellate bristles 1.5-2.0 mm long; ray achene with notched twin-hairs .....*M. integerrima* (DC.) Benth.
         4.* Ray pappus shorter than or equal to achene; disc pappus hairs dimorphic with short barbellate bristles c. 0.8 mm long, and c. 8 longer bristles 2.5-3.0 mm long; ray achenes with glochidial twin-hairs.....*M. rigida* J. Black

1*. Stems and peduncles sparsely to densely pubescent
   5. Stems more or less woolly with stellate hairs; leaves somewhat pubescent with simple hairs; leaf margins conspicuously denticulate, apices often denticulate or entire.....*M. denticulata* J. Black
   5.* Stems pubescent with simple hairs; leaves glabrous or pubescent with simple hairs; leaf margins entire, apices entire or distinctly 3-toothed
      6. Leaf apices distinctly 3-toothed.....*M. tridens* (D.A. Cooke) Lander
      6.* Leaf apices entire
         7. Leaves glabrous
            8. Ray florets large and conspicuous, ligules 5-7 mm long; ray achenes pubescent with glochidial twin-hairs; disc achenes glabrous.....*M. cunninghamii* (DC.) Benth.
            8.* Ray florets small and inconspicuous, ligules less than 1 mm long; ray achenes with a sparse cover of notched twin-hairs; disc achenes pubescent.....*M. gardneri* Lander & R. Barry
         7.* Leaves sparsely to densely pubescent
            9. Innermost involucral bracts glabrous.....*M. leptophylla* DC.
            9.* Innermost involucral bracts pubescent .....*M. macrorhiza* DC.) Lander

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