

## ***Leptorhynchos* (Asteraceae: Gnaphalieae), notes, new taxa, and a lectotypification**

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### **Abstract**

Wilson, Paul G. *Leptorhynchos* (Asteraceae: Gnaphalieae), notes, new taxa, and a lectotypification. *Nuytsia* 13(3): 607–611 (2001). Two new species of *Leptorhynchos* Less. are described, *L. orientalis* Paul G. Wilson which is found in South Australia, New South Wales, and Victoria, and *L. melanocarpus* Paul G. Wilson which is restricted to gypseous mounds on a salt lake in South Australia. The typification of the generic name is discussed and a lectotype is chosen for *L. tenuifolius* F. Muell.

### **Introduction**

*Leptorhynchos* Less. is an endemic southern Australian genus of the Asteraceae, tribe Gnaphalieae. Ten species are recognised including the two here described. During the preparation of a “Flora of Australia” treatment the various ways in which *Leptorhynchos* had been delineated by botanists during the 19th and 20th centuries were investigated, particularly the manner in which it had been discriminated from *Helichrysum* Mill. *s.l.*, *Ixiolaena* Benth., and *Chrysocephalum* Walp.

The application of the generic name *Leptorhynchos* (1832) has been confused since its inception. Haegi (1986) and Anderberg (1991) discussed this uncertain taxonomic situation and Wilson (1998) noted how the identity of *L. linearis* Less., one of the two syntype species, had been misinterpreted since the name had been misapplied by Bentham (1867). The relationship of *Leptorhynchos* to *Ixiolaena* Benth. and *Chrysocephalum* Walp., the genera with which it has most commonly been confused, was discussed by Wilson (1998, 2000) where it was shown that these genera, when given a circumscription slightly different to that previously applied, are clearly distinct. He further explained how the syntype species of *Leptorhynchos*, *L. squamatus* (Labill.) Less. and *L. linearis*, are not only congeneric but also conspecific.

The difficulty in applying the name originated when Lessing described *L. squamatus* (Labill.) Less. (the future lectotype) and gave as its basionym “*Conyza squamata* Lab.” instead of *Chrysocoma squamata* Labill. That the latter name was actually intended, was apparent from an examination of the literature cited by him (which did not include that of Labillardiere) in which the correct genus name had been used. A further problem was that Lessing, in describing the cypselas, stated “*apice in rostrum*

*tenu et breve continuum*" and from this character he derived the generic name. However, neither of the types of the two species names included by Lessing in his genus have cypselas with a slender rostrate apex. It is possible that Lessing saw immature material or that at least one of the specimens he examined was incorrectly determined.

### Typification of the name *Leptorhynchos*

The lectotypification of the name *Leptorhynchos* was briefly discussed by Wilson (1998), however, the conclusion he then reached appears to be incorrect and a further note is required.

Two species were recognized by Lessing, *L. squamatus* and *L. linearis*. It was suggested by Farr *et al.* (1979) that Pfeiffer (1872), in citing only "*Conyza squamata* Labill" (*sic.*), under *Leptorhynchos* may have designated this name as lectotype. That argument was rejected by Wilson who accepted as lectotype *L. linearis*, based on the lectotypification by Anderberg (1991). Recently a colleague has brought to my attention the entry in Stafleu & Cowan (1983: 224) under Pfeiffer "Nomenclator Botanicus", where it is pointed out that occasional copies of this work contain a Preface in which Pfeiffer stated that "single species are mentioned only when they serve as type of new genera or sections" [their translation]. Since this is the situation with *Leptorhynchos* its lectotype must be accepted as *L. squamatus*.

### Taxonomy

***Leptorhynchos melanocarpus*** Paul G. Wilson, *sp. nov.*

*Leptorhyncho scabro* (Benth.) Haegi affinis sed foliis lanatis, bracteis exterioribus lineari-acuminatis, interioribus apiculo hyalino anguste triangulari ornato, cypselis nigris anguste rostellatis, rostro in statu maturo caduco differt.

*Typus*: Lake Acraman, Gawler Range, South Australia, 26 September 1989, R. Bates 20749 (*holo*: AD 98942266; *iso*: K, NSW, PERTH 05170001).

Erect multi-stemmed *annual* to 30 cm high; branches woolly; peduncle slender, glabrescent. *Leaves* slender terete, 1–2.5 cm long, obtuse, revolute, densely woolly. *Involucre* broadly turbinate, c. 10 mm high, bracts multiseriate, eciliate; outer and intermediate bracts linear-acuminate, with broad hyaline scabridulous denticulate margins and narrow brown glandular stereome; inner bracts with a narrow linear green cartilaginous glandular stereome, broad hyaline margins, and scarious pale brown acuminate lamina c. 2 mm long. *Florets* bisexual. *Corolla* c. 5 mm long, glandular-puberulous. *Cypselas* narrowly ellipsoid, c. 1.8 mm long, densely papillose, black, abruptly narrowed into a slender smooth caducous beak 3–6 mm long. *Pappus bristles* numerous, filiform, shorter than corolla, dentate.

*Distribution and habitat*. Known only from Lake Acraman in the Gawler Range, South Australia, where it grows on gypseous mounds that form islands in the lake.

*Conservation status*. This very distinctive species is known only from a single collection which came from a particular habitat, a gypseous mound. It is probable that *L. melanocarpus* is restricted to this

habitat, and possible that it only occurs in the Lake Acraman area. Due to lack of information the species could have the Conservation Code (Briggs & Leigh 1996) of 1K, of which the "K" indicates that it is poorly known and may be vulnerable or even endangered.

*Etymology.* The specific epithet is derived from the Greek words *melano* – black and *carpos* – fruit and refers to the black cypselas that are found in this species.

*Affinities.* This species is unique in possessing a caducous beak to the cypselas, which is also unusual in being black when mature. These characters clearly distinguish it from *S. scaber* (Benth.) Haegi to which species it is most similar.

***Leptorhynchos orientalis* Paul G. Wilson, *sp. nov.***

*Leptorhyncho scabro* (Benth.) Haegi affinis sed bracteis involucri parte hyalina laevibus (non scabridulis) et apiculo hyalino bractearum interiorum minuto vel carenti (non prominenti) differt.

*Typus:* Cocketgedong Station, 9 miles [c. 15 km] west of Urana, New South Wales, 1969, *D. & I. Parer* (*holo:* CANB 196001; *iso:* CANB 196000, dated 23 Oct. 1969).

Erect single to multi-stemmed *annual* to 30 cm high. *Branches* slender, minutely puberulous with gland-tipped and septate hairs. *Peduncle* slender, densely glandular puberulous beneath the capitulum, otherwise glabrescent, bearing a few scattered hyaline bracts. *Leaves* linear, 1–2 cm long, acute, margins recurved, with scattered minute gland-tipped hairs and short (to 0.2 mm) whitish septate hairs. *Involucre* broadly turbinate, c. 8 mm high, bracts multiseriate, eciliate; outer and intermediate bracts very narrowly triangular, hyaline, smooth, with reddish brown glandular stereome at base; inner bracts c. 7 mm long with linear green cartilaginous glandular stereome and narrow hyaline margins; lamina absent or represented by a hyaline erose apiculum to 0.5 mm long. *Florets* bisexual. *Corolla* c. 6 mm long, sparsely glandular-puberulous, narrowly turbinate above, very narrowly tubular below. *Cypselas* compressed-ellipsoid, c. 1.8 mm long, densely papillose, reddish brown, abruptly narrowed upwards into a slender almost smooth persistent beak 3–4 mm long. *Pappus bristles* numerous, filiform, shorter than corolla, minutely denticulate.

*Selected specimens examined.* SOUTH AUSTRALIA: Uley, *anon.*, (AD 97625334); Kapunda, 24 Sep. 1938, *E.H. Ising* (AD); Naracoorte, 26 Nov. 1882, *O. Tepper* (AD); Hallett Cove, 26 Aug. 1906, *S.A. White* (AD).

NEW SOUTH WALES: Morundah, S of Narrandera, *P. Foreman* 266 (MEL); Urana, *D. Mallinson* 468 (CANB); Zara Wanganella via Hay, Oct. 1917, *E. Officer* (NSW); SW of Hillston, *M.F. Porteners* 9210107 (NSW).

VICTORIA: Swan Hill, *B.W. Gummow* (MEL); Wangaratta, 1891, *M. Henley* (CANB); Stawell, 1893, *W.E. Mathews* (MEL); Coleraine, *H.M.R. Rupp* 97 (MEL); Moyston, *D. Sullivan* 38 (MEL); Terrick Terrick National Park, *N.G. Walsh* 4693 (MEL); Walpeup, *H.B. Williamson* 1572 (MEL); Garfield, Oct. 1925, *H.B. Williamson* (CANB).

*Distribution.* This species has been recorded from southern Eyre Peninsula in South Australia, eastwards to southern New South Wales and central and western Victoria.

*Habitat.* Recorded as growing in woodland or grassland, sometimes on the margins of swamps.

*Conservation status.* This species appears to warrant a conservation code of 1E (Briggs & Leigh 1996). It is evidently rare in New South Wales and extremely rare in Victoria where I am aware of only one recent (post 1925) collection. It is possibly also rare in South Australia, for the most recent collections are from Kapunda where it was found by both E.H. Ising and J.B. Cleland on 24 September 1938.

*Etymology.* The epithet – *orientalis* is Latin for eastern, since the species is found in eastern Australia.

*Affinities.* *Leptorhynchos orientalis* differs from *Leptorhynchos scaber*, with which it has been confused, in having smooth surfaces to the hyaline portion of the involucre bracts and having inner involucre bracts with only a very short hyaline erose apiculum (to 0.5 mm long), or this apiculum is absent. In *L. scaber* the hyaline portion of the involucre bracts is minutely scabridulous and the inner bracts have a hyaline apiculum c. 2 mm long.

*Notes.* *Leptorhynchos scaber* has (or had) a similar distribution to that of *L. orientalis* in far western New South Wales and in far western Victoria. The only New South Wales records I have seen are in the National Herbarium of Victoria (MEL) where it is represented by two nineteenth century collections from Silvertown. The three records seen from Victoria, also in MEL, were collected in the late 19th or early 20th century, i.e. Lower Glenelg River (1891), the Shire of Lowan (1899), and Jeparit (1912). Therefore *L. scaber* may no longer be found in these two States. Apart from the collections from New South Wales and Victoria *L. scaber* is a coastal, or near-coastal, species and it would be instructive to establish the conditions under which the inland plants were growing.

***Leptorhynchos tenuifolius*** F. Muell., *Fragm.* 1: 52 (1858). *Type:* Australia felix [Victoria, *F. Mueller*] (*lecto:* MEL 248223, here chosen).

*Notes.* When describing new species in the early numbers of his "Fragmenta", Mueller appears to have only given the name of the collector when it was someone other than himself, unless he and another botanist had both collected the same species in which case each of them would be cited. In the case of *L. tenuifolius* no collector was given which presumably means that Mueller had collected it. All specimens in herb. MEL that appear to have been collected prior to its publication in 1858 are either indicated as being Mueller's own collections or are labelled by him "Austr. felix" without collector or date.

I have selected as lectotype a sheet on which are attached a number of excellent specimens of this species; the sheet bears a label that has been annotated by Mueller "*Leptorhynchus tenuifolius* ferd. Mueller/Austr. felix." and was seen by G. Bentham. This particular spelling of *Leptorhynchus* was the orthographic variant adopted by Mueller throughout his career.

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