

Miscellaneous Notes on Australian Plants:
Erigeron, *Uncinia*, *Poa* and *Erythranthera*

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Abstract

Erigeron pappochroma var. *setosa* Benth., for which a lectotype is selected, is raised to the rank of species: *E. setosus* (Benth.) M. Gray. *Uncinia sinclairii* and *Poa infirma* are recorded from Australia for the first time. The distribution of *Erythranthera* in Australia is discussed.

COMPOSITAE

ERIGERON L.

Erigeron setosus (Benth.) M. Gray, stat. et comb. nov.

Erigeron pappochroma var. *setosa* Benth. Fl. Austral. 3: 494. 1867, *basionym*.

This dwarf species is quite distinctive, and easily recognized by the entire leaves ± 0.7 –1.5 cm long, coarsely hispid with bristly septate hairs, arranged in small rosettes about 1.5–3.5 cm in diameter. The capitula are at first sessile or on very short scapes as mentioned by Bentham, but the scapes elongate to 7 cm or more in the fruiting stage.

E. setosus appears to be endemic to the alpine tract of the Kosciusko area, N.S.W., and is mainly found in the *Plantago-Neopaxia* short alpine herbfield.

Unfortunately there do not appear to be any specimens of *Erigeron pappochroma* var. *setosa* actually annotated by Bentham.

Miss Helen Aston, Australian Botanical Liaison Officer for 1973–74, has kindly searched the collections at Kew and could find no such specimens. Through the courtesy of Dr D. M. Churchill, Director and Government Botanist, National Herbarium Melbourne, I have been able to examine the three sheets referable to this taxon marked "TYPE", namely MEL 1012234, MEL 1012235 and MEL 1012236. These three sheets could possibly be from the same collection; however, only one of them, MEL 1012236, has the labels written in Mueller's hand and shows clearly that it had been seen by Bentham.

Attached to this sheet is an envelope containing two small plants of another species with a label inside marked 'highest mountains, 424, *Haplopappus bellidioides* J. D. Hook.' On the outside of the envelope Mueller has written '*Erigeron pappochroma* Lab. var. *bellioides* F.M.' and '*Haplopappus bellidioides* J. Hook. V.D.L.' It is obvious that Mueller included the material in the envelope for comparison only. It should be excluded from the consideration of the type of *Erigeron pappochroma* var. *setosa*.

In my opinion Bentham's description of the variety '*e. setosa*' could apply to no other taxon of *Erigeron* from the Kosciusko area, N.S.W., and I have no hesitation

in proposing the following lectotypification:

Lectotype of *Erigeron pappochroma* var. *setosa* Benth. Fl. Austral. 3: 494. 1867: 'In vertice montis Kosciusko, locis glareosis, 6000–6500 ft radius albus vel rubellus, Jan. [18] 55, Dr Ferd. Mueller. *Erigeron gunnii* Ferd. Mueller var. *bellidioides*, Munyang Mountains 6000–6500 ft' (MEL 1012236, *excluding* envelope marked '*Erigeron pappochroma* Lab. var. *bellioides* F.M., *Haplopappus bellidioides* J. Hook., V.D.L.').

Further specimens examined:

NEW SOUTH WALES: Mt. Kosciusko 7000 ft (2130 m), *William Bäuerlen* 73, --.ii.1890 (MEL 1012240); below Hedley Moraine, *Celmisia*–*Poa* alpine herbfield, *A. B. Costin* 0041, --.i.1958 (CANB 46774); Mt. Kosciusko area, *D. Moore*, --.i.1958 (CANB 97928); Mt. Townsend, wet area with *Sphagnum*, *D. N. McVean*, --.i.1966 (CANB 236365); valley below summit of Mt. Kosciusko, *Jean Galbraith*, 31.i.1969 (MEL 1012238); near Lake Cootapatamba, flowers white, *M. Gray* and *C. Totterdell* 6289, 4.ii.1969 (CANB 236369); Blue Lake, short alpine herbfield, *C. Totterdell* 222, 21.iii.1971 (CANB 236366); west side of Carruther's–Twynam saddle, *C. Totterdell* 208, 5.iii.1971 (CANB 236367); Etheridge Range, 1 km SSW. of Seaman's Hut, 2012 m altitude, on creek bank, flowers white, in wet place, *J. Thompson* 1344, 17.i.1972 (MEL 1012237); near Lake Cootapatamba, short alpine herbfield, forming patches up to 30 cm diam., *M. Gray* and *C. Totterdell* 6643, 22.iii.1972 (CANB 236368).

The references to *Erigeron stellatus* (Hook.f.) W. M. Curtis in McVean (1969) are incorrect; they are referable to *E. setosus*. *E. stellatus* differs from *E. setosus* in having thicker, coriaceous leaves which have sparse coarse septate hairs restricted to the margins and are otherwise virtually glabrous; it is endemic in Tasmania.

CYPERACEAE

UNCINIA Pers.

Uncinia sinclairii Boott in Hook.f. Handb. N.Z. Fl.: 309. 1864.

NEW SOUTH WALES: Near Snowy River bridge below Seaman's Hut, Kosciusko area, sod tussock grassland, growing with *Uncinia flaccida* S. T. Blake but with long rhizomes, broader leaves, and later-flowering etc., *M. Gray*, *A. B. Costin* and *C. Totterdell* 6596, 25.ii.1972; near Snowy River bridge below Seaman's Hut, Kosciusko area, sod tussock grassland near summit road, colonizing bare areas between patches of *Poa*, *M. Gray* and *C. Totterdell* 6658, 22.iii.1972 (CANB, CHR, MEL, NSW).

This species is found in the South Island of New Zealand, and this is the first record for Australia. It is readily distinguished from other species of *Uncinia* in Australia by the persistent glumes and hispid utricles.

So far, the species has only been collected fairly close to the summit road, and it is not yet known whether it is native or introduced in the area.

GRAMINEAE

POA L.

Poa infirma Kunth in H.B.K. Nov. Gen. Sp. 1: 158. 1816.

NEW SOUTH WALES: Flemington Saleyards, Sydney, *W. Reyenga*, 25/26.viii.1969, (removed from a collection of *Poa annua* L., same date and collector) (CANB 236370); Yass, weedy area

in grounds of Yass Hospital, growing with *Poa annua* and about as common, *M. Gray* 6740, 16.ix.1973 (CANB, NSW).

AUSTRALIAN CAPITAL TERRITORY: CSIR Reserve, *T. B. Paltridge* 17, 7.x.1931; O'Connor, Canberra, small weed in nature strip, Wongoola Close, sometimes growing with *Poa annua* but differs in being more delicate, pale yellowish green etc., *M. Gray* 6668, 17.ix.1972; CSIRO grounds, Black Mountain, Canberra, common between Pye Laboratory and Library, and in experimental plots near Animal House, growing among *Poa annua*, *M. Gray* 6670, 19.x.1972 (BRI, CANB, CHR, MEL, NSW); Dickson, Canberra, footpath in Dickson shops near corner of Cape and Woolley Streets, few plants only, *Poa annua* nearby, *M. Gray* 6672, 7.xi.1972.

This small introduced annual species is often found growing with *Poa annua* and can easily be mistaken for undernourished specimens of the latter; it has possibly been overlooked elsewhere in Australia for this reason. It can be distinguished from *Poa annua* in the field by the relatively slender more delicate panicles with smaller spikelets; the following key, after Hubbard (1968), will further separate the species:

- 1a. Anthers 0.7–1.3 mm long; lemmas 2.5–4 mm long, overlapping *P. annua* L.
1b. Anthers 0.2–0.5 mm long; lemmas 2–2.5 mm long, separate *P. infirma* Kunth

As Hubbard (1968) indicates, the minute anthers of *P. infirma* are diagnostic, and are often persistent near the top of the grain in mature florets.

ERYTHRANTHERA Zotov

Erythrانthera australis (Petrie) Zotov was first reported for Australia by V. D. Zotov (1963), based on a specimen collected in the Kosciusko area, N.S.W. The species is now known to occur in Tasmania and Victoria, and the following notes on distribution and habitat may be of interest. In addition, the second species of this interesting alpine genus, *E. pumila* (Kirk) Zotov (l.c.) has been reported for Australia by D. N. McVean (1969), based on specimens collected by him in the Kosciusko area, N.S.W.

These species are now represented in CANB by the following Australian collections:

Erythrانthera australis (Petrie) Zotov:

NEW SOUTH WALES (Mt. Kosciusko area): Below Mt. Northcote, *A. B. Costin* 0048 (A), 26.ii.1958 (separated from *Costin* 0048 = *Carex echinata* Murr.); approx. ¼ mile (0.4 km) NNE. of Seaman's Hut, alpine herbfield beside CSIRO transect line, *D. Wimbush*, 18.iii.1959 (CANB 236375); CSIRO glasshouse, Black Mountain, Canberra, grown in pots from turf collected below Seaman's Hut, Mt. Kosciusko, *M. Gray* 5192, 23.xi.1969 (CANB, NSW); below Seaman's Hut, bank of small runoff creek from semipermanent snow patch, closely associated with *Schoenus calypttratus*, *Oreomyrrhis pulvinifica*, *Drosera arcturi*, *M. Gray* 5174, 8.ii.1962; Mt. Twynam cirque, wet gravelly area on small creek bank, associated with *Oreobolus pumilio*, *Oreomyrrhis pulvinifica*, *Schoenus calypttratus*, and moss, granite, c. 6800 ft (2070 m) alt., *A. B. Costin*, 5.iii.1962 (CANB 236384); between Carruther's Peak and Mt. Twynam, gravelly bank of small creek running into Geehi Ck., c. 6500 ft (1980 m) alt., slate and phyllite, associated with *Oreobolus pumilio*, *Oreomyrrhis pulvinifica* and mosses, *M. Gray*, 13.iii.1962 (CANB 236386); Mt. Northcote, Northcote feldmark, *D. N. McVean*, -i.1966 (CANB 236387); south slope Mt. Northcote, at 6700 ft (2040 m), flat top of solifluction lobe, map* ref. 237020, slope 8° SE., *Oreobolus pumilio* association, site 6612, *D. N. McVean*, -i.1967 (CANB 236377); Mt. Clarke, 6200 ft (1890 m), map* ref. 264018, level, site 6655, *Oreobolus pumilio* association, *D. N. McVean*, -i.1967 (CANB 236378); Mt. Clarke, eastern slopes, *Oreobolus pumilio* association, *D. N. McVean*, 28.i.1967 (CANB 236379); Snowy River bridge, summit road, Charlotte's Pass to Seaman's Hut, forming turf near water's edge, locally common, photo voucher, *M. Gray* and *C. Totterdell* 6171,

* Kosciusko 1 : 63360, sheet no. 795.

15.ii.1968 (BRI, CANB, CHR, MEL, NSW); Snowy River bridge below Seaman's Hut, short alpine herbfield, locally common, photo voucher, *M. Gray and C. Totterdell* 6221, 6.iii.1968.

VICTORIA: Head of Middle Creek, near Mt. Cope, Bogong High Plains, grows on 'islands' of flat peaty soil in broad eroded creek bed, eastern aspect, in third small valley south (approximately) of Cope Hut, *S. G. M. Carr*, -i.1954 (CANB 236492).

TASMANIA: Mount Field National Park, near Mt. Field West, seepage area on leeward (snowy) aspect, c. 4000 ft (1220 m) alt., *A. B. Costin and W. Jackson*, -v.1964, (specimens of *Danthonia nivicola* J. Vickery also in this collection) (CANB 236381); between Lake Dobson and summit of Mt. Field West, wet snow bed area, *D. N. McVean*, 22/23.ii.1967 (CANB 236380).

The Tasmanian and New Zealand specimens I have seen are generally more robust than those from the mainland and usually have at least some hairs on the leaves, whereas the leaves of the mainland specimens are virtually glabrous except for a marginal tuft of hairs at the junction of sheath and blade.

With the exception of one collection from feldmark on the south-west slope of Mt. Northcote, *Erythranthera australis* seems to be restricted to short alpine herbfield in the Kosciusko area, both below semipermanent snow patches and on the wet gravelly banks of streams. It is most commonly associated with *Schoenus calypttratus* Kükenth., which it superficially resembles vegetatively except for the reddish sheaths of the latter. It is also associated with other typical short alpine herbfield species, e.g. *Oreobolus pumilio* R.Br., *Oreomyrrhis pulvinifica* F. Muell., *Drosera arcturi* Hook. and *Carex echinata* Murr. The fact that this species was apparently not collected in Australia until relatively recently may in part be due to its small size; however, it could well be one of the species like *Chionochoila*, *Ranunculus anemoneus* F. Muell. etc., which were drastically affected by grazing and are only now gradually returning to anywhere near their original population size in the Kosciusko area. In Petrie's original description of the species (as *Triodia australis* Petrie) from New Zealand in 1890, he states: 'It is a nutritious grass, much relished by sheep and horses, and usually closely cropped'.

Erythranthera pumila (Kirk) Zotov:

NEW SOUTH WALES (Mt. Kosciusko area): Northcote feldmark, *D. N. McVean*, -i.1965 (CANB 236388); Northcote Pass, feldmark, *D. N. McVean*, 28.i.1967 (CANB 236390, NSW); Mt. Northcote-Mt. Lee saddle, *Epacris microphylla* feldmark, *C. Totterdell* 54, 12.ii.1970; Mt. Northcote-Mt. Lee feldmark, *C. Totterdell and A. B. Costin* 285, 24.ii.1972.

The New Zealand specimens I have seen show a considerable degree of variation; e.g. the spikelets vary from 3.5-6.5 mm long, and the red banding, which is obscurely visible on the upper leaf sheaths of some Mt. Kosciusko specimens, is also found on the glumes of some of the New Zealand specimens. In all the Kosciusko specimens I have seen, the glumes exceed the florets, whereas in a few of the New Zealand forms the florets exceed the glumes.

This must be one of the rarest and most restricted grasses in Australia, and appears to be confined to a few high *Epacris-Veronica* feldmarks on the Kosciusko main range. Its hold on this difficult environment must be tenuous indeed, and specimens should only be collected for the most stringent scientific purposes.

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