



Two new species of *Callilepis* (Asteraceae) from southern Africa with corymbose inflorescences

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Abstract

Two new species of *Callilepis* (Asteraceae) are described: *C. corymbosa* and *C. normae*. They differ from other *Callilepis* species mainly by their corymbose inflorescences and white disc florets. They are endemic to the southern African region: *C. corymbosa* is known from Swaziland only and *C. normae* occurs in Mpumalanga, South Africa.

Introduction

The genus *Callilepis* Candolle (1836: 671) (Asteraceae) is endemic to the southern African region. Its tribal position is still unresolved and fluctuates between Inuleae, Gnaphalieae and Athroismeae. In the most recent publications Anderberg (1991), Bayer *et al.* (2007) and Ward *et al.* (2009) placed it in the tribe Gnaphalieae, whilst Hilliard (1977) and Wild (1980) placed it in the tribe Inuleae. Anderberg (2009) furthermore regarded *Callilepis* and *Zoutpansbergia* Hutchinson (1946: 350) as one genus in the tribe Inuleae, with the Athroismeae and Heliantheae as sister groups. Currently four or five species are recognised in the genus. The large, solitary capitula with blackish purple disc florets and white or cream ray florets were always considered to be the distinguishing characters of the genus (Hilliard 1977, Wild 1980, Anderberg 1991, Bayer *et al.* 2007). However, two recent collections from different localities present similar general floral structures but these specimens have smaller capitula arranged in terminal corymbs and white disc florets. They are described here as the two new species *C. corymbosa* and *C. normae*.

Material and methods

Digital images to illustrate the cypselae were obtained with a Zeiss Discovery.V8 Stereo microscope. Terminology used is according to the definitions in Radford *et al.* (1974).

Taxonomy

Callilepis corymbosa P.P.J.Herman & M.Koekemoer, **sp. nov.** (Figs. 1, 2A, B)

Similar to *Callilepis leptophylla* but capitula arranged in terminal, many-headed corymbs, involucre bracts imbricate, ovate, acute, disc florets white, cypselae glabrous except for a mixture of long twin hairs and multicellular hairs along the ribs, leaves linear, 1–2 mm broad and leaf margins distantly denticulate in upper part.

Type:—SWAZILAND. Lubombo Province: SE of Sitsatsaweni at the top of the Mnyame River Gorge, (QDS: 2632AC; GPS: 26°27'34"S 32°5'43"E), 24 November 2002, *Koekemoer 2596* (holotype PRE!, isotypes BNRH, MO, US).

acute, purplish, margin membranous, fimbriate, midline dark. *Receptacle* conical, paleate, paleae straw-coloured, boat-shaped, 9–10 × 2–4 mm, apex acute, margins fimbriate, midline dark, sometimes membranous winged, sparsely fimbriate, glabrous except for hairy apices, enveloping disc florets. *Ray florets* female, fertile, up to ± 12, tube 3 mm long, with staminodes, limb 8.0–8.5 × 4–5 mm, oblong to elliptic, narrowing abruptly towards tube, apex 3-dentate, corolla glabrous, white. *Style* 4 mm long, bifurcate, but often 3-furcate, style branches linear, 1 mm long, apex obtuse, stigmatic areas marginal, confluent at apex. *Cypselae* (immature) obconical, 4.0–4.5 × 1.2–1.5 mm, 3-angled, densely covered with a mixture of long twin hairs and multicellular hairs. *Pappus* dimorphic, consisting of 3 or 4 awn-like scales, up to 4 mm long, slightly broadening towards base, interspersed by 5 or 6 flat, chartaceous scales, up to 2 × 1 mm, apices and margins fimbriate. *Disc florets* bisexual, regular, tubular below, slightly widening upwards, tube up to 5 mm long, 5-lobed, lobes up to 2 mm long, corolla glabrous, white. *Anthers* purplish, 2 mm long, apical appendages narrowly ovate, ± 0.8 mm long, base calcarate and caudate, tails ± 0.8 mm long, hairy. *Style* 5 mm long, bifurcate, style branches linear, 1.0–1.4 mm long, obtuse, stigmatic areas marginal, confluent at apex, with papillae outside on apices. *Cypselae* (immature) very narrowly obovate, 4–5 × 1.0–1.5 mm, laterally compressed, densely covered with a mixture of long twin hairs and multicellular hairs. *Pappus* dimorphic, consisting of 3 or 4 awn-like scales, up to 4 mm long, slightly broadening towards base, interspersed by 5 or 6 flat, chartaceous scales, up to 2 × 1 mm, apices and margins fimbriate (Fig. 3E, F). *Flowering time*: February (late summer).

Distribution:—Currently only known from the type collection from Mpumalanga (Fig. 4) and it seems to be endemic there.

Etymology:—Named for Mrs Norma Mary Rattray, hotelier and conservationist. Together with her husband (since 1972), M.L.P. Rattray, they were the first private individuals to establish a Big Five eco-tourism reserve as well as the first water catchment reserve. They are the owners of the Mount Anderson Ranch where the type species was collected for the first time.

Additional specimens examined: SOUTH AFRICA. Mpumalanga: Mount Anderson, Golden Hill, on the farm Goedverwacht, (GPS: 25°00'28.6"S 30°36'10.3"E), 1 February 2014, *Raimondo s.n.* (PRE!). Lydenburg District, Mount Anderson Catchment Reserve, Farm Goedverwacht 152JT, Golden Hill (GPS: 25°00'58"S 30°36'11"E), 1 February 2014, *Burrows, J.E. & Burrows, S.M. 14008* (BNRH!).

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