



A synopsis of *Emilia* (Senecioneae, Asteraceae) in southern Africa

GLYNIS V. CRON

School of Animal, Plant & Environmental Sciences, University of the Witwatersrand, Johannesburg, South Africa;
e-mail: Glynis.Cron@wits.ac.za

Abstract

Six species of the mainly tropical genus *Emilia* (Asteraceae, Senecioneae) occur in southern Africa. These species are generally not well known as no revision of the genus on a global scale has as yet been undertaken and previous work has focussed on eastern, central and northern Africa. A new combination, *Emilia schinzii* (syn. *E. ambifaria*), is proposed here because of priority. Detailed descriptions, distribution maps and a key to the southern African species are presented in this synopsis. Lectotypifications for *E. limosa*, *E. marlothiana*, *E. schinzii* and *E. transvaalensis* are provided. Included is information relevant to conservation of the species in the form of red data assessments and notes.

Key words: Distribution maps, key, lectotypification, red data assessments, taxonomy

Introduction

Emilia Cassini (1817: 68) of the tribe Senecioneae in the Asteraceae is a palaeotropical genus of annual and perennial herbs comprising about 116 species (The Plant List 2010), the majority of which (ca. 80 species) occur in Africa south of the Sahara (Oliver & Hiern 1877, Jeffrey 1986, 1997, Lisowski 1991a, 1991b, 1997, Lebrun & Stork 1997, Beentje *et al.* 2005, Klopper *et al.* 2006). Fourteen species are known from Madagascar, including 11 taxa endemic to the island (Humbert 1963), and a few are found in the moister parts of Asia—south of the Himalayas, in South China and Japan, as well as in the Philippines (Fosberg 1972, Nordenstam 2007). Two species, *E. fosbergii* Nicolson (1975: 34) and *E. coccinea* (Sims 1802: 564) Don (1839: 382), extend into the neotropics (Barkley 2006), possibly as a result of introduction (Jeffrey 1986).

When Cassini (1817) first described *Emilia*, he included only three species. The genus was then expanded by Candolle (1838) to 13 species, who referred two of the species described by Cassini, *E. purpurea* Cassini (1825: 393) and *E. flammea* Cassini (1819: 406), to *E. sonchifolia* (Linnaeus 1753: 835) Candolle (1838: 302) and *E. sagittata* Candolle (1838: 302) respectively. In her revision of *Emilia*, Garabedian (1924) recognised 23 species (all discoid), including only one, *E. protracta* Moore (1905: 48), from southern Africa. Hoffmann (1890: 297) created a subgenus *Emilia* (Cass.) O. Hoffm. within *Senecio* Linnaeus (1753: 866) and most species of *Emilia* remained in *Senecio* or were not yet recognised or described (Cufondontis 1967) until Jeffrey's work in 1986 (Mesfin Tadesse & Beentje 2004).

In 1986, Jeffrey transferred two sections of *Senecio* to *Emilia*. The first of these, *E. sect. Spathulatae* (Muschler 1909: 43) Jeffrey (1986: 911) included eleven species: seven from East Africa and four from elsewhere in Africa, most radiate, two discoid [*E. hockii* (de Wild & Muschler 1913: 213) Jeffrey (1986: 912), *E. tessmannii* (Mattfeld 1921: 27) Jeffrey 1986: 918], all yellow-flowered with short corolla lobes (about as long as broad), and the second, *E. sect. Emilia*, comprised 47 species, all discoid, variously coloured, with long, narrow corolla lobes. Jeffrey (1986) redefined the tropical African species of *Emilia* based on the shared basic chromosome number ($n = 5$) and ecalyculate involucre, later noting that a revision of the genus was needed (Jeffrey 1992).

Lisowski (1991a) revised the species in central Africa (Congo, Rwanda and Burundi), recognising 41 species, 17 of which were previously undescribed. The highly variable *Emilia coccinea* complex and the large-headed *Emilia* species of Africa were subsequently revised by Jeffrey (1997), and an account of the genus in North-East Africa (14 species including five newly described) was provided by Mesfin Tadesse & Beentje (2004). To date, however, there has been no account of the genus in southern Africa.

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