



A taxonomic revision of *Swertia* L. (Gentianaceae) in South India, with one new species and seven lectotypifications

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Abstract

The genus *Swertia* in South India is revisited based on field and herbarium studies. A brief history of the genus, detailed descriptions, photo plates, nomenclature, distribution and key to the identification of south Indian species are provided. Seven names viz., *Swertia beddomei*, *S. trichotoma*, *S. affinis*, *S. lawii*, *S. minor*, *Ophelia elegans* and *O. umbellata* are lectotypified. A new species, *Swertia raveendrae*, endemic to South India is also described here. The new species is similar to *S. lawii* but differs by its cordate-orbicular leaves, dense paniculate cymes, small (0.3–1 cm long), ovate-elliptic bracts and the calyx not exceeding the corolla in bud.

Key words: *Swertia raveendrae*, new species, endemic

Introduction

Swertia Linnaeus (1753: 226), the largest genus of the subtribe Swertiinae (Grisebach) Reichenbach (1837: 210), is represented by 137 species worldwide (Struwe *et al.* 2002, Chen *et al.* 2008, Ho & Liu 2010). The genus is principally Asiatic with highest species diversity in the Sino-Himalayan region. Rotate corolla and presence of corolline nectariferous glands distinguishes *Swertia* from related genera. The nature and shape of these glands provide one of the best diagnostic characters for species delimitation. Twenty species and one variety are presently recorded from India (Shah 1990, 1992). Seven species occur in South India including the present new species (see below), of which six (86%) are endemic.

The South Indian species of this genus are highly habitat specific, growing at high altitudes of mountain ranges. Except for treatments in some regional floras, detailed work on this genus is still lacking for South India/India. The purpose of this paper is to present a revision of *Swertia* in South India based on field and herbarium studies, consultation of type specimens and protologues, and study of morphological details, for a better understanding and a reliable definition of South Indian species. The nomenclature of all species is updated as per the Melbourne Code (McNeill *et al.* 2012). Lectotypes are designated for *S. beddomei* Clarke (1883: 127), *S. trichotoma* (Wight) Clarke (1883: 126), *S. affinis* (Wight) Clarke (1883: 126), *S. lawii* (Wight & Arnott) Burkill (1906: 379), *S. minor* (Grisebach) Knoblauch (1894: 391), *Ophelia elegans* Wight (1850: 8) and *O. umbellata* Wight (1850: 175).

Brief history of the genus

The genus *Swertia* was originally established by Linnaeus (1753), who included five species in it. In the subsequent decades, a number of genera like *Henricea* Lemaire (1824: 176), *Lomatogonium* Braun (1830: 221), *Ophelia* D. Don ex G. Don (1837: 178), *Pleurogyne* Grisebach (1838: 309), *Anagallidium* Grisebach (1838: 311), *Sczukinia* Turczaninow (1840: 464), *Monobothrium* Hochstetter (1842: 1241), *Rellesta* Turczaninow (1849: 337), *Blepharaden* Dulac (1867: 449) and *Tesserantherum* Curran (1885: 142) were described. However, all except *Lomatogonium* were subsequently reduced to the synonymy of *Swertia*.

A number of infrageneric classifications were attributed to the genus *Swertia*. Clarke (1883) divided *Swertia* into three subgenera: *Ophelia*, *Euswertia* and *Poephila*. Gilg (1895) subsequently reduced all these subgenera to sections. Fries (1923) divided the African *Swertia* into two groups, the Uninectariate and Binectariate, and divided the latter into

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