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A taxonomic revision of the genus *Dimeria* (Poaceae: Panicoideae) in Thailand

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Abstract

A taxonomic treatment of the genus *Dimeria* in Thailand is presented. Seven species are recognised and a new locality record is reported. Nomenclature, description and illustration are provided for each species. Four lectotypes are designated.

Key words: *Dimeria kerrii*, Dimeriinae, Andropogoneae

Introduction

Dimeria Brown (1810: 204) is a member of the subtribe Dimeriinae which is distinguished by a tough rhachis and strongly compressed single spikelets (Clayton & Renvoize 1986, Bor 1953, Clayton *et al.* 2006). Dimeriinae was first proposed by Hackel (1887) as 'Dimerieae'. Later, Hackel (1889) published a full account of Dimerieae in his monograph of Andropogoneae that recognised 12 species, two subspecies and 10 varieties of which five species were described as new. He also divided the subtribe into three major groups, using the number of racemes in the inflorescence. Since then the subtribe was accepted by many and further species of *Dimeria* were published, e.g. Hooker (1897), Hooker (1900), Jacob (1947), Bor (1952), Bor (1953), Roberty (1960) and Kiran Raj (2008). The treatment by Kiran Raj (2008) is the most comprehensive account of the genus and recognises 42 species from peninsular India, the center of its distribution. He also introduced a new subtribal classification and proposed an additional genus *Nanooravia* Kiran Raj & Sivadasan in Kiran Raj *et al.* (2013: 162).

Clayton & Renvoize (1986) suggested Dimeriinae were derived from subtribe Ischaeminae following suppression of the sessile spikelet. This hypothesis was not supported by the morphological phylogenetic analysis of Kellogg & Watson (1993) that placed *Dimeria* sister to *Cleistachne* Bentham (1881: 61), with both genera nested in a Saccharinae clade; in the Kellogg & Watson analysis, *Dimeria* and *Cleistachne* were united by loss of the sessile spikelet. Molecular data show that this phenotype is the result of convergent evolution. The molecular study of Teerawatananon *et al.* (2011a) places two species of the genus *Ischaemum* Linnaeus (1753: 1049) as successive sister taxa to the Dimeriinae clade, consistent with the view of Clayton & Renvoize (1986).

The genus *Dimeria* comprises ca. 65 species, distributed from India, Sri Lanka, and China to Indonesia and Australia, and including three species in Madagascar (Bor 1953, Clayton *et al.* 2006, Kiran Raj & Sivadasan 2008, Kiran Raj *et al.* 2013). In SE Asia, approximately 14 species have been recognised from Indo-China, Malaysia, Java and China (Camus & Camus 1922, Schmid 1958, Ridley 1925, Gilliland 1971, Lazarides 1980, Chen & Phillips 2006). In Thailand, preliminary checklists of *Dimeria* were produced by Lazarides (1980) and Nanakorn & Norsangsri (2001) in which nine species were reported. In this revision of *Dimeria* for the Flora of Thailand, seven species are recognised.

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