



Thismia nigricans Chantanaorr. & Sridith, a new species of Thismiaceae from Southern Thailand

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Abstract

Thismia nigricans Chantanaorr. & Sridith is described and illustrated as a new species from Sri Phangnga National Park, southern Thailand. A taxonomic description, illustrations of the new species and a comparison with the related species *T. angustimitra* Chantanaorr. and *T. mirabilis* K. Larsen are presented.

Key words: achlorophyllous, mycoheterotrophic, Thailand, *Thismia nigricans*

Introduction

The genus *Thismia* Griffith (1844: 221), the largest genus of the family Thismiaceae, and was established by Griffith in 1844 based on *T. brunonis* Griffith (1844: 221) from Myanmar. It comprises about 55 species of mycotrophic herbs (e.g. Hroneš 2014; Merckx & Smets 2014; Hunt *et al.* 2014; Mar & Saunders 2015) and is distributed mainly in tropical Asia and America with a concentration of species in Southeast Asia (Jonker 1938; Maas *et al.* 1986; Merckx *et al.* 2013). In the last decade, several new species of the genus have been described from South-East Asia (Tsukaya & Okada 2005, 2012; Larsen & Averyanov 2007; Chantanaorrapint 2008, 2012; Dančák *et al.* 2013; Nuraliev *et al.* 2014; Truong *et al.* 2014). This genus is well characterized by being small mycoheterotrophic herbs possessing tuberous or vermiform underground, or coralloid roots. Its stems are unbranched with few scale-like leaves. Flowers are solitary, or rarely 2–6 in a cincinnus, actinomorphic or zygomorphic, the tube cylindrical to urceolate; tepals 6, often unequal, in 2 distinct whorls, the inner whorl sometimes connate forming a mitre; stamens 6, inserted in the throat, pendent; connectives often with appendages, or hairs, free or connate into a tube with thecae separated; ovary 1-locular, with 2–3 parietal placentas or with free placental columns. The fruit is cup-shaped.

Most *Thismia* species are small with highly reduced vegetative morphology and are not easily discerned in the field. Although various regional treatments of *Thismia* have been published and six species have been reported from Thailand (Larsen 1965, 1987; Chantanaorrapint & Sridith 2007; Chantanaorrapint 2008, 2012; Chantanaorrapint & Chantanaorrapint 2009), more new records of species are expected in unexplored areas, especially in the lower peninsular part of the country. During recent visit of Sri Phangnga National Park in southern Thailand, an undescribed species of *Thismia* was collected, with a unique combination of characters that did not match any existing described species. It is therefore described here as a species new to science.

Materials and methods

This study is based on recent collections from Thailand. Voucher specimens of the new species are deposited in BKF and PSU herbaria. Morphological characters were studied using stereo microscopes, and distinctive characters of the species were illustrated with the aid of an Olympus drawing tube.