



A new species of *Thismia* (Thismiaceae) from Yunnan, China

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Thismia Griffith (1844: 221) usually grows among leaf litter in shady wet forests and comprises 47 small mycoheterotrophic species (Chiang & Hsieh 2011, Mancinelli *et al.* 2012). Individual plants live underground through most of the year, only emerging briefly to flower and fruit after periods of heavy rain (Ho *et al.* 2009). Although several species have been described in temperate regions, *Thismia* occurs mainly in tropical portions of America and Asia.

Thismia has been typically classified in tribe Thismieae within Burmanniaceae (e.g., Jonker 1938, Maas *et al.* 1986, APG III 2009). However, recent molecular phylogenetic research has indicated that *Thismia* is sister to *Tacca* Forster & Forster (1775: 69) and is not nested within the clade of Burmanniaceae, which therefore supports recognition of Thismiaceae (Merckx *et al.* 2006).

Two detailed treatments of *Thismia* have been published before. Jonker (1938) recognized 23 species within this genus and subdivided it into five sections. The second one, for Neotropical members by Maas *et al.* (1986), proposed a new subgeneric and sectional classification for *Thismia*, that is, three sections within subgenus *Ophiomeris* (Miers, 1847: 328) Maas & Maas (1986: 144) characterized by free stamens, united thecae and parietal placentas, and one section (*Rodwaya* (Schlechter, 1921: 38) Maas & Maas (1986: 166)) within subgenus *Thismia* characterized by united staminal tube, separate thecae and free placental columns. The genera *Glaziocharis* Taubert (1895: 66), *Mamorea* de la Sota (1960: 43) and *Triscyphus* Taubert (1895: 66) were included in section *Pyramidalis* Maas & Maas (1986: 161).

Eleven species of *Thismia* have been recorded in the adjacent regions of southwestern China, Vietnam, Thailand and Burma. Three of them, *T. taiwanensis* Yang, Saunders & Hsu (2002: 485), *T. huangii* Jiang & Hsieh (2011: 138) and *T. tentaculata* Larsen & Averyanov (2007: 16), are found in China. Based on morphological studies of dry and living material, as well as field observations, a new species is named and described for this region.

Thismia gongshanensis Hong-Qing Li & Yu-Ke Bi, *sp. nov.* (Fig. 1–2)

Type:—CHINA. Yunnan: Maku Village, Dulongjiang Town, Gongshan County, 2,275 m, 27°41'54.6"N, 98°18'15.62"E, 27 June 2008, Li 2008I28 (holotype HSNU!; isotype KUN!).

Thismia gongshanensis most closely resembles *T. tuberculata* Hatusima (1976: 4), but differs in having a yellow perianth, free stamens, bicarpelate parietal placentas and 2 simple stigmas.

Herbs with rhizome creeping horizontally, branched, terete, pale brownish, apex whitish, with adventitious roots and buds. Stem white, unbranched, erect, glabrous, ca. 6–10 cm high, 1.8 mm in diameter at anthesis. Leaves 4–7, translucent-whitish, elliptic-lanceolate, alternately scattered along stem, adnate, appressed, entire, scale-like, ca. 4–7 × 2–3 mm, with a single vascular trace, apex obtuse. Bracts 3, ringed, similar to leaves. Flower solitary with 1 mm pedicel. Perianth actinomorphic, 6 lobes in 2 whorls, fused to form a basa