Paraboea angustifolia (Gesneriaceae): a new species from limestone areas in northern Guangxi, China

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Abstract

Paraboea angustifolia is a new species of Gesneriaceae from Guangxi, China, which is here described and illustrated. It is similar to Paraboea dictyoneura in its corolla shape, but P. angustifolia can be distinguished by its linear-oblanceolate leaf blade measuring 8–30 × 1.5–3.0 cm (vs. oblanceolate to narrowly obovate-elliptic, 7–15 × 2.0–4.5 cm), 4–10 times (vs. 2.0–3.5 times) as long as wide, and a peduncle of 3–7 cm (vs. 8–21 cm), normally shorter than the leaves. Its capsules are nearly straight.

Introduction

Paraboea is a genus of rosulate or caulescent herbs found mainly on limestone substrates in southern China, northeastern India, the eastern Himalayas, Burma, Thailand, Cambodia, Laos, Vietnam, Malaysia, the Philippines and Indonesia (Middleton et al. 2010). The genus Paraboea has recently been revised by Xu et al. (2008) who recognised 89 species and five varieties. Since the publication of this revision three additional species have been described (Chen et al. 2008, Kiew 2010). The phylogenetic relationships between Paraboea, Trisepalum and Phylloboea were investigated using nuclear and chloroplast data (Puglisi et al. 2011). As Paraboea has been conserved against Phylloboea and Trisepalum (Middleton et al. 2010), the genera Phylloboea and Trisepalum were merged with Paraboea, and fifteen species were transferred to Paraboea. The enlarged genus Paraboea now comprises around 120 species (Puglisi et al. 2011).

In recent years many botanical novelties have been reported from limestone areas in China. Especially there are quite a few of new species reported from this region in a variety of families. For example in Asparagaceae ((Liu et al. 2011), Balsaminaceae (Yu et al. 2009), Begoniaceae (Peng et al. 2012), Berberidaceae (Wu et al. 2009), Gesneriaceae (Wen et al. 2011, 2012a, 2012b, Hong et al. 2012, Wu et al. 2012a, 2012b, Xu et al. 2012), Rubiaceae (Mou & Zhang 2010) and Urticaceae (Wei et al. 2011).

In the course of floristic surveys in Mulun National Nature Reserve of northern Guangxi between 2009 and 2012, we collected a rare specimen of Paraboea with narrow leaves, which morphologically did not match any of the known species. Based on detailed examination of salient morphological and anatomical features (Wang et al. 1990, 1998, Li & Wang 2004, Chen et al. 2008, Xu et al. 2008, Kiew 2010), we conclude that it is a new species to science and thus it is described and illustrated here.