



Oreocharis tsaii, a new species of Gesneriaceae from southern Yunnan, China

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Abstract

Oreocharis tsaii, a new species of Gesneriaceae from southern Yunnan, China, is here described and illustrated. It is morphologically similar to *O. hirsuta* and *O. aurea*, but can be easily distinguished from the latter by its smaller cordate to ovate leaves; cymes with 1–5 flowers, corolla tube narrowing gradually from base to throat, constricted at the throat, corolla lobes mostly more than half as long as the tube; filaments sparsely glandular-pubescent and pilose, style sparsely glandular-pubescent.

Keywords: China, morphology, *Oreocharis*, taxonomy

Introduction

Oreocharis Benth. (1876: 1021) comprises about 80 species of Gesneriaceae distributed in the Old World tropics and subtropics. Based on molecular phylogenetics and morphological analyses, Möller *et al.* (2011) proposed to include ten small and monospecific Chinese genera within *Oreocharis* in order to form a monophyletic group.

During floristic surveys of southern Yunnan between 2010 and 2013, a few new species were discovered and described (Tan *et al.* 2012, 2013). We also collected an unknown plant of *Oreocharis* that morphologically did not match the description of any of the known species. This specimen differed in its relatively smaller cordate to ovate leaves; cymes with 1–5 flowers, corolla tube narrowing gradually from base to throat, constricted at the throat, corolla lobes mostly more than half as long as the tube; filaments sparsely glandular-pubescent and pilose, style sparsely glandular-pubescent. Based on a detailed examination of the morphological and anatomical characters of this plant and possible relatives (Pellegrin 1930, Barnett 1961, Li 1983, Pan 1987, Wang *et al.* 1990, 1998, Li & Wang 2004, Liu *et al.* 2012, Chen *et al.* 2013, Tan *et al.* 2014), we concluded that it is a new species, which we hereby describe and illustrate.

Taxonomic treatment

Oreocharis tsaii Y. H. Tan & J. W. Li, *sp. nov.* (Figs. 1–2).

Diagnosis: *Oreocharis tsaii* is similar to *O. hirsuta* Barnett, differing from the later by its smaller cordate to ovate leaves; cymes with 1–5 flowers, corolla tube narrowing gradually from base to throat, constricted at the throat, corolla lobes mostly more than half as long as the tube; filaments sparsely glandular-pubescent and pilose, style sparsely glandular-pubescent.

Type:—CHINA. Yunnan: Menglian, Mengma, Lafu, growing on rocks or cliffs in valleys under evergreen broad-leaved forests, 1500 m, 31 Oct. 2010, Yun-Hong Tan 3308 (holotype HITBC!, isotype HITBC!).

Perennial, rosette herbs. Stemless. Leaves basal, spirally arranged, 5–20, petiolate; petioles terete, 0.5–5.0 cm long, 1.5–3 mm in diameter, densely reddish brown villous and glandular hairy, 2–4 mm long; leaf blades papery when dry, cordate to ovate, 1.3 × 1.2–5.5 × 4.0 cm, bases subcordate to cordate, slightly unequal, margins crenate, apices obtuse to acute, adaxially densely reddish brown villous hairy, abaxially densely villous along veins, hairs 4–5 mm long; midrib

Etymology:—The specific epithet commemorates the late Prof. Cai Xitao (Tsai Hse-Tao), who devoted all his life to the study of Chinese plants and Xishuangbanna Tropical Botanical Garden (XTBG).

Additional specimens examined (paratypes):—CHINA. Yunnan: Menglian County, Mengma, Lafu, 31 Oct. 2010, *Jian-Wu Li cx00019* (HITBC). 20 Nov. 2013, *Yun-Hong Tan 10059* (HITBC).

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