

***RHODODENDRON LEIGONGSHANENSE* (ERICACEAE),
A NEW SPECIES FROM CHINA**

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Keywords: China; Ericaceae; New species; *Rhododendron*.

Abstract

Rhododendron leigongshanense, a new species from Leishan County, Guizhou Province, China, is described and illustrated. The new species is close to *R. magniflorum* W.K. Hu and *R. glanduliferum* Franchet, but differs by having stipitatus glands on leaf abaxial surface, corolla trumpet-shaped with 7 lobes, 7.5–8.0 cm long, 8–10 cm in diameter and calyx 7-lobed.

Introduction

The genus *Rhododendron* L. is one of the largest genera of the family Ericaceae with many ornamental species with high horticultural value (Fang, 1999). The genus consists of about 1000 species and is distributed in Asia, Europe and North America. So far, 574 species have been recorded in China, of which 409 are endemic (Fang *et al.*, 2005). The southwest-central region of China, including Guizhou Province is possibly the region of the geographic origin of the genus *Rhododendron* (Fang and Ming, 1995).

Leigongshan National Nature Reserve is located at southeast Guizhou Province, China, which has rich natural plant resources, including approximately 24 species of *Rhododendron*. In 2011 and 2012, the authors conducted an intensive taxonomic survey of *Rhododendron* in this area, when a previously unknown specimen belonging to *Rhododendron* was found. The plant grew in evergreen broad-leaved forests on limestone hills (latitude 26°21'50"N, longitude 108°08'29"E) at an altitude of 1,400 m. After critical examination of herbarium specimens from GF, HGAS, GZAC and PE herbaria and carefully consulting relevant literature (Zhou and Yao, 1989; Zhang and Chen, 1990; Hu and Fang, 1994; Fang *et al.*, 1999; Fang *et al.*, 2005; Zhang and Zhang, 2007; Chen *et al.*, 2010a, b; Chen *et al.*, 2012; Yang *et al.*, 2012), this species was very distinct when compared with its morphologically closest matches. Thus it is described and illustrated herein as *Rhododendron leigongshanense* sp. nov.

***Rhododendron leigongshanense* C.H. Yang, Z.G. Xie, Y.F. Yu & Z.R. Yang, sp. nov. (Figs 1& 2).**

Diagnosis: The new species is morphologically similar to *R. magniflorum* and *R. glanduliferum*, but differs by its leaf abaxial surface with stipitatus glands, corolla trumpet-shaped with 7 lobes, 7.5–8.0 cm long, 8–10 cm in diameter, and calyx 7-lobed. More detailed morphological differences among these three species are given in Table 1.

Types: China. Guizhou: Leishan County, Leigongshan National Nature Reserve, Huxiongpo, 26°21'50"N, 108°08'29"E, altitude 1400 m, 25 June 2012, *Chenghua Yang* 7590 (fl) (*Holotype*: GF; *Isotypes*: HGAS, PE).

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Paratypes: China. Guizhou: Leishan County, Leigongshan National Nature Reserve, Huxiongpo, 3 July 2011, *Chenghua Yang & Zhengguo Xie* 7667 (fl) (GF); *ibid.* 8 July 2011, *Chenghua Yang & Zhengguo Xie* 7751 (GF); *ibid.* 8 September 2011, *Chenghua Yang & Yongfu Yu* 9232 (fr.) (GF).

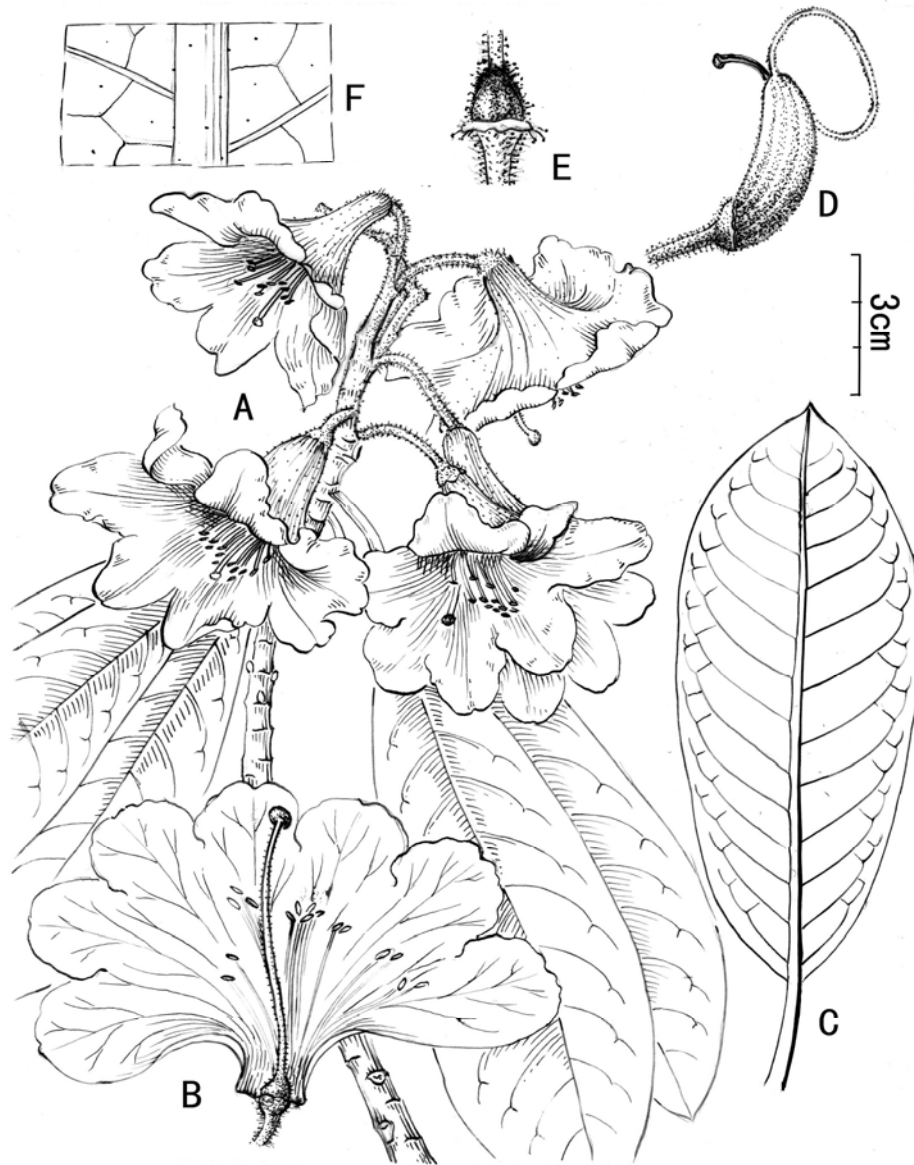


Fig. 1. *Rhododendron leigongshanense* C.H. Yang, Z.G. Xie, Y.F. Yu & Z.R. Yang, **sp. nov.** A. Flowering branch; B. Corolla (displaying); C. Leaf blade (adaxial surface); D. Capsule; E. Ovary (ampliate); F. Leaf blade abaxial surface (ampliate).



Fig. 2. *Rhododendron leigongshanense* C.H. Yang, Z.G. Xie, Y.F. Yu & Z.R. Yang, **sp. nov.** A. Habitat and habit; B. Leaf blade showing stipitate glands on leaf abaxial surface; C. Flower, showing trumpet-shaped corolla with 7 petals; D. Capsule.

Table 1. Comparison of morphological characteristics among *Rhododendron leigongshanense* sp. nov., *R. magniflorum* and *R. glanduliferum*.

Characters	<i>R. leigongshanense</i> sp. nov.	<i>R. magniflorum</i>	<i>R. glanduliferum</i>
Leaf blade	Oblong-elliptic	Oblong	Oblong-lanceolate or oblanceolate
Leaf surface	Abaxial surface stipitate, glandular-hairy	Abaxial surface smooth	Abaxial surface smooth
Lobes of calyx	7	5	7 or 8
Lobes of corolla	7	5	7 or 8
Corolla size	7.5–8.0 cm long	9.5–10.0 cm long	5–6 cm long
Corolla shape	Trumpet shaped	Tabulate - funneliform	Funneliform - campanulate

Evergreen small tree, 5 m tall, c. 16 cm in diameter; branchlets thick, cylindrical with stipitate glands. Leaf blade leathery or thick-leathery, 6–9 leaves on branch-top, pendulous; young leaves violet, densely stipitate glands and floccose; leaf blade oblong-elliptic, apex acute, base broadly cuneate, slightly asymmetry, 15–21 × 5.0–7.5 cm, margin revolute, abaxial surface stipitate glands; midrib, veins and lateral veins slightly grooved adaxially, midrib and lateral veins prominent abaxially, lateral veins 15–18 pairs. Petiole 2–4 cm long, glandular. Inflorescence racemose, 10 or 11-flowered, rachis light brown, 7.0–9.5 cm long, densely stipitate glands; bract lanceolate, abaxial thinly stipitate or non-stipitate glands, adaxial densely glands and villous; pedicels 3.5–4.5 cm long with densely long glands. Calyx 7-lobed, lobes semi-circle, disparate, 2–4 mm long, abaxial glandular, adaxial smooth. Corolla trumpet-shaped, 7-lobed, white, 7.5–8.0 × 8.0–10.0 cm, succulent, aromatic, rotund, abaxial stipitate or non-stipitate glands. Stamens 16, unequal, 4–6 cm long, filaments bald. Ovary conoid, 5–8 mm long, densely glands; style thick, 5–8 cm long, faint green, densely stipitate or non-stipitate glands to the tip; stigma pale, disk-like, 2–3 mm in diameter. Capsule cylindrical, 3.0–3.5 × 1.0–1.2 cm, slightly curved, densely stipitate or non-stipitate glands.

Phenology: Flowering from June to July; fruiting from October to November.

Etymology: The specific epithet is named after the type locality Leigongshan.

Vernacular name: Leigongshan Dujuan.

Distribution: So far, this species is only known from the type locality Leigongshan Nature Reserve, Leishan County, Guizhou Province, southwest China.

Habitat: This species grows in evergreen broad-leaved forests on limestone hills at 1,400 m.

IUCN Red List category: Since only one population and a total of 50 mature individuals of this species were found in the area from where the type collections were made, the species seems to be very rare and restricted in distribution. A preliminary conservation assessment for the species gave it Critically Endangered (CR) status, based on criterion D (population less than 50 mature individuals) of the IUCN Red List criteria (IUCN, 2011). Therefore, careful protection of the species is warranted.

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