

# 中国杜鹃属一新种

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**摘要:** 报道了中国贵州杜鹃属一新种——百纳杜鹃(*Rhododendron bainaense* Xiang Chen & Cheng H. Yang)。百纳杜鹃与红棕杜鹃(*R. rubiginosum* Franch.)相似, 但本种的叶为长圆形至卵形, 叶背鳞片大小近似、琥珀色、凹陷, 花冠较小、白色带浅粉色且不具有斑点, 花丝基部近无毛或仅部分被微柔毛, 花药淡褐色。目前该新种的资源量十分稀少, 野外调查仅发现 1 个种群含 3 株, 应该给予重点保护。

**关键词:** 百纳杜鹃; 杜鹃属; 新种; 中国

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## A New Species of *Rhododendron* (Ericaceae) from China

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**Abstract:** One new species, *Rhododendron bainaense* Xiang Chen & Cheng H. Yang from Guizhou Province, China is described and illustrated. *Rhododendron bainaense* is most similar to *R. rubiginosum* from which it differs mainly by having oblong to ovate leaf blades, subequal, amber and concave scales on leaf blades abaxial surfaces, a 2.5 cm long, pale pinkish white and spotless corolla, and nearly glabrous or partly puberulent filaments, and pale brown anthers. The new species is Critically endangered (CR), based on the IUCN Red List Categories and Criteria, since there is only one population that includes 3 mature individuals found so far during the field work, therefore, careful protection is highly desired.

**Key words:** *Rhododendron bainaense*; *Rhododendron*; New species; China

As the largest genus in the family Ericaceae, the genus *Rhododendron* L. is well known because of the highly appreciated values to the world horticultural and the flora of China. Baili *Rhododendron* Nature Reserve, a 125.8 km<sup>2</sup> highland located in the northwest Guizhou, China, comprises approximately 35 species of the genus<sup>[1]</sup> and contains one of the largest natural *Rhododendron* communities in the World<sup>[2]</sup>. From the years 2007 to 2010, the authors conducted an intensive taxonomic survey

of *Rhododendron* in the region. Based on careful examination of hundreds of similar herbarium specimens and the relevant literature<sup>[3-5]</sup>, we describe one previously undescribed species here.

***Rhododendron bainaense*** Xiang Chen & Cheng H. Yang sp. nov. Figures 1 and 2.

(*R.* subgen. *Rhododendron*, sect. *Rhododendron*, subsect. *Heliolepidia* (Hutch.) Sleumer)

Small trees, evergreen, 5 m tall; young shoots

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densely scaly. Petiole 7–10 mm, scaly; leaf blades aggregate towards the tip, fragrant when crashed, oblong to ovate, 4–6 cm×2–3 cm; base obtuse; apex obtuse to rounded, with mucronation; abaxial surface scales dense, nearly contiguous to 1× their own diameter apart, subequal, amber, concave; adaxial surface scales sparse, 2–4× their own diameter apart, unequal. Inflorescence terminal, umbellate, (4–)5–6-flowered; rachis ca. 5 mm. Pedicel 10–13 mm,

densely scaly; calyx undulate, lobes 5, ca. 1 mm, scaly; corolla broadly funnelform-campanulate, pale pinkish white, without spots, ca. 2.5 cm, outer surface scaly, glabrous inside; lobes 5, ovate, margin serrate; stamens 9–10, unequal, 2–3 cm, slightly longer than corolla; filaments nearly glabrous or partly puberulent at base; anthers pale brown; ovary densely scaly; style 3–3.3 cm, exserted from corolla, glabrous. Capsule cylindric, 12–17 mm. Fl. Mar.–Apr., fr. Aug.–Sep.

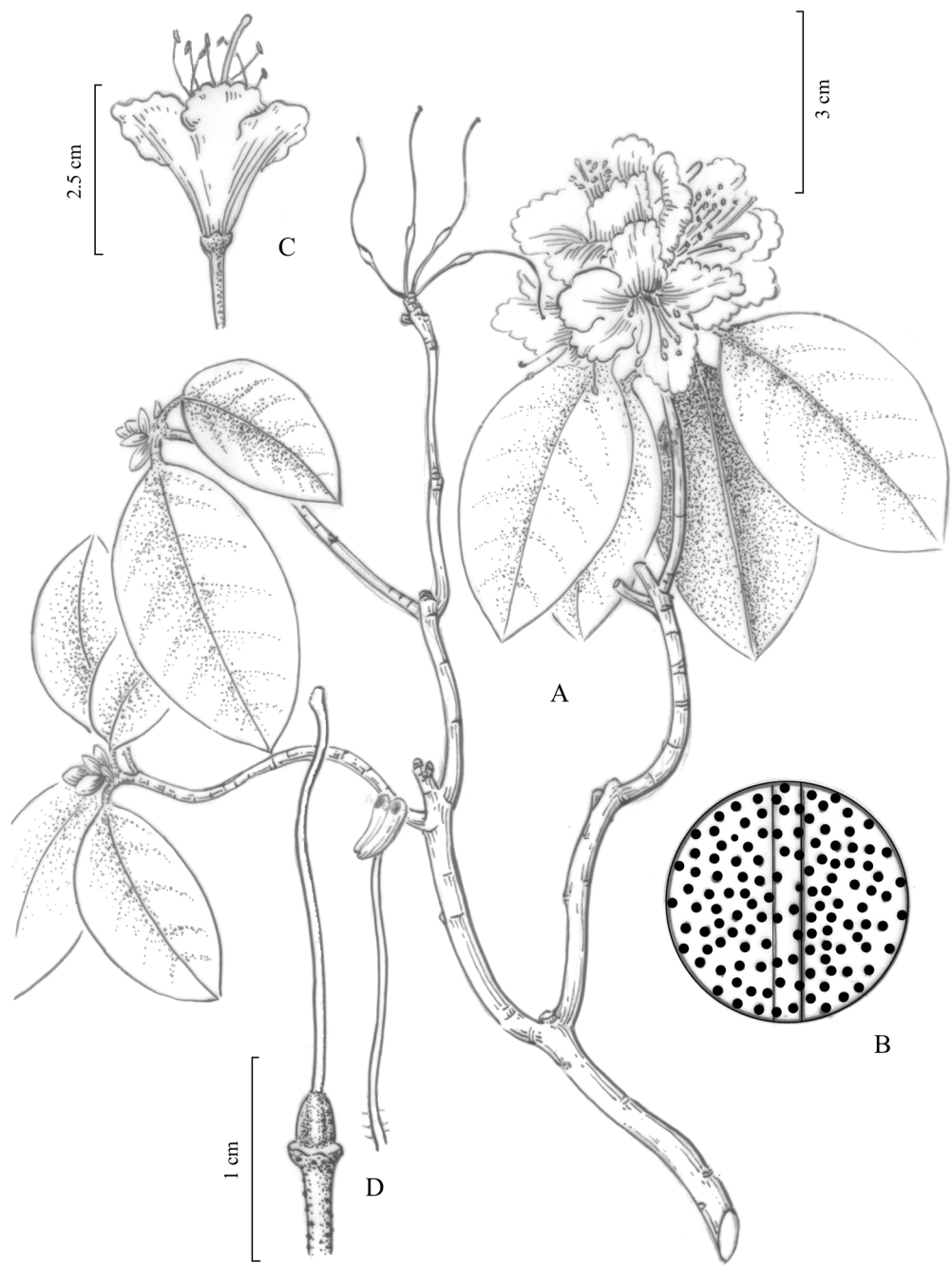


Fig. 1 *Rhododendron bainaense* Xiang Chen & Cheng H. Yang. A. Flowering branch; B. Enlarged part of leaf blade abaxial surface; C. Corolla; D. filament, ovary and style. [Drawn by H. Xie from the holotype Chenghua Yang & Xiang Chen 07376 (HGAS)].



Fig. 2 Flowering branches of *Rhododendron bainaense*. (Photographed by Cheng-hua YANG)

**Distribution and habitat:** China. Guizhou: Baili Rhododendron Nature Reserve, Baina, Jiulong Mt., 27°18'N, 105°52'E, alt. 1920 m, slope, in thickets dominated by *Fargesia spathacea* Franch. and *Berberis deinacantha* Schneid., 5 Apr. 2007, Cheng-Hua Yang & Xiang Chen 07376 (holotypus, HGAS; isotypus, IBSC, GF); Guizhou: Bijie, Baijiashao, alt. 1700 m, slope, 7 Apr. 1982, Yun-Yan Wang & Yong Li 82024 (paratypus, HGAS).

**Etymology:** The species is named after its type locality, Baina, Baili Rhododendron Nature Reserve, Guizhou, China.

This species is most similar to *Rhododendron rubiginosum* Franch.<sup>[6-9]</sup>, but differs mainly by having oblong to ovate leaf blades with obtuse to rounded apex (vs. usually elliptic or elliptic-lanceolate leaf blades with acuminate apex), subequal, amber and concave scales on leaf blades abaxial surfaces (vs. unequal, rust-brown and usually glandlike scales on leaf blades abaxial surfaces), a smaller, pale pinkish white and spotless corolla (vs. a bigger, usually rose-

red or pale red, and inside with purplish red spots corolla), and nearly glabrous or partly puberulent filaments (vs. pubescent filaments), and pale brown anthers (vs. deep brown anthers).

Since there is only one population that includes 3 mature individuals and a few seedlings of this species were found in the area where the type collection was made, we make a preliminary conservation assessment for the new species as Critically Endangered (CR), based on criterion D (population less than 50 mature individuals) of the IUCN Red List criteria<sup>[10]</sup>. Therefore, careful protection for the species is desired. The current major threats to the species are human disturbance or damage (recreation/tourism), since its locality is a scenic spot in a rural mountain setting, and habitat loss (agriculture), despite the fact that the region is a provincial nature reserve.

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References

[1] Chen X, Huang J Y, Xie H, et al. Study on the plants of *Rhododendron* (Ericaceae) from Baili Rhododendron Nature Reserve in China [J]. Guizhou Sci, 2010, 28(4): 26–34,39.(in Chinese)

[2] Yang C H, Li G Y, Deng L X, et al. A study on *Rhododendron* species and ornamental characteristics in Baili Dujuan Nature Reserve of Guizhou [J]. J W China For Sci, 2006, 35(4): 14–18,39.(in Chinese)

[3] Chen X, Wu H M. *Rhododendron* Species from Guizhou, P. R. China [M]. Guiyang: Science and Technology Press of Guizhou, 2003: 1–44.(in Chinese)

[4] Gibbs D, Chamberlain D, Argent G. The Red List of Rhododendrons [M]. Richmond: Botanic Gardens Conservation

International, 2011: 4–124.

[5] Zhang X S, Chen X. Ericaceae [M]// Li Y K. Flora Guizhouensis Tomus 3. Guiyang: The People’s Press of Guizhou, 1990: 210–233.(in Chinese)

[6] Fang M Y, Fang R C, He M Y, et al. Ericaceae [M]// Wu Z Y, Raven P H. Flora of China Vol. 14. Beijing: Science Press & St. Louis: Missouri Botanical Garden, 2005: 260–455.

[7] Yang H B, Fang R Z, Jin C L. Ericaceae [M]// Fang R Z. Flora Reipublicae Popularis Sinicae Tomus 57(1). Beijing: Science Press, 1999: 13–88.(in Chinese)

[8] Fang R Z, Ming T L. Ericaceae [M]// Wu Z Y. Flora Yunnanica Tomus 4. Beijing: Science Press, 1986: 339–446.(in Chinese)

[9] He M Y, Zhao Z J. Ericaceae [M]// Gao B C. Flora Sichuanica Vol. 17. Chengdu: Sichuan Press Group and Sichuan Nationality Press, 2007: 102–234.(in Chinese)

[10] IUCN. IUCN Red List Categories and Criteria: Version 3.1. IUCN Species Survival Commission [M]. Gland, Switzerland & Cambridge, UK. 2001: 16–18.