# 国产尖叶蛇根草(茜草科)的订正

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摘要:中国文献中记载的尖叶蛇根草(Ophiorrhiza hispida Hook. f.)以及采自中国鉴定为该种的标本均实为近簇花蛇根草(O. pseudofasciculata Schanzer),在此予以纠正。 关键词:近簇花蛇根草;簇花蛇根草;修订;云南 doi:10.11926/jtsb.3750

### Notes on Ophiorrhiza hispida (Rubiaceae) from China

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**Abstract:** *Ophiorrhiza hispida* was reported from China in many documents. According the specimens and field investigation, it is misidentification of O. pseudofasciculata.

Key words: Ophiorrhiza pseudofasciculata; O. fasciculata; Revision; Yunnan

*Ophiorrhiza* L. (Rubiaceae) is an Indo-Malesian genus consisting of 200–300 species of annual or perennial herbs or rarely sub-shrubs that could be distinguished from other genera by their obcordate and compressed capsules that are dehiscent with two valves along a transverse slit at the top<sup>[1–5]</sup>. China is one of distribution centers of the genus, with 70 species (49 endemics) mainly in Yunnan and Guangxi<sup>[4]</sup>. However, circumscriptions of most *Ophiorrhiza* species from China are based on limited field observations and insufficient knowledge of their flowers<sup>[3–4]</sup>. There were some species with taxonomic problems that need to be sovled<sup>[5–10]</sup>.

Ophiorrhiza hispida Hook. f. is one of such

species. It was described by Hooker in 1880 based on the collections from Khasia Mountain, Northeastern India, and was firstly reported in China by Lo (1990) based on the collections (C. W. Wang 74855, 76767, 77907, G. D. Tao 13025, S. H. Chen 10261, S. J. Yi 136, S. S. Sin 324, T. T. Yu 15920, Y.H. Li 12321, Y. Tsiang 12518, 12511) from Yunnan. Lo<sup>[3]</sup> provided a detailed description and noted that the short-styled flowers and long-styled flowers were similar in corollas colour, shape and indumentum, but differed in the position of stamens and stigmas inside. Chen and Taylor <sup>[4]</sup> doubted its occurrence in China and pointed out the circumscription of this species by Lo<sup>[3]</sup>

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described<sup>[11]</sup>. Meanwhile, they also indicated that the plants treated as *O. hispida* by Lo key to *O. fasciculata* in Deb and Mondal' treatment. However, they failed in confirming the occurrence of this species in China and only followed the treatment of  $Lo^{[3]}$ .

Based on our field observations and examinations of specimens including the type materials and relevant references<sup>[2-4,11-15]</sup>, we confirmed that Chinese specimens that were identified as *Ophiorrhiza hispida* are misidentification of *O. pseudofasciculata* Schanzer, a species originally described from Thailand. *Ophiorrhiza pseudofasciculata* Schanzer 近 簇花蛇根草(新拟) Fig. 1: A-E.

*Ophiorrhiza pseudofasciculata* Schanzer in Thai Forest Bull. (Bot.) **33**: 163. f. 3. 2005. Type: Thailand. Nan: J. F. Maxwell 98-805. (holotype BKF; isotype CMU).

*O. hispida* auct. non Hook. f.: Lo in Bull. Bot. Res., Harbin 10(2): 32. 1990 et in Fl. Reipubl. Popularis Sin. 71(1): 134. f. 32, 11–17; Chen in Fl. Yunnan. 15: 65. 2003; Chen et Tarlor in Fl. of China 19: 270; Zhu et Yan in Native Seed Plants in Xishuangbanna of Yunnan 281. 2012.



Fig. 1 *Ophiorrhiza pseudofasciculata*. A: Habit; B: Inflorescence side view and bracts; C: Long-styled flower; D: Short-styled flower; E: Stipule. *O. hispida;* F: Habit. (Bars=5 mm)

**Discussion:** Lo (1999) described that the corollas of both long-styled and short-styled flower forms of *Ophorrhiza hispida* from China were similar. However, after examining specimens that identified as this species in Herbaria and field investigation, we found the indumentum within corollas are quite different between these two forms. The corollas of long-styled flowers are the same with Lo's discriptions<sup>[3]</sup> that with villous ring inside the middle of tubes, but it is only sparsely pubescent in short-styled flowers. Both flower forms are included within the circumscription

#### of O. pseudofasciculata.

*Ophiorrhiza pseudofasciculata* resembles *O. hispida* (Fig. 1: F) by sharing herbaceous habits, moderately villous or hispid stems and congestedcymose inflorescences, but differs from the latter by its stipules, bracts and corollas. It is also similar to *O. fasciculata* as keyed out by Chen and Taylor<sup>[4]</sup>. However, it is distinctly different from the latter in flower characters. A morphological comparison among these three species is presented in Table 1.

Table 1 Morphological comparison among Ophiorrhiza fasciculate, O. hispida and O. pseudofasciculata

Character	O. fasciculata	O. hispida	O. pseudofasciculata
Stipule	Lanceolate with broad base, persistent	Oblong-lanceolate, persistent	Narrowly triangular, persistent or caducous
Bract	Lanceolate, to 1 mm wide	Linear-lanceolate or sometimes narrowly elliptic, 1.5–2 mm wide	Linear or narrowly lanceolate, to 1 mm wide
Corolla	Infundibular	Shortly infundibular	Cylindrical to narrowly infundibular
Corolla tube	Longer than 15 mm, glabrous inside in long-styled flower	ca. 5 mm or sometimes much shorter, villous at the throat	7-12 mm long, with villous ring at the middle inside in long-styled flower

**Conservation status:** In China, *Ophiorrhiza pseudofasciculata* is widely distributed in southern and southwestern Yunnan. This species usually grows along rivers under dense evergreen forests with good reproduction rate and habitat condition. Therefore *O*. *pseudofasciculata* is considered to be least concern (LC) according to the IUCN categories and criteria<sup>[17]</sup>.

Additional specimens examined: China. Yunnan: Cangyuan, Y. H. Li 324 (KUN), 12321 (KUN); Jinghong, C. W. Wang 77907 (KUN); Lancang, L. Wu 4857 (BNU, CSFI, CSH), C. W Wang 76767 (KUN); Lianghe, G. D. Tao 13025 (KUN), L. Wu 4920 (BNU, CSFI, CSH); Lincang, S. S. Sin 324 (IBSC); Mangshi, Y. F. Deng 24301 (BNU, IBSC); Menghai, C. W. Wang 74855 (IBSC); Mengla, Exped. Mengla 23938 (HITBC); Menglian, S.H. Chen 10261 (IBSC); Pingbian, P. I. Mao 383 (IBSC); Ruili, L. Wu 4953 (BNU, CSFI, CSH), S. J. Pei 14064 (HITBC); Shunning County, T. T. Yu 15920 (KUN, IBSC); Xishuangbannan, G. D. Tao 44902 (HITBC); Yongde, E. D. Liu 5702 (KUN), 5726 (KUN); Zhenyuan, Y. Tsiang 12518 (IBSC), 12511 (IBSC).

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