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Zhang WL, Gao JY, Liu Q. *Habenaria chlorina*, a newly recorded species of Orchidaceae from China[J]. *Plant Science Journal*, 2016, 34(1): 18-20

## 中国兰科玉凤花属一新记录种——缘毛玉凤花

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摘 要:报道了自云南发现的中国兰科植物一新记录种:缘毛玉凤花(Habenaria chlorina E.C. Parish & Rchb. f.),其花苞片边缘明显被毛而不同于属内其它种类。本种在植株和花部特征上与凸孔坡参(H. acuifera Wall. ex Lindl.)和坡参(H. linguella Lindl.)相似,但其唇瓣在距口的前缘不具有一个横生的脊而明显区别于后两者。

关键词:缘毛玉凤花;兰科;新记录;中国

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## Habenaria chlorina, a Newly Recorded Species of Orchidaceae from China

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**Abstract:** Habenaria chlorina E. C. Parish & Rchb. f. (Orchidaceae), a newly recorded species, is reported from China for the first time. The species is characterized by its floral bract with marginal short hairs. It is similar to *H. acuifera* and *H. linguella*, but differs by its spur having no ridge rising in front of the entrance.

Key words: Habenaria chlorina; Orchidaceae; Newly recorded; China

Habenaria Willd. (Orchidaceae, Orchidinae) is one of the largest genera of terrestrial orchids. It is well represented in both the New and Old World tropics and subtropics, with a few species extending into temperate areas, particularly in eastern Asia<sup>[1]</sup>. The principle centers of diversity of Habenaria are in Brazil, southern and central Africa, and east Asia<sup>[2-4]</sup>, and the genus is currently estimated to comprise 876 species<sup>[5]</sup>. Habenaria is represented by 58 species in China<sup>[6-11]</sup>. Habenaria chlorina, described below, is a newly recorded species from China.

## **缘毛玉凤花**(新拟, Fig. 1)

Habenaria chlorina E.C. Parish & Rchb. f., Trans. Linn. Soc. London 30: 140. 1874; Seidenf. & Smitinand, Orchids Thailand: 28, 726. 1959 – 1965; Seidenf., Dansk Bot. Ark. 31 (3): 106. 1977; Opera Bot. 114: 63. 1992.

Type: Myanmar, Amherst, Parish 245 (syntype K!)

Terrestrial, glabrous except for the bract margins. Stems 12 - 30 cm tall. Leaves 3 - 5, spreading, cauline and scattered in the lower stem

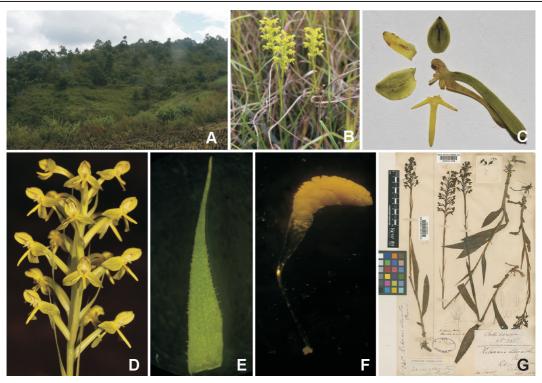
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A: Habitat; B: Plants; C: Each part of flower; D: Inflorescence; E: Bract; F: Pollinium; G: Type specimen collected in K herbarium.

Fig. 1 Habenaria chlorine E.C. Parish & Rchb. f.

half, lanceolate-oblong, apex acute, mucronate, (4-17) cm  $\times$  (0.4-1.1) cm, margins entire with pale semi-translucent border. Bract-like leaves 1 - 7, narrowly lanceolate, apex acute or acuminate, 1.4 - 5.5 cm long, erect or suberect, not or only basally sheathing and spreading above, margins with papillae or coarse stiff hairs. Inflorescences lax or semi-dense, 6 - 30-flowered; rachis 2 - 8 cm long; floral bracts narrowly lanceolate, apex acute or acuminate, (11 -17) mm  $\times$  (1 – 2.5) mm, slightly longer than the pedicel plus the ovary, with marginal short hairs similar to those on the bract-like leaves. Flowers yellow-green and spur greenish yellow. Ovary and pedicel 10 – 15 mm long, ridged but smooth. Dorsal sepal erect, oblong-ovate, apex obtuse, hooded, 3-veined,  $(3.6 - 5) \text{ mm} \times (2.5 - 3.5) \text{ mm}$ ; lateral sepals usually spreading, not or only weakly oblique-ovate, apex obtuse, 3-veined, (4-6) mm  $\times (2.6-3.9)$  mm. Petals erect and forming a hood with the dorsal sepal, ovateoblong, obtuse, 1-veined, (3.7-5.5) mm  $\times$  (1.2-2.4) mm. Lip deeply 3-lobed to near the base, without a raised ridge in front of the spur entrance; mid-lobe linear-oblong, (4.2-5.8) mm  $\times$  (0.5-1.4) mm; lateral-lobes narrowly triangular, acute angle with mid-lobe, 2.0-3.8 mm long. Spur cylindric, widened at the base and clavate in the apical third, 8.5-10.8 mm long; Gynostemium 2-3 mm long, anther canals 1.0-1.5 mm long, straight projecting forwards, stigma 1.5-1.8 mm long, pollinium 3.4-3.9 mm long. Fl. Aug. – Sep.

**Distribution:** Myanmar, Laos, Thailand and China.

China. Yunnan (云南): Mengzhe (勐遮), Menghai (勐海), terrestrial at the margin of monsoon evergreen broad-leaved forest, 1396 m, 2014-09-13, Liu Qiang & Zhang Wen-Liu 204 (HITBC).

Habenaria chlorina is similar to H. acuifera and H. linguella, but differs by its spur having no

ridge rising in front of the entrance. In addition, the floral bract with marginal short hairs is an obvious unique characteristic compared with other species in the genus *Habenaria*<sup>[12]</sup>. According to the illustration from the type specimen, the shape of the pollinium is ellipse and the caudicle is linear and curved upward, which might be incorrect (Fig.1: G). We anatomized the flowers and certified that the shape of the pollinium was obovate-oblong and the caudicle was nearly oblong and slender, which was the same as the illustration from the genus *Habenaria* in Thailand<sup>[3]</sup> (Fig.1: F).

Problematically, no holotype was assigned by the author when the first specimen of this species was published, but was taken from two specimens collected from K (Parish C.S.P., 124 and Parish C.S.P., 245 as the type specimen) [13]. According to the rules of the International Code of Nomenclature for Algae, Fungi and Plants, either of these two specimens could be the syntype but no one had the work to assign one specimen from syntype as the lectotype. Accordingly, in this paper, we assigned the specimen of Parish C.S.P., 245 (K, type) as the lectotype.

## References:

- [1] Pridgeon AM, Cribb PJ, Chase MW, Rasmussen FN. Genera Orchidacearum: Vol. 2 [M]. New York: Oxford University Press Inc. 2001.
- [2] Kurzweil H, Weber A. Flora morphology of southern African Orchideae II. Habenariinae [J]. *Nordic J Bot*, 1992, 12(1): 39-61
- [3] Kurzweil H. The genus *Habenaria* (Orchidaceae) in Thailand [J]. *Thai Forest Bulletin* (*Botany*), 2009: 7-105.
- [4] Batista JAN, Bianchetti LB, Miranda ZJG. A revision of

- Habenaria section Macroceratitae (Orchidaceae) in Brazil [J]. Brittonia, 2006, 58: 10-41.
- [5] Govaerts R, Pfahl J, Campacci MA, Holland-Baptista D, Tigges H, Shaw J, Wood J. Word Checklist of Orchidaceae [EB/OL]. 2011. The Board of Trustees of the Royal Botanic Gardens, Kew. http://apps. kew. org/wcsp.
- [6] 陈利君, 饶文辉. 广东发现细裂玉凤花[J]. 植物科学学报, 2008, 26(3): 255-258.

  Chen LJ, Rao WH. The Occurrence of Habenaria leptoloba (Orchidaceae) in Guangdong[J]. Plant Science Journal, 2008, 26(3): 255-258.
- [7] Chen SC, Cribb PJ. Habenaria Willdenow[M]// Wu ZY, Raven PH, eds. Flora of China: Vol. 25. Beijing: Science Press, 2009: 144-160
- [8] 王毅, 王燕. 中国兰科玉凤兰属一新记录种——奇花玉凤兰[J]. 植物科学学报, 2010, 28(6): 696-697.
  Wang Y, Wang Y. Habenaria anomaliflora, a new record of Orchidaceae from China[J]. Plant Science Journal, 2010, 28(6): 696-697.
- [9] 刘强,李剑武,殷建涛,谭运洪,文彬,黄文,殷寿华.中国 兰科玉凤花属—新记录种——勐远玉凤花[J].广西植物, 2012, 32(4): 440-441. Liu Q, Li JW, Yin JT, Tan YH, Wen B, Huang W, Ying SH. *Habenaria myriotricha*, a new record of Orchidaceae from Yunnan, China[J]. *Guihaia*, 2012, 32(4): 440-441.
- [10] 张文柳, 高江云, 刘强. 中国兰科玉凤花属—新记录种——岩生玉凤花[J]. 广西植物, 2015, 35(1): 75-76.

  Zhang WL, Gao JY, Liu Q. *Habenaria vidua*, a new recorded of Orchidaceae from Yunnan, China[J]. *Guihaia*, 2015, 35(1): 75-76.
- [11] Zhang ZB, Yang M, Cai SW, Huang BG, Wei YQ, Chen QQ, Zhao XH. A new species of *Habenaria* (Orchidaceae) from Guangxi, China [J]. *Phytotaxa*, 2015, 192 (2): 112-116.
- [12] Seidenfaden G. Orchid genera in Thailand V. *Habenaria* Willd[J]. *Dansk Botanisk Arkiv*, 1977, 3: 65-146.
- [13] Parish SB, Reichenbach HG. Habenaria chlorine [J].

  Transactions of the Linnean Society of London, 1874, 30:
  140.