DOI:10.3724/SP. J.1142.2011.10038

深圳拟兰,中国兰科一新种

陈利君1. 刘仲健1,2,3*

(1. 深圳市兰科植物保护与利用重点实验室,国家兰科植物种质资源保护中心/深圳市兰科植物保护研究中心,深圳 518114; 2. 清华大学深圳研究生院生物医药中心,深圳 518055; 3. 华南农业大学林学院,广州 510642)

摘 要: 对兰科新种深圳拟兰(Apostasia shenzhenica Z. J. Liu & L. J. Chen)作了描述和绘图。该新种产中国广东南部,与多枝拟兰(A. ramifera S. C. Chen & K. Y. Lang)和日本拟兰(A. nipponica Masamune)相近,但本新种的根生有块根;退化雄蕊明显长于花柱,而且上部约 1/3 不贴生于花柱,可以区别。

关键词:深圳拟兰(Apostasia shenzhenica); 兰科植物; 新种; 广东

中图分类号: Q949.71 *8.43

文献标识码: A

文章编号: 2095-0837(2011)01-0038-04

Apostasia shenzhenica, A New Species of Apostasioideae (Orchidaceae) from China

CHEN Li-Jun¹, LIU Zhong-Jian^{1,2,3}*

(1. Shenzhen Key Laboratory for Orchid Conservation and Utilization, The National Orchid Conservation Center of China and The Orchid Conservation & Research Center of Shenzhen, Shenzhen 518114, China; 2. The Center for Biotechnology and Biomedicine, Graduate School at Shenzhen, Tsinghua University, Shenzhen 518055, China; 3. College of Forestry, South China Agricultural University, Guangzhou 510642, China)

Abstract: This paper describes and illustrates *Apostasia shenzhenica* Z. J. Liu & L. J. Chen, a new orchid from South Guangdong in China. It is similar to *A. ramifera* and *A. nipponica*, from which it differs by having tuberoid-bearing roots and a staminode manifestly longer than the style and ca. 1/3 in length free from it.

Key words: Apostasia shenzhenica; Orchid; New species; Guangdong

Apostasia is a small genus of Apostasioideae, Orchidaceae with less than ten species, belonging to two sections: Apostasia section Apostasia and A. section Adactylus. It is mainly found in Southeast Asia, north to China and Japan, northwest to the Himalayas, and southeast to New Guinea and northern Australia^[1,2]. Until now, there have only been three species in China, two being widespread in tropical Asia and one endemic to Hainan island^[3,4].

The species discussed in this paper was recently collected from an eastern suburb of Shenzhen in southern Guangdong in late June. Several individuals were seen growing and scat-

tered in loose and rocky soil in a broad-leaved forest at an altitude of about 200 m. The plants were just coming into flower, although the yellow-green flowers did not open widely.

Our plant is similar in habit to *A. ramifera* S. C. Chen & K. Y. Lang and *A. nipponica* Masamune, despite these two species being found in Hainan and the other in Ryukyu Islands. The latter two species, however, both have a staminode slightly shorter than the style and almost entirely adnate to it with the exception of its tip, a feature commonly found in the members of *Apostasia* section *Apostasia*, but not in our species. In addition, our species showed no is similarity to *A. wallichii* R.

Received date; 2010-08-24, Accepted date; 2010-11-29.

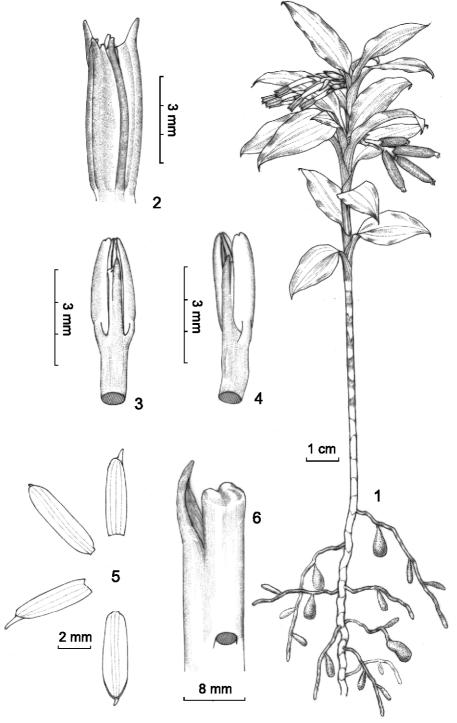
Foundation item: This project was financially supported by the National Program for Wildlife Conservation and Nature Reserve Construction, China (No. 2005-122); The Science & Technology Plan of Shenzhen, China (SY200704300157A). Biography: Chen Li-Jun(1980 –), Female, Engineer, mainly engaged in Orchidaceae.

^{*} Author for correspondence (E-mail:liuzj@sinicaorchid.org).

Br., which is a taller plant with linear or linear-lanceolate leaves 16-18 cm long and a apical awn up to 2-20 mm long. As a result, the Shenzhen plant is treated as a new species here, belonging to *Apostasia* section *Apostasia*.

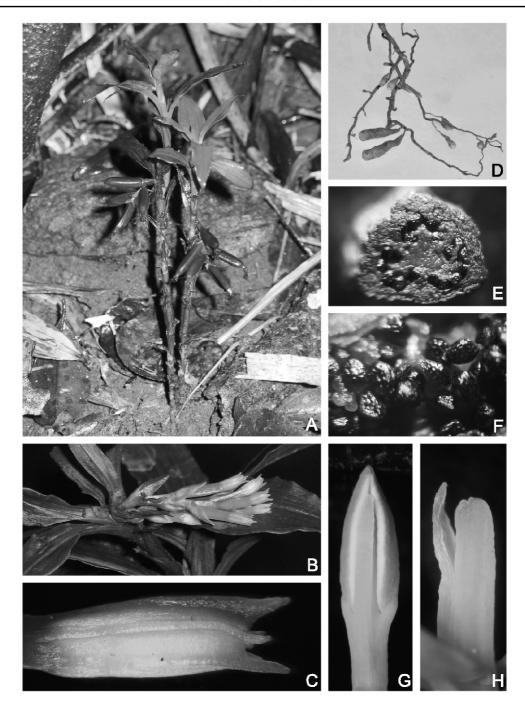
Apostasia shenzhenica Z. J. Liu & L. J. Chen, sp. nov. (Fig. 1, Fig. 2)

Type: China, Guangdong, Shenzhen, in the eastern suburb, in a broad-leaved forest, at an



1. Flowering and fruiting plant; 2. Flower; 3. Column, front view; 4. Column, side view; 5. Dorsal sepal, petal, lateral sepal and lip; 6. Staminode and stigma, side view.

Flg. 1 Apostasia shenzhenica



A. Fruiting plants in the wild; B. Inflorescence; C. Flower; D. Root; E. Fruit, cross section; F. Seeds; G. Column; H. Staminode and stigma, side view.

Fig. 2 Photographs of Apostasia shenzhenica

altitude of about 200 m, 20 June, 2009, Z. J. Liu 4541 (holotype, NOCC!).

Species nova Apostasia ramifera et A. nipponica similis, ab illis radicibus tuberoso-incrassatis, staminodio stylo manifeste longiore et longitudine ca. 1/3 stylum secedenti distincta; praeterea differt a illa inflorescentia paniculata, floribus non apertis; a hac loculis duobus aequibasalibus, stylo non bi-porcato infra staminodium.

The new species is similar to *Apostasia ra-mifera* and *A. niponica*, but differs by having tuberoid-bearing roots and a staminode manifestly

longer than the style and ca. 1/3 in length free from it. In addition, it differs from *A. ramifera* by its paniculate inflorescence and non opening flowers; and from *A. nipponica* by its two locules equal at base and style lacking two ridges below the staminode.

Suffruticose plant. Rhizome with many tuberoidbearing roots:tuberoids subglobose, 2-3 mm in diameter. Stem rather slender slightly ligneous towards the base, monochotomous-branched, 8 -12 cm long, 1.8 -2.2 mm thick, with a cylindrical sheath 5 -8 mm long below the middle, and 7 -10 or more leaves above. Leaves ovate or ovatelanceolate, 1, 6 -3, 2 cm \times 6 -12 mm, apex with a filiform awn 1 -1.5 mm long, base shortly petioled; petiole dilated and amplexicaul basally. Inflorescences paniculate, terminal, recurved, 1 -2. 2 cm long, with 4 -9 flowers; bracts ovate, 3 -4 mm long; pedicel and ovary 4 - 6 mm long; flowers pale green-yellow, not opening; sepals similar, narrowly elliptic, 2.7 - 3.5 mm × 0.9 -1.1 mm, abaxially with a longitudinal ridge extending to form a cusp at apex; petals similar, suboblong ,2. 5 -3 mm \times 1 -1. 2 mm, carinate abaxially; column terete, straight, ca. 0.5 mm long; stamens 2; free filaments ca. 0.3 mm long; anthers linear-lanceolate, 1. 2 - 1. 3 mm long, 0. 5 -

0.6 mm wide, with two locules equal at base; style 1.2 –1.3 mm long, terminated by a slightly 3-lobed stigma; staminode manifestly longer than the style and ca. 2/3 in length adnate to it. Capsules cylindrical, green, 1.1 –1.3 cm long, 2.5 – 3 mm in diam.

Flowering period: May and June.

Distribution: China, Guangdong, Shenzhen.

Habitat: In loose and rocky soil in broadleaved forest, at an altitude of about 200 m.

Acknowledgements: We thank Professor CHEN Sing-Chi for helping with the Latin diagnoses, and MA Xue-Yong for kindly preparing the drawing.

References:

- [1] Rolfe R A. Morphological and systematic review of the Apostasieae [J]. *J Linn Soc Bot*, 1889, 25: 211-243.
- [2] Vogel E B de. Monograph of the tribe Apostasieae (Orchidaceae) [J]. *Blumea*, 1969, 17 (2): 311 355.
- [3] Chen S C, Lang K Y. A revision of the orchid subfamily Apostasia [J]. *Acta Phytotax Sin*, 1986, 24 (5): 346-352.
- [4] Chen S C, Gale S W, Gribb P J. Apostasioideae [M]//Wu Z, Peter H R, eds. Flora of China 25. Beijing: Science Press & St. Louis: Missouri Botanical Garden Press, 2009: 20-21.

(责任编辑:王豫鄂)