

# 中国球兰属一新记录

张静峰<sup>1</sup>, 夏念和<sup>1,2\*</sup>, 李冬梅<sup>1</sup>, 黎素<sup>1,2,3</sup>

(1. 中国科学院华南植物园, 中国科学院植物资源与可持续利用重点实验室, 广州 510650; 2. 中国科学院华南植物园, 广东省数字植物园重点实验室, 广州 510650; 3. 中国科学院大学, 北京 100049)

**摘要:** 报道了夹竹桃科萝藦亚科(Asclepiadoideae, Apocynaceae)球兰属(*Hoya* R. Brown)一新记录种——万荣球兰(*H. vangviengensis* Rodda & Simonsson), 提供了该种的形态描述。并对球兰属中少数具有透明乳汁的种进行了概述。凭证标本存放于中国科学院华南植物园(IBSC)。

**关键词:** 球兰属; 中国; 新记录; 透明乳汁

doi: 10.11926/jtsb.3757

## *Hoya vangviengensis*, A Newly Recorded Species of *Hoya* (Asclepiadoideae, Apocynaceae) from China

ZHANG Jing-feng<sup>1</sup>, XIA Nian-he<sup>1,2\*</sup>, LI Dong-mei<sup>1</sup>, LI Su<sup>1,2,3</sup>

(1. Key Laboratory of Plant Resources Conservation & Sustainable Utilization, South China Botanical Garden, Chinese Academy of Sciences, Guangzhou 510650, China; 2. Guangdong Provincial Key Laboratory of Digital Botanical Garden, South China Botanical Garden, Chinese Academy of Sciences, Guangzhou, 510650, China; 3. University of Chinese Academy of Sciences, Beijing 100049, China)

**Abstract:** *Hoya vangviengensis* Rodda & Simonsson (Asclepiadoideae, Apocynaceae) is reported as newly recorded species from China. The description of the species is also provided. A small number species of *Hoya* R. Br. being non-laticiferous is introduced. The vouchers are deposited in the Herbarium of South China Botanical Garden, Chinese Academy of Sciences (IBSC).

**Key words:** *Hoya*; China; New record; Non-laticiferous

*Hoya* is the largest genus of about 350–450 species of Apocynaceae<sup>[1]</sup>. Most species diverse in tropical and subtropical South and Southeast Asia, but the distribution area of the genus extends all the way to the Himalayan foothills to the northwest, Okinawa to the northeast, Australia to the south and Fiji Islands to the southeast<sup>[2]</sup>.

The genus is represented by around 38 species and one variety in China<sup>[3]</sup>. Most of which are distributed in southwestern China which including southern Tibet, western Sichuan Province, western

Guizhou Province, Yunnan Province and Guangxi Province, the distribution area also include Southern China coastal which including Hainan Province, Guangdong Province, southern Fujian Province, Hong Kong, Macao and Taipei China<sup>[3–6]</sup>.

In July 2015, a handsome of *Hoya* in being non-laticiferous was collected by Mr. Mo from Malipo Xian, Yunnan Province, China, was brought to the first author for identification. It was not until March 2017 that the species blossomed in the Southern China Botanical Garden, Chinese Academy

Received: 2017-04-25

Accepted: 2017-06-14

This work was supported by the National Science and Technology Infrastructure Program of China (Grant No. 2015FY210100), and the Popular Science Project in Tianhe District, Guangzhou (Grant No. 2015kp031).

Zhang J F, female, major in resources and cultivated of *Hoya* species. E-mail: tuoluo@scib.ac.cn

\* Corresponding author. E-mail: nhxia@scib.ac.cn

of Sciences (SCBG). It was identified as *Hoya vangviengiensis* Rodda & Simonsson which was represented in Vang Vieng prov., Lao PDR by 2012<sup>[3,5,7]</sup>, new to China.

### 万荣球兰 新拟 Fig. 1

*Hoya vangviengiensis* Rodda & Simonsson, *Webbia* **67**: 23. 2012. Holotype: Lao PDR, Vientiane prov. Vang Vieng, 26 Apr. 2010, Tang, Rodda & Simonsson, LT10-076 (SING, photo!).

Epiphytic vine, non-laticiferous, epiphytic or twinning on the river side of the trees or rocks. Stems pendulous or twinning, up to 10 m long, cylindrical, 2–3 mm diam., pubescent. Internodes 2–15(20) cm long. Leaves opposite, petioles cylindrical, 5–20 mm × 2–4 mm pubescent; leaf blades ovate or broadly lanceolate, 8–18 cm × 3–5 cm, fleshy, becoming rather succulent when getting old, base rounded or rotund, margin slightly recurved, apex obtuse or acuminate, apex caudate with a tail 5–10 mm long, pubescent on both sides, dark green adaxially, greyish green abaxially; when fresh, midrib and lateral veins conspicuous on adaxial surface only, pinnate, secondary veins 4–5 on each side, basal ones mostly reached near the lamina margin, upper most held at an acute angle to mid vein, anastomosing along the lamina margin. Inflorescences perennial, interpetiolar, positively geotropic, umbelliform, convex, with up to 20 flowers, thick aroma; bractlets triangular, 3.5–4 mm × 1.6–2 mm, pilose, margin ciliate, apex acuminate; peduncle 10–30 mm × 1.5–2 mm, bearing scars of pedicle of previous year, pilose; pedicel 30–40 mm × 0.8–1.2 mm, aubergine or pale green, pilose; sepals lanceolate, 6–7 mm × 1–1.2 mm, acute apex, pilose, margin ciliate; corolla flat with revolute margins, white with pink spots, 20–22 mm in diam., hirsute adaxially, abaxially glabrous, margins ciliate, lobes broadly ovate, 6–8 mm × 6–7 mm, apices acute; gynostegium ca. 3 mm tall; corona lobes five, adnate vertically to gynostegium, fleshy, rhomboid, almost flat, 4–5 mm × 2–2.1 mm, outer process acute, with basal revolute margins; inner process apiculate, about 1 mm lower than the anther appendages; pollinaria

erect, ca. 840 μm long; pollinia oblong, ca. 692 μm × 240 μm, compressed, with round apex and base, and prominent pellucid margin, corpusculum ca. 250 μm × 150 μm, caudicles ca. 100 μm long; ovary bi-carpellate, broadly ovate, 1.2–1.5 mm tall, glabrous, light green. Fruits and seeds not seen. All measurements from fresh material prior to pressing.

**Distribution:** Lao PDR (Vientiane prov. Vang Vieng), China (Yunnan prov. Malipo County).

**Habitat:** *Hoya vangviengiensis* is only known from Malipo Xian, Wenshan Zhuang and Miao Autonomous Prefecture in Yunnan, where it epiphytic or twinning on the river side of the trees or rocks, 800 m. This species flowers from Mid-March to May.

**Additional specimens examined: China. Guangzhou:** SCBG, cultivated, 40 m, 15 Mar. 2017, Jing-Feng Zhang, ZJF-20170001, ZJF-20170002 (IBSC).

**Notes:** Most species of the genus *Hoya* R. Br. have coloured latex in all vegetative parts. But a small number of them is non-laticiferous (i.e. with clear sap in the foliage)<sup>[7]</sup>, e.g. *H. carnosa* R. Br., *H. carnosa* var. *gushanica* W. Xu, *H. cordata* P. T. Li & S. Z. Huang, *H. fungii* Hechi, *H. jianfenglingensis* S. Y. He & P. T. Li, *H. motoskei* Teijsm. & Binn., *H. revolubilis* Tsiang & P. T. Li and the above mentioned species of *H. vangviengiensis*. In addition, two species, *H. commutata* M. G. Gilbert & P. T. Li and *H. salweenica* Tsiang & P. T. Li, are morphologically similar to the above species that present clear sap, but no living plants of them are available to check whether they are also non-laticiferous or not. All these species occur towards the northeastern limit of the distribution area of the genus, in southwestern China, coastal regions of southern China and neighboring countries. Clear sap is not only limited to those Chinese species, but 3 species in Philippines or Borneo. e.g. *H. pubicalyx* Merr. from Philippines, *H. monetteae* T. Green and *H. ruthiae* Rodda from Borneo<sup>[1–2,7]</sup>. Generally, most species being lack of coloured latex is recognized by rotate corolla with thickly pubescent inside and rhomboid corona lobes with narrow inner and outer corona lobe processes<sup>[1]</sup>. But *H. ruthiae* is a special kind species that morphologically similar to *H. uncinata* Teijsm. &

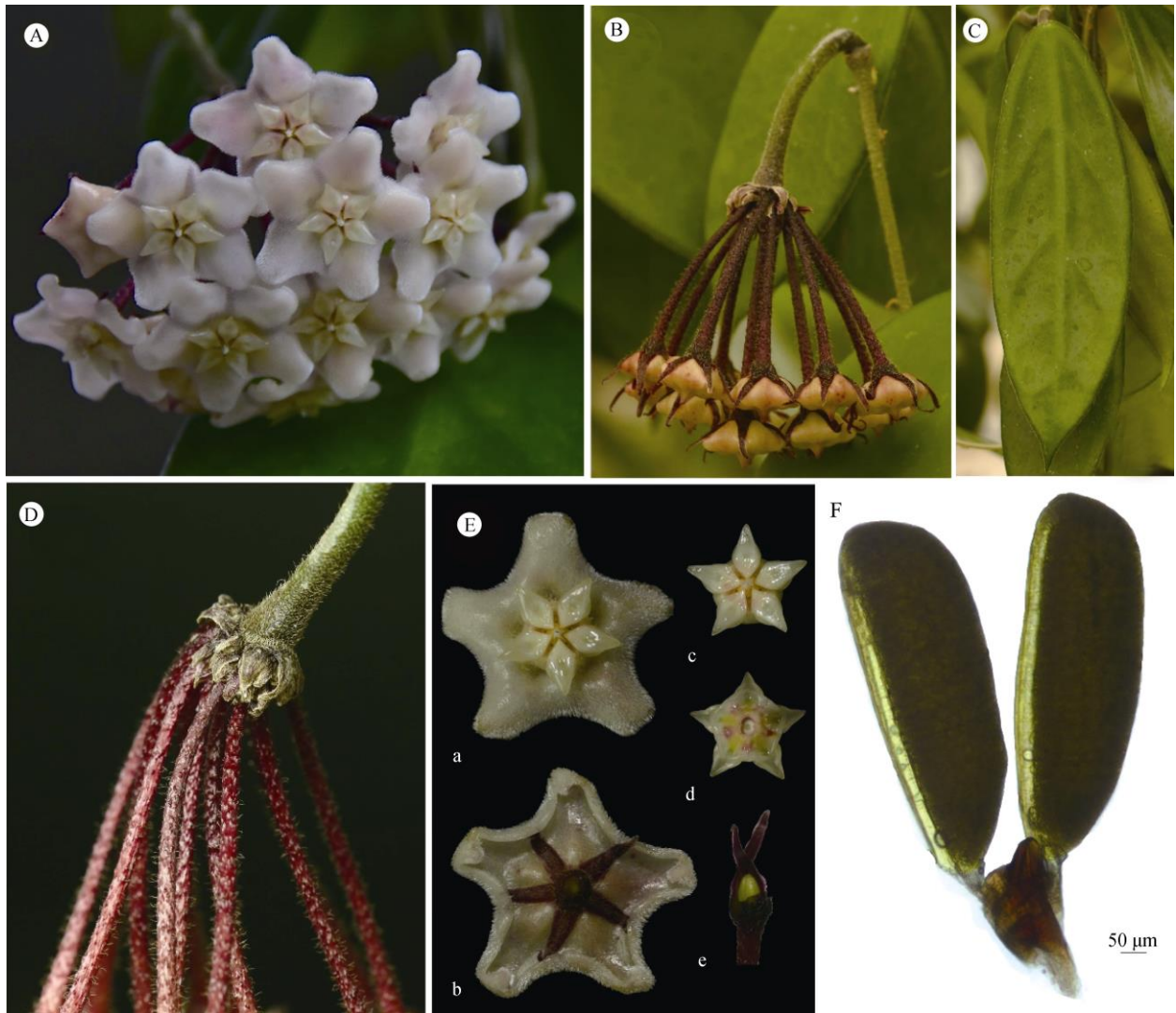


Fig. 1 *Hoya vangviengensis* Rodda & Simonsson. A, B. Inflorescences; C. Leaves; D. Bractlet and pedicel with pilose; E. Flowers; a: Corolla (apical view); b: Corolla (basal view) and calyx; c: Corona (apical view); d: Corona (basal view); e. Ovary; F. Pollinarium.

Binn. with coloured latex by deeply lobed rotate corollas and laterally compressed corona lobes<sup>[1]</sup>.

*Hoya vangviengensis* can be easily distinguished from these species being non-laticiferous by its sepals lanceolate, longer than 5 mm.

**Acknowledgments** We are grateful to the curators of the following herbaria for access to material under their care: HITBC, IBK, IBSC, KUN, A, K, PE, P, E, NY.

## References

- [1] RODDA M. Two new species of *Hoya* R. Br. (Apocynaceae, Asclepiadoideae) from Borneo [J]. *Phytokeys*, 2015, 53(53): 83–93.
- [2] LAMB A, RODDA M. A Guide to Hoyas of Borneo [M]. Borneo: Natural History Publications, 2016: 1–13.
- [3] ZHANG J F, BAI L, XIA N H et al. *Hoya yingjiangensis* (Asclepiadoideae, Apocynaceae), a new campanulate flowered species from Yunnan, China [J]. *Phytotaxa*, 2015, 219(3): 283–288.
- [4] WU C Y, RAVEN P H. Flora of China, Vol. 16 [M]. Beijing: Science Press & St Louis: Missouri Botanical Garden Press, 1995: 190–236.
- [5] WU C Y, LI X W. Flora Yunnanica [M]. Beijing: Science Press, 1983: 563–674. (in Chinese)
- [6] LI H L, LIU T S, HUANG T C et al. Flora of Taiwan [M]. Taipei China: Epoch Publishing Co Ltd, 1978: 236–239.
- [7] RODDA M, JUHONEWE N S. *Hoya vangviengensis* (Apocynaceae, Asclepiadoideae), a new species from limestone formations of Vang Vieng Lao PDR. [J]. *Webbia*, 2012, 67(1): 23–27.