



腺苞树萝卜, 中国杜鹃花科一新记录种

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腺苞树萝卜，中国杜鹃花科一新记录种

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摘要: 报道了中国杜鹃花科(Ericaceae)一新记录种: 腺苞树萝卜 [*Agapetes nana* (Griff.) Hook. f.]。该种以花萼筒基部具有一圈具柄的腺毛组成的副萼状总苞, 花冠筒裂至 2/3, 裂片反卷而与同属其他种类明显区别。该种原仅分布于印度东北部和缅甸北部, 现首次在中国发现其分布。同时, 提供了本种的描述和彩色图片, 并首次报道成熟的花部形态, 凭证标本保存于中国科学院西双版纳热带植物园标本馆(HITBC)。

关键词: 杜鹃花科; 树萝卜属; 腺苞树萝卜; 新记录

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Agapetes nana, A Newly Recorded Species of Ericaceae from China

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Abstract: *Agapetes nana* (Griff.) Hook. f. is reported as a newly recorded species of Ericaceae from China for the first time, which is previously known only from northeast India and north Myanmar. It is special and differs from its congeners by its distinct palisade of gland-tipped hairs which forms a sort of epicalyx at the base of calyx tube and corolla tube lobed to 2/3 with conspicuous reflexed lobes. A detailed description, a colour plate and taxonomic notes on the species were provided. Additionally, the morphology of its mature flowers is described for the first time. The voucher specimen is kept in the herbarium of Xishuangbanna Tropical Botanical Garden, Chinese Academy of Sciences (HITBC).

Key words: Ericaceae; *Agapetes*; *A. nana*; New record

Agapetes D. Don ex G. Don comprises approximately 100 currently recognized species^[1], most of which are distributed in the Asian subtropical monsoon region. It belongs to the tribe Vaccinieae Rchb.^[2], but the generic delimitation has not been solved satisfactorily due to the very closely related polyphyletic genus *Vaccinium* L.^[1-4]. This genus not only

contains ornamentally important taxa, with enlarged and swollen rootstocks and, in most species, beautiful and delicate flowers, but also forms an important component of the evergreen broad-leaved forest, mainly as epiphytes but occasionally terrestrial trees^[1].

During a field investigation to Yingjiang County, one specimen of an unusual *Agapetes* was collected.

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Detailed studies revealed that it did not match with any of the species so far reported from China^[1,5-7]. After examining all *Agapetes* species from neighboring countries, we found out that this species is identical to *A. nana* (Griff.) Hook. f., which was previously recorded only from Northeast India and North Myanmar^[8-11]. Therefore, a new distributional record of *A. nana* for the flora of China is presented in this study.

Agapetes nana (Griff.) Hook. f. in Benth. & Hook. f. Gen. Pl. 2(2): 571, 1876. (Fig.1)

≡ *Ceratostema nanum* Griff., Not. Pl. Asiat. 4: 303, 1854 & Ic. Pl. Asiat.: t.505, 1854. Type: India: Assam, Naga hills, 16 Mar. 1837, W. Griffith 26 (holotype: K000729410!).

= *Agapetes nana* (Griff.) Hook. f. var. *robusta* Airy Shaw, Kew Bull. 13(3): 474, 1958. Type: Myanmar. Sumpra Bum, 5 Mar. 1953, F. Kingdon Ward 22017 (holotype: BM000752865!).

Epiphytic shrubs, up to ca. 0.8 m tall. Twigs terete, with inconspicuous pale grey lenticels, 0.3–0.7 cm in diam., glabrous, young branches with ovate-lanceolate leaf-shaped bud scales, 0.4–0.7 cm×0.2–0.3 cm. Leaves spirally aggregated, pseudo-verticillate; petioles short, 3–4 mm long, glabrous; leaf blades coriaceous, ovate-elliptic to elliptic-oblong, 6.5–12.8 cm×3.0–4.5 cm, apex acute, base attenuate to obtuse, glabrous, margins entire, with inconspicuous nodulose thickening, slightly revolute when dry, midvein raised abaxially, slightly impressed adaxially, secondary veins 8–14 pairs, inconspicuous abaxially, lateral and reticulate veins forming a conspicuous intra-marginal vein. Raceme corymb-like, 12–18-flowered, 4–6 cm long, axillary or on leafless branches; peduncle stout, sub-fleshy, with sparse short glandular hairs, 1.5–2.2 cm long, bracts small, brown, triangular, ca. 0.7 mm×1.5 mm; pedicels stout, sub-fleshy, green, 1.2–1.6 cm long, ca. 1.5 mm in diam., with sparse short glandular hairs, with an epicalyx consisting of 12–18 conspicuous linear glandular ancillae (ca. 2 mm long) at the apex; bracteoles 2, brown, inserted at the base of pedicels, small, scale-like, triangular, ca. 1 mm

long. Calyx narrowly campanulate, 3–3.5 mm long, glabrous; calyx tube cylindrical, slightly pale green, ca.1.5 mm long, 1.5–2 mm in diam., calyx divided to middle; lobes lanceolate, 1.5–2 mm×0.8 mm. Corolla cylindrical-conical, 1.0–1.1 cm long, glabrous, maroon (dark red); corolla tube lobed to 2/3, lobes narrowly lanceolate to linear, 7–8 mm×3–3.5 mm, strongly reflexed at anthesis. Stamens 10, ca. 1.0 cm long; filaments flat, curved at upper part, ca. 3 mm long, pubescent upper part to middle; anthers 7.5–8 mm long, thecae reddish brown, ca. 3.5 mm long, papillate, tubules brownish yellow, 4.0–4.5 mm long; with 2 spurs abaxially, spurs ca. 2 mm long, downward; Style ca. 1.1 cm long. Berry sub-globose to depressed globose, 6–7 mm in diam., pinkish white when mature.

Distribution: China (Yunnan) (new record), India^[10], Myanmar^[11].

Habitat and ecology: It is an epiphytic shrub which grows on the trees in montane broad-leaved forests.

Phenology: Flowering from April to May; fruiting from May to June.

Chinese name: xiàn bāo shù luó bo (腺苞树萝卜) (新拟)

Notes: *Agapetes nana* is special among *Agapetes* because of its distinct palisade of gland-tipped hairs which forms a sort of epicalyx (Fig.1: F, leftmost)^[9]. Although *Agapetes miranda* Airy Shaw also has similar epicalyx^[12-13], it is very different from *A. nana* by the whole habit. As there are very few collections of this species, the previous descriptions of its flower were based on materials with young or late flowers^[9,11]. Airy Shaw indicated that the anthers of *A. nana* are devoid of dorsal appendages (spurs)^[9]. The most likely reason is that the dorsal appendages are not well developed when the flowers are young. Our collection possibly represents the first material with mature flowers of *A. nana*, so the characters of its mature flower can be described precisely, especially for the size and color of the corolla and the spurs on the back of anthers^[11]. Fortunately, we also collected the specimens with mature fruits, and the description of fruit was based on our collections from Myanmar

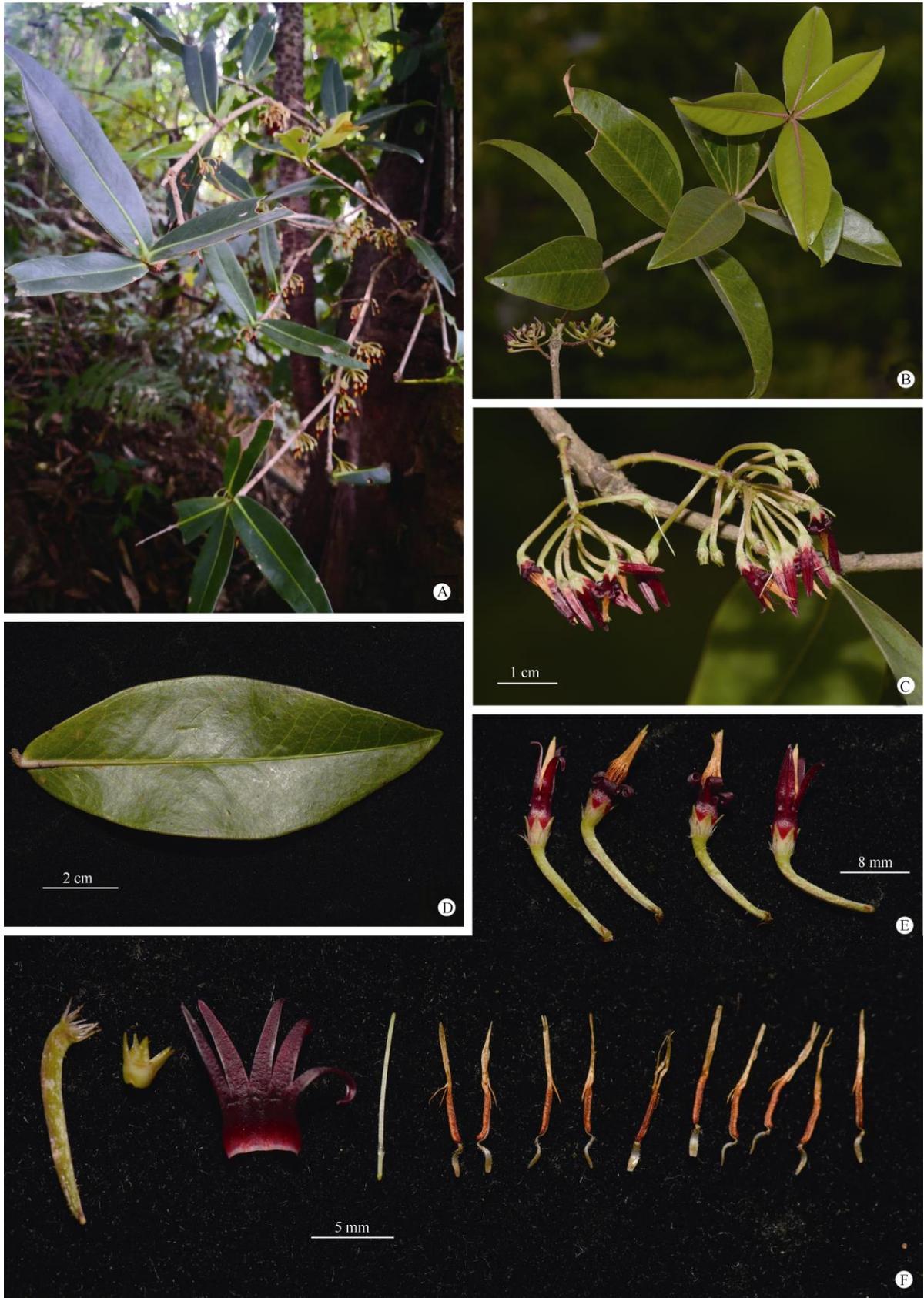


Fig. 1 *Agapetes nana* (Griff.) Hook. f. A: Habit; B: Flowering branch; C: Inflorescences; D: Leaf, adaxial view; E: Flowers; F: Flower dissection (from left to right): pedicel with epicalyx, ovary along with calyx, opened corolla, style, stamens. (Photographed: A by L. Y. Wang, taken from Tongbiguan Xiang, Yingjiang County; B–F by B. Yang, collected from Tongbiguan Xiang, Yingjiang County)

[Yun-Hong Tan et al. M4611 (HITBC), collected on 17 June 2018].

Airy Shaw indicated that *A. nana* var. *robusta* Airy Shaw is different from *A. nana* by its leaf shape and size (8.8–13.5 cm×3.3–5.0 cm vs. 5.0–9.5 cm×1.5–2.4 cm)^[9], according to our field observations and our collections from China and Myanmar, and our former discussion^[11], the leaf shape and size with variation within population and among different populations is understandable to be a universal phenomenon, so we hold the opinion that *A. nana* var. *robusta* Airy Shaw should be resolved as a synonym of *A. nana* (Griff.) Hook. f.

Voucher specimen: China. Yunnan: Yingjiang County, Tongbiguan Nature Reserve, 1 May 2020, Li-Yan Wang T0494 (HITBC); *ibid.*, 12 Jan. 2021, Bin Yang & Ping-Yuan Wang T864 (HITBC).

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