

越南爵床科一新记录属——恋岩花属

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摘要: 报道越南爵床科 1 新记录属——恋岩花属(*Echinacanthus* Nees)。长柄恋岩花(*E. longipes* H. S. Lo & D. Fang) 原仅记载分布于中国的广西, 在越南和中国云南为分布新记录。

关键词: 爵床科; 恋岩花属; 长柄恋岩花; 新记录; 越南

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Echinacanthus Nees (Acanthaceae), A Newly Recorded Genus from Vietnam

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Abstract: *Echinacanthus longipes* H. S. Lo & D. Fang (Acanthaceae), a species previously known only from Guangxi, China, has been found to occur also in Yunnan Province, China, and Vietnam. This represents the first record of the genus *Echinacanthus* Nees from Vietnam.

Key words: Acanthaceae; *Echinacanthus* Nees; *E. longipes* H. S. Lo & D. Fang; New record; Vietnam

In the course of studying the family Acanthaceae from Vietnam, some collections from Vietnam kept in herbaria CAS, GH, HN and MO were identified as *Echinacanthus longipes* H. S. Lo & D. Fang, a species previously known only from Guangxi, China^[1-4]. This represents the first record of the genus *Echinacanthus* Nees from Vietnam.

The genus *Echinacanthus*, characterized by the spurred anther cells and short bifid secund cymes, was established by Nees^[5] in 1832 based on *E. attenuatus* Nees. Many species have been described in the genus since then, but most of them did not fit the generic characters and were transferred to other genera^[3, 6-8]. Wood^[3] recognized four species in the genus: *E. attenuatus*, *E. longipes*, *E. longzhouensis* H.

S. Lo & D. Fang, and *E. lofouensis* (H. Lévl.) J. R. I. Wood. The latter two are shrubby and have different pollen grains from the former two species, and thus need further studies to determine their generic affiliation.

Echinacanthus Nees in Wall. Pl. As. Rar. **3**: 75, 90. 1832. TYPE: *E. attenuatus* Nees.

Perennial herbs or shrubs. Leaves opposite, serrate. Bracts narrow; bracteoles absent. Calyx deeply 5-lobed, glandular-hairy, subequal. Corolla purple, yellow, campanulate, 5-lobed. Stamens 4, didynamous, included; filaments connate into two pairs at base; anthers 2-celled, hirsute, cells parallel, spurred at base. Ovary 2-locular, 4~8 ovules per locule; styles filiform; stigma 2-lobed, the posterior

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one smaller. Capsules cylindric, many-seeded. Seeds subovoid, compressed.

Four species, distributed in Bhutan, China, Nepal and Vietnam.

Echinacanthus longipes H. S. Lo et D. Fang, Acta Bot. Yunnan. 7: 138. 1985. Type: CHINA. Guangxi Zhuangzu Autonomous Region, Napo Xian, Baidu Xiang, in woods, on limestone rocks, 1 220 m alt., 8 Apr., 1978, Wang Zhenggang et al. 3-1709 (holotype, GXMI).

Perennial herbs, caulescent or acaulescent, ca. 20 cm tall. Leaves chartaceous, oblong to lanceolate-oblong, rarely ovate or oblanceolate, 3~7(~11) cm × 1.5~3(~4) cm, apex acuminate or obtuse, base oblique, rounded or broadly cuneate, margin entire or slightly crenulate, adaxially dark grayish brown when dry, subglabrous, abaxially pilose or sometimes hairy along veins, densely covered with cystoliths on both surfaces, midvein elevated on both surfaces, lateral nerves 5~7 pairs, elevated on both surfaces, reticulate veins obscurely prominent beneath; petioles 1.8~4.5(~5.5) cm, densely hirsute. Cymes axillary, (1~) 2~4(~5)-flowered; peduncles longer than petioles, sometimes longer than leaves, 2~10 cm, densely hirsute; bracts leaf-like, 0.8~1 cm long; calyx 5-lobed almost to the base, lobes linear, 1.0~1.2 cm, up to 1.7 cm in fruiting, white pilose; corolla purple, straight, ca. 4 cm long, outside subglabrous, the tube ca. 2.5 mm at base, cylindrical for 1.3~1.5 cm, then gradually widening to ca. 1 cm at mouth, lobes oblong, ca. 6~8 mm × 5~6 mm; stamens 4, didynamous, filaments 5~6 mm, fused into two pairs at base, anthers 2-celled, subequal, ovate, 3 mm long, ciliate, spurred at base; ovary densely pilose, styles ca. 3.2 cm, pilose, stigma 2-lobed, prior lobe longer. Capsules cylindrical, c. 1.1 cm, densely pilose, 12~16-seeded. Seeds ca. 1.5 mm long, ellipsoid, flattened, with white margin.

Distribution. The species is found to occur in the boundary region between China (Yunnan and Guangxi) and Vietnam. It is newly recorded to Yunnan, China and Vietnam.

Ecology. The species grows on limestone rocks

in forests at altitudes of 400~2 000 m.

CHINA. Guangxi: Jingxi Xian, 10 Aug., 1977, Lin Yuan 3-54288 (GXMI); Longzhou Xian, 9 Nov. 1979, Exped. Longgang 11700 (HITBC, IBK, SYS); Napo Xian, 8 April, 1978, Wang Zhenggang 3-1709 (GXMI 2 sheets); the same locality, 1 200 m, 30 March 1990, Fang Ding & Zhong Xiaming 79732 (IBK); the same locality, 1 200 m, 18 Oct. 1979, Fang Ding & Liao Xinpei 22328 (GXMI, IBSC); the same locality, 12 Oct. 1977, Fang Ding 3-1356 (GXMI); the same locality, 12 Oct. 1977, Fang Ding 3-1356 (GXDC); the same locality, 1 220 m, 1 May 1981, Fang Ding, Qin Dehai & Wang Zhenggang 25079 (GXMI); the same locality, 1 600 m, 18 April 1977, Pan Baoqiang 3-5208 (GXMI 2 sheets); the same locality, 1 300 m, 8 Nov. 1998, Qin Haining et al 2481 (PE); the same locality, 1 000 m, 17 April 1998, Qin Haining et al 803 (PE); the same locality, 800~1 000 m, 16 Oct. 1997, A. Akiyama, H. Kudo, J. Murata, T. Sugawara, N. Tanaka, Y. Tateishi, Y. G. Wei & S. G. Wu 1106 (KUN); the same locality, 31 Aug. 2006, Wei Yigang 6383 (IBSC); the same locality, 1 200 m, 10 Jun. 1989, Wen Hequn w056 (US). Yunnan: Hekou Xian, 700-950 m, 21 Oct. 2001, Shui Yumin et al 15134 (KUN); the same locality, 1 000 m, 28 Mar. 2002, Y. M. Shui together with W. H. Chen, J. S. Sheng, S. D. Chang & C. L. Fang 20903 (KUN); Maguan Xian, 750 m, 3 May 2004, Shui Yumin, Chen Wenhong & Zhang Meide 40832 (KUN); the same locality, 1 030 m, 3 Oct. 2002, Shui Yumin et al s.n. (KUN); the same locality, 3 Oct. 2002, Shui Yumin, Chen Wenhong & Sheng Jiashu 30267 (KUN); the same locality, 600 m, 19 Dec. 2004, Shui Yumin, Chen Wenhong, Zhang Meide & Wei Zhidan 43727 (KUN); Malipo, 1 400 m, 17 May 2002, Shui Yumin, Fang Ruizheng, Chen Wenhong 21550 (KUN); the same locality, 1 400 m, 9 Dec. 1992, Wang Yingzheng 92100 (PE); the same locality, 1 000 m, 14 Feb. 1940, C. W. Wang 86766 (KUN, PE); the same locality, 1 500~2 000 m, 23 Nov. 1947, K. M. Feng 13586 (GH, KUN); Xichou Xian, 1 460 m, 26 May 1964, Wang Shouzheng 465 (KUN).

VIETNAM. Ha Giang: Quan Ba District,

520 m, 1 Apr. 2000, D. K. Harder, N. T. Hiep, L. V. Averyanov, N. Q. Hieu & K. Daria 4849 (CAS, HN, MO); Quan Ba District, 1 100 m, 3 Apr. 2000, D. K. Harder, N. T. Hiep, L. V. Averyanov, N. Q. Hieu & K. Daria 4969 (HN, MO); Vi Xuyen District, 500 ~ 1 050 m, 16 Feb. 2001, D. K. Harder & L. V. Averyanov 6431 (HN, MO). Cao Bang: Tra Linh District, 500~600 m, 25 May 1997, L. Averyanov et al VH 4956 (MO). Tuyen Quang: Na Hang District, 500~550 m, 22 Mar. 2001, N. T. Hiep, L. Averyanov & P. K. Loc HAL 186 (MO); Na Hang District, 450 ~ 550 m, 22 Mar. 2001, N. T. Hiep, L. Averyanov & P. K. Loc HAL 199 (MO). Bac Kan: Cho Don District, 900~1 000 m, P. K. Loc with L. Averyanov, N. A. Duc, T. V. Thao, M. V. Xinh, N. T. Vinh 741 (MO). Hoa Binh: Mai Chau District, 1 300~1 400 m, 7 Nov. 2002, D. K. Harder with N. T. Hiep, L. V. Averyanov, B. Hall, P. H. Hoang, N. Q. Hung & T. V. Thao 7931 (MO).

In *Echinacanthus*, *E. longipes* and *E. attenuatus* are herbs, while *E. longzhouensis* and *E. lofouensis* are shrubs. *E. longipes* differs from *E. attenuatus* in its cymes simple, rarely several arranged in spikes to ca. 5 cm long (vs. several in spikes to 10 ~ 20 cm long, sometimes branched).

Echinacanthus longipes, a species previously known only from Napo Xian, Guangxi Zhuangzu Autonomous Region, China and considered to be endemic to the country^[1-2], is actually much more widely distributed, occurring also in northern Vietnam. In recent years, after checking more herbarium specimens, many species previously known only

from China have been found to occur also in northern Vietnam, or vice versa^[9-10]. Certainly, the collaboration between Chinese and Vietnamese taxonomists will help to gain a better understanding of the flora of China and of Vietnam, especially that of the boundary regions.

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