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香姜，越南植物一新记录种

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摘要：据已有文献记载，香姜(姜科)(*Alpinia coriandriodora* D. Fang)仅分布于广西，现首次在越南发现其分布。该种在形态上与竹叶山姜(*A. bambusifolia* D. Fang)相近，但其叶片椭圆状披针形、唇瓣浅黄色及带红褐色条纹和花药附属体三角状而与后者有别。提供该种详细的形态学描述以及图版，亦包括在越南的分布及生态的资料。凭证标本保存于越南国立自然博物馆(VNMN)和中国科学院华南植物园(IBSC)。

关键词：姜科；山姜属；香姜；新记录；越南

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Alpinia coriandriodora D. Fang, A New Record for Flora of Vietnam

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Abstract: *Alpinia coriandriodora* D. Fang, (Zingiberaceae) previously known only from Guangxi Province, China is reported from Vietnam for the first time. It is similar to *A. bambusifolia* D. Fang but differs in having elliptic-lanceolate leaf blade, light yellow labellum with red-brown stripes and triangular anther crest. A detailed morphological description and colour plate of this species are given. Distribution and ecology information for the species is also provided. The vouchers are kept in the herbaria of Vietnam National Museum of Nature (VNMN) and South China Botanical Garden, Chinese Academy of Sciences (IBSC).

Key words: Zingiberaceae; *Alpinia*; *A. coriandriodora*; New record; Vietnam

The Genus *Alpinia* Roxb. is the largest in the Zingiberaceae with about 250 species[1]. It occurs throughout tropical Asia to subtropical Asia (Sri Lanka and the West Ghats of India to China, Japan, Southeast Asia, New Guinea, Australia as far south as the New South Wales, and the Pacific Islands as far east as Samoa [2–3].

In Vietnam, so far more than 30 species of this genus have been recorded[4–7]. During a field investigation to Bac Kan, two specimens of an unusual *Alpinia*

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species (Q. B. Nguyen & X. D. Vu SH 83 and Q. B. Nguyen & X. D. Vu SH 84) were collected. Detailed studies revealed that they did not match with any of the species so far reported from Vietnam. After examining all *Alpinia* species from neighboring countries, we found that this species is identical to *A. coriandriodora* D. Fang, which was previously recorded only from Guangxi, China[8–9]. Therefore, a new distributional record of *A. coriandriodora* and an addition to the Zingiberaceae flora of Vietnam are presented in this study.

Alpinia coriandriodora D. Fang, Acta Phytotax. Sin. **16**(4): 79, 1978. **Type**: China, Guangxi Zhuang Autonomous Region, Longzhou County, Xiadong Town, (transplanted in the Medicinal Plant Garden, Nanning City), 8 April 1978, D. Fang 78908 (holotype GXMI [barcode GXMI050954]!), isotypes GXMI [barcode GXMI050955, GXMI050956]). (Fig. 1).

Perennial herb, 80−150 cm high, clump-forming, with strong smell. Pseudostem slender, 6−10 mm in diameter; leaf blade elliptic-lanceolate, 13−16 cm × 2.5−3.3 cm, base cuneate, apex long caudate, cauda 2−4 cm long, glabrous; petiole 3−6 mm long; ligule bilobed, 3−5 mm long, margin ciliate, apex rounded. Leaf sheath glabrous. Inflorescence 5−10 cm long, rachis puberulent; bracts lanceolate, light green, 8−10 mm long. Flowers 2−4 per cincinnus, usually only 2 of them fertile; pedicel 1−1.5 mm long, pubescent; flower small; calyx tubular, 7−9 mm long, outer surface puberulent, split down to 1.5−2 mm on one side, apex shallowly trilobed, tip acute; floral tube 5−7 mm long, light red-brown; dorsal collora lobe oblong, light green, 5−7 mm long, 3−4 mm wide, apex cucullate, margin often ciliate; lateral corolla lobes slightly narrower than dorsal one, labellum light yellow with red-brown stripes, 5−6 mm×3−3.5 mm, stripes radiate from the middle to the margin; lateral staminodes linear, 3−6 mm long, filament oblong, 5−6 mm long, 2−3 mm wide, ca 1 mm thin, red-brown, pilose adaxially; anther curved when flowering, 3−4 mm long, ca 3 mm wide; anther crest triangular, entire, ca 1 mm long, ca 1.5 mm wide; style filiform, white, stigma cylindrical, slightly narrowed at base, margin ciliate; epigynous glands oblong, ca 2 mm long. Ovary cylindrical, 1−1.5 mm long, ca 1 mm in diameter, green. Capsules globose, 0.8−1 cm in diameter, red when mature; seeds light brown, aril white, membranous.

Distribution: Vietnam (Bac Kan), China (Guangxi).

Habitat and ecology: This species often grows in forest of limestone hills. It occurs at 230−860 m a.s.l.

Phenology: Flowering in April−June and fruiting in July−November.

Vietnamese name: Gừng đá.

Notes: *Alpinia coriandriodora* is the most similar species to *A. bambusifolia* in general habit, cincinnate inflorescences, but differs from the latter in having elliptic-lanceolate leaf blade, light yellow labellum with red-brown stripes and triangular anther crest (vs. narrowly lanceolate leaf blade, white labellum with red stripes and without anther crest) (Table 1).

Additional specimens examined: Vietnam. Bac Kan Province: Na Ri District, Liem Thuy commune, 860 m a.s.l., 21°58′14.7″ N, 106°05′09″ E, 07 April 2016, Q. B. Nguyen & X. D. Vu SH 83 (VNMN, IBSC); ibid., 860 m a.s.l., 21°58′03.2″ N, 106°02′52.6″ E, 11 April 2016, Q. B. Nguyen & X. D. Vu SH 84 (VNMN, IBSC).

China. Guangxi Zhuang Autonomous Region: Longzhou County, Xiadong Town, (transplanted in the Medicinal Plant Garden, Nanning City), 8 April 1978, D. Fang 78905 (GXMI [barcode GXMI050958, GXMI050958]); ibid., 7 May 1979, D. Fang & D. H.

Table 1 Morphological comparison of *Alpinia coriandriodora* and *A. bambusifolia*

	A. coriandriodora	*A. bambusifolia*
Leaf blade	Elliptic-lanceolate, 13−16 cm ×2.5−3.3 cm	Narrowly lanceolate, 3−25 cm ×0.7−3.5 cm
Calyx	Light yellow from base to middle and purple-red from middle to apex, 7−9 mm long	Pale purple-red, 9−11 mm long
Labellum	Light yellow with red-brown stripes, 5−6 mm×3−3.5 mm	White with red stripes, ca 9 mm ×6 mm
Anther crest	Triangular, entire, ca 1 mm long, ca 1.5 mm wide	Absent
Fruits	Globose, 8−10 mm in diameter	Cylindrical, 1−1.5 mmlong, 0.5−0.9 cm in diameter

Fig. 1 *Alpinia coriandriodora*. A: Inflorescence; B: Leaf; C: Ligule; D: Rhizome; E: Flower; F: Stamen; G: Fruit; H: Dissection of flower (from left to right): calyx, three corolla lobes, labellum, filament and anther, ovary and epigynous glands, style, stigma. From Q. B. Nguyen & X. D. Vu SH 83 and Q. B. Nguyen & X. D. Vu SH 84 (Photos: A, C−F, H by Q. B. Nguyen; B, G by X. D. Vu).

Qin 78917 (GXMI044623); ibid., 4 May 1967, Y. X. Gan 5098 (GXMI044624); ibid., 3 April 1961, W. G. Lu 20512 (GXMI044625), Guilin City, Yongfu County, Baishou Town, Sanhe Village, H. Z. Ye et al. 46716 (GXMI044626); ibid., 230 m a.s.l., 13 September 1974, C. Z. Gao & D. Fang 46673 (GXMI044622, GXMI044627).

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