



Aspidistra lianhuatanensis, a new species from Yunnan, China

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ABSTRACT: *Aspidistra lianhuatanensis*, a new species from Yunnan Province, China, is described and illustrated. It resembles *A. zhangii* in shape and color of stigma and style, but can be distinguished by the width of leaf blade, shape, color and size of perigone tube, color and size of perigone lobes, pollen color, and stigma size. It also resembles *A. multiflora* in color and size of perigone, but differs in the shape of perigone tube, pollen color, style shape and stigma size. Detailed description is provided.

KEY WORDS: *Aspidistra multiflora*, *Aspidistra zhangii*, China, new taxon, taxonomy, Yunnan.

INTRODUCTION

Aspidistra Ker-Gawler (1822: 628) (Asparagaceae), native to tropical and subtropical areas of East, Southeast and South Asia, comprises more than 220 accepted species and the number keeps fast growing (Liang and Tamura, 2000; Li, 2004; Tillich, 2005, 2008, 2014, 2023; POWO, 2025). During recent two years (2023 and 2024), at least 30 new taxa of the genus were described (Chinh *et al.*, 2023; Ding *et al.*, 2023; Lin *et al.*, 2023, 2024a,b; Lu *et al.*, 2023; Meng *et al.*, 2023; Pan *et al.*, 2023; Peng *et al.*, 2023, 2024; Averyanov *et al.*, 2024; Chu *et al.*, 2024; Ding *et al.*, 2024; Dong *et al.*, 2024; Liang *et al.*, 2024; Liu *et al.*, 2024; Vislobokov *et al.*, 2024). China is of the greatest diversity of the genus and about half of the *Aspidistra* species (over 110 species) have been recognized in China (Lin *et al.*, 2024a; POWO, 2025).

During a field survey of southeastern Yunnan Province, China in January 2025, an unknown *Aspidistra* species was collected in karst forest of Hekou County. After comparison with morphologically similar species, and consultation of herbarium specimens and relevant literature of *Aspidistra* species from southern China and neighboring countries, we reached the conclusion that it represents a new taxon, and described and illustrated it below.

TAXONOMIC TREATMENTS

Aspidistra lianhuatanensis H.C. Xi, R.K. Li & W.G. Wang, *sp. nov.* 蓮花灘蜘蛛抱蛋 Fig. 1

Type: China, Yunnan Province, Hekou County, Lianhuatan Town, in karst forest, 23.01°N, 103.44°E, elev. 299 m, 15 January 2025, R.K. Li, KQ2570 (holotype: HITBC!; isotype: HITBC!).

Diagnosis: The new species differs from the most morphologically similar species *Aspidistra zhangii*

(Averyanov *et al.*, 2016) in leaf blade wider, perigone smaller, campanulate, tube purple inside, pollen creamy white, and stigma smaller.

Description: Herbs perennial, evergreen, to 50 cm tall. **Rhizome** creeping, subterete, 4–10 mm in diameter, internodes very short. **Leaves** solitary on each node. **Petiole** erect, close to each other, adaxially grooved, 6–27 cm long, 1.5–3 mm in diameter, basal part covered by fibrous remains of cataphylls. **Leaf blade** elliptic, 17–35 × 7–10.5 cm, adaxially dark green, abaxially light green, apex acuminate, base gradually narrowed into petiole, margin entire. **Peduncle** white or white with purple spots, 15–45 mm long, 1–3 mm in diameter, with 2–4 bracts. **Bracts** white to purple, ovate to broadly ovate, 4–12 mm long. **Flower** solitary at the top of peduncle. **Perigone** campanulate, 9–11 mm long, 14–18 mm in diameter; tube white or white with purplish tint outside, purple inside, 8–10 mm long, 7.5–9 mm in diameter; lobes 6, explanate to revolute, subequal, triangular, apex blunt, 4–5 mm long, 3.5–4.5 mm wide at base, adaxially purple at base, white at apex, abaxially white. **Stamens** 6, inserted in the upper middle part of perigone tube; anthers ovoid, sessile, ca. 3 mm long, 1.8 mm wide; pollen creamy white. **Pistil** fleshy, broadly obconical, 7.5–9 mm tall, style creamy white, gradually broadening from the base to stigma, with 12 (6 tall and 6 much shorter) longitudinal ridges; stigma creamy white, convex, subrotund in front view, 6.5–8 mm in diameter, with 6 triangular lobes, lobes apex extend downwards and connect with the 6 tall ridges of style. Fruits not seen.

Etymology: The specific epithet “*lianhuatanensis*” refers to the type locality in Lianhuatan Township, Hekou County, Yunnan Province, China. Chinese name is proposed here as “蓮花灘蜘蛛抱蛋” (蓮花灘-refer to Lianhuatan, 蜘蛛抱蛋-refer to *Aspidistra*).

Phenology: *Aspidistra lianhuatanensis* was observed flowering in January.

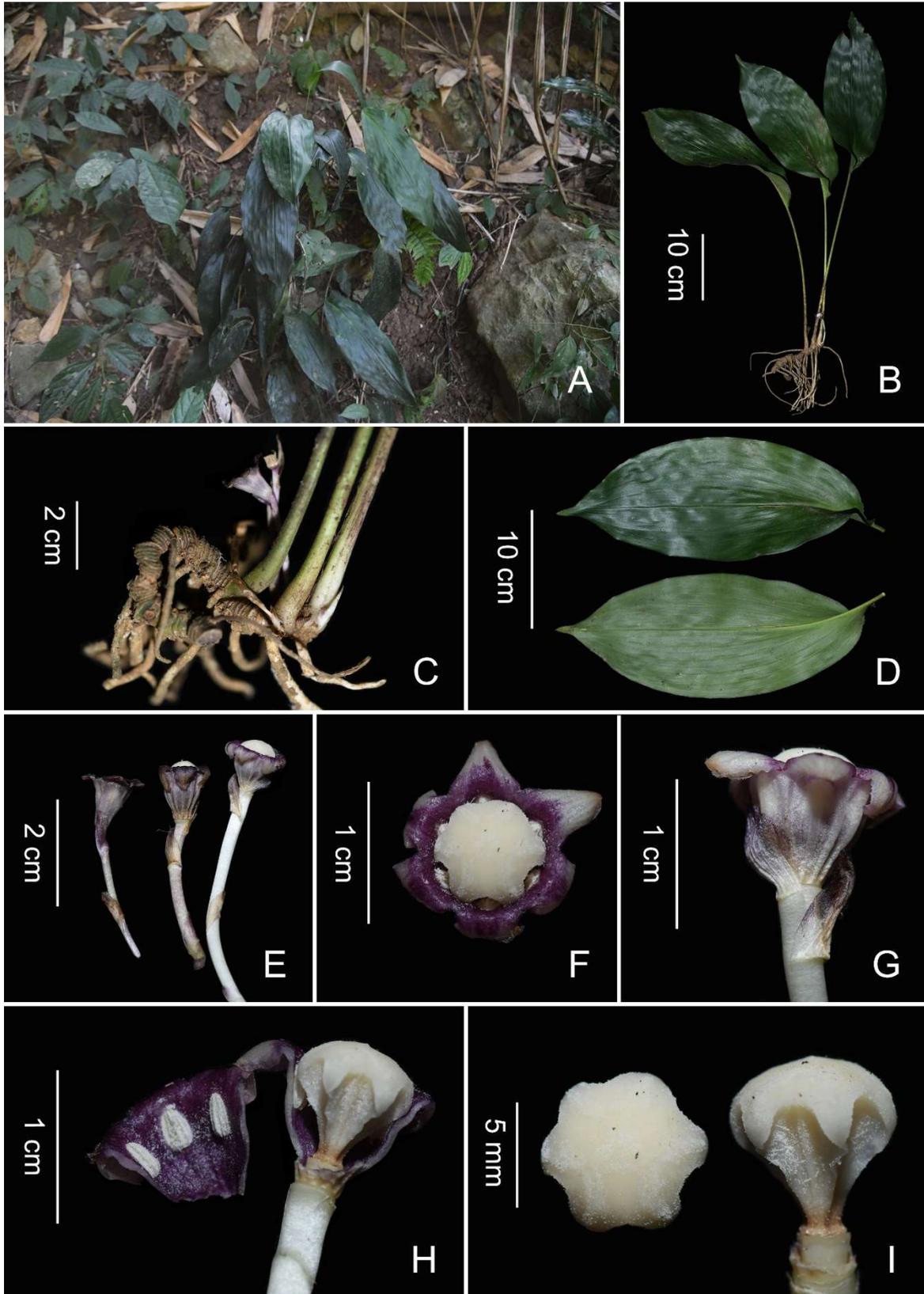


Fig. 1. Illustration of *Aspidistra lianhuatanensis* H.C. Xi, R.K. Li & W.G. Wang. A. Habitat. B. Plant. C. Rhizome. D. Leaf blade, adaxial and abaxial. E. Inflorescences. F. Flower, front view. G. Flower, side view. H. Dissected flower, showing stamens and pistil. I. Pistil, front and side view, showing stigma and style. (Photos by Ren-Kun Li.)

**Table 1.** Morphological comparison of *Aspidistra lianhuatanensis*, *A. zhangii* and *A. multiflora*.

Characters	<i>Aspidistra lianhuatanensis</i>	<i>Aspidistra zhangii</i>	<i>Aspidistra multiflora</i>
Leaf blade width	7–10.5 cm	(3.5)4–7(8) cm	(4)5–8(10) cm
Perigone tube shape	campanulate	widely obconical	urceolate
Perigone tube color	white or white with purplish tint outside, purple inside	white or white with greenish tint	white on both surfaces, with dark purple-brown stripes inside
Perigone tube size	8–10 × 7.5–9 mm	(13)14–16(17) × (18)20–22(24) mm	7.0–8.5(9.5) mm long and wide
Perigone lobes color	adaxially purple at base, white at apex, abaxially white	uniformly dark purple-brown to almost black	adaxially dark purple-brown, abaxially white speckled with dirty purple
Perigone lobes size	4–5 × 3.5–4.5 mm	(5.5)6–7(7.5) × (6.5)7–8(8.5) mm	4–5 mm long and wide
Pollen color	creamy white	bright yellow	bright yellow
Style shape	broadly obconical, with 6 tall and 6 short ridges	broadly obconical, with 6 tall and 6 short ridges	cylindrical, ridges absent
Stigma size	6.5–8 mm in diameter	(8.5)9–10(11) mm in diameter	(4)4.5–5(5.5) mm in diameter

Distribution and Habitat: *Aspidistra lianhuatanensis* is currently known only one population from the type locality in Hekou County, Yunnan Province, China. It grows in karst forest at an elevation of ca. 300 m a.s.l.

Conservation assessment: Only one population with about 50 individuals of *Aspidistra lianhuatanensis* is known up to now and the field investigation is far from sufficient. Based on the IUCN Red List Categories and Criteria (IUCN Standards and Petitions Committee, 2024), the new species is considered to be “Data Deficient” (DD).

Notes: The new species is most morphologically similar to *Aspidistra zhangii* in shape and color of stigma and style (especially style with 6 tall and 6 much shorter longitudinal ridges), but can be distinguished by its leaf blade width (7–10.5 cm vs (3.5)4–7(8) cm), perigone tube shape (campanulate vs widely obconical), color (white or white with purplish tint outside, purple inside vs white or white with greenish tint) and size (8–10 mm long, 7.5–9 mm wide vs (13)14–16(17) mm long, (18)20–22(24) mm wide), perigone lobes color (adaxially purple to white from base to apex, abaxially white vs uniformly dark purple-brown to almost black) and size (4–5 mm long, 3.5–4.5 mm wide vs (5.5)6–7(7.5) mm long, (6.5)7–8(8.5) mm wide), pollen color (creamy white vs bright yellow), and stigma size (6.5–8 mm in diameter vs (8.5)9–10(11) mm in diameter). *Aspidistra lianhuatanensis* also resembles *A. multiflora* (Averyanov and Tillich, 2014) in perigone color and size, but differs from it in perigone tube shape (campanulate vs urceolate), pollen color (creamy white vs bright yellow), style shape (with 6 tall and 6 much shorter longitudinal ridges vs cylindrical, ridges absent) and stigma size (6.5–8 mm in diameter vs (4)4.5–5(5.5) mm in diameter). Detailed morphological comparison of these three species is provided in Table 1.

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