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Aspidistra jingxiensis (Asparagaceae), a new species from Guangxi, China

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A new species *Aspidistra jingxiensis* Yan Liu & C.R. Lin (Asparagaceae) is described and illustrated from the limestone areas in the Guangxi Zhuangzu Autonomous Region, China. It is similar to *A. punctatoides* in the shape and size of the flowers, but differs in its perianth lobes 8 (occasionally 10), mushroom-shaped and white pistil, and the glabrous stigma upper surface with four radial, bifurcate deep grooves.

More than 100 species of the genus *Aspidistra* (Asparagaceae) — whose main centre of diversity is in China and Vietnam — have formally been described. In recent years, we had carried out field surveys in limestone areas, and several new species of *Aspidistra* have been described (Hou *et al*. 2009, Lin *et al*. 2009, 2010, Lin & Liu 2011, Liu *et al*. 2011).

During a field trip in the year 2000 to Jingxi County, Guangxi, near the border with northern Vietnam, we collected non-flowering specimens of *Aspidistra*. The plants were transferred to the Guilin Botanical Garden where they were cultivated for further study. The plants produced purple flowers in 2003, and in the following years, they flowered regularly. During the course of investigating limestone plants in June 2011, we collected a flowering plant near Jingxi County again. After consulting the relevant literature (Lang *et al*. 1999, Liang & Tamura 2000, Li 2004, Tang & Liu 2003, Tillich 2005, 2008, Xu *et al*. 2010) as well as herbarium specimens, we concluded that our specimens represented a new species, which is described here.

Aspidistra jingxiensis Yan Liu & C.R. Lin, *sp. nova* (Figs. 1 and 2)

Type: China. Guangxi Zhuangzu Autonomous Region, Jingxi County, alt. 635 m, limestone mountains, 7 June 2011, *Chun-Rui Lin & Yan Liu* 1102 (holotype IBK; isotype IBK).

Etymology: The specific epithet is derived from the name of the type locality, Jingxi County, Guangxi Zhuangzu Autonomous Region, China.

Herbs perennial, evergreen, rhizomatous. Rhizome creeping, subterete, 8–10 mm thick, covered with scales, nodes dense. Vaginal leaves 3–4, purple-red, 2–12 cm long, enveloping base of petiole, becoming black-brown when dry. Leaves solitary, ca. 5 mm apart; petiole stiff upright, 6–24 cm long, 3–4 mm thick, adaxially sulcate; leaf blade usually narrow elliptic to oblong-lanceolate, 28–35 cm long, 6–8 cm wide, dark green with small yellow-white spots on both surfaces, base cuneate to broadly cuneate, inequilateral, apex acuminate, margin entire. Peduncle decumbent or declining, 3–5 cm long, with 4–5 bracts, bracts gradually wider from base to top of peduncle, two most distal bracts

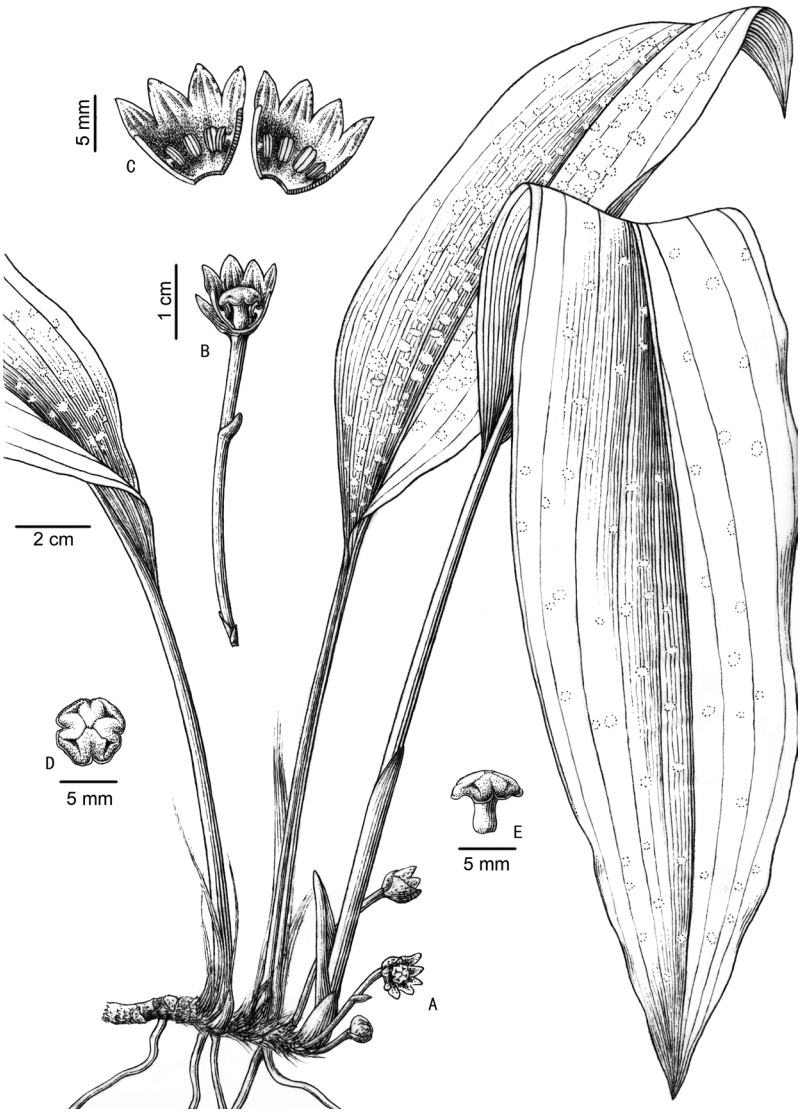

Fig. 1. *Aspidistra jingxiensis* (drawn from the holotype by Xi-Yun Zhu). — **A**: Flowering plant. — **B**: Flower with half of perianth removed showing stamens and pistil. — **C**: Perianth, dissected open to show stamens. — **D**: Stigma apical view. — **E**: Pistil.

adjacent to perianth broadly ovate-cucullate, purplish red, 6–8 mm long, 5–6 mm wide, apex subobtuse. Flowers solitary; perianth broadly campanulate, 10–12 mm long, fleshy, pale green-yellow with purple spots outside; lobes 8 (occasionally 10), usually suberect, ovate-triangular, 5–6 mm long, 3–4 mm wide at base, adaxially pale green-yellow with purple spots, and with 2–3 keels at base; tube 5–7 mm long, 8–10 mm in diameter, blackish purple inside. Stamens 8(10), opposite to lobes, inserted in middle of perianth tube, positioned lower than stigma, filaments horizontal, ca. 0.6 mm long, anthers oblong, pale yellow, 2–3 mm long and 1–1.5 mm wide. Pistil mushroom-shaped, white, ca. 6 mm long, ovary inconspicuous, style cylindrical, ca 4 mm long and 2 mm in diameter, stigma peltate, glabrous, 5–6 mm in diameter, upper surface nearly flat and with 4 radial, bifurcate deep grooves, 4-lobed at margin, lobes emarginate at apex. Flowering from May to June.

In the wild, *Aspidistra jingxiensis* is known only from the vicinity of the Jingxi county seat, in southwestern Guangxi Zhuang Autonomous Region, China, that borders northern Vietnam. It grows on shaded limestone slopes in evergreen

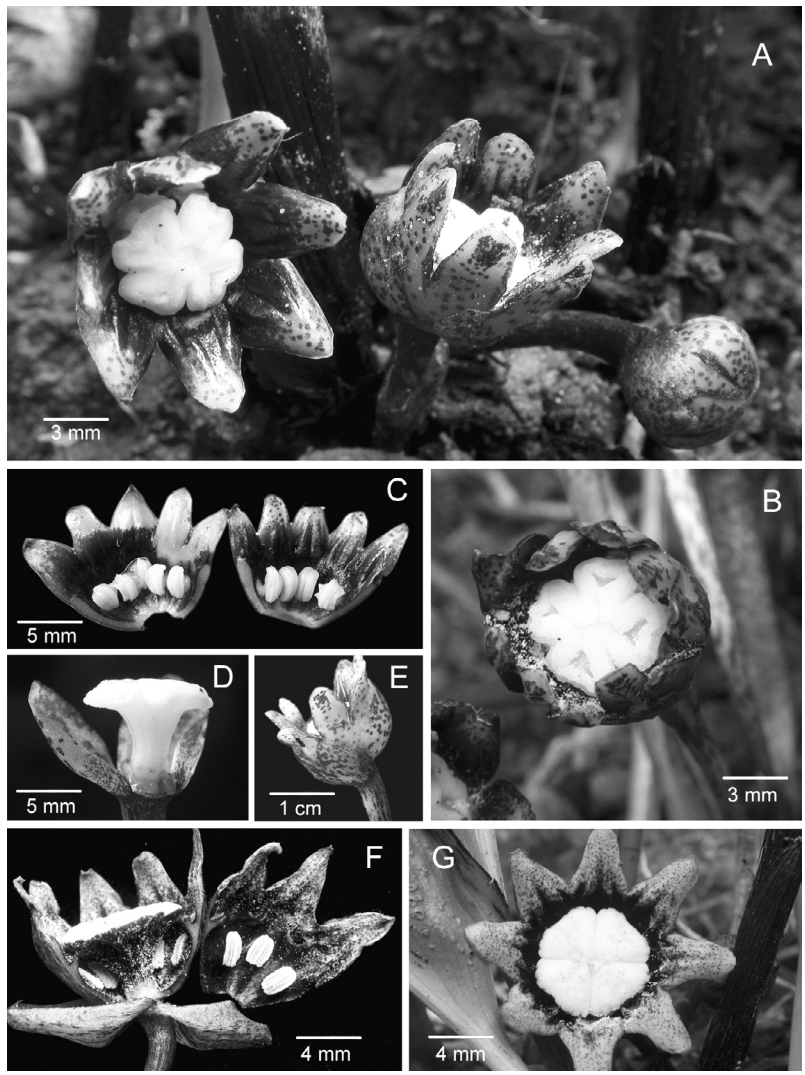

Fig. 2. A–E: *Aspidistra jingxiensis*. — **A**: Habit. — **B**: Flower from above. — **C**: Perianth, dissected open to show stamens. — **D**: Pistil. — **E**: Flower side view. — **F** and **G**: *A. punctatoides*. — **F**: Flower dissected, showing stamens. — **G**: Flower from above.

broad-leaved forests at an altitude of 600–700 m.

Aspidistra jingxiensis is similar to *A. punctatoides* (Fig. 2F–G; *see* also Lin & Liu 2011) in the shape and size of the flowers, but differs in several characters (*see* Appendix).

Additional specimen examined: China. Guangxi Zhuangzu Autonomous Region, Guilin City, Yanshan Township, introduced by Yan Liu from the type locality, cultivated, 12 June 2010, *Chun-Rui Lin 039* (IBK).

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Appendix. Morphological comparison between *Aspidistra jingxiensis* and *A. punctatoides*.

	A. jingxiensis	*A. punctatoides*
Leaf blade	28–35 × 6–8 cm, dark green with small yellow-white spots on both surfaces	15–27 × 4.5–7.5 cm, dark green
Petiole	6–24 cm long	11–26 cm long
Peduncle	3–5 cm long	2–3 cm long
Perianth	lobes 8(10), 5–6 × 3–4 mm, adaxially with 2–3 keels at base; tube 5–7 mm long, diam. 8–10 mm	lobes 8(6), 5–6 × 3–4 mm, adaxially with two prominent keels ca. 1 mm high, each keel basally fusing with a keel of the adjoining lobe and forming a protruding lip at fusion point; tube 5–7 mm long, diam. 10–14 mm
Pistil	mushroom-shaped, white, ca. 6 mm long stigma diam. 5–6 mm, upper surface glabrous and with 4 radial, bifurcate deep grooves	turbinate, white adaxially, purple abaxially, stigma ca. 8 mm long, diam. 10 mm, upper surface densely papillate and with 3–4 inconspicuous radial, bifurcate lines