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# A New Species of *Aspidistra* (Ruscaceae) from Guizhou, China

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**ABSTRACT.** The new species *Aspidistra pingtangensis* S. Z. He, W. F. Xu & Q. W. Sun (Ruscaceae) is described and illustrated from Pingtang County, Guizhou Province, China. The new species is characterized by an urceolate, milk-white perianth with five or six blunt keels externally, stamen filaments that are ca. 1.2 mm long with the stamens inserted in the top third of the perianth tube, and stigmas that are ca. 4 mm diam. This contrasts with the related species *A. fenghuangensis* K. Y. Lang and *A. urceolata* F. T. Wang & K. Y. Lang. The former is characterized by an urceolate, pale yellow perianth, stamen filaments that are ca. 0.5 mm with the stamens inserted at the middle of perianth tube, and stigmas that are ca. 6 mm diam.; the latter is characterized by an urceolate, pale violet-red perianth with many purple speckles, stamen filaments that are ca. 0.2 mm with the stamens inserted at the base of the perianth tube, and stigmas that are ca. 1.5 mm diam. The new species can be classified into *Aspidistra* Ker Gawl. sect. *Aspidistra* ser. *Fimbriatae* G. Z. Li.

**Key words:** *Aspidistra*, China, Guizhou, IUCN Red List, Ruscaceae.

During our 2007 investigation of medicinal plants in Pingtang County, Guizhou Province, China, a unique species of *Aspidistra* Ker Gawl. (Ruscaceae) was discovered in bloom in the Pingtang River Valley. The new species is remarkable for its urceolate, milk-white perianth with five or six prominent, blunt keels externally. This same taxon was also found in the adjacent Guiding County in October 2008. After searching the taxonomic literature (Lang, 1981; Lang et al., 1999; Li, 2004; Tillich, 2005, 2006, 2008; Tillich et al., 2007), we conclude that these collections represent an undescribed new species.

***Aspidistra pingtangensis*** S. Z. He, W. F. Xu & Q. W. Sun, sp. nov. TYPE: China. Guizhou: Pingtang Co., under shrubbery in river valley, 2 Oct. 2007, S. Z. He, W. F. Xu, Q. W. Sun & Y. Y. Wang 071002 (holotype, GZTM; isotype, MO). Figure 1.

Haec species quoad perianthium urceolatum *Aspidistrae fenghuangensis* K. Y. Lang et *A. urceolatae* F. T. Wang & K. Y. Lang similis, sed a hac foliis solitariis atque stigmatate latiore, ab illa perianthii tubo lactineo atque stigmatate angustiore, ab ambabus perianthii tubo carinato, staminibus ad tertiam partem superiorem tubi insertis atque filamentis longioribus distinguitur.

Perennial herb; rhizome creeping, subterete, 6–8 mm diam., rooting at nodes, covered with scales. Leaf sheaths 2 or 3, 3–11 cm, fibrous when withered; leaves solitary, 1.5–3 cm apart, petioles 26–28 cm, rigid and grooved, blades elliptic-lanceolate, 25–35 × 6–8 cm, green with yellowish white spots, apex acuminate, tapering to the petioles, with indistinctly small serratures at upper margin. Peduncles 1.2–3.5 cm; bracts 3 or 4, broadly ovate, 5–6 × 5–6 cm wide, purplish red; flowers solitary, erect. Perianth urceolate, 0.9–1 × 0.9–1 cm, milk-white, fleshy, tube 0.8–0.9 cm, 0.9–1.1 cm diam., with 5 or 6 prominent and blunt keels externally visible in the lower half, 5 or 6 purple-red markings internally, from top to bottom, perianth lobes 5 or 6, ca. 1.5 × 1 mm, purple-red; stamens 5 or 6, inserted at top 1/3 of the perianth tube; filaments ca. 1.2 mm, anthers suboblong, ca. 1.6 × 1 mm; stigma ca. 4 mm diam., convex centrally, the stigma peltate, orbicular, enlarged, split into a triangular concavity, with 3 radially slender keels, the stigmatic lobes 3, concave at apex but slightly convex in the middle. Fruit an obovate berry, 1.2–1.6 cm diam., the surface roughened, with verruciform projections.

**Distribution and habitat.** *Aspidistra pingtangensis* has a known distribution only in Pingtang and Guiding counties in Guizhou Province, China. The new species was observed to grow underneath shrubbery in the river valley, at elevations between 700 and 800 m.

**IUCN Red List category.** The geographic range of *Aspidistra pingtangensis* is estimated to be less than 1200 km<sup>2</sup>, and its range is fragmented and limited to the Pingtang River Valley in limestone mountains, which accounts for only about 3% of the geographic range. We therefore preliminarily classify the new

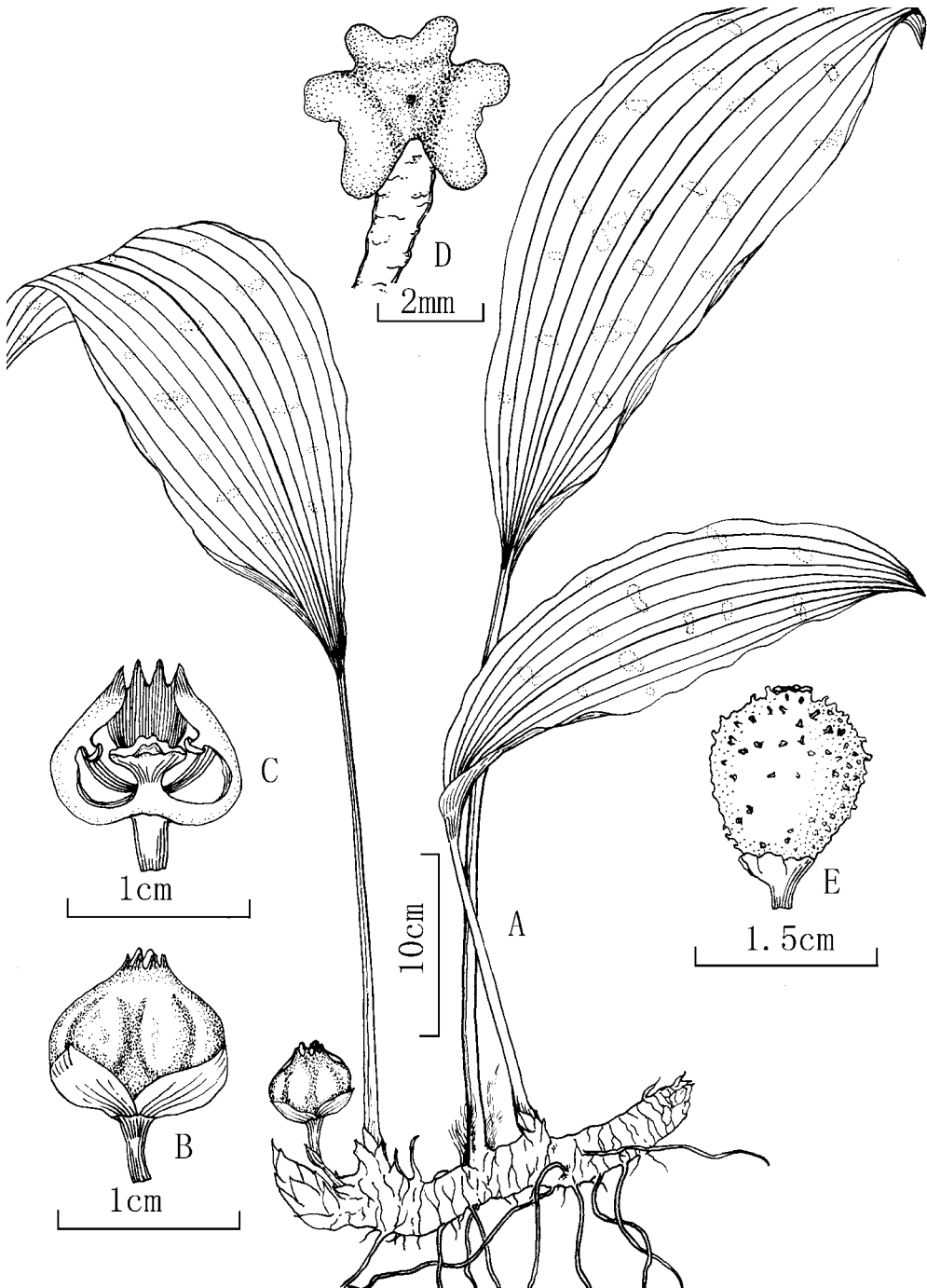


Figure 1. *Aspidistra pingtangensis* S. Z. He, W. F. Xu & Q. W. Sun. —A. Plant habit. —B. Flower. —C. Longitudinal section through flower. —D. Stigma. —E. Fruit. Drawn from the holotype S. Z. He *et al.* 071002 (GZTM) by Xiang-li Wu.

species as Endangered (EN), according to IUCN Red List criteria (IUCN, 2001).

*Phenology.* The new species was collected in flower in October.

*Relationships.* *Aspidistra pingtangensis* is similar to *A. fenghuangensis* K. Y. Lang in its urceolate perianth and peltate stigma. The latter differs in its light yellow perianth that lacks blunt keels externally, the stamen filaments that are half as long (ca. 0.5

Table 1. Morphological comparison of *Aspidistra pingtangensis*, *A. fenghuangensis*, and *A. urceolata*.

Characters	<i>A. pingtangensis</i>	<i>A. fenghuangensis</i>	<i>A. urceolata</i>
Leaves	solitary	solitary	2 or 3 in a cluster
Perianth shape and color	urceolate, milk white	urceolate, yellow	urceolate, pale violet-red with purple speckles
Perianth keels	5 or 6 keels, prominent, blunt	none	none
Filament length (mm)	ca. 1.2	ca. 0.5	ca. 0.2
Stamen position within the internal perianth tube	inserted at the top 1/3 of the tube	inserted at the middle of the tube	inserted at the base of the tube
Stigma diameter (mm)	ca. 4	ca. 6	ca. 1.5

mm), and the stigma that is wider (to 6 mm diam.). The new species is also similar to *A. urceolata* F. T. Wang & K. Y. Lang in its urceolate perianth and pale violet-red perianth lobes with purple speckles; however, *A. urceolata* is distinguished by its more numerous leaves (two or three in a cluster), the stamen filaments ca. 0.2 mm and inserted at the base of the perianth tube, and the smaller stigmas (to 1.5 mm diam.). These differences are summarized in Table 1. All three species are endemic to China and have fragmented and restricted distributional ranges.

*Aspidistra pingtangensis* is classified into series *Fimbriatae* G. Z. Li of section *Aspidistra* because of the shape of the perianth and stigma, the characteristics of the perianth lobe, and the insertion point of the stamens on the internal perianth tube.

**Paratypes.** CHINA. **Guizhou:** Guiding Co., Pingfa, 18 Oct. 2008, S. Z. He & W. F. Xu 081018 (Guiyang Coll. Trad. Chin. Med.).

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