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Aspidistra liboensis (Ruscaceae), a new species from Guizhou, China

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Aspidistra liboensis S.Z. He & J.Y. Wu *sp. nova* (Apiaceae), is described, illustrated, and compared with the morphologically similar species, and a diagnostic key is provided. The new species resembles *A. longipetala* but differs from it by having a long petiole (16–22 cm *vs*. 6–11 cm), a broadly campanulate perianth (*vs*. suburceolate) with at least 2 appendages at the inner base of lobe, and an enlarged stigma (2.5–3.2 cm *vs*. 1–1.2 cm in diameter), with at least 16 adaxial grooves with purple papillate margins.

Aspidistra is a genus of perennial herbs in the Ruscaceae. The genus is distributed in China, India, Japan, Laos, Thailand, Malaysia, and Vietnam (Liang & Tamura 2000). The center of its diversity is in southern China and northern Vietnam (Tillich 2006).

In China, only eight species were described before 1980 (Wang & Tang 1978), but since then many new species have been discovered. Lang *et al*. (1999) recorded 39 species. Li *et al*. (2000) studied the taxonomy and divided the genus into three sections and 18 series including 50 species, and Li and Tang (2002) recognized two new series. Liang and Tamura (2000) recorded 49 species from China. However, after that several new species were described (Fang & Yu 2002, He 2002, Li & Tang 2002, Li & Wei 2003, Wilde & Vogel 2005, Tillich 2005, Tillich 2006, Tillich *et al*. 2007, Tillich & Averyanov 2008, Lin *et al*. 2009, Xu *et al*. 2010). Thus, Li *et al*. (2004) recorded 58 species from China and Tillich (2008) cited a total of 93 *Aspidistra* species worldwide.

In May 2005, the first author had come across an *Aspidistra* species with a large withered flower and mature fruits during field work in Libo, Guizhou province. At first glance, the species was similar to *A. longipetala* (Huang 1986) and *A. patentiloba* (Wan 1989). In March 2009, the first author made further observations of the species in Libo. In the field, he found the species in flower, and it differed from *A. longipetala* by having a long petiole and the stamens inserted below the middle of the perianth tube. After the field observations and a thorough literature search, it became clear that the plants from Libo represented an undescribed species in the series *Longilobae* of sect. *Aspidistra* (cf. Li (2000). It is known only from the type locality.

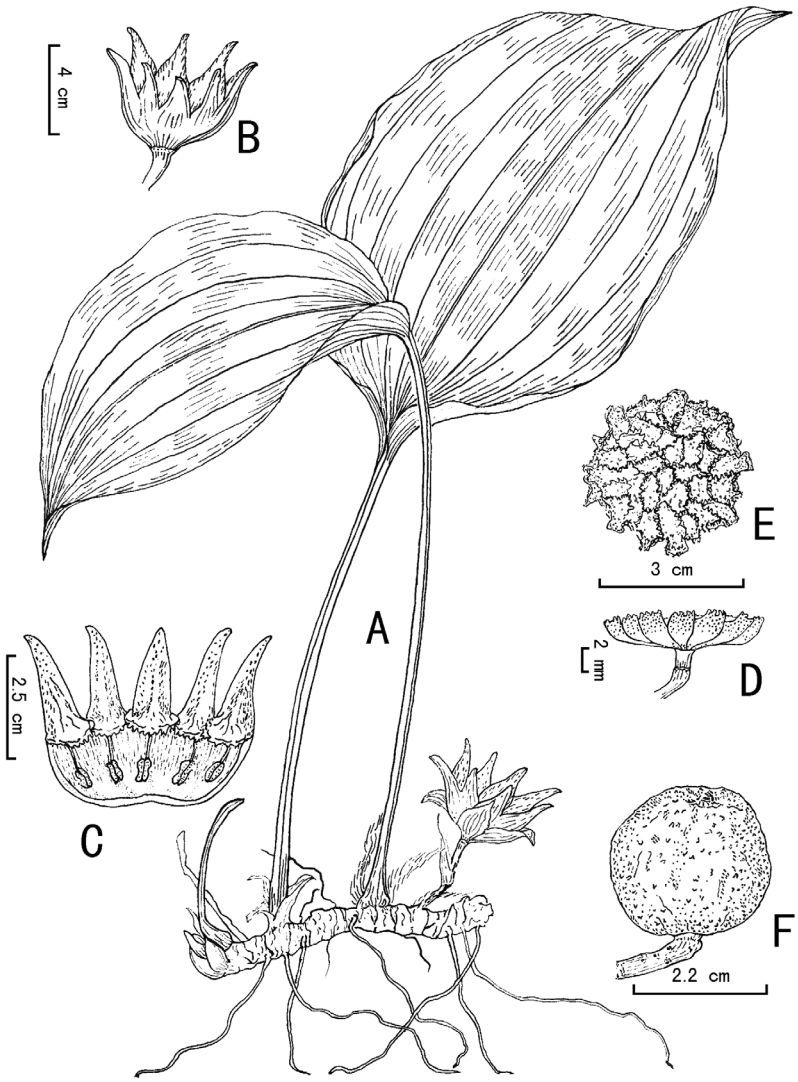

Fig. 1. *Aspidistra liboensis* (**A**–**D** from the holotype, **F** from the paratype). — **A**: Habit. — **B**: Flower. — **C**: Longitudinal section of flower. — **D**: Pistil. — **E**: Adaxial surface of stigma. — **F**: Fruit.

Aspidistra liboensis S.Z. He & J.Y. Wu, *sp. nova* (Figs. 1–2)

Species Aspidistrae longipetalae affinis, sed petiole 16–22 cm longi, perianthio late campanulato, lobis intus basique appendix 2 vel plus quam, stigmate dilatato, 2.5–3.2 cm diameter, supra sulcus 16 vel plus quam, margine papillato differt.

HOLOTYPE: China. Guizhou Province, Libo County (Xian), 600–700 m, in virgin evergreen forest, 7.III.2009 *Shun-zhi He 090307* (holotype HGCM, in flower). — PARATYPE: China. Guizhou, Libo, 2.V.2005 *Shun-zhi He 0505032* (paratype HGCM, in fruit).

ETYMOLOGY: The species is named after its type locality, Libo County (Xian), southern Guizhou, China.

Herbs, perennial. Rhizome creeping, subterete, 5–7 mm in diam., covered with scales, with a few roots. Sheathing leaves 2 or 3, purple, 5–8 cm, wrapping base of leaf, fibrous when withered. Leaves solitary, spaced 1–2 cm; leaf blade yellow-white spotted, broadly ovate, 12–22 × 7–10 cm, base subrounded, apex slightly acuminate, both anisomerous, margin entire; petiole hard, 16–22 cm, adaxially grooved. Peduncle 1.5–4.5 cm; bracts 3–5, slightly purple-red, broadly ovate, 1.5–2.5 × 1–1.5 cm. Flower

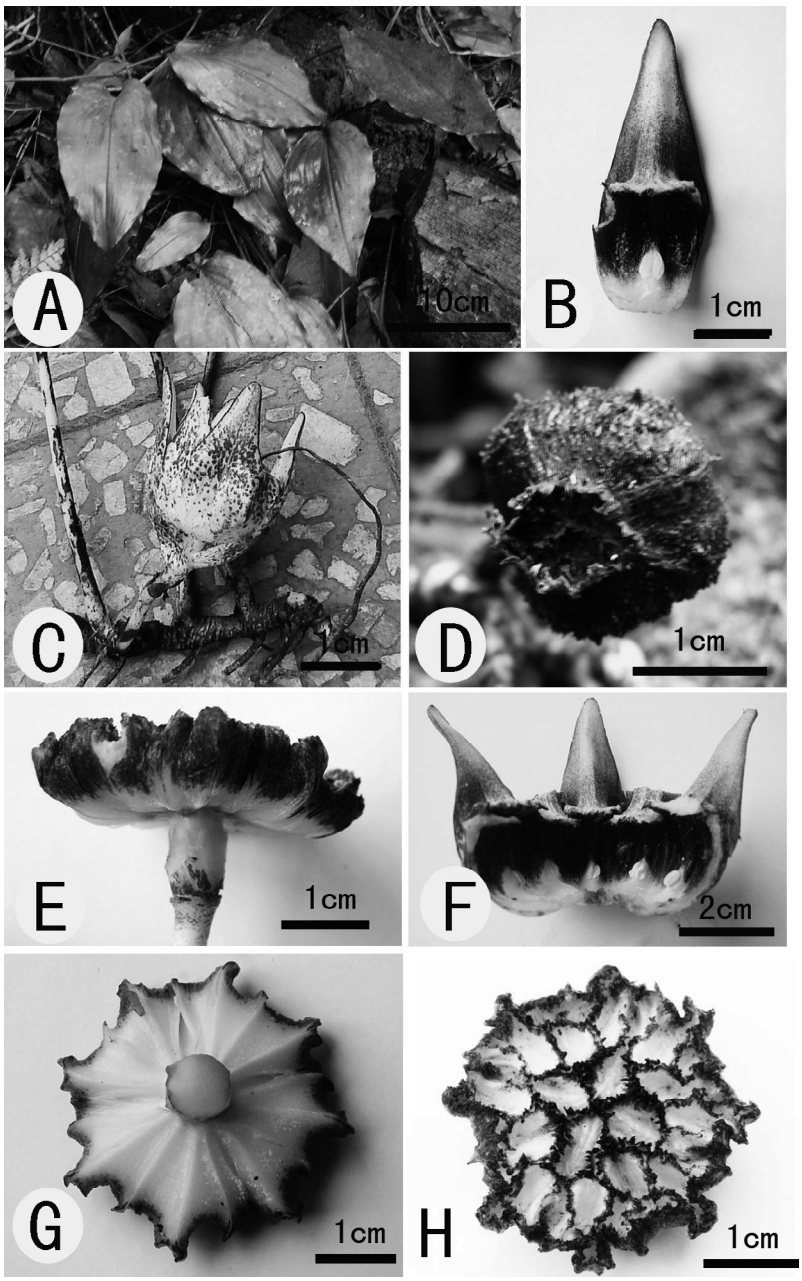

Fig. 2. *Aspidistra liboensis* (from the paratype). — **A**: Habit. — **B**: Lobe of flower (arrowheads point at the appendages). — **C**: Flower. — **D**: Fruit. — **E**: Pistil. — **F**: Longitudinal section of flower. — **G**: Abaxial surface of stigma. — **H**: Adaxial surface of stigma.

solitary; perianth broadly campanulate, 3.5–4.5 cm in length, fleshy, apically 8–10-lobed; lobes overlapping, suberect, outside slightly purple, inside slightly yellow or slightly purple, glossy, ovate-lanceolate, 2–2.5 cm in length, base 1.3–1.8 cm in width, apex slightly outcurved, with at least 2 appendages at inner base, expanded inward, apex irregularly serrulate; tube outside slightly purple, inside deep purple, 1.5–2 cm in length, 3–4 cm in diameter. Stamens 8–10, inserted 1/3 from base of perianth tube, subsessile; anthers ovoid, ca. 3 × 2.5 mm; pollen globular, ca. 30 um in diameter, surface gemmate. Pistil 6–7 mm in length, ovary inconspicuous, 4- or 5-loculed, with 2 ovules per locule. Style cylindrical short and thick, 2–2.5 mm in

length, 5–6 mm in diameter; stigma disc-shaped, 2.5–3.2 cm in diameter, margin upward-curved, 16-lobed, with alternating large and small lobes, with at least 16 adaxial grooves, purple papillate at margin,16-lobed at margin, abaxially white, 16-ridged. Berry globose, 1.5–2.2 cm in diameter, scabrous and tuberculate. Flowering February–March, fruiting April–June.

Identification key for *Aspidistra liboensis* and two morphologically similar species

1. Leaf blade narrowly elliptic, 30–57 cm long, perianth campanulate, stamens inserted at middle of perianth tube, style obconical ..... *A. patentiloba*
1. Leaf blade broadly ovate or ovate, 12–22 cm long, perianth broadly campanulate or suburceolate, stamens inserted below middle of perianth tube, style cylindrical 2
2. Petiole 16–22 cm, peduncle 1.5–4.5 cm, perianth broadly campanulate, 3.5–4.5 cm long, with at least 2 appendages at inner base of lobes; stigma disc-shaped, 2.5–3.2 cm in diameter, with at least 16 adaxial white grooves with purple papillate margins ..... *A. liboensis*
2. Petiole 6–11 cm, peduncle 3–5 cm, perianth suburceolate, 2.5–3.5 cm long, two appendages on inner base of lobes, stigma lens-shaped, 1.2–1.5 cm in diamether, adaxially ridged ..... *A. longipetala*

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