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

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The genus Aspidistra Ker-Gawler (1822: t. 628) presently includes about 120 species have been discovered, mainly distributed in China and Vietnam, but also in Japan, Thailand, Laos and India (Liang & Tamura 2000, Li 2004, Tillich 2005, 2008, Tillich et al. 2007, 2013, Hou et al. 2009, Lin et al. 2009, 2011, 2013, Meng et al. 2014, Vislobokov et al. 2014). In May 2012, during the course of investigating limestone plants in southwestern Guangxi, China, near the border to northern Vietnam, we collected an unusual Aspidistra specimen with urceolate perigone in Jingxi County. It was transplanted to the Guilin Botanical Garden for cultivation, and flowered regularly in the next year. Compared with other species of Aspidistra, it was recognized as an undescribed species, which we describe below.

Description of the new species

Aspidistra stenophylla C.R.Lin et R.C.Hu, sp. nov. (Figs. 1, 2)

Type:—CHINA. Guangxi Zhuang Autonomous Region, Jingxi County, Tongde town, limestone mountains, alt. 780 m, 12 May 2012, Chun-Rui Lin 1036 (holotype, IBK!; isotype, IBK!).

Herbs perennial, evergreen, rhizomatous. Rhizome creeping, subterete, 9–10 mm thick, covered with scales, nodes densely. Roots numerous. Vaginal leaves 4–5, 2–6 cm long, purple-red, becoming black-brown when dry. Leaves solitary; petiole stiffly upright, 9–22 cm long, 2 mm thick, adaxially sulcate; leaf blade linear, 50–60 cm long, 1.5–2.5 cm wide, dark green, base tapering into petiole, apex acuminate, margin entire, midvein distinct, lateral veins conspicuous when dried. Peduncle purple-red, 1.5–3 cm long, with 4–6 bracts; bracts gradually wider from base to top of peduncle, white with purple-red spots, 3–5 mm long, ca 5 mm wide, obtuse at apex. Flower solitary; perigone urceolate, ca 15 mm long, dark purple, adaxially finely papillose; lobes 6, triangular, slightly curved inward, 6–7 mm long, 5–6 mm wide at base, adaxially purple-red and with light yellow apex, with two prominent keels from top to the middle of perigone tube; perigone tube 8–9 mm long and 14–15 mm in diameter, adaxially dark purple. Stamens 6, opposite to the perigone lobes, inserted at the bottom of the perigone tube, significantly lower than stigma; anthers obovoid, ca 2 mm long and 1 mm wide, filaments ca 1 mm long. Pistil mushroom-shaped, purple-red, ca 1 cm long, ovary inconspicuous, style short, cylindrical, ca 2 mm long and 1 mm in diameter, stigma peltate, subrotundate, ca 1 cm in diameter, upper surface with 3 whitish, ca 1 mm high, “V” shaped ribs, and 3 purple-red radial ribs from center to margin, slightly irregularly undulate at margin. Berry subglobose, 10–15 mm in diameter, slightly turbinate. flowering in May to June, and fruiting in the next year from February to April.

Distribution and ecology:—This new species is currently known only from Jingxi County in southwestern Guangxi, China. It grows on a limestone slopes, under evergreen broad-leaved forest at 700–800 m altitude.

Taxonomic relationships:—Aspidistra stenophylla is similar to A. omeiensis Zhu & Zhang (1981: 386) and A. linearifolia Wan & Huang (1987: 220) in leaves linear, perigone dark purple, but differs by having perigone urceolate and adaxially densely papillose, lobes slightly curved inward, stigma upper surface with 3 whitish, ca 1 mm high, “V” shaped ribs. A detailed comparison to distinguish the three species is presented in Table 1.
Acknowledgments

The authors are grateful to Mr. Wen-Hong Lin (IBK) for the handsome drawing. This study was supported by Special Fund for Basic Scientific Research of Guangxi Institute of Botany (09015); the National Natural Science Foundation of China (Grant no. 41161011); Traditional Chinese medicine public health special project of investigating and monitoring of the Chinese Materia Medica raw material resources for national essential drugs ([2011]76) and Traditional Chinese Medicine industry research special project of characteristic Chinese Materia Medica resources protection and utilization in representative regions of China (201207002).

References


