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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 oblong, 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 tuberculate. 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.

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References

- Hou, M.-F., Liu, Y., Kono, Y. & Peng, C.-I. (2009) *Aspidistra daxinensis* (Ruscaceae), a new species from limestone areas in Guangxi, China. *Botanical Studies* 50: 371–378.
- Ker-Gawler, J.B. (1822) The Botanical Register 8. London, Printed for James Ridgway, Piccadilly, 277 pp.
- Li, G.-Z. (2004) The Genus Aspidistra Guangxi Science & Technology Publishing House, Nannin, 229 pp.
- Liang, S.-Y. & Tamura, M.N. (2000) Aspidistra. *In*: Wu, Z.-Y. & Raven P.H. (ed.) *Flora of China*. Science Press, Beijing & Missouri Botanical Garden Press, St. Louis, pp. 240–250.
- Lin, C.-R., Liang, Y.-Y. & Liu, Y. (2009) Aspidistra bamaensis (Ruscaceae), a new species from Guangxi, China. Annales Botanici Fennici 46: 416–418.

http://dx.doi.org/10.5735/085.046.0506

Lin, C.-R. & Liu, Y. (2011) Aspidistra punctatoides sp. nov. (Ruscaceae) from limestone areas in Guangxi, China. Nordic Journal of Botany 29: 189–193.

http://dx.doi.org/10.1111/j.1756-1051.2011.00858.x

Lin, C.-R., Liu, Y., Nong, D.-X., Kono, Y. & C.-I. Peng (2013) *Aspidistra crassifila* (Asparagaceae), a new species from Guangxi, China. *Botanical Studies* 54: 43.

http://dx.doi.org/10.1186/1999-3110-54-43

Meng, T., Yang J.-C., Tang, W.-X., Pan, B. & Lin C.-R. (2014) *Aspidistra tenuifolia* (Asparagaceae), a new species from China. *Phytotaxa* 161: 289–293.

http://dx.doi.org/10.11646/phytotaxa.161.4.4

- Tillich, H.J. (2005) A key for *Aspidistra* (Ruscaceae), including fifteen new species from Vietnam. *Feddes Repertorium* 116: 313–338. http://dx.doi.org/10.1002/fedr.200511076
- Tillich, H.J. (2008) An updated and improved determination key for Aspidistra Ker-Gawl. (Ruscaceae, Monocotyledons). *Feddes* Repertorium 119: 449–462.

http://dx.doi.org/10.1002/fedr.200811174

- Tillich, H.J., Averyanov, L.V. & Dzu, N.V. (2007) Six new species of *Aspidistra* (Ruscaceae) from northern Vietnam. *Blumea* 52: 335–344.
- Tillich, H.J. & Leong-Skornickova, J. (2013) *Aspidistra jiewhoei* (Asparagaceae), a new species from north Vietnam. *Gardens' Bulletin* Singapore 65: 101–105.
- Wan, Y. & Huang, C.-C. (1987) New species of the genus Aspidistra from Guangxi. Guihaia 7: 217–224.
- Vislobokov, N.A., Sokoloff, D.D., Degtjareva, G.V., Valiejo-Roman, C.M., Kuznetsov, A.N. & Nuraliev, M.S. (2014) Aspidistra paucitepala (Asparagaceae), a new species with occurrence of the lowest tepal number in flowers of Asparagales. *Phytotaxa* 161: 270–282. http://dx.doi.org/10.11646/phytotaxa.161.4.2
- Zhu, Z.-Y. & Zhang, J.-L. (1981) A new species of the genus Aspidistra from Emei. Acta Phytotaxonomica Sinica 19: 386–387.