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Periploca Caudatifolia (Asclepiadaceae), a New Species from Madagascar

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Abstract: One species of the genus *Periploca* (Asclepiadaceae), *P. caudatifolia* P. T. Li et Z. K. Li, is described from Madagascar.

Key words: Asclepiadaceae; *Periploca*; *P. caudatifolia*
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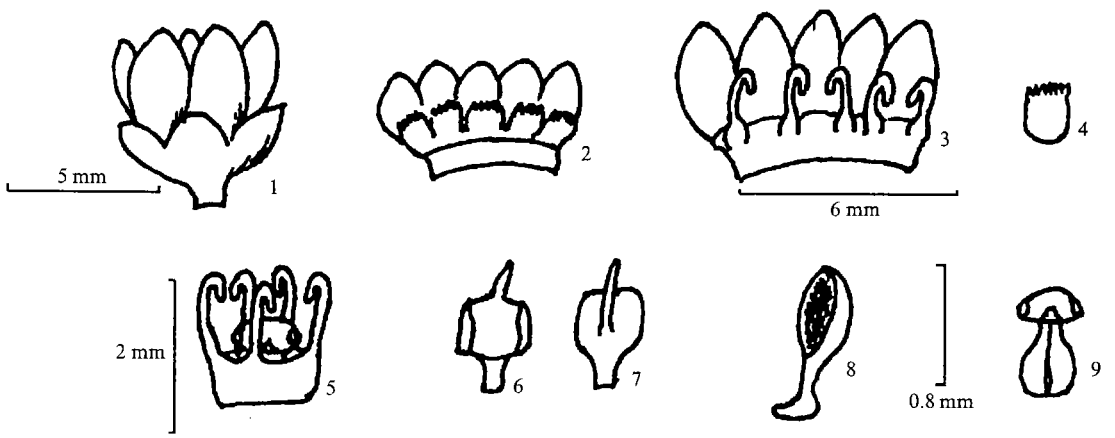
Periploca caudatifolia P. T. Li et Z. K. Li, sp. nov (Figure 1)

TYPE: Madagascar, Toamasina, Andasibe (Perinet), N. E. of Graphite Mine, 1 000 m, forest, 23 July 1987, *P. phillipson* 2108 (holotype, MO).

Frutex scandens, glaber, folia ovato-lanceolata, 1.5 ~ 3.5 cm × 0.7 ~ 1.5 cm, basi obtusa vel rotundata, apice caudato-acuminata, petiolo 2 ~ 4 mm longo; cymae axillares, 1 ~ 1.5 cm longae; pedunclis 2 ~ 5 mm longis, pediceilis 5 ~ 7 mm longis, calyce intus glanduloso, segmentis late ovatis, ca. 1 mm × 1 mm, apice rotundatis, corolla rotata, ca. 5 mm diam., viridi, tubo ca. 1 mm longo, lobis oblongis, ca. 2 mm × 1 mm; corona basi annulari, apice 5-lobata, lobis albis, linearibus, glabris, apice inflexis, antheris late ovatis, acutis; polliniis elliptico-spathulatis.



1 Flowering; 2 Opened calyx showing glands; 3 Opened corolla showing corona; 4 Gland of calyx; 5 Corona and pistil; 6 Stamen adaxial view; 7 Stamen abaxial view; 8 Pollinarium; 9 Pistil

Fig. 1 *Periploca caudatifolia* P. T. Li ex Z. K. Li, sp. nov.

Shrubs scandent, glabrous. Leaves opposite, ovate-lanceolate, 1.5 ~ 3.5 cm × 0.7 ~ 1.5 cm, coriaceous, base obtuse or rounded, apex caudate-acuminate, the acumen 0.5 ~ 1 cm long; midvein elevated, lateral veins obscure, petiole 2 ~ 4 mm long. cymes axillary, 1 ~ 1.5 cm long, 3 ~ 8-flowered, peduncles 2 ~ 5 mm long, pedicels 5 ~ 7 mm long. Calyx with 5 glands inside, glands 0.5 ~ 0.7 mm long, apex denticulate, segments

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broadly ovate, ca. 1 mm × 1 mm, apex rounded, corolla rotate, ca. 5 mm in diam., green; tube 1 mm long, lobes oblong, ca. 2 mm × 1 mm. Corona annular at base, 5-lobed, lobes white, linear, ca. 1.5 mm long, glabrous, apex inflexed. Filaments free, anthers broadly ovate, acute, pollen apparatus elliptic-spatulate. Ovacy ovoid, style short, stigma conical-pentagonal.

Periploca caudatifolia resembles *P. angustifolia* Labill ardiere in habit but differs by its ovate-lanceolate leaves with caudate-acuminate apex and glabrous corolla 5 mm in diam. and without a spot inside. In contrast, *P. angustifolia* has oblong to eillptic leaves with acute or obtuse apex and larger corolla 1 cm in diam. and with an interior spot near the middle.

马达加斯加产萝摩科一新种——尾叶杠柳

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摘要:文章记述了马达加斯加萝摩科杜柳属一新种——尾叶杠柳(*Periploca caudatifolia*).

关键词:萝摩科; 杠柳属; 尾叶杠柳

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Preliminary Report on Relationship Between Ca^{2+}·CaM Messenger System and Stress Resistance of Rice Seedling

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Abstract: After blocking Ca^{2+}·CaM messenger transduction by pretreating rhizosphere of rice seedling with $LaCl_3$ or CPZ (chlorpromazine), survival rate, relative water content and relative biomass of rice seedlings subjected to drought, salt and chilling stresses decreased, at the same time membrane permeability increased. These results suggested that Ca^{2+}·CaM messenger system was involved in controlling stress resistance of rice seedling, blocking messenger transduction, drought resistance, salt resistance and chilling resistance decreased.

Key words: rice; Ca^{2+}·CaM messenger system; stress resistance

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