
长柱开口箭属 *chang zhu kai kou jian shu*
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*Macrostigma* Kunth.

Herbs perennial, rhizomatous, monopodial. Rhizome usually ascending, rarely creeping, thick, stout, sometimes slightly woody. Stem very short. Leaves basal, alternate fasciculate or distichous equitant, distinctly petiolate or not; leaf blade narrowly lanceolate to ovate. Scape axillary. Inflorescence a terminal spike, 2- to many flowered, without sterile bracts apically; bracts deltoid to ovate, usually shorter than flowers. Perianth segments 6 or 8, connate for 1/2–2/3 their length into a tube, fleshy; lobes spreading. Stamens 6 or 8; filaments nearly wholly adnate to perianth tube; anthers positioned lower than stigma, dorsifixed. Ovary 3- or 4-loculed; ovules 2 per locule. Style 1, cylindrical, 4–12 mm; stigma peltate to mushroom-shaped, 2–7 mm in diam., fleshy. Fruit a berry, 1-seeded.

Fourteen species: Bhutan, China, India, Indonesia, Malaysia, Myanmar, Nepal, Sikkim, Thailand, Vietnam; four species (three endemic) in China.

The syntype specimens of *Tupistra cavaleriei* H. Léveillé & Vaniot can be identified as *Amischotolype hispida* (A. Richard) D. Y. Hong (Commelinaceae). *Tupistra esquirolii* H. Léveillé & Vaniot is referable to *Curculigo capitulata* (Loureiro) Kunze (Amaryllidaceae). The identity of *Tupistra bambusifolia* H. Léveillé & Vaniot and *T. bambusifolia var. rubromaculosa* H. Léveillé & Vaniot (in H. Léveillé, Mem. Pontif. Accad. Romana Nuovi Lincei 24: 349. 1906) remains uncertain. The types, from Guizhou, have not been seen by the present authors but were said by McKean (Notes Roy. Bot. Gard. Edinburgh 44: 176. 1986) to resemble *Zingiber pleiostachyum* K. Schumann (*Zingiberaceae*), which is endemic to Taiwan.


长柱开口箭 *chang zhu kai kou jian*

Rhizome rather short, 1.5–2 cm thick, stout; nodes dense. Leaves 3–5 or more, basal, distichous equitant; petiole 2–5 cm; leaf blade oblance-oblancoaleate, 65–110 × 7.5–12 cm, glabrous, apex acuminate. Spike 6–16 cm, 2–7-flowered; peduncle 1.5–3 cm; bracts 1 per flower, deltoid, ca. 1.8 × 1 mm. Perianth purple, 1.2–2 cm; tube 3–7 mm; lobes purple, ovate, 5–8 × 4–6 mm, fleshy. Filaments with very short free part. Ovary globose, 1.2–2 cm in diam. Fl. Mar, fr. Jun. $2n = 38^\circ$.

Forests; ca. 1600 m. Guangxi, S Yunnan [Vietnam].


长穗开口箭 *chang sui kai kou jian*

Rhizome 2–3 cm thick, stout; nodes dense. Leaves 4–6, basal, nearly distichous equitant; petiole 10–20 cm; leaf blade oblanceoblancoaleate, 90–150 × 12.5–18 cm, glabrous, apex acuminate. Spike 18–25(–35) × 1.5–2 cm, densely many flowered; peduncle 20–33 cm; bracts 2 per flower, pink, 3–7 × 3–6 mm, membranous. Perianth adaxially white turning yellow, abaxially pale purple, shortly campanulate, 1.1–1.3 × 1.3–1.8 cm, fleshy; tube 3–4 mm; lobes recurved, oblance-ovate, 7–9 × 3–4 mm. Filaments basally widened, free part ca. 1 mm. Ovary subglobose. Style 7–8 mm; stigma peltate, suborbicular, dilated, 5–7 mm in diam., 3-lobed. Fl. Nov.

• Forests on limestone slopes along valleys; 300–400 m. WC Guangxi (Long’an Xian).


伞柱开口箭 *ping bian kai kou jian*

Rhizome ascending, short, 1–2 cm thick, stout; nodes dense. Leaves 2 or more, basal; petiole 14–16 cm; leaf blade linear-lanceolate, 4–20 × 1–1.5 cm, papery, glabrous, apex acuminate. Spike 6–10 × 1.2–2 cm, usually laxly several flowered; peduncle 1.5–3 cm; bracts 2(3) per flower, brownish yellow, 4–7 × 4–11 mm, membranous. Perianth subcampanulate, 1–1.5 cm; tube 3–7 mm; lobes purple, ovate, 5–8 × 4–6 mm, fleshy. Filaments with very short free part. Ovary ovoid, 1.5–2 × 2 cm. Style 4–5 mm, 3-angled; stigma mushroom-shaped, ca. 2 mm in diam. Berries ovoid-globose, ca. 12 × 5 mm. Fl. Dec–Jan, fr. Dec–Jan of following year. $2n = 38^\circ$.

• Rocks in forests; 1000–1600 m. Guangxi, SE Yunnan.


屏边开口箭 *ping bian kai kou jian*

Rhizome creeping, short, 2–3 cm thick, stout. Leaves basal, tufted or spaced, petiolate, oblance-lanceolate, 40–90 × 4.5–7 cm, thickly papery, apex acuminate. Spike procumbent, 2.5–4.5 cm, 2–7-flowered; peduncle recurved, 0.5–2.5 cm, fleshy; bracts 2 or 3 per flower, brownish yellow, broadly deltoid-ovate, 4–12 × 5–12 mm, subleathery. Perianth purple, 1.2–1.5 × ca. 1.5 cm, fleshy; tube white adaxially, 5–7 mm; lobes
broadly deltoid-ovate, 5–7 × 5–6 mm, apex acute. Filaments with very short free part; anthers suborbicular, ca. 1.5 mm in diam. Ovary spheroidal, ca. 1.5 mm in diam. Style ca. 7 mm; stigma peltate, slightly inflated, ca. 3 mm in diam. Fl. Nov–Dec.

- Dense forests; ca. 1700 m. SE Yunnan (Pingbian Miao Zu Zizhixian).