

14. BOESENBERGIA Kuntze, Revis. Gen. Pl. 2: 685. 1891.

凹唇姜属 *ao chun jiang shu*

Gastrochilus Wallich, Pl. Asiat. Rar. 1: 22. 1829, not D. Don (1825).

Rhizomes tuberous or elongate. Leaves basal or cauline, petiolate; ligule 2-lobed; leaf blade ovate, oblong, or lanceolate. Inflorescences terminal on pseudostems or on separate shoots arising from rhizomes; bracts 2-ranked, apical one developing first, each subtending 1 bracteole and 1 flower. Calyx tubular. Corolla tube exerted from calyx, slender; lobes subequal. Lateral staminodes petaloid, usually wider than corolla lobes. Labellum obovate or broadly oblong, larger than corolla lobes and lateral staminodes, strongly concave, base narrow, grooved, margin crisped, apex entire or 2-cleft. Filament erect; anther locules parallel, dehiscing by slits or apical pores, base without spur; connective with or without appendage. Ovary 3-loculed or incompletely so; placentation basal or axile. Capsule oblong, 3-valved. Seeds black; aril lacinate.

About 50 species: tropical Asia; three species (one endemic) in China.

- 1a. Inflorescences on separate shoots arising from rhizomes; leaf blade cordate at base 1. *B. longiflora*
1b. Inflorescences terminal on pseudostems, appearing from within apical leaf sheaths; leaf blade rounded to cuneate at base.
2a. Leaves 3 or 4, green on both surfaces; anther connective appendage 2-cleft, 1–3 mm 2. *B. rotunda*
2b. Leaves 1–3, usually 1, adaxially dark green, abaxially purplish red; anther connective appendage absent 3. *B. albomaculata*

1. *Boesenbergia longiflora* (Wallich) Kuntze, Revis. Gen. Pl. 2: 685. 1891.

心叶凹唇姜 *xin ye ao chun jiang*

Gastrochilus longiflora Wallich, Pl. Asiat. Rar. 1: 22. 1829; *Boesenbergia fallax* Loesener; *Curcumorpha longiflora* (Wallich) A. S. Rao & D. M. Verma; *Kaempferia fallax* Lingelsheim & Borza (1914), not Gagnepain (1903).

Plants to 50–60 cm tall. Roots robust. Leaf blade green, ovate, 8–12 × 5–9 cm, base cordate, apex cuspidate. Inflorescences on separate shoots arising from rhizomes; bracts ovate, 2–4 cm, villous, apex acuminate. Flowers 3–6, bluish purple. Calyx 1–2 cm. Corolla to 4 cm; lobes lanceolate, 2.2–2.5 cm × 5–6 mm. Lateral staminodes ovate, equaling corolla lobes. Labellum obovate-cuneate, ca. 3 × 1.8–2 cm. Filament very short; anther ca. 1 cm; connective broad, appendage linear. Stigma thickened. $2n = 36^*$.

Forest floors in mountains; 1100–1900 m. C and SW Yunnan (Lufeng Xian, Menglian Dai-Lahu-Va Zu Zizhixian) [India, Laos, Myanmar, Thailand].

2. *Boesenbergia rotunda* (Linnaeus) Mansfield, Kulturpflanze 6: 239. 1958.

凹唇姜 *ao chun jiang*

Curcuma rotunda Linnaeus, Sp. Pl. 1: 2. 1753; *Boesenbergia pandurata* (Roxburgh) Schlechter; *Kaempferia pandurata* Roxburgh.

Plants to 50 cm. Rhizomes bright yellow, ovoid-globose, strongly aromatic; roots robust. Leaves 3 or 4; leaf sheath red; ligule 2-cleft, ca. 5 mm; petiole 7–16 cm, channeled; leaf blade green on both surfaces, ovate-oblong or elliptic-lanceolate, 25–50 × 7–12 cm, glabrous except for sparsely hairy midvein abaxially, base rounded to cuneate, apex apiculate. Inflorescences terminal on pseudostems, appearing from within apical leaf sheaths, subsessile, 3–7 cm; bracts lanceolate, 4–5 cm. Flowers aromatic. Calyx 1.5–2 cm, apex 2-cleft. Corolla pink; corolla

tube 4.5–5.5 cm; lobes oblong, 1.5–2 cm. Lateral staminodes light pink, obovate, ca. 1.5 cm. Labellum white or pink with purple stripe, fiddle-shaped, 2.5–3.5 cm, concave, margin slightly crisped, apex entire. Filament short; connective appendage reflexed, 2-cleft, 1–3 mm. Fl. Jul–Aug. $2n = 36^*$.

Dense forests; ca. 1000 m. S Yunnan (Xishuangbanna Dai Zu Zizhixian) [India, Indonesia, Malaysia, Sri Lanka; cultivated throughout Indo-China].

Medicinal.

3. *Boesenbergia albomaculata* S. Q. Tong, Acta Phytotax. Sin. 24: 323. 1986.

白斑凹唇姜 *bai ban ao chun jiang*

Rhizomes white. Leaves 1–3, usually 1; petiole green or pale purplish red, 24–30 cm; leaf blade adaxially dark green, abaxially purplish red, ovate, 23–40 × 12–16 cm, base cuneate, apex acuminate. Inflorescences terminal on pseudostems, appearing from within apical leaf sheaths, 7–8 cm; bracts red, ovate, 2–2.5 × 1.2–1.4 cm, sparsely pubescent; bracteoles red, tubular, 1.2–1.5 cm, split to base on 1 side. Calyx pale red, 6–7 mm, apex 2-toothed. Corolla tube white, 2.8–3 cm; lobes 3, central one wider than lateral ones. Lateral staminodes subulate, ca. 1 mm wide. Labellum with white base and whitish stripes from middle to red apex, bag-shaped, ca. 2.5 × 1.6–1.7 cm, margin irregularly crenate. Filament white, ca. 5 mm; anther ca. 5 mm, locules dehiscing longitudinally; connective appendage absent. Ovary ellipsoid, 3-loculed.

- Moist forests; ca. 800 m. W Yunnan (Yingjiang Xian).

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