

### 104. COLLABIUM Blume, Bijdr. 357. 1825.

吻兰属 *wen lan shu*

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*Collabiopsis* S. S. Ying.

Herbs, terrestrial, rarely epiphytic, glabrous except for minute hairs on bracts. Rhizome creeping, scales tubular, soon caducous, rarely persistent; roots filiform, not branching, villous. Pseudobulbs alternating, 1–6 with a leaf and 1 with an inflorescence, articulate at junction with petiole or scape, scales 1 per pseudobulb, tubular, generally soon caducous. Leaf 1 per pseudobulb, convolute, petiolate. Inflorescence an erect raceme, unbranched, both scape and rachis elongating during anthesis. Flowers resupinate, turned to all sides, opening widely. Lateral sepals inserted on column foot. Lip immovable, narrowly attached to column foot, usually 3-lobed, without spur (but column foot with a spur); hypochile basal portion clawlike with parallel margins, front part usually with lateral lobes, lateral keels 2, from base elevating into an entire lobe or into an oblique structure hollow in front, from there continuing to front, median keel absent or present, simple; epichile recurved. Column suborbicular in section, with a seam in front laterally on either side, foot with a spur; anther 2-locular; pollinia 2, hard, waxy, without appendages, obliquely conic with an obtuse top and a hollow base. Capsule fusiform, column and back wall of column foot persistent when mature, with an irregular row of unicellular hairs inside along margins. Seeds fusiform.

Eleven species: SE Asia, from the Himalayas to SE China, Malaysia, Indonesia, and the Philippines, to New Guinea and the Pacific islands; three species (one endemic) in China.

The genus *Collabium* has been monographed by van der Burgh and de Vogel (*Orchid Monogr.* 8: 135–174. 1997).

- 1a. Each keel between lateral lobes of lip elevated into an oblique pyramid hollow in front; pseudobulb and petiole together more than 2.5 cm; lip lateral lobes 1.5–3 × 4–5 mm, broadly sessile, broader than long, subovate; column 5–7 mm, together with spur 9–16 mm ..... 3. *C. chinense*
- 1b. Each keel between lateral lobes of lip elevated into a solid, simple lobe; otherwise without above combination of characters.
  - 2a. Floral bracts 4–6 × ca. 2.5 mm; flowers with yellowish segments marked or tipped reddish purple, lip whitish, red stippled apically and below; lip epichile cuneate-subquadrate; keels on epichile ± distinct, ca. 0.4 mm high ..... 1. *C. formosanum*
  - 2b. Floral bracts 6–11 × 2–5.5 mm, ovate-oblong; flowers with white segments tipped violet or yellowish with red lines, or purple; lip epichile transversely elliptic; keels on epichile prominent, ca. 0.7 mm high ..... 2. *C. delavayi*

**1. *Collabium formosanum*** Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1): 319. 1911.

台湾吻兰 *tai wan wen lan*

*Collabiopsis formosana* (Hayata) S. S. Ying.

Rhizome slender, 2–3 mm in diam., internodes ca. 4 cm. Pseudobulbs widely spaced along rhizome, cylindric, 1.5–3.5 cm × 2–4 mm, petiole-like, enclosed by sheaths. Leaf blade ovate-lanceolate or oblong-lanceolate, 7–22 × 3–8 cm, papery, base subrounded or sometimes slightly cuneate, margin undulate, apex acuminate; petiole 1–2 cm. Peduncle to 38 cm, with several sheaths below; rachis laxly 4–9-flowered; floral bracts narrowly lanceolate, 4–6 × ca. 2.5 mm, acuminate. Flowers: sepals and petals green, adaxial apex with red spots, lip white with red spots and stripes; pedicel and ovary 1–1.5 cm. Dorsal sepal narrowly oblong-lanceolate, 15–17 × 2.2–2.5 mm, 3-veined, acuminate; lateral sepals falcate-oblong, slightly shorter and wider than dorsal sepal, 3-veined, base adnate to column foot, apex acuminate; mentum spurlike, ca. 4 mm. Petals similar to sepals, ca. 16 × 2 mm, 3-veined, acuminate; lip suborbicular, 10–14 mm, claw ca. 5 mm, 3-lobed at middle; lateral lobes obliquely ovate, ca. 8 mm wide (flattened), acute, apical margin irregularly serrate; mid-lobe obovate, ca. 5 mm wide, rounded and slightly concave, margin irregularly serrate; disk with 2 lamellae from base running to mid-lobe. Column ca. 1 cm, base dilated, foot ca. 4 mm, with wings dilated on upper

part and rounded-auriculate. Fl. May–Sep.

Dense forests or on rocks along valleys; 1000–2000 m. E and N Taiwan [Vietnam].

**2. *Collabium delavayi*** (Gagnepain) Seidenfaden, *Opera Bot.* 72: 26. 1984.

南方吻兰 *nan fang wen lan*

*Tainia delavayi* Gagnepain, *Bull. Mus. Natl. Hist. Nat., sér. 2*, 4: 708. 1932; *Chrysoglossum delavayi* (Gagnepain) Tang & F. T. Wang; *Collabiopsis delavayi* (Gagnepain) S. S. Ying.

Rhizome to 30 cm, 1.5–2 mm in diam., not branching. Pseudobulbs: leaf-bearing ones borne 6.5–8 cm apart, 1.5–2 × ca. 0.2 cm, rather angular in section; inflorescence-bearing ones 1.5–2 cm from leaf-bearing ones, smaller, cylindric. Leaf blade ovate-oblong, 5.5–12 × 2.5–4.3 cm, acute to acuminate; petiole 0.4–1.1 cm. Peduncle 13–17 cm; rachis to 8 cm, 4–7-flowered; floral bracts ovate-oblong, 0.6–1.1 cm × 2–5.5 mm, acute. Flowers recorded as white, with violet tips to sepals, yellowish with red lines, or purple; pedicel and ovary 12–13 cm. Dorsal sepal obovate to linear-lanceolate, 16–18 × 2–4 mm, 3-veined, acute to acuminate; lateral sepals unequal in size and shape, one more falcate than other, obovate to linear-lanceolate, 13–16.5 × 2–3 mm, 3-veined, acuminate. Petals similar to sepals, slightly falcate, 12–16.5 × 2–2.5 mm, 3-veined, acute to acuminate; lip 13–15.5 mm, 3-lobed; hypochile 7–10 × 9–10 mm; claw 4.5–

5.5 mm; lateral lobes erect, subovate, somewhat falcate, 6–7.5 × 2.5–4 mm, distally obtuse to acute and irregularly toothed to lacerate; epichile broadly obovate to transversely elliptic, 5.5–6 × 7–8 mm, margin toothed to lacerate, apex truncate to somewhat emarginate, somewhat recurved; lateral keels 2, between lateral lobes turning into an erect, incurved ligulate lobe with a rounded top, each keel continuing as an entire, thin crest, ending halfway or on top of epichile; median keel commencing from fleshy part between elevation of keels as a low, fleshy, entire ridge ending on basal half or top half of epichile. Column 9–10 mm, top part truncate, acutely tipped; column foot spur saccate, cylindrical, 5–6.5 mm. Fl. Jun, Nov.

• Primary forests, along streams, ravines, on rocks; 400–2400 m. Guangdong, N Guangxi, NE Guizhou, W Hubei, S Hunan, SE Yunnan.

**3. *Collabium chinense*** (Rolfe) Tang & F. T. Wang, Fl. Hainan. 4: 217. 1977.

吻兰 wen lan

*Nephelaphyllum chinense* Rolfe, Bull. Misc. Inform. Kew 1896: 194. 1896; *Chrysoglossum robinsonii* Ridley; *Collabiopsis chinensis* (Rolfe) S. S. Ying; *C. uraiensis* (Fukuyama) S. S. Ying; *Collabium uraiense* Fukuyama; *Tainia chinensis* (Rolfe) Gagnepain.

Rhizome terete, 3–4 mm in diam. Pseudobulbs cylindrical, usually ca. 4 cm × 2–4 mm, petiolate base slightly dilated and ± prostrate to rhizome, ± covered with sheaths. Leaf blade 7–15(–21) × (2–)4–7(–9) cm, papery, base subrounded, acute; petiole 1–2 cm. Peduncle 14–18 cm, glabrous, with 2–4 membranous tubular sheaths; rachis 4–7 cm, laxly 4–7-flowered; floral bracts ovate-lanceolate, 1.1–1.6 cm, acuminate. Flowers medium-sized, sepals and petals green, lip white, column yellow; pedicel and ovary 1–1.4 cm. Dorsal sepal oblong-lanceolate, ca. 10 × 2.5 mm, 5-veined, acuminate; lateral sepals ± falcate-ob-

long, ca. 10 × 3 mm, 5-veined, base adnate to column foot, apex acuminate; mentum spurlike, cylindrical, ca. 6 × 2.5 mm. Petals oblong, ca. 10 × 2 mm, acuminate; lip obovate, ca. 9 mm, clawed at base, 3-lobed; lateral lobes broadly sessile, subovate, 1.5–3 × 4–5 mm, obtuse; mid-lobe nearly oblate to subsquare, ca. 9 mm wide, rounded, apical margin slightly denticulate; disk with 2 lunar lamellae running to basal claw. Column 5–7 mm, together with spur 9–16 mm; wings slightly dilated into triangular teeth on both sides near apex. Fl. Jul–Nov.

Damp rocky places in dense forests or along valleys; 600–1000 m. S Fujian, S Guangdong, S Guangxi, Hainan, N Taiwan, SE Xizang, SE Yunnan [Thailand, Vietnam].

