

### 53. GALEOLA Loureiro, Fl. Cochinch. 2: 520. 1790.

山珊瑚属 shan shan hu shu

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Herbs, mycotrophic, erect, or scrambling vines, often with rather stout, tuberous rhizomes. Stem yellowish brown or reddish brown, often stout, slightly fleshy, with scales at nodes. Raceme or panicle terminal and lateral, with many slightly fleshy flowers; rachis pubescent; floral bracts persistent. Flowers usually yellow or tinged with reddish brown, medium-sized. Sepals free, abaxially often hairy. Petals slightly smaller than sepals, glabrous; lip unlobed, usually concave, cup-shaped or saccate, ± embracing column, conspicuously larger than sepals, spurless, with longitudinal ridge or callus adaxially. Column often short and stout, dilated at apex, curved, without column foot, subterminal; pollinia 2, cleft, granular-farinaceous, without caudicle or viscidium; stigma large, deeply concave; rostellum short, wide, above stigma. Fruit a dry capsule, rather long, dehiscent. Seeds with stout testa, with broad surrounding wing.

About ten species: mainly in tropical Asia, extending to S China, Japan, New Guinea, and Madagascar; four species (one endemic) in China.

- 1a. Plants climbing vines; stem with 1 aerial root at each node ..... 4. *G. nudifolia*
- 1b. Plants erect, not climbing; lacking aerial roots at nodes.
  - 2a. Floral bracts glabrous abaxially; lip with scattered lamellate appendages ..... 2. *G. faberi*
  - 2b. Floral bracts conspicuously hairy abaxially; lip without lamellate appendages.
    - 3a. Lip not contracted at base, never saccate; floral bracts 5–6(–10) mm ..... 1. *G. lindleyana*
    - 3b. Lip narrowed near saccate base; floral bracts (1–)1.2–1.5 cm ..... 3. *G. falconeri*

**1. Galeola lindleyana** (J. D. Hooker & Thomson) H. G. Reichenbach, *Xenia Orchid.* 2: 78. 1865.

毛萼山珊瑚 mao e shan shan hu

*Cyrtosia lindleyana* J. D. Hooker & Thomson in J. D. Hooker, *Ill. Himal. Pl.* t. 22. 1855; *Erythrorchis lindleyana* (J. D. Hooker & Thomson) H. G. Reichenbach; *Galeola kwangsiensis* Handel-Mazzetti; *G. lindleyana* var. *unicolor* Handel-Mazzetti; *G. matsudae* Hayata.

Herbs, tall. Rhizome stout, 2–3 cm in diam., with sparse ovate scales at nodes. Stem erect, reddish brown, 1–3 m tall, base ± ligneous, ± hairy or glabrous with age, nodes with broadly ovate scales. Panicle composed of terminal and lateral racemes; lateral raceme 2–5(–10) cm, several to 10-flowered, usually very shortly pedunculate; sterile bracts at base of raceme ovate-lanceolate, 1.5–2.5 cm, nearly glabrous; floral bracts ovate, 5–6 mm, abaxially rusty pubescent; pedicel and ovary often ± curved, 1.5–2 cm, densely rusty pubescent. Flowers yellow, ca. 3.5 cm in diam. Sepals elliptic to ovate-elliptic, 1.6–2 × 0.9–1.1 cm, abaxially densely shortly rusty tomentose and carinate; lateral sepals often slightly longer than dorsal sepal. Petals broadly ovate to suborbicular, slightly shorter than dorsal sepal, 1.2–1.4 cm wide, glabrous; lip concave, cup-shaped, nearly subglobose, ca. 1.3 cm in diam., adaxially papillate-hairy, near base with 1 smooth callus, unlobed, margin shortly fimbriate. Column clavate, ca. 7 mm; anther cap papillate-spinescent. Fruit pale brown, suboblong, 8–12(–20) × 1.7–2.4 cm; fruiting pedicel 1–1.5 cm. Seeds with broad wing, wings 1–1.3 mm wide. Fl. May–Aug, fr. Sep–Oct.

Sparse forests, sparse thickets, humus-rich and moist rocky places along valleys; 700–3000 m. Anhui, W Guangdong, N Guangxi, Guizhou, Henan, Hunan, S Shaanxi, Sichuan, Taiwan, SE Xizang, W to SE Yunnan [Bhutan, India, Indonesia, Nepal].

**2. Galeola faberi** Rolfe, *Bull. Misc. Inform. Kew* 1896: 200. 1896.

山珊瑚 shan shan hu

*Galeola shweliensis* W. W. Smith.

Herbs, 1–2 m tall. Rhizome nearly creeping, stout, to 2 cm in diam., nodes with sparse broadly ovate scales. Stem erect, reddish brown, base ± ligneous, upper part sparsely shortly rusty tomentose. Panicle composed of terminal and lateral racemes; lateral raceme 5–10 cm, usually 4–7-flowered; peduncle often 2–4 cm; sterile bracts at base of raceme lanceolate, 1–2 cm, glabrous; floral bracts lanceolate or ovate-lanceolate, 1–4 mm, abaxially glabrous; pedicel and ovary often 1–2 cm, ± rusty pubescent. Flowers yellow, ca. 3.5 cm in diam. Sepals narrowly elliptic or suboblong, 2.8–3 × 0.6–0.8 cm, abaxially slightly and very shortly rusty tomentose, apex obtuse. Petals similar to sepals, glabrous; lip obovate, ca. 2 × 1.2 cm, adaxially with many thick longitudinal veins, basal part concave, unlobed, margin incurved and irregularly incised and ± undulate; veins irregularly lamellate or crenate, mostly on distal part. Column 8–10 mm. Fl. May–Jul.

• Humus-rich and humid places in open forests or bamboo forests; 1800–2300 m. C Guizhou, SW Sichuan, NW to SE Yunnan.

**3. Galeola falconeri** J. D. Hooker, *Fl. Brit. India* 6: 88. 1890.

直立山珊瑚 zhi li shan shan hu

Plants 1–3 m tall. Rhizome 3–5 cm in diam., branched, nodes with many triangular scales. Stem erect, brownish, lower part almost glabrous, upper part sparsely and shortly rusty hairy. Panicle composed of terminal and lateral racemes; raceme (5–)10–20 cm; peduncle and rachis ± shortly tomentose; floral bracts ovate to narrowly elliptic, 1–2 cm, often vertical to rachis, abaxially shortly rusty tomentose; pedicel and ovary 2–2.8 cm, densely rusty tomentose. Flowers bright yellow. Sepals elliptic-oblong, 2.2–3 × 1–1.5 cm, abaxially shortly rusty tomentose. Petals slightly narrower than sepals, glabrous; lip broadly ovate or orbicular, ca. 2 × 1.6–1.8 cm, adaxially

densely papillate-hairy especially near margin, unlobed, concave, basal part ± embracing column, near base narrowed and forming a small sac, margin fimbriate and undulate-toothed. Column 7–8 mm. Capsule more than 10 cm. Fl. Jun–Jul.  $2n = 30$ .

Open places in forests, bamboo forests, sunny slopes; 800–2300 m. Anhui, S Hunan, Taiwan [Bhutan, India, Thailand].

The plants of Anhui, Hunan, and Taiwan are similar to each other but show some differences from the Himalayan plants, in which the lip is slightly 3-lobed and petals denticulate along margins. We follow H. J. Su in treating this entity as *Galeola falconeri* here, but further investigation is needed.

**4. *Galeola nudifolia*** Loureiro, Fl. Cochinch. 2: 521. 1790.

蔓生山珊瑚 man sheng shan shan hu

*Cranichis nudifolia* (Loureiro) Persoon; *Erythrorchis kuhlii* H. G. Reichenbach; *Galeola hydra* H. G. Reichenbach; *G. kuhlii* (H. G. Reichenbach) H. G. Reichenbach.

Plants climbing. Rhizome nearly creeping, ca. 1 cm in diam., with many sparse, broadly ovate, fleshy scales. Stem 1–3 m, branched, lower part almost glabrous, upper part slightly pubescent, often with 1 aerial root at each node. Inflorescence large, branched, composed of many racemes and panicles; lateral racemes or panicles 5–16 cm; rachis ± rusty pubescent, bearing flowers in succession near apex; basal sterile bracts ovate, 1–2 cm, glabrous, amplexicaul; floral bracts ovate, 2.5–4 mm, abaxially hairy; pedicel and ovary 1–1.2 cm, with short hairs. Flowers yellow, ± with orange-red veins adaxially. Sepals subelliptic, 1.2–1.4 × 0.6–0.8 cm, lateral sepals obviously wider than dorsal sepal, abaxially ± hairy when young. Petals similar to dorsal sepal, glabrous; lip suborbicular, strongly concave, slightly shorter than sepals, shortly hairy adaxially, near base with 1 callus. Column strongly curved, ca. 5 mm. Fl. Apr–Jun.

Forests or shaded slopes along valleys; 400–500 m. S Hainan [Bhutan, India, Indonesia, Malaysia, Myanmar, Philippines, Thailand, Vietnam].

