

55. LECANORCHIS Blume, Mus. Bot. 2: 188. 1856.

孟兰属 *yu lan shu*

Chen Xinqi (陈心启 Chen Sing-chi); Phillip J. Cribb, Stephan W. Gale

Herbs, mycotrophic. Rhizomes creeping or ascending, cylindrical, slender, slightly rigid or subfleshy, branched or simple. Stem suberect, slender, branched or simple, with sparse scalelike sheaths. Raceme terminal, usually several to 10-flowered; floral bracts small, membranous. Flowers usually resupinate, small or medium-sized, with 1 small toothed cup (calyculus) between ovary and perianth, with abscission layer above calyculus near perianth base. Sepals and petals free, similar; lip base clawed, usually by canaliculate claw connate to column foot forming a tube, rarely free, spurless, upper part 3-lobed or unlobed; disk often hairy or papillose. Column rather slender, slightly dilated toward apex, slightly clavate; anther subterminal, 2-locular; pollinia 2, granular-farinaceous, without caudicle or conspicuous viscidium; rostellum short. Fruit a cylindrical capsule.

About ten species: SE Asia to the Pacific islands, north to S China and Japan; four species (one endemic) in China.

Hsu and Chung (Taiwania 54: 83. 2009) recently added three species of *Lecanorchis* to the flora of China based on new discoveries in Taiwan. However, detailed accounts have yet to be published. Two of the three species, *L. suginoana* (Tuyama) Serizawa (Bunrui 5(1): 38. 2005) and *L. virella* T. Hashimoto (Ann. Tsukuba Bot. Gard. 8: 1. 1989), are also known to occur only in Japan, from where they were originally described. The third, *L. triloba* J. J. Smith (Bull. Dep. Agric. Indes Neerl. 19: 26. 1908; *L. javanica* Blume), is more widespread throughout parts of mainland SE Asia, the Malay Archipelago, New Guinea, and S Japan. The present authors have not seen Chinese material for any of these species. In the absence of refutable material, the three taxa are omitted from the following account.

- 1a. Lip simple, ca. 1.5 mm wide 4. *L. nigricans*
- 1b. Lip ± 3-lobed, more than 3 mm wide.
 - 2a. Raceme 13–21-flowered; sepals 9–10 mm 1. *L. multiflora*
 - 2b. Raceme 3–9-flowered; sepals 11–25 mm.
 - 3a. Sepals 11–14 mm; mid-lobe of lip sparsely hairy adaxially 2. *L. japonica*
 - 3b. Sepals 18–25 mm; mid-lobe of lip densely hairy adaxially 3. *L. thalassica*

1. *Lecanorchis multiflora* J. J. Smith, Bull. Jard. Bot. Buitenzorg, sér. 2, 26: 8. 1918.

多花孟兰 *duo hua yu lan*

Plants 20–30 cm tall, with fleshy rhizomes underground. Rhizomes 3–4 mm in diam., branched, with nodes, nodes with amplexicaul sheaths; sheaths membranous, margin toothed. Stem suberect, slender, noded, nodes with sheaths; sheaths ovate to broadly ovate, 4–6 mm, membranous, base amplexicaul. Raceme terminal, 8–10 cm, 13–21-flowered; floral bracts ovate, 2–3 mm, membranous. Flowers 9–10 mm; lip 3-lobed; mid-lobe hairy adaxially; disk with 2 calli. Capsule (immature) 1.7–2 cm.

Forests in limestone areas; 600–700 m. S Yunnan [Indonesia, Malaysia, Thailand].

2. *Lecanorchis japonica* Blume, Mus. Bot. 2: 188. 1856.

孟兰 *yu lan*

Lecanorchis cerina Fukuyama; *L. cerina* f. *albida* (T. P. Lin) S. S. Ying; *L. cerina* var. *albida* T. P. Lin; *L. ohwii* Masamune.

Plants ca. 33 cm tall. Rhizome 5–6 mm in diam., fleshy. Stem tinged with white, black when fruiting, slender, with 4 sheaths below middle; sheaths tubular, 5–7 mm, membranous, amplexicaul. Raceme terminal, 4–5 cm, 3–7-flowered; floral bracts ovate to ovate-lanceolate, 2.5–3 mm; pedicel and ovary 1.4–2 cm, slender; calyculus 0.8–1 mm tall, ca. 1 mm wide, 6-toothed. Sepals oblanceolate, 11–14 × 2–2.5 mm, apex obtuse. Petals similar to sepals; lip base clawed, canaliculate claw con-

nate to column along margin forming a tube; tube 3.5–4 mm; distal free part nearly obovate or obovate-lanceolate, 8–9 mm, 3-lobed; lateral lobes subovate; mid-lobe broadly elliptic or orbicular, ca. 3 × 4 mm, adaxially densely barbate-villous, margin crisped and erose; disk barbate-villous. Column 7–10 mm, apex slightly dilated. Capsule erect, cylindrical, 2–4 cm. Fl. May–Jul.

Forests; 800–1000 m. N Fujian, SW Hunan, Taiwan [Japan].

3. *Lecanorchis thalassica* T. P. Lin, Native Orchids Taiwan 3: 153. 1987 [“*thalassicus*”].

灰绿孟兰 *hui lu yu lan*

Lecanorchis japonica Blume var. *thalassica* (T. P. Lin) S. S. Ying.

Plants to 50 cm tall. Rhizome ascending. Stem erect, reddish brown, with black dots, unbranched, with several sheaths; sheaths dark brown, 3–4 mm. Raceme terminal, 3–4 cm, 4–10-flowered; floral bracts persistent, ovate, ca. 2 mm; pedicel and ovary 2.5–3.3 cm; calyculus very small, ca. 1 mm tall, margin toothed. Flowers not widely open, margin grayish green and yellowish. Dorsal sepal oblanceolate, ca. 20×5 mm, apex obtuse; lateral sepals falcate-oblanceolate, ca. 20×3 mm. Petals obovate-lanceolate to spatulate, ca. 20×6 mm, apex obtuse or rounded; lip obovate, ca. 1.6 cm, cuneate toward base, distal part 3-lobed, basal half connate to column forming a tube; tube ca. 8 mm, contracted near middle, swollen part ca. 3 mm wide; lateral lobes erect, abaxially purple, suborbicular, adaxially shortly villous; mid-lobe entire, suborbicular, ca. 5.5 mm, abaxially with several purple bands, adaxially densely yellow villous, apex emarginate; disk with yellow hairs extending to mid-lobe. Column ca. 9 mm, apex dilated. Fl. May.

- Broad-leaved forests; 1400–2000 m. C Taiwan.

4. **Lecanorchis nigricans** Honda, Bot. Mag. (Tokyo) 45: 470. 1931.

全唇盂兰 *quan chun yu lan*

Lecanorchis oligotricha Fukuyama; *L. purpurea* Masamune; *L. taiwaniana* S. S. Ying.

Plants 12–40 cm tall. Rhizome ascending, ligneous, with short scales at nodes. Stem erect, blackish, slender, often branched, remotely with several sheaths. Raceme terminal, 3–5 cm, 5–8-flowered; floral bracts ovate-triangular, 2–4 mm; pedicel and ovary purplish brown, 1–2 cm, slender; calyculus ca. 0.8 mm tall, denticulate. Flowers almost opening widely; sepals and petals brownish to nearly whitish, sometimes tinged with purple, concave. Sepals narrowly oblanceolate, $10\text{--}16 \times 2\text{--}3$ mm, apex acute; lateral sepals somewhat oblique, falcate-lanceolate, $12\text{--}14 \times$ ca. 2.5 mm. Petals oblanceolate-linear, similar to sepals in size; lip whitish, tinged with purple, narrowly oblanceolate to obovate-spatulate, nearly as long as sepals, adaxially \pm papillose-hairy, unlobed. Column white, 6–10 mm, slender. Fl. Aug–Oct.

Damp places in forests; 600–1000 m. Fujian, N Taiwan [Japan (Ryukyu Islands)].

