

### 40. PECTEILIS Rafinesque, Fl. Tellur. 2: 37. 1837.

白蝶兰属 bai die lan shu

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

Herbs, terrestrial, medium-sized to large. Tubers solitary or paired, oblong, ellipsoid, or subglobose, undivided, fleshy, neck with several slender roots. Stem erect, often stout, leafy. Leaves cauline and alternate or in a basal rosette, ovate-elliptic or ovate, slightly fleshy, amplexicaul at base. Inflorescence terminal, with 1 to several flowers; floral bracts large, foliaceous. Flowers resupinate, often large, showy, usually white; pedicel and ovary twisted, usually slightly arcuate, narrowly fusiform. Sepals free, similar, broad; dorsal sepal erect; lateral sepals oblique. Petals linear-lanceolate, oblanceolate, or oblong, often narrower and smaller than sepals; lip decurved, irregularly ovate to flabellate, spurred, deeply 3-lobed; lateral lobes spreading, margin fimbriate-lacerate, denticulate, or rarely entire; mid-lobe straight, linear or broadly triangular; spur pendulous, straight to strongly curved, cylindrical, often very long, much longer than ovary. Column erect, short; anther erect, 2-locular; locules widely spaced in a very broad connective; pollinia 2, granular-farinaceous, sectile; caudicles slender; viscidia small, each hidden in a tubular fold at end of rostellum arms; lateral appendages 2, elliptic, small, at base of anther; rostellum 3-lobed, lateral arms long, tapering, mid-lobe blunt; stigma lobes adnate to base of lip, connate, convex, sessile.

About five species: E and SE Asia, Himalayas; three species in China.

- 1a. Leaves linear to narrowly lanceolate, to 0.8 cm wide; sepals 7–10 mm; outer margin of petals dentate to shallowly fimbriate ..... 3. *P. radiata*
- 1b. Leaves ovate, ligulate-oblong, oblong, or lanceolate, 2–6 cm wide; sepals 15–40 mm; petals entire.
  - 2a. Leaves 3–6 cm wide, intergrading into foliaceous sheaths above; sepals 25–40 mm; dorsal sepal broadly ovate to orbicular, much longer than petals; lip ecallose ..... 1. *P. susannae*
  - 2b. Leaves 2–3.5 cm wide, usually distinct from bractlike sheaths above; sepals 15–20 mm; dorsal sepal oblong-ovate, subequal in length to petals; lip with a small callus near base ..... 2. *P. henryi*

**1. *Pecteilis susannae*** (Linnaeus) Rafinesque, Fl. Tellur. 2: 38. 1837 [“*susanna*”].

龙头兰 long tou lan

*Orchis susannae* Linnaeus, Sp. Pl. 2: 939. 1753; *Habenaria susannae* (Linnaeus) R. Brown; *Hemihabenaria susannae* (Linnaeus) Finet; *Platanthera robusta* Lindley; *P. susannae* (Linnaeus) Lindley.

Plants robust, 45–120 cm tall. Tubers ovoid-cylindric, 3–6 × 1–2.5 cm. Stem stout, with several tubular sheaths at base and several to many leaves intergrading into amplexicaul sterile bracts above. Leaves ovate, oblong, or lanceolate, 6–10(–12) × 3–6 cm, apex acute. Sterile bracts often foliaceous, ovate-elliptic to lanceolate, 4–7 × 1–3.5 cm, apex acuminate. Rachis 6–15 cm, laxly 2–5-flowered; floral bracts foliaceous, lanceolate, 3–5 cm, shorter than, equal to, or slightly exceeding ovary, apex acute to acuminate. Flowers fragrant, white, large; pedicel and ovary 40–60 mm, shallowly winged, glabrous. Dorsal sepal erect, broadly ovate to orbicular, 25–30 × 20–28 mm, apex obtuse-rounded; lateral sepals spreading, broadly ovate, slightly oblique, 25–40 × 12–22 mm, usually slightly longer than dorsal sepal, apex obtuse. Petals linear-lanceolate, 7–12 × ca. 2.5 mm; lip irregularly ovate, 25–40 × 25–44 mm; lateral lobes broad, subflabellate, 16–22 × 18–24 mm, lateral margins entire, apical margin lacerate-fimbriate; mid-lobe linear-oblong, 18–30 × 4–6 mm, slightly fleshy, entire; spur straight to gradually curved forward, 6–13 cm × 3–5 mm, apex acute. Fl. Jul–Sep. *2n* = 36, 42, 44.

Forests, grassy slopes, damp places in valleys; 500–2500 m. Fujian, Guangdong, Guangxi, Guizhou, Hainan, Jiangxi, SW Sichuan,

Yunnan [Cambodia, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Thailand, S Vietnam].

**2. *Pecteilis henryi*** Schlechter, Repert. Spec. Nov. Regni Veg. Beih. 4: 45. 1919.

滇南白蝶兰 dian nan bai die lan

*Habenaria bassacensis* Gagnepain; *H. lacei* (Rolfe ex Downie) Gagnepain; *Pecteilis bassacensis* (Gagnepain) Tang & F. T. Wang; *P. lacei* (Rolfe ex Downie) Tang & F. T. Wang; *P. susannae* (Linnaeus) Rafinesque subsp. *henryi* (Schlechter) Soó; *Platanthera lacei* Rolfe ex Downie.

Plants slender to robust, 50–70 cm tall. Tubers oblong, ca. 3.5 × 1.5 cm. Stem stout, with 1 to several tubular sheaths at base, with 4–6 or more leaves and several amplexicaul sterile bracts above. Leaves ligulate-oblong to lanceolate, 7.5–10(–12) × 2–3.5 cm, apex acute. Sterile bracts usually tightly sheathing stem, narrowly elliptic to lanceolate, 6–10 × 1–1.5 cm, apex acute. Rachis 5–8 cm, laxly 4–7-flowered; floral bracts foliaceous, narrowly oblong-lanceolate, 3–4 cm, exceeding ovary, apex acute. Flowers white, large; pedicel and ovary 25–45 mm, shallowly winged, glabrous. Dorsal sepal oblong-ovate, 15–20 × 8–15 mm, apex obtuse; lateral sepals spreading, oblong-ovate, slightly oblique, 15–20 × 6–14 mm, apex obtuse. Petals erect to spreading, oblanceolate to linear, slightly oblique, 12–18 × 1–2.5 mm, apex subacute; lip broadly flabellate, 20–25 × 15–25 mm; disk with 1 small, convex callus near base; lateral

lobes broadly cuneate-ligulate to nearly rhombic, 15–20 × ca. 14 mm, apical margin and outer lateral margins deeply lacerate-fimbriate, inner lateral margins entire; mid-lobe linear-ligulate, 15–22 × ca. 3 mm, slightly fleshy, entire, apex slightly obtuse; spur pendulous, often distinctly curved forward, slender, 8–11.5 cm × 1–1.5 mm, attenuate toward apex. Fl. Jul.

Forests, grasslands, gullies; 1000–1900 m. S Yunnan [Cambodia, Laos, Myanmar, Thailand, Vietnam].

**3. *Pecteilis radiata*** (Thunberg) Rafinesque, Fl. Tellur. 2: 38. 1837.

狭叶白蝶兰 xia ye bai die lan

*Orchis radiata* Thunberg, Trans. Linn. Soc. 2: 326. 1794; *Habenaria radiata* (Thunberg) Sprengel; *Hemihabenaria radiata* (Thunberg) Finet; *Plantaginorchis radiata* (Thunberg) Szlachetko; *Platanthera radiata* (Thunberg) Lindley.

Plants slender, 18–37 cm tall. Tubers ellipsoid to subglobose, 0.8–2 × 0.5–1 cm. Stem slender, with 1 or 2 tubular sheaths at base, 3–5 spaced cauline leaves, and 1–3 sterile bracts above. Leaves linear to narrowly lanceolate, 4–10 × 0.3–0.8 cm, apex acuminate. Sterile bracts linear, 1.5–4 × 0.2–0.5 cm, apex acuminate. Rachis to 3.5 cm, 1- or 2-flowered; floral bracts ovate-lanceolate, 7–12 mm, shorter than ovary, apex acuminate. Flowers white, large; pedicel and ovary 10–15 mm, slightly ridged, glabrous. Dorsal sepal suberect, pale green, narrowly ovate, 7–10 × 2–3 mm, 5–7-veined, apex acute; lateral sepals spreading, pale green, narrowly ovate, slightly oblique, 8–10 × 2–4 mm, 5–7-veined, apex acute. Petals erect and loosely connivent with dorsal sepal, white, ovate, oblique, 10–12 × 3.5–6 mm, outer margin toothed to shallowly fimbriate, apex subacute; lip irregularly flabellate, 13–18 × 16–25 mm; lateral lobes obliquely flabellate, 8–12 × 6–10 mm, outer margins deeply fimbriate-laciniate; mid-lobe linear, 5–10 × 1–2 mm, slightly fleshy, entire, apex subobtuse; spur pendulous, straight to slightly curved forward, 25–40 × ca. 1.5 mm, slender, slightly dilated toward apex, apex obtuse. Fl. Jul–Aug. *2n* = 32, 48.

Glades in forests; ca. 1500 m. W Henan [Japan].

