

16. BECCARINDA Kuntze, Revis. Gen. Pl. 2: 470. 1891.

横蒴苣苔属 heng shuo ju tai shu

Petrodora J. Anthony; *Slackia* Griffith.

Herbs, rarely shrubs, perennial, epipetric or terrestrial, rhizomatous, stemless or simple stemmed. Leaves many, basal or on stem, equal to subequal in a pair; leaf blade strigose to villous or glabrescent, base cordate to cuneate. Inflorescences often umbel-like, lax, axillary, 1- to few-flowered cymes; bracts 2, opposite. Calyx actinomorphic, 5-sect from base; segments equal. Corolla blue-purple to red, zygomorphic, inside glabrous, outside oblique, campanulate, not swollen, shorter than to nearly equalling limb, 3–9 mm in diam.; limb 2-lipped; adaxial lip 2-lobed, distinctly shorter than abaxial lip; abaxial lip 3-lobed, lobes equal or central lobe longer, apex rounded to obtuse. Stamens 4, adnate to corolla near or slightly above base, included; anthers basifixed, all 4 coherent together, thecae subparallel, slightly divergent at base, confluent at apex, dehiscent poricidally; connective not projecting; staminode 1 or absent, adnate to adaxial side of corolla tube. Disc ringlike or inconspicuous. Ovary ovoid, 1-loculed; placentas 2, parietal, projecting inward, 2-cleft. Stigma 1, terminal, capitate, undivided. Capsule oblique in relation to pedicel, narrowly ovoid to very narrowly oblong, much longer than calyx, dehiscent loculicidally to base; valves 2, straight, not twisted. Seeds unappendaged.

About seven species: China, Myanmar, N Vietnam; five species in China.

- 1a. Peduncle 1.2–4 cm; leaf blade 1–3.5 × 0.6–2.2 cm, margin crenulate-serrate to subentire; lateral veins 3 or 4 on each side of midrib; bracts 1–2 × ca. 0.5 mm; anthers ca. 0.5 mm; pistil sparsely puberulent; capsule 6–10 mm 5. *B. minima*
- 1b. Peduncle (5–)7–17 cm; leaf blade 2.5–12 × 1.5–8.5 cm, margin crenate to dentate, denticulate, or serrate; lateral veins 4–6 on each side of midrib; bracts 2–6 × 2–5 mm; anthers 1.4–2.5 mm; pistil glabrous (unknown in *B. paucisetulosa*); capsule 1.5–2.7 cm (unknown in *B. paucisetulosa*).
 - 2a. Plants with stems 12–20 cm, leaves crowded near stem apex; most of plant covered with purple-red hairs; leaf blade apex acute; bracts elliptic 4. *B. erythrotricha*
 - 2b. Plants stemless or with stems to 10 cm, leaves basal or alternate and spaced along stem; most of plant with whitish, yellowish, or brownish hairs; leaf blade apex acute to rounded; bracts ovate or broadly ovate.
 - 3a. Leaf blade 2.5–4 × 3–3.5 cm, adaxially sparsely minutely bristly, abaxially minutely bristly along veins and margin; calyx segments outside sparsely villous; anthers ca. 2.5 mm 2. *B. paucisetulosa*
 - 3b. Leaf blade 3–12 × 1.5–8.5 cm, adaxially hirsute or strigose, abaxially less densely so; calyx segments outside pubescent or sparsely pubescent; anthers 1.4–1.5 mm.
 - 4a. Leaf blade ovate to orbicular, base cordate, rarely rounded, whitish to brownish hirsute; plant with whitish to brownish hairs 1. *B. tonkinensis*
 - 4b. Leaf blade elliptic to ovate, base rounded to broadly cuneate, rarely subcordate, short strigose; plant with white or yellowish hairs 3. *B. argentea*

1. *Beccarinda tonkinensis* (Pellegrin) B. L. Burtt, Notes Roy. Bot. Gard. Edinburgh 22: 64. 1955.

横蒴苣苔 heng shuo ju tai

Slackia tonkinensis Pellegrin, Bull. Soc. Bot. France 73: 428. 1926; *Beccarinda sinensis* (W. Y. Chun) B. L.

Burtt; *Slackia sinensis* W. Y. Chun.

Herbs, perennial, stemless. Leaves basal; petiole (2–)4–13 cm; leaf blade ovate to orbicular, 3–12 × 2.5–8.5 cm, adaxially whitish to brownish hirsute, abaxially short whitish to brownish hirsute, base cordate, rarely rounded, margin coarsely crenate, apex rounded to obtuse; lateral veins 5 or 6 on each side of midrib. Peduncle (5–)7–17 cm, brownish hirsute; bracts broadly

ovate, 3–5 × 3–4 mm, outside nearly glabrous, inside pubescent to hirsute. Calyx segments ovate to obovate, 2–4.5 × 1.5–2.5 mm, outside sparsely pubescent.

Corolla blue-purple, (0.7–)1–1.6 cm, outside sparsely puberulent; tube ca. 5 mm; adaxial lip lobes ca. 3 mm; ones of abaxial lip ca. 5 mm. Filaments ca. 3 mm; anthers ca. 1.5 mm. Pistil glabrous; ovary ca. 2 mm. Style ca. 6 mm. Capsule 1.5–2.5 cm. Fl. Apr–Jun, fr. May–Sep.

Rocks on forested slopes; 700–2400 m. Guangxi, S Guizhou, S Sichuan, SE Yunnan [N Vietnam].

2. *Beccarinda paucisetulosa* C. Y. Wu ex H. W. Li, Bull. Bot. Res., Harbin 3(2): 14. 1983.

少毛横蒴苣苔 *shao mao heng shuo ju tai*

Herbs, perennial, stemless. Leaves basal; petiole 2.5–4.5 cm; leaf blade ovate, 2.5–4 × 3–3.5 cm, adaxially sparsely setulose, abaxially setulose along veins and margin, base cordate, margin crenate, apex rounded; lateral veins 4 or 5 on each side of midrib. Peduncle 8–12 cm, tawny villous; bracts broadly ovate, ca. 4 × 5 mm, sparsely villous. Calyx segments narrowly ovate, ca. 5 × 2.5–3 mm, outside sparsely villous. Corolla purple, ca. 9 mm, outside sparsely puberulent; tube ca. 4 mm; adaxial lip lobes ca. 2.5 mm; abaxial lip lobes ca. 5 mm. Filaments ca. 3 mm; anthers ca. 2.5 mm. Ovary ca. 2 mm. Style ca. 4 mm. Fruit unknown. Fl. May.

- Forest margins; ca. 2100 m. SE Yunnan (Jinping Xian).

3. *Beccarinda argentea* (J. Anthony) B. L. Burt, Notes Roy. Bot. Gard. Edinburgh 22: 63. 1955.

饰岩横蒴苣苔 *shi yan heng shuo ju tai*

Petrodora argentea J. Anthony, Notes Roy. Bot. Gard. Edinburgh 18: 203. 1934.

Herbs, perennial. Stemless or stems to 10 cm. Leaves basal or alternate and spread along stem; petiole 2–8 cm; leaf blade elliptic to ovate, 3.5–10 × 1.5–6 cm, adaxially white short strigose, abaxially sparsely short strigose, base rounded to broadly cuneate, rarely subcordate, margin crenate to dentate or serrate, apex acute to rounded; lateral veins 5 or 6 on each side of midrib. Peduncle (3–)6–11 cm, yellowish pubescent; bracts ovate, 4–6 × 2–4 mm, short strigose. Calyx segments lanceolate to narrowly ovate, 3–4 × 1.2–2 mm, outside pubescent. Corolla purple to purple-red, 1.2–1.8 cm, outside sparsely pubescent; tube 5–6 mm; adaxial lip 3–5 mm; abaxial lip 0.9–1.1 cm. Filaments ca. 3 mm; anthers ca. 1.4 mm. Pistil glabrous; ovary ca. 2 mm. Style 4–6 mm. Capsule 1.5–3 cm. Fl. Mar, fr. Jun.

- Rocks under forests in valleys; 1200–1600 m. SE Yunnan.

4. *Beccarinda erythrotricha* W. T. Wang in W. T. Wang & K. Y. Pan, Bull. Bot. Res., Harbin 2(2): 121. 1982.

红毛横蒴苣苔 *hong mao heng shuo ju tai*

Subshrubs or herbs, perennial. Stems 12–20 cm. Leaves alternate, often crowded near stem apex; petiole 1.6–9 cm; leaf blade elliptic to ovate, 6.4–8.4 × 3–4.8 cm, sparsely villous or hirsute, abaxially densely purple-red pubescent along midrib and lateral veins, base broadly cuneate to nearly rounded, margin serrate to denticulate, apex acute; lateral veins 5 or 6 on each side of midrib. Peduncle 7–16 cm, purple-red villous to hirsute; bracts elliptic, 2–5 × ca. 2 mm, sparsely brownish villous to hirsute. Calyx segments narrowly ovate to lanceolate, 3.2–5 × 1.5–1.8 mm, outside reddish hirsute to sparsely pubescent. Corolla purplish, ca. 1.7 cm, outside sparsely pubescent; tube ca. 5 mm; adaxial lip lobes ca. 2 mm; abaxial lip ca. 1.1 cm, central lobe ca. 7 mm, lateral lobes ca. 3 mm. Filaments ca. 2.2 mm; anthers ca. 1.6 mm. Pistil glabrous; ovary ca. 2.5 mm. Style ca. 4.5 mm. Capsule 2–3.1 cm. Fl. Jun–Oct, fr. Jan–Jun.

- Dense forests; 1400–1700 m. SE Yunnan (Pingbian Xian).

Burt (Notes Roy. Bot. Gard. Edinburgh 22: 64. 1955) recognized this species as new but did not describe it.

5. *Beccarinda minima* K. Y. Pan, Acta Phytotax. Sin. 26: 437. 1988.

小横蒴苣苔 *xiao heng shuo ju tai*

Herbs, perennial, stemless. Leaves basal; petiole 1–4 cm; leaf blade elliptic to ovate, 1–3.5 × 0.6–2.2 cm, adaxially sparsely villous, abaxially sparsely pubescent, base often oblique, broadly cuneate to subcordate, margin crenulate-serrate to subentire, apex acute to rounded; lateral veins 3 or 4 on each side of midrib. Peduncle 1.2–4 cm, sparsely pubescent; bracts ovate, 1–2 × ca. 0.5 mm, pubescent to glabrous. Calyx segments lanceolate to narrowly oblong, 1.5–2 × ca. 0.5 mm, outside sparsely pubescent. Corolla purple-blue to white, ca. 8 mm, outside glabrous; tube ca. 4 mm; adaxial lip ca. 2 mm; abaxial lip ca. 4 mm. Filaments 2.5–3 mm; anthers ca. 0.5 mm. Pistil sparsely puberulent; ovary ca. 1 mm. Style ca. 3 mm. Capsule 6–10 mm. Fl. May–Jul, fr. Jul.

- Damp limestone cliffs; 400–1200 m. E Guangxi.

