

9. **BLASTUS** Loureiro, Fl. Cochinch. 2: 517, 526. 1790.

柏拉木属 bai la mu shu

Shrubs. Branches terete, usually glandular pubescent. Leaves opposite, petiolate to almost sessile; leaf blade oblong-lanceolate to ovate-lanceolate, secondary veins 1 or 2(or 3) on each side of midvein. Inflorescences axillary and umbellate cymes or umbellate or terminal and cymose panicles; peduncle usually short, rarely long or absent; bracts absent or caducous. Flowers (3 or)4(or 5)-merous, minute. Hypanthium funnellform to funnellform-campanulate, (3 or)4(or 5)-sided. Petals 4, ovate, oblong, or rarely lanceolate. Stamens 4(or 5), whorls equal in shape and length; anthers apically attenuate, curved or geniculate, divergent at base, dehiscence poricidal; connective slightly inflated, not appendaged at base. Ovary inferior, 4-celled; placentation axile, paired. Style filiform, simple. Capsule obscurely 4-furrowed, opening at apex by 4 pores, finally loculicidally dehiscent into 4-valves. Seeds very numerous, cuneate.

Twelve species: Cambodia, China, E India, Indonesia, Japan (Ryukyu Islands), Laos, Myanmar, Thailand, Vietnam; nine species (seven endemic) in China.

The genus was revised by Hansen (Bull. Mus. Natl. Hist. Nat., B, Adansonia 1: 43–77. 1982). Further study is necessary to be confident of the status of *Blastus tenuifolius* and *B. tsaii*.

- 1a. Leaves sessile; leaf blade fiddle-shaped-elliptic, base auriculate 1. *B. auriculatus*
- 1b. Leaves ± petiolate; leaf blade ovate to elliptic, base not auriculate.
 - 2a. Inflorescences terminal.
 - 3a. Anthers ca. 4 mm; hypanthium in flower ca. 5 mm 2. *B. brevissimus*
 - 3b. Anthers (4.8–)6.2–7.4(–8) mm; hypanthium in flower 3.8–6(–8) mm 6. *B. pauciflorus*
 - 2b. Inflorescences axillary, subtended by a leaf or inserted at leaf scars.
 - 4a. Hypanthium densely lepidote with a dense cover of peltate glands 4. *B. cochinchinensis*
 - 4b. Hypanthium not lepidote, with only a few peltate glands.
 - 5a. Hypanthium with long patent trichomes in addition to a few peltate glands 5. *B. mollissimus*
 - 5b. Hypanthium lacking patent trichomes.
 - 6a. Leaf blade adaxially minutely puberulous and sparsely strigose 7. *B. setulosus*
 - 6b. Leaf blade adaxially glabrous or sparsely puberulous when young but then glabrescent.
 - 7a. Petals ca. 3 mm; anthers (0.9–)1.4–2.8 mm 3. *B. borneensis*
 - 7b. Petals 4–5 mm; anthers 3.5–4 mm.
 - 8a. Leaf blade oblong to narrowly ovate-oblong, 4–7.5 cm wide 8. *B. tenuifolius*
 - 8b. Leaf blade lanceolate to rarely elliptic, 2.5–4.2 cm wide 9. *B. tsaii*

1. **Blastus auriculatus** Y. C. Huang ex C. Chen, Fl. Yunnan. 2: 103. 1979.

耳基柏拉木 er ji bai la mu

Shrubs. Stems terete; branches densely yellow glandular. Leaves sessile; leaf blade fiddle-shaped-elliptic, 13–24 × 4.5–8 cm, papery, abaxially densely glandular, adaxially glandular when young but glabrescent, secondary veins 1 on each side of midvein, base auriculate, margin entire and ciliate, apex acuminate. Inflorescences axillary, cymose, 5–9-flowered, ca. 1 cm, densely glandular; bracts small, caducous. Pedicel ca. 2 mm, densely glandular. Hypanthium long funnellform, ca. 3.5 mm, 4-sided, glandular. Calyx lobes 4, ca. 0.5 mm, margin repand, apex apiculate. Petals 4, white, ovate, ca. 2.2 mm, apex abruptly acuminate. Stamens 4; filaments ca. 2 mm; anthers ca. 3.5 mm, slightly curved; connective slightly inflated at base. Ovary inferior, urceolate, 4-celled, glandular. Capsule elliptic; hypanthium ca. 3.5 mm, obtusely 4-sided, densely glandular, 4-dentate at limb. Fl. Jun, fr. Jul.

- Mixed forests, bamboo forests. 200–300 m. Yunnan.

2. **Blastus brevissimus** C. Chen, Bull. Bot. Res., Harbin 4(3): 35. 1984.

短柄柏拉木 duan bing bai la mu

Shrubs to 50 cm tall. Stems terete, densely puberulous and

with glandular trichomes or setose when young. Petiole very short to nearly absent; leaf blade ovate to lanceolate-ovate, 15–17 × 5–6 cm, papery, abaxially puberulous on veins, sparsely patently setose, and yellow glandular, adaxially puberulous on veins otherwise glabrous, secondary veins 2 on each side of midvein, base rounded to subcordate, margin entire or inconspicuously denticulate, apex acuminate. Inflorescences terminal, paniced cymose, ca. 4 × 2 cm, puberulous. Pedicel 2–3 mm. Hypanthium funnellform, ca. 5 mm, glandular. Calyx lobes spatulate, ca. 2.5 mm, glandular, apex rounded. Petals 4, red, oblong-ovate, ca. 4 mm, base obtuse, apex acuminate. Stamens 4; filaments ca. 4 mm; anthers linear-lanceolate, ca. 4 mm, slightly curved; connective, extended to a discoid base. Ovary half inferior, ovoid, 4-celled, ± glandular. Capsule ca. 6 × 4 mm, 4-sided, glandular, crowned by hypanthium lobes. Fl. ca. Aug, fr. Oct.

- Dense mixed forests, mountain slopes; ca. 400 m. Guangxi.

3. **Blastus borneensis** Cogniaux ex Boerlage, Handl. Fl. Ned. Ind. 1: 531. 1890.

南亚柏拉木 nan ya bai la mu

Blastus cogniauxii Stapf.

Shrubs. Stems terete; branches densely puberulous and glandular, glabrescent. Petiole 0.7–2 cm, puberulous; leaf blade lanceolate to ovate-lanceolate, 11–21 × 3–6.5 cm, papery to

submembranous, abaxially puberulous along veins when young otherwise densely yellow glandular, adaxially glabrous, secondary veins 2 on each side of midvein, base cuneate to obtuse, margin entire, apex acuminate. Inflorescences axillary, compound cymose, ca. 3.5 cm, puberulous; bracts caducous. Pedicel ca. 2 mm. Hypanthium campanulate-funnelform, 1.1–2.7(–3.5) mm, 4-sided, glandular. Calyx lobes broadly triangular, ca. 1 mm, apex acuminate. Petals white or yellow, broadly ovate, ca. 3 × 1.5 mm, sparsely glandular, margin minutely dentate, apex acuminate. Stamens 4; filaments ca. 3 mm, glandular; anthers (0.9–)1.4–2.8(–3.5) mm, curved, geniculate, adaxially at most 2-tuberculate; connective not inflated. Ovary inferior, ovoid-elliptic, 4-celled, glandular. Capsule elliptic, glandular, crowned by hypanthium lobes. Fl. ca. Apr but sometimes Dec, fr. Aug–Sep.

Dense mixed forests, valleys, mountain slopes, stream banks, moist places; below 100–1300 m. Hainan [Indonesia, Malaysia, Thailand, Vietnam].

4. *Blastus cochinchinensis* Loureiro, Fl. Cochinch. 2: 527. 1790.

柏拉木 bai la mu

Anplectrum parviflorum Benth; *Blastus marchandii* H. Léveillé; *B. parviflorus* (Benth) Triana.

Shrubs 0.6–3 m tall. Stems terete, densely yellow glandular when young, glabrescent. Petiole 1–2(–3) cm, glandular; leaf blade lanceolate, narrowly elliptic, or elliptic-lanceolate, 6–12(–18) × 2–4(–5) cm, papery to substiffly papery, abaxially densely glandular, adaxially sparsely glandular but glabrescent, secondary veins 1(or 2) on each side of midvein, base cuneate, margin entire or very inconspicuously denticulate, apex acuminate. Inflorescences axillary, umbellate cymose; peduncle ca. 2 mm to almost absent. Pedicel ca. 3 mm, densely glandular. Hypanthium campanulate-funnelform, obtusely 4-sided, ca. 4 mm, densely peltate glandular. Calyx lobes 4(or 5), broadly ovate, ca. 1 mm. Petals 4(or 5), white or pink, ovate, ca. 4 mm, apex acuminate to subacute. Stamens 4(or 5); filaments ca. 4 mm; anthers pink, lanceolate, ca. 4 mm, geniculate; connective slightly inflated, decurrent at base of anther. Ovary inferior, urceolate, 4-celled, slightly glandular. Capsule elliptic to ovoid, ca. 3 × 2–3 mm, 4-sided, glandular. Fl. Jun–Aug, fr. Oct–Dec.

Mixed forests, stony soil; 200–1300 m. Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hunan, Taiwan, Yunnan [Cambodia, India, Laos, Myanmar, Vietnam].

5. *Blastus mollissimus* H. L. Li, J. Arnold Arbor. 25: 16. 1944.

密毛柏拉木 mi mao bai la mu

Shrubs. Stems terete, ± villous. Branches, leaf blades abaxially, petioles, pedicels, and calyces densely brown villous. Petiole 2–6.5 cm; leaf blade ovate to lanceolate-ovate, 6.5–18 × 2.5–8.5 cm, papery to membranous, adaxially sparsely puberulous when young but glabrescent, secondary veins 2 on each side of midvein, base cuneate to rounded, margin erose denticulate with each tooth having a terminal seta, apex acuminate. Inflorescences axillary, cymose, ca. 3-flowered; peduncle very short to nearly absent. Pedicel ca. 2 mm, glandular. Hypanthium funnelform, 3–4 mm. Calyx lobes linear, 3–4 mm. Petals 4, oblong, ca. 8 × 4 mm, inclined to one side, apex acuminate. Sta-

mens 4; filaments ca. 4 mm; anthers lanceolate, ca. 5 mm, slightly curved; connective not inflated, not extended. Ovary inferior, ovoid, 4-celled, ± glandular. Fl. Jul, fr. unknown.

• Dense mixed forests, valleys, stream banks, moist places. Guangxi.

6. *Blastus pauciflorus* (Benth) Guillaumin, Bull. Soc. Bot. France 60: 90. 1913.

少花柏拉木 shao hua bai la mu

Allomorpha pauciflora Benth, London J. Bot. 1: 485. 1842; *A. bodinieri* H. Léveillé; *Blastus apricus* (Handel-Mazzetti) H. L. Li; *B. apricus* var. *longiflorus* (Handel-Mazzetti) C. Chen; *B. cavaleriei* H. Léveillé & Vaniot; *B. cavaleriei* var. *tomentosus* (H. L. Li) C. Chen; *B. dunnianus* H. Léveillé; *B. dunnianus* var. *glandulosestosus* C. Chen; *B. ernae* Handel-Mazzetti; *B. hindsii* Hance, nom. illeg. superfl.; *B. lii* M. P. Nayar; *B. longiflorus* Handel-Mazzetti; *B. longiflorus* var. *apricus* (Handel-Mazzetti) Y. L. Zheng & N. H. Xia; *B. spathulicalyx* Handel-Mazzetti; *B. spathulicalyx* var. *apricus* Handel-Mazzetti; *B. squamosus* C. Y. Wu & Y. C. Huang; *B. thaiyongii* C. Hansen; *B. tomentosus* H. L. Li (1944), not Bakhuizen f. (1943); *Oxyspora pauciflora* (Benth) Benth.

Shrubs 0.6–2 m tall, branched. Stems terete, puberulous and yellow glandular when young. Petiole 0.4–1.5(–2.8) cm, densely puberulous and remotely glandular; leaf blade ovate-lanceolate to ovate, (5–)10–12(–25) × (2–)3–7.3(–10) cm, papery, abaxially densely puberulous and remotely glandular on veins otherwise densely yellow glandular, adaxially only puberulous on veins, secondary veins 1 or 2 on each side of midvein, base obtuse to rounded, margin nearly entire to minutely denticulate, apex shortly acuminate. Inflorescences terminal, panicle cymose, 7.5–13 × 3–7 cm, densely puberulous and remotely glandular. Pedicels 1–3 mm. Hypanthium funnelform, 3.8–6(–8) mm, (3 or)4-sided, densely stipitate glandular. Calyx lobes shortly triangular or spatulate, 0.5–3 mm. Petals (3 or)4, pink to reddish lavender, ovate, 2.5–4(–5) mm, inclined to one side, ± glandular, apex acute. Stamens (3 or)4; filaments 5–7(–10) mm, sparsely puberulous; anthers linear, (4.8–)6.2–7.4(–8) mm, slightly curved, 2-tuberculate to sagittate at base; connective not or only minutely inflated, extended to base. Ovary half inferior, ovoid, (3 or)4-celled, ± glandular. Capsule ovoid, 3.8–4.5 × 2.5–3 mm, crowned by hypanthium lobes, yellow glandular when immature, dehiscing longitudinally. Fl. Jun–Aug, fr. Aug–Nov.

• Mixed forests, mountain slopes, low hills, valleys, stream banks, moist places, trailsides; 100–1600 m. Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hunan, Jiangxi, Yunnan.

7. *Blastus setulosus* Diels, Bot. Jahrb. Syst. 65: 106. 1932.

刺毛柏拉木 ci mao bai la mu

Shrubs to 1 m tall. Branches subterete, with brown glandular trichomes when young, glabrescent. Petiole 1.5–3.5 cm, densely puberulous; leaf blade oblong to lanceolate-oblong, 7–12 × 2–3.5 cm, papery, abaxially minutely puberulous especially along veins, adaxially minutely puberulous and sparsely stri-

gose, secondary veins 1(or 2) on each side of midvein, base cuneate, margin entire or inconspicuously denticulate with each tooth having a terminal seta, apex acuminate. Inflorescences axillary a leaf scars, umbellate cymose, 3(–5)-flowered; peduncle almost absent. Flowers pedicellate to nearly sessile. Hypanthium campanulate-funnel-form, ca. 3.5 mm, 4-sided, densely glandular. Calyx lobes ovate to ovate-triangular, to 1 mm. Petals 4, white, ovate, ca. 4×2.5 mm, inclined to one side, apex acuminate. Stamens 4; filaments 3–4 mm; anthers lanceolate, ca. 4.5 mm, not tuberculate at base; connective slightly inflated. Ovary inferior, urceolate, 4-celled, glandular. Capsule ellipsoid, small squamose. Fl. Jul, fr. Aug.

- Mixed forests, moist places; 200–900 m. Guangdong, Guangxi.

8. *Blastus tenuifolius* Diels, Bot. Jahrb. Syst. 65: 105. 1932.

薄叶柏拉木 bao ye bai la mu

Shrubs to 1 m tall. Branches densely yellow glandular pilose when young. Petiole 3–4 cm; leaf blade oblong to narrowly ovate-oblong, $10\text{--}18 \times 4\text{--}7.5$ cm, membranous, abaxially pilose along veins, adaxially tuberculate and sparsely puberulous when young but glabrescent, secondary veins 2 on each side of midvein, base cuneate to subcordate, margin entire and ciliate, apex long acuminate. Inflorescences axillary, cymose, 3–5-flowered; peduncle very short or absent. Pedicel ca. 4 mm, puberulous and glandular. Hypanthium campanulate-funnel-form, ca. 3 mm, 4-sided, glandular. Calyx lobes shortly triangular, to 1 mm, apex apiculate. Petals 4, pink, broadly ovate to suborbicular, ca. 5×4 mm, inclined to one side, apex abrupt-

ly acuminate. Stamens 4; filaments ca. 4 mm; anthers ca. 3.5 mm, slightly curved; connective not inflated. Ovary inferior, subglobose, 4-celled, glandular. Fl. ca. Oct, fr. unknown.

- Mixed forests, valleys, stream banks, moist places; 600–1400 m. Guangxi.

9. *Blastus tsaii* H. L. Li, J. Arnold Arbor. 25: 309. 1944.

云南柏拉木 yun nan bai la mu

Blastus yunnanensis H. L. Li(1944), not H. Léveillé (1912).

Shrubs 1.5–2 m tall. Stems subterete but 4-sided when young, densely glandular, glabrescent. Petiole 2–6 cm, densely glandular; leaf blade lanceolate to rarely elliptic, $8\text{--}15 \times 2.5\text{--}4.2$ cm, papery to submembranous, abaxially glandular, adaxially sparsely puberulous when young but glabrescent, secondary veins 1(or 2) on each side of midvein, base cuneate, margin entire or inconspicuously denticulate, apex acuminate. Inflorescences axillary, umbellate, 3–5-flowered; peduncle very short to nearly absent. Pedicel ca. 2 mm, glandular. Hypanthium campanulate-funnel-form, ca. 5 mm, glandular. Petals 4, pink to reddish lavender, oblong-ovate, 4–4.5 mm, inclined to one side, both sides near margin pellucidly glandular, apex acuminate. Stamens 4; filaments ca. 2.5 mm; anthers ca. 4 mm, slightly curved; connective minutely inflated, extended from base of anthers. Ovary inferior, ovoid, 4-celled, glandular. Fl. Jun, fr. unknown.

- Dense mixed forests, valleys, stream banks, moist places; 800–1300 m. SE Yunnan.

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