

9. BRACHYTOME J. D. Hooker, Hooker's Icon. Pl. 11: 70. 1871.

短萼齿木属 *duan e chi mu shu*

Chen Tao (陈涛); Charlotte M. Taylor

Shrubs or small trees, dioecious or perhaps polygamo-dioecious, unarmed, often with some internodes reduced. Raphides absent. Leaves opposite or often appearing ternate due to reduced internodes and marked anisophylly grouping 2 leaves at 1 node plus a single leaf at another node, apparently without domatia; stipules persistent or deciduous after terminal 2–4 nodes, interpetiolar or shortly united around stem, triangular. Inflorescences pseudoaxillary, usually borne opposite a single leaf of an anisophyllous pair and appearing leaf-opposed or sometimes just above an undeveloped internode at an apparent 3-leaved node, cymose, few to several flowered, subsessile to pedunculate, bracteate. Flowers subsessile to pedicellate, unisexual or perhaps sometimes bisexual. Calyx limb cupular, 5-lobed or -dentate. Corolla white to cream or pale yellow, funnelform to tubular or subrotate, glabrous inside; lobes 5, convolute in bud. Stamens 5, inserted in corolla throat, exerted, with staminodes included; filaments short; anthers dorsifixed. Ovary 2-celled, ovules many in each cell on peltate axile placentas; stigma 2-lobed, grooved striate, partially exerted. Fruit red to orange, baccate, fleshy, globose to ellipsoid, smooth, with calyx limb persistent, often with fruit base and/or pedicels elongating into stipes; seeds numerous, small, cuneate to flattened, with testa reticulate; endosperm fleshy; embryo small, subterete.

About five species: Bangladesh, Cambodia, China, India, Malaysia, Myanmar, Vietnam; three species in China.

The morphology and branching of this genus were studied by Tirvengadam and Sastre (Bull. Mus. Natl. Hist. Nat., B, Adansonia 8: 257–296. 1986).

Brachytome was described as polygamo-dioecious in FRPS (71(1): 360. 1999), but this has not been reported by other sources; the genus was described as unisexual by Puff et al. (Rubiaceae of Thailand, 68. 2005).

- 1a. Branches densely strigose, strigillose, hirtellous, or hispidulous 2. *B. hirtellata*
- 1b. Branches glabrous or sparsely to moderately strigose to strigillose when young, becoming glabrescent with age.
 - 2a. Infructescences 3–8 × 3–5 cm, with axes and pedicels mostly well developed; stipules 3–8 mm; berry subglobose, ca. 6 × 5 mm 1. *B. hainanensis*
 - 2b. Inflorescences and infructescences 3–5 × 3–5 cm, with axes and pedicels short to well developed; stipules 6–15 mm; berry ellipsoid, 10–20 × 8–15 mm 3. *B. wallichii*

1. *Brachytome hainanensis* C. Y. Wu ex W. C. Chen, Guihaia 7: 298. 1987.

海南短萼齿木 *hai nan duan e chi mu*

Shrubs, 2.5–3 m tall; branches flattened becoming subterete, glabrous. Petiole 0.4–1.5 cm, glabrous; leaf blade drying papery and usually brown, elliptic-oblong, elliptic, or elliptic-lanceolate, 7–20.5 × 2.5–7 cm, adaxially glabrous, abaxially glabrous or puberulent, base cuneate to obtuse, apex acute to acuminate; secondary veins 8–12 pairs; stipules triangular to broadly triangular, 3–8 mm, glabrous, acuminate or cuspidate. Inflorescences not seen. Flowers not seen. Infructescences corymbiform-cymose, 3–8 × 3–5 cm, several to many fruited; peduncle 1.5–2 cm; bracts triangular to ovate, 0.5–1 mm, mostly situated at nodes (i.e., branching points); pedicels 3–9 mm. Berry red, ellipsoid to subglobose except with narrow cylindrical base, rounded portion 5–6 × ca. 5 mm plus basal narrow portion ca. 1 mm; seeds yellow, ca. 1.5 mm wide. Fr. Mar.

Forests. Hainan [Vietnam].

2. *Brachytome hirtellata* Hu, Bull. Fan Mem. Inst. Biol. 10: 164. 1940.

滇短萼齿木 *dian duan e chi mu*

Shrubs, ca. 3 m tall; branches somewhat flattened becoming angled and sometimes shallowly channeled, sometimes flexuous, densely hirtellous or hispidulous to strigillose or strigose. Petiole 2–12 mm, densely hirtellous to strigillose or strigose; leaf blade drying membranous or thinly papery, green to yellowish green adaxially, brown or purplish brown abaxially, oblanceolate or oblong-lanceolate to elliptic, 7–21.5 × 2–6 cm, adaxially glabrous or scaberulous to sparsely hirtellous, hispidulous, or strigillose, abaxially glabrescent or densely to sparsely hirtellous or strigillose, base cuneate or acute, apex acute to acuminate; secondary veins 12–20 pairs; stipules ovate to triangular, 4–8 mm, densely strigillose or strigose to glabrous, acute to acuminate. Inflorescences congested-cymose, 1–1.5 × 1–1.5 cm, usually 5–10-flowered, densely hirtellous to strigose or strigillose, sessile or subsessile; bracts ovate to triangular or linear, 0.5–8 mm, situated at nodes, along axes, and usually in pairs and 0.5–2.5 mm immediately below flowers. Flowers sessile to shortly pedicellate, with pedicels to 1 mm. Calyx strigillose to pilosulous; ovary portion obconic, 0.5–1.5 mm; limb 2–2.5 mm, lobed for ca. 1/2 its length; lobes triangular to linear-lanceolate, acute. Corolla white or yellowish white, funnelform to tubular, outside glabrous; tube 4–6 mm; lobes ovate, 1–2 mm. Berry globose, ca. 8 mm in diam., densely hirtellous or hispidulous to strigillose, with stipe or pedicel elongating above paired bracts, up to 12 mm; seeds reddish yellow, ca. 1.5 × 1–1.5 mm. Fl. Mar–Jun, fr. May–Mar.

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Forests or thickets at streamsides in valleys; 400–2200 m. Xizang, Yunnan [Vietnam].

These varieties were recognized by W. C. Chen in FRPS (71(1): 362. 1999); some recently collected specimens seem to be intermediate but this species is poorly documented in general, so these are treated

here at least for reference.

- 1a. Leaf blade adaxially smooth and glabrous or subglabrous, abaxially subglabrous or sparsely hirtellous or strigillose with pubescence denser along veins 2a. var. *glabrescens*
- 1b. Leaf blade adaxially scaberulous and glabrous to sparsely hirtellous, strigillose, or hispidulous, abaxially densely grayish brown hirtellous to strigillose 2b. var. *hirtellata*

2a. *Brachytome hirtellata* var. *glabrescens* W. C. Chen, Acta Phytotax. Sin. 22: 147. 1984.

疏毛短萼齿木 shu mao duan e chi mu

Leaf blade adaxially smooth and glabrous or subglabrous, abaxially subglabrous or sparsely hirtellous or strigillose with pubescence denser along veins. Fl. May–Jun, fr. Jun–Mar.

Forests at streamsides in valleys; 400–2200 m. Xizang (Médog), Yunnan [Vietnam].

2b. *Brachytome hirtellata* var. *hirtellata*

滇短萼齿木(原变种) dian duan e chi mu (yuan bian zhong)

Leaf blade adaxially scaberulous and glabrous to sparsely hirtellous, strigillose, or hispidulous, abaxially densely grayish brown hirtellous to strigillose. Fl. Mar–Jun, fr. May–Dec.

• Forests or thickets at streamsides in valleys; 700–1600 m. Yunnan.

3. *Brachytome wallichii* J. D. Hooker, Hooker's Icon. Pl. 11: 70. 1871.

短萼齿木 duan e chi mu

Shrubs or small trees, 1.5–3 m tall; branches flattened to subterete, glabrous or sparsely strigillose or strigose becoming glabrescent with age. Petiole 0.3–1 cm, glabrous; leaf blade drying papery, green adaxially, often flushed with reddish brown abaxially, elliptic-oblong, lanceolate, or oblanceolate, 9–14 × 2.5–4.5 cm, glabrous on both surfaces, base cuneate to acute, apex acuminate; secondary veins 8–10 pairs; stipules triangular to narrowly triangular, 6–15 mm, glabrous to puberulent, acute to acuminate and sometimes falcate. Inflorescences 3–4 × 3–5 cm, several flowered, glabrous; peduncle ca. 0.5 cm; bracts triangular and often fused in pairs, 1–2 mm, usually situated at nodes and perhaps immediately below flowers; pedicels 5–10 mm. Calyx glabrous; ovary portion obconic, 1–1.5 mm; limb 1–1.5 mm, denticulate to lobed for up to 1/3 of its length; lobes broadly triangular. Corolla funnelform, outside glabrous; tube ca. 6 mm; lobes triangular, ca. 1 mm, obtuse. Berry red, ellipsoid, 10–20 × 8–15 mm, with stipe or pedicel elongating, up to 20 mm; seeds 1–1.5 × 1–2 mm. Fr. Sep–Oct.

Forests in valleys; 1200–2000 m. SW Yunnan [Bangladesh, Cambodia, India, Myanmar, Vietnam].

This species was reported by W. C. Chen (in FRPS 71(1): 361. 1999) from Bhutan, but Springate et al. (Fl. Bhutan 2(2): 784. 1999) treated this as reported in error.

Fl. China 19: 81–82. 2011.