

20. *ATALANTIA* Corrêa, Ann. Mus. Natl. Hist. Nat. 6: 383, 385, 386. 1805, nom. cons.

酒饼勒属 *jiu bing le shu*

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Severinia Tenore ex Endlicher.

Shrubs or trees, unarmed or with straight axillary spines, without rust-colored villosulous indumentum on terminal and axillary buds or young inflorescences. Leaves alternate, 1-foliolate or simple; petiole 2–13 mm, usually not bent, twisted, or swollen. Inflorescences terminal and/or axillary, fasciculate, racemose, or paniculate. Flowers bisexual. Sepals 3–5, connate at base to nearly their full length, or calyx splitting irregularly into 2 or 4 segments. Petals 3–5, imbricate in bud. Stamens 6–10, equal or alternately unequal in length, distinct, monadelphous, filaments coherent in phalanges, or filaments irregularly coherent. Disk annular, cup-shaped, or columnar. Gynoecium 2–5-loculed, syncarpous; ovules 1 or 2 per locule; style to 1.5 × as long as ovary, deciduous in fruit. Fruit a berry, usually with pulp vesicles and with or without mucilaginous pulp; endocarp membranous. Seeds with membranous seed coat; endosperm lacking; embryo straight; cotyledons elliptic, plano-convex; hypocotyl partly included between cotyledons.

About 17 species: S and SE Asia; seven species (two endemic) in China.

- 1a. Leaves simple; petiole not articulated with leaf blade.
 - 2a. Branchlets with spines ca. 4 cm or rarely unarmed; leaf blade 2–6(–10) × 1–5 cm, apex rounded or rarely narrowly obtuse, retuse to emarginate at tip; stamens 10; ripe fruit bluish black 1. *A. buxifolia*
 - 2b. Branchlets unarmed or rarely with sparse short spines; leaf blade 11–21 × 3–6(–10) cm, apex acuminate, sometimes retuse at tip; stamens 8; ripe fruit red 2. *A. kwangtungensis*
- 1b. Leaves 1-foliolate; petiole articulated with leaf blade.
 - 3a. Fruit ellipsoid to ovoid but pyriform when young, ca. 3 cm in diam. 7. *A. fongkaica*
 - 3b. Fruit globose or subglobose, 1.2–3 cm in diam.
 - 4a. Flowers 5–6 mm in diam.; petals 3–4 mm; fruit smooth 3. *A. henryi*
 - 4b. Flowers 8–15 mm in diam.; petals 6–10 mm; fruit scabrous.
 - 5a. Young branchlets and leaves glabrous 6. *A. acuminata*
 - 5b. Young branchlets and leaves with indumentum.
 - 6a. Leaflet blade apex acuminate; petiole 6–10 mm; fruit 1.5–2 cm or more in diam. 4. *A. dasycarpa*
 - 6b. Leaflet blade apex mucronate to obtuse; petiole 10–12 mm; fruit 2.5–3 cm in diam. 5. *A. guillauminii*

1. *Atalantia buxifolia* (Poiret) Oliver ex Bentham, Fl. Hongk. 51. 1861.

酒饼勒 *jiu bing le*

Citrus buxifolia Poiret, Encycl. 4: 580. 1797; *Dumula sinensis* Loureiro ex B. A. Gomes; *Limonia monophylla* Loureiro (1790), not Linnaeus (1767); *Severinia buxifolia* (Poiret) Tenore; *S. monophylla* Tanaka.

Shrubs ca. 2.5 m tall. Branches grayish brown; branchlets green, with spines or rarely unarmed; spines ca. 4 cm, apex red. Leaves simple; petiole 1–7 mm; leaf blade ovate, obovate, elliptic, or suborbicular, 2–6(–10) × 1–5 cm, leathery, with oil glands and an orange smell, midvein slightly ridged, secondary veins joined in an arched marginal vein, apex rounded to obtuse and retuse to emarginate at tip. Inflorescences axillary, fasciculate, (1- or) several flowered. Flowers 5-merous, subsessile. Calyx persistent. Petals white, 3–4 mm, with oil glands. Stamens 10; filaments white, distinct or sometimes a few basally connate. Style green, ± as long as ovary. Fruit bluish black when ripe, globose, slightly oblate, or subellipsoid, 0.8–1.2 cm in diam., smooth, 1- or 2-seeded. Seeds with 1(or 2) embryos; cotyledons green, with many oil glands. Fl. May–Dec, fr. Sep–Dec. *2n* = 36.

Forests or thickets near ocean; below 300 m. S Fujian, S Guangdong, S Guangxi, Hainan, S Taiwan, Yunnan [Malaysia, Philippines, Vietnam].

2. *Atalantia kwangtungensis* Merrill, Philipp. J. Sci. 21: 496. 1922.

广东酒饼勒 *guang dong jiu bing le*

Atalantia hainanensis Merrill & Chun ex Swingle; *A. roxburghiana* J. D. Hooker var. *kwangtungensis* (Merrill) Swingle.

Shrubs 1–2 m tall. Young branchlets green, slightly flat, ridged. Leaf blade elliptic, lanceolate, or rarely obovate-elliptic, 11–21 × 3–6(–10) cm, pale green, abaxially grayish yellow when dry, oil glands pellucid and conspicuous, base cuneate, margin sinuate. Inflorescences axillary, 5 mm or less, with 3 to several flowers in a fasciclelike raceme. Flowers 4-merous. Petals white, 3–5 mm. Stamens 8, monadelphous or filaments coherent in phalanges. Style ± as long as ovary; stigma slightly clavate. Fruit red, ovoid, ellipsoid, or rarely globose, 1.3–1.8 × 0.7–1(–1.5) cm, smooth, with large oil glands, 1–3-seeded; exocarp ca. 0.5 mm thick. Seeds narrowly ovoid, 1–1.5 cm; embryo solitary. Fl. Jun–Jul, fr. Nov–Jan.

• Moist and shady places in evergreen broad-leaved forests; 100–400 m. W Guangdong, SE Guangxi, Hainan.

3. *Atalantia henryi* (Swingle) C. C. Huang, Guihaia 11: 5. 1991.

薄皮酒饼籐 bo pi jiu bing le

Atalantia racemosa Wight & Arnott var. *henryi* Swingle, J. Arnold Arbor. 21: 127. 1940.

Trees usually 3–7 m tall. Branchlets brown, slightly flat, glabrous or very sparsely pilose; spines few, 2 mm or less. Leaves 1-foliolate; petiole 4–8 mm; leaflet blade broadly ovate, ovate-elliptic, or sublanceolate, 5–11 × 2.5–5 cm, thickly papery to leathery, oil glands slightly sunken when dry, midvein slightly ridged, secondary veins very numerous and joined in an arched marginal vein, apex shortly acuminate to obtuse and emarginate at tip. Inflorescences axillary, racemose, 1–3 cm, ca. 30-flowered. Pedicel 1–5 mm, with 1 bracteole. Sepals 4(or 5), 1–1.5 mm, pubescent, basally connate, margin ciliate. Petals white, ca. 4 mm. Stamens 8; filaments 1–2 mm, distinct or sometimes in basally coherent phalanges. Gynoecium nearly as long as filaments; ovary subglobose, with 4 large oil glands, 2- or 3-loculed, with 1 ovule per locule; stigma capitate. Fruit reddish orange, globose, 1.5–2 cm in diam., smooth, oil glands inconspicuous. Seeds broadly ovoid, 1–1.4 cm; seed coat thinly crustose, smooth; embryo solitary. Fl. Apr–May, fr. Nov–Dec.

Moist forests in limestone mountains; 300–1100 m. W Guangxi, Yunnan [NE Vietnam].

4. *Atalantia dasycarpa* C. C. Huang, Acta Phytotax. Sin. 16(2): 85. 1978.

厚皮酒饼籐 hou pi jiu bing le

Trees 2–5 m tall. Branchlets, leaves, and petioles with short crisped trichomes but glabrescent. Young branchlets slightly flat, with or without spines. Petiole 6–10 mm, adaxially narrowly canaliculate; leaflet blade narrowly elliptic to elliptic-lanceolate, 10–17 × 3–6 cm, dark green to yellowish green when dry, secondary veins numerous and conspicuous, base rounded, margin sinuate, apex acuminate and rarely emarginate at tip. Inflorescences axillary, racemose, 1–2 cm, 3–9-flowered; peduncle thinly pubescent. Flowers 4-merous. Pedicel thinly pubescent. Calyx lobes ovate-triangular, apex acute. Petals white, 6–8 mm. Stamens 8, slightly shorter than petals; filaments broad, distinct or sometimes cohering in phalanges, apex acute. Disk 1/4–1/3 as long as ovary. Ovary ellipsoid, with 4 large pale oil glands, 3- or 4-loculed, with 1 or 2 ovules per locule, apex narrow; style 4–5 mm. Fruit globose, 1.5–2 cm or more in diam., oil glands numerous, large, and conspicuously concave when dry; exocarp ca. 1.5 mm thick. Seeds broadly ellipsoid, 10–12 × 6–9 mm, narrowed at both ends; embryo solitary. Fl. Apr–May, fr. Oct–Dec.

Forests by rivers in valleys; 200–400 m. SW Guangxi [NE Vietnam].

5. *Atalantia guillauminii* Swingle, Notul. Syst. (Paris) 2: 159. 1911.

大果酒饼籐 da guo jiu bing le

Trees to 6 m tall. Young branchlets sparsely pubescent, unarmed or with few spines. Petiole 1–1.2 cm, stout, adaxially with short pubescence when young; leaflet blade narrowly elliptic, 14–18 × 5–6 cm, thickly papery, secondary veins numerous and conspicuous, base broadly cuneate, margin entire, apex narrowly obtuse to shortly acuminate. Ovary 3- or 4-loculed, with 1 or 2 ovules per locule. Inflorescences axillary, racemose, 1–1.5 cm, thinly pubescent. Fruit subglobose, 2.5–3 cm in diam., with oil glands conspicuously sunken when dry;

Fl. China 11: 88–90. 2008.

outer part of pericarp (exocarp and mesocarp) ca. 1 mm thick. Seeds broadly ellipsoid and slightly flat, $1.6\text{--}2.2 \times \text{ca. } 1.5$ cm; embryo solitary. Fr. Sep.

Moist forests in valleys; 200–300 m. SE Yunnan (Hekou) [N Vietnam].

6. *Atalantia acuminata* C. C. Huang, Guihaia 11: 6. 1991.

尖叶酒饼籐 jian ye jiu bing le

Trees 2–6 m tall, whole plant glabrous. Branchlets slender, with 2–5 mm spines. Petiole 3–6(–8) mm, adaxially shallowly canaliculate; leaflet blade lanceolate, $6\text{--}12 \times 2\text{--}4$ cm, secondary veins numerous and conspicuous, base narrowly cuneate, margin entire, apex acuminate. Inflorescences axillary, racemose, 3–9-flowered. Flowers 1–1.5 cm in diam. Calyx lobes 4, broadly ovate, ca. 2 mm. Petals white, 8–10 mm. Stamens 8, slightly shorter than petals; filaments broad, distinct or sometimes cohering in phalanges, apex acute. Ovary ellipsoid, without large oil glands, 3- or 4-loculed, with 1 or 2 ovules per locule, apex narrow; style 4–5 mm; stigma capitate. Fruit globose, 1.2–1.5 cm in diam., oil glands dense, large, and conspicuously concave when dry. Fl. May, fr. Oct.

Forests and thickets on limestone mountains; 700–900 m. W Guangxi, SE Yunnan [N Vietnam].

7. *Atalantia fongkaica* C. C. Huang, Guihaia 11: 5. 1991.

开封酒饼籐 kai feng jiu bing le

Shrubs to 1 m tall. Branchlets green, slightly flat, glabrous, with very short sometimes slightly flat spines. Leaves 1-foliate; petiole 4–7 mm, articulated with blade; leaflet blade variable in shape and size, some obovate and $7\text{--}9 \times 3\text{--}4$ cm with shortly acuminate apex, others oblanceolate to narrowly elliptic and $10\text{--}16 \times 4\text{--}6$ cm with acuminate apex, thickly papery to leathery, glabrous, abaxially grayish yellow to yellowish gray when dry, midvein ridged, secondary veins numerous, tertiary veins conspicuous, base broadly cuneate to obtuse, margin sinuate or apically with minute obtuse teeth. Flowers axillary, solitary. Ovary 5-loculed, with 1 ovule per locule. Fruit pyriform when young but ellipsoid to ovoid when mature, ca. 3.8×3 cm, smooth, with slightly convex oil glands when dry; outer part of pericarp (exocarp and mesocarp) ca. 2 mm thick. Seeds $1.5\text{--}1.8 \times 1\text{--}1.3$ cm; seed coat smooth; embryo solitary; cotyledons green. Fr. Aug–Oct.

• Forests by rivers in valleys; below 200 m. Guangdong (Fengkai).

Fl. China 11: 88–90. 2008.