

16. CARYODAPHNOPSIS Airy Shaw, Bull. Misc. Inform. Kew 1940: 74. 1940.

椽果樟属 meng guo zhang shu

Li Xiwen (李锡文 Li Hsi-wen), Li Jie (李捷); Henk van der Werff

Shrubs or small- to medium-sized trees. Branchlets terete, sometimes slightly angled and \pm compressed tetragonous. Leaves opposite or subopposite, ovate to ovate-oblong, thinly leathery, trinerved or triplinerved, petiolate. Flowers bisexual, arranged into an axillary panicle always transversely oriented, narrow and elongate; bracts and bracteoles minute. Perianth tubes very short or almost absent; perianth lobes 6, deciduous, outer ones small, triangular, patent, inner ones very large, broadly triangular-ovate, valvate. Fertile stamens 9, or anthers clavate-oblong and filaments inconspicuous, or anthers square and filaments conspicuously complanate; anthers 4-celled or occasionally all 2-celled, or 2-celled in 1st and 2nd whorls and 4-celled in 3rd whorl; cells introrse in 1st and 2nd whorls, extrorse or lateral-extrorse in 3rd whorl; filaments of 1st and 2nd whorls glandless, those of 3rd whorl each with 2 subsessile glands at base. Stamines 3, of innermost whorl, minute, sagittate, shortly stalked. Ovary ovoid; style short; stigma inconspicuously 2- or 3-lobed. Fruit shiny green, large, narrowly ellipsoid-globose or ellipsoid, pearlike, rigid; exocarp membranous; mesocarp fleshy and decayed; endocarp cartilaginous; fruit stalk \pm thickened, dilated on top. Seed large, hard, like fruit in shape.

About 14 species: tropical Asia and tropical America; three species (one endemic) in China.

- 1a. Branchlets, petioles, and leaf blade abaxially densely rusty pubescent 1. *C. laotica*
1b. Branchlets, petioles, and leaf blade abaxially glabrous or subglabrous.
2a. Inflorescence and perianth outside subglabrous or sparsely pubescent when young; flowers small, 2–3 mm in diam.; inner perianth lobes sparsely tomentulose inside 2. *C. henryi*
2b. Inflorescence and perianth outside \pm conspicuously pubescent or tomentulose; flowers large, (3.5–)4–5(–6) mm in diam.; inner perianth lobes densely tomentulose 3. *C. tonkinensis*

1. *Caryodaphnopsis laotica* Airy Shaw, Kew Bull. 14: 250. 1960.

老挝椽果樟 lao wo meng guo zhang

Trees, 5–10 m tall. Branchlets brown, robust, terete, glabrous young ones slender, densely pubescent, striate. Leaves opposite or subopposite; petiole 0.8–2 cm, concave-convex, densely pubescent; leaf blade glaucous abaxially, dark brown adaxially, ovate-oblong, 9–19(–22) \times (4.5–)5–10 cm, papery, densely pubescent abaxially, glabrous adaxially, trinerved or triplinerved, midrib slender, elevated abaxially, impressed adaxially, lateral veins 3 or 4 pairs, oblique, except basal ones nearly straight and excurrent into upper 1/2 of leaf blade or above, basal lateral veins arising at or up to 6 mm above leaf base, other lateral veins arising from midrib near middle or above, generally alternate, rarely subopposite, very arcuate and evanescent near leaf margin, transverse veins arising from lateral veins and interconnected by veinlets, all veins elevated abaxially, base broadly cuneate to subrounded, margin thickened, plane, or slightly involute, apex shortly acuminate or acuminate. Panicle axillary, narrow and slender, (3–)7–14 cm, densely rusty pubescent, shortly branched; branches opposite or subopposite, transversely oriented, terminal branchlet bearing a 3–7-flowered subcorymbose cyme; bracts and bracteoles minute, subulate, 1–2 mm, rusty pubescent. Pedicels slender, 1.5–2 mm, densely rusty pubescent. Flowers yellowish or yellow, ca. 3 mm in diam. when open. Perianth lobes 6, outer ones minute, triangular, less than 1 mm, pubescent outside, glabrous inside, inner ones large, broadly ovate-triangular, 2–2.5 \times ca. 2 mm, slightly thickened, subacute, densely rusty appressed pubescent outside and densely rusty tomentulose inside. Fertile stamens 9; filaments villous, those of 3rd whorl each with 2 subsessile glands, others glandless; anthers ellipsoid-clavate or nearly oblong, al-

ways all 4-celled but sometimes all 2-celled, or 2-celled in 1st and 2nd whorls and 4-celled in 3rd whorl; cells introrse in 1st and 2nd whorls and lateral or extrorse in 3rd whorl. Stamines sagittate-triangular, shortly stalked, hairy. Ovary subglobose, glabrous; style short; stigma inconspicuously 3-lobed. Fruit unknown. Fl. Apr–May.

Secondary mixed forests, open thickets on roadsides; 300–1200 m. SE Yunnan [Laos, N Vietnam].

Records of *Caryodaphnopsis baviensis* (Lecomte) Airy Shaw (*Nothaphoebe baviensis* Lecomte) from Yunnan (e.g., in FRPS 31: 84. 1982) are referable to *C. laotica*.

2. *Caryodaphnopsis henryi* Airy Shaw, Bull. Misc. Inform. Kew 1940: 75. 1940.

小花椽果樟 xiao hua meng guo zhang

Nothaphoebe tonkinensis Lecomte f. *brevipedicellata* H. Liu; *Persea henryi* (Airy Shaw) Kostermans.

Small trees, 3–4.5 m tall. Branchlets slender, terete or slightly angled, ca. 3.5 mm in diam., sparsely lenticellate. Leaves opposite or subopposite; petiole 1–1.2 cm, ca. 1.5 mm in diam., plano-convex, subglabrous; leaf blade glaucous abaxially, dark brown adaxially, ovate or elliptic-oblong, 9–15 \times 4.5–6.5 cm, papery, glabrous on both surfaces, triplinerved, midrib slightly elevated abaxially, subplane adaxially, lateral veins 3 or 4 pairs, basal lateral veins arising from midrib ca. 5 mm above leaf base, oblique and excurrent into upper 1/2 of leaf blade, other lateral veins arising from midrib at first 1/3 of leaf blade or more, arcuate-ascendant and evanescent within leaf margin, transverse veins horizontally arising from lateral veins and interconnected by veinlets, base very rounded, rarely shallowly cordate or subcuneate, margin thickened, plane, or in-

volute, apex shortly acuminate or acute. Panicle axillary, 4–7 cm, slender, branched; branches subopposite, 0.5–6 cm, terminal one bearing a 6–8-flowered cyme; rachis and inflorescence branchlets sparsely rusty pubescent when young but subglabrous when mature; bracts and bracteoles brown, minute, triangular-ovate, ca. 1.4 mm, sparsely rusty pubescent. Pedicels 2–3 mm, sparsely rusty pubescent. Flowers small, 2–3 mm in diam. when open. Perianth lobes 6, outer ones minute, triangular, less than 0.4 mm, inner ones broadly triangular-ovate, ca. 2 × 2 mm, subacute, pubescent outside, sparsely yellowish brown pubescent inside. Fertile stamens 9, ca. 1 mm in 1st and 2nd whorl, ca. 1.5 mm in 3rd whorl; filaments pubescent, those of 3rd whorl each with 2 glands at base. Staminodes sagittate, ca. 0.8 mm, stalked, glabrous except stalk pubescent. Ovary ovoid, glabrous, attenuate at apex into a style, including style ca. 1 mm; stigma small. Fruit unknown. Fl. May.

• Sparse forests on mountain slopes, forest margins; ca. 2100 m. SE Yunnan.

3. *Caryodaphnopsis tonkinensis* (Lecomte) Airy Shaw, Bull. Misc. Inform. Kew 1940: 75. 1940.

椽果樟 meng guo zhang

Nothaphoebe tonkinensis Lecomte, Nouv. Arch. Mus. Hist. Nat., sér. 5, 5: 106. 1913; *Caryodaphnopsis latifolia* W. T. Wang; *N. pyriformis* (Elmer) Merrill; *Persea pyriformis* Elmer; *P. tonkinensis* (Lecomte) Kostermans.

Small- or medium-sized trees, 3–8(–15) m tall, up to 30 cm d.b.h. Branchlets brownish, terete, glabrous, striate, sometimes angled. Leaves opposite or subopposite; petiole 0.8–2 cm, slender, concave-convex, glabrous or sparsely brown villous; leaf blade glaucous abaxially, dark brown adaxially, ovate-oblong, elliptic, or orbicular-elliptic, rarely oblong, (10–)15–20(–30) × (4.5–)8–10(–17) cm, papery, glabrous on both surfaces, triplinerved, midrib slender, elevated abaxially, impressed adaxially, lateral veins 3 or 4 pairs, basal ones arising from midrib 3–15 mm above leaf base, straight and excurrent into upper 1/2 of leaf blade, other lateral veins arising from midrib at middle of leaf blade or above, always alternate, rarely subopposite, very arcuate and interconnected at ends, transverse veins arising from lateral veins and interconnected by veinlets, all veins slender and elevated abaxially, base attenuate or broadly cuneate to subrounded, margin thickened, plane, or slightly involute, apex obtusely shortly acuminate or acuminate. Panicle narrow and slender, (3–)4–13(–25) cm, axillary or subterminal, shortly branched; branches opposite or subopposite, transversely oriented, 0.6–6 cm, ± yellowish brown pubescent, rebranched or not, terminal branchlet bearing a 3–7-flowered corymbose cyme; bracts and bracteoles subulate, 1–2 mm, yellowish brown pubescent. Pedicels slender, 2–5 mm, sparsely pubescent. Flowers white or white-green, (3.5–)4–5(–6) mm in diam. when open. Perianth lobes 6, pubescent outside, yellow or brown tomentulose inside, outer ones small, triangular, 1–1.2 mm, inner ones large, (1.7–)2.5–3.5 × (2–)2.5–3 mm. Fertile stamens 9, 1.5–1.8 mm in 1st and 2nd whorls and ca. 1.2 mm in 3rd whorl; filaments villous, those of 3rd whorl each with 2 glands, others glandless; anthers of 1st and 2nd whorls clavate-oblong, with 2 upper introrse cells and 2 lower larger and always lateral cells, those of 3rd whorl oblong, with 4 sublateral cells. Staminodes sagittate-triangular, 0.7–1 mm, shortly stalked. Ovary ovoid, ca. 1 mm; style very short; stigma inconspicuous. Fruit narrowly ellipsoid-globose or ellipsoid, ca. 7 × 5 cm, broadly cuneate and abruptly contracted into a short stalk at base, apex rounded; exocarp membranous, ca. 0.5 mm thick; mesocarp fleshy and decayed; endocarp cartilaginous; fruit stalk 2–8 × ca. 2.5 mm. Seed 1, hard, like fruit in shape. Fl. Mar–Jun, fr. Jun–Aug.

Sparse valley forests, roadsides at forest margins; 100–1200 m. S Yunnan [Malaysia, Philippines, N Vietnam].

