

8. CELTIS Linnaeus, Sp. Pl. 2: 1043. 1753.

朴属 po shu

Solenostigma Endlicher.

Trees, deciduous or evergreen. Branchlets never spinose, never corky or winged. Winter buds with scales or not. Stipules 2, free, membranous or thickly papery, leaving a short transverse scar on each side of leaf base, caducous or terminal ones persistent and enveloping winter buds. Leaves alternate in several ranks; leaf blade margin entire or serrate; 3-veined from base; secondary veins anastomosing before reaching margin. Inflorescences panicles, racemes, or clustered cymelets. Flowers small, unisexual or bisexual. Tepals 4 or 5, basally slightly connate, caducous. Stamens equal in number to tepals. Style short; stigmas 2, linear. Ovary unilocular; ovule 1, anatropous. Male flowers: cauliflorous or clustered in proximal leaf axil of one-year-old branchlets. Female and bisexual flowers: usually borne apically in polygamous inflorescences. Fruit a drupe; endocarp bony, reticulately foveolate or nearly smooth. Endosperm scanty or lacking; embryo curved; cotyledons broad.

About 60 species: tropical and temperate areas; 11 species (four endemic) in China.

Most species yield fine timber, the bark is utilized for the manufacturing of ropes and paper, and the seed oil of most species is used for soaps and lubricants.

- 1a. Trees, evergreen; flowers in dense cymes; infructescences often branched, each with 3 or 4 drupes and several prominent scars from fallen flowers.
 - 2a. Styles apically broadened and 2-cleft or emarginate; drupes globose to ellipsoid, apex and base rounded to obtuse; stipules ovate-lanceolate to ovate, enfolding naked terminal bud; leaf blade base symmetric or weakly asymmetric 1. *C. philippensis*
 - 2b. Styles linear, undivided; drupes broadly ovoid, base rounded, apex conic-acute; stipules linear-lanceolate to linear, not enclosing scaly bud; leaf blade base distinctly asymmetric 2. *C. timorensis*
- 1b. Trees or shrubs, deciduous (sometimes evergreen in *C. tetrandra*); flowers solitary, fascicled, or in few-flowered racemes; infructescences simple, rarely forked, with 1(-3) drupes, rarely showing scars from fallen male flowers.
 - 3a. Drupe 9-15 mm; leaf blade margin toothed on apical half or almost to base, each margin with 13-28 teeth; petiole adaxially with a narrow and sharply defined furrow.
 - 4a. Leaf blade margin deeply lacinate-toothed, teeth 4-8 mm, apex truncate with a caudate tip 6. *C. koraiensis*
 - 4b. Leaf blade margin evenly toothed, teeth no more than 2 mm, apex never truncate.
 - 5a. Leaf blade margin sharply toothed to near base, teeth 1-2 mm; drupe blackish blue, globose 9. *C. cerasifera*
 - 5b. Leaf blade margin finely toothed in apical 1/3-2/3, teeth less than 1 mm; drupe yellow to orange, ellipsoid to globose.
 - 6a. Petiole and leaf blade abaxially golden pubescent 4. *C. julianae*
 - 6b. Petiole glabrous and leaf blade abaxially with tufts of hairs in vein axils or glabrous 5. *C. vandervoetiana*
 - 3b. Drupe 5-9 mm; leaf blade margin toothed only on apical half or sometimes entire, each margin with 0-16 teeth (to 24 in *C. chekiangensis*); petiole adaxially with a broad and shallow furrow.
 - 7a. Bud scales densely strigose; leaf blade with inconspicuous scattered appressed hairs on both surfaces or adaxially glabrous except sometimes for major veins 3. *C. biondii*
 - 7b. Bud scales glabrous or inconspicuously puberulent; leaf blade adaxially glabrous except sometimes for major veins.
 - 8a. Fruiting pedicel 0.4-1.5 cm, 1-2 × as long as subtending petiole; mature fruit yellow to orange.
 - 9a. Drupe 7-8 mm in diam.; leaf blade base oblique, apex acuminate to shortly caudate-acuminate 7. *C. tetrandra*
 - 9b. Drupe 5-7 mm in diam.; leaf blade base slightly oblique or not, apex shortly acuminate 8. *C. sinensis*
 - 8b. Fruiting pedicel 1-2.5 cm, 1.7-5 × as long as subtending petiole; mature fruit red or purple.
 - 10a. Drupe blackish blue; fruit stalks solitary in leaf axils 10. *C. bungeana*
 - 10b. Drupe brownish red; fruit stalk often 2 or 3 per leaf axil 11. *C. chekiangensis*

1. *Celtis philippensis* Blanco, Fl. Filip. 197. 1837.

大果油朴 da guo you pu

Trees to 30 m tall, evergreen. Bark grayish white to grayish brown or gray. Branchlets brown or tan, glabrous or pubescent. Winter buds naked, without differentiated scales. Stipules ovate-lanceolate to ovate, 2-8 mm, glabrous or pubes-

cent, enfolding naked terminal bud, apex attenuate. Petiole glabrous, 0.5-1.5(-2) cm, adaxial furrow deep and narrow or broad and shallow; leaf blade lanceolate-elliptical, ovate-elliptical, or oblong, 4.5-18 × 2.5-11.5 cm, papery to leathery, glabrous or with a scattering of inconspicuous appressed hairs, base acute, obtuse, or rounded, symmetric or weakly asymmetric, margin entire, apex rounded-obtuse to gradually or

abruptly acuminate; secondary veins 1 or 2 on each side of midvein. Cymes 1 or 2 per leaf axil, densely flowered, much branched, each with ca. 5 bisexual flowers and 5 or more male flowers. Styles 2, apically broadened and 2-cleft or emarginate. Infructescences 1-3 per leaf axil, stout, branched or unbranched, with 1-3 drupes and prominent scars from fallen flowers, glabrous, 2.5-5 cm, 3-6 × as long as subtending petiole. Drupe orange to red, 0.8-1.4 cm, globose to ellipsoid, base rounded to obtuse, apex rounded to obtuse. Stone ovoid to ± globose, 6-13 mm, conspicuously to inconspicuously ribbed.

Monsoon rain forests in limestone areas, forests, slopes; near sea level to 1000 m. Guangdong, Hainan, Taiwan, S Yunnan [India, Indonesia, Malaysia, Myanmar, Philippines, Sri Lanka, Thailand, Vietnam; Africa, Australia, Pacific Islands].

- 1a. Trees to 30 m tall; leaf blade 8-18 cm, each side with 1 conspicuous lateral vein reaching blade apex; drupe 1-1.5 cm 1a. var. *philippensis*
- 1b. Trees 3-12 m tall; leaf blade 3-10 cm, each side with 2 conspicuous lateral veins and basal lateral vein reaching to 2/3 of blade; drupe 0.8-1.2 cm 1b. var. *wightii*

1a. *Celtis philippensis* var. *philippensis*

大果油朴(原变种) da guo you po (yuan bian zhong)

Trees to 30 m tall, glabrous except for tomentose stipules. Bark grayish white to grayish brown. Branchlets dark gray, with scattered lenticels. Stipules ovate-lanceolate, 4-8 mm. Petiole 0.5-1.5(-2) cm, robust; leaf blade greenish yellow when dry, oblong, 8-18 × 3-7 cm, each side with 1 conspicuous lateral vein reaching blade apex. Drupe 1-1.5 cm. Stone ovoid, to 1.3 cm, conspicuously 4-6(-8)-ribbed. Fl. Feb-Mar, fr. May-Oct.

Monsoon rain forests in limestone areas; 500-1000 m. Taiwan, S Yunnan [S India, Indonesia, Philippines, Sri Lanka, S Vietnam; Africa, Australia, Pacific Islands].

The seed oil is edible.

1b. *Celtis philippensis* var. *wightii* (Planchon) Soepadmo, Fl. Malesiana, Ser. 1, Spermatoph. 8(2): 62. 1977.

铁灵花 tie ling hua

Celtis wightii Planchon, Ann. Sci. Nat., Bot., sér. 3, 10: 307. 1848; *C. collinsiae* Craib; *C. philippensis* var. *consimillis* (Blume) J.-F. Leroy; *C. wightii* var. *consimilis* (Blume) Gagnepain; *Solenostigma consimile* Blume.

Trees 3-12 m tall. Bark gray. Young branchlets tomentose, glabrate. Stipules ovate, ca. 3 mm. Petiole 3-6 mm; leaf blade elliptic to oblong, 3-10 × 2-4.5 cm, with 2 conspicuous lateral veins on each side, basal lateral vein reaching to 2/3 of blade. Drupes 0.8-1.2 cm. Stone ± globose, ca. 6 mm, inconspicuously ribbed. Fl. Apr-Jul, fr. Oct-Dec.

Littoral forests, slopes; near sea level. Guangdong, Hainan [India, Indonesia, Malaysia, Thailand, Vietnam; Africa, Australia, Pacific Islands].

2. *Celtis timorensis* Spanoghe, Linnaea 15: 343. 1841.

假玉桂 jia yu gui

Celtis cinnamomea Lindley ex Planchon.

Trees, to 20 m tall, evergreen. Bark grayish white, gray, or grayish brown. Branchlets golden brown pubescent when young, brown and glabrescent with age, with scattered short linear lenticels. Winter buds brown, ca. 2 mm; scales at least inner ones pubescent. Stipules linear-lanceolate to linear, 2-7 mm, not enclosing bud, caducous. Petiole 3-12 mm, pubescent, glabrescent; leaf blade usually golden brown pubescent when young, ovate-elliptic to ovate-oblong, 5-15 × 2.5-7.5 cm, ± coriaceous, base broadly cuneate to ± rounded and distinctly asymmetric, margin entire or weakly serrate above middle and with 15 low rounded teeth on each side, apex acuminate to caudate-acuminate; secondary veins 1 or 2 on each side of midvein. Inflorescence a branched cyme, ca. 10-flowered, golden brown pubescent when young; proximal inflorescences with male flowers, distal inflorescences with male and female flowers. Styles 2, linear, undivided. Infructescences branched, 2-3.5 cm, pubescent or glabrous, with 3 or 4 drupes and several prominent scars from fallen flowers. Drupe yellow, becoming red to orange-red when mature, broadly ovoid, 7-9 mm, base rounded, apex conic-acute. Stone white, ovoid, ca. 6 mm, reticulately foveolate, conspicuously 4-ribbed.

Roadsides, slopes; near sea level to 200 m. Fujian, Guangdong, Guangxi, Guizhou, Hainan, Sichuan (Leshan), SW Xizang, Yunnan [Bangladesh, N India, Indonesia, Malaysia, Myanmar, Nepal, Philippines, Sri Lanka, Thailand, Vietnam].

3. *Celtis biondii* Pampanini, Nuovo Giorn. Bot. Ital., n.s., 17: 252. 1910.

紫弹树 zi dan shu

Celtis biondii var. *cavaleriei* (H. Léveillé) C. K. Schneider; *C. biondii* var. *heterophylla* (H. Léveillé) C. K. Schneider; *C. biondii* var. *holophylla* (Nakai) E. W. Ma; *C. bungeana* Blume var. *heterophylla* H. Léveillé; *C. cavaleriei* H. Léveillé; *C. chuanchowensis* F. P. Metcalf; *C. emuyaca* F. P. Metcalf var. *cuspidatophylla* (F. P. Metcalf) C. P'ei; *C. guangxiensis* Chun; *C. leveillei* Nakai; *C. leveillei* var. *cuspidatophylla* F. P. Metcalf; *C. leveillei* var. *heterophylla* (H. Léveillé) Nakai; *C. leveillei* var. *hirtifolia* Handel-Mazzetti; *C. leveillei* var. *holophylla* Nakai; *C. rockii* Rehder; *C. trichocarpa* W. C. Cheng & E. W. Ma.

Trees, to 18 m tall, deciduous. Bark gray. Branchlets yellowish brown, brown with age, densely pubescent when young, with scattered lenticels. Winter buds blackish brown, 3-5 mm, densely strigose; scales at least inner ones hispid with appressed parallel hairs. Stipules linear-lanceolate, pubescent, caducous. Petiole 3-6 mm, pubescent when young, adaxially with a broad and shallow furrow; leaf blade broadly ovate, ovate, or ovate-elliptic, 2.5-8 × 2-4 cm, thinly coriaceous, strigose or sericeous early in season, with inconspicuous scattered appressed hairs, often glabrescent except for major veins and abaxial vein axils, base obtuse to ± rounded and slightly oblique, margin shallowly serrate on apical half, teeth (0-6)-11(-14) on each side, apex slenderly acuminate to caudate-acuminate; secondary veins 2(or 3) on each side of midvein. Style branches linear, undivided.

Infructescences 1–3 per leaf axil, slender, unbranched, pubescent, 1–2 cm, 2–5 × as long as subtending petiole. Drupe yellow to reddish orange, ± globose, 5–7 mm. Stones slightly compressed, ca. 4 mm in diam., reticulately foveolate, 4-ribbed. Fl. Apr–May, fr. Sep–Oct.

Forests and among shrubs on mountains, limestone areas; near sea level to 2000 m. S Anhui, Fujian, SE Gansu, N Guangdong, Guangxi, Guizhou, S and W Henan, Hubei, Jiangsu, Jiangxi, S Shaanxi, Sichuan, Taiwan, Yunnan, Zhejiang [Japan, Korea].

Celtis guangxiensis differs in having entire leaves and a more or less smooth stone in the drupe.

4. *Celtis julianae* C. K. Schneider in Sargent, Pl. Wilson. 3: 265. 1916.

珊瑚朴 shan hu po

Celtis julianae C. K. Schneider var. *calvescens* C. K. Schneider.

Trees, to 30 m tall, deciduous. Bark gray. Branchlets dark brown, densely brownish yellow pubescent, rarely glabrous. Winter buds brown, 1–4 mm; scales at least inner ones brownish red hispid with appressed, parallel hairs. Petiole 0.7–1.5 cm, robust, densely golden pubescent, adaxially with a deep and narrow furrow; leaf blade broadly ovate to narrowly ovate-elliptic, 6–13 × 3.5–8 cm, thickly papery, abaxially densely golden pubescent or rarely so only on veins, adaxially smooth or scabrous, base ± rounded and slightly oblique, margin finely toothed above middle to rarely subtire, teeth 13–23 on each side and less than 1 mm, apex shortly acuminate to caudate-acuminate; secondary veins 4–6 on each side of midvein. Flowers densely fascicled. Style branches linear, undivided. Infructescence solitary, stout, unbranched, densely brownish yellow pubescent, rarely glabrous, 1–3 cm, 1.5–2.5 × as long as subtending petiole. Drupe 1 per infructescence, golden to orange-yellow, ellipsoid to ± globose, 1.1–1.4 cm. Stone milky white, obovate to broadly obovate, compressed slightly on both sides, 7–9 mm, reticulately foveolate, base acute to slightly obtuse, 2-ribbed on apical half. Fl. Mar–Apr, fr. Sep–Oct.

• Forests, valleys, slopes; 300–1300 m. S Anhui, Fujian, N Guangdong, Guizhou, S and W Henan, W Hubei, NW Hunan, Jiangxi, S Shaanxi, N Sichuan, Yunnan, Zhejiang.

Plants with glabrous twigs and infructescences have been called var. *calvescens*. They do not seem to differ from the species in any other way.

5. *Celtis vandervoetiana* C. K. Schneider in Sargent, Pl. Wilson. 3: 267. 1916.

西川朴 xi chuan po

Celtis pruniputaminea E. W. Ma.

Trees, to 20 m tall, deciduous. Bark gray to brownish gray. Branchlets brown, glabrous, with scattered elliptic lenticels. Winter buds 1–5 mm, glabrous or brown hirsute. Petiole 0.9–1.5(–2) cm, robust, brown, glabrous, adaxially with a deep and narrow furrow; leaf blade ovate-elliptic to ovate-oblong, 8–14 ×

3.5–7.5 cm, thickly papery, glabrous or abaxially with tufts of hairs in vein axils, base ± rounded and slightly oblique, margin finely toothed on apical 1/3–2/3, teeth 20–27 on each side, apex acuminate to shortly caudate-acuminate; secondary veins (2 or)3 or 4 on each side of midvein. Infructescence solitary, unbranched, robust, glabrous, 1.7–3.5 cm, 2.5–3 × as long as subtending petiole. Drupe 1 per infructescence, yellow to orange, ellipsoid to globose, 0.9–1.5 cm. Stone milky white to yellow, ± globose to broadly ellipsoid, 8–9 mm in diam., reticulately foveolate, 4-ribbed. Fl. Apr, fr. Sep–Oct.

• Forests, valleys, usually in shaded places; 600–1400 m. Fujian, N and W Guangdong, Guangxi, Guizhou, Hubei, NW Hunan, S Jiangxi, Sichuan, E Yunnan, E Zhejiang.

6. *Celtis koraiensis* Nakai, Bot. Mag. (Tokyo) 23: 191. 1909.

大叶朴 da ye po

Celtis aurantiaca Nakai; *C. koraiensis* var. *aurantiaca* (Nakai) Kitagawa.

Trees, to 15 m tall, deciduous. Bark gray. Branchlets brown, glabrous or with a few hairs near nodes, with scattered small elliptic lenticels. Winter buds brown, 2–4 mm; inner scales brown pubescent. Petiole brown, 0.5–1.5 cm, adaxially with a narrow and sharply defined furrow, glabrous or sparsely pubescent; leaf blade elliptic, obovate-elliptic, or rarely broadly obovate, 7–12 × 3.5–10 cm, papery, glabrous or abaxially sparsely pubescent but sometimes only on veins and vein axils, base broadly cuneate, ± rounded, or ± cordate and slightly oblique, margin deeply lacinate-toothed, teeth 15–24 on each side and 4–8 mm, apex truncate with a caudate tip; secondary veins 3 or 4 on each side of midvein. Flowers solitary or fascicled. Style branches linear, undivided. Infructescence stout, solitary, glabrous or sparsely pubescent, 1.5–2.5 cm, 2–2.5 × as long as subtending petiole. Drupe 1 per infructescence, orange-yellow, dark brown when mature, ± globose to ellipsoid, 1–1.3 cm, basally and apically obtuse. Stone grayish brown, ovoid-elliptic, ca. 8 mm in diam., reticulately foveolate, 4-ribbed. Fl. Apr–May, fr. Sep–Oct.

Forests, valleys, slopes; 100–1500 m. N Anhui, E Gansu, Hebei, W Henan, Jiangsu, S Liaoning, S Shaanxi, Shandong, S Shanxi [Korea].

7. *Celtis tetrandra* Roxburgh, Fl. Ind., ed. 1832, 2: 63. 1832.

四蕊朴 si rui po

Celtis fengqingensis Hu ex E. W. Ma; *C. formosana* Hayata; *C. kunningensis* W. C. Cheng & T. Hong; *C. salvatiana* C. K. Schneider; *C. xizangensis* E. W. Ma; *C. yunnanensis* C. K. Schneider.

Trees, to 30 m tall, deciduous or sometimes evergreen. Bark grayish white. Branchlets densely yellowish brown pubescent when young, brown, usually glabrescent with age; lenticels few or none. Winter buds brown, 1–3 mm; scales glabrous, margin ciliate. Stipules narrowly lanceolate, caducous, to 7 mm, never enclosing buds. Petiole 6–13 mm, brown, broadly sulcate, puberulous at least near adaxial furrow; leaf blade ovate-elliptic, ovate-lanceolate, or ± rhombic, 5–13 × 2.5–5.5 cm, thickly papery to ± papery, abaxially usually inconspicu-

ously yellowish brown puberulent when young, with hairs scattered on major veins and sometimes tufted in vein axils with age, base oblique with one side \pm rounded and other cuneate, margin entire or obtusely serrate, teeth 0–13 on each side, apex acuminate to shortly caudate-acuminate; secondary veins 3 or 4 on each side of midvein. Flowers fascicled, occasionally in racemes of 2 or 3 flowers. Style branches linear, undivided. Infructescences unbranched or seldom forked, rarely showing a small scar from a fallen male flower, 1–3 per leaf axil, rather slender, glabrous or pubescent, 0.8–1.5 cm; fruiting pedicel 1 or 2 \times as long as subtending petiole. Drupe yellow to orange when mature, \pm globose, 7–8 mm in diam. Stone \pm globose, ca. 5 mm in diam., 4-ribbed. Fl. Mar–Apr, fr. Sep–Oct.

Mesophytic mixed forests, valleys, slopes; 700–1500 m. W Guangxi, Hainan, Taiwan, Sichuan (Xichang), S Xizang, C, E, and S Yunnan [Bhutan, Bangladesh, India, Indonesia, Myanmar, Nepal, Thailand, Vietnam].

8. *Celtis sinensis* Persoon, Syn. Pl. 1: 292. 1805.

朴树 po shu

Celtis bodinieri H. Léveillé; *C. bungeana* var. *pubipedicella* G. H. Wang; *C. cercidifolia* C. K. Schneider; *C. hunanensis* Handel-Mazzetti; *C. labilis* C. K. Schneider; *C. nervosa* Hemsley; *C. tetrandra* Roxburgh subsp. *sinensis* (Persoon) Y. C. Tang.

Trees, to 20 m tall, deciduous. Bark gray. Branchlets brown, brown pubescent, sometimes glabrescent late in season. Winter buds dark brown, 1–3 mm, glabrous or inconspicuously puberulent. Stipules linear to lanceolate, 3–5 mm, pubescent, fugacious. Petiole brown, 3–10 mm, pubescent, adaxially with a broad and shallow furrow; leaf blade ovate to ovate-elliptic, 3–10 \times 3.5–6 cm, thickly papery, abaxially usually inconspicuously yellowish brown puberulent when young, abaxially with hairs scattered on major veins and sometimes tufted in vein axils with age, base rounded, obtuse, or obliquely truncate, \pm symmetric to moderately oblique, margin subentire to crenate on apical half, teeth 0–16 on each side, apex acute to shortly acuminate; secondary veins 3 or 4 on each side of midvein. Flowers fascicled in leaf axils and stem bases. Style branches linear, undivided. Infructescences unbranched, 1(–3) per leaf axil, rather stout, pubescent at least proximally, 4–10 mm; fruiting pedicel 1–1.5 \times as long as subtending petiole. Drupe \pm globose, 5–7(–8) mm in diam. Stone white, \pm globose, reticulately foveolate, ribbed. Fl. Mar–Apr, fr. Sep–Oct.

Roadsides, slopes; 100–1500 m. Anhui, Fujian, Gansu, Guangdong, Guizhou, Henan, Jiangsu, Jiangxi, NE Shandong, Sichuan, Taiwan, Zhejiang [Japan].

9. *Celtis cerasifera* C. K. Schneider in Sargent, Pl. Wilson. 3: 271. 1916.

小果朴 xiao guo po

Celtis taiyuanensis E. W. Ma.

Trees, to 35 m tall, deciduous. Bark grayish brown. Branchlets green, glabrous, brown with age, with scattered lenticels. Winter buds brown to dark brown, 2–3 mm, glabrous;

buds on two-year-old branchlets ca. 6 mm, apex acute. Petiole 5–10(–17) mm, adaxially with a narrow and sharply defined furrow, glabrous or furrow sparsely pubescent; leaf blade ovate to ovate-elliptic, 5–15 \times 2.5–7.5 cm, papery, glabrous or with hairs scattered along major veins and tufted in abaxial vein axils, base \pm rounded and slightly to strongly oblique, margin sharply and evenly toothed almost to base, teeth 15–28 on each side and 1–2 mm, apex long acuminate to shortly caudate-acuminate; secondary veins 3 or 4 on each side of midvein. Infructescences solitary, unbranched, 2–4.5 mm, rather stout, glabrous or sparsely pubescent at base, ca. 4 \times as long as subtending petiole. Drupes 1(–3) per infructescence, blackish blue when mature, globose, 1–1.3 cm in diam. Stone \pm globose, ca. 9 mm in diam., shallowly foveolate-reticulate, 4-ribbed. Fl. Apr, fr. Sep–Oct.

• Forests, among shrubs, slopes, valleys; 800–2400 m. Guangxi, Guizhou, N Hunan, S Shaanxi, Sichuan, SE Xizang, Yunnan, Zhejiang.

10. *Celtis bungeana* Blume, Mus. Bot. 2: 71. 1856.

黑弹树 hei dan shu

Celtis amphibola C. K. Schneider; *C. bungeana* var. *deginensis* X. W. Li & G. S. Fan; *C. bungeana* var. *lanceolata* E. W. Ma; *C. chinensis* Bunge (1833), not Persoon (1805); *C. davidiana* Carrière; *C. gongshanensis* X. W. Li & G. S. Fan; *C. mairei* H. Léveillé; *C. yangquanensis* E. W. Ma.

Trees, to 10 m tall, deciduous. Bark gray. Branchlets brown, glabrous, with scattered elliptic lenticels, grayish brown on following year. Winter buds brown, 1–3 mm, glabrous. Petiole 0.5–1.5 cm, pale yellow or brown, sometimes pubescent when young, adaxial furrow broad; leaf blade narrowly ovate, oblong, or ovate, 3–7(–15) \times 2–4(–5) cm, thickly papery, glabrous except for tufts of hairs abaxially in axils of main veins and occasional hairs scattered on veins, base broadly cuneate to \pm rounded and slightly oblique or not, margin irregularly shallowly serrate on apical half, sometimes entire, teeth 0–10(–15) on each side, apex acute to acuminate; secondary veins 2 or 3 on each side of midvein. Style branches linear, undivided. Infructescence solitary, slender, glabrous, 1–2.5 cm; fruiting pedicel 1.7–4 \times as long as subtending petiole. Drupe 1 or 2 per infructescence, blackish blue when mature, \pm globose, 6–8 mm in diam. Stone \pm globose, 4–5 mm in diam., nearly smooth, inconspicuously ribbed. Fl. Apr–May, fr. Oct–Nov.

Forests, among shrubs, roadsides, mountain slopes; 100–2300 m. Anhui, Gansu, Hebei, Henan, Hubei, Jiangsu, Jiangxi, Liaoning, Nei

Mongol, Ningxia, Qinghai, Shaanxi, Shandong, Shanxi, Sichuan, E Xizang, Yunnan, Zhejiang [Korea].

Celtis bungeana var. *deqinensis*, described from Yunnan, differs chiefly in having a thicker leaf blade.

11. *Celtis chekiangensis* W. C. Cheng, Contr. Biol. Lab. Chin. Assoc. Advancem. Sci., Sect. Bot. 9: 245. 1934.

天目朴树 tian mu po shu

Trees, to 20 m tall, deciduous. Bark white or grayish brown. Branchlets glabrous or densely grayish brown pubescent in first year, brown and with lenticels with age. Winter buds small; scales glabrous or puberulous. Stipules lanceolate, 3–5 mm, pubescent, caducous. Petiole 3–4 mm, pubescent, broadly sulcate; leaf blade ovate-elliptic to ovate-oblong, 3–11.5 × 2.5–

4.5 cm, abaxially sparsely pubescent on veins, adaxially glabrous, base obtuse to ± rounded and slightly oblique, margin shallowly serrate on apical half, teeth 8–24 on each side, apex long acuminate; secondary veins 3 on each side of midvein. Flowers fascicled. Style branches linear, undivided. Infructescence 1(–3) per leaf axil, slender, unbranched, pubescent at least proximally, 1–2 cm; fruiting pedicel 3–5 × as long as subtending petiole. Drupe red when mature, ± globose, 5–7 mm. Stone ± globose, 4–5 mm, reticulately foveolate, conspicuously ribbed on both sides. Fl. Apr, fr. Aug–Sep.

• Rocks in forests; (700–)1100–1500 m. Anhui, Zhejiang (Tianmu Shan).

