47. PRINSEPIA Royle, Ill. Bot. Himal. Mts. 206. 1835.

扁核木属 bian he mu shu

Gu Cuizhi (谷粹芝 Ku Tsue-chih); Bruce Bartholomew

Plagiospermum Oliver (1886), not Cleve (1868), nor Pierre (1892); Sinoplagiospermum Rauschert.

Shrubs, erect or scandent, deciduous. Branches with leafless or few-leaved axillary spines, pith lamellate. Winter buds small, with a few hairy scales. Stipules small, soon caducous. Leaves alternate, sometimes fascicled on short shoots, simple; petiole short, often ill-defined, with or without slender and inconspicuous nectaries; leaf blade glabrous, margin entire or serrulate. Inflorescences solitary or fascicled on short branchlets in leaf axils of previous year's branches, racemose, or 1-flowered. Flowers bisexual. Pedicel absent or essentially so. Hypanthium mouth with an annular disk. Sepals 5, unequal, persistent in fruit. Petals 5, white, cream, or yellow, suborbicular, base clawed. Stamens 10 or more, in 2 or more whorls, inserted on hypanthium rim; filaments short. Ovary superior, glabrous, 1-loculed; ovules 2, parallel, pendulous. Style lateral; stigma capitate. Fruit a drupe; mesocarp fleshy; endocarp leathery, smooth or slightly furrowed.

About five species: Bhutan, China, N India, Nepal, Pakistan, Sikkim; four species (three endemic) in China.

- 1a. Spines leafy, rarely leafless; flowers in racemes, rarely solitary or fascicled; stamens more than 10, in several whorls.
- 1b. Spines leafless; flowers in a fascicle or solitary; stamens 10, in 2 whorls.

1. Prinsepia utilis Royle, Ill. Bot. Himal. Mts. 206. 1835.

扁核木 bian he mu

Shrubs 1-5 m tall. Branches grayish green, robust; branchlets green to grayish green, angled, brown pubescent to subglabrous; spines to 3.5 cm, subglabrous, usually leafy. Winter buds purplish red, ovoid to oblong, subglabrous. Stipules not seen. Petiole ca. 5 mm, glabrous; leaf blade oblong to ovate-lanceolate, $3.5-9 \times 1.5-3$ cm, base broadly cuneate to subrounded, margin serrulate, apex acute to acuminate. Racemes axillary or on short branchlets, 3-6 cm, many flowered; peduncle brown pubescent, soon glabrescent; bracts and bracteoles lanceolate, brown pubescent, glabrescent. Flowers ca. 1 cm in diam. Pedicel 4-8 mm, to 1 cm in fruit, brown pubescent, soon glabrescent. Hypanthium cup-shaped, outside brown pubescent. Sepals semiorbicular to broadly ovate, outside brown pubescent when young and densely so on margin. Petals white, broadly obovate, base shortly clawed, margin apically erose. Stamens in 2 or 3 whorls. Ovary glabrous. Style short. Drupe purplish brown to blackish purple, oblong to obovoid-oblong, ca. 8 mm in diam. Fl. Apr-May, fr. Aug-Sep.

Slopes, wastelands, valleys, along trails; 1000–2600 m. Guizhou, Sichuan, Xizang, Yunnan [Bhutan, N India, Nepal, Pakistan, Sikkim].

2. Prinsepia scandens Hayata, Icon. Pl. Formosan. 5: 69. 1915.

台湾扁核木 tai wan bian he mu

Shrubs 2–8 m tall, scandent. Branchlets greenish, angled; spines 1-1.5 cm, glabrous, sometimes leafy. Winter buds ovoid, glabrous. Stipules not seen. Petiole 5–10 mm, glabrous; leaf blade ovate-lanceolate, $3.5-5.5 \times 1.2-2$ cm, thinly leathery, glabrous, abaxially slightly lighter green than adaxial surface, base narrowly cuneate to cuneate, margin crenate-serrate, apex acuminate; midvein abaxially raised, adaxially slightly impressed. Inflorescences terminal or axillary, solitary, fascicled, or

racemose; bracts glandular. Flowers ca. 1 cm in diam. Pedicel 5–7 mm. Hypanthium cup-shaped, outside glabrous. Sepals suborbicular, 3–5 mm in diam., outside glabrous, apex rounded. Petals white, suborbicular, ca. 5 mm in diam. Stamens ca. 30. Stigma inflated. Drupe oblong. Fl. Apr–Jun.

- Thickets in mountains; 1500–3000 m. Taiwan.
- **3. Prinsepia sinensis** (Oliver) Oliver ex Bean, Bull. Misc. Inform. Kew 1909: 354. 1909.

东北蕤核 dong bei rui he

Plagiospermum sinense Oliver, Hooker's Icon. Pl. 16: t. 1526. 1886; Sinoplagiospermum sinense (Oliver) Rauschert.

Shrubs to 2 m tall. Branches grayish green to purplish brown, robust, glabrous; branchlets reddish brown, longitudinally angled, glabrous; spines erect to recurved, 6-10 mm, usually leafless. Winter buds purplish red, ovoid, pubescent. Petiole 5-10 mm, glabrous; leaf blade ovate-lanceolate, lanceolate, or very rarely lorate, $3-6.5 \times 0.6-2$ cm, abaxially pale green, adaxially dark green, base subrounded to broadly cuneate, margin remotely serrate, apex acute, acuminate, or caudate; secondary veins abaxially prominent, adaxially impressed. Inflorescences in leaf axils, 1-flowered or to a 4-flowered fascicle; bracts small, membranous, lanceolate, adaxially pubescent, glabrescent. Flowers ca. 1.5 cm in diam. Pedicel 1-1.8 cm, to 2 cm in fruit, glabrous. Hypanthium campanulate, outside glabrous. Sepals triangular-ovate, short, outside glabrous, margin ciliate. Petals yellow, obovate, base shortly clawed, apex obtuse. Stamens ca. 10, in 2 whorls. Ovary glabrous. Style short. Drupe purplish red to purplish brown, subglobose to oblong, 1-1.5 cm in diam., glabrous. Fl. Apr-May, fr. May-Sep.

- Mixed forests, forests of shady slopes, open places on slopes, stream sides. Heilongjiang, Jilin, Liaoning, Nei Mongol.
- **4. Prinsepia uniflora** Batalin, Trudy Imp. S.-Peterburgsk. Bot.

Sada 12: 167. 1892.

蕤核 rui he

Sinoplagiospermum uniflorum (Batalin) Rauschert.

Shrubs 1-2 m tall. Branches purplish brown, robust, glabrous; branchlets grayish green to grayish brown, longitudinally angled, glabrous or pubescent; spines usually erect, 6–10 mm. usually leafless. Winter buds purplish red, ovoid, glabrous. Petiole short to leaf subsessile, subglabrous; leaf blade oblong-lanceolate, narrowly oblong, oblong, ovate-oblong, ovate-lanceolate, narrowly lanceolate, or narrowly elliptic, $2-5.5 \times 0.6-0.8$ cm, abaxially pale green, adaxially dark green, base cuneate to broadly cuneate, margin repand to conspicuously serrulate. apex obtuse to acute. Inflorescences 1-flowered or to 3-flowered fascicle; bracts not seen. Flowers 8-10 mm in diam. Pedicel 3-15 mm, glabrous. Hypanthium turbinate, outside glabrous. Sepals triangular-ovate to semiorbicular, reflexed in fruit, outside glabrous, margin entire, apex obtuse. Petals white with purple veins, oboyate, 5-6 mm, base broadly cuneate and shortly clawed, margin apically erose. Stamens 10, in 2 whorls. Ovary glabrous. Style short. Drupe reddish brown to blackish brown, globose, 0.8-1.2 cm in diam., glabrous, lustrous. Fl. May, fr. Jun-Sep.

- Slopes, ravines in valleys, bases of hills; 800–2200 m. Gansu, W Henan, S Nei Mongol, Ningxia, E Qinghai, Shaanxi, Shanxi, W Sichuan.
- 1b. Leaf ovate-lanceolate to ovate-oblong on sterile shoot, oblong to narrowly elliptic on flowering shoots, margin conspicuously serrulate; pedicel 5–15 mm 4b. var. *serrata*

4a. Prinsepia uniflora var. uniflora

蕤核(原变种) rui he (yuan bian zhong)

Leaf blade oblong-lanceolate to narrowly lanceolate, margin repand or inconspicuously serrulate. Pedicel 3–5 mm.

• Sunny slopes, bases of hills; 900–1100 m. Gansu, W Henan, S Nei Mongol, Shaanxi, Shanxi, W Sichuan.

4b. Prinsepia uniflora var. **serrata** Rehder, J. Arnold Arbor. 22: 575, 1941.

齿叶蕤核 chi ye rui he

Leaf blade ovate-lanceolate to ovate-oblong on sterile shoots, oblong to narrowly elliptic on flowering shoots, margin conspicuously serrate. Pedicel 5–15 mm.

• Slopes, ravines in valleys; 800–2200 m. Gansu, Ningxia, E Qinghai, S Shaanxi, S Shaanxi, W Sichuan.