

54. PYGEUM Gaertner, Fruct. Sem. Pl. 1: 218. 1788.

臀果木属 tun guo mu shu

Lu Lingdi (陆玲娣 Lu Ling-ti); Bruce Bartholomew

Trees or shrubs, evergreen. Branches unarmed. Stipules small, free, soon caducous, rarely persistent. Leaves simple, alternate, petiolate; leaf blade abaxially with a pair of flat to depressed nectaries near base and additional nectaries sometimes near margin, margin entire or very rarely minutely serrulate. Racemes axillary, solitary or sometimes several in a fascicle, unbranched or branched; bracts small, soon caducous, very rarely persistent after anthesis. Flowers bisexual or unisexual by want of ovary, sometimes polygamo-dioecious. Hypanthium obconic, campanulate, or cyathiform, caducous at fruiting time, only annular base remained. Perianth segments 5–10(–14), small. Sepals and petals often similar but sometimes distinct in shape and texture. Petals white, as many as sepals, very rarely absent, usually 1.5–2 × as long as sepals. Stamens 10–30(–85), in 1 to many series; filaments filiform. Ovary superior, 1-loculed, glabrous or hairy; ovules 2, collateral, pendulous. Style terminal; stigma capitate. Fruit a drupe, dry, usually transversely oblong to ellipsoid, obscurely didymous, sometimes subglobose to oblong and distinctly longer than wide; endocarp cartilaginous.

About 40 species; tropical Africa, S and SE Asia, NE Australia, New Guinea, Pacific Islands; six species (all endemic) in China.

Pygeum griseum Blume ex Müller Stuttgart (*Prunus grisea* (Blume ex Müller Stuttgart) Kalkman) was reported from Lan Yu off the coast of SE Taiwan by Ohashi (Fl. Taiwan, ed. 2, 3: 98–100. 1993, as *Prunus grisea*). The species is not included in this treatment because the present authors have seen no Chinese specimens.

- 1a. Leaf blade secondary veins 9–14 on either side of midvein.
 - 2a. Bracts ovate to triangular-ovate, persistent at anthesis; ovary densely pubescent; drupe ovoid-globose 1. *P. henryi*
 - 2b. Bracts lanceolate to linear-lanceolate, caducous at anthesis; ovary often glabrous; drupe compressed globose to transversely shortly oblong 3. *P. wilsonii*
- 1b. Leaf blade secondary veins 5–8(or 9) on either side of midvein.
 - 3a. Drupe wider than long.
 - 4a. Leaf blade ovate-elliptic to elliptic, apex shortly acuminate and with an apical obtuse tip; racemes 4–7 cm; drupe reniform, apically depressed, 0.8–1 cm 2. *P. topengii*
 - 4b. Leaf blade ovate-lanceolate to lanceolate, apex acuminate to caudate-acuminate; racemes 1.5–4 cm; drupe compressed ovoid-globose to transversely shortly oblong, 1.6–2 cm 5. *P. laxiflorum*
 - 3b. Drupe as long as or longer than wide.
 - 5a. Leaf blade lanceolate, base cuneate, apex acuminate to caudate; drupe oblong 4. *P. oblongum*
 - 5b. Leaf blade elliptic to oblong-elliptic, base rounded, apex abruptly pointed; drupe compressed ovoid-globose 6. *P. macrocarpum*

1. *Pygeum henryi* Dunn, J. Linn. Soc., Bot. 35: 493. 1903.

云南臀果木 yun nan tun guo mu

Trees 6–15 m tall. Branchlets grayish brown to grayish black, reddish brown pubescent when young, glabrescent, with distinct orbicular lenticels. Winter buds brown, small, ovoid, pubescent. Petiole ca. 1 cm, reddish brown pubescent; leaf blade oblong-lanceolate to rarely elliptic, 9–17 × 4–7 cm, leathery, both surfaces reddish brown appressed pubescent when young, abaxially with distinct hollowed nectaries near base, adaxially glabrescent, base broadly cuneate to rounded, margin entire, apex shortly acuminate to acute; secondary veins 9–12 on either side of midvein, abaxially raised. Racemes solitary to several in a fascicle, 3–6 cm; rachis, bracts, pedicels, hypanthia, and sepals densely reddish brown pubescent; bracts small, ovate to triangular-ovate, persistent at anthesis. Flowers 2–4 mm in diam. Pedicel 1–2 mm. Hypanthium cyathiform, 1.5–2.5 mm. Sepals 5 or 6, narrowly triangular, slightly shorter than hypanthium. Petals as many as sepals, narrowly oblong, often indistinguishable from sepals although petals slightly longer. Stamens 20–30, longer than petals. Ovary densely pubescent. Style slightly shorter than stamens. Drupe dark brown, ovoid-globose, 7–10 mm and ± as broad, pubescent when young, glabrescent. Fl. Aug–Sep, fr. winter–spring.

• Foothill mixed forests, thickets, mountain valleys; 600–2000 m. Yunnan.

2. *Pygeum topengii* Merrill, Philipp. J. Sci. 15: 237. 1919.

臀果木 tun guo mu

Pygeum tokangpengii Merrill.

Trees to 25 m tall. Bark dark gray to grayish brown. Branchlets dark brown, brown pubescent when young, glabrescent, with orbicular small lenticels. Winter buds ovoid, 2.5–5 mm, brown pubescent, apex acute. Petiole 5–8 mm, brown pubescent; leaf blade ovate-elliptic to elliptic, 6–12 × 3–5.5 cm, leathery, abaxially brown appressed pubescent and more densely so along midvein and secondary veins but glabrescent or only very sparsely pubescent and with 2 black nectaries near base, adaxially lustrous and glabrous, base broadly cuneate and asymmetric, margin entire, apex shortly acuminate and with an apical obtuse tip; secondary veins 5–8 on either side of midvein, abaxially raised. Racemes solitary or to several in a fascicle, 4–7 cm, many flowered; rachises, pedicels, bracts, hypanthia, and sepals densely brown pubescent; bracts small, ovate-lanceolate to lanceolate, soon caducous. Flowers 2–3 mm in diam. Pedicel 1–3 mm. Hypanthium obconic, 2–2.5 mm. Sepals 5 or 6, triangular-ovate, 1–2 mm; apex acute. Petals as many as

sepals, oblong, slightly longer than sepals or indistinguishable from sepals, outside brown pubescent, apex \pm obtuse. Ovary glabrous. Drupe dark brown, reniform, $0.8-1 \times 1-1.6$ cm, glabrous, apically depressed. Fl. Jun–Sep, fr. winter.

• Forests, forest margins, abandoned fields, mountain valleys, along trails, stream sides; 100–1600 m. Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hunan, Yunnan.

3. *Pygeum wilsonii* Koehne, Bot. Jahrb. Syst. 52: 334. 1915.

西南臀果木 xi nan tun guo mu

Trees 8–24 m tall. Branchlets grayish brown, brown pubescent, glabrescent, lenticellate. Petiole 7–10 mm, densely brown pubescent; leaf blade oblong to ovate-oblong, $10-39 \times 4-15$ cm, papery to subleathery, abaxially persistent brown appressed pubescent and usually with 2 nectaries near base, adaxially initially brown pubescent along veins but glabrescent, base rounded to broadly cuneate, margin entire, apex acuminate; secondary veins 10–14 on either side of midvein, abaxially elevated. Racemes axillary, solitary to several in a fascicle, more than 10-flowered; rachises, pedicels, bracts, hypanthia, and sepals densely brown pubescent; bracts lanceolate to linear-lanceolate, soon caducous. Flowers 2–3 mm in diam. Pedicel 1–3 mm, 5–12 mm in fruit and sparsely brown pubescent. Hypanthium campanulate. Sepals 5, oblong, 1–2 mm. Petals 5, spatulate-oblong, slightly longer than sepals or resembling sepals. Stamens 24–30. Ovary often glabrous. Drupe black when dry, compressed globose to transversely shortly oblong, $0.9-1 \times 1-1.5$ cm, glabrous, apex usually slightly abruptly pointed. Fl. Aug–Sep, fr. Nov–Dec.

• Foothill mixed forests, forested slopes, thickets on slopes; 900–1700 m. Sichuan, Xizang, Yunnan.

- 1a. Leaf blade \pm thin, $10-18 \times 4-7$ cm; fruiting pedicel 5–7 mm 3a. var. *wilsonii*
 1b. Leaf blade \pm thick, $19-39 \times 8-15$ cm; fruiting pedicel 7–12 mm 3b. var. *macrophyllum*

3a. *Pygeum wilsonii* var. *wilsonii*

西南臀果木(原变种) xi nan tun guo mu (yuan bian zhong)

Leaf blade \pm thin, $10-18 \times 4-7$ cm. Fruiting pedicel 5–7 mm.

• Foothill mixed forests, thickets on slopes; 900–1200 m. Sichuan, Xizang, Yunnan.

3b. *Pygeum wilsonii* var. *macrophyllum* L. T. Lu, Acta Bot. Yunnan. 10: 363. 1988.

大叶臀果木 da ye tun guo mu

Leaf blade \pm thick, $19-39 \times 8-15$ cm. Fruiting pedicel 7–12 mm.

• Forested slopes; ca. 1700 m. SE Xizang (Mêdog Xian).

4. *Pygeum oblongum* T. T. Yu & L. T. Lu, Acta Phytotax. Sin. 23: 213. 1985.

长圆臀果木 chang yuan tun guo mu

Trees to 4 m tall. Branchlets grayish brown to dark purplish brown, reddish brown pubescent when young, glabre-

scent, with few inconspicuous small lenticels. Petiole 8–10 mm, densely reddish brown pubescent; leaf blade lanceolate, $8-13 \times 2-3.5$ cm, subleathery to leathery, abaxially densely reddish brown pubescent, not glabrescent, and without or rarely with 2 flat nectaries near base, adaxially glabrous, base cuneate, margin entire, apex acuminate to caudate; secondary veins 6–8 on either side of midvein, abaxially raised. Racemes axillary, solitary or to 3 in a fascicle, 1.5–3 cm; rachises, pedicels, hypanthia, and sepals reddish brown pubescent; bracts ovate-lanceolate to lanceolate, 1–2 mm, undivided, soon caducous. Flowers 2–3 mm in diam. Pedicel 1–2 mm. Hypanthium cup-shaped. Sepals 5, triangular-lanceolate, 1–1.5 mm, apex acuminate. Petals 5, oblong, nearly as long as sepals, sometimes almost indistinguishable from sepals, apex obtuse. Stamens more than 10. Ovary glabrous. Drupe dark purplish brown, oblong, $1.6-2 \times 1-1.2$ cm, glabrous. Fl. Sep–Oct, fr. winter–spring.

• Evergreen broad-leaved forests, dense mountain forests; 2000–2100 m. SE Yunnan (Jinping Xian, Pingbian Xian).

5. *Pygeum laxiflorum* Merrill ex H. L. Li, J. Arnold Arbor. 26: 64. 1945.

疏花臀果木 shu hua tun guo mu

Trees 7–20 m tall. Bark dark gray. Branchlets blackish brown to dark purplish brown, pubescent when young, glabrescent, with prominent small lenticels. Winter buds ovoid, 2–4 mm, brown pubescent, apex obtuse to acute. Petiole 6–10 mm, glabrous or sparsely pubescent; leaf blade ovate-lanceolate to lanceolate, 7–10 × 2–3.5 cm, papery to subleathery, abaxially paler, glabrous or slightly pubescent when young, glabrescent, and with or without 2 flat nectaries near base, adaxially greenish brown and glabrous, base cuneate, margin entire, apex acuminate to caudate-acuminate; secondary veins 5–8 on either side of midvein, slender, abaxially slightly raised. Racemes axillary, solitary or to 3 in a fascicle, 1.5–4 cm, with loose flowers; rachis and pedicels brown pubescent, glabrescent or with persistent hairs; bracts small, soon caducous. Flowers 1–3 mm in diam. Pedicel 1–3 mm. Hypanthium campanulate to obconic, ca. 2 × 3 mm, outside brown pubescent. Sepals 5, triangular-ovate, 0.5–1 mm, outside brown pubescent, apex acute to shortly acuminate. Petals 5, oblong, slightly longer than sepals but sometimes resembling them, apex obtuse. Stamens 15–25, 4–6 mm, glabrous. Ovary glabrous. Style ca. 3 mm. Drupe dark purplish brown, compressed ovoid-globose to transversely shortly oblong, 7–10 × 9–12 mm, glabrous. Fl. Aug–Oct, fr. Nov–Dec.

- Forests on stream banks, foothills; 100–700 m. Guangdong, Guangxi.

6. *Pygeum macrocarpum* T. T. Yu & L. T. Lu, *Acta Phytotax. Sin.* 23: 213. 1985.

大果臀果木 da guo tun guo mu

Pygeum latifolium Miquel var. *macrocarpum* (T. T. Yu & L. T. Lu) C. Y. Wu & H. Chu.

Trees 8–10 m tall. Branchlets purplish brown to dark grayish brown, brown pubescent when young, glabrescent, with many distinct lenticels. Petiole 1–1.2 cm, pubescent when young, glabrescent; leaf blade elliptic to oblong-elliptic, 10–18 × 5–9 cm, papery to subleathery, abaxially paler, sparsely brown pubescent along veins, glabrescent, and with or without 2 flat nectaries near base, adaxially greenish brown and glabrescent, base rounded, margin entire, apex abruptly short pointed; secondary veins 6–8 on either side of midvein, abaxially conspicuously raised. Racemes solitary or to 3 in a fascicle; rachises, pedicels, hypanthia, and sepals brown pubescent. Drupe purplish brown, compressed ovoid-globose, 1.5–1.8 cm and ± as broad as to slightly broader than long, glabrous, apex acute; mesocarp sometimes splitting when ripe. Seed fragrant. Fl. Aug–Oct, fr. winter–spring.

- Forests, forest margins, deep ravines, stream sides; 500–1000 m. SE Yunnan (Jinping Xian, Malipo Xian).

ROSACEAE