

118. PHYLLODIUM Desvaux, J. Bot. Agric. 1: 123. 1813.

排钱树属 *pai qian shu shu*

Huang Puhua (黄普华 *Huang Pu-hwa*); Hiroyoshi Ohashi

Shrubs or subshrubs. Leaves pinnately 3-foliolate, stipulate, stipellate. Inflorescences terminal, forming a racemose panicle, each umbellate, 4–15-flowered, subtended and enclosed by a pair of persistent leaflike bracts. Calyx campanulate, pubescent, 5-lobed; lower 3 lobes usually longer than upper ones; upper 2 lobes connate and entire or minutely 2-toothed at apex. Corolla white to pale yellow or rarely purple; standard obovate or broadly obovate, clawed or tapering to base; wings narrowly elliptic, clawed and auriculate at base; keel arcuate, base long clawed, auriculate. Stamens 10, monadelphous. Gynoecium longer than androecium. Legume sessile, indehiscent; lower suture more deeply incised, upper suture shallowly undulate, (1 or)2–7-jointed. Seed distinctly rim-arillate around hilum; cotyledons epigeous.

Eight species: tropical and subtropical Asia, N Australia; four species in China.

- 1a. Terminal leaflet lanceolate or oblong, 13–20 cm, often 4–5 × as long as lateral ones 1. *P. longipes*
- 1b. Terminal leaflet ovate, elliptic, or sometimes obovate, often 5–12 cm, ca. 2 × as long as lateral ones or nearly equal.
 - 2a. Terminal leaflet slightly longer than lateral ones or nearly equal; leaflike bracts broadly elliptic or broadly ovate; legume slightly pubescent or glabrescent 2. *P. kurzianum*
 - 2b. Terminal leaflet ca. 2 × as long as lateral ones; leaflike bracts orbicular or broadly elliptic, if broadly elliptic, then legume densely silver-gray tomentose.
 - 3a. Leaflets adaxially nearly glabrous; leaflike bracts orbicular, slightly pubescent and ciliate; legume usually 2-jointed, glabrous or slightly pubescent and ciliate 3. *P. pulchellum*
 - 3b. Leaflets densely tomentose; leaflike bracts broadly elliptic, densely tomentose; legume often 3- or 4-jointed, densely silver-gray tomentose 4. *P. elegans*

1. *Phyllodium longipes* (Craib) Schindler, Repert. Spec. Nov. Regni Veg. 20: 270. 1924.

长叶排钱树 *chang ye pai qian shu*

Desmodium longipes Craib, Bull. Misc. Inform. Kew 1910: 20. 1910; *D. tonkinense* Schindler.

Shrubs, ca. 1 m tall. Branchlets densely brown pubescent. Petiole ca. 3 mm; terminal leaflet blade lanceolate or oblong, 13–20 × 3.7–6 cm, lateral ones obliquely ovate, 3–4 × 1.5–2 cm, abaxially densely brown soft hairy, adaxially sparsely pubescent or glabrescent, lateral veins 8–15 on each side of midvein, distinctly reticulate veined. Flowers (5–)9–15, enclosed by pair of leaflike bracts; bracts obliquely ovate, 2.5–3.5 × 2–2.7 cm. Pedicel 4–6 mm. Calyx 4–5 mm, white tomentose. Corolla white or pale yellow; standard obovate, 3–9 mm, clawed; wings 7–8 mm, base auriculate, clawed; keel arcuate, 8–8.5 mm. Ovary 3.5–4 mm, 7- or 8-ovuled. Legume narrowly oblong, 0.8–1.5 cm × ca. 3.5 mm, lower suture more deeply undulate, upper suture slightly undulate, both surfaces downy, 2–5-jointed; articles broadly oblong to nearly quadrangular. Seed broadly elliptic, ca. 3 × 2.3 mm. Fl. Aug–Sep, fr. Oct–Nov.

Thickets, dense forests; 900–1000 m. Guangdong, Guangxi, S Yunnan [Cambodia, Laos, Myanmar, Thailand, Vietnam].

2. *Phyllodium kurzianum* (Kuntze) H. Ohashi, Ginkgoana 1: 272. 1973.

长柱排钱树 *chang zhu pai qian shu*

Meibomia kurziana Kuntze, Revis. Gen. Pl. 1: 197. 1891; *Desmodium grande* Kurz; *D. kurzii* Craib; *Phyllodium*

grande (Kurz) Schindler; *P. kurzii* (Craib) Chun.

Shrubs, much branched, 1–2 m tall. Branchlets densely gray-yellow tomentose. Petiole 2–3 mm; terminal leaflet blade ovate or elliptic, 7–16 × 5–11 cm, lateral ones 7–11 × 5–6 cm, abaxially densely white tomentose, adaxially appressed white pubescent, lateral veins 8–10 on each side of midvein, reaching margin, both surfaces distinctly reticulate veined. Flowers 5–11, enclosed by pair of leaflike bracts; bracts broadly elliptic or broadly ovate, 2–3.5 × 1.5–2.5 cm. Pedicel 5–10 mm. Calyx 2–3.5 mm. Corolla white or pale yellow; standard ca. 10 × 5 mm, clawed; wings ca. 8 × 1.5 mm, clawed; keel ca. 9 mm, base long clawed, auriculate. Ovary 2.5–3 mm; style ca. 1 cm, slender. Legume 1–2 × 0.4–0.5 cm, slightly pubescent or glabrescent, 3- or 4-jointed; articles nearly quadrangular, reticulate veined. Seed orbicular, 2.3–2.7 mm in diam. Fl. Jul–Aug, fr. Oct–Nov.

Thickets on mountain slopes; below 1000 m. W Guangdong, S Guangxi, SW and W Yunnan [Laos, Myanmar, N Thailand, Vietnam].

3. *Phyllodium pulchellum* (Linnaeus) Desvaux, J. Bot. Agric. 1: 124. 1813.

排钱树 *pai qian shu*

Hedysarum pulchellum Linnaeus, Sp. Pl. 2: 747. 1753; *Desmodium pulchellum* (Linnaeus) Benthams; *Dicerma pulchellum* (Linnaeus) Candolle.

Shrubs, 0.5–2 m tall. Branchlets white or gray pubescent. Petiole 5–7 mm; terminal leaflet blade ovate, elliptic, or obovate, 6–10 × 2.5–4.5 cm, ca. 2 × as long as lateral leaflets, abaxially densely pubescent on veins, adaxially sparsely pubescent,

lateral veins 6–10 on each side of midvein. Flowers 5 or 6, enclosed by pair of leaflike bracts; bracts orbicular, 1–1.5 cm in diam., both surfaces slightly pubescent, ciliate. Pedicel 2–3 mm, pubescent. Calyx ca. 2 mm. Corolla white or pale yellow; standard 5–6 mm, base attenuate, shortly and broadly clawed; wings ca. 5×1 mm, auriculate, clawed; keel ca. 6×2 mm, clawed, not auriculate. Pistil 6–7 mm; style 4.5–5.5 mm. Legume ca. 6×2.5 mm, slightly constricted on both sutures, usually 2-jointed; articles glabrous or sparsely pubescent and ciliate. Seed broadly elliptic or nearly orbicular, $2.2\text{--}2.8 \times$ ca. 2 mm. Fl. Jul–Sep, fr. Oct–Nov. $2n = 22$.

Wastelands on hills, roadsides, sparse forests on mountain slopes; 200–2000 m. Fujian, Guangdong, Guangxi, Guizhou, Hainan, S Jiangxi, Taiwan, S Yunnan [throughout tropical Asia to Australia and New Guinea].

The roots and leaves are used medicinally for reducing fever and as an antiphlogistic and diuretic.

4. *Phyllodium elegans* (Loureiro) Desvaux, Mém. Soc. Linn. Paris 4: 324. 1826.

毛排钱树 mao pai qian shu

Hedysarum elegans Loureiro, Fl. Cochinch. 2: 450. 1790; *Desmodium blandum* Meeuwen; *D. elegans* (Loureiro) Benth (1861), not Candolle (1825); *Dicerma elegans* (Loureiro) Candolle.

Shrubs, 0.5–1.5 m tall. Branchlets and petioles densely yellow tomentose. Petiole ca. 5 mm; terminal leaflet blade ovate or elliptic to obovate, $7\text{--}10 \times 3\text{--}5$ cm, lateral ones obliquely ovate, ca. $1/2$ as long as terminal one, both surfaces densely tomentose especially abaxially, lateral veins 9 or 10 on each side of midvein, both ends obtuse. Flowers 4–9, enclosed by a pair of leaflike bracts; bracts broadly elliptic, $1.4\text{--}3.5 \times 0.9\text{--}2.5$ cm, densely yellow tomentose, base oblique, apex emarginate. Pedicel 2–4 mm. Calyx campanulate, 3–4 mm. Corolla white or pale green; standard $6\text{--}7 \times 3\text{--}4$ mm, base attenuate; wings $5\text{--}6 \times$ ca. 1 mm, base auriculate, clawed; keel larger than wings, $7\text{--}8 \times$ ca. 2 mm, clawed. Pistil 8–10 mm. Legume $1\text{--}2 \times 0.3\text{--}0.4$ cm, densely silver-gray tomentose, lower suture undulate, upper suture straight or shallowly undulate, usually 3- or 4-jointed. Seed elliptic, ca. $2.5 \times 1.8\text{--}2$ mm. Fl. Jul–Aug, fr. Oct–Nov.

Plains, wastelands on hills, grasslands, sparse forests, thickets on mountain slopes; sea level to 1100 m. Fujian, Guangdong, Guangxi, Guizhou, Hainan, Yunnan [Cambodia, Indonesia (as *Phyllodium elegans* var. *javanicum* Schindler), Laos, Thailand, Vietnam].

The roots and leaves are used medicinally for reducing fever and as an antiphlogistic and diuretic.

