

66. PARADERRIS (Miquel) R. Geesink, Leiden Bot. Ser. 8: 109. 1984.

拟鱼藤属 ni yu teng shu

Chen Dezhaoh (陈德昭 Chen Te-chao); Les Pedley

Derris sect. *Paraderris* Miquel, Fl. Ned. Ind. 1: 145. 1855.

Lianas. Stipules small. Leaves imparipinnate; stipels much reduced or absent. Flowers in axillary pseudoracemes, occasionally aggregated into pseudopanicles. Brachyblasts rather thin, with (1 or)2 or 3(–5) flowers. Bracts shorter than corresponding flower buds. Bracteoles present. Calyx with 5 short lobes. Corolla white to rose-red; standard blade elliptic to suborbicular, reflexed at base; basal calluses distinct, large; wings and keel petals ± equally long. Stamens monadelphous; upper staminal filament adnate to other 9; anthers usually with trichomes. Disk distinct, flat to slightly hollow. Ovary with trichomes; ovules 1–7. Legume indehiscent, woody to thickly woody; either both sutures with a longitudinal wing or winged only on adaxial suture. Seeds 1 to several per legume, lens-shaped; radicle folded.

About 15 species: through SE Asia to New Guinea, absent from Australia and Pacific islands; six species (three endemic, two introduced) in China.

- 1a. Flowers in pseudopanicles; leaflets 9–15.
 - 2a. Leaflet blades subleathery, apex obtuse to acute; flowers less than 1.2 cm; legume ca. 3 cm 3. *P. canarensis*
 - 2b. Leaflet blades membranous, apex caudate-acuminate to acuminate; flowers 1.5–1.8 cm; legume more than 4 cm.
 - 3a. Leaflets 9–13, blades abaxially glaucous when dry; branchlets yellowish pubescent; corolla rose-red; pedicel 0.8–1 cm 1. *P. glauca*
 - 3b. Leaflets 13 or 15, blades abaxially olive-green when dry; branchlets glabrous; corolla whitish; pedicel 1–2 cm 2. *P. hainanensis*
- 1b. Flowers in pseudoracemes; leaflets 5–13.
 - 4a. Leaflets 9–13, blades abaxially sericeous; corolla standard sericeous outside 4. *P. elliptica*
 - 4b. Leaflets 5–9, blades abaxially glabrous; corolla standard glabrous outside.
 - 5a. Leaflet blades papery, 5–9 cm, apex shortly and obtusely acuminate; rachis of inflorescences puberulent 5. *P. hancei*
 - 5b. Leaflet blades subleathery, 10–15 cm, apex caudate-acuminate; rachis of inflorescences glabrous; cultivated 6. *P. malaccensis*

1. *Paraderris glauca* (Merrill & Chun) T. C. Chen & Pedley, **comb. nov.**

粉叶鱼藤 fen ye yu teng

Basionym: *Derris glauca* Merrill & Chun, Sunyatsenia 2: 246. 1935.

Lianas. Branches and young shoots yellowish pubescent; branchlets tuberculate, very sparse pilose or glabrescent. Leaves 9–13-foliolate; rachis 7–14 cm, including petiole 3–7 cm; leaflet blades obovate-oblong, 5–7 × 2–3.5 cm, membranous, abaxially greenish white when young but glaucous when old, base cuneate to broadly cuneate, apex caudate-acuminate. Cymose pseudopanicles 10–15 × 6–8 cm; rachis nodes usually with 3 fascicled flowers at apex of a 8–10 mm branchlet. Pedicel 8–10 mm, slender. Flowers 1.6–1.8 cm. Calyx reddish brown, broadly cup-shaped, 6–7 mm in diam., mouth yellowish pubescent. Corolla rose-red; standard broadly ovate, 1.6–1.7 × ca. 1.2 cm, apex emarginate. Ovary yellowish puberulent on basal part. Legume oblong to ligulate, 4–8 × 1.5–2.5 cm, thin, base attenuate to obtuse, apex acuminate; abaxial suture with a 1–2 mm wide wing, adaxial suture with a 3–4 mm wide wing. Seeds 1–3 per legume. Fl. Apr–May, fr. Jul–Aug.

- Forests in mountains; below 700 m. S Guangxi, Hainan.

2. *Paraderris hainanensis* (Hayata) Adema, Blumea 48: 138.

2003.

海南鱼藤 hai nan yu teng

Derris hainanensis Hayata, Icon. Pl. Formosan. 3: 77. 1913.

Lianas. Branches terete, glabrous, with scattered elliptic lenticels. Stipules oblong-triangular, pilose, apex acute. Leaves 13- or 15-foliolate; rachis 8–15 cm, including petiole (4.5–)6–8 cm; leaflet blades obovate to long elliptic, 4–7 × 1.8–3.5 cm, membranous, both surfaces glabrous, abaxially olive-green and slightly whitish green, base broadly cuneate to sometimes subrounded, apex caudate-acuminate to cuneate. Cymose pseudopanicles axillary, 10–15 cm. Pedicel 1–2 cm. Calyx campanulate, ca. 4 × 7 mm, subglabrous. Corolla whitish; standard suborbicular, ca. 1.5 cm, claw ca. 3 mm, limb base cordate and with 2 triangular calluses, apex emarginate. Ovary linear, hirsute. Legume oblong to ligulate, 4.5–10 × ca. 2 cm; abaxial suture with a 1–2 mm wide wing, adaxial suture with a 3–4 mm wide wing. Seeds 1 or 2 per legume. Fl. Apr–Jun, fr. Jul–Oct.

- Open forests, scrub on mountain slopes. Hainan.

3. *Paraderris canarensis* (Dalzell) Adema, Blumea 48: 137. 2003.

兰屿鱼藤 lan yu yu teng

Pongamia canarensis Dalzell, Hooker's J. Bot. Kew Gard. Misc. 2: 37. 1850; *Derris oblonga* Benth.

Lianas. Branches subglabrous. Leaves 9–15-foliolate; rachis to 30 cm, including petiole 4–6 cm; leaflet blades oblong to oblanceolate-oblong, 4–6 × 1–2 cm, subleathery, both surfaces ± glabrous, abaxially glaucous, apex obtuse to acute. Pseudopanicles much shorter than leaves, rachis short, branches densely compact. Pedicel 3–4 mm, grayish velutinous. Flowers ca. 1.2 cm. Calyx ca. 5 mm. Corolla white or light purple, ca. 1.2 cm; standard ca. 1 cm wide, reflexed, glabrous. Legume broadly oblong, ca. 3 × 2 cm, glabrous; adaxial suture with a wing ca. 2 mm wide. Seed 1 per legume. Fl. Apr, fr. Jun–Jul.

Coastal forest margins; below 100 m. Taiwan (Lan Yu) [Philippines].

4. *Paraderris elliptica* (Wallich) Adema, Thai Forest Bull., Bot. 28: 11. 2001.

毛鱼藤 mao yu teng

Pongamia elliptica Wallich, Pl. Asiat. Rar. 3: 20. 1832; *Derris elliptica* (Roxburgh) Benth.; *Galedupa elliptica* (Wallich) Roxburgh.

Lianas, 7–10 m, robust. Young branchlets, leaf rachises, petioles, and petiolules densely brown pubescent. Branches glabrous when old, scattered with brown lenticels. Leaves 9–13-foliolate; rachis 20–35 cm, including petiole 4–8 cm; leaflet blades oblong, obovate-oblong, or oblanceolate, 6–15 × 2–4 cm, thickly papery, abaxially greenish white and finely brown sericeous, adaxially glabrous or only pubescent along veins, base cuneate to broadly cuneate, apex shortly obtusely acuminate. Pseudoracemes axillary, 15–25 cm, rachis densely pubescent; rachis nodes with 3 or 4 flowers fascicled on short branchlets; peduncle 8–12 cm or much longer, densely pubescent. Pedicel 6–8 mm, densely pubescent. Flowers ca. 2 cm. Calyx shallowly cup-shaped, ca. 4 × 6–7 mm, densely sericeous. Corolla pink to whitish, 1.5–1.8 cm; standard suborbicular, 1.2–1.5 cm wide, outside brown pubescent, apex emarginate. Ovary densely pubescent. Legume oblong, 3.5–8 × 1.7–2 cm, compressed, pubescent when young, glabrescent; abaxial suture with a ca. 0.5 mm wide wing, adaxial suture with a ca. 2 mm wide wing. Seeds 1–4 per legume. Fl. Apr–May, fr. Jun.

Cultivated in Guangdong, Guangxi, Hainan, Taiwan, and Yunnan [native to Cambodia, India, Indonesia, Laos, Malaysia, Philippines, Thailand, and Vietnam].

This species is cultivated for use as an insecticide.

5. *Paraderris hancei* (Hemsley) T. C. Chen & Pedley, **comb. nov.**

粤东鱼藤 yue dong yu teng

Basionym: *Derris hancei* Hemsley, Bot. Mag. 131: t. 8008. 1905.

Lianas. Leaves (5 or) 7- or 9-foliolate; rachis 12–17 cm, including petiole 4.5–9 cm; leaflet blades obovate-oblong, 5–9 × 2–3.5 cm, papery, both surfaces glabrous, abaxially greenish

white and midvein conspicuously prominent, base cuneate, broadly cuneate, or slightly rounded, apex shortly and obtusely acuminate. Pseudoracemes axillary, 7–12 cm, narrow, scattered puberulent. Pedicel slender, 3–5 mm. Flowers 1.1–1.3 cm. Calyx purplish red, 3–4 mm, subtruncate, outside glabrous, inside with a ring of pubescence around mouth. Corolla white tinged with red outside, 1–1.2 cm; standard suborbicular, apex emarginate. Ovary sericeous. Legume obliquely ovoid to narrowly ovoid, 2.5–4 × 1.5–1.8 cm, glabrous, with transverse reticulate veins when mature; both sutures with a 1–1.5 mm wide wing. Seeds 1 (or 2) per legume. Fl. Apr–Aug, fr. Jul–Jan.

• Along trails, near pond banks. Guangdong, Guangxi.

6. *Paraderris malaccensis* (Benth.) Adema, Thai Forest Bull., Bot. 28: 11. 2001.

异翅鱼藤 yi chi yu teng

Derris cuneifolia Benth. var. *malaccensis* Benth., J. Proc. Linn. Soc., Bot. 4(Suppl.): 112. 1860; *D. malaccensis* (Benth.) Prain.

Lianas, 10–15 m, glabrous except ovaries and mouth of calyces. Leaves 5- or 7(or 9)-foliolate; rachis 20–30 cm, including petiole 3–7 cm; leaflet blades elliptic, 10–15 cm, subleathery, base rounded, apex caudate-acuminate. Pseudoracemes shorter than leaves; rachis nodes with flowers often on short branchlets. Flowers ca. 1.7 cm. Calyx pink, campanulate, ca. 3 mm, apical margin sinuate and ciliate. Corolla rose-red, pink, or whitish, 1.3–1.4 cm; standard orbicular, apex truncate or emarginate. Ovary velutinous. Legume oblong, 5–8 cm; both sutures winged, abaxial suture with wing 1 mm wide or less. Seeds 1–4 per legume. Fl. Feb–May, fr. Apr–Aug.

Cultivated in Guangdong (Guangzhou) and Hainan [native to Cambodia, Indonesia, Laos, Malaysia, Myanmar, Thailand, and Vietnam].

Adema (Blumea 48: 139. 2003) synonymized *Paraderris malaccensis* under *P. montana* (Benth.) Adema (*Derris montana* Benth.).

