

2. PETROSAVIA Beccari, Nuovo Giorn. Bot. Ital. 3: 7. 1871.

无叶莲属 *wu ye lian shu*

Chen Xinqi (陈心启 *Chen Sing-chi*); Minoru N. Tamura

Miyoshia Makino; *Protolirion* Ridley.

Herbs small, mycotrophic, without chlorophyll, with a slender, scaly rhizome. Stem erect, simple, slender. Leaves reduced to alternate scales. Inflorescence a corymb or a raceme, terminal, to more than 10-flowered. Flowers bisexual, arising from axils of small bracts, erect, small, often subtended by a bracteole. Perianth segments 6, connate at base, persistent, inner ones larger than outer. Stamens 6; filaments subulate, adnate to base of perianth segments; anthers ovate, dorsifixed or nearly basifixed, introrse. Ovary superior to semi-inferior; ovules numerous; carpels 3, connate for 1/4–1/2 their length, sometimes connate only at base; septal nectaries present. Styles short; stigmas capitellate or slightly 2-cleft. Fruit a capsule, folliclelike. Seeds small, elliptic, ± winged.

Three species: China, Indonesia, Japan, Malaysia, Myanmar, Thailand, Vietnam; two species (one endemic) in China.

- 1a. Scalelike leaves on stem usually 3–5 mm apart; bracts obviously longer than pedicel 1. *P. sinii*
- 1b. Scalelike leaves on stem usually 1–2 cm apart; bracts slightly shorter than pedicel 2. *P. sakurarii*

1. *Petrosavia sinii* (K. Krause) Gagnepain in Lecomte, Fl. Indo-Chine 6: 802. 1934.

Mixed forests, bamboo forests; near sea level to 1700 m. Guangxi, SE Sichuan, Taiwan [Indonesia (N Sumatra), Japan, Myanmar, Vietnam].

无叶莲 *wu ye lian*

Protolirion sinii K. Krause, Notizbl. Bot. Gart. Berlin-Dahlem 10: 806. 1929; *Miyoshia sinii* (K. Krause) Nakai.

Herbs pale yellow, 4–10 cm tall, glabrous. Rhizome ca. 1.5 mm thick, usually densely scaly. Stem usually solitary, slender. Scalelike leaves contiguous, especially in proximal part of stem, usually 3–5 mm apart, ovate, small, 2–4 mm, membranous. Inflorescence a raceme, sometimes ± corymbose, 1.5–2 cm, 7–12-flowered; bracts lanceolate, 2–3 mm, obviously longer than pedicel. Pedicel 1–2 mm, bracteolate in apical part. Flowers small. Perianth adnate for ca. 1/2 its length to ovary; segments ovate-deltoid, 1-veined, outer ones ca. 0.6 × 0.5 mm, inner ones ca. 1 × 1.2 mm. Stamens ca. 0.8 mm; anthers ovate. Ovary ovoid, 3-fid. Fl. Jul.

- Bamboo forests; ca. 1000 m. EC Guangxi (Dayao Shan).

2. *Petrosavia sakurarii* (Makino) J. J. Smith ex van Steenis, Trop. Natuur 23: 52. 1934.

疏花无叶莲 *shu hua wu ye lian*

Miyoshia sakurarii Makino, Bot. Mag. (Tokyo) 17: 145. 1903; *Protolirion miyoshia-sakurarii* Makino, nom. illeg. (included *M. sakurarii*); *Protolirion sakurarii* (Makino) Dandy.

Herbs pale yellow, (7–)11–28 cm tall, glabrous. Rhizome ca. 2 mm thick. Stems slender, 1 or 2 arising from rhizome. Scalelike leaves rather lax, particularly in apical part of stem, usually 1–2 cm apart, narrowly to broadly ovate, 2–4(–5) mm, membranous, 1-veined. Inflorescence a raceme, sometimes ± corymbose, 2–8.5 cm, to more than 10-flowered; bracts lanceolate to ovate, 2–3 mm, slightly shorter than pedicel. Pedicel 3–5 mm, bracteolate in proximal part or near base. Flowers small. Perianth adnate for ca. 1/3 its length to ovary; segments ovate-deltoid, 1-veined, outer ones 0.8(–1) × ca. 1 mm, inner ones (1.5–)2 × ca. 2 mm. Stamens ca. 1 mm; anthers ovate. Ovary broadly ovoid, 3-partite. Capsule ca. 3 × 3 mm. Seeds dark brown, ellipsoid, 0.3–0.4(–0.5) mm, longitudinally striate; testa white, elongate, membranous. Fl. Jul–Aug. fr. Oct. $2n = 60$.

