

17. **PARAQUILEGIA** J. R. Drummond & Hutchinson, Bull. Misc. Inform. Kew 1920: 156. 1920.

拟耧斗菜属 ni lou dou cai shu

Fu Dezhi (傅德志); Orbélia R. Robinson

Herbs perennial. Rhizomes robust, densely covered with basal remnants of old petioles and leaves. Leaves many, basal, 1 or 2 × ternately compound; petiole long, basally sheathed; leaf blade papery. Scapes 1–8, erect, usually ± as long as leaves; bracts 2, usually opposite, basally sheathed; sheath broad, membranous. Flowers terminal, solitary, actinomorphic, bisexual. Sepals 5, petaloid. Petals 5, yellow, much shorter than sepals, basally pouchlike. Stamens numerous; filaments filiform, sometimes basally slightly dilated; anthers yellow, ellipsoid. Pistils 5–(8); ovary 2 × as long as style; ovules many, in 2 series. Follicles erect or slightly spreading, surface conspicuously striate-reticulate; persistent styles ca. 3 × shorter than follicle. Seeds smooth or densely rugose.

Five species: Afghanistan, Bhutan, China, N India, Japan, Kazakhstan, Kyrgyzstan, N Myanmar, Nepal, N Pakistan, Tajikistan; SW Asia (Iran); three species in China.

1a. Scapes and leaves densely glandular puberulous; leaves ternate 1. *P. caespitosa*

1b. Scapes and leaves glabrous; leaves 2-ternate.

2a. Seeds densely rugose, gray-brown 3. *P. anemonoides*

2b. Seeds smooth, brown 2. *P. microphylla*

1. *Paraquilegia caespitosa* (Boissier & Hohenacker) J. R. Drummond & Hutchinson, Bull. Misc. Inform. Kew 1920: 158. 1920.

密丛拟耧斗菜 mi cong ni lou dou cai

Isopyrum caespitosum Boissier & Hohenacker, Diag. Pl. Orient., ser. 1, 8: 7. 1849.

Leaves ternate; petiole ca. 2 cm; leaf blade grayish green, broadly ovate, 6–8 × 3–4 mm, densely glandular puberulous; leaflet shortly petiolulate, broadly obovate to broadly rhombic, ca. 5 × 4 mm, 3-parted to 3-sect, base rounded to broadly cuneate; segments oblong, margin entire or 1-toothed. Scapes 5–8, densely glandular puberulous; bracts linear, ca. 3 mm. Flowers 2.5–3 cm in diam. Pedicel ca. 2 mm. Sepals purplish red to pink, oblong, ca. 12 × 7 mm, glabrous, apex obtuse. Petals narrowly obovate, 4–6 mm, glabrous, apex retuse. Stamens ca. 4.5 mm, glabrous; anthers ca. 0.8 mm. Pistils 3–7(–8), glabrous. Follicles ca. 1 cm. Seeds ca. 2 mm, densely and minutely rugose.

Gravelly and shady slopes; ca. 2900 m. SW Xinjiang (Wuqia Xian) [Afghanistan, Kashmir, Kyrgyzstan, Russia, Tajikistan; SW Asia].

2. *Paraquilegia microphylla* (Royle) J. R. Drummond & Hutchinson, Bull. Misc. Inform. Kew 1920: 157. 1920.

拟耧斗菜 ni lou dou cai

Isopyrum microphyllum Royle, Ill. Bot. Himal. Mts. 1: 54. 1839; *I. grandiflorum* Fischer ex de Candolle var. *microphyllum* (Royle) Finet & Gagnepain.

Leaves usually 2-ternate, glabrous; petiole 2.5–11 cm; leaf blade green, deltoid-ovate, ca. 1.5 × 2–6 cm; leaflet long to shortly petiolate, broadly rhombic to flabellate, 4–8 × 4–10 mm, 3-parted to 3-sect, base broadly cuneate; segments narrowly rhombic-obovate, base obliquely cuneate, margin 2- or 3-lobed. Scapes 3–18 cm tall, glabrous; bracts narrowly oblanceolate, 4–12 mm. Flowers 2.8–5 cm in diam. Pedicel 0.3–3 cm, glabrous. Sepals purplish to purplish red, rarely white,

obovate to elliptic-obovate, 1.4–2.5 × 0.9–1.5 cm, apex subrounded. Petals obovate to elliptic-obovate, ca. 5 mm, apex retuse. Stamens 6–9 mm, glabrous; filament 5–8.5 mm; anthers 0.8–1 mm. Pistils 5(–8), glabrous. Follicles erect, 0.9–1.2 cm; persistent styles 2–4 mm. Seeds brown, narrowly ovoid, 1.3–1.8 mm, smooth, narrowly winged. Fl. Jun–Aug, fr. Aug–Sep. Cliffs, fissures of rocks; 2700–4300 m. SW Gansu, Qinghai, W Sichuan, Xinjiang, Xizang [Kazakhstan, Nepal, N Pakistan, Russia, Sikkim, Tajikistan].

3. *Paraquilegia anemonoides* (Willdenow) Ulbrich, Repert. Spec. Nov. Regni Veg. Beih. 12: 369. 1922.

乳突拟耧斗菜 ru tu ni lou dou cai

Aquilegia anemonoides Willdenow, Ges. Naturf.

Freunde Berlin Mag. Neuesten Entdeck. Gesammten Naturk. 5: 401. 1811; *Isopyrum grandiflorum* Fischer ex de Candolle; *Paraquilegia grandiflora* (Fischer ex de Candolle) J. R. Drummond & Hutchinson.

Leaves 2-ternate, glabrous; petiole 1.5–6 cm; leaf blade green, subdeltoid, ca. 1 × 1–2 cm; leaflet petiolule 1.5–4 mm; leaflet blade broadly rhombic to subreniform, ca. 6 × 10 mm, 3-parted to 3-sect, base broadly cuneate; segments cuneiform-obovate, apically 3-lobulate or with 3 obtuse teeth. Scapes 1–3, 6–9 cm tall, glabrous; bracts narrowly oblanceolate, 5–9 mm, undivided or 3-sect. Flowers ca. 2 cm in diam. Pedicel 5–14 mm, glabrous. Sepals bluish to purplish, broadly elliptic to obovate, ca. 1.3 × 0.8 cm, glabrous, apex obtuse. Stamen filament 3–8 mm; anthers ca. 1 mm. Pistils usually 4 or 5, glabrous. Follicles 8–10 mm; persistent styles ca. 2 mm. Seeds few, grayish brown, narrowly ellipsoid to ellipsoid, 1.6–2 mm, densely rugose. Fl. Jun–Jul, fr. Aug–Oct.

Alpine meadows, fissures of rocks; 2600–3400 m. N Gansu, Ningxia, N Qinghai, Xinjiang, W Xizang [Afghanistan, Bhutan, Kashmir, Kazakhstan, Mongolia, Pakistan, Russia].

