

86. ARCUATOPTERUS M. L. Sheh & R. H. Shan, Bull. Bot. Res., Harbin 6(4): 11. 1986.

弓翅芹属 gong chi qin shu

She Menglan (佘孟兰 Sheh Meng-lan); Mark F. Watson

Herbs, perennial, glabrous throughout. Stem solitary, erect or scrambling, hollow. Basal leaves long-petiolate, 2–3-pinnatisect, petiole sheathing; ultimate segments ovate or obovate. Inflorescence loose compound umbels, peduncles terminal and axillary, many-branched, lateral umbels usually exceeding central; bracts and bracteoles absent, or occasionally bracts 1, deciduous; rays usually slender, unequal. Calyx teeth minute, triangular. Petals white, purplish or dull cream, obovate, apex broadly inflexed, costa red-brown, conspicuous, base clawed. Stylopodium conic or low-conic, margin slightly undulate. Fruit oblong or ellipsoid, strongly dorsally compressed; dorsal ribs obscure or very slightly raised, lateral ribs broadly winged, wings thin to corky, margin often incurved; vittae 1 in each furrow, 2 on commissure. Seed face plane. Carpophore 2-cleft.

Three to five species: E Himalayas and SW China: three species (two endemic) in China.

Generic relationships between *Angelica*, *Arcuatopteris*, *Ferula*, *Peucedanum sensu lato*, etc. continue to be explored, with recent results indicating that several Himalayan taxa should now be included within *Arcuatopteris*, a genus once thought to be endemic to SW China.

1a. Fruit reddish brown when mature, less than 6 × 4 mm 1. *A. sikkimensis*

1b. Fruit not reddish brown when mature, more than 6 × 4 mm.

2a. Ultimate leaf segments linear-lanceolate, apex long-acuminate or caudate, base attenuate or obtuse-rounded 2. *A. linearifolius*

2b. Ultimate leaf segments ovate or obovate, apex acute or acuminate, base cuneate 3. *A. thalictroides*

1. *Arcuatopteris sikkimensis* (C. B. Clarke) Pimenov & Ostroumova, Feddes Rept. 111: 557. 2000.

弓翅芹 gong chi qin

Peucedanum sikkimense C. B. Clarke in J. D. Hooker, Fl. Brit. India 2: 710. 1879; *Angelica sikkimensis* (C. B. Clarke) P. K. Mukherjee; *Arcuatopteris filipedicellus* M. L. Sheh & R. H. Shan.

Plants 80–100(–200) cm. Stem much-branched, erect, weakly erect or scrambling, lower parts tinged purple when young, becoming deep purplish-red throughout. Basal leaves ovate in outline, 18–40 × 8–25 cm, 2–3-pinnate; ultimate segments long-ovate or ovate-lanceolate, 1.2–6 × 0.5–2 cm, petiolulate, base rounded to cuneate, irregularly serrate, acuminate to long-acuminate. Umbels diffusely branched, 5–15 cm across; rays 6–12(–16), very unequal, 0.5–5.5 cm; umbellules 5–14-flowered; pedicels filiform, 3–8 mm, unequal. Fruit ovoid-ellipsoid or ellipsoid, 5–6.5(–7.5) × 3.5–5(–6) mm, glabrous, reddish brown when mature; dorsal ribs obscure, lateral wings broad, subcorky, 1.2–2 mm wide, margin incurved. Fl. Aug–Sep, fr. Sep–Oct.

Mountain slopes, woodland; (1500–)2200–3000 m. SE Xizang, NW Yunnan (Binchuan, Lijiang) [Bhutan, Sikkim].

2. *Arcuatopteris linearifolius* M. L. Sheh & R. H. Shan, Bull. Bot. Res., Harbin 6(4): 14. 1986.

条叶弓翅芹 tiao ye gong chi qin

Herbs 50–120 cm. Stem erect, much-branched, usually tinged purple. Basal leaves petiolate; blade triangular-ovate, 2–3-pinnately dissected; ultimate segments linear-lanceolate, 2–9 × 3–6 mm, distally finely serrate to incised, apex long-acuminate to caudate. Cauline leaves reduced, petioles with dilated sheaths, ultimate segments linear and small. Inflorescence copiously branched; rays 5–11, unequal, 0.5–4 cm; umbellules 7–10-flowered; pedicels filiform, unequal. Stylopodium low-conic; styles short, incurved. Fruit ellipsoid ca. 6 × 4–5 mm; dorsal ribs inconspicuous or slightly raised, lateral ribs winged, wings broad, subcorky, margin incurved. Fl. Aug–Sep, fr. Sep–Oct.

• Grassy slopes at roadsides; 2400–2700 m. SW Sichuan (Yanyuan), NW Yunnan (Binchuan).

3. *Arcuatopteris thalictrioideus* M. L. Sheh & R. H. Shan, *Bull. Bot. Res.*, Harbin 6(4): 15. 1986.

唐松叶弓翅芹 tang song ye gong chi qin

Plants (40–)80–110 cm. Stems erect, lower parts deep purple, branches numerous, slender, remote, divaricate. Basal leaves petiolate; blade triangular-ovate, 2–3-pinnately dissected; ultimate segments ovate or obovate, 1–2 × 0.6–1.2 cm, base cuneate, thinly papery, abaxial veins strongly prominent, red-brown and scaly-tomentose, margins crenate-apiculate. Inflorescence copiously branched, forming many spreading and divaricate panicles; rays (3–)5–7, 1–4.5 cm, very unequal, divaricate; umbellules 4–10-flowered; pedicels (1–)5–15 mm, very unequal, filiform, divaricate. Stylopodium conic, margin undulate. Fruit oblong, 6–7 × 4–6 mm, pale brown; dorsal ribs obscure, lateral ribs broadly corky-winged, wings 1.4–2 mm wide. Fl. Aug–Sep, fr. Sep–Oct.

• Alpine meadows; 1900–2800 m. W Sichuan (Luding, Muli), SE Xizang (Cona), NC Yunnan (Fumin).

