17. ARUM Linnaeus, Sp. Pl. 2: 964. 1753.

疆南星属 jiang nan xing shu

Li Heng (李恒 Li Hen); Peter C. Boyce

Herbs, tuberous. Cataphylls several. Leaves 2, simple; petiole sheathing; leaf blade hastate-sagittate or sagittate. Inflorescences 1(or 2), pedunculate; peduncle long or short. Spathe ultimately marcescent, convolute, base (tube) separated from limb by a constriction; spathe tube oblong or ovate; limb initially erect, cymbiform, concave or arched, later flopping forward or actively reflexing, ovate-lanceolate to oblong-lanceolate. Spadix sessile, shorter than to subequaling spathe; flowers unisexual, naked; female zone cylindric; ovary oblong, 1-loculed; ovules few on 2 or 3 parietal placentae; stigma sessile; sterile flowers (staminodes) usually present between female and male zones and also above male zone; appendix dark purple or yellow, cylindric-conic, cylindric, or clavate; male zone shorter; stamens 3 or 4, nearly tetragonal, short; connective convex; anthers obovoid, shorter than filaments, opening by an apical pore or longitudinal slit; sterile flowers broadly conic, filiform, ± thickened, verrucose, these between female and male zones recurved, those at distal part of male zone reflexed upward. Berries obovoid, few seeded. Seeds with endosperm; embryo axile.

Twenty-eight species: N Africa, SW Asia extending to C Asia, Europe; one species in China.

1. Arum jacquemontii Blume, Rumphia 1: 118. 1836.

疆南星 jiang nan xing

Arum griffithii Schott.

Herbs, tuberous, sprouting in late autumn from a disciform, vertically oriented tuber 2-5 cm in diam., 2-2.5 cm thick. Petiole mid-green, stained dull purple, terete, 10.5-28 cm × 2.5-4.4 mm. Leaf blade dark to mid-green, sagittate to sagittate-hastate, 11-30 × 4-12 cm, apex acute. Inflorescence not scented; peduncle exceeding leaves, pale green proximally, deep green distally, terete, 11–32 cm × 5–7 mm. Spathe 12–22 cm; tube outside green, inside white, oblong-cylindric, 2.5–4 × 1.2– 1.6 cm, slightly constricted apically; limb erect at first but soon flopping forward, outside mid-green with faint purple staining, inside dull purple, deeper purple along middle, paler proximally, brownish purple to purple distally, narrowly lanceolate, $9-18 \times 1-3$ cm, acuminate. Spadix 2/3-3/4 as long as spathe limb, 9-20 cm in total length; female flowers in an oblongcylindric cluster 15–17 × 5–6 mm; ovary pale greenish yellow, oblong, 2-3 mm; stigma pale grayish mauve; pistillodes in 3 or 4 whorls forming a zone 3-4 mm; bristles glossy deep violet, subulate-filiform, 3-4.5 mm; bases dark purple, bulbiform, verrucate; staminodes in 2 or 3 whorls forming a zone 3–5 mm; bristles flexuose, glossy deep violet, filiform, 2–2.5 mm; bases dark purple, barely conic, verrucate; interstices: proximal 2.5–3 mm cream-colored, longitudinally ridged; distal 1.5–2 mm cream-colored, smooth; appendix dull yellow to orange-brown, purple, or brownish purple, base paler, cylindric, tapering basally, 6–17 cm \times 3–7 mm; male flowers in an oblong zone 6–7 \times 4–5 mm; anthers and connectives maroon. Infructescence cylindric, 4–4.5 \times 1.8–2.2 cm. Berries oblong, 4–9 \times 3–4 mm. Fl. Apr–May.

Among rocks in damp soil pockets and crevices, occasionally along damp field edges; 1600–3700 m. SW Xinjiang, W Xizang [N Afghanistan, N India, Kashmir, W Nepal, N Pakistan, Tajikistan, E Turkmenistan, SE Uzbekistan; SW Asia (NE Iran)].

Arum jacquemontii has a wide distribution, occurring from the NE corner of Iran to the W Himalayas (Boyce, Gen. Arum, 139, map 17. 1993). Arum korolkowii Regel as reported in FRPS (13(2): 100–101. 1979) is, in fact, A. jacquemontii. Although similar to A. korolkowii, A. jacquemontii is readily distinguished by its dull purple, not striped, petioles, the purple spathe limb, longer spadix appendix, and purple, not green, staminode and pistillode bases. Further, the pollen exine of A. jacquemontii is spinulose and not scabrous as in A. korolkowii. An important geographic difference is that A. jacquemontii grows farther south and east and at higher elevations than A. korolkowii.