

10. *CALLA* Linnaeus, Sp. Pl. 2: 968. 1753.

水芋属 shui yu shu

Li Heng (李恒 Li Hen); Peter C. Boyce, Josef Bogner

Aroides Heister ex Fabricius; *Callaria* Rafinesque; *Provenzalia* Adanson.

Herbs, perennial. Rhizome creeping. Leaves several, distichous; petiole sheathing; sheath ligulate, long; leaf blade broadly ovate-cordate to cordate-orbicular, apex acute to acuminate; venation parallel-pinnate. Inflorescence solitary, flowering with leaf appearance; peduncle erect. Spathe persistent, fully expanded, elliptic to ovate, base decurrent, apex acuminate. Spadix stipitate, cylindrical, apex obtuse. Flowers numerous, densely arranged, bisexual, naked (perigone absent), only uppermost flowers often male. Stamens free, usually 6, sometimes more (9–12); filaments flattened; anthers dorsifixed; connective short and slender; thecae ellipsoid, dehiscing by longitudinal slit; pollen grains diaperturate, globose, small, exine foveolate and apertural exine verrucate. Pistil ovoid, 1-loculed; ovules 6–9 (rarely more), anatropous and oblong; funicle distinct; placenta basal; stylar region attenuate; stigma subhemispheric, small. Infructescence subglobose to broadly ellipsoid. Berry globose-conic, with many seeds (usually 4–9). Seed oblong-cylindric to somewhat ellipsoid; testa thick, scrobiculate toward chalaza and sulcate-striate toward micropyle; raphe prominent; embryo axile, elongate; endosperm copious. $2n = 36, 54, 72$.

One species: N temperate regions and subarctic areas of Asia, Europe, and North America, including China.

1. *Calla palustris* Linnaeus, Sp. Pl. 2: 968. 1753.

水芋 shui yu

Rhizome creeping, green, cylindrical, to 50 cm, robust, 1–2(–3) cm in diam., somewhat spongy; nodes rooting. Cataphylls lanceolate, to 10 cm, apex acuminate. Petiole green, terete, (6–)12–24 cm (and longer to 30[–40] cm), base sheathing; sheath 7–8(–12) cm, with free ligule; leaf blade green, (4–)6–14 × (4–)6–14 cm; primary veins (8–)10–14(–18), pinnately arching from a strong midvein on each side, intramarginal vein inconspicuous. Peduncle green, terete, 15–30 ×

0.8–1.2 cm. Spathe green outside, white inside, (3–)4–6(–8) × 3–3.5(–5) cm, apex with an acumen ca. 1 cm. Spadix 1.5–3 × 0.7–1.5 cm; stipe 5–7 mm. Flowers yellowish green, 2–2.2(–2.5) mm tall. Infructescence (2–)3–5 × (1.5–)2.5–3.5 cm. Berries red, (5–)6–12 × (4–)5–10 mm. Seed brown, 3–5 × ca. 2 mm. Fl. May–Jul, fr. Aug–Sep.

Creeping helophyte on swampy shores of streams, rivers, lakes, and ponds, forest swamps, swampy meadows, in shallow water, often with *Sphagnum* moss; below 1100 m. Heilongjiang, Jilin, Liaoning, Nei Mongol [Asia, N Europe, North America].

Fl. China 23: 16–17. 2010.