

TACCACEAE

薯科 ju ruo shu ke

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Herbs perennial. Rhizomes cylindrical to subcylindrical or tubers globose to broadly ellipsoid-globose. Leaves radical; petiole erect, base sheathing; leaf blade entire to deeply lobed at margin. Flowering stem often a long scape. Inflorescences umbels; involucre bracts (2–)4–6(–12), in 2 whorls, elongate or broad. Flowers bisexual, actinomorphic; bracteoles linear, narrower than bracts. Perianth tube adnate to ovary, 6-lobed; lobes in 2 whorls, petaloid. Stamens 6, inserted on perianth lobes; filaments short, apex hooded or spatulate; anthers 2-loculed, introrse. Ovary inferior; ovules many, anatropous. Style short; stigma 3-lobed, usually petaloid, curved over style. Fruit a berry or rarely a 3-valved capsule. Seeds many; endosperm abundant; embryo small.

Two genera and ca. 13 species: pantropical; two genera and six species (two endemic, one introduced) in China.

Ling Ping-ping. 1985. Taccaceae. *In*: Pei Chien & Ting Chih-tsun, eds., *Fl. Reipubl. Popularis Sin.* 16(1): 42–54.

- 1a. Fruit a berry; leaf blade 20–55(–60) × 7–21(–25) cm, base not elongate, stomatal apparatus mostly axillocytic 1. *Tacca*
1b. Fruit a capsule; leaf blade 10–15(–25) × 4–6(–8) cm, base elongate, stomatal apparatus mostly anomocytic 2. *Schizocapsa*

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1. TACCA J. R. Forster & G. Forster, Char. Gen. Pl. 35. 1775, nom. cons.

薯属 ju ruo shu shu

Leontopetaloides Boehmer, nom. rej.

Rhizomes cylindrical to subcylindrical or tubers globose to broadly ellipsoid-globose. Leaf blade entire or pinnately or palmately lobed, base not elongate, stomatal apparatus mostly axillocytic. Inflorescences terminal; involucre bracts 2–6(–12). Perianth campanulate, 6-lobed, persistent or soon deciduous. Ovary 1-loculed or imperfectly 4-loculed; placentas 3, parietal. Fruit a berry. Seeds reniform, ovoid, or ellipsoid, striate.

About 11 species: mainly in tropical Asia and Oceania; four species (one endemic, one introduced) in China.

Used medicinally and as a source of starch.

- 1a. Leaf blade lobed; rootstock a globose to broadly ellipsoid-globose tuber 4. *T. leontopetaloides*
- 1b. Leaf blade entire; rootstock a cylindrical or subcylindrical rhizome.
 - 2a. Inner 2 involucre bracts long petiolate 3. *T. integrifolia*
 - 2b. Inner 2 involucre bracts sessile.
 - 3a. Inner involucre bracts broadly ovate 1. *T. chantrieri*
 - 3b. Inner involucre bracts suborbicular-fan-shaped 2. *T. subflabellata*

1. *Tacca chantrieri* André, Rev. Hort. 73: 541. 1901.

箭根薯 jian gen shu

Clerodendrum esquirolii H. Léveillé; *Schizocapsa itagakii* Yamamoto; *Tacca esquirolii* (H. Léveillé) Rehder; *T. minor* Ridley; *T. paxiana* H. Limpricht.

Rhizomes subcylindrical, thick. Petiole 10–30 cm; leaf blade oblong to oblong-elliptic, 20–50(–60) × 7–14(–25) cm, glabrous or abaxially pubescent, base rounded-cuneate to cuneate, apex shortly caudate. Scape long; involucre bracts 4, dark purple, outer 2 ovate-lanceolate, inner 2 broadly ovate; umbels 5–7 (–18)-flowered. Perianth lobes purplish brown, lanceolate. Stigma 3-lobed. Berry purplish brown, ellipsoid, ca. 3 cm, fleshy, 6-ridged, with persistent perianth lobes. Seeds reniform. Fl. and fr. Apr–Nov.

Forests, valleys, along rivers; 200–1300 m. Guangdong, Guangxi, Guizhou, Hainan, Hunan, SE Xizang (Mêdog Xian), Yunnan [Bangladesh, Cambodia, India, Laos, Malaysia, Myanmar, Sri Lanka, Thailand, Vietnam].

A vulnerable species in China.

2. *Tacca subflabellata* P. P. Ling & C. T. Ting, Acta Phytotax. Sin. 20: 202. 1982.

扇苞薯 shan bao ju ruo shu

Petiole 10–30 cm; leaf blade oblong to oblong-elliptic, 35–40 × 13–20 cm, glabrescent, base rounded-cuneate to cuneate, apex acuminate. Scape 25–30 cm; involucre bracts 4, outer 2 ovate-lanceolate to elliptic, inner 2 incurved, suborbicular-fan-shaped. Perianth tube ca. 5 mm; lobes in 2 whorls, ovate to narrowly so. Filaments spatulate at apex. Style short, 3-winged, wings alternate with stigma lobes; stigma deeply 3-lobed. Fruit and seeds unknown. Fl. Apr–Jun.

• Mountains; 100–200 m. SE Yunnan (Hekou Yao Zu Zizhixian).

3. *Tacca integrifolia* Ker Gawler, Bot. Mag. 36: t. 1488. 1812.

丝须薯 si xu ju ruo shu

Ataccia integrifolia (Ker Gawler) Presl; *Tacca cristata* Jack; *T. laevis* Roxburgh.

Rhizomes subcylindrical, thick. Leaf blade oblong-lanceolate to oblong-elliptic, 50–55 × 18.5–21 cm, base cuneate, apex acuminate, sometimes caudate. Scape ca. 55 cm; involucre bracts 4, outer 2 sessile, narrowly deltoid-ovate, inner 2 long petiolate, spatulate, thin. Perianth purplish black; tube 1–2 cm; lobes 6, in 2 whorls, outer ones narrowly oblong, inner ones broadly obovate. Filaments spatulate at apex. Style extremely short; stigma deeply 3-lobed. Berry narrowly ellipsoid, 4–5 × ca. 2 cm, fleshy, 6-ridged, with persistent perianth lobes. Seeds irregularly ellipsoid-ovoid. Fl. Jul–Aug.

Forests, mountain slopes; 800–900 m. SE Xizang (Mêdog Xian) [Bangladesh, Bhutan, Cambodia, E India, Indonesia, Laos, W Malaysia, Myanmar, Pakistan, Sri Lanka, Thailand, Vietnam].

4. *Tacca leontopetaloides* (Linnaeus) Kuntze, Revis. Gen. Pl. 2: 704. 1891.

薯 ju ruo shu

Leontice leontopetaloides Linnaeus, Sp. Pl. 1: 313. 1753; *Tacca gaogao* Blanco; *T. hawaiiensis* H. Limpricht; *T. involucreata* Schumacher & Thonning; *T. pinnatifida* J. R. Forster & G. Forster.

Tubers globose to broadly ellipsoid-globose; cork dark gray to brown; transverse section white. Leaf blade broadly ovate, ovate, or oblong-ovate, palmately 3-lobed; lobes pinnately lobed. Involucre bracts 4–12; umbel 20–40 flowered. Bracteoles to 25 cm. Perianth pale yellow, pale yellowish green, or dark purplish green; outer lobes elliptic to ovoid, inner ones broadly to narrowly ovate. Berry drooping, globose, ellipsoid-globose, or ovoid-globose. Seeds many, flattened globose; testa spongy.

Cultivated. Taiwan [native to Africa, S and SE Asia, N Australia, and S Pacific Islands].

A source of starch.

2. SCHIZOCAPSA Hance, J. Bot. 19: 292. 1881.

裂果薯属 lie guo shu shu

Rhizomes subcylindric, short, thick. Leaf blade entire, pinnately veined, base elongate, stomatal apparatus mostly anomocytic. Inflorescence with 4 involucre bracts. Perianth campanulate, 6-lobed; lobes variable in size, soon deciduous. Ovary 1-loculed; placentas 3, parietal. Fruit a capsule. Seeds oblong, irregularly oblong, ovoid, or semilunar.

Two species: China, Laos, Thailand, Vietnam; two species (one endemic) in China.

Medicinal.

- 1a. Capsule valves splitting to base; inner perianth lobes slightly shorter and wider than outer ones 1. *S. plantaginea*
1b. Capsule valves splitting to middle; inner perianth lobes ca. 1/2 as long as outer ones 2. *S. guangxiensis*

1. *Schizocapsa plantaginea* Hance, J. Bot. 19: 292. 1881.

裂果薯 lie guo shu

Tacca plantaginea (Hance) Drenth.

Plants 20–30 cm tall. Petiole (5–)7–11(–16) cm, winged; leaf blade narrowly elliptic to narrowly elliptic-lanceolate, 10–15(–25) × 4–6(–8) cm, base elongate, decurrent on petiole, apex acuminate. Scape 6–13 cm; involucre bracts ovate to deltoid-ovate; umbel 8–15(–20)-flowered. Perianth light or dark green or light purple; lobes pointed at apex, outer lobes lanceolate, inner ones ovate, slightly shorter and wider than outer ones. Filaments extremely short, apical hood projected downward into 2 auricles. Stigma 3-lobed. Capsule subobovoid, 6–8 mm; valves splitting to base. Seeds semilunar, oblong or irregularly so, striate. Fl. and fr. Apr–Nov.

Forests, along rivers, valleys, and trail sides; 200–600 m. Guangdong, Guangxi, Guizhou, S Hunan, S Jiangxi, Yunnan [Laos, Thailand, Vietnam].

2. *Schizocapsa guangxiensis* P. P. Ling & C. T. Ting, Acta Phytotax. Sin. 20: 202. 1982.

广西裂果薯 guang xi lie guo shu

Petiole 4–9 cm; leaf blade broadly lanceolate to oblong-lanceolate, 13–16 × 3–4 cm, base cuneate, decurrent on petiole, apex acuminate. Scape 10–22 cm; outer 2 involucre bracts elliptic to narrowly ovate, apex acuminate, inner 2 broadly lanceolate; umbel 6–8-flowered. Perianth tube short; outer lobes orbicular, apex acuminate, inner lobes ca. 1/2 as long as outer ones. Capsule ellipsoid-globose, 7–10 × 5–7 mm; valves splitting to middle. Fl. and fr. May–Aug.

- Along ravines, riversides, rock crevices; ca. 200 m. Guangxi.

