SAURURACEAE

Xia Nianhe (夏念和)¹; Anthony R. Brach²

Herbs perennial, aromatic. Stems erect, ascending, or prostrate, obviously jointed. Leaves alternate, simple; stipules interpetiolarly connate or adnate to petiole, forming a sheath. Inflorescence a dense spike or raceme, sometimes resembling a single flower when large involucral petaloid bracts are present at base; bracts evident or inconspicuous. Flowers bisexual; perianth absent. Stamens usually 3, 6, or 8, free or adnate to ovary base; anthers 2-loculed, longitudinally dehiscent. Pistils (2 or)3- or 4-carpelled; carpels distinct or connate, if distinct: each carpel with 2–4 ovules, if connate: ovary 1-loculed, placenta parietal, each placenta with 6–13 ovules; styles free. Fruit a schizocarp or apically dehiscent capsule. Seed 1 or many; endosperm scanty; perisperm abundant; embryo minute.

Four genera and ca. six species: E and S Asia, North America; three genera and four species (one endemic) in China.

1a. Herbs prostrate, ± stoloniferous; stamens shorter than styles; petioles nearly as long as or longer than leaf blades

2a. Inflorescence a raceme, without involucral petal-like bracts; stamens 6 or 8, rarely 3, filaments ca. as long as or slightly longer than anthers; fruit a schizocarp; leaf blade ovate or ovate-lanceolate


Saururus Turczaninow.

Herbs erect or ascending, rhizomatous. Stems longitudinally ridged and sulcate. Leaves entire; stipules membranous; petioles shorter than leaf blades. Inflorescence a raceme, opposite leaves or terminal. Flowers white when mature, small. Stamens usually 6, sometimes 8, rarely 3, longer than styles; filaments ca. as long as or slightly longer than anthers; anthers oblong. Pistils 4, 3- or 4-carpelled, with carpels distinct or connate at base; ovary superior; ovules 2–4 per carpel; styles 4, recurved. Fruit a schizocarp; mericarps 3 or 4, indehiscent. Seed 1 per mericarp.

Two species: E Asia, North America; one species in China.

¹ Herbarium, Department of Taxonomy, South China Institute of Botany, Chinese Academy of Sciences, Wushan, Guangzhou, Guangdong 510650, People’s Republic of China.
² Missouri Botanical Garden, c/o Harvard University Herbaria, 22 Divinity Avenue, Cambridge, Massachusetts 02138-2020, U.S.A.

**three white grass** san bai cao

*Spathium chinense* Loureiro, Fl. Cochinch. 217. 1790; *Saururosipis chinensis* (Loureiro) Turczaninow; *S. cumingii* C. de Candolle; *Saururus cernus* Thunberg (1784), not Linnaeus (1753); *S. loureiri* Decaisne.

Herbs to more than 1 m high; rhizomes creeping, white, thick. Stems strong, basal part creeping and usually whitish, apical part erect and green. Stipular sheath 2–10 mm, ca. as long as petiole, slightly clasping; petiole 1–3 cm, glabrous; leaf blade ovate to ovate-lanceolate, (4–)10–20 × (2–)5–10 cm, papery, densely glandular, 1–3 cm, glabrous; leaf blade ovate to ovate-lanceolate, 10 mm, ca. as long as petiole, slightly clasping; petiole (0.7–) 1–3.5(–4) cm, 1/4–1/2 as long as petiole, usually ciliate, base enlarged and clasping, slender; petioles nearly as long as or longer than leaf blades, papery, subglabrous, ± glandular, margin entire or inconspicuously crenulate; veins 5–7, basal, if 7-veined, then 3 at stem apex, usually petal-like, white at anthesis. Inflorescences an elongated, axillary or terminal raceme, (3–)12–20 (–22) cm; peduncles 0.5–4.5 cm, glabrous; rachis densely pubescent. Bract beneath each flower spatulate, basal part linear and pilose, apical part orbicular and glabrous or sparsely ciliate, small, apex rounded to acute. Filaments slightly longer than anthers. Fruit subglobose, ca. 3 mm in diam., tuberculate. Fl. Apr–Jun, fr. Jun–Jul. 2n = 22*.

Wet places, ditches, meadows, riverbanks, streamsides, forests, thickets, roadsides, field margins; near sea level to 1700 m. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hebei, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Qinghai, Shaanxi, Shandong, Sichuan, Taiwan, Yunnan, Zhejiang [India, Japan (including Ryukyu Islands), Korea, Philippines, Vietnam].

Type from Guangzhou, Guangdong. Rhizomes and flowers used medicinally.

Two species: C and SW China, N Vietnam; two species (one endemic) in China.


**three white grass** luò shuò shù

Herbs prostrate, ± stoloniferous. Stems longitudinally ridged and sulcate. Leaves: stipules membranous; petioles shorter than leaf blades. Inflorescences a terminal or leaf-opposed spike, with 4, rarely 6 or 8, white, petal-like involucral bracts at base. Flowers white when mature, small. Stamens 3, rarely 4, longer than styles; filaments ca. 3 × as long as anthers, basal part connate to ovary; anthers oblong. Pistils 3, 3-carpelled; carpels partly connate; ovary semi-inferior (flowers perigynous), 1-loculed; placenta 3, each with 6–9 ovules; styles 3, recurved. Capsule subglobose, dehiscent at apex. Four species: E and S Asia.


**three white grass** ji cai shu

*Polypara* Loureiro.

Herbs erect or ascending, rhizomatous. Stems longitudinally ridged and sulcate. Leaves entire; stipules membranous; petioles shorter than leaf blades. Inflorescence a terminal or leaf-opposed spike, with 4, rarely 6 or 8, white, petal-like involucral bracts at base. Flowers white when mature, small. Stamens 3, rarely 4, longer than styles; filaments ca. 3 × as long as anthers, basal part connate to ovary; anthers oblong. Pistils 3, 3-carpelled; carpels partly connate; ovary semi-inferior (flowers perigynous), 1-loculed; placenta 3, each with 6–9 ovules; styles 3, recurved. Capsule subglobose, dehiscent at apex. One species: E and S Asia.

2. *Houttuynia cochinchinensis* Loureiro; *P. cordata* Kuntze.

Stems (5–)30–60 cm high; rhizomes creeping, thin. Basal part of stems creeping, rooted in whorls at nodes, apical part erect, glabrous or pubescent on nodes, sometimes purplish red. Stipular sheath (0.5–)1–2.5 cm, 1/4–1/2 as long as petiole, usually ciliate, base enlarged and slightly clasping; petiole (0.7–) 1–3.5(–4) cm, glabrous; leaf blade broadly ovate or ovate-cordate, (1.5–)4–10 × (1.8–)2.5–6 cm, thinly papery, densely glandular, usually glabrous, sometimes pubescent at vein axes, usually purplish abaxially, base cordate, apex shortly acuminate; veins 5–7, basal or innermost pair arising ca. 5 mm above base, if 7-veined, then outermost pair very slender or inconspicuous; reticulate veins ± conspicuous. Inflorescences (0.4–) 1.5–2.5(–2.7) cm × (2–)5–6 mm; peduncles 1.5–3 cm, subglabrous; involucral bracts oblong or obovate, (5–)10–15 × (3–)5–7 mm, apex rounded. Bract beneath each flower linear, terete, inconspicuous. Stamens longer than ovary. Capsule 2–3 mm, with persistent styles. Fl. Apr–Sep, fr. Jun–Oct. 2n = 24*, 96.

Ravines, streamsides, forests, wet meadows, slopes, thicket and field margins, trailsides, roadsides, ditch banks; near sea level to 2500 m. Anhui, Fujian, Gansu, Guangdong, Guangxi, Guizhou, Hainan, Hebei, Hunan, Jiangxi, Shaanxi, Sichuan, Taiwan, Xizang, Yunnan, Zhejiang [India, Japan (including Ryukyu Islands), Korea, Myanmar, Nepal, Sikkim, Thailand].

Leaves used medicinally; shoots eaten as a vegetable.

Two species: C and SW China, N Vietnam; two species (one endemic) in China.
裸蒴 luo shuo

*Saururus cavaleriei* H. Léveillé.

Herbs glabrous. Stems usually 30–65 cm long, rooted at nodes. Stipular sheath 1.5–2 cm, ca. 1/3 as long as petiole; petiole 1.5–7 cm; leaf blade reniform-cordate, (1.5–)3–6.5 × (3–)4–7.5 cm, base auriculate, apex broadly acute or rounded; sometimes outermost pair of veins slender or inconspicuous; reticulate veins ± conspicuous. Inflorescence 2–7.5 cm; peduncle ca. as long as or slightly shorter than inflorescence, 3–6 cm. Bract beneath each flower oblanceolate, ca. 3 mm, apex acute, sometimes basal bracts slightly larger and nearly ligulate. Filaments nearly as long as or slightly longer than anthers. Ovary long obovoid. Fl. Apr–Nov. 2n = 18*.

Streamsides, valleys; (100–)600–2000 m. Guangdong, Guangxi, Guizhou, Hubei, Hunan, Sichuan, Yunnan [N Vietnam].

Used medicinally.

白苞裸蒴 bai bao luo shuo

Herbs glabrous. Stems usually 30–70 cm long. Stipular sheath 1.5–2 cm, 1/4–1/3 as long as petiole; petiole 1.5–8.5 cm; leaf blade cordate or reniform-cordate, 4–18 × 6–10 cm, base deeply auriculate, apex broadly acute; reticulate veins conspicuous. Inflorescence ca. 5 cm, usually leaf-opposed at middle of stems; peduncles 4–7 cm, slightly longer than or nearly as long as inflorescences; involucral bracts 3 or 4, white, leafy, very large, 1.2–1.8 × 0.8–1.2 cm, obovate-oblong. Bract beneath each flower obovate-oblong or oblanceolate, ca. 3 mm, apex acute. Filaments slightly longer than anthers. Ovary obconical. Fl. Feb–Jun. 2n = 18*.

Roadsides, wet places in forests; 700–1000 m. S Sichuan.

Type from Mabian, Sichuan.