
Liang Songyun (梁松筠 Liang Song-jun); David A. Simpson

Herbs, perennial or more rarely annual. Culms tufted, erect, 3-angled or terete. Leaves basal or cauline; sheath closed, with or without a ligule; leaf blade linear, flat or canaliculate. Inflorescences paniculate, usually consisting of terminal and lateral anthelae, sometimes spicate or capitulate. Spikelets sessile or pedunculate, narrowly ovoid, ovoid, or ellipsoid, slightly bilaterally compressed or terete. Glumes few to many, spirally imbricate or rarely distichous, 1-veined; basal 3 or 4 glumes shorter than apical ones and empty. Flowers bisexual or basal flower bisexual and apical one male or sterile. Perianth bristles 0–6(–13), antrosely or retrorsely scabrous, rarely smooth. Stamens 2 or 3. Style slender; stigmas 2. Nutlet usually obovoid to ovoid, biconvex, with various ornamentations or more rarely smooth; persistent style base thickened, mostly conic or rarely lunate, spongy, base truncate or ± lobed.

About 350 species: cosmopolitan but particularly in tropics and subtropics of the New World; nine species in China.

1a. Inflorescences with 1 to several globose heads.

2a. Inflorescence with 2–7 spicate heads ................................................................. 7. R. malasica

2b. Inflorescence with 1 terminal head.

3a. Nutlet ovoid; perianth bristles 1/3–1/2 as long as nutlet .................................................................... 8. R. rubra

3b. Nutlet linear-oblong; perianth bristles longer than nutlet and persistent style base .......................... 9. R. submarginita

1b. Inflorescences paniculate, consisting of terminal and lateral open panicles.

4a. Perianth bristles absent; persistent style base saddle-shaped, much depressed and much broader than high; nutlet 1.3–1.5 mm, coarsely transversely wrinkled; leaf blade setaceous ................................................. 6. R. gracillima

4b. Perianth bristles present; persistent style base compressed conic to almost subulate; nutlet 2–4 mm; leaf blade flat or canaliculate, not setaceous.

5a. Leaf blade 9–17 mm wide; nutlet 3–4 mm, deeply channeled; style hardly divided ................................... 1. R. corymbosa

5b. Leaf blade 0.5–4 mm wide; nutlet ca. 2 mm, not channeled; style 2-cleft.


6b. Perianth bristles less than 6, antrosely or retrorsely scabrous.

7a. Leaf blade 0.5–1 mm wide; perianth bristles retrorsely scabrous .......................................................... 3. R. faberi

7b. Leaf blade 1.5–3 mm wide; perianth bristles antrorsely scabrous.

8a. Spikelets 3–4.5 mm; perianth bristles shorter than nutlet and persistent style base ......................... 4. R. rugosa

8b. Spikelets 7–9 mm; perianth bristles longer than nutlet and persistent style base ............................ 5. R. chinensis


伞房刺子莞 san fang ci zi guan

Scirpus corymbosus Linnaeus, Cent. Pl. 2: 7. 1756; Rhynchospora aurea Vahl.

Perennials. Rhizomes short. Culms erect, 60–140 cm tall, stout, 3-angled, with several nodes, smooth or scaberulous on angles. Leaves basal and cauline; sheath semirounded, 2–6 cm, membranous, ligulate at mouth; leaf blade broadly linear, 30–60 × 0.9–1.7 cm, flat, herbaceous to thinly leathery, margin and abaxial midvein scabrous, apex long acuminate. Involucral bracts 3–5, leaflike, shorter than inflorescence, base sheathing. Inflorescence a large compound panicle consisting of 2–5 distant corymbiform anthelae, 20–50 cm; anthelae compound, to 15 cm in diam., ± dense, diffuse, many branched; bractlets setaceous. Spikelets many, in clusters of 2–5, erect or oblquely patent, narrowly ovoid to fusiform, 7–10 mm; basal flower bisexual; apical 1 or 2 flowers male. Glumes 7 or 8, ovate to ovate-lanceolate, basal 4 and apicalmost empty. Perianth bristles 6, as long as nutlet, antrosely scabrous. Stamens 3; filaments shorter than nutlet and style base; anthers linear; connective subulate. Style ca. 1.7 cm, base dilated; stigmas 2. Nutlet brown, oblong-obovoid to obovoid, 3–4 mm, compressed, finely transversely wrinkled in middle part, coarsely undulate rugose toward margin; persistent style base long conic, ca. 5.5 mm, ± as broad as nutlet, compressed, conspicuously grooved on both sides, smooth or asperous. Fl. and fr. Mar.–Dec. 2n = 18.

Moist stream margins along valleys; 100–900 m. Guangdong, Guangxi, Hainan, Hunan, Taiwan, Yunnan [Bangladesh, India, Indonesia, Malaysia, Myanmar, Papua New Guinea, Philippines, Sri Lanka, Thailand, Vietnam; Africa, Australia, Central and South America, Indian Ocean islands, Madagascar, Pacific islands].


白鳞刺子莞 bai lin ci zi guan

Schoenus albus Linnaeus, Sp. Pl. 1: 44. 1753.

Perennials. Rhizomes short, slender. Culms tufted, erect, 15–42(–50) cm tall, 0.5–0.8 mm thick, apically slightly scabrous. Leaves shorter than culm; sheath straw-colored brown, basal ones with a blade or bladeless; leaf blade filiform, 0.7–2 mm wide, papery, margin involute. Involucral bracts leaflike, basal ones with a sheath, apical ones sheathless. Inflorescences paniculate, consisting of terminal and lateral subcapitate anthe-

细叶刺子莞 *xi ye ci zi guan*

Perennials. Rhizomes very short. Rhizomes very short. Culms tufted, erect, 20–40(–60) cm tall, 0.5–1 mm thick, 3-angled, basally clothed with pale yellowish bladeless sheaths, apically sometimes slightly scabrous. Leaves basal and a few cauline, shorter than culm; leaf blade elongated, ovate to oblong-obovoid, 1.5–2.5 mm, biconvex, ± smooth to obscurely wrinkled; persistent style base conic-subulate, 1/2–2/3 as long as nutlet. Fl. and fr. Aug. 2n = 26.

Swamps, wet places; ca. 900 m. Jilin, Taiwan [Japan, Kazakstan, Korea, Russia; SW Asia, Caribbean (Puerto Rico), Europe, North America].


白喙刺子莞 *bai hui ci zi guan*

Perennials. Rhizomes very short. Culms tufted, erect, 25–60(–125) cm tall, slender, 3-angled, rigid, basally clothed with 1 or 2 bladeless sheaths, apically scabrous. Leaves basal and cauline, shorter than inflorescence; sheath 5–9 cm; ligule rust-colored brown, short, membranous; leaf blade narrowly linear, 1.5–2.5 mm wide, margin scabrous, apex acuminate. Involucral bracts leaflike, longer than inflorescence, basal ones sheathing, apicalmost sheathless. Inflorescences paniculate, consisting of 3–5 corymbiform anthelae; lateral peduncles solitary or 2 together, compressed, often long exserted from sheaths; rays very unequal, erect; rayslet setaceous. Spikelets dark brown, ellipsoidoid to subovoid, 3–4.5 mm, 3- or 4-flowered, base ± obtuse, apex acute. Glumes 7 or 8, elliptic-ovate, ovate, or broadly ovate; basal 3 or 4 glumes empty. Perianth bristles 6, slightly shorter than nutlet, unequal, antrorsely scabrous. Stamen 1–3; filaments longer than nutlet and style base. Ovary obovoid; style filiform; stigmas 2, as long as style. Nutlet pale rust-colored, broadly ellipsoid-ovobovoid, ca. 1.7 mm, biconvex, finely transversely wrinkled with longitudinal epidermal cell; persistent style base broadly conic, shorter than nutlet. Fl. and fr. Jun–Oct. 2n = 36.

Swamps, moist river margins; 1000–2400 m. Fujian, Guangdong, Guangxi, Guizhou, Hunan, Jiangxi, Sichuan, Taiwan, Yunnan, Zhejiang [India, Indonesia, Japan, Malaysia, Nepal, Papua New Guinea, Philippines, Sri Lanka, Thailand, Vietnam; Africa, Australia, Europe, Indian Ocean islands, Madagascar, Pacific islands].

**Rhynchospora rugosa** subsp. *rugosa* occurs in tropical America and South America.


华刺子莞 *hua ci zi guan*

*Rhynchospora glauca* Vahl var. *chinensis* (Nees & Meyen ex Nees) C. B. Clarke; *R. japonica* Makino; *R. longisetigera* Hayata.

Perennials. Rhizomes very short. Culms tufted, erect, 30–55(–90) cm tall, slender, 3-angled, smooth but apically usually scabrous. Leaves basal and a few cauline and distant, shorter than culm; sheath brown, closed, 2.6–6 cm, glabrous, with very short ligule at mouth; leaf blade narrowed linear, 1.5–3 mm wide, flat or canaliculate, margin and abaxial midvein scabrous, apex long acuminate. Involucral bracts leaflike, basal ones sheathing, apicalmost sheathless. Inflorescences paniculate, narrow, consisting of 3 or 4 dense to ± lax corymbiform anthelae; lateral peduncles solitary or 2 together, compressed, often long exserted from sheaths; rays very unequal, erect; rayslet setaceous. Spikelets dark brown, ellipsoidoid to subovoid, 3–4.5 mm, 3- or 4-flowered, base ± obtuse, apex acute. Glumes 7 or 8, elliptic-ovate, ovate, or broadly ovate; basal 3 or 4 glumes empty. Perianth bristles 6, slightly shorter than nutlet, unequal, antrorsely scabrous. Stamen 1–3; filaments longer than nutlet and style base. Ovary obovoid; style filiform; stigmas 2, as long as style. Nutlet pale rust-colored, broadly ellipsoid-ovobovoid, ca. 1.7 mm, biconvex, finely transversely wrinkled with longitudinal epidermal cell; persistent style base broadly conic, shorter than nutlet. Fl. and fr. May–Oct.

Swamps, moist places, wet grasslands; 100–1400 m. Anhui, Fujian, Guangdong, Guangxi, Hainan, Hubei, Jiangsu, Jiangxi, Shandong [Japan, Myanmar, Sri Lanka, Thailand, Vietnam; Indian Ocean islands, Madagascar].

Annuals or short-lived perennials. Culms densely tufted, 20–60 cm tall, filiform, 3-angled, smooth. Leaves shorter than culm; leaf blade setaceous, 0.5–1 mm wide, canaliculate, apex scabrous. Involutral bracts setaceous, sheathing. Inflorescences laxly paniculate, consisting of 1–3 corymbiform anelae to 4 cm; terminal anelae longer than lateral ones, simple or subcompound; lateral anelae simple, with peduncles exerted from sheaths; rays capillary, 2–4 cm, often upcurved, smooth, subtended by setaceous bractlets. Spikelets solitary, narrowly ovoid, 3–4-flowered, apex acute; peduncle long. Glumes 7 or 8, pale rust-colored with purplish lines, spiral, imbricate, broadly ovate, membranous, muticous. Perianth bristles absent. Stamens 2; anthers linear; connective evident. Style filiform; stigmas 2. Nutlet brown, ovate-lanceolate to elliptic-ovate, thinly papery, keeled, vein 1, apex obtuse to acute; basal glumes each with a female flower; apical 1 or 2 glumes each with a male flower. Perianth bristles 4–6, unequal, 1/3–1/2 as long as nutlet, antrorsely scabrous. Stamens 2 or 3; filaments shorter to longer than subtending glume; anthers linear; connective evident. Style filiform; stigmas 2 or sometimes undivided, very short. Nutlet brown when mature, obovoid, 1.5–1.8 mm, biconvex, edges subacute with apical half hispid-serrulate, sides sparsely hispid-scabrous mainly on apical half, obscurely spotted with minute isodiametric epidermal cells; persistent style base conic, 1/5–1/4 as long as nutlet, base abruptly widened. Fl. and fr. May–Nov.

Road margins, grassy slopes, wet places; 100–1400 m. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hunan, Jiangsu, Jiangxi, Taiwan, 5 Yunnan, Zhejiang [India, Indonesia, Japan, Korea, Laos, Malaysia, Nepal, Papua New Guinea, Philippines, Sri Lanka, Thailand, Vietnam; Africa, Australia, Indian Ocean islands, Madagascar, Pacific islands].

Plants from China would be *Rhynchospora rubra* subsp. *rubra*; other subspecies occur in Africa and Madagascar.


**Stipe Weng Men** *lei yuan ci zi guan*

*Rhynchospora marginata* C. B. Clarke (1908), not (Liebm.) Steudel (1855).

Annuals. Roots fibrous. Culms tufted, erect, 10–60 cm tall, slender, 3-angled, smooth. Leaves basal and 1 or 2 cauline in lower 1/3 of culm, 1/4–3/4 as long as culm; leaf blade linear, 2–2.5 mm wide, glabrous or pubescent, margin slightly involute, apex acuminate. Involutral bracts 3–6, leaflike, to 15 cm, base dilated and densely ciliate, apically slightly involute, sheathless, apex acuminate. Inflorescence a single terminal head, 1.2–2 cm in diam. Spikelets narrowly ovoid, 5–6 mm, shiny, 2-flowered. Glumes 6 or 7, rust-colored, ovate-lanceolate to elliptic-lanceolate; basal 3 or 4 empty, ± smaller; middle glumes ca. 4 mm, each with 1 female flower; apical 2 or 3 glumes each with a male flower. Perianth bristles 6, longer than nutlet and style base, antrorsely scabrous. Stamens 2 or 3; anthers linear, ca. 2 mm; connective slightly evident, reddish,
pubescent. Nutlet blackish, linear-oblong, ca. 3.5 mm, sub-bi-
convex, whitish setulose to almost glabrous; persistent style

Sandy grasslands, paddy fields. Hainan [India, Indonesia, Malay-
sia, Papua New Guinea, Thailand, Vietnam; N Australia].