

160. CYRTOCOCCUM Stapf in Prain, Fl. Trop. Africa 9: 15. 1917.

弓果黍属 gong guo shu shu

Chen Shouliang (陈守良); Sylvia M. Phillips

Annual or perennial. Culms decumbent, rooting at the nodes, much branched and leafy. Leaf blades linear-lanceolate to narrowly ovate; ligule membranous. Inflorescence an open or contracted panicle. Spikelets asymmetrical, obovate, laterally compressed, florets 2, lower floret sterile, upper floret bisexual; glumes both shorter than spikelet, unequal, membranous to herbaceous, 3–5-veined; lower glume smaller, ovate, clasping, subacute; upper glume boat-shaped, obtuse; lower lemma usually equal to spikelet, 5-veined, nearly straight on the back, its palea small or absent; upper lemma laterally compressed, gibbously semiorbicular, subcoriaceous to crustaceous, smooth or minutely pitted, a little greenish crest near the apex which swells at maturity, upper palea dorsally slightly convex.  $x = 9$ .

Eleven species: Old World tropics, in shady places; two species in China.

This genus is a segregate from *Panicum* distinguished by its laterally compressed, gibbous spikelets with short glumes and a crested upper lemma.

- 1a. Pedicels mostly shorter than the spikelet, stout; panicle contracted; spikelets reddish brown ..... 1. *C. oxyphyllum*
- 1b. Pedicels much longer than the spikelet, filiform; panicle open, often diffuse; spikelets purplish ..... 2. *C. patens*

1. **Cyrtococcum oxyphyllum** (Hochstetter ex Steudel) Stapf, Hooker's Icon. Pl. 31: t. 3096. 1922.

尖叶弓果黍 jian ye gong guo shu

*Panicum oxyphyllum* Hochstetter ex Steudel, Syn. Pl. Glumac. 1: 65. 1853; *Cyrtococcum pilipes* (Nees & Arnott ex Buse) A. Camus; *Panicum hermaphroditum* Steudel; *P. pilipes* Nees & Arnott ex Buse.

Culms rambling, smooth and glabrous, 15–50 cm tall. Leaf sheaths glabrous to pubescent, ciliate on one margin; leaf blades narrowly lanceolate, 5–18 × 0.5–1.5 cm, glabrous to pilose, midvein abaxially distinct, apex acuminate; ligule 1–1.5 mm. Panicle 3–12 × 1–2 cm, contracted, branches ascending, up to 3 cm, pilose with long scattered hairs or hairs mostly confined to the axils; pedicels stout, short. Spikelets reddish brown at maturity, ca. 2 mm, glabrous except for some hairs at the base (hairs up to 2/3 length of lower glume); glumes 3-veined, acute, the lower 1.2–1.5 mm, the upper slightly shorter than spikelet; lower lemma obtuse or subtruncate; upper lemma yellowish or yellowish brown, smooth and shining. Anthers ca. 1 mm. Fl. and fr. Oct–Mar.  $2n = 36$ .

Damp places in shade. Guangdong, Guangxi, Hainan, Yunnan [Bhutan, India, Malaysia, Myanmar, Philippines, Sri Lanka, Vietnam; Australia].

2. **Cyrtococcum patens** (Linnaeus) A. Camus, Bull. Mus. Natl. Hist. Nat. 27: 118. 1921.

弓果黍 gong guo shu

Culms creeping, smooth and glabrous, 15–60 cm tall. Leaf sheaths loosely pilose with tubercle-based hairs; leaf blades lanceolate, 3–15 × 0.3–2 cm, pubescent on both surfaces or subglabrous, basal margins with a few long, stiff, tubercle-based hairs, apex acuminate; ligule 0.5–2 mm, subrounded. Panicle 5–30(–40) cm, often diffuse, branches loosely ascending to widely spreading, very slender, glabrous; pedicels filiform, longer than spikelets. Spikelets purplish at maturity, 1.3–1.8 mm, varying from glabrous to appressed-pubescent or shortly

hispid with stiff, conspicuously tubercle-based hairs; glumes 3-veined, the lower ca. 1/2 spikelet length, the upper 2/3 spikelet length; lower lemma subequaling spikelet, margins ciliate, apex obtuse; upper lemma minutely pitted. Anthers ca. 0.8 mm. Fl. and fr. Sep–Feb.  $2n = 18, 36$ .

Moist places in grasslands and forests. Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hunan, Jiangxi, Sichuan, Taiwan, Xizang, Yunnan [Bangladesh, Bhutan, India, Indonesia, Japan (Ryukyu Islands), Malaysia, Myanmar, Nepal, Philippines, Sri Lanka, Thailand, Vietnam; Pacific Islands (Polynesia)].

*Cyrtococcum patens* is a very variable species, and specimens with large, diffuse panicles have a different habit from small- or narrow-panicked forms. This difference is acknowledged here at varietal rank, but it should be realized that variation is continuous and intermediates will be encountered.

Spikelet pubescence varies from completely glabrous, through forms with sparse to dense, short, appressed hairs, to forms with some or all of the basal hair tubercles enlarged and prominent. This last-mentioned form has been separated as var. *schmidtii* (Hackel) A. Camus. It is found throughout the entire size range of the species, and also over the whole geographic range, and is not taxonomically significant.

- 1a. Panicle up to 17 cm; leaf blades 3–8 × 0.3–1 cm ..... 2a. var. *patens*
- 1b. Panicle large and diffuse, 16–30 cm; leaf blades 7–15 × 1–2 cm ..... 2b. var. *latifolium*

2a. **Cyrtococcum patens** var. **patens**

弓果黍(原变种) gong guo shu (yuan bian zhong)

*Panicum patens* Linnaeus, Sp. Pl. 1: 58. 1753; *Cyrtococcum muricatum* (Retzius) Bor; *C. patens* var. *schmidtii* (Hackel) A. Camus; *C. patens* var. *warburgii* (Mez) Reeder; *C. radicans* (Retzius) Stapf; *C. warburgii* (Mez) Stapf; *Panicum carinatum* J. Presl & C. Presl; *P. muricatum* Retzius; *P. obliquum* Roth ex Roemer & Schultes; *P. radicans* Retzius; *P. schmidtii* Hackel; *P. warburgii* Mez.

Culms 15–30 cm tall. Leaf blades 3–8 × 0.3–1 cm; ligule

0.5–1 mm. Panicle 5–15 cm. Fl. and fr. Sep–Feb.  $2n = 18$ .

Moist places in grasslands and forests. Fujian, Guangdong, Guangxi, Guizhou, Hainan, Jiangxi, Sichuan, Taiwan, Yunnan [Bangladesh, Bhutan, India, Indonesia, Japan (Ryukyu Islands), Malaysia, Myanmar, Nepal, Philippines, Sri Lanka, Thailand, Vietnam; Pacific Islands (Polynesia)].

**2b. *Cyrtococcum patens* var. *latifolium*** (Honda) Ohwi, Acta Phytotax. Geobot. 11: 47. 1942.

散穗弓果黍 *san sui gong guo shu*

*Panicum patens* Linnaeus f. *latifolium* Honda, Bot. Mag. (Tokyo) 37: 25. 1923; *Cyrtococcum accrescens* (Trinius) Stapf; *Panicum accrescens* Trinius; *P. patens* var. *latifolium* (Honda) Honda.

Culms up to 60 cm tall. Leaf blades 7–15 × 1.2–2 cm; ligule 1–2 mm. Panicle 16–30 cm. Fl. and fr. autumn–winter.  $2n = 36$ .

Moist places in shade, sometimes forming an undercover. Guangdong, Guangxi, Guizhou, Hunan, Taiwan, Xizang, Yunnan [India, Japan (Ryukyu Islands), Malaysia, Thailand, Vietnam].

Flora of China 22: 513–514. 2006.