

201. **DICHANTHIUM** Willemet, Ann. Bot. (Usteri) 18: 11. 1796.

双花草属 *shuang hua cao shu*

Chen Shouliang (陈守良); Sylvia M. Phillips

Eremopogon Stapf; *Lepeocercis* Trinius.

Perennial, rarely annual. Leaf blades often cauline, linear; ligule membranous. Inflorescence of single or subdigitate racemes, terminal or also axillary and sometimes supported by spathes; racemes usually with 1 or more basal homogamous spikelet pairs, spikelets often imbricate; rachis internodes and pedicels slender, solid, bearded, truncate or oblique at apex. Sessile spikelet dorsally compressed; callus short, obtuse; lower glume papery to cartilaginous, broadly convex to slightly concave, sometimes pitted, rounded on flanks, becoming 2-keeled upward, apex obtuse; upper glume boat-shaped, dorsally keeled, awnless; lower floret reduced to an empty hyaline lemma; upper lemma stipitiform, entire, awned from apex; awn geniculate, glabrous or puberulous. Stamens (2–) 3. Pedicelled spikelet similar to the sessile, male or barren, awnless.

About 20 species: Africa through India to SE Asia and Australia; three species in China.

Dichanthium is closely related to *Bothriochloa*, but can be distinguished by its pedicels and rachis internodes being solid and lacking a median, purple line. The species present in China are not clear-cut and are also variable within themselves due to polyploidy and apomixis. All three species provide good grazing and now occur widely in tropical regions as introductions or escapes.

- 1a. Peduncle pilose below inflorescence 1. *D. aristatum*
1b. Peduncle glabrous.
2a. Lower glume of sessile spikelet obovate, winged along keels; leaf sheaths compressed; ligule less than 1 mm, margin ciliate 2. *D. caricosum*
2b. Lower glume of sessile spikelet oblong, not winged along keels; leaf sheaths terete; ligule 1–2 mm, margin lacerate 3. *D. annulatum*

1. *Dichanthium aristatum* (Poiret) C. E. Hubbard, Bull. Misc. Inform. Kew 1939: 654. 1939.

毛梗双花草 *mao geng shuang hua cao*

Andropogon aristatus Poiret in Lamarck, Encycl., Suppl. 1: 585. 1811; *A. caricosus* Linnaeus var. *mollicomus* (Kunth) Hackel; *A. mollicomus* Kunth.

Perennial. Culms geniculate to suberect, 20–60 cm tall, nodes glabrous or pubescent. Leaf sheaths usually longer than internodes; leaf blades flat, 1.5–8(–20) × 0.3–0.6 cm, glabrous or thinly pilose on both surfaces; ligule ca. 0.6 mm, minutely fimbriate. Inflorescence terminal; peduncle softly pilose near the summit; racemes (1–)2–4, subdigitate, 2–5 cm, with 1–6 pairs of homogamous spikelets. Sessile spikelet 3–5 mm; lower glume obovate, subleathery, 8–10-veined, pubescent on lower back, slightly glossy, margins glabrous or shortly ciliate, keels often narrowly winged, apex rounded; upper glume glabrous or ciliate along margins and keel; awn 1.2–2 cm. Caryopsis ca. 1.8 mm. Pedicelled spikelet many-veined, resembling sessile. Fl. and fr. Jun–Nov. $2n = 20, 40, 60$.

Hill slopes; 500–1500 m. Taiwan, Yunnan [India, Indonesia, Malaysia; introduced elsewhere].

This species is very close to, and may simply be a variant of, *Dichanthium caricosum*.

2. *Dichanthium caricosum* (Linnaeus) A. Camus, Bull. Mus. Natl. Hist. Nat. 27: 549. 1921.

单穗草 *dan sui cao*

Andropogon caricosus Linnaeus, Sp. Pl., ed. 2, 2: 1480. 1763.

Perennial, stoloniferous. Culms tufted at nodes of stolons, geniculately ascending, 30–60 cm tall, nodes glabrous or pubescent. Leaf sheaths compressed, keeled, shorter than internodes; leaf blades flat, 15–20 cm × 2.5–5 mm, glabrous or with a few hairs at base, margins smooth or scabrid, apex acuminate; ligule less than 1 mm, margin ciliate. Inflorescence terminal; peduncle

glabrous; racemes (1–)2–4, 2.5–5 cm, with 1–3 pairs of homogamous spikelets. Sessile spikelet 3–3.5 mm; lower glume obovate-elliptic or obovate-oblong, papery, 8–12-veined, glabrous or often sparsely hirsute on lower back, slightly glossy, margins shortly ciliate, keels winged, apex rounded; upper glume ciliate above middle, apex obtuse; awn 1.5–2.5 cm, weakly geniculate. Caryopsis obovate-oblong. Pedicelled spikelet many-veined, resembling sessile. Fl. and fr. Oct–Mar. $2n = 20, 40$.

Hill slopes, roadsides; 300–1000 m. Guizhou, Yunnan [India, Malaysia, Myanmar, Sri Lanka, Thailand; introduced elsewhere].

3. *Dichanthium annulatum* (Forsskål) Stapf in Prain, Fl. Trop. Africa 9: 178. 1917.

双花草 shuang hua cao

Andropogon annulatus Forsskål, Fl. Aegypt.-Arab. 173. 1775; *Bothriochloa tuberculata* W. Z. Fang; *Dichanthium annulatum* var. *bullisetosum* B. S. Sun & S. Wang.

Perennial. Culms tufted, erect or sometimes straggling, 30–100 cm tall, nodes bearded with spreading hairs. Leaf sheaths terete, shorter than internodes; leaf blades flat, 8–30 × 0.2–0.4 cm, glabrous or adaxial surface stiffly pilose, margins smooth or scaberulous, apex acuminate; ligule 1–2 mm, lacerate. Inflorescence terminal; peduncle glabrous; racemes 2–8, subdigitate, suberect, 4–5 cm, with 0–6 pairs of homogamous spikelets. Sessile spikelet 3–5 mm; lower glume elliptic-oblong or oblong, firmly papery, 5–9-veined, subglabrous or pubescent to villous on lower back, upper flanks often with long spreading hairs, keels shortly ciliate, not or barely winged, apex obtuse; upper glume ciliate along keel and margins, apex acute or obtuse; awn 1.6–2.4 cm. Caryopsis obovate. Pedicelled spikelet many-veined, pubescent to villous with spreading tubercle-based hairs. Fl. and fr. Jun–Nov. $2n = 20, 40$.

Mountain slopes, disturbed ground; 100–2200 m. Guangdong, Guangxi, Guizhou, Hainan, Hubei, Sichuan, Taiwan, Yunnan [India, Indonesia, Malaysia, Myanmar, Nepal, Pakistan, Philippines; Africa, Pacific Islands; introduced in America and Australia].

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