ma 9–10 mm, loosely pubescent in lower 1/4–1/2; awn 1.3–1.7 cm, stiffly hispid at base, hairs 0.5–0.8 mm, scabrid above. Anthers 2–3 mm. Fl. and fr. Aug–Oct. Open grassy mountainsides, forest clearings; 2700 m and above.

Sichuan, Xizang, Yunnan [Bhutan, N India, Kashmir, N Myanmar, Nepal].

The long, retrorse spines at the lemma apex are an unmistakable distinguishing feature of this species.

8. Tribe BRYLKNIEAE

扁穂草族 bian sui cao zu

Wu Zhenlan (吴珍兰); Sylvia M. Phillips

Perennial. Leaf sheaths with connate margins; leaf blades linear, transverse veinlets present; ligule very short, membranous. Inflorescence a lax raceme. Spikelets with 1 fertile floret, 2 sterile empty lemmas below and a rachilla extension above, strongly laterally compressed, falling entire together with the pedicel; glumes unequal, narrowly lanceolate, shorter than lemmas, herbaceous, 3–5-veined, apex acuminate to caudate; lemmas lanceolate, thinly leathery, strongly keeled, 5–7-veined, sterile lemmas acuminate to short-awned, fertile lemma with a straight awn from apex; palea keels closely adjacent. Lodicules 2, free, fairly large, rectangular, hyaline. Stamens 3. Caryopsis narrowly ellipsoid, apex with glossy rounded caplike appendage with central knob from style base, embryo small, hint linear, slightly shorter than caryopsis. Leaf anatomy: non-Kranz; microhairs absent. $x = 10$. One species: China, Japan, E Russia.

This is a unispecific tribe of uncertain affinity, found in cool, temperate forests.


扁穂草属 bian sui cao shu

Description and distribution as for tribe.


扁穂草 bian sui cao


Perennial with slender rhizomes, basal sheaths becoming fibrous. Culms loosely tufted, erect, 50–70 cm tall, 3–5-noded. Leaf sheaths pubescent with retrorse hairs, upper sheaths shorter than internodes; leaf blades flat or margins involute, thin, 20–30 × 0.3–1 cm, abaxial surface glabrous, adaxial surface pubescent or glabrous, slightly narrowed to base, tapering to acuminate apex; ligule 0.2–0.6 mm, thick. Raceme 6–22 cm; spikelets 13–20, distant, divericate becoming pendulous; axis 4-angled; pedicels 2–7 mm, bent at base, spinulose. Spikelets 1–1.4 cm, greenish; lower glume 5–6 mm, 3-veined, upper glume 6–7.5 mm, 5-veined; sterile lemmas 1–1.4 cm; fertile lemma 1–1.2 cm, narrowly winged along upper keel; awn 0.9–1.5 cm; palea shorter than lemma, membranous, ciliolate along keels. Anthers ca. 4 mm. Fl. and fr. summer. $2n = 40$.

Forest glades; below 3000 m. Jilin (Changbai Shan), Sichuan [Japan, Russia (Far East)].

9. Tribe MELICEAE

臭草族 chou cao zu

Wu Zhenlan (吴珍兰); Sylvia M. Phillips

Perennial. Culms usually unbranched. Leaf sheaths tubular, margins fused for most or all of their length; leaf blades linear, transverse veinlets sometimes present; ligule membranous, sometimes tubular and lobed on side opposite blade. Inflorescence an open or contracted panicle, sometimes scanty or racemelike. Spikelets all alike, laterally compressed, of 1 to many fertile florets, upper florets sterile and often gathered into a clump of rudimentary lemmas, usually disarticulating below each floret; glumes persistent, usually shorter than spikelet, often shorter than adjacent lemma, often papery with hyaline margins, 1–5-veined; lemmas herbaceous or becoming leathery, rounded on back, prominently 5–9(–13)-awned, awnless or with straight or curved awn from apex or back; lodicules 2, fused, short, fleshy, truncate. Stamens (2 or)3. Caryopsis ellipsoid; hilum linear. Leaf anatomy: non-Kranz; microhairs absent. $x = 9, 10$.

Eight genera and ca. 130 species: temperate regions throughout the world; three genera and 34 species (nine endemic) in China.

This small tribe is allied to Poeae, but differs in the closed, tubular leaf sheaths, small, fleshy lodicules, and chromosome number.

1a. Floret callus hairy; lemma awned

1b. Floret callus glabrous; lemma awnless.