# 71. CATABROSA P. Beauvois, Ess. Agrostogr. 97. 1812.

### 沿沟草属 yan gou cao shu

#### Wu Zhenlan (吴珍兰); Sylvia M. Phillips

Perennials, rhizomatous or stoloniferous. Leaf sheaths closed to middle or above; leaf blades linear, flat, glabrous; ligule membranous. Inflorescence an open or infrequently contracted panicle of many spikelets; branches minutely papillose; pedicels short. Spikelets with (1-)2(-3) florets, subterete, disarticulating below each floret; rachilla extended above floret, glabrous; glumes unequal, much shorter than florets, membranous, lower less than 1/2 spikelet length, 0-1-veined, upper up to 2/3 spikelet length, prominently 1-3-veined, apex truncate or broadly obtuse; lemmas broadly ovate to oblong, herbaceous or thinly membranous becoming hyaline toward apex, rounded on back, prominently 3-veined, lateral veins marginal, glabrous, apex broadly obtuse to truncate, erose, awnless; floret callus short, glabrous; palea subequal to lemma, keels smooth. Stamens 3. Caryopsis ellipsoid, hilum shortly oblong. x = 5.

Two to four species: temperate regions of both hemispheres, Chile; two species in China.

- 1a. Panicle narrow, dense, almost spikelike, branches short, adpressed or suberect
   1. C. capusii

   1b. Panicle open or loosely contracted, branches loosely ascending to spreading
   2. C. aquatica
- **1. Catabrosa capusii** Franchet, Ann. Sci. Nat., Bot., sér. 6, 18: 272. 1884.

### 长颖沿沟草 chang ying yan gou cao

Catabrosa aquatica subsp. capusii (Franchet) Tzvelev.

Perennial, rhizomatous. Culms decumbent at base, up to 30(–60) cm tall. Leaf sheaths closed up to middle, loose, longer than internodes; leaf blades flat, soft, 3–8 cm × 2–4 mm, apex acute; ligule ca. 2 mm, obtuse. Panicle narrow, contracted, almost spikelike, interrupted below, 2–12 × 0.8–1.5 cm; branches less than 5 cm, adpressed or suberect, compactly spiculate to base. Spikelets with (1–)2 florets, 3–4 mm; glumes oblong, obscurely 1–3-veined, apex obtuse or erose, lower glume 0.5–2 mm, upper glume 1.5–2.3 mm; lemma 2–2.7 mm, brown flushed purple, smooth, apex truncate, denticulate. Anthers 1–1.5 mm. Fl. Jun–Aug.

Marshy ground and water meadows on high mountains; 3700–4900 m. Nei Mongol, Xizang [Kyrgyzstan, Tajikistan, Uzbekistan; SW Asia (N Iran, N Iraq, E Turkey)].

Young panicles of *Catabrosa aquatica* can resemble the narrow panicle of this species.

### Catabrosa aquatica (Linnaeus) P. Beauvois, Ess. Agrostogr. 97. 1812.

#### 沿沟草 yan gou cao

Perennial, rhizomatous; rhizome stout, creeping. Culms erect, succulent, 20–70 cm tall, unbranched. Leaf sheaths closed up to middle, upper shorter than internodes; leaf blades equally wide throughout, soft, 5–20 cm  $\times$  2–8 mm, apex boatshaped; ligule 2–5 mm, obtuse. Panicle open or loosely contracted at anthesis, ovate to oblong in outline, 10–30  $\times$  4–12 cm; branches whorled, slender, usually obliquely ascending, up to 10 cm, often bare of spikelets in lower part. Spikelets with (1-)2(-3) florets, 2–4(–5.8) mm; glumes obtuse or subtruncate; lower glume ovate to suborbicular, 0.5–1.2(–2) mm; upper glume broadly elliptic, 1–2(–3) mm; lemma 1.5–3 mm, green becoming brown at maturity, usually glabrous, apex truncate. Anthers 1–2 mm. Fl. and fr. Apr–Aug. 2n = 20.

Slow-moving, shallow water of river and streamsides, muddy pond margins, ditches; 800–4000 m. Gansu, Guizhou, Hebei, Hubei, Nei Mongol, Qinghai, Sichuan, Xinjiang, Xizang, Yunnan [Afghanistan, Kashmir, Kazakhstan, Kyrgyzstan, Mongolia, Pakistan, Russia, Tajikistan, Turkmenistan; SW Asia, Europe, North America].

Catabrosa aquatica is a widespread, polymorphic species of aquatic and marshy habitats, and extreme forms are sometimes accorded separate status, either at specific or infraspecific rank.

## Flora of China 22: 313–314. 2006.

This species provides good forage.

1a. Culms 20–70 cm tall; panicle loose, open, branches to 10 cm; lemma 2–3 mm ........ 2a. var. *aquatica* 

1b. Culms up to 20 cm tall; panicle rather sparse, branches 1–2 cm; lemma 1.5–2.2 mm ...... 2b. var. *angusta* 

#### 2a. Catabrosa aquatica var. aquatica

## 沿沟草(原变种) yan gou cao (yuan bian zhong)

Aira aquatica Linnaeus, Sp. Pl. 1: 64. 1753; Glyceria aquatica (Linnaeus) J. Presl & C. Presl; Poa airoides Koeler.

Culms 20–70 cm tall, creeping and spreading. Leaf blades 5–20 cm  $\times$  4–8 mm. Panicle loose, open; branches slender, 2–6 cm, obliquely ascending or rarely horizontal. Lemma 2–3 mm. Fl. and fr. Apr–Aug.

Shallow water of river and streamsides, pond margins; 800–4000 m. Gansu, Guizhou, Hebei, Hubei, Nei Mongol, Qinghai, Sichuan, Xinjiang, Xizang, Yunnan [Afghanistan, Kashmir, Kazakhstan, Kyrgyzstan, Mongolia, Pakistan, Russia, Tajikistan, Turkmenistan; SW Asia, Europe, North America].

**2b.** Catabrosa aquatica var. angusta Stapf, J. D. Hooker, Fl. Brit. India 7: 311. 1896 ["1897"].

## 窄沿沟草 zhai yan gou cao

Catabrosa angusta (Stapf) L. Liu.

Culms up to 20 cm tall, shortly creeping, forming loose tufts. Leaf blades up to 5 cm  $\times$  1–2 mm. Panicle narrow, open; branches 1–2 cm, suberect. Lemma 1.5–2.2 mm. Fl. and fr. Apr–Sep.

 Mountains, wet grassy places, streamsides, pond margins; near sea level to 4800 m. Nei Mongol, Qinghai, Sichuan, Xizang.

This variety may simply represent small, depauperate plants from high altitudes. The panicle is more open than in *Catabrosa capusii*. Other small forms from high altitudes in the Himalayas and Qinghai, with an open panicle and deep purple spikelets, have been described as *C. sikkimensis* J. D. Hooker. These also intergrade completely with the main body of the species.

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