

124. AELUROPUS Trinius, Fund. Agrost. 143. 1820.

獐毛属 zhang mao shu

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Perennials, tough, stoloniferous or rhizomatous. Leaf blades stiff, rolled, often markedly distichous, pungent; ligule a narrow ciliate membrane. Inflorescence spike-like or capitate, composed of short, erect racemes of sessile, tightly imbricate spikelets appressed to a central axis. Spikelets ovate-lanceolate, laterally compressed, florets several to many, rachilla disarticulating above glumes and between florets; glumes shorter than lemmas, papery with broad scarious margins, lower glume 1–3-veined, upper glume 5–7-veined; lemmas ovate, resembling glumes in texture, strongly 7–11-veined, glabrous or hairy on margins, rounded on back, acute or mucronate; palea keels ciliate or scabrid, apex truncate.

About ten species: Mediterranean region to N China, also in NE tropical Africa, S India, and Sri Lanka; four species (two endemic) in China.

This is a genus of grasses adapted to saline soils in desert regions, where they provide valuable fodder where little else will grow. The tough, widely spreading rhizomes and stolons make them effective soil stabilizers.

All the species listed here are offshoots from the widespread and highly variable species *Aeluropus littoralis* (Gouan) Parlatores, which occurs from Europe to temperate Asia. The most appropriate status for the taxa within this species complex is still uncertain.

- 1a. Racemes congested on inflorescence axis, often not strictly distichous; lemmas usually glabrous.
 - 2a. Leaf blades 3–6 mm broad; spikelets 4–6 mm 1. *A. sinensis*
 - 2b. Leaf blades 1–2 mm broad; spikelets 2–3 mm 2. *A. micrantherus*
- 1b. Racemes rather spaced on inflorescence axis, strictly distichous; lemmas usually pubescent.
 - 3a. Glumes and lemmas ciliate only along middle vein and margins, or glumes glabrous 3. *A. pungens*
 - 3b. Glumes and lemmas pubescent or hispidulous throughout 4. *A. pilosus*

1. *Aeluropus sinensis* (Debeaux) Tzvelev, Rast. Tsentr. Azii 4: 128. 1968.

獐毛 zhang mao

Aeluropus littoralis (Gouan) Parlatores var. *sinensis* Debeaux, Actes Soc. Linn. Bordeaux 33: 73. 1879; *A. littoralis* subsp. *sinensis* (Debeaux) Tzvelev.

Culms 15–35 cm tall, 1.5–2 mm in diam., many-noded, nodes ± pubescent. Leaf sheaths glabrous but pilose at mouth and base; leaf blades flat, glabrous, 3–6 × 0.3–0.6 cm; ligule truncate, ca. 0.5 mm. Inflorescence spike-like, 2–5 × 0.5–1.5 cm; racemes congested. Spikelets 4–6 mm, florets 4–6; glumes and lemmas glabrous or scabrid along midvein; lower glume ca. 2 mm; upper glume ca. 3 mm; lowest lemma ca. 3.5 mm. Fl. and fr. summer.

• Maritime or alkaline sand; near sea level to 3000 m. Gansu, Hebei, Henan, Jiangsu, Liaoning, Nei Mongol, Ningxia, Shandong, Shanxi, Xinjiang.

Aeluropus sinensis is rather more robust than typical *A. littoralis* and has a more compact inflorescence.

2. *Aeluropus micrantherus* Tzvelev, Rast. Tsentr. Azii 4: 128. 1968.

微药獐毛 wei yao zhang mao

Aeluropus littoralis (Gouan) Parlatores subsp. *micrantherus* (Tzvelev) Tzvelev; *A. littoralis* var. *micrantherus* (Tzvelev) K. L. Chang.

Culms procumbent or ascending, usually branched at base, 6–30 cm tall. Leaf sheaths glabrous or puberulous, pilose along mouth and margin; leaf blades flat or involute toward apex, 1.5–4.5 × 0.1–0.3 cm, hirtellous on both surfaces; ligule ca. 0.2 mm, usually pilose. Inflorescence spike-like, 2–7 × ca. 0.3 cm; racemes congested. Spikelets ovate, 2–3 mm, florets 2–6;

glumes ovate, scabrid along middle vein; lower glume 1–1.2 mm; upper glume 1.5–1.8 mm; lemmas ovate or broadly ovate, lowest 2.5–3.2 mm, 5–9-veined, glabrous throughout or ciliate near lower margins, apex acute or mucronate; palea subequal to lemma. Anthers 0.6–0.8 mm. Fl. and fr. summer.

Water courses, sandy places, desert slopes. Xinjiang [Mongolia].

This species is distinguished from *Aeluropus littoralis* by its smaller anthers (0.6–0.8 mm vs. 1.2–1.6 mm).

3. *Aeluropus pungens* (M. Bieberstein) K. Koch, Linnaea 21: 408. 1848.

小獐毛 xiao zhang mao

Culms erect or decumbent, usually branched at base, 5–25 cm tall, scabrid or puberulous below inflorescence. Leaf sheaths glabrous; leaf blades flat or involute, 0.5–6 × ca. 0.15 cm, glabrous or adaxial surface hirsute, abaxial surface pilose; ligule very short, margin ciliate. Inflorescence spike-like, 2–7 × 0.3–0.5 cm; racemes solitary, rather spaced, strictly distichous, spikelets also distichous on the raceme rachis. Spikelets 2–4 mm, florets (2–)4–8; glumes ovate, laxly ciliate or nearly glabrous; lower glume 1–2 mm; upper glume 1.5–2.5 mm; lemmas ovate, lowest 1.5–3 mm, 5–9-veined, margins membranous and ciliate, apex cuspidate; palea equal to lemma, keels ciliate, apex truncate or emarginate. Anthers ca. 1.5 mm. Fl. and fr. May–Aug.

Sandy places on alkaline soils, desert sands. Gansu, Xinjiang [India, Kazakhstan, Kyrgyzstan, Russia, Turkmenistan, Uzbekistan; SW Asia, Europe].

Aeluropus pungens differs from typical *A. littoralis* by its somewhat shorter lemmas with membranous, ciliate margins.

- 1a. Leaf blades glabrous 3a. var. *pungens*
- 1b. Leaf blades densely hirsute on adaxial

surface, pilose on abaxial surface 3b. var. *hirtulus*

3a. *Aeluropus pungens* var. *pungens*

小獐毛(原变种) xiao zhang mao (yuan bian zhong)

Poa pungens M. Bieberstein, Tabl. Prov. Mer. Casp. 130. 1800; *Aeluropus littoralis* (Gouan) Parlatores subsp. *pungens* (M. Bieberstein) Tzvelev.

Leaf blades glabrous on both surfaces. Fl. and fr. May–Aug.

Sandy places on alkaline soils. Gansu, Xinjiang [India, Kazakhstan, Kyrgyzstan, Russia, Turkmenistan, Uzbekistan; SW Asia, Europe].

3b. *Aeluropus pungens* var. *hirtulus* S. L. Chen & X. Y. Yang, Bull. Bot. Res., Harbin 4: 123. 1984.

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Leaf blades densely hirsute on adaxial surface, pilose on abaxial surface.

• Desert sands. Xinjiang.

4. *Aeluropus pilosus* (H. L. Yang) S. L. Chen & H. L. Yang, Fl. Reipubl. Popularis Sin. 10(1): 8. 1990.

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Aeluropus littoralis (Gouan) Parlatores var. *pilosus* H. L. Yang, Acta Bot. Yunnan. 5: 74. 1983.

Plants with both long rhizomes and stolons. Culms erect or decumbent, 12–20 cm tall, densely pubescent. Leaf sheaths densely pubescent, longer than internodes; leaf blades flat or involute, 1.5–3.5 × 0.15–0.25 cm, adaxial surface hispid along veins, abaxial surface densely pubescent; ligule ca. 1 mm, margin ciliate. Inflorescence spike-like, 3–4 × 0.25–0.4 cm; racemes solitary, remote, 5–12 mm, spikelets distichous along rachis, rachis hirtellous along edges. Spikelets ovate, 3–4 mm, florets 3–4(–6); glumes ovate or ovate-lanceolate, pubescent, hispid along middle vein, margins ciliate; lower glume 1.2–1.5 mm; upper glume ca. 2 mm; lemmas ovate-oblong to ovate, lowest ca. 2.5 mm, (7–)9-veined, hispidulous throughout, apex cuspidate; palea equal to or slightly longer than lemma, keels hispidulous, apex lacerate. Anthers 1.1–1.5 mm. Fl. Jul.

• Desert sands. Xinjiang.

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