

207. DIMERIA R. Brown, Prodr. 204. 1810.

鱧茅属 xi mao shu

Chen Shouliang (陈守良); Sylvia M. Phillips

Didactylon Zollinger & Moritz; *Haplachne* Presl; *Psilostachys* Steudel; *Pterygostachyum* Nees ex Steudel.

Annual or perennial. Culms often delicate, erect to decumbent, nodes bearded, the hairs directed upward. Leaf blades linear; ligule short, membranous. Inflorescence terminal, composed of solitary or subdigitate racemes. Racemes 1-sided, spikelets single, shortly pedicelled, usually overlapping in 2 rows; rachis tough, triquetrous or flattened, spikelets disarticulating from pedicels at maturity; pedicels very short, broad, apex concave, margin truncate. Spikelets lanceolate or narrowly oblong, strongly laterally compressed; callus truncate, shortly bearded; glumes herbaceous or thinly papery, folded with a median keel, keel often winged, lower glume narrower and slightly shorter than upper glume; lower floret reduced to a narrow hyaline lemma; upper floret bisexual, lemma hyaline, a little shorter than upper glume, apex shortly 2-toothed, awned from sinus; awn geniculate, sometimes weakly or almost straight, glabrous; upper palea normally absent. Stamens 2. Caryopsis narrowly oblong, laterally compressed.

About 40 species: India, China, and Japan to Indonesia, the Philippines, and Australia; six species (three endemic) in China.

- 1a. Raceme with triquetrous rachis.
 - 2a. Awn 0.5–2.5 mm; raceme rachis smooth on angles 2. *D. parva*
 - 2b. Awn 6–11 mm; raceme rachis scabrid on angles 1. *D. ornithopoda*
- 1b. Raceme with flattened rachis.
 - 3a. Perennial; racemes (1–)2–3; rachis usually glabrous along margins.
 - 4a. Anthers 1.7–2 mm; upper glume obscurely keeled except below apex, or if keeled throughout, wing narrow 3. *D. falcata*
 - 4b. Anthers ca. 0.8 mm; upper glume distinctly keeled and broadly winged from base to apex 4. *D. guangxiensis*
 - 3b. Annual; raceme solitary; rachis densely ciliate along margins.
 - 5a. Upper glume broadly winged from base to apex 5. *D. sinensis*
 - 5b. Upper glume narrowly winged only in upper 1/3 6. *D. solitaria*

1. *Dimeria ornithopoda* Trinius, Fund. Agrost. 167. 1820.

鱧茅 xi mao

Annual, delicate. Culms very slender, erect, 3–40(–60) cm tall, 2–17-noded. Leaf sheaths keeled, usually hispid, hairs scattered, tubercle-based; leaf blades green when young, becoming reddish, soft, 1.5–5 × 0.1–0.25 cm, hispid with scattered tubercle-based hairs or glabrescent; ligule 0.5–1 mm, lacerate. Racemes 2–3(–5), subdigitate, 1–6(–10) cm, ascending at first, then divergent; rachis triquetrous, scabrid on angles, internodes 1–3 mm; pedicels ca. 0.2 mm, glabrous. Spikelets linear-oblong, 1.7–3.2(–4.5) mm, usually purple or reddish brown; glumes herbaceous with broad scarious margins, scabrid, sometimes with a few long stiff hairs near top of keel, or stiffly pilose throughout, keel usually wingless, occasionally upper glume narrowly winged, apex acute; upper lemma elliptic-lanceolate, 1.6–2 mm; awn 6–11 mm, geniculate; upper palea absent. Anthers 0.4–0.6 mm. Fl. and fr. Sep–Nov.

Streams, moist places, often gregarious; below 2000 m. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Henan, Jiangsu, Jiangxi, Sichuan, Taiwan, Yunnan, Zhejiang [India, Indonesia, Japan, Korea, Laos, Malaysia, Myanmar, Nepal, Philippines, Thailand, Vietnam; SW Asia (Oman), Australia, Pacific Islands (Polynesia)].

This is a widespread, polymorphic species, in which a number of infraspecific taxa has been recognized.

- 1a. Upper glume with rounded midline or sharply keeled only at apex, wingless 1a. subsp. *ornithopoda*
- 1b. Upper glume sharply keeled throughout,

keel narrowly winged 1b. subsp. *subrobusta*

1a. *Dimeria ornithopoda* subsp. *ornithopoda*

鱧茅(原亚种) xi mao (yuan ya zhong)

Dimeria hirtella B. S. Sun; *D. tenera* Trinius.

Culms 3–40 cm tall. Racemes 2–3, 1–6 cm. Spikelets 1.7–3 mm; lower glume shorter than spikelet, dorsally scabrid, papery, margin membranous; upper glume with rounded midline or sharply keeled only at apex. Fl. and fr. Oct–Nov.

Streams, moist places; below 2000 m. Anhui, Guangdong, Guangxi, Jiangsu, Jiangxi, Taiwan, Yunnan, Zhejiang [India, Japan, Korea, Malaysia, Philippines; Australia].

1b. *Dimeria ornithopoda* subsp. *subrobusta* (Hackel) S. L.

Chen & G. Y. Sheng, Fl. Reipubl. Popularis Sin. 10(2): 172. 1997.

具脊鱧茅 ju ji xi mao

Dimeria ornithopoda var. *subrobusta* Hackel in A. Candolle & C. Candolle, Monogr. Phan. 6: 82. 1889; *D. heterantha* S. L. Chen & G. Y. Sheng.

Culms up to 60 cm tall. Racemes 2–5, 2–8.5(–10) cm. Spikelets (2.5–)3–3.5(–4.5) mm; lower glume slightly shorter or equal to spikelet; upper glume sharply keeled throughout, keel narrowly winged. Fl. and fr. Sep–Oct.

Mountain slopes, streams, valleys; below 1100 m. E, S, and SW China [Japan].

Three varieties have been recognized under this subspecies in

China, as follows: var. *subrobusta* Hackel, with culms 9–60 cm tall; spikelets reddish brown or pale, 3–3.5 mm; throughout the range of the subspecies; var. *nana* Keng & Y. L. Yang (J. Nanjing Univ., Nat. Sci. Ed. 1980(4): 109. 1980), with culms 4–12 cm tall, 5–13-noded; spikelets yellow, 3–4 mm; from Anhui; and var. *plurinodis* Keng & Y. L. Yang (loc. cit.), with culms 20–60 cm tall, 8–17-noded; spikelets 2.5–3 mm; from Taiwan.

The name *Dimeria heterantha* is based on an aberrant specimen of *D. ornithopoda*. The lower lemma is a small, hyaline scale, and the upper lemma is geniculate awned as usual. The upper floret possesses a minute palea, and a third awned lemma is placed above it.

2. *Dimeria parva* (Keng & Y. L. Yang) S. L. Chen & G. Y. Sheng, Fl. Reipubl. Popularis Sin. 10(2): 175. 1997.

小鱗茅 xiao xi mao

Dimeria ornithopoda Trinius var. *parva* Keng & Y. L. Yang, J. Nanjing Univ., Nat. Sci. Ed. 1980(4): 108. 1980.

Annual. Culms erect, 5–11 cm tall, 5–15-noded, much branched, nodes slightly pubescent or subglabrous. Leaf sheaths glabrous, longer than internodes except the uppermost; leaf blades linear-lanceolate, 1–3.5 × 0.1–0.25 cm, adaxial surface brownish, abaxial surface pale brown, loosely tuberculate-hairy at base, otherwise glabrous; ligule 0.5–0.7 mm. Racemes 2, 1–2.5 cm; rachis triquetrous, smooth on angles. Spikelets 3–3.5 mm, reddish brown; glumes papery with membranous margins, glabrous, upper glume winged along keel, apex acute or acuminate; upper lemma subtire; awn flexuous, 0.5–2.5 mm, usually exerted from spikelet; upper palea absent. Anthers yellow, ca. 0.5 mm. Caryopsis ca. 1.5 mm.

- Streams. Taiwan.

This species differs from *Dimeria ornithopoda* by its much-branched habit, subglabrous nodes, and subtire upper lemma with a straight awn included within the spikelet.

3. *Dimeria falcata* Hackel in A. Candolle & C. Candolle, Monogr. Phan. 6: 85. 1889.

镰形鱗茅 lian xing xi mao

Perennial. Culms tufted, wiry, erect or rooting at lowest nodes, 20–70 cm tall, branching, 2–9-noded. Leaf sheaths hirsute with short tubercle-based hairs; leaf blades dark green or reddish, linear, 10–20 × 0.2–0.3 mm, hirsute, adaxial surface with broad white midrib, apex finely acuminate; ligule 0.4–0.5 mm. Racemes 2–3, slightly curved, 2–7 cm, divergent; rachis flattened, margins winged, wing margin scabrid or white-ciliate, internodes 1.5–2 mm; pedicels 0.4–0.5 mm, bearded on outer or both margins. Spikelets linear-oblong, 3.5–4.5 mm, reddish brown or nearly purplish; glumes papery, upper glume with broad scarious margins, back rounded, keeled and scabrid or narrowly winged below apex, or keeled and winged throughout, white-pilose near margins and on keel, apex acute; upper lemma oblanceolate, ca. 2.5 mm; awn 7–10 mm, geniculate; upper palea absent. Anthers 1.7–2 mm. Fl. and fr. autumn.

Swampy slopes, lakesides. Fujian, Guangdong, Guangxi, Taiwan [India, Myanmar, Thailand, Vietnam].

- 1a. Raceme rachis scabrid along margins; upper glume obscurely keeled except below apex, winged only below apex 3a. var. *falcata*
- 1b. Raceme rachis white-ciliate along margins; upper glume sharply keeled throughout, keel narrowly winged 3b. var. *taiwaniana*

3a. *Dimeria falcata* var. *falcata*

镰形鱗茅(原变种) lian xing xi mao (yuan bian zhong)

Dimeria falcata var. *tenuior* Keng & Y. L. Yang.

Rachis of raceme scabrid along margins. Upper glume rounded on back, only keeled below apex, keel winged or not. Fl. and fr. autumn.

Swampy slopes, lakesides. Fujian, Guangdong, Guangxi, Taiwan [India, Myanmar, Thailand].

3b. *Dimeria falcata* var. *taiwaniana* (Ohwi) S. L. Chen & G. Y. Sheng, Fl. Reipubl. Popularis Sin. 10(2): 179. 1997.

台湾鱗茅 tai wan xi mao

Dimeria taiwaniana Ohwi, Acta Phytotax. Geobot. 4: 58. 1935.

Rachis of raceme white-ciliate along margins. Upper glume distinctly keeled from base to apex, keel narrowly winged.

Moist slopes. Fujian, Taiwan [Vietnam].

4. *Dimeria guangxiensis* S. L. Chen & G. Y. Sheng, Bull. Bot. Res., Harbin 13: 77. 1993.

广西鱗茅 guang xi xi mao

Annual. Culms erect, 35–40 cm tall, 6–8-noded, branching. Leaf sheaths densely hairy, hairs tubercle-based; leaf blades linear-lanceolate, 2–5 × 0.15–0.35 cm, adaxial surface reddish brown, abaxial surface yellowish brown, puberulous, hairs tubercle-based, apex acuminate; ligule ca. 0.5 mm. Racemes 1–2, 2.5–3.5 cm; rachis ca. 0.8 mm wide, usually glabrous. Spikelets oblong, ca. 3.5 mm, brown; lower glume shortly ciliate along keel, upper glume broadly winged along keel, wing margin shortly ciliate; upper lemma ca. 2.5 mm; awn ca. 8 mm, almost straight. Anthers ca. 0.8 mm. Caryopsis ca. 2 mm. Fl. and fr. Oct.

- Grassy hillsides; below 500 m. Guangxi.

5. *Dimeria sinensis* Rendle, J. Linn. Soc., Bot. 36: 359. 1904.

华觶茅 hua xi mao

Annual. Culms slender, erect, 12–40 cm tall, usually unbranched, 5–8-noded. Leaf sheaths reddish with age, hispid, hairs tubercle-based; leaf blades linear, 1.5–9 × 0.2–0.4 cm, abaxial surface green, smooth and glabrous, adaxial surface reddish, setose with tubercle-based 3–5 mm bristles, especially near margins; ligule ca. 0.5 mm. Raceme solitary, 2–5.5 cm, slightly flexuous; rachis flattened, 0.4–0.7 mm wide, margins narrowly winged, densely ciliate with white silky hairs; internodes ca. 1.5 mm; pedicels 0.3–0.5 mm, white bearded on outer margin. Spikelets oblong, 3.5–4 mm, reddish brown or purplish brown; glumes papery, sharply keeled, keel of upper glume broadly winged from base to apex, lower glume keel and upper glume wing margin densely white-ciliate, abaxial flank silky-white villous near margin, adaxial flank sparsely hairy, apex acute; upper lemma oblong, ca. 2.7 mm; awn 12–14 mm, geniculate; upper palea absent. Anthers ca. 1.2 mm. Caryopsis oblong, ca. 2.5 mm. Fl. and fr. autumn.

Hillsides, roadsides, damp waste ground; below 1000 m. Anhui, Fujian, Guangdong, Guangxi, Jiangsu, Jiangxi, Zhejiang [Thailand].

6. *Dimeria solitaria* Keng & Y. L. Yang, J. Nanjing Univ., Nat. Sci. Ed. 1980(4): 106. 1980.

单生觶茅 dan sheng xi mao

Annual. Culms erect or slightly geniculate at base, 9–19 cm tall, 3–6-noded. Leaf sheaths puberulous, hairs tubercle-based; leaf blades linear, 1–3 × 0.1–0.25 cm, abaxial surface and margins loosely tuberculate-hairy; ligule ca. 0.4 mm. Raceme solitary, 1.5–2.5 cm; rachis flattened, ca. 1 mm wide, margins densely ciliate. Spikelets oblong, ca. 3 mm, reddish brown; glumes papery, lower glume densely ciliate along keel, densely pubescent near margins; upper glume densely ciliate along keel, narrowly winged along upper 1/2 of keel; upper lemma ca. 2 mm; awn 8–10 mm, geniculate. Anthers ca. 0.8 mm.

- Damp waste ground. Guangdong.

This species is related to *Dimeria sinensis*, but is a smaller plant, with the upper glume winged only in the upper third.

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