

### 5. MELOCALAMUS Benth in Benth & J. D. Hooker, Gen. Pl. 3: 1212. 1883.

梨藤竹属 li teng zhu shu

Li Dezhu (李德铢); Chris Stapleton

Clump-forming climbing bamboo, tall, with slender culms. Rhizomes short necked, pachymorph. Culms flexuose, nearly solid; nodes slightly prominent. Branch complements several to many, 1 dominant and sometimes about as thick as and replacing main culm. Culm sheaths persistent, leathery; auricles present, sometimes very small; ligule short, inconspicuous; blade erect or reflexed, large. Leaf blade large or medium sized, lanceolate to oblong-lanceolate, rounded at base. Inflorescence iterant, glomerate, on large leafless flowering branches, subtended by 1-keeled prophylls. Spikelets 2-flowered, with rachilla extension, small, to 4 mm. Glumes 2, ovate, glabrous; lemma similar to glumes. Palea 2-keeled, equal to or slightly longer than lemma. Lodicules 3, glabrous, ciliate on margin. Stamens 6; filaments free. Ovary stalkless, glabrous; style very short; stigmas 2 or 3, plumose. Caryopsis berrylike, globose, 1.5–2 cm, with fleshy pericarp, without endosperm, sometimes viviparous.

About five species: Bangladesh, S China, India (Assam), Myanmar; four species (three endemic) in SW China.

In addition to the species treated below, *Melocalamus ningmingensis* Ohrnberger (Bamboos World Introd. 4: 19. 1997) was published as a *nomen novum* for *M. gracilis* W. T. Lin (J. S. China Agric. Univ. 14(3): 110. 1993, not R. B. Majumdar, 1989), which was described from sterile material from Guangxi (Ningming).

1a. Culm sheath auricles conspicuous.

2a. Culm sheath apically truncate, symmetrical; internodes 25–35 cm, solid or subsolid ..... 1. *M. compactiflorus*

2b. Culm sheath apically oblique, asymmetrical; internodes 45–50 cm, hollow, wall ca. 5 mm thick ..... 2. *M. scandens*

1b. Culm sheath auricles absent or inconspicuous.

3a. Culm internodes 70–120 cm; culm sheath apically with thin projection 1–2 cm on each side ..... 3. *M. elevatissimus*

3b. Culm internodes 20–40(–60) cm; culm sheath apically truncate ..... 4. *M. arrectus*

**1. Melocalamus compactiflorus** (Kurz) Benth in Benth, Gen. Pl. 3: 1212. 1883.

梨藤竹 li teng zhu

Culms to 40 m, 1.5–5 cm in diam.; internodes initially green, becoming gray-green, 25–35 cm, solid or nearly so; wall thick; nodes slightly thickened, each with a white ring below. Branches several, main mid-culm ones to 10 m. Culm sheaths pale brown, ca. 1/2 as long as internodes, leathery, appressed pubescent, margins ciliate, apex truncate; auricles conspicuous; ligule 1–5 mm, ciliate or fimbriate; blade recurved, base ca. 3/4 as wide as sheath apex. Leaf sheaths white pubescent, margins ciliate; ligule very short, pubescent; auricles and oral setae conspicuous; blade lanceolate, 7.5–15 × 0.7–1.2 cm. Pseudospikelets 1.2–1.4 mm; prophylls to 0.8 mm; gemmiferous bracts 2 or 3; fertile florets 1–3. Glumes 2 or 3; fertile lemma 1–1.3 mm; palea slightly longer than lemma, narrow, bifid for 1/3 length. Lodicules absent to 3. Anthers pale yellow, apex purple, apiculate. Ovary ovoid to turbinate; style 1, ca. 1.2 mm; stigmas 1–3. Caryopsis 2–4 cm.  $2n = 76^*$ .

River valleys in tropical rain forests, forested hills; 400–1700 m. S Yunnan [Bangladesh, NE India, Myanmar].

1a. Culm sheath ligule not fimbriate ... 1a. var. *compactiflorus*

1b. Culm sheath ligule fimbriate ..... 1b. var. *fimbriatus*

**1a. Melocalamus compactiflorus var. compactiflorus**

梨藤竹(原变种) li teng zhu (yuan bian zhong)

*Pseudostachyum compactiflorum* Kurz, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 42: 252. 1873; *Dinochloa compactiflora* (Kurz) McClure.

Plant taller, with thinner culms. Culm sheath ligule much

shorter, not fimbriate; leaves smaller.

River valleys in tropical rain forests; 400–1000 m. S Yunnan [Bangladesh, NE India, Myanmar].

**1b. Melocalamus compactiflorus var. fimbriatus** (Hsueh & C. M. Hui) D. Z. Li & Z. H. Guo, Acta Bot. Yunnan. 23: 178. 2001.

流苏梨藤竹 liu su li teng zhu

*Melocalamus fimbriatus* Hsueh & C. M. Hui, Acta Phytotax. Sin. 30: 167. 1992.

Plant shorter, with thicker culms. Culm sheath ligule much longer, fimbriate; leaves larger.

• Forested hills; 1000–1700 m. S Yunnan.

**2. Melocalamus scandens** Hsueh & C. M. Hui, Acta Phytotax. Sin. 30: 166. 1992.

大吊竹 da diao zhu

Culms to 20 m, 2–4 cm in diam.; internodes 45–50 cm; wall ca. 5 mm thick; nodes flat, each with a brown tomentose ring above and below. Branches several, dominant ones to 6 m. Culm sheaths brown, asymmetrical, leathery, initially minutely powdery, apex oblique; auricles asymmetrical, with some oral setae; ligule ca. 1 mm, entire; blade erect, triangular, base about as wide as sheath apex. Leaf sheaths glabrous; auricles minute; ligule ca. 1 mm; blade lanceolate, 15–25 × 1.5–2.5 cm. Inflorescence unknown.

• Broad-leaved montane forests; 700–1000 m. S Yunnan.

**3. Melocalamus elevatissimus** Hsueh & T. P. Yi, J. Bamboo Res. 2(1): 28. 1983.

西藏梨藤竹 xi zang li teng zhu

Culms to 20 m, 1.5–3 cm in diam.; internodes 40–70 (–120) cm, initially hispid; wall 4–10 mm thick; nodes flat, each with a brown tomentose ring below. Branches several, main mid-culm ones to 6 m. Culm sheaths dark brown, 24–38 cm, leathery, with appressed, minute, yellow spiny hairs, apex with thin projections 1–2 cm on each side; auricles absent; ligule depressed, ca. 1 mm; blade erect, linear-lanceolate, base articulate. Leaf sheaths glabrous; auricles absent; ligule ca. 1 mm; blade oblong-lanceolate, 20–40 × 3–9 cm. Inflorescence unknown.

- Broad-leaved montane forests; 900–2000 m. SE Xizang.

This species appears very similar to *Cephalostachyum latifolium*.

**4. *Melocalamus arrectus*** T. P. Yi, Acta Bot. Yunnan. 10: 440. 1988.

澜沧梨簾竹 lan cang li teng zhu

Culms 10–15 m, 2–4 cm in diam.; internodes 20–40(–60) cm, initially pubescent; wall rather thick; nodes prominent, each with a ring of white powder and tomentum below. Branching from 2nd to 3rd nodes upward, 1–3 dominant, to 8 m. Culm sheaths pale brown, ca. 1/3 as long as internodes, leathery, appressed pubescent, apex truncate; auricles minute; oral setae few, deciduous; ligule ca. 1 mm, ciliate; blade erect, triangular or ovate-triangular. Leaf sheaths glabrous; ligule ca. 1 mm; auricles absent; oral setae absent to 2, minute; blade lanceolate, 12–22 × 2.2–4 cm. Flowering branches leafy or leafless; internodes densely pubescent. Pseudospikelets minute. Glumes 2, 1.5–2 mm; rachilla internodes ca. 0.5 mm; lemma ca. 2 mm; palea membranous. Lodicules linear-lanceolate, 1–1.5 mm. Anthers ca. 1 mm. Ovary ovoid, glabrous. Caryopsis globose, ca. 2 cm.

- Tropical rain forests, secondary forests; 700–1900 m. S Yunnan.

This species was previously referred to by the name "*Dinochloa bambusoides*" (Q. H. Dai, Bamboo Spec. & Cultivation Guangxi, 9. 1987), which was not validly published.

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