

Dendrocalamus yingjiangensis (Poaceae), a new species of bamboo from western Yunnan Province of China

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Dendrocalamus yingjiangensis D.Z. Li & H.Q. Yang (Poaceae), a new species of bamboo from western Yunnan, China, is described and illustrated. It is characterized by light-brown culm sheaths, branching from the eighth or ninth node, equal branchlets, glabrous leaf blade, 15–25 pseudospikelets at each node of flowering branches, 4–6 bracts, 3–4 glumes, and four florets per pseudospikelet.

Dendrocalamus is a woody bamboo genus with ca. 40 species, mainly distributed in subtropical and tropical Asia (Li & Stapleton 2006). Southern and southwestern China has ca. 30 species of *Dendrocalamus* and is the current center of diversity of the genus (Li & Hsueh 2003, Li & Stapleton 2006, Yi *et al.* 2008).

Recently we collected flowering specimens of a *Dendrocalamus* species in western Yunnan. The floret of this species has one plumose stigma, six stamens and completely separate filaments, indicating that it belongs to *Dendrocalamus* rather than to *Gigantochloa*. After studying the specimens and the literature (Li & Hsueh 1988, 1989, 2003, Dransfield & Widjaja 1995, Keng & Wang 1996, Li & Stapleton 2006, Yi *et al.* 2008), it became apparent that we had found a new species.

Dendrocalamus yingjiangensis D.Z. Li & H.Q. Yang, *sp. nova* (Fig. 1)

TYPE: China, Yunnan, Yingjiang County, Sudian, 1711 m

a.s.l., edge of evergreen broad-leaved forest, 25 Sep. 2014 Yang Han-Qi & Cui Yong-Zhong 2014021 (holotype SWFC; isotype KUN!).

Arborescent, culms 10–15 m, 5–10 cm in diameter; tip drooping. Internodes terete, with a ring of brown tomentum below sheath scars; 32–40 cm long, wall 1–1.5 cm thick, initially white powdery, becoming deep green. Branching from eighth or ninth node ca. 2.5–3.5 m above ground; branches several and usually equal. Culm leaves deciduous, thickly leathery, sheaths light brown when young, sparsely brown hairy and easily deciduous; margins broadly rounded; auricles absent; oral setae absent; ligule 2–4 mm long, serrulate; blades erect, ovate-triangular to lanceolate, 3–20 cm long. Leaf sheaths glabrous; ligule 1–2 mm long; auricles absent; blade 5–7, narrowly lanceolate, 15–25 cm long, 2.0–3.0 cm wide. Flowering branches pendulous, leafless, 1–2.5(4) m long; (15)20–25(30) pseudospikelets clustered in a spiky globose mass at each node of flowering branches, 2.0–2.5 cm in diameter.

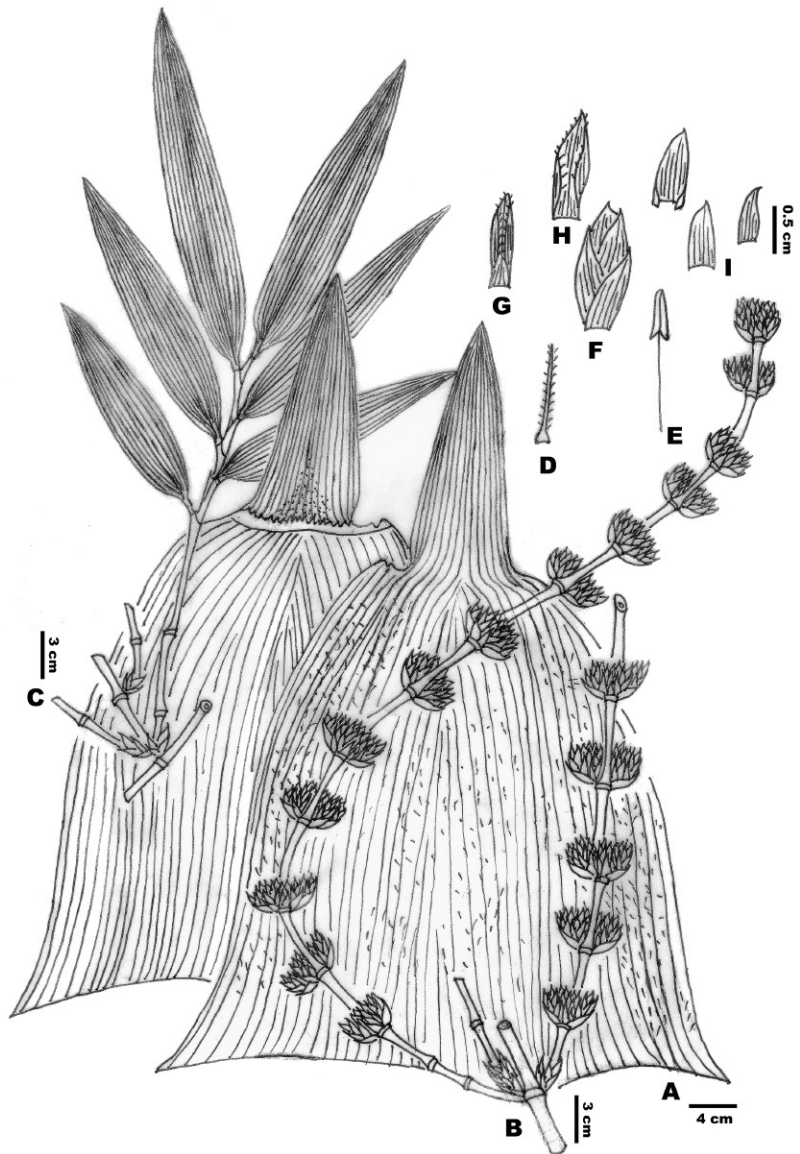


Fig. 1. *Dendrocalamus yingjiangensis* (from the holotype). — **A:** Culm leaf, abaxial (right) and adaxial view. — **B:** Part of flowering branch. — **C:** Leafy branch. — **D:** Pistil. — **E:** Stamen. — **F:** Pseudospikelet. — **G:** Palea. — **H:** Lemma. — **I:** Glume. Scale: 4 cm for **A**, 3 cm for **B** and **C**, 0.5 cm for **D–I**.

Bracts 4–6, 7–9 mm long, 5–7 mm wide, single-keeled. Internodes of secondary flowering branches 2.0–4.5 cm long, flattened on one side above pseudospikelet cluster. Pseudospikelets ovate-lanceolate, apically acute, nearly glabrous, brown, 10–12 mm long, 3–4 mm wide. Florets 4, occasionally 5; densely imbricate. Glumes 3–4, 5–8 mm long, 4–6 mm wide, one-keeled; lemma broadly ovate, 1.0–1.1 cm long, 0.5–0.7 cm wide, margins ciliate, apex mucronate, 0.5–1.0 mm long; palea 0.8–1.0 cm long, 0.3–0.4 cm wide, 2-keeled, keels ciliate. Lodicules absent.

Stamens 6; anthers yellow, ca. 5.0 mm long, and apex mucronate, purple, ca. 1.0 mm long; filaments 1.2–1.5 cm long, separate, white. Pistil 0.8–1.0 cm long, with short hairs. Ovary ovoid, hairy; stigma 1, plumose. Flowering in July–October. Fruit unknown.

Dendrocalamus yingjiangensis morphologically resembles *D. fugongensis*, by having white, powdery surface of the internodes when young, and a similar culm sheath. However, *D. yingjiangensis* differs from *D. fugongensis* in several characteristics (Table 1).

Table 1. Comparison of *Dendrocalamus yingjiangensis* with *D. fugongensis*.

Features	<i>D. yingjiangensis</i>	<i>D. fugongensis</i>
Diameter of culm	5–10 cm	10–15 cm
Internodes of culm	terete	usually slightly grooved on the side above branches
Color of young culm sheaths	light brown	yellow-green
Branching habit	equal branches	one dominant branch
Ultimate branch	5–7 blades	8–10 blades
Leaf blade	glabrous	yellow-brown hairs on base of lower surface
Pseudospikelet cluster	20–25 pseudospikelets	6–14 pseudospikelets
Diameter of pseudospikelet cluster	2.0–2.5 cm	1.0–1.5 cm
Bract number	4–6	2–4
Glume number	3–4	1–2

Dendrocalamus yingjiangensis is known only from Sudian town, Yingjiang County, at the altitude of ca. 1500–1800 m. It has been used for construction purposes and for producing furniture.

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