Flora of China 22: 46–48. 2006.

4. GIGANTOCHLOA Kurz ex Munro, Trans. Linn. Soc. London 26: 123. 1868.

巨竹属 ju zhu shu

Li Dezhu (李德铢); Chris Stapleton

Arborescent bamboos, large-sized; clumps dense. Rhizomes short necked, pachymorph. Culms unicaespitose, erect, pendulous at apex; internodes green initially, often with yellow stripes, terete. Branches several, 1 dominant. Culm sheaths deciduous, very broad, densely hairy; ligule conspicuous; auricles absent or small; blade recurved or erect. Leaves usually large, base cuneate; auricles usually absent; ligule conspicuous; blade cuneate at base, venation not tessellate. Inflorescence iterauctant, fully bracteate, subtended by a narrow single-keeled prophyll, pseudospikelets clustered in soft or spiky globose mass at nodes of leafless flowering branches. Pseudospikelets sessile, prophyllate; florets (1 or)2–5, with a sterile terminal floret with lemma only, sessile. Fertile glumes preceded by 1 or more gemmiferous bracts and 0–2 empty glumes; rachilla very short, obscure, not disarticulating; lemma broad, many veined; palea strongly 2-keeled; lodicules absent. Stamens 6; filaments united into a firm tube; anthers apiculate. Ovary stalked, apex thickened and hairy; stigma 1, long, hairy, plumose. Caryopsis terete, apex hairy; pericarp slightly thickened. 2*n* = 76*.

About 30 species: tropical Asia; six species (two endemic) in China.

There are several to possibly many further entities not yet properly identified, some of which might represent new taxa.

"Gigantochloa menlunenesis" (B. Wen, J. Bamboo Res. 20(2): 10. 2001) was not validly published because no type was indicated.

1a. Leaf sheath ligule 5–10 mm; culm sheath initially densely white hispid ..... 4. *G. verticillata*
1b. Leaf sheath ligule 1–4 mm; culm sheath where known brown hispid or strigose.
2a. Leaf sheath ligule ca. 1 mm.
3a. Leaf sheath gray setose, blade 1.8–3 cm wide; culm sheath brown setose, auricles conspicuous, undulate ..... 1. *G. levis*
3b. Leaf sheath initially sparsely pubescent, blade 3–5 cm wide; culm sheath densely dark brown hispid, auricles minute ..... 2. *G. nigrociliata*
2b. Leaf sheath ligule 1.5–4 mm.
4a. Leaf blade 1.5–2.5 cm wide, ligule 1.5–3.5 mm; culm sheath initially sparsely dark brown hispid, later glabrous ..... 3. *G. albociliata*
4b. Leaf blade 3.5–6 cm wide, ligule 3–4 mm; culm sheath not seen.
5a. Leaf blade 30–45 × 4.5–6 cm ..... 5. *G. felix*
5b. Leaf blade 16–28 × 3.5–4 cm ..... 6. *G. parviflora*

1. Gigantochloa levis (Blanco) Merrill, Amer. J. Bot. 3: 61. 1916.

毛笋竹 mao sun zhu

Bambusa levis Blanco, Fl. Filip. 272. 1837.

Culms 8–15 m, 9–13 cm in diam.; apically drooping; internodes 30–45 cm, initially with brown to white hairs; wall ca. 2.5 mm thick. Culm sheaths deciduous, broadly flabellate, thickly leathery, apex narrow, brown setose; auricles conspicuous, undulate; oral setae 5–7 mm; ligule 6–15 mm, serrulate; blade usually reflexed, ovate-triangular, 9–13 cm, basally with brown setae on both sides. Ultimate branches with 6–10 leaves. Leaf sheath gray setose; ligule ca. 1 mm; blade 15–25 × 1.8–3 cm, abaxially glabrous, adaxially white hairy. Inflorescence unknown.

Riversides, valleys; 500–1000 m. S Yunnan; cultivated in Taiwan [Malaysia, Philippines].

2. Gigantochloa nigrociliata (Buse) Kurz, Natuurk. Tijdschr. Ned.-Indië 27: 226. 1864.

黑毛巨竹 hei mao ju zhu

Bambusa nigrociliata Buse, Pl. Jungh. 3: 389. 1854; *Oxytenanthera nigrociliata* (Buse) Munro; *Pseudoxytenanthera nigrociliata* (Buse) T. Q. Nguyen.

Culms 8–15 m, 4–10 cm in diam.; internodes 36–46 cm, yellow striate, brown hispid; wall thick. Branches several, central ones prominent. Culm sheaths deciduous, brown, 18–22 cm, leathery, densely dark brown hispid; auricles minute; ligule ca. 4 mm, serrulate; blade recurved. Ultimate branches with ca. 11 leaves. Leaf sheath initially sparsely pubescent; ligule ca. 1 mm; blade 19–36 × 3–5 cm. Pseudospikelets in heads ca. 2.5 cm in diam. Spikelets 1–1.2 × 0.2–0.3 cm; florets 2. Glumes 2 or 3, ovate, dark brown ciliate; lemma margins dark brown ciliate; palea shorter than lemma. Anthers yellow. Ovary ovoid; style 6–7 mm; stigmas 1. Caryopsis unknown.

Tropical rain forests; 500–800 m. Hong Kong, S Yunnan [India, Indonesia, Myanmar, Thailand].

3. Gigantochloa albociliata (Munro) Kurz, Prelim. Rep. Forest Pegu, App. A: 136. 1875 [*"albo-ciliata"*].

白毛巨竹 bai mao ju zhu

Oxytenanthera albociliata Munro, Trans. Linn. Soc. London 26: 129. 1868 [*"albo-ciliata"*]; *Dendrocalamus albociliatus* (Munro) J. L. Sun; *Pseudotenanthera albociliata* (Munro) R. B. Majumdar; *Pseudoxytenanthera albociliata* (Munro) T. Q. Nguyen.

Culms 6–10 m, 2–5 cm in diam.; internodes 20–35 cm, white hispid; wall thick. Branches several, subequal. Culm

sheaths deciduous, brown, 18–22 cm, leathery, initially sparsely dark brown hispid, glabrous in age; auricles absent; ligule 10–25 mm, irregularly serrate; blade erect. Ultimate branches with ca. 11 leaves. Leaf sheath initially pubescent, glabrous in age; ligule 1.5–3.5 mm, ciliate; blade 15–20 × 1.5–2.5 cm. Inflorescence on leafless branches. Pseudospikelets 10–20 per head. Spikelets 1.5–2 × 0.1–0.15 cm; florets 1 or 2. Glumes 2 or 3, ovate, white ciliate; lemma margins white ciliate; palea shorter than lemma. Anthers yellow. Ovary narrowly ovoid; style 6–7 mm; stigmas 1(or 2). Caryopsis unknown.

Tropical rain forests; 500–800 m. S Yunnan [India, Myanmar, Thailand].

4. Gigantochloa verticillata (Willdenow) Munro, Trans. Linn. Soc. London 26: 123. 1868.

花巨竹 hua ju zhu

Bambusa verticillata Willdenow, Sp. Pl. 2: 245. 1799; *Arundo maxima* Loureiro (1790), not Forsskål (1775); *B. maxima* (Loureiro) Poiret; *B. pseudoarundinacea* Steudel; *Gigantochloa maxima* (Loureiro) Kurz; *G. pseudoarundinacea* (Steudel) Widjaja.

Culms 8–15 m, 7–10 cm in diam.; internodes yellow striate, 28–42 cm, white or brown hispid; wall ca. 1.6 cm thick. Branches several, central dominant. Culm sheaths deciduous, green, yellow striate initially, later brown, leathery, initially densely white hispid, margins ciliate; auricles minute, inconspicuous; oral setae absent; ligule ca. 3 mm, irregularly serrate or fimbriate; blade reflexed. Leaf sheath initially pubescent; ligule 5–10 mm, entire; blade 24–47 × 3.5–7 cm. Inflorescence unknown.

Tropical rain forests; 500–800 m. Hong Kong, S Yunnan [India, Indonesia, Malaysia, Myanmar, Thailand, Vietnam].

The application of names to this bamboo has been contentious and it is widely known as *Gigantochloa pseudoarundinacea*. Further study of types is required.

This species is widely planted as an ornamental.

5. Gigantochloa felix (Keng) P. C. Keng, J. Bamboo Res. 3(1): 24. 1984.

滇竹 dian zhu

Oxytenanthera felix Keng, J. Wash. Acad. Sci. 30: 425. 1940.

Culms to 9 m; internodes unknown. Culm sheaths unknown. Leaf sheath initially pubescent; glabrous in age; ligule concave, 3–4 mm; blade 30–45 × 4.5–6 cm. Inflorescence on leafless branches. Pseudospikelets in heads to 5 cm in diam. Spikelets 1.6–2.2 cm; florets 4. Glumes 1–3, ovate, white ciliate or glabrous; lemma 1.1–1.7 cm, ciliate or glabrous; palea 11–15 cm, uppermost one rounded. Filament tube ca. 1.5 cm; anthers 4–7 mm. Ovary narrowly ovoid; style ca. 1 cm; stigmas 1, ca. 9 mm. Caryopsis unknown.

● Riversides, valleys; 1200–1400 m. S Yunnan.

This imperfectly understood species is known only from its type gathering. It may represent one of many little-known, cultivated *Gigantochloa* species of S Yunnan, or it may perhaps have become extinct in the wild.

6. Gigantochloa parviflora (P. C. Keng) P. C. Keng, J. Bamboo Res. 3(1): 24. 1984.

南峤滇竹 nan qiao dian zhu

Oxytenanthera parviflora P. C. Keng, Acta Phytotax. Sin. 6: 358. 1957.

Culms and culm sheaths unknown. Leaf sheath ligule trun-

cate, ca. 3.5 mm; blade 16–28 × 3.5–4 cm. Inflorescence on leafless branches. Pseudospikelets in heads to 4 cm in diam. Spikelets 1–1.5 cm; florets 3. Glumes 2, ovate, 2–3 mm, glabrous; lemma 8–14 mm, ciliate; palea equal to lemma, uppermost one rounded. Filament tube ca. 0.8 cm; anthers 4–8 mm. Ovary ca. 1.5 cm. Caryopsis unknown.

● River valleys; ca. 1400 m. S Yunnan.

This imperfectly understood species is known only from its type gathering, and it may perhaps have become extinct in the wild.

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