

城隍竹——福建竹亚科一新种

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摘要:报道了竹亚科(Bambusoideae)少穗竹属(*Oligostachyum* Z. P. Wang et G. H. Ye)一新种——城隍竹(*O. heterophyllum* M. M. Lin)。该新种分布于我国福建西部, 它与糙花少穗竹[*O. scabriflorum* (McClure) Z. P. Wang et G. H. Ye]相似或近缘, 但秆小, 直径不超过 1.5 cm; 秆箨淡紫绿色, 背面具有瘤基刺毛, 无斑点, 无白粉, 亦无焦边, 基部密被细刚毛; 箨片直立, 基部不收缩; 箨舌淡禾秆色; 叶鞘被细微柔毛而与后者相区别。

关键词: 竹亚科; 少穗竹属; 新种; 福建

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Oligostachyum heterophyllum, A New Species of Bambusoideae from Fujian

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Abstract: *Oligostachyum heterophyllum* M. M. Lin, a new species from western Fujian, China is described and illustrated. It is similar or related to *O. scabriflorum* (McClure) Z. P. Wang et G. H. Ye on morphological characters, but differs in its thin culm with less than 1.5 cm in diam., culm sheaths initially pale purple-green, setose, bases of setae forming persistent papillae and has no spots abaxially, no white powdery and scorched edge, base with densely fine setae; ligule pale stramineous; blade erect, base unshrunked; leaf sheaths puberulous.

Key words: Bambusoideae; *Oligostachyum*; New species; Fujian

The rare and threatened plants in Fujian Province were investigated in winter of 2014. We started from the core of Zhonghuang in the Tingjiangyuan National Nature Reserve in the beginning of December, climbed over the Wuyi Mountain Watershed and then entered into Ganjiang River basin from Tingjiang River basin, a sippet evergreen broad-leaved forest was found in a valley of the Gucheng Town, named Magezhai (25°48'30" N, 116°10'53" E). The upper layer is composed of tall tree species, such as *Castanopsis tibetana*, *C. fordii*, *C. lamontii*, *C.*

fargesii, *Altingia gracilipes* and *Phoebe bournei*. The middle layer is consist of *Machilus pauhoi*, *Acer pubinerve*, *Mallotus lianus*, *Engelhardia fenzelii*, *Vernicia montana* and *Huodendron biaristatum* var. *parviflorum*. The lower layer is dominant by an unknown bamboo with the local name Cheng Huang Zhu (城隍竹).

Based on several field investigations and observation by artificial cultivation during recent two years, this species rhizomes are amphipodial (Fig. 1: C), showing that it isn't attributed to the genus

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Indosasa McClure and *Acidosasa* C. D. Chu et C. S. Chao^[1-3], because the rhizomes of *Acidosasa* and *Indosasa* are monopodial. Secondly, the two ridge villus of prophyll outside the bud of the young stem is light gray (Fig. 1: E), which means the species doesn't belong to *Sinobambusa* Makino ex Nakai^[1-2], because *Sinobambusa* was purple hairs. Finally, culm internodes of this species are strongly flattened above branches; culm supra-nodal ridge substantially raised (Fig. 1: F), which coincides with the discriminant feature of the genus *Oligostachyum* listed in the key of Flora of China^[4].

In addition, the culm sheaths are purple-green

when fresh, pale brown when dry; absence of auricle and oral setae, or with only 1-2 setae on the lower culm sheath; leaves usually 2-3 per ultimate branch, are linear-lanceolate with a width of no longer than 1.5 cm etc. Overall, we strongly believe that this species is a new member of the genus *Oligostachyum*.

The genus *Oligostachyum* Z. P. Wang & G. H. Ye includes 16 species and all distributed in China^[4]. From the Wuyi Mountains and its east, to the five ridges mountains, some species up to the middle of the Yangtze River Basin. There are 7 species recorded in Fujian^[1]. A key to the known species of *Oligostachyum* from Fujian is provided below.

Key to *Oligostachyum* species from Fujian

- 1a. Culm internodes obclavate, lower ones gradually thickened downward; midculm branches 3-7 per node, subequal in diam.
..... *O. oedogonatum* 肿节少穗竹
- 1b. Culm internodes of culm cylindrical, not thickened, midculm branches 3 per node, or if more than 3, then conspicuously unequal in diam.
- 2a. Culm sheath abaxially strewn with brown strigose hairs or later with striae; culm sheath ligule long brown ciliate
..... *O. spongiosum* 斗竹
- 2b. Culm sheath abaxially sparsely setulose; culm sheath ligule glabrous or short ciliolate.
- 3a. Culm sheaths densely retrorsely setulose at base; culm internodes and leaves abaxially puberulent *O. heterophyllum* 城隍竹
- 3b. Culm sheaths without setulose at base; culm internodes and leaves abaxially mostly glaucous.
- 4a. Culm sheaths dark brown or straw-colored when dry; leaf sheath ligule the length is 3 mm *O. exauriculatum* 无耳少穗竹
- 4b. Culm sheaths uniformly straw-colored when dry; leaf sheath ligule less than 2 mm.
- 5a. Basal culm sheaths with longitudinal spots or streaks *O. scabrifolium* 糙花少穗竹
- 5b. Basal culm sheaths without longitudinal spots or streaks.
- 6a. Culm sheaths pubescent at base only *O. glabrescens* 屏南少穗竹
- 6b. Culm sheaths uniformly setose or strigose.
- 7a. Culm sheaths without auricles and oral setae, uniformly thickly white powdery *O. sulcatum* 少穗竹
- 7b. Culm sheaths with small auricles and developed oral setae, without powder *O. lubricum* 四季竹

Oligostachyum heterophyllum M. M. Lin sp. nov. 城隍竹 Fig. 1

Rhizomes amphipodial. Culms erect, slightly zigzag, 3-4 m tall, 1-1.5 cm in diam.; pith spongy; internodes 15-35 cm, pale gray-green, initially pubescent, flattened with longitudinal ridges and grooves in the branching side, white powdery especially below nodes; culm nodal ridge significantly prominent, sheath scar initially with short and brown setae. Intranodes 5 mm wide, smooth. Branched 3 at

each node, middle branch thicker and longer. Culm buds ovate, adnate, margins peritrichous. Culm sheaths caducous, purple-green when fresh, pale brown when dry, thinly leathery, 1/2-2/3 as long as internodes, ovate-triangular, abaxially clavate-setose, lengthwise veins distinct, cross-connecting veinlets indistinct, densely setulose at base, margins ciliate; auricle absent, oral setae absent on sheath margins or sometimes 1-2 erect oral setae in 1-2 mm length; ligule truncate or slightly prominent, pale stramineous,

ca. 1 mm tall, margins short ciliate; blade lanceolate, 1–2 cm long, 2–3 mm wide, abaxially pubescent, margins sparse ciliate. Leaves dimorphic, 4–5 on the branchlets at the apex of the culm, larger, 15–25 cm long, 3–4.5 cm wide, secondary veins 6–8 pairs; others (1)2–3(5) per ultimate lateral branch, smaller,

leaf sheath pale green, pubescent, upper margins ciliate; auricle absent or sometimes 1, oral setae absent on sheath margins or sometimes 1(3) in 2 mm length, erect; ligule developed, ca. 3 mm prominent, pale grey, pubescent; petiole 2–3 mm long, abaxially pubescent; blade lanceolate or narrowly lanceolate,



Fig. 1 *Oligostachyum heterophyllum* M. M. Lin. A: Plant; B: Branches and leaves; C: Rhizomes; D: Young shoots; E: Bud; F: Culm node; G: Culm sheath; H: Leaf sheath and ligule.

8–15 cm long, (0.6)1–1.5(2) cm wide, thick papery, apex lanceolate and finely acuminate, base cuneate to rounded-cuneate, adaxially glabrous, abaxially grey-green, pubescent, secondary veins 4–5 paired, cross-connecting veinlets slightly distinct, margins serrated and scabrous. Inflorescence unknown. New shoots in March.

Fujian: Changting County, Gucheng Town, Magezhai, 25°48'30" N, 116°10'53" E; alt. 500 m, near a stream in a valley, understory; 2015–04–24, LIN Qin-wen et al. 01-06 (holotype, FJFC).

This species is close related to *O. scabriflorum*. But this species differs from *O. scabriflorum* by smaller culm with a diameter less than 1.5 cm, culm sheath palely purplish-green clavate-setose and not spotted abaxially, no white powdery and scorched edge, base with densely fine setae, ligule pale stramineous, blade erect, base unshrunked, leaf sheaths

puberulous.

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