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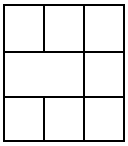

Cover images: *Begonia tjiasmantoi* Ardi & D.C.Thomas. A. Habit. B. Stipule. C. Male. D. Male inflorescence and female flower. E. Male flower. F. Female flower. G. Infructescence. H. Ovary cross-section, axile placentation and bilamellate placentae. A–H from *WI 562*. Photos: W.H. Ardi.

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NOTES ON *FIMBRIBAMBUSA* WIDJAJA, WITH A NEW SPECIES FROM THE LESSER SUNDA ISLANDS

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ABSTRACT
WIDJAJA, E. A. 2020. Notes on *Fimbribambusa* Widjaja, with a new species from the Lesser Sunda Islands. *Reinwardtia* 19(1): 55–59. — A new species, *Fimbribambusa rifaiana* Widjaja from Alor Island (Lesser Sunda Islands), is described and *F. soejatmiae* Widjaja & Ervianti, previously described contrary to Art. 40.7 of the ICN (2018), is validated. An improved generic concept of *Fimbribambusa* and an identification key to the Indonesian species are presented.

Key words: Alor, *Fimbribambusa rifaiana, Fimbribambusa soejatmiae,* Indonesia, scrambling bamboos.

ABSTRAK
WIDJAJA, E. A. 2020. Catatan tentang *Fimbribambusa* Widjaja dengan sebuah jenis baru dari Kepulauan Sunda Kecil. *Reinwardtia* 19(1): 55–59. — Sebuah jenis baru, *Fimbribambusa rifaiana* Widjaja dari P. Alor (Kepulauan Sunda Kecil), disajikan dan *F. soejatmiae* Widjaja & Ervianti, yang diterbitkan sebelumnya bertentangan dengan Art. 40.7. ICN (2018) divalidasi. Konsep marga *Fimbribambusa,* ditingkatkan dan kunci identifikasi jenis *Fimbribambusa* Indonesia disajikan.

Kata kunci: Alor, *Fimbribambusa rifaiana, Fimbribambusa soejatmiae, Fimbribambusa,* Indonesia, serabutan.

INTRODUCTION

Among the scrambling bamboos found in the Indonesian archipelago species of *Fimbribambusa* are overlooked or poorly documented. This genus was segregated from *Bambusa* in the wide sense due to its morphological distinctions, including well-developed patellas or fimbriae at the culm nodes (Widjaja, 1997). Besides that, there are also special characteristics of the inflorescence that make this genus distinctive from typical *Bambusa.* The discovery of *Fimbribambusa* in both South Sulawesi and Alor (Lesser Sunda Islands) now allows an improvement of its generic delimitation. Its closest relative could be *Temburongia* S.Dransf. & Wong (1996), which is, however, very distinctive from *Fimbribambusa* by the indeterminate inflorescences and 2–3 pseudospikelets per node. *Fimbribambusa* and *Temburongia* are now placed in the same tribe Temburongiinae (Wong *et al*., 2016). To further understand *Fimbribambusa* in the Malesian region, it will also be necessary to recollect the Philippines "*Bambusa cornuta*" mentioned by Brown & Fisher (1918), collected at Nueva Vizcaya and Benguet. The Isinai tribe called this bamboo *lopa*. This bamboo is expected to represent a species of *Fimbribambusa* based on the characters of prominent horns at the apex of the leaf sheath, but it may also possibly be included under *Temburongia* depending on the inflorescence morphology once that can be studied.

A New Species of *Fimbribambusa* From Alor Island

During an expedition to Alor Island in 2004, Widjaja (2005) reported that there were seven species of bamboo growing there. She mentioned that one of them could be a new species of *Fimbribambusa*. Further study has confirmed that this species is indeed new to science, so it is described here.

Fimbribambusa rifaiana Widjaja, *spec. nov.* — TYPE: INDONESIA, East Nusa Tenggara, Alor, near Kalabahi, *Widjaja EAW 7583* (Holotype BO–1973651!; Isotype BO–1973652!, 1973653!, 1973654!, 1973655!, 1973656!, 1973657!, 1973658!, 1973659!, 1973660!, 1973661!, 1973662!, 1973663!, 1973664!, 1973665!). Fig. 1.

Resembling *Fimbribambusa soejatmiae*, but differing in its culm sheath auricles with few bristles (not glabrous), ligule with fine hairs (not glabrous), leaf sheath auricles that are small (not big) with many long bristles (not few and short bristles), and acuminate lemmas with long pointed apex (not mucronate).

Young culm shoot light green, covered by white wax. *Culm* scrambling with patella/knee developing at nodes, 2–3.5 mm wide. *Branches* typically one dominant primary axis bearing smaller higher-order branchlets. *Culm sheath* glabrous, covered by white wax when young, becoming smooth when older, sheath proper 12–15 cm long, apex horizontal; auricles horn-like, stiff, 3–5 mm high, with few bristles 7 mm long, on one or both sides; ligule with entire to irregular margin, 1.5–2 mm high with few short bristles; blade spreading to deflexed, lanceolate, 9 cm long, 2 cm wide near the base, narrowly attached for about 0.9–1.2 cm at the junction with the horizontal sheath apex. *Leaves* 24.5–30.5 × 4.5–8.5 cm, glabrous, apex acuminate, base somewhat rounded or short-tapering, asymmetric, petioles 3–8 mm long; *leaf sheath* auricles horn-like, stiff, 1–2 mm high, bristles 8 mm long; ligules entire, 1 mm high with short and very fine bristles. *Inflorescence* indeterminate, pseudospikelets 8–9 mm long, with 1 fertile proximal floret 6–9 mm long and 1 shorter sterile distal floret, rachilla 5–9 mm long; glumes 2, mucronate, 3–4 mm long; lemma 6–9 mm long, apical part usually hirsute on the back and margins, acuminate with a long-pointed apex; palea acute with a pointed apex, 4–5 mm long, glabrous; lodicules absent; style hairy; anthers yellowish, filaments free, 3–4 mm long; stigmas 3.

Habitat. On limestone rocks and hillslopes along the seashore, 20 m asl.

Etymology. This species is named after Prof. Dr. Mien A. Rifai, the mycologist at the Herbarium Bogoriense (BO) who described some fungal novelties on bamboos.

Specimens examined. Lesser Sunda Island, Nusa Tenggara Timur, Kalabahi, *Widjaja EAW 7583* (BO).

Fimbribambusa soejatmiae Widjaja & Ervianti: A Correction

Fimbribambusa soejatmiae Widjaja & Ervianti was described in Reinwardtia 18(2): 131–132. 2019. That name was invalidly published because it was contrary to Article 40.7 of the International Botanical Code (Turland *et al.*, 2018), which states that the type specimen should be a single herbarium specimen. Ervianti *et al.* (2019) indicated two holotypes, which is not allowed. Here I provide valid publication of that species, as follows.

Fimbribambusa soejatmiae Widjaja & Ervianti, *spec. nov*. — TYPE: INDONESIA, Sulawesi, South Sulawesi. Maros, Bantimurung Subdistrict, Cagar Alam Karenta, Taman Nasional Bantimurung Bulusaraung, *Widjaja EAW 4* (Holotype BO–1917884!).

Resembling *Fimbribambusa microcephala*, but differing in its horizontal culm sheath apex (not recessed), 1 fertile floret (not 2–3 florets), partly hairy (not glabrous) lemmas and lack of (as opposed to having) lodicules. Fig. 10 in Reinwardtia 18(2): 131. 2019

Culm scrambling with patella/knee developing at the nodes, 3–5 mm wide. *Branches* one lateral dominant axis with smaller higher-order branches. *Culm sheath* glabrous, sheath proper 16.2–21.8 × 6.8–10.1 cm, apex horizontal, 1.4–2.1 cm wide; auricles horn like, stiff, 2–5 mm high, glabrous; ligules entire, 1–2 mm high, glabrous; blade deflexed, lanceolate, base ovate, 17–19.5 cm long, 2–2.7 cm wide near the base, about 0.5–0.6 cm wide at the junction with the sheath. *Leaves* 5.8–32.5 × 1.2–10.1 cm, glabrous, apex acuminate, base somewhat rounded and briefly constricted to truncate, petiole 2–5 mm long; *leaf sheath* auricles horn–like, stiff, 3–5 mm high, bristles up to 6 mm long; ligules irregularly dentate, 1 mm high without bristles. *Inflorescence* indeterminate, pseudospikelets, 6–7 mm long, fertile floret 1 and sterile floret 1, rachilla 1 mm long, floret 5–6 mm long; glumes 2, mucronate, 2–2.5 mm long; lemma 5–5.5 mm long, hairy, mucronate; palea two-keeled, 5.5–6 mm long, apex bifid, glabrous; lodicules absent; style hairy; anthers yellowish, filaments free, 2–3 mm long; stigmas 3.

Habitat. On limestone rocks, 20 m asl.

Etymology. Dr. Soejatmi Dransfield is a bambusologist based at the Royal Botanical Gardens Kew, much dedicated to studying the bamboos of Madagascar, Malesia and Thailand.

Vernacular name. Bambu nana (Maros).

Specimens examined. **South Sulawesi**. Maros, Tompok Balang, 27 September 1975, *Soejatmi Soenarko 319* (BO); Sw Peninsula, NE of Makassar within 54–60 km on the road, 4 July 1976, *Meijer 10821* (BO, L, US); Maros, Bantimurung Subdistrict, Cagar Alam Karenta, Taman Nasional Bantimurung Bulusaraung, *Widjaja EAW 4* (BO); Maros, Bantimurung Subdistrict, Patunuang Asue Village, Along the road after Biseang Labboro Bridge, 22 June 2010, *Widjaja EAW 9015* (BO, K, L).

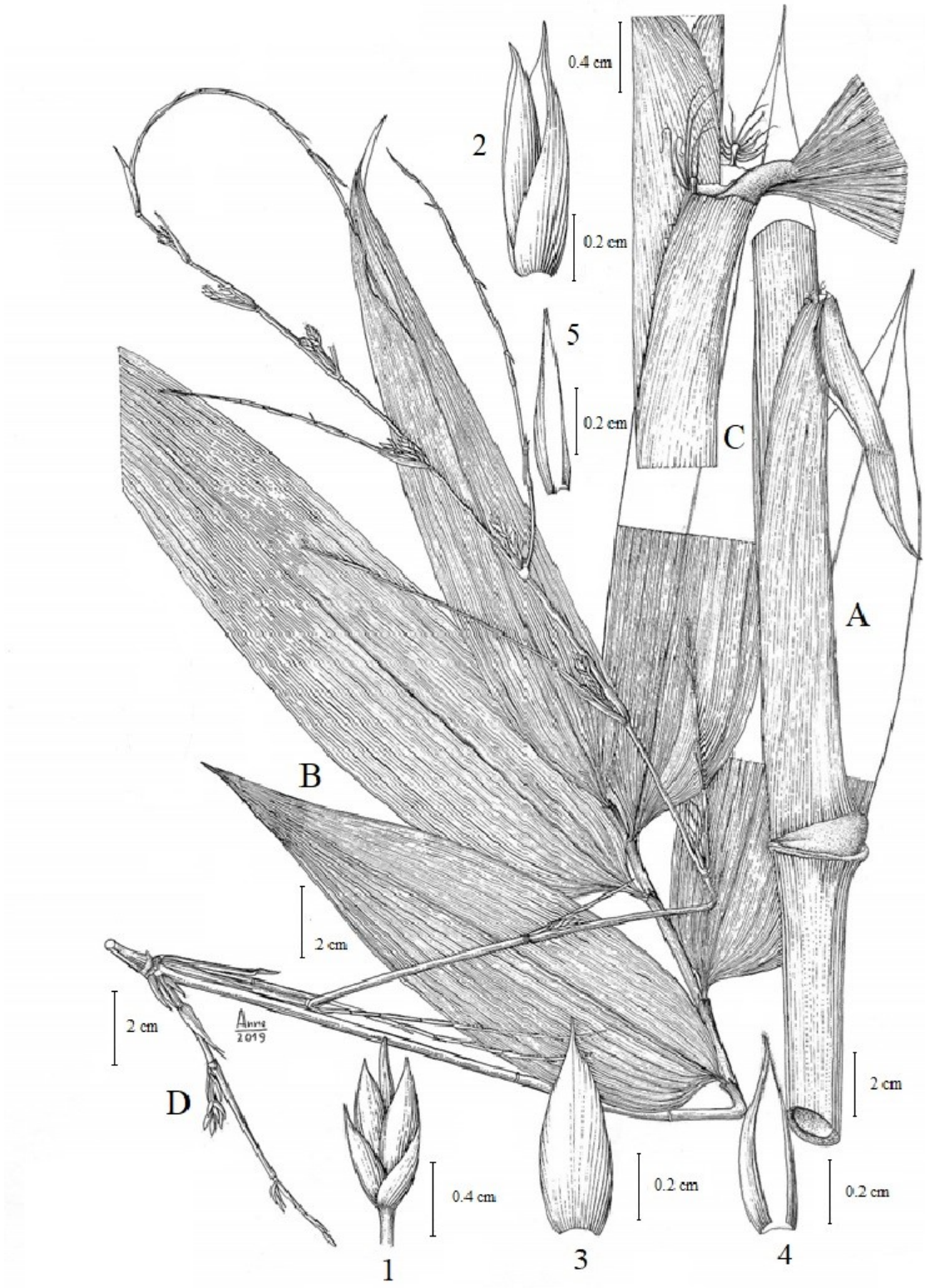

Fig. 1. *Fimbribambusa rifaiana* Widjaja, *spec. nov*. A. Culm sheath of young shoot, B. Leafy branch. C. Leaf sheath apex, D. Inflorescence (1. Pseudospikelet, 2. Floret, 3. Glume, dorsal view, 4. Lemma, ventral view, 5. Palea, ventral view). From *Widjaja 7583* (BO), drawing by Anne Kusumawaty.

An Improved Generic Concept of *Fimbribambusa*

The generic delimitation of *Fimbribambusa* was published in Reinwardtia 11(2): 80. 1997 and originally consisted of two species, *F. horsfieldii* (Munro) Widjaja and *F. microcephala* (Pilger) Widjaja. In the present publication, two more species are added from South Sulawesi and Alor Island. We take this opportunity to provide an updated generic delimitation here.

FIMBRIBAMBUSA

Fimbribambusa Widjaja, Reinwardtia 11: 81. 1997. TYPE SPECIES: *Fimbribambusa horsfieldii* (Munro) Widjaja.

Scrambling, loosely tufted bamboo, rhizomes sympodial. *Shoots* pale to dark green, glabrous, with a dense white waxy covering. *Culms* green with white wax and erect when young, when older and taller the culm tips and branches scrambling over adjacent trees, to more than 10 m long, nodes developing a narrow to wide patella or fimbriae, branches with one dominant axis that elongates when the main culm is cut or damaged, with several smaller higher-order branches. *Culm sheath* auricles horn–like; glabrous or with short to long bristles, apex horizontal or recessed; blades spreading to reflexed. *Leaves* glabrous, broadly lanceolate, pseudopetiole short; *leaf sheath* auricles horn–like, with short to long bristles sometimes developing on one side only or caducous; ligule entire, with short to fine hairs or glabrous. *Inflorescences* terminating leafy branches, indeterminate, each node with one sessile pseudospikelet and 2–3 short-pedicellate pseudospikelets. Pseudospikelet of two prophylls, 1–3 fertile florets and 1 sterile floret; lemma hirsute or glabrous; palea two-keeled, margins glabrous or hairy, apex shortly bifid; lodicules 2–3 or absent, membranaceous, entire, glabrous or slightly ciliate; stamens 6, yellow, filaments free; ovary ovoid, glabrous or hairy, not thickened at the apex; style apical, long, hairy; stigmas 3, plumose, white.

Distribution. East Java, South Sulawesi, Papua, Papua New Guinea, Alor.

Habitat. Dry soils, lowland to 950 m asl.

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I would like to thank to Dr. Helen Hartley (K) who is the content editor for the International Plant Names Index who alerted us that the new species *F. soejatmiae* Widjaja & Ervianti was not validly published. I also like to thank the Director of the Herbarium Bogoriense (BO) for her permission to use my old collections for describing *F. rifaiana*. I sincerely thank the reviewers who kindly provided constructive criticisms of this paper. Thanks are due to Anne Kusumawaty who made the drawing for this publication.

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An Identification Key to Indonesian *Fimbribambusa*

1a. Patella 2–3 mm wide. Culm sheath auricles 5–8 mm long. Leaf sheath auricles 5–9 mm long, bristles absent or, if any, up to 7 mm long. ……..……... *F. horsfieldii* (Munro) Widjaja

1b. Patella 3–6 mm wide. Culm sheath auricles 3–5 mm long. Leaf sheath auricles 1–5 mm long, with many long bristles up to 8 mm long…….. 2

2a. Apex of culm sheath recessed in the middle, pseudospikelet consisting of 2–3 fertile florets, lemma glabrous, lodicules present…….……...…..... *F. microcephala* (Pilger) Widjaja

2b. Apex of culm sheath horizontal in the middle, pseudospikelet with only 1 fertile floret, lemma partly hairy, lodicules absent……..... 3

3a. Culm sheath auricles with few bristles, ligule with fine hairs, leaf sheath auricles 1–2 mm long with many long bristles up to 8 mm long, lemma acuminate with long pointed apex…. *F. rifaiana* Widjaja

3b. Culm sheath auricles glabrous, ligule glabrous, leaf sheath auricles 3–5 mm long with few bristles up to 6 mm long, lemma mucronate…….……..... *F. soejatmiae* Widjaja & Ervianti

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