


THE TYPIFICATION OF *GIGANTOCHLOA TALUH* WIDJAJA & ASTUTI (POACEAE, BAMBUSOIDEAE)

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ABSTRACT

DAMAYANTO, I. P. G. P., RUSTIAMI, H., MIFTAHUDIN & CHIKMAWATI, T. 2023. The typification of *Gigantochloa taluh* Widjaja & Astuti (Poaceae, Bambusoideae). *Reinwardtia* 22(1): 31–35. — The name of *Gigantochloa taluh* Widjaja & Astuti (Poaceae, Bambusoideae) was invalid because of failure to meet the requirements of the International Code of Nomenclature for Algae, Fungi, and Plants, that there was no herbarium location of type specimens was mentioned. A typification was provided here to address this issue.

Key words: Bamboo, *Gigantochloa taluh*, holotype, typification.

ABSTRAK

DAMAYANTO, I. P. G. P., RUSTIAMI, H., MIFTAHUDIN & CHIKMAWATI, T. 2023. Tipifikasi *Gigantochloa taluh* Widjaja & Astuti (Poaceae, Bambusoideae). *Reinwardtia* 22(1): 31–35. — Nama *Gigantochloa taluh* Widjaja & Astuti (Poaceae, Bambusoideae) dinyatakan tidak sah karena tidak memenuhi persyaratan Kode Tata Nama Internasional untuk alga, jamur, dan tumbuh-tumbuhan, yaitu tidak menyebutkan lokasi herbarium dari spesimen tipe. Tipifikasi diberikan untuk mengatasi masalah ini.

Kata kunci: Bambu, *Gigantochloa taluh*, holotipe, tipifikasi.

INTRODUCTION

Gigantochloa taluh Widjaja & Astuti (2004: 203) was first described in *Reinwardtia* volume 12(2) (Widjaja *et al.*, 2004). Vorontsova *et al.* (2016) in their bamboo checklist assigned this taxon as having the status of “unplaced name”. After observing the specimen, scrutinizing the protologue, and reading relevant literature, we noticed that the name *G. taluh* was invalid due to it being contrary to Article 37.6 of the International Code of Botanical Nomenclature (ICBN) (Greuter *et al.*, 2000), which was in force when the name was originally published. Article 37.6 of ICBN indicated that for

the name of a new species or infraspecific taxon published on or after 1 January 1990 of which the type is a specimen or unpublished illustration, the single herbarium or collection or institution in which the type is conserved must be specified (Greuter *et al.*, 2000). The name *G. taluh* is unplaced or cannot be put into synonymy because no type material is indicated. Therefore, it cannot be established to which species the name applies (POWO, 2023). This circumstance also aligns with the latest version of the International Code of Nomenclature (ICN) for Algae, Fungi, and Plants, where *G. taluh* is contrary to Article 40.7 (Turland *et al.*, 2018). Widjaja *et al.* (2004), did not mention

A

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Gigantochloa taluh Widjaja & Astuti

Details References (2) Distributions (1)

Group: Monocot **Rank:** species **Kind:** Name of a new Taxon **Herbarium Placement:** Lehmann, lower, A, 19

Authors:
Widjaja, Elizabeth A.
Astuti, Inggit Pudji

Published In: Reinwardtia 12(2): 203–204, f. 10. 2004. (22 Nov 2004) (Reinwardtia)

Type-Protolog
Locality: Indonesia: Bali: Botanical Garden Ekakarya
Collector and Number: IP 456
Distribution: Indonesia
Institutions(s): HT: BO-1606183

Higher Taxa: Taxonomy Browser

B

BO-1606183

BO-1606183

HERBARIUM BOGORIENSE (BO)
PUSLIT BIOLOGI – LIPI, BOGOR, INDONESIA

POACEAE

Gigantochloa taluh Widjaja & Astuti

Locality: Bali, Bali, , Baturiti, , Ekakarya Botanical Garden.

Latitude
Longitude
Altitude
Habitat

Collector(s) Inggit Puji Astuti

No. EAW IP 456 Date : Juli 2002

Local Name jajang taluh

Habit

Notes Erect culm, culm 27.5 - 40 cm, diameter 1.8 - 2.6 cm. Culm sheath blade deflexed when mature, erect when young. Culm sheath appressed.

Determined By Elizabeth A. Widjaja Date : 7/10/2003

Duplicates sent to BO,K
Please notify Herbarium Bogoriense of new identification of this specimen

TYPE

HERBARIUM BOGORIENSE (BO)
PUSLIT BIOLOGI – LIPI, BOGOR, INDONESIA

POACEAE

Gigantochloa taluh Widjaja & Astuti

Locality: Bali, Bali, , Baturiti, , Ekakarya Botanical Garden.

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Fig. 1. Screen capture of Tropicos (2023) database portal and specimen of *Inggit Puji Astuti* EAW IP 456 (BO) with zoom-in on BO number and specimen label.

the herbarium where the type specimen of *G. taluh* was deposited. The original citation of the type specimen was less accurate as the collector's name of the type specimen was not mentioned (see Article 9.2 ICN of Turland *et al.*, 2018). Here, we provide the typification of *G. taluh*.

Typification in plant taxonomy studies refers to the process of prescribing type (Rao, 2017). A nomenclature type (*typus*) is that element to which the name of a taxon is permanently attached (see Article 7.2 of Turland *et al.*, 2018). Typification helps determine the correct application of taxa names and establishes nomenclatural types (see Turland *et al.*, 2018). Typification can be published independently with the aim of providing valid and accepted taxon names as soon as possible (see de Oliveira *et al.*, 2009; Haevermans *et al.*, 2013) or this is typically done during taxonomic revisions (see Vorontsova *et al.*, 2013; Veldkamp, 2016), the preparation of synopsis (see Essi *et al.*, 2017), monographs (see Snow *et al.*, 2018), checklists (see Kellogg *et al.*, 2020), proposals for conserving the taxon name (see Greuter and Rodríguez, 2015), the resurrection or reinstatement of submerged taxa (see Nobis *et al.*, 2022), and the presentation of taxon name combinations (see Banfi *et al.*, 2017). In Indonesian bamboos, several typifications have been carried out, such as Widjaja's (1987) revision of the genus *Gigantochloa* in Malesia, which also involved typification. Widjaja and Wong (2016) also performed typification when making a new combination in the genus *Chloothamnus* in Malesia, and Widjaja (2020) conducted typification on the *Fimbribambusa soejatmiae* Widjaja & Ervianti published by Ervianti *et al.* (2019), which has two different collection numbers of type specimens. Typification of *G. taluh* is required in this study to support the author's ongoing bamboo taxonomic research in the Lesser Sunda Islands.

MATERIALS AND METHODS

Herbarium specimens of *Gigantochloa taluh* stored in Herbarium Bogoriense (BO) and Herbarium Hortus Botanicus Baliensis (THBB) were gathered for observation. In addition, a photograph of a type specimen of *G. taluh* in the protologue was also consulted for comparison.

TYPIFICATION

GIGANTOCHLOA TALUH Widjaja & Astuti, Reinwardtia 12(2): 203. 2004.

Type: Bali, Baturiti, Ekakarya Botanical Garden, Inggit Puji Astuti *EAW IP 456* (holotype BO!, code: BO-1606188; isotype perhaps K [not seen]).

Distribution. Endemic to Bangli, Bali and cultivated in "Eka Karya" Bali Botanical Garden in Tabanan, Bali.

Notes. Our research revealed some interesting findings regarding the type specimens of *G. taluh*. We found a discrepancy in the *G. taluh* herbarium holotype code on the Tropicos (2023) database portal, which should be BO-1606188, not BO-1606183 (Fig. 1A, red arrow and 1B, BO number zoomed-in). In addition, the information on the label of the Inggit Puji Astuti's specimen *EAW IP 456* (Fig. 1B, label zoomed-in) mentions that a duplicate was sent to K. However, this is not listed in the Widjaja's *et al.* protologue (2004). Unfortunately, we were unable to find scanned images of the Inggit Puji Astuti's specimen *EAW IP 456* in K through the GBIF (2023), JSTOR (2023), and KEW HERBARIUM CATALOGUE (2023) database portals. It should be noted that there may be duplicates of this specimen in K, yet this specimen in K may not be a current priority for scanning and online publication, or there was a typo in writing the label and it was never sent to K. In normal practice, when duplicates of specimens are distributed to other herbaria, the acronym(s) of recipient herbaria on the label is marked (checked or circled). However, on the label of Inggit Puji Astuti's specimen *EAW IP 456* (Fig. 1B, label zoomed-in), the herbarium acronym is not marked, raising doubts about the shipment of duplicate of this specimen to K. Mrs. Inggit Puji Astuti (pers. comm., 2023) stated that the specimen *EAW IP 456* was collected during the beginning of her study of bamboo. Unfortunately, she does not know if specimen *EAW IP 456* was sent to K. This doubt is supported by information provided by Ismail Apandi (pers. comm., 2023), the loan officer of BO who responsible for sending and receiving specimens, that he does not have any data regarding the shipment of Inggit Puji Astuti's specimen *EAW IP 456* to K or other herbaria. Therefore, it is possible that Inggit Puji Astuti's specimen *EAW IP 456* was never sent to K. Nevertheless, in this article, we are constrained by limited evidence and inconclusive interpretation and decide to write that the isotype of Inggit Puji Astuti's specimen *EAW IP 456* probably exists in K due to the information provided by the specimen label.

In addition, the collection number of Inggit Puji Astuti's specimen *EAW IP 456* is also interesting because the additional code "EAW" is attached, referring to the abbreviation of the name of a retired senior bamboo researcher at BO, Prof. Dr. Elizabeth A. Widjaja. In the Widjaja *et al.* (2004), the previous label attached to the type specimen of *G. taluh* had IP as the sole collector. Thus, we presume that the "EAW" was added later to a new label due to one reason or another and present to date.

ACKNOWLEDGEMENTS

We would like to express our sincere gratitude to the Director of Scientific Collection Management (Herbarium Bogoriense and Herbarium Hortus Botanicus Baliensis of “Eka Karya” Bali Botanical Garden), National Research and Innovation Agency for granting us access to the specimens of *Gigantochloa taluh*. IPGPD want to thank Gusti Made Sudirga (“Eka Karya” Bali Botanical Garden) for his invaluable assistance, as well as, Inggit Puji Astuti (Bogor Botanical Garden) and Ismail Apandi (Herbarium Bogoriense) for the valuable information provided. We would like to express our sincere gratitude to the anonymous blind reviewers who provided their insightful comments and feedback. The author gratefully acknowledges Liam A. Trethowan (Royal Botanic Gardens, Kew) for helping the English matter.

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