



## *Musa cylindrica*, a new species of *Musa* (Musaceae) from North-East India

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### Abstract

A new species of *Musa* belonging to the Sect. *Musa* from Meghalaya, North-East India is described as *Musa cylindrica*. A detailed description, distribution, ecology, phenology and key to the related species are provided.

**Key words:** *Musa*, *Musa cylindrica*, Musaceae, North-East India

### Introduction

The genus *Musa* Linnaeus (1753: 1043) belongs to the family Musaceae, which includes two additional genera, *Ensete* Bruce ex Horaninow (1862: 40) and *Musella* (Franchet) C.Y.Wu in Li (1978: 57). India is well known for its vast genetic diversity of members of Musaceae comprising seeded wild species to seedless cultivars of various levels of ploidy. In India the family is represented by 31 taxa under two genera, *Ensete* and *Musa* and is largely distributed in Northeastern States, the Western Ghats, Eastern Ghats and Andaman and Nicobar Islands. However, many regions within its center of diversification in northeastern India have not been explored systematically due to various factors such as inaccessibility in dense evergreen forests and civil unrest.

The genus *Musa* had been divided into different sections or subgenera, viz. *Physocaulis*, *Musa* (= *Eumusa*) and *Rhodochlamys* (Baker 1893). Nevertheless, the most accepted classification is that of Cheesman (1947), which includes four sections: *Australimusa* (2n=20), *Callimusa* (2n=20), *Musa* (= *Eumusa*) (2n=22) and *Rhodochlamys* (2n=22) based on chromosome number and morphological characters. A fifth section viz. *Ingentimusa*, is established by Argent (1976) based on Simmonds species from Papua New Guinea, *M. ingens* N.W.Simmonds (1960: 198) with a chromosome number 2n=2x=14. Recently Häkkinen (2013) restructured *Musa* species into two sections, sect. *Musa* and sect. *Callimusa* based on many molecular phylogenetic studies on the genus *Musa*.

This paper focuses on a new species of *Musa* coming under sect. *Musa*, which is distributed in northeastern India, a biodiversity rich area, with maximum diversity in the order Zingiberales from where the authors could describe numerous new taxa. As a part of the DST Project the authors could make exploration in the northeastern India, and collected several interesting specimens of *Musa*. Recently some new taxa have been described by the authors from North-East India viz. *M. velutina* subsp. *markkuana* M.Sabu *et al.* (2013a: 50), *M. velutina* var. *variegata* A.Joe *et al.* (2014a: 13), *M. sabuana* Prasad *et al.* (2013: 151), and *M. arunachalensis* A.Joe *et al.* (Sreejith *et al.* 2013: 50). Besides these there are some new additions to the wild banana flora of India. Sabu *et al.* (2013b) and Joe *et al.* (2013a) recorded the occurrence of *M. chunii* Häkkinen (2009: 87) and *M. laterita* Cheesman (1949: 265) respectively from India. Joe *et al.* (2013b, 2013c; 2014b) also made some rediscoveries viz. *M. cheesmanii* N.W.Simmonds (1957: 479), *M. flaviflora* N.W.Simmonds (1957: 471), *M. mannii* H.Wendl. ex Baker (1892: 263), *M. ochracea* K.Sheph. (1964: 461) and *M. thomsonii* (King ex Baker) A.M.Cowan & Cowan (1929: 135) after a lapse of long years.

*Musa cylindrica*, a new species from North-East India is described and illustrated based on morphology. This species can be distinguished from the nearby species using the following key.

### Key to closely related *Musa* species of North-East India

1. Pseudostems 1.8–2.1 m high, flowers deep yellow..... *M. flaviflora*
- Pseudostems 2.2–3.5 m high, flowers cream orange or light orange.....2
2. Male bud degenerate before fruit maturity, compound tepal equal to stigma in female flower..... *M. acuminata*
- Male bud continues to grow after fruit maturity, compound tepal exceeding the stigma in female flower.....3

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