

## Short Communication

# A new record on naturalization of *Trachycarpus* (Arecaceae) in Assam, India

Selim Mehmud and Himu Roy

Department of Botany, Cotton University, Panbazar, Guwahati-781001, Assam, India

(Received: March 24, 2022; Revised: July 27, 2022; Accepted: July 30, 2022)

## ABSTRACT

The current study includes first authentic information on the occurrence of the genus *Trachycarpus* and naturalization of the species *T. martianus* in Jatinga of Dima Hasao district of Assam. Taxonomic description, photographs and other relevant information are included in this study

**Key words:** Palm, genus, species, addition, Assam, India

## INTRODUCTION

The genus *Trachycarpus* H. Wendl., recorded with eight species in totality from Southern Asia, which were mainly distributed in Bhutan, China, India, Myanmar, Nepal, Thailand and Vietnam (Henderson, 2009). India represented by five species viz. *T. latisectus* in Sikkim and West Bengal; *T. martianus* in Meghalay, Nagaland and Manipur; *T. oreophilus* in Manipur; *T. takil* in Uttarakhand, and *T. fortunei* without state locality (Henderson, 2009). Similar distribution of all these five species in India were also mentioned by Renuka & Sreekumar (2012), except extension of distribution for *T. fortunei* from Sikkim and *T. takil* from Kumaon; later Mao *et al.* (2017) reported occurrence of *T. takil* in Nagaland state. Therefore northeastern region of India represented by total four species of this genus, but no species was previously reported from the state Assam (Lorex, 2007; Henderson, 2009; Renuka & Sreekumar, 2012; Kholia 2012; Barooah & Ahmed 2014; Borthakur *et al.*, 2018; Mehmud & Roy, 2021).

During a field survey to Jatinga of Dima Hasao district in Assam, the spot is famous and mysterious as bird's suicide place, the species *Trachycarpus martinianus* was observed in fruiting. Total 19 genera with 44 species of the family Arecaceae were recorded in Assam (Mehmud & Roy, 2021). The occurrence of the genus *Trachycarpus* with the species *T. martinianus* is new information for both genus and species rank in the state. The present paper deals with a taxonomic description of this species along with digital photographs (Figure 1) and other information is provided here.

## MATERIAL AND METHODS

Collection of plant materials along with photographs and GPS location were taken on the spot. Identification and its confirmation followed consultation of relevant taxonomic literature (Kimmach, 1977; Henderson, 2009;

Renuka & Sreekumar, 2012; Gibbons & Spanner, 2013) and herbaria of Botanical Survey of India (ASSAM, ARUN, CAL) during 2018 to 2020, as well as virtual herbaria (K, NYBG); and web portal like "Palm Web" also browsed for relevant information. Specimens were processed for voucher preparation by following standard protocols (Jain & Rao, 1977; Dransfield, 1986), and vouchers deposited in ASSAM and in the herbarium of Department of Botany, Cotton University.

## RESULTS

### Taxonomic enumeration

*Trachycarpus martianus* (Wall.) H. Wendl.

Pleonanthic, solitary, un-branched erect, woody, palm tree. Stem round, brown, ca. 15 cm in diameter, leaf scars prominent. Leaves palmate, ca. 1.2 m long, 18–22 in numbers; petiole ca. 2.2 cm wide, and ca. 1.3 cm thick, green, base with brown fibers, margin smooth or denticulate, young petiole covered by white tomentum, adaxially flat, abaxially angular; hastula round, adaxially prominent; blade ca. 70 cm long, and ca. 110 cm wide, adaxially green, abaxially grayish white; leaflets 67–72 in numbers, mid vein abaxially prominent, entire, bifid, acute. Flowers not seen; infructescence interfoliar, branched to 4 orders, ca. 70 cm long, rachis round, ca. 1.8 cm in diameter, bracts tubular, alternate. Rachillae many, 5–11 cm long, yellow; fruiting perianth tubular with three fruits, one mature and others degenerated. Immature fruit yellow, oblong, ca. 9 × 6 mm, one side smooth, round and another side flat with a longitudinal groove; seed one, yellow, basally attached, ellipsoid, ca. 6 × 5 mm, one side rounded another side flat with longitudinal groove.

**Fruiting:** January-February

**Habitat:** Prefers rocky cliff and sun exposed areas.

\*Corresponding Author's E-mail: mehmudselim@gmail.com

**Specimen examined:** INDIA, Meghalaya, Shillong, Lake Garden, 16.07.1963, *G. K. Deka* 35719 (ASSAM 62383); Assam, Dima Hasao, Jatinga, 25° 07'48.2" N, 093°01'36.5" E, 439 m, 02.02.2021, *S.*

*Mehmud* 282 (ASSAM; Herbarium of Department of Botany, Cotton University). USA, California, Santa Barbara, Ganna, Walska Lotus Land 695 Ashley Rd, 34°26' N, 119°39' W, 89 m, 08.04.1996, *C. R. Annable* 2969 (NYBG 00201287!).



**Figure 1.** *Trachycarpus martianus* (Wall.) H. Wendl. A. Habit B. Stem C. Leaf D. Adaxial surface of the leaf E. Abaxial surface of the leaf F. Inflorescence G. Immature fruits. Scale bar: 1 cm; Graph unit: 2.5 mm)



## ACKNOWLEDGMENTS

We are thankful to the Head of the Department of Botany, Cotton University; Director of Botanical Survey of India; authorities of the herbaria K and NYBG; PCCF (WL) Guwahati, Assam; local people of Jatinga for help during the collection.

## REFERENCES

- Barooah, C. and Ahmed, I. 2014. Plant diversity of Assam: A checklist of Angiosperms and Gymnosperms. Assam Science Technology and Environment Council, Assam, p 599.
- Borthakur, S. K., Bawri, A., Boro, D. and Boro, A. 2018. Flora of BTAD (Bodoland Territorial Area Districts, Assam). EBH Publisher (India), Guwahati-1, Assam, India, Vol. IV, p 209–218.
- Dransfield, J. 1986. A guide to collecting palms. *Annals of Missouri Botanical Garden* 73 (1): 166–176. <https://doi.org/10.2307/2399148>
- Gibbons, M. and Spanner, T. 2013. *Trachycarpus* in the wild and in cultivation. *The Plantsman* 100–105.
- Henderson, A. 2009. *Field Guide to the palms of Southern Asia*. Princeton University Press, United States of America, p 199.
- Jain, S. K. and Rao, R. R. 1977. *A handbook of field and herbarium methods*. Today & Tomorrow's Printer and Publishers, India, p 157.
- Kholia, B. S. 2012. Rediscovery of *Trachycarpus martianus* in the Sikkim Himalaya. *Palms* 56 (1): 5–10.
- Kimnach, M. 1977. The species of *Trachycarpus*. *Princeps* 21: 155–160.
- Lorex, M. 2007. A taxonomic revision of *Trachycarpus martianus* (Wall.) H. Wendl. *Current Science* 92 (15): 1678–1679.
- Mao, A. A., Odyuo, N., Verma, D. and Singh, P. 2017. Check list of flora of Nagaland. Botanical Survey of India.
- Mehmud, S. and Roy, H. 2021. Diversity and distribution of palms (Arecaceae) in Assam, India. *Check List* 17 (1): 69–93. <https://doi.org/10.15560/17.1.69>
- Renuka, C. and Sreekumar, V. B. 2012. *A field guide to the palms of India*. Kerala Forest Research Institute, Peechi, Thrissure, Kerala, India, p 256.

