

***Mitrephora tomentosa* Hooker f. & Thomson (Annonaceae): a new record to the flora of Manipur in Northeast India**

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Abstract

Mitrephora tomentosa Hooker f. & Thomson (Annonaceae) is reported as a new distributional record for Manipur in North-East India from the Amambilok Sacred Grove, Andro, a part of the subtropical forest of Nongmaiching Hill, Manipur.

Key words: *Mitrephora tomentosa*, new record, Manipur, sacred grove.

INTRODUCTION

Mitrephora tomentosa Hooker f. & Thomson is a primitive member of Annonaceae (Bora & Kumar 2003). The genus *Mitrephora* (Blume) Hooker f. & Thomson consists of ca. 47 species with the center of diversity in Borneo and the Philippines which further extends into China, India and Australia (Weerasooriya & Saunders 2010). Though widespread, many species have narrow and localized distribution and known by limited collections (Ramana *et al.* 2015). The genus is characterized by leaf opposed or extra axillary (rarely terminal) inflorescences, sepals distinct from the outer petals, the outer petals usually larger than the inner petals, inner petals apically connivent to form a mitriform dome over the reproductive parts, the androecium composed of numerous “uvarioid” stamens with apically expanded connectives and carpels few to many with biseriate ovules (Weerasooriya & Saunders 2005). The genus is represented by 5 species in India, namely, *M. andamanica* Thothathri & D. Das, *M. harae* H. Ohashi, *M. grandiflora* Beddome, *M. heyneana* (Hooker f. & Thomson) Thwaites and *M. tomentosa* Hooker f. & Thomson. The first two are endemic while the remaining three have distribution extended to neighboring Bangladesh, Myanmar, Sri Lanka and Southern China (Hainan), Cambodia, Laos, Vietnam and Thailand (Mittra 1993; Weerasooriya & Saunders 2010).

MATERIALS AND METHODS

The specimens were collected from the Amambilok Sacred Grove, Andro, Manipur which is located between 24° 45' 23" and 24° 45' 33" North Latitudes and 94° 02' 22" and 94° 02' 44" East Longitudes in the northeastern part of India and situated 820 – 920 m above msl. The climate of the area is subtropical having monsoon from June to October while the winter prevails during November to February. The plant was identified using different floras covering northeast Indian states (Hooker & Thomson 1872; Bora & Kumar 2003;

Mitra 1993) and was matched at ASSAM Herbarium. The voucher specimen has been deposited at the Plant Museum, Department of Life Sciences, Manipur University, Canchipur, Imphal.

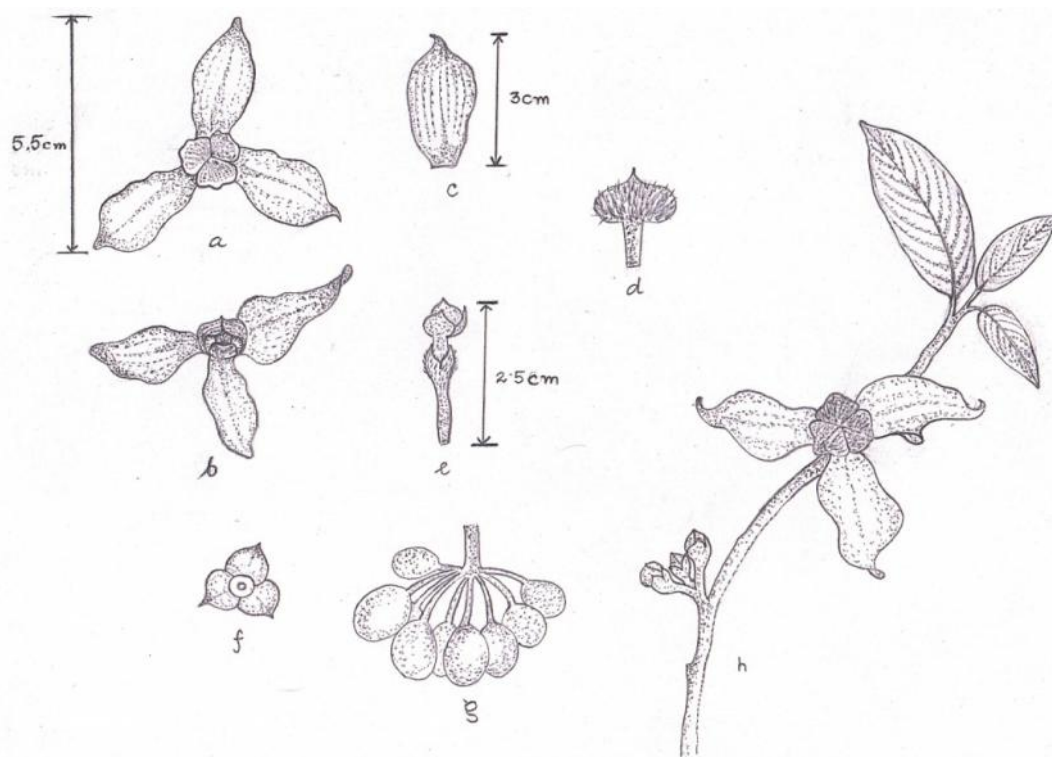


PLATE -I. *Mitrephora tomentosa* Hooker f. & Thomson: **a-b.** Flower; **c.** Outer petal; **d.** Inner petal; **f.** calyx; **g.** fruits; **h.** a flowering twig.

RESULT AND DISCUSSION

Mitrephora tomentosa Hooker f. & Thomson (Annonaceae) has not been reported before from Manipur but was known to grow in the states of Assam, Nagaland and Meghalaya only representing the whole of India. The present collection of the species from the Amambilok Sacred Grove, Andro, Manipur is its first record of occurrence for this state. In its present habitat, *M. tomentosa* is observed to be more concentrated at the base of the hill and its population dwindles as the altitude increases. Its habitat seems to be much localized as if sensitive to disturbances but it regenerates quite well in the present study area which is a Sacred Grove providing refuge to it. So, if proper protection is given it may grow well extensively mainly along the shaded hill bases.

Mitrephora tomentosa Hooker f. & Thomson, Fl. Ind. 113. 1885 & in J.D. Hooker, Fl. Brit. India 1: 76. 1872. [PLATES – I & II]

Trees to 20 m high; young branches tomentose. Leaves oblong-ovate or oblong-lanceolate, 5 – 18 x 2.5 – 7.5 cm, entire, acuminate, base rounded, tomentose beneath. Bracts orbicular. Sepals 3, ovate, connate below, ca. 0.5 cm long. Petals 6, in 2 whorls, lanceolate, ca. 3 cm long, brown-tomentose. Stamens few, ca. 1.5 cm long. Carpels ventrally furrowed; stigma capitate. Fruits subglobose, tomentose, stalked, 2 seeded.



PLATE – II. *Mitrephora tomentosa* Hooker f. & Thomson: **A & B.** Upper and lower surfaces of leaf; **C.** Flowering branch; **D & E.** Inner petals; **F & G.** Displayed floral parts; **H.** Horizontal view of flower; **I.** Young fruits; **J.** Mature Fruits.

Flowers: March – April;

Fruits: August – September

Exsiccatae: Amambilok Sacred Grove, Andro, *MU-LSc/EcoImosana-0804*, dated 24.03.2010

Distribution: INDIA (Assam, Nagaland, Meghalaya and now from Manipur), BANGLADESH and MYANMAR.

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