

NEW DISTRIBUTIONAL RECORD OF *TERMINALIA TRAVENCORENSIS* WIGHT & ARN. (COMBRETACEAE)

Arvind S. Dhabe

BAMU Herbarium, Department of Botany, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad 431004, India.

ABSTRACT

Terminalia travencorensis Wight & Arn. a member of family Combretaceae is rare and endemic to Kerala state in India, and also in Sri Lanka. While working on the genus at SING Herbarium, Singapore Botanic Garden, Singapore, the author came across an Herbarium specimen from Botanic Gardens of Bogor, Jawa, Indonesia which is considered as its new distributional record.

Key Words : *Combretaceae*, *Terminalia travencorensis*, distribution, rare, endemic

The genus *Terminalia* is second largest pantropical genus of family combretaceae [subfamily Combretoideae Engl. & Diels, tribe Combreteae DC, subtribe Terminaliinae (DC) Excell & Stace]. It is represented by about 150 species distributed in tropical regions of the world (Shu, 2007, Maurin et al., 2010; Gere, 2013). It is characterized by tree or shrub habit, alternate or sub-opposite leaves, crowded at the ends of the branches, presence of glands and/or domatia, inflorescence spikes or racemes, petals absent, fruits drupes or samara (Dhabe, 2018).

Gangopadhyay and Chakrabarty (1997) have reported 18 species of *Terminalia* to Indian subcontinent including India, Nepal, Pakistan, Myanmar and Sri Lanka. Dhabe (2018) has considered 16 species from India namely *Terminalia arjuna* (Roxb. ex DC.) Wight & Arn., *T. bellirica* (Gaertn.) Roxb. *T. bialata* (Roxb.) Steud., *T. catappa* L., *T. chebula* Retz., *T. citrina* (Gaertn.) Roxb., *T. kanchii* Dhabe, *T. manii* King, *T. maoui* Dhabe, *T. myriocarpa* Van Heurck & Mull. - Arg., *T. pallida* Brandis, *T. paniculata* Roth., *T. procera* Roxb., *T. shankarraoi* Dhabe, *T.*

tomentosa Wight & Arn. and *T. travancorensis* Wight & Arn.

Terminalia travancorensis Wight & Arn. is unique species characterized by: bark smooth or granular, creamish brown to dark brown, peeling off annually; leaves opposite or sub-opposite, elliptic - oblong or lanceolate, glands absent, domatia present in the angle of lower veins on lower surface; flowers on spikes (Plate 1a); fruits ovoid oblong or elliptic drupes, apex narrow, with light brown warts (Plate 1b,c). It flowers during May - June and fruiting initiates in August which persists till April.

Its synonyms are *Terminalia angustifolia* Roxb., *Terminalia parviflora* Thw., *Terminalia chebula* Retz. var. *parviflora* (Thw.) Clarke. (Gangopadhyay and Chakrabarty, 1997). *T. zeylanica* Van Heurck & Mull. Arg. It is known as *Kodakai*, *Kotta*, *Kotta-kadukkai* in Malayalam; *Peikadukkai*, *Morgatehi* in tamil and *Hampalanda* in Sinhali. It blooms in May-June and fruiting initiates in August which persists till April.

Rare in evergreen forests up to 700 m especially in Idduki district and adjoining area of Kerala, India and tropical forest of

Ratnapura, Kalutara and Matara districts of Sri Lanka only. The national Red list of Sri Lanka has mentioned it as Least Concerned (LC), (IUCN, 2012, MOE, 2012). There are only 5 Herbarium specimens at National Herbarium of Sri Lanka (PDA). University of Colombo Herbarium does not have any specimen.

While working on the genus *Terminalia* at SING Herbarium of Singapore Botanic Garden, Singapore, the author came across an Herbarium specimen of *Terminalia* identified only up to genus level, collected from the Botanic gardens of the Bogor, west Jawa, Indonesia. The author critically examined the specimen and correctly identified it as *Terminalia travancorensis* Wight & Arn., hence Jawa island of Indonesia is considered as its new distributional record (Plate 2).

Specimens examined:

India: Herbarium of Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (BAMU): *Terminalia travancorensis* Wight & Arn.- 1) Dhabe, A. S., 006053, 14/10/2013, Kottayam road, Kerala, India. 2) Dhabe, A. S., 007298, 04/05/2016, Kollamau to Idukki road, near Dam, Kerala, India. 3) Dhabe, A. S., 007406, 01/06/2016, Kollamau Dam, Idukki road, Kerala, India. 4) Dhabe, A. S., 007409, 02/06/2016, 2 km from Kollamau Dam, Idukki road, Kerala, India. 5) Dhabe, A. S., 007409, 02/06/2016, 2 km from Kollamau Dam, Idukki road, Kerala, India. 6) Dhabe, A. S., 007410, 02/06/2016, 2 km from Kollamau Dam, Idukki road, Kerala, India. 7) Dhabe, A. S., 007416, 02/06/2016, 2 km from Kollamau Dam, Idukki road, Kerala, India. 8) Dhabe, A. S., 007497, 25/10/2016, Kollamau Dam, Idukki road, Kerala, India. 9) Dhabe, A. S., 007497,

25/10/2016, Kollamau Dam, Idukki road, Kerala. 10) Dhabe, A. S., 007498, 25/10/2016, Kollamau Dam, Idukki road, Kerala, India. 11) Dhabe, A. S., 007499, 25/10/2016, 7 - 8 km from Kollamau Dam, Idukki road, Kerala; 12) Dhabe, A. S., 009602, 26/10/2016, Kollamau Dam valley, Kerala.

Sri Lanka: National Herbarium, Peradeniya (PDA):

Terminalia parviflora Thw. - 1) A. H. M. Jaysuriya and B. W. M. Vijesinghe, 6318, 23 April 1992, Horagala - Paragala forest range, Matara district, Sri Lanka. (2 specimens). 2) N. D. de Zoysa, 25 June 1983, Sinharaja Rain Forest, near Leopard rock, Ratnapura district, Sri Lanka. (2 specimens). 3) N. D. de Zoysa, 601 463, August 1982, Sinharaja Rain Forest, along skid trail, Ratnapura district, Sri Lanka. *Terminalia zeylanica* Van Heurck. & Mull.- Arg. A. H. M. Jaysuriya and S. Balsubramaniam, 4746, 27 April 1989, Waturawa, Sinharaja Rain Forest, Ratnapura district, Sri Lanka. As *T. chebula* Retz. Kostermans, 24675, 30 April 1973, Morapitiya logistic area, Matugama, Kalutara district, Sri Lanka, correctly identified as *Terminalia zeylanica* Van Heurck. & Mull.- Arg. Determinavit: D. Philcox

Singapore: Herbarium of the Singapore Botanic Garden (SING):

Terminalia (an unidentified specimen) A. H. G. Alston, 15393, Accession no. 540087, 21/04/1954, Botanic Garden, Bogor, West Java, Indonesia, correctly identified as ***Terminalia travancorensis*** Wight & Arn. Determinavit: Dhabe A. S. on 15 July 2011 (Plate 2).

Acknowledgements:

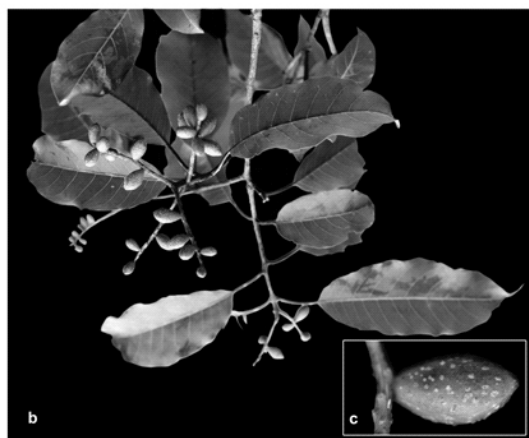
The author is thankful to Dr. Paul Leong, Curator of SING Herbarium, Singapore; Curator of PDA Herbarium, Sri Lanka; Director, BSI, Kolkata for permitting Herbarium reference work; Prof. Jomy Augustin, Pala, Kottayam for his help in field collection; Mr. Dhokne for photo plate.

References:

- Dhabe, A. S., (2018), *Pleione* **12 (2)**: 322.
- Gangopadhyay, M. and Chakrabarty, T., (1997). *Journal of Economic and Taxonomic Botany*, **21 (2)**: 281.
- Gere, J. (2013). "*Combretaceae: Phylogeny, Biogeography and DNA Barcoding*". Ph. D. Thesis, submitted to University of Johannesburg, South Africa.
- IUCN., (2012). *IUCN Red List Categories and Criteria: Version 3.1*. Second edition. Gland, Switzerland and Cambridge, UK: IUCN. iv + 32pp.
- Maurin, O.; Chase, M. W.; Jordan, M.; Van Der Bank M. (2010) *Bot. J. Linn. Soc.* **162**: 453
- MOE, (2012). The National Red List 2012 of Sri Lanka; Conservation Status of the Fauna and Flora. Ministry of Environment, Colombo, Sri Lanka.
- Shu, Z. H. (2007). *Flora of China*. **13**, 310

PLATE - 1

Terminalia travancorensis Wight & Arn.



a. Flowering twig b. Fruiting twig c. Fruit