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Eugenia (Myrtaceae) - A new generic record for Andaman and Nicobar Islands, India

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यूजेनिया (म्रिटेसी) – भारत के अंडमान एवं निकोबार द्वीप समूह के लिये नवीन वंशपरक अभिलेख

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सारांश

यूजेनिया मूनियाना वाइट, को अंडमान एवं निकोबार द्वीपसमूह के लिये प्रथम बार प्रलेखित किया गया है, इससे पहले यह वंश केवल भारत के मुख्य भू–भाग एवं श्रीलंका से ही ज्ञात था। इस जाति के प्राकृतवास, पारिस्थतिकी, पुष्पन अवधि एवं वितरण सहित रूपात्मक जानकारी प्रस्तुत शोध पत्र में दी गई है ।

ABSTRACT

Eugenia mooniana Wight is reported here for the first time from Andaman and Nicobar Islands, earlier known only from mainland India and Sri Lanka. It also constitutes a new generic record for Andaman and Nicobar Islands. Morphological description of the species along with information on its habitat, ecology, flowering period and distribution is given here.

Keywords: *Eugenia mooniana*, New generic record, Andaman and Nicobar Islands

INTRODUCTION

The exploration in the islands of the Andaman group during 2003 in connection with the insular germplasm conservation outside the islands at Jawaharlal Nehru Tropical Botanic Garden and Research Institute Field Gene Bank, an interesting species belonging to the Myrtaceous genus, *Eugenia* L., was located from the semi-evergreen forests of Wright Myo in South Andamans. Only one population comprising about 12 mature plants as undergrowth along with a few seedlings were seen near a rivulet at Wright Myo. Two seedlings of the species have been collected and introduced at JNTBGRI Field Gene Bank (Acc. No. 2839). The growth rate of the live specimens at JNTBGRI Field Gene Bank is assessed to be extremely slow and poor. However, one of the live accessions has well acclimatized and established into a small shrub of about 2 m height and flowering regularly every year since 2015, while no fruit setting is observed till current year. On critical taxonomical studies, the species has been identified as *Eugenia mooniana* Wight. A perusal of relevant literature (Vasudeva Rao, 1986; Mathew, 1998; Pandey & al., 2008; Murugan & al., 2016) and herbaria (PBL, CAL, DD) consultation revealed that this taxon has not so far been reported from Andaman and Nicobar Islands, hitherto recorded only from five states of the country, *viz*. Assam, Karnataka, Kerala, Maharashtra, Tamilnadu and Sri Lanka (Kanjilal & al., 1938; Nayar &

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al., 2014). Even though, Kanjilal & al., (1938) included this taxon in Flora of Assam, Nayar & al., (2014) has not been recorded its distribution from Assam. According to latest check list of Andaman and Nicobar Islands by Murugan & al., (2016), 12 taxa were earlier treated under the taxon *Eugenia* has been transferred under the genus *Syzygium*. It includes *Syzygium acuminatissimum* (Blume) DC., *S. aqueum* (Brum. f.) Alston, *S. andamanicum* (King) N. P. Balakr., *S. aromaticum* (L.) Merr. & L. M. Perry., *S. flosculiferum* (M. R. Hend.) Sreek., *S. manni* (King) N. P. Balakr., *S. megacarpum* (Craib) Rathakr. & N. C. Nair, *S. nicobaricum* (King) Rathakr. & N. C. Nair, *S. syzygioides* (Miq.) Merr. & L. M. Perry. The report of *Syzygium ruscifolium* (Willd.) Santapau & Wagh by Pandey & al., (2008) and Murugan & al., (2016) from the Andaman Islands, which is currently a synonym of *Eugenia roxburghii* DC. is not supported by herbarium collection. In fact, no representative specimens could be traced at PBL, CAL, and DD where they likely to be found (per. comm. with scientists of concerned herbaria). Hence in the absence of collections of Andaman and Nicobar Islands, we would like to report it here as the new generic record of the *Eugenia* L. from the Andaman Islands. A description of *Eugenia mooniana* along with information on habitat, ecology, flowering period and distribution is given here.

TAXONOMIC DESCRIPTION

Eugenia mooniana Wight, III. Ind. Bot. 2:13.1841 et Icon. Pl. Ind. Orient. 2(4): t. 551. 1842. Kumar & al., Webbia 69(1): 102. 2014. *E. thwaitesii* Duthie in Hook.f., Fl. Brit. India 2: 506. 1879. **(Plate. 1. A–K)**

Profusely branched shrub, 1.5 m tall. branchlets slender, terete, greyish brown or pale brown, glabrous, puberulous when young. Leaves simple, puberulous when young, slightly crimson, sub-coriaceous, 6–9 × 2.5–4.4 cm, broadly ovate or ovate-elliptic or elliptic-lanceolate, narrowly or broadly cuneate at base, shortly or long acuminate at apex, acumen to 1.5 cm long; secondary nerves up to 10 pairs, fine, faint, venation intra-marginal. Petiole up to 7 mm long, slender, grooved above. Bracts 2, oblong, *c.* 2.2 mm long, pubescent; bracteoles 2, oblong, *c.* 1.8 mm long, pubescent outside, glabrous inside. Flowers axillary or extra axillary or rarely in few flowered terminal clusters or solitary, white. Pedicel 1–1.4 cm long, slender, pubescent. Hypanthium ventricose, 2 × 2 mm, pubescent. Sepals 4, oblong, *c.* 3 × 1.5 mm, refluxed, pubescent without, glabrous within. Petals narrowly elliptic or broadly spathulate, *c.* 7 × 3 mm, white, ciliate along margin; Stamens many, unequal, filaments 4–7 mm long, white. Style 5.5–6 mm long, stigma capitate.

Distribution:- **India**: Andaman Islands, Assam, Karnataka, Kerala, Maharashtra, Tamilnadu and Sri Lanka.

Habitat and *Ecology:*- Semi evergreen to evergreen forests.

Phenology:- Flowering during February

Ecology and *Conservation:*- An undergrowth of Andaman semi evergreen forest with ample sunlight penetration. The natural habitat is a reserve forest under the jurisdiction of South Andaman Forest Division. One individual plant has well established at JNTBGRI (Acc. no. 2839) Field Gene Bank.

Specimen examined:- India, Mathew, S. P., Living coll. Passport data Acc. No. 2839 JNTBGRI FGB, Thiruvananthapuram, 5/2/2018, *S. P. Mathew* & *S. M. Shareef 72439* (TBGT).

DISCUSSION

Eugenia mooniana was hitherto known only from Peninsular India, Assam and Sri Lanka. The Peninsular India, Sri Lanka and the Andaman and Nicobar Islands are more or less occurring along same latitudes and have remarkable resemblance in climatological features and floristic distribution. According to a recent study by the authors, there are 1026 common species for the Andaman-Nicobar Islands and the Western Ghats of the Peninsular India. The fragmented distribution of several floristic elements such as *Cleidion nitidum* (Müll.-Arg.) Thwaites ex Kurz, *Polyalthia rufescens* Hook.f. & Thomson, *Mimusops andamanensis* King & Gamble, *Nageia wallichiana* (C. Presl) Kuntze and *Dendrobium macrostachyum* Lindl. among Andaman-Nicobar Islands, Sri Lanka and the Western Ghats demonstrates the previous geological connections of these widely separated regions. The recent addition of *Eugenia mooniana* in Andaman Islands further endorses the continental connection (Gondwanaland) of this insular region in the Bay of Bengal towards the Peninsular India and Sri Lanka in the remote past.

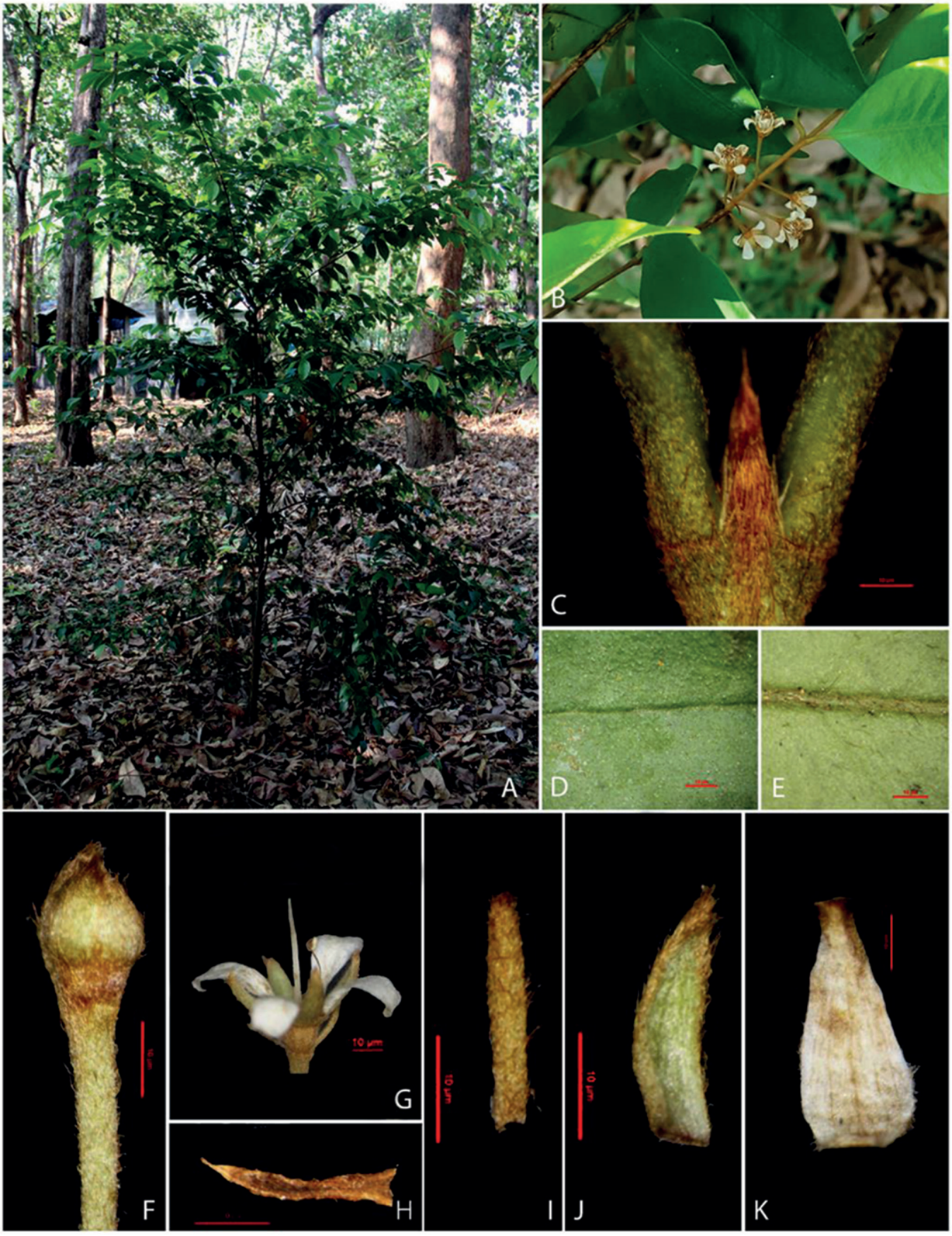

Plate-1: **Eugenia mooniana** Wight – **A**. Habit **B**. Inflorescence **C.** Branch let tip **D**. Leaf – upper side **E.** Leaf – Lower side **F**. Flower bud **G**. Flower **H**. Bract **I.** Bracteole **J.** Sepal **K.** Petal

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