



## NOTE

## Lectotypification and status of *Syzygium myhendrae* (Bedd. ex Brandis) Gamble (Myrtaceae) – an endemic myrtle of southern Western Ghats, India

Muhammed S. Shareef<sup>(1)</sup> and Beegam A. Rasiya<sup>(1\*)</sup>

1. Jawaharlal Nehru Tropical Botanic Garden & Research Institute, Palode, Thiruvananthapuram - 695 562, Kerala, India

\* Corresponding author. Email: arasiyabeegam@gmail.com

(Manuscript received 12 March 2014; accepted 5 November 2014)

ABSTRACT: The lectotype of *Syzygium myhendrae* (Bedd. ex Brandis) Gamble is designated and its status is reviewed.

KEY WORDS: Lectotypification, Myrtaceae, *Syzygium myhendrae*, Western Ghats

### INTRODUCTION

Richard Henry Beddome collected a species of *Eugenia* from the erstwhile state of Travancore and identified it as *Eugenia myhendrae*. This name was validly published by Brandis (1906) based on Beddome's collection 2902 without any collection date (*s.d.*). While describing the species *E. myhendrae*, Brandis did not cite type material. The specific epithet *myhendrae* may probably be the name of type locality Mahendragiri hill (=Myhendra hill) of Travancore state now a part of Tirunelveli district of Tamil Nadu state of India. On the herbarium sheet it is written as 'Myhendra 4000' perhaps meaning Mahendragiri 4000ft. The new species was described on the basis of this only specimen. Beddome's herbarium specimen 2902 is housed at British Museum and has been scanned with barcode BM000615099 (BM!). After critical observation and study of Beddome's specimen (BM 000615099 image!) in accordance to the Art. 9.12 of International code of Nomenclature for Algae, Fungi and Plants (McNeill *et al.*, 2012), the authors here by designate it as lectotype (marked specimen).

It has been mentioned in TL. 1: 304 1976 that types and specimens of Brandis is housed in HBG, BONN, A, and K. Referred to this the authors contacted these herbaria for specimen of *S. myhendrae*. Only BONN herbarium was responded that they have no historical herbarium. Nothing informed by others. In Kew herbarium catalogue shows the specimen of Bourdillon later. Bourdillon (1908), the first forest conservator of erstwhile Travancore state had also collected the same species from Peermede now a part of Kerala state (K000821355 image!) and from Muthukuzhivayal now a part of Tamil Nadu, India (TBGT 03024!).

Gamble (1915-1919) made some new combinations while transferring some species of south Indian *Eugenia*, including *E. myhendrae* into *Syzygium* as

*Syzygium myhendrae* (Bedd. ex Brandis) Gamble. While studying the Western Ghats endemic *Syzygium* species, the senior author (SMS) could collect specimens of *Syzygium myhendrae* from different parts of evergreen forests of Agasthyamala of Thiruvananthapuram and Pandimotta of Kollam districts of Kerala. Though many plant explorations were undertaken in the above said areas the species could not be recollected from its type locality earlier (Manickam *et al.*, 2008). Sasidharan *et al.* (2002) rediscovered this species after a lapse of more than 100 years from Shenduruni Wildlife Sanctuary in Kollam district and Periyar Tiger Reserve in Idukki district of Kerala, India. This species was categorised as Rare (Ahmedullah & Nayar, 1986), Indeterminate (Rao. *et al.*, 2003) and Endangered (IUCN, 2012). Gopalan & Henry (2000) opined that it is possibly extinct because they could not relocate it after repeated explorations in the Agasthyamalai hills. The species was not mentioned in the Flora of Agasthyamala (Mohanan & Sivadasan, 2002) and Flora of Thiruvananthapuram (Mohanan & Henry, 1994) and so it constitutes new addition to the flora of these places. The authors could observe many populations and recognized that it is one of the dominant and common species in these localities. Major associates of this species are *Dimocarpus longan*, *Syzygium lanceolatum*, *Syzygium munronii*, *Cinnamomum verum*, *Ficus hispida*, *Elaeocarpus munronii*, *Schefflera* sp., *Litsea* sp. and *Glochidion zeylanicum*. Each tree produces thousands of fruits every year and serves as major food resource to Malabar Giant Squirrel. The species shows morphological similarities with *Syzygium rubicundum* but differs in many ways. The citation, description and other details are given below along with photos to facilitate easy identification.



Fig. 1: *Syzygium myhendrae* (Bedd. ex Brandis) Gamble A. Habit, B. Flower buds, C. Inflorescence, D. Fruits.





## TAXONOMIC TREATMENT

*Syzygium myhendrae* (Bedd. ex Brandis) Gamble, Fl. Madras 478. 1919 [1: 338. 1957 (Repr.)]; V. Chitra in N.C. Nair & A.N. Henry (Eds), Fl. Tamilnadu Anal. 1: 157. 1983; Sasidh., Biod. Doc. Kerala pt. 6, Fl. Pl.: 178. 2004; T.S. Nayar & al., Fl. Pl. Kerala-Handb.: 451. 2006. *Eugenia myhendrae* Bedd. ex Brandis, Indian Trees 325. 1906; Bourd., Forest Trees Travancore 189. 1908; Rama Rao, Fl. Pl. Travancore 171. 1914. (Fig.1)

**Lectotype** (designated here) (Fig. 2): INDIA, Travancore, Myhendra, 4000ft., s.d., R.H. Beddome, 2902, barcode No. BM000615099 (BM image!).

Trees, to 20 m high., to 1.2 m girth; bark smooth, greyish-white, slightly fluted in older trees, blaze dark brown; branchlets quadrangular, become terete when mature. Young leaves crimson. Leaves opposite or rarely sub opposite, coriaceous, 3.5–7.5 x 1.5–3 cm, oblanceolate to obovate, cuneate at base, obtusely acuminate at apex, tip of acumen obtuse, pale brown beneath and dark brown on upper when dry; midrib prominent beneath and channelled above, lateral nerves many, slender, closely parallel, reticulated, gland-dotted, more towards the midrib. Petioles to 5 mm long. Inflorescence of terminal, corymbose cymes of umbellules, to 7.5 cm long; peduncle, branches and buds are pinkish when young; peduncle and branches quadrangular; flowers sessile, c. 1.8 cm across. Calyx tube turbinate, 3.7–4.5 mm long, lobes shortly or bluntly 4-toothed or lobed. Petals 4, calyprate, orbicular to sub orbicular, white, 2–2.5 mm across, c. 17 gland dots per petal. Stamens 3–6 mm long. Style filiform, shorter than stamens, to 5 mm long; stigma simple, acute; ovary 2-locular, many ovuled. Fruits globose, to 9 mm across, pink-purple, juicy, crowned by persistent calyx limb. Seed 1, globose.

**Habitat:** Evergreen forests of 900–1800 m.

**Flowering & Fruiting:** September–February.

**Distribution:** The species is endemic to the Western Ghats region of Karnataka, Tamil Nadu and Kerala.

**Uses:** The tree is highly attractive and can be introduced as an ornamental. Fruits are edible, sweet, acidic taste with a tinge of mango flavour.

**Specimens examined:** INDIA. Travancore: Myhendra



**Fig. 2: Lectotype of *Syzygium myhendrae* (Bedd. ex Brandis) Gamble (BM! Barcode: BM000615099 © The Natural History Museum, London)**

4000ft, s.d., Beddome 2902 (BM image!); Muthukuzhivayal, 3. 10. 1894, *Bourdillon Acc. No 03024* (TBGT!); Peermede 3500ft, 5. 4. 1894, *Bourdillon 213* (K image!). **Thiruvananthapuram:** Ponmudi, 28. 9. 2010, S. M. Shareef 69354. 3. 11. 2010, S. M. Shareef 69360. 21. 11. 2010, S. M. Shareef 69359. 29. 12. 2010, S. M. Shareef 70601 (TBGT); Chemunji, 26. 9. 2012, S. M. Shareef 72497 (TBGT); Athirumala, 7. 1. 2014, S. M. Shareef 76139. & 7. 1. 2014, S. M. Shareef 76141 (TBGT). **Kollam:** Pandimotta, 9. 1. 2013, S. M. Shareef 76104 (TBGT).

## ACKNOWLEDGEMENTS

Authors are thankful to the Director, JNTBGRI for constant encouragement and facilities provided. Our thanks are also due to the Forest Department, Kerala for their help in field studies. We also extend our gratitude to Trustees of the British Museum for Beddome's herbarium material.

**LITERATURE CITED**

- Ahmedullah, M. and Nayar, M.P.** 1986. Endemic Plants of Indian Region. Botanical Survey of India, Calcutta. p.108.
- Bourdillon, T.F.** 1908. The Forest Trees of Travancore. The Government Press, Trivandrum. p. 189.
- Brandis, D.** 1906. Indian Trees. An account of trees, shrubs and woody climbers, bamboos and palms indigenous or commonly cultivated in the British Indian Empire. Archibald Constable & co. Ltd. London. p. 325.
- Gamble, J.S.** 1915-1919. Flora of the Presidency of Madras. Vol. 1. Adlard & Sons Ltd., 21, Hart Street W.O., London. p. 475.
- Gopalan, R. and Henry, A.N.** 2000. Endemic plants of India. CAMP for the strict endemics of Agasthiyamalai hills, southern Western Ghats. Bishen Singh Mahendra Pal Singh, Dehra Dun. pp. 398–400.
- IUCN Red List Plants of India.** IUCN 2012. IUCN Red List of Threatened Species. Version 2012 .2. www.iucnredlist.org. downloaded on 10 January 2013.
- Manickam, V.S., Murugan, C. and Jothi, G.J.** 2008. Flora of Tirunelveli Hills (Southern Western Ghats) Vol.1. Polypetalae. Bishen Singh Mahendra Pal Singh, Dehra Dun.
- McNeill, J., Barrie, F.R., Buck W.R., Demoulin, V., Greuter, W., Hawksworth, D.L., Herendeen, P.S., Knapp, S., Marhold, K., Prado, J., PrudHomme van Reine, W.F., Smith, G.F., Wiersema, J.H. and Turland, N.J.** (eds) 2012. International Code of Nomenclature for Algae, Fungi and Plants (Melbourne Code). Regnum Vegetabile154. Koeltz Scientific Books, Germany.
- Mohanan, M. and Henry, A.N.** 1994. Flora of Thiruvananthapuram. Botanical Survey of India, Calcutta.
- Mohanan, N. and Sivadasan, M.** 2002. Flora of Agasthiyamala. Bishen Singh Mahendra Pal Singh, Dehra Dun.
- Rao, C.K., Geetha, B.L. and Suresh, G.** 2003. Red list of threatened vascular plants species in India. ENVIS, Botanical Survey of India, Howrah. p. 68.
- Sasidharan, N., Sujanapal, P. and Augustine, J.** 2002. Reappearance of *Syzygium myhendrae* (Bedd. ex Brandis) Gamble and *Ellipanthus tomentosus* Kurz in the southern Western Ghats. J. Econ. Taxon. Bot. **26**: 609-611.