



### The lectotypification of *Syzygium occidentale* (Bourd.) Gandhi (Myrtaceae)

Based on two collections (*M. Thomas s.n.* & *T.F. Bourdillon 119*) from the banks of the Periyaur (=Periyar) River in North Travancore, Thomas Fulton Bourdillon (1904) described and illustrated *Eugenia occidentalis* Bourd (Myrtaceae). Gamble (1919) transferred it to *Jambosa*, as *J. occidentale* (Bourd.) Gamble. Gandhi (1976) later proposed *Syzygium occidentale* (Bourd.) Gandhi. Cecil J. Saldahna collected the species from the Hassan District which became the only known locality in the state of Karnataka (Gandhi 1976). Neither Bourdillon nor subsequent authors designate a lectotype from among the two syntypes preserved at K nor did any author declare the published figure as the lectotype. Among the syntypes, *M. Thomas s.n.*, 30 Jan 1892 (K!, barcode no. 000793886), was used by Bourdillon for the diagnosis and illustration of *E. occidentalis* and hence this specimen is here designated as the lectotype.

Mohanani et al. (1984) and later Vajravelu (1988) categorized *Syzygium occidentale* as “rare”. Ahmedullah & Nayar (1986) included this species in “rare and endangered” category. Subsequently, Nayar (1992) considered the species as “endangered” and later, Nayar (1996) treated it simply as “rare”. Based on these data, IUCN (2014) treated it as a “vulnerable species”.

While exploring southern Kerala, the author collected *Syzygium occidentale* in flower and fruit from the banks of Chittar River, near Palode in Thiruvananthapuram District. Bourdillon had collected this species from the same locality (*no. 550, MH*) in 1904. A detailed description and photographs are presented here to facilitate its identification in the field for future conservation purposes and other studies.

### *Syzygium occidentale* (Bourd.) Gandhi (Figs. 1 & 2.)

Saldahna & Nicolson, *Fl. Hassan Dist.* 282. 1976.

**Basionym:** *Eugenia occidentalis* Bourd., *Indian Forester* 30: 195, t. 3. 1904. *Jambosa occidentale* (Bourd.) Gamble, *Fl. Pres. Madras* 474. 1919.

**Type:** INDIA, Kerala, Idukki District, Periyaur River, 30 Jan 1872, *M. Thomas s.n.* (lectotype, **designated here:** K!, barcode no. 000793886, Fig. 3).

**Shrub to small evergreen tree** to 5 m high; bark smooth, greyish-brown; blaze pinkish brown. **Branchlets** terete, slender, greenish to greyish brown. **Leaves** opposite, rarely subopposite; petioles 0.5–1.2 cm long, grooved above; blade linear-lanceolate, 10–17.5 × 0.8–2.5 cm, coriaceous, cuneate to attenuate basally, acuminate apically; gland dotted on both sides; margin slightly revolute; midrib channelled above, raised beneath; lateral nerves 15–22 pairs, faint above and prominent beneath, meeting in a looped intramarginal vein; intramarginal vein 1-tiered, faint above and prominent below, ca. 1.5 mm from margin. **Inflorescences** terminal and rarely lateral cymes, dichotomously divaricate, few flowered; peduncles to 5–8 cm long, terete, pale green; pedicels to 2.5 cm long; bracts and bracteoles caducous. **Flowers** 2.5–5 cm across, white; hypanthium funnel shaped, light green, sometimes pinkish tinge without, ca. 1.5–2 cm × 0.8–1.1 cm, 4-lobed, creamy-white, ovate-oblong, 0.7–1.5 cm long; petals 4, white, orbicular, shortly clawed, 1–1.5 cm across, caducous. **Stamens** many, white, free; filaments, thin, 3.5–5 cm long; anthers oblong, ca. 2 × 1 mm, medifixed. **Ovary** inferior, 2-celled; style, white, thin, 4–5 cm long; stigma simple, narrowed tip. **Fruits** pink or greenish-pink, ovoid or obovoid, rarely globose, 1.4–2 cm

across, with a prominent calyx ring bearing persistent lobes. Seed 1, ovoid or obovoid.

**Additional specimens examined:** India, Kerala, Thiruvananthapuram District: Travancore, Mar 1890, *Bourdillon 550* (MH); Chittaur (=Chittar), near Palode, 21 Apr 1904, *Bourdillon s.n.* (UCT); 4 June 1984, *C. Sathish Kumar 1904* (TBGT); *ibid*, 3 Apr 1989, *Raj Vikraman & Anilkumar 3387* (TBGT); *ibid*, 80 m, 24 Jan 2014, *S.M. Shareef 79219* (TBGT); *ibid*, 80 m, 10 Feb 2014, *S.M. Shareef 79233* (TBGT); Kollam District: Parappan, 24 Mar 1915, *K. Vencoba Rao 2925* (TBGT). Pathanamthitta District: Pampa-Ponnambalamedu, 230 m, 17 Mar 1994, *A. Nazarudeen 19572* (TBGT). Idukki District: Periyar, 19 Mar 1913, *K. Rama Rao 722* (TBGT); Pooyamkutty, 1 Dec 1993, *E.S. Santhosh Kumar 18370* (TBGT). Thrissur District: Vazhachal, 27 Jun 1996, *A.G. Pandurangan 30614* (TBGT).

**Distribution and Ecology:** The species is endemic to the southern Western Ghats of Kerala (Thiruvananthapuram, Kollam, Pathanamthitta, Ernakulam, Idukki, Thrissur, Palakkad districts) and Karnataka (Hassan District), and found mainly on the river banks of evergreen forests to an altitude of 700 m. The plant is occasionally found in the crevices of rocky riverbanks. The tree is typically associated with *Ochlandra travancorica* (Bedd.) Gamble, *Lophopetalum wightianum* Arn., *Madhuca longifolia* (J. Koenig ex L.) J.F. Macbr., *Hopea parviflora* Bedd., *Calophyllum apetalum* Willd., *Holigarna arnottiana* Hook.f., *Memecylon talboltianum* Brandis, *Xanthophyllum arnottianum* Wight, *Humboldtia vahliana* Wight, and *Garcinia wightii* T. Anderson. The branches of the plant mostly arise from the bottom of the main trunk. The plant has the potential of being one of the best ornamental tropical trees for landscapes and avenues.

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# PLATE 8



**Figure 1:** *Syzygium occidentale* (Bourd.) Gandhi, (A) habit and habitat, (B) bottom of tree trunk, (C) bark showing blaze, (D) young foliage

## PLATE 9



**Figure 2:** *Syzygium occidentale* (Bourd.) Gandhi, (A) terminal inflorescence, (B) frutescence (inset: germinated seed).

# PLATE 10



**Figure 3:** Lectotype of *Syzygium occidentale* (Bourd.) Gandhi (K! Barcode no.000793886 © Royal Botanic Gardens, Kew)