

Lectotypification of *Dipterocarpus bourdillonii* (Dipterocarpaceae)

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Abstract: During a taxonomic study on the family Dipterocarpaceae in India, it was found that the name *Dipterocarpus bourdillonii* Brandis lacks a proper typification. Hence a lectotype is designated here conforming to the latest ICN code.

Keywords: Kerala, Lectotype, Typification, Western Ghats.

Introduction

Dipterocarpus C.F.Gaertn., consisting of *c.* 69 species, is the third largest genus in the family Dipterocarpaceae (POWO, 2023). It is distributed in Sri Lanka, Thailand, Myanmar, Indochina, India, Malaysia, Sumatra, Java, Yunnan, Borneo, Bali and the Philippines (Ashton, 1982; Ghazoul, 2016; Mabberley, 2017). Eleven species were reported from India (Janardhanan & Tewary, 1982; Tewary, 1984; Janardhanan, 1993), of which *D. bourdillonii* Brandis and *D. indicus* Bedd. are found in the Western Ghats (Nayar *et al.*, 2014; Sasidharan, 2017). *Dipterocarpus bourdillonii* is an endemic and critically endangered species mostly confined to southern parts of the Western Ghats (Swarupanandan *et al.*, 2013; Deepu *et al.*, 2021). The number of populations was found to be more in Kerala than in other states, yet very few mature individuals were found in Karnataka and Tamil Nadu (Puttaswamy *et al.*, 2010; Page *et al.*, 2022). As part of the ongoing taxonomic study of Dipterocarpaceae in India, the authors found that the type of *D. bourdillonii* has not yet been designated. Following a scrutiny of the protologue and other relevant literature, a lectotype is designated here according to the Shenzhen Code (Turland *et al.*, 2018).

Typification

Dipterocarpus bourdillonii Brandis in Hooker's Ic. Pl. 25: t. 2403. 1895, '*bourdillonii*'; Brandis, Ind. Trees 66. 1906; Ram Rao, Fl. Travancore 34. 1914; Gamble, Fl. Madras 1: 81. 1915; K.P.Janardh. in B.D.Sharma & Sanjappa, Fl. India 3: 210. 1993; Sasidh., Biodiv. Doc. Kerala Fl. Pl. 44. 2004; Anil Kumar *et al.*, Fl. Pathanamthitta 74. 2005; K.P.Janardh. & Arisdason in P.Daniel, Fl. Kerala 1: 360. 2005; T.S.Nayar *et al.*, Fl. Pl. Kerala 217. 2006, Fl. Pl. Western Ghats 1: 325. 2014; Page *et al.*, J. Threat. Taxa 14(8): 21654. 2022. *Lectotype* (designated here): INDIA, Kerala, Travancore, *s.d.*, TF Bourdillon 900 (HBG [HBG507277 digital image!]; residual syntypes K [K000671017 digital image!], HBG [HBG507275, HBG507276 digital images!]).

Fig. 1

Notes: Brandis (1895) in the protologue of *Dipterocarpus bourdillonii* Brandis cited "HAB. Evergreen forests on the Periyar river, in North Travancore, at 200–500 ft. above sea-level, *Bourdillon*." but did not cite any collection number of Bourdillon. In addition, Brandis (1895) stated his own collections of 1868 from Carcoor Ghats in Malabar to have morphological similarity to collections of Bourdillon. The majority of Brandis herbarium and types were acquired by the Hamburg Senate and integrated into the Institute for Plant Sciences and Microbiology of the University of Hamburg (Mann, 2020), and much Brandis material is also in A, BONN and K (Stafleu & Cowan, 1976). The authors could trace four relevant sheets of this species collected by Bourdillon from Travancore, three at the University of Hamburg Herbarium (HBG507275, HBG507276, HBG507277 digital images!) and one at Kew (K000671017 digital image!). However, no specimen collected from Carcoor Ghats by Brandis could be located. All the three sheets at

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Fig. 1. Lectotype of *Dipterocarpus bourdillonii* Brandis (HBG507277)
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HBG are part of the original Herbarium of Brandis indicated by the field tickets were collected from Travancore. All three sheets have a single leaf and one or few fruits mounted on it. The sheet HBG507276 and HBG507277 are labeled as “*Dipterocarpus bourdillonii*, Brandis, Bourdillon No 900, Travancore” in the handwriting of Brandis (see Bandyopadhyay et al., 2008). The sheet HBG507275 has a label in the lower left-hand corner [written in an unknown handwriting with pencil] indicating the collection locality as “evergreen forests of the North Travancore [N. Travancore]”, collection number 623, and the year of collection to be 1895. Another field ticket is also attached to the sheet which is labelled in an unknown handwriting as “*Dipterocarpus bourdillonii* Brandis, India, Travancore”. A sheet MH00001810 located at MH which is a badly preserved specimen from Travancore and labeled as “*Dipterocarpus* n.s.? Travancore, no. 534, Bourdillon iii.90” in an unknown handwriting and cannot be confirmed that it was seen or examined by Brandis. The sheet from Kew (K000671017 digital image!) has parts of two branches with a leaf each and peduncles and is labeled

“Ic. Pl. 2403, Travancore, South India, *Dipterocarpus* sp. n., Coll. F. Comm. T.F. Bourdillon F.L.S., 1894”. This sheets at K (K000671017) and HBG (HBG507275, HBG507276, HBG507277 digital images!) are part of the original material and can be considered as syntypes (Art. 9.6 of the ICN; Turland et al., 2018). Among these, HBG507277, bears a single leaf with peduncles and a fruit and labelled by Brandis in his own handwriting is designated here as the lectotype according to Art. 9.3 and 9.12 of the ICN (Turland et al., 2018).

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