RESEARCH PAPER

Botany



Rediscovery of Dalbergia coromandeliana Prain from Dindigul Hills, Tamil Nadu, India

KEYWORDS	Dalbergia coromandeliana, Endemic, Legume, Rediscovery.	
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ABSTRACT Dalbergia coromandeliana Prain, an endemic and endangered species has been recollected from Dindigul		

hills after a lapse of 50 years. Detailed description, nomenclature, illustration and other relevant notes are provided for the easy identification of the taxa in the field.

Introduction

The genus Dalbergia belongs to the tribe Dalbergieae, comprising 100-120 species mostly distributed in the tropical regions (Lewis et al., 2005). It has about 25 species in India (Sanjappa, 1992) of which 17 species are reported from Tamil Nadu (Vajravelu, 1983). Most species of Dalbergia are characterised by the presence of an alkaloid dalbergin. During the course of studies on legumes of Dindigul district, the first author has collected some interesting specimens of Dalbergia from the foothills of Alagar hills, Karandamalai, Pannamalai and Sirumalai hills. On critical studies with relevant literature (Prain, 1901 & 1904) and authentic specimens housed at MH and Kew it was identified as Dalbergia coromandeliana Prain. Scanning of literature revealed that the species is poorly known endemic legume of Tamil Nadu (Ahmedullah & Nayar, 1986; Nayar, 1996; Thothathri, 1987) and it has not been recollected during the last 50 years. Moreover, it is very poorly represented in the herbaria. Hence, a detailed description, nomenclature, ecology and other relevant notes are provided for the easy identification and better understanding of the taxa in the field.

Dalbergia coromandeliana

Prain in J. Asiat. Soc. Beng. 70: 60. 1901 & in Ann. Roy. Bot. Gard. 10(1): 46. 1904; Brandis, Indian Trees 235. 1907. Gamble, Fl. Pres. Madras 1: 382. 1918; Vajr. in Nair & A. N. Henry, Fl. Tamil Nadu Ser. I, Analysis 1: 102. 1983; Thoth., Tax. Rev. Tribe Dalberigeae in Ind. Subcontintent 126. 1987. Dalbergia spinosa Wight & Arn., Prodr. Fl. Pen. Ind. Or. 266. 1834 non Roxb.

An erect shrub, ultimate branches bifarious, horizontal, rigid and ending in spines. Leaves imparipinnate, 4-9 cm long, stipulate, fasicled on tubercles; leaflets 7-11, rarely upto 13, alternate, rarely subopposite, elliptic or cuneate-oblong, 6-9 x 3-8 mm, entire, obtuse at apex, rounded to cuneate at base, glabrous, lateral veins indistinct; rachis puberulous, petiolules very short, 0.5 mm long, stipules small, caducous. Inflorescence flowers second in cymose panicles which are fascicled on small tubercles, panicles 2-3.5 cm long. Flowers white to yellow, 3-4 mm long, distinctly pedicellate; bract and bracteoles caduceus; bracts lanceolate, bracteoles 2, ovate, at the base of the calyx cup; pedicels 1-2 mm long. Calyx campanulate, 2-3 mm long, glabrous without, 5-toothed, teeth ovate-obtuse except the lowest which is longer and lanceolate. Corolla papilionaceous, zygomorphic, vexillum ovate-orbicular / obovate, retuse to emarginated at apex, 3-3.5 mm long, shortly clawed; wings and keels oblong, distinctly clawed. Stamens 9, mostly monadelphous, sheath 3 mm long. Ovary 2-2.5 mm long, glabrous except at the puberulous dorsal suture, stipitate, style stout, stigma minute, ovules 2-3. Pod indehiscent, stalked, ovate-oblong, 1.7-3.8 x 1.4-1.5 cm, thin and membranous, subacute to acute at apex, narrowed at base, glabrous, distinctly reticulate against the seed portion, 1-seeded; seeds large, reniform, 1.2-1. X 0.5-0.7 cm, compressed.

Flowering & Fruiting: April-July & July-August.

Distribution: India (Tamil Nadu)-Endemic.

Specimens examined: Tamil Nadu:

Dindigul District; Alagar Hills, 260m, foot hills, RKM 151540; Sirumalai hills, RKM 151547; Palamedu-Vadipatti Ghat road, RKM 151542; Karandamalai, foot hills RKM 151580; Pannamalai foot hills, RKM 151570.

Ecology:

Rarely seen in the scrub jungles. **Remarks:**

Dalbergia coromandeliana closely resembles Dlabergia hor*rida* but can be distinguished from the later by the distinctly pedicellate flowers, erect shrubby habit and ovate-oblong, glabrous pods. Similarly, it also resembles D. spinosa, both look alike in their vegetative stage but the pod is the chief distinguishing character between them (Prain, 1901).

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Ahmedullah, M. and M. P. Nayar 1987. Endemic Plants of Indian Region. Vol. 1: Peninsular India. Botanical Survey of India, Calcutta. | Lewis, G., B. Schrire, B. Mackinder and M. Lock 2005. Legumes of the World. The Royal Botanic Garden, Kew. | Nayar, M.P. 1996. Hotspots of Endemic Plants of India, Nepal and Bhutan. Tropical Botanical Garden and Research Institute, Thiruvananthapuram. | Prain, D. 1901. Novicae Indicae 18. The Asiatic species of Dalbergia. J. Asiat. Soc. Beng. 70: 39-65. J Prain, D. 1904. The species of Dalbergia of South eastern Asia. Ann. Roy. Bot. Gard. 10(1): 1-114. | Sanjappa, M. 1992. Legumes of India. Mahendra Pal Singh, Dehra Dun. | Thothathri, K. 1987. Taxonomic revision of the tribe Dalbergiaea in the Indian Subcontinent. Botanical Survey of India, Calcutta. | Vajravelu, E. 1983. Dalbergia. In: Nair, N.C. and A.N. Henry (Eds), Flora of Tamil Nadu, India. Ser. 1: Analysis vol. 1. Botanical Survey of India, Coimbatore.