

**Short communication**

Range extension of *Actinodaphne bourneae* Gamble (Lauraceae): An overlooked endemic tree of Western Ghats, India

S. Selvakumar¹, R. Kottaimuthu^{2*} and K. Suresh¹

¹Department of Botany, Saraswathi Narayanan College, Madurai-625 022, Tamil Nadu, India

²Department of Botany, Alagappa University, Karaikudi-630 003, Tamil Nadu, India

*Corresponding Author: kottaimuthu@yahoo.co.in

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INTRODUCTION

The genus *Actinodaphne* Nees is a member of the family Lauraceae, comprising 100 species worldwide, and is predominantly found in Southeast Asia and Malaysia (Van der Werff, 2001, Li *et al.* 2006). The preferred habitats of these plants are semi-evergreen, evergreen, and shola forests (Robi & Udayan 2016). *Actinodaphne bourneae* was first described by Gamble in 1925, based on a specimen collected by A.G. and Lady Bourne in 26 June 1897 from Kodaikanal shola, Pulney Hills. Since then it has not been recollected from the type locality or any other hill ranges in Western Ghats (Nayar & Sastry 1990). Recently, Matthew (1999) has recollected this endemic tree from Palni hills, the one and only locality known for India (Chithra & Nair 1999, Singh *et al.* 2015).

During ethnobotanical inventory on High wavy mountains, the first author has collected some interesting laurel specimens from the upper Manalar shola forests. Critical studies with protologue, type specimen and relevant literature it is identified as *Actinodaphne bourneae* Gamble, an endemic and endangered ray laurel of Tamil Nadu (Chithra & Nair 1999). The perusal of literature analysis it is found that this endemic tree was hitherto not reported from Megamalai wildlife sanctuary (Ravikumar 1993; Ravikumar & Lakshmanan 1999, Ravichandran & Karuppusamy 2016). Thus the present report on extended distribution of this narrow endemic species is an immense scientific importance from a conservation point of view. Hence it is described in detail along with relevant notes for the better understanding of the taxa.

SYSTEMATIC ENUMERATION

Actinodaphne bourneae Gamble in Bull. Misc. Inform. Kew 1925: 128. 1925 & Gamble, Fl. Pres. Madras 2: 1231. 1925; V. Chandras. in A. N. Henry *et al.*, Fl. Tamil Nadu 2: 206. 1987; K.M. Matthew, Ill. Fl. Palni hills t. 605. 1996 & Fl. Palni hills 2: 1065. 1999. (**Fig. 1**)

Trees, 10–15 m tall; branchlets densely fulvous tomentose; terminal buds perulate; scales imbricate, elliptic-oblong, 1.0–1.7 cm long, rufous tomentose. Leaves verticillate, estipulate, in whorls of 4–6; petioles 1.5–3.0 cm long, flat above, rounded beneath; lamina elliptic, 8.0–19 × 1.5–6.0 cm, base cuneate, apex acuminate, margin entire, densely fulvous-tomentose, glaucous beneath, thinly coriaceous; lateral veins 8–10 pairs, prominent beneath, fulvous-tomentose on both sides, margin entire. Umbels axillary or lateral, 4–6 flowered, sessile. Male flowers: greenish-yellow, rufous-tomentose; pedicel 5 mm long, fulvous sericeous; tepals 6 in two whorls, ovate, 4 mm long, apex acute, sub equal, margin ciliate, fulvous sericeous outside, sparsely villous or glabrous inside, membranous, 3–5 nerved; stamens 9 in three whorls, outer whorl 3, 4-locular; anthers 1 mm long, ovoid, yellow; filament 2.5–3.0 mm long, sparsely silky villous at the base, eglandular; middle whorl almost same as the outer whorl; inner whorl 3, extrorse with 2 glands at base of the filament; glands sessile, sometimes sterile pistil present. Female flowers: *ca.* 10 mm long, densely fulvous tomentose, campanulate; tepals 6, ovate, 3–4 mm long, margin ciliate, fulvous tomentose outside, glabrous inside staminodes 9, arranged in three whorls. Ovary obovoid, 1.0–1.5 mm long, sparsely villous; style *ca.* 2.5 mm long, sparsely villous; stigma irregularly lobed, yellow, plumose. Berries globose, 6–8 mm across, greenish, red when ripe.

Flowering & Fruiting: April–November.

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Figure 1. Type specimen of *Actinodaphne bourneae* Gamble [©The Board of Trustees of the Royal Botanic Gardens, Kew.]

Distribution: India (Tamil Nadu). Endemic. It is very rare and sparsely distributed in shola forests of Palni Hills and Megamalai (present report).

Specimens examined: South India, Pulney Hills, Kodaikanal shola, 26.06.1897, A.G. and Lady Bourne 517 (K!); Theni district, High wavy mountains, Upper Manalar, 1650 m, 11.11.2015, S. Selvakumar 571; same place, 21.04.2016, S. Selvakumar 815 (Saraswathi Narayanan College Herbarium!).

Ecology and Association: It is growing in shola forest at an altitudinal range 1800–2400 m. The population was very sparse in its natural habitat and it was found approximately an area of 30 sq. m. Totally 12 mature individuals, 28 saplings and 35 seedlings were encountered in the study area. *Impatiens cordata*, *Ilex wightiana*, *Nothopegia heyneana*, *Nothopegia vajravelui*, *Crotalaria beddomeana*, *Crotalaria walkeri*, *Photinia integrifolia* var. *sublanceolata*, *Syzygium sriganesanii*, *Ophiorrhiza brunonis* and *Psychotria flavida* are the commonly associated plants.

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