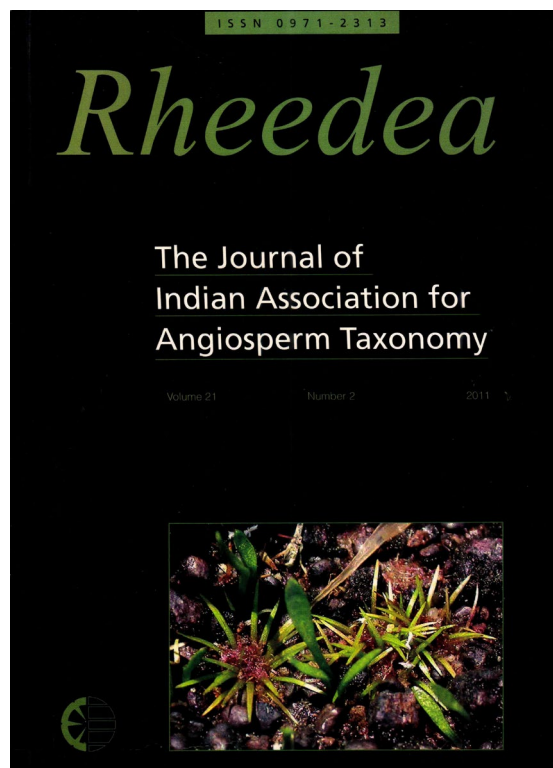




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Cinnamomum litseaefolium (Lauraceae) – A new distributional record for India

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Abstract

The present collection of *Cinnamomum litseaefolium* Thwaites in southern Western Ghats forms a new distributional record for India since, it was thought to be endemic to Sri Lanka. An illustrated account with relevant notes is provided herewith for further studies on this species.

Keywords: *Cinnamomum litseaefolium*, Lauraceae, New Record

Introduction

Cinnamomum Schaeffer consists of *c.* 250 species and is distributed from Southeast Asia to Australia (Kostermans, 1995). In southern India, there are 18 species reported of which 16 are endemic to this region which signifies the phytogeographical importance of the genus (Kostermans, 1985; Nayar *et al.*, 2006; Geethakumary *et al.*, 2007; Gangopadhyay, 2008). Most of the *Cinnamomum* species are valued for their aromatic oil which are used as spice, medicinal and cosmetics. Because of their economic potential, they are over-exploited from the wild which led to fragmentary population of many species in the Western Ghats. Moreover, there is no comprehensive revision of this genus in the recent past except the one made by Kostermans (1985) about 25 years back.

During the taxonomic studies of the genus *Cinnamomum* of the southern Western Ghats, the authors collected some interesting specimens from the Chemunji hills in Thiruvananthapuram district, Kerala. On critical study with literature and comparing with images of type specimen (from Sri Lanka, Badulla district, Haputale, C.P. 392, Digital image K!), it was confirmed as *C. litseaefolium* Thwaites, a species hitherto endemic to Sri Lanka. Its occurrence in Kerala hence forms a new distributional record for India with phytogeographic significance. It is reported here with a detailed description, illustration and relevant notes based on fresh collections to facilitate its easy identification.

Cinnamomum litseaefolium Thwaites, Enum. Pl. Zeyl.: 253. 1861; Meissn. in DC., Prodr. 115(1): 22.

1864; Miq., Ann. Mus. Bot. Lugduno Batavum 1: 258. 1864; Hook.f., Fl. Brit. India 5: 133. 1886; Trimen, Handb. Fl. Ceylon 3: 442. 1895; Alston in Trimen, Handb. Fl. Ceylon 6: 247. 1931; Kosterm., Bibl. Laur.: 313. 1964 & in Dassan., Rev. Handb. Fl. Ceylon 9: 19. 1995.

Fig. 1, 2

Trees, to 20 m tall; bark with shallow round cavities *c.* 12 mm thick, light brown, paler inside, mildly fragrant; terminal buds densely silvery-sericeous; branchlets smooth, glossy. Leaves opposite, ovate-oblong to ovate-lanceolate, 4–9 × 2–4 cm, rounded or subacute at base, blunt or subacute at apex, coriaceous, glabrous, very smooth, glossy; midrib faint, two basal nerves arise a little above base and terminate above the middle leaf, prominent on both surfaces; secondary nerves faint; petioles 1.2–1.8 cm long, canaliculate above, glabrous. Inflorescences a panicle, terminal and axillary, 5.5–8 cm long, lax; peduncles 1.7–3.5 cm long, minutely sericeous, densely so towards apex. Flowers *c.* 1.2 cm long, densely silvery-sericeous, greenish white; pedicels *c.* 5 mm long, densely sericeous. Perianth tube 2.5–3 mm long, pilose; lobes subequal, ovate, *c.* 3.5 mm long, subacute at apex, thick, sericeous inside, densely silky outside, caducous. Fertile stamens 9 in 3 rows, *c.* 2.5 mm long; filaments pilose; anthers *c.* 1.5 mm long; outer 2 rows with 4 introrse cells; inner one broader with 2 lateral cells; basal glands stipitate, ovate, acute at apex; staminodes 3, sagittate, *c.* 2 mm long, stipitate, densely silky-pubescent. Ovary ovoid, *c.* 2 mm long, glabrous; style as long as ovary; stigma peltate. Fruits ellipsoid, 0.8–2 cm long, smooth, base surrounded by

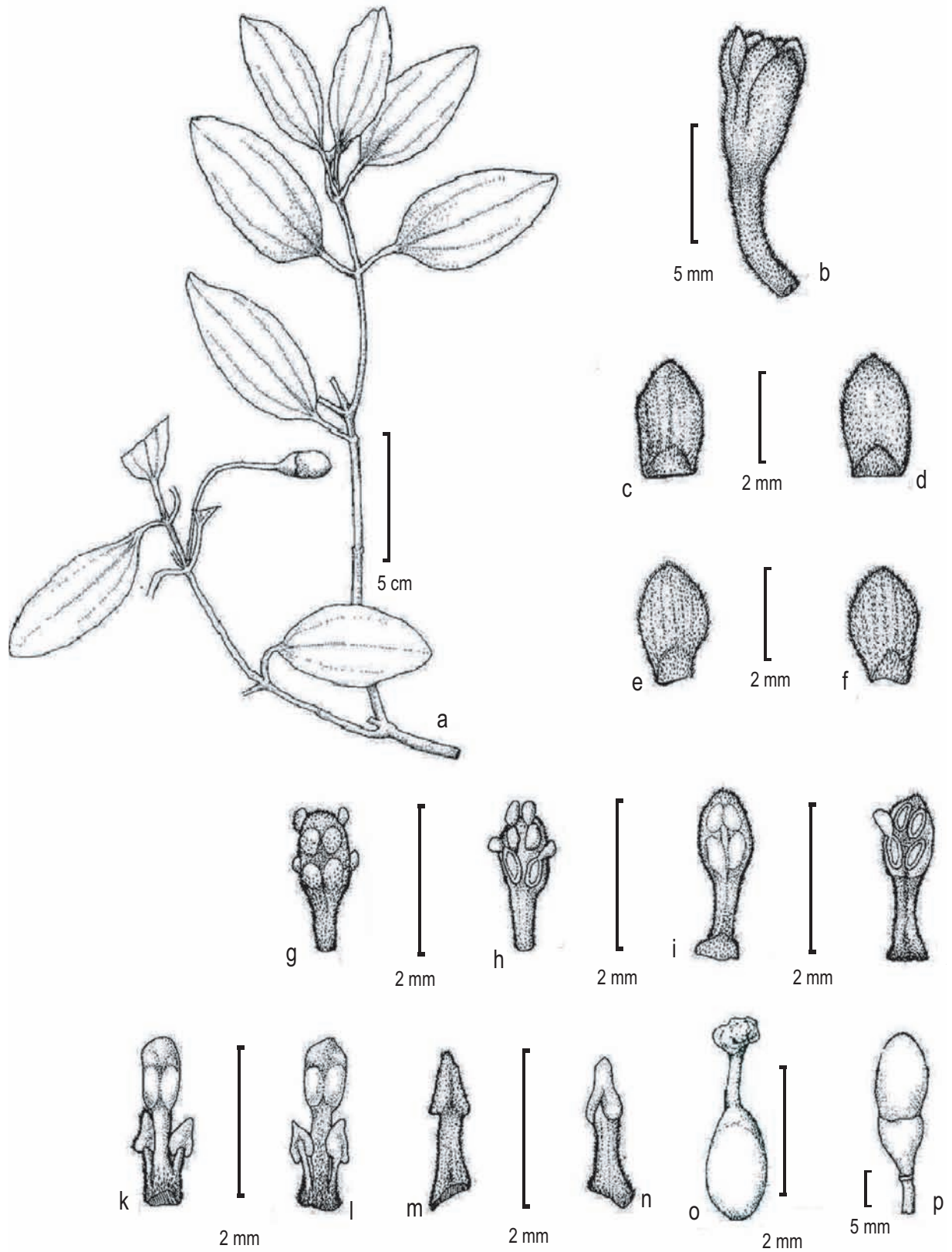


Fig. 1. *Cinnamomum litseaefolium* Thwaites: a. A twig; b. Flower; c – f. Tepals; g – h. Stamens (first row); i – j. Stamens (second row); k – l. Stamens (third row); m – n. Staminodes; o. Pistil; p. Fruit.



Fig. 2. *Cinnamomum litseaefolium* Thwaites: a. Habit; b. A view of bark on the trunk; c. Closer view of bark; d. A flowering twig; e. A fruit.

a shallow perianth tube; perianth tube to 6 × 8 mm, entire at rim; fruiting pedicels 6 – 8 mm long, slender; seed 1, ellipsoid.

Flowering & Fruiting: March – October.

Habitat: Evergreen forests, c. 1100 m. It grows in association with *Cinnamomum sulphuratum* Nees, *Garcinia imbertii* Bourd., *Macaranga peltata* (Roxb.) Müll.-Arg., *Memecylon sessile* Benth. ex Wight & Arn., *Ochlandra travancorica* (Bedd.) Benth. ex Gamble and *Phaeanthus malabaricus* Bedd.

Distribution: India (Western Ghats of Kerala and Tamil Nadu) and Sri Lanka.

Specimens examined: INDIA, **Kerala**, Thiruvananthapuram district, Chemunji, c. 1100 m, 8.4.2009, M.P. Geethakumary & A.G. Pandurangan 65287; Chemunji, 15.10.2009, M.P. Geethakumary & A.G. Pandurangan 67914 (TBGT). **Tamil Nadu**, Tirunelveli district, Naterikal, 6.3.1917, J.S. Gamble 14516; Kannikatty, 3000', 19.9.1921, K.C. Jacob s.n. (MH).

Notes: This large tree species can easily be recognized by its bole having peculiar, scattered, shallow round cavities, which appear to be natural (Kostermans, 1995). The fruits found to be abnormal due to formation of large, puffy, wrinkled galls and unaffected fruit cup.

Based on collections made by Tadulingam (hills of Tinnevely), Brandis (Coimbatore) and Beddome (without precise locality), Gamble (1921) reported the presence of *C. litseaefolium* from the erstwhile Presidency of Madras. Kostermans (1985) studied the above collections in detail and concluded that the collections of Tadulingam and Brandis are quite distinct from *C. litseaefolium* (CP 392) and therefore described them as *C. keralense*. The other specimen collected by Beddome is nothing but *C. filipedicellatum* Kosterm., from an unknown locality. Kostermans (1985) while proposing the novelties, inadvertently included *C. litseaefolium* auct. Gamble under the synonymy of both species, but with a question mark for *C. filipedicellatum*. During the perusal of herbarium specimens housed at MH, a collection made by J.S. Gamble during 1917 from Naterikal in Tirunelveli district of Tamil Nadu was noticed. This belongs to the actual *C. litseaefolium*, but he did not include this collection

in his Flora of Madras, as he thought it would be an undescribed species (on the herbarium sheet, Gamble annotated '*Cinnamomum tadulingamii* sp. nov. '), but was never published. Based on the present investigation, it is concluded that *C. litseaefolium* auct. Gamble is nothing but *C. keralense* and not *C. filipedicellatum*. The present report of this Sri Lankan species in Western Ghats further strengthens the view that both the areas share a common phytodiversity.

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