

Symplocos bractealis (Symplocaceae), a new addition to the flora of India

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भारतीय वनस्पतिजात में सिम्पलोकोस ब्रैक्टीऐलिस (सिम्पलोकेसी) का एक नवीन संयोजन

रविन्द्रन जगदीशन, कोनिकल मम्बेट्टा प्रभुकुमार, गोपाल कृष्ण प्रसाद, वन्नारत्ता वेतील नवीन कुमार एवं इंदिरा बालाचंद्रन

सारांश

कालान्तर तक श्रीलंका के मोन्टेन वनों की स्थानिक वृक्ष जाति *सिम्पलोकोस ब्रैक्टीऐलिस* थिव. (सिम्पलोकेसी) को भारतीय वनस्पति जात (पलोरा) में नये अभिलेख के रूप में अन्वेषित किया गया है। प्रस्तुत शोध पत्र में इस जाति का विस्तृत वानस्पतिक वर्णन, वितरण एवं पारिस्थितिकीय टिप्पण डिजिटल छायाचित्रों के साथ दिया गया है।

ABSTRACT

Symplocos bractealis Thw. (Symplocaceae) being considered an endemic tree species in the montane forests of Sri Lanka is reported here as a new record to the flora of India. The present paper provides the detailed description, distributional and ecological notes along with a digital photograph.

Keywords: *Symplocos*, Symplocaceae, Endemic, Sri Lanka, extended distribution, India, new addition.

INTRODUCTION

Symplocos Jacq. is the monotypic genus of family Symplocaceae, consists about 300 taxa distributed in the tropics of America, Australia, East Indies, South-Southeast Asia, and some of the species reaching the temperate zones of North America and Eastern Asia

(Brand, 1901, Nootboom, 1975; Stahl, 1995). Nootboom (1975) reported 16 taxa of *Symplocos* from Sri Lanka. Clarke (1882) reported 64 species from British India and later Hore (1990) reported 39 taxa alone from Indian region. Among them, 14 species and 11 subspecies were reported from Western Ghats (Nair & al., 2014).

While conducting floristic explorations in the montane vegetation of Eravikulam National Park in the Kerala, the authors came across one interesting specimen of *Symplocos* from Pettimudy forests. The critical studies on the collected specimen show a close similarity with a Sri Lankan species, *Symplocos bractealis* mainly by means of its distinct revolute leaves. The further comparison studies with the original description and type specimens available at the BR (holo) and BM (iso), its identity was confirmed as *Symplocos bractealis*. From a thorough literature survey it became apparent that this species had not been reported from India so far. *Symplocos bractealis* is described by Thwaites (1860) from Central Province of Ceylon. Unaware of this, Miers published the same plant as *Lodhra bractealis* in 1879. Later, Kuntze (1891) transferred the aforesaid as *Eugenioides bracteale*. But the subsequent researchers accepted the name *Symplocos bractealis* (Beddome, 1872; Trimen, 1895; Brand, 1901). During the revisionary studies, Nooteboom (1975) altered it into the varietal status and named as *Symplocos macrophylla* var. *revoluta* Noot. (1975) and after six years he retained its status to the species level and synonymized the variety under *Symplocos bractealis*. The detailed description of the species which recently collected from India, is presented here with its correct citation, synonyms, phenology, an distributional note and details of specimens examined.

TAXONOMIC TREATMENT

Symplocos bractealis Thwaites, Enum. Pl. Zeyl. 185. 1860; Bedd., For. Man. Bot. 151. 1872; *Lodhra bractealis* Miers, J. Linn. Soc. Bot. 17:301. 1879; C.B. Clarke in Hook.f., Fl. Brit. India. 584. 1882 (incl. var. *revoluta*) *Eugenioides bracteale* Kuntze, Revis. Gen. Pl. 2: 875 1891; Trimen, Handb. Fl. Ceylon 3: 106. 1895; Brand in Pflanzenr. Heft 6: 59. 1901; *Symplocos macrophylla* Wall. ex DC. var. *revoluta* (Wight & Gardner ex C.B. Clarke) Noot, Leiden Bot. Ser. 1: 228. 1975. (Type: Sri Lanka. Thwaites G. sn., # C.P. 174 (BR!).) (Pl. 1.)

Shrub to tree-let, up to 5 m high. Stem stout, profusely branched, subangular; bark brown, rough; blaze smooth, pale green; young branches glabrous, cylindrical, green. Leaves simple, alternate, exstipulate; petiole

5–15 × 3–5 mm, stout, glabrous, green, ventrally flat; lamina 7–15 × 3–7 cm, elliptic, obovate-oblancheolate, base cuneate–shortly attenuate, apex obtuse–retuse, margin entire or shortly serrulate-crenulate, revolute, coriaceous, glabrous, pale green; midrib conspicuous abaxially, lateral veins 11–13 pairs, divergent, reticulate, conspicuous. Racemes axillary, compactly-flowered; peduncle 3–7 cm long, pubescent becoming glabrous, green or light greenish-red; bract 3.8–4 × 3.2–4 mm, ovate, base truncate, apex acute, ciliate, glabrous, caducous; bracteoles 2 on pedicel covered by bract, 2.6–2.8 × 1.7–2 mm, ovate, base truncate, apex acute, ciliate, glabrous, caducous. Flower 1–1.2 × 0.8–1 cm across, Epigynous, white, fragrant, glabrous; pedicel 1.5–3.5 mm, pubescent, stout, green. Sepals 5, gamosepalous, irregular, glabrous; tube 1.8–2.2 × 2.6–2.8 mm, green; lobes ovate, 2.6–3 × 2.2–2.8, apex acute, margin ciliate, green. Petals 5–6, irregular, white with yellow tinges, glabrous, connate at base; lobes 5.5–6.2 × 3.5–4 mm, oblong, apex rounded, stamen bundles adhering to the base; veins 3–4, prominent. Stamens c. 90, in 5–6 bundles; included, filaments 4.5–4.7 mm long, glabrous; anthers yellow, 0.3–0.5 mm across, basifixed, dehiscent longitudinally. Carpels c. 6 mm long; ovary inferior, 3-celled, 2 ovules per cell, pendulous; style 3.6–3.8 mm long, stout, glabrous, pale green; stigma capitate, glabrous; disc pentagonous, yellowish–brown, glabrous except at the base. Fruit a drupe, 1.5–1.7 × 0.5–0.7 cm across, cylindrical–ellipsoid crowned with persistent calyx, green mottled with white spots, glabrous; mesocarp fleshy; endocarp 14–16 grooved. 1–3-seeded, Seeds oblong, glabrous.

Flowering and Fruiting: April–October.

Distribution and Ecology: The species found only in the Shola forest margins of Pettimudy. Only a few (less than 5) individual trees were observed during the study from this locality. *Dendrobium anamalayanum* Chandrab., V. Chandras. & N.C. Nair was predominantly growing on its trunk and the main associated associated tree species was *Litsea wightiana* (Nees) Hook. f.

Specimen examined. India: Kerala, Idukki District, Eravikulam National Park, ±2100 m, 19 August 2016, K.M. Prabhukumar, R. Jagadeesan, Binu Prakash & G. Prasad 9472 (CMPR); 30 August 2016, R. Jagadeesan 9565 (CMPR).



Plate -1: *Symplocos bractealis* Thwaites: A. Habit: B. Fruiting twig; C. Flowering twig; D. Inflorescence.

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