

# *Syzygium syzygioides* (Myrtaceae), a new distributional record for Peninsular India

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**Abstract:** *Syzygium syzygioides* (Miq.) Merr. & L.M.Perry (Myrtaceae) earlier known only from Northeast India to Java and Andaman Islands, is recorded for the first time from Peninsular India. A detailed description, habitat notes and photographs are provided.

**Keywords:** Arippa, Kerala, Taxonomy, Western Ghats.

## Introduction

*Syzygium* Gaertn., the largest genus in Myrtaceae, comprises about 1200 species distributed from Africa eastwards to the Hawaiian Islands, India and southern China southwards to Australia and New Zealand (Parnell *et al.*, 2007; Govaerts *et al.*, 2020). Seventy two species are so far reported from India, which include eight recently described species from the Western Ghats, two from Andaman Nicobar Islands and one from Northeast India (Viswanathan & Manikantan, 2008; Shareef *et al.*, 2012, 2014; Sujanapal *et al.*, 2013, 2014; Nayar *et al.*, 2014; Ramana *et al.*, 2014; Narayanan *et al.*, 2014; Murugan & Arumugam, 2017; Ramasubbu *et al.*, 2018; Sarma *et al.*, 2019). The Western Ghats of Peninsular India shows the highest diversity of the genus in India with 47 species, 20 of which are endemic (Nayar *et al.*, 2014; Govaerts *et al.*, 2020).

During field trips in the foothills of the Western Ghats of Kerala, the author came across an

interesting specimen from Arippa forests in Kollam district. It is an elegant tree with attractive architecture, glossy foliage and beautiful white flowers, which does not correspond with the other known species from Peninsular India. On critical taxonomic studies with pertinent literature (Miquel, 1855; Kurz, 1877; Duthie, 1878; Parkinson, 1922; Ridley, 1922; Kanjilal *et al.*, 1938; Merrill & Perry, 1938; Backer & Bakhuizen Van Den Brink, 1963; Parnell & Chantaranothai, 2002; Soh & Parnell, 2015) and type specimens housed at L, it was identified as *Syzygium syzygioides* (Miq.) Merr. & L.M.Perry. As the species is not mentioned in any of the floras from the Indian peninsula, it is reported here as a new distributional record for the region and a detailed description with colour photographs is provided for easy identification in the field.

***Syzygium syzygioides*** (Miq.) Merr. & L.M.Perry, J. Arnold Arbor. 19: 109. 1938. *Jambosa syzygioides* Miq., Fl. Ned. Ind. 1(1): 431. 1855. *Eugenia syzygioides* (Miq.) M.R.Hend., Gard. Bull. Singapore 12: 154. 1949. *Eugenia cymosa sensu* Wight, Ill. 2: 17. 1841; Ic. 2: t. 555. 1843; Kurz, J. Asiat. Soc. Bengal 46(2): 67. 1877; Duthie in Hook.f., Fl. Brit. Ind. 2: 482. 1878; King, J. Asiat. Soc. Bengal 70(2): 100. 1901; *Lectotype* (designated by Byng *et al.*, 2015): INDONESIA, “Java, in de wooden der westelijke streken”, *s.coll. s.n.* (L [L0822705 digital image!]; isolecto L [L0822704 digital image!]).

*Syzygium vimineum* Wall ex P.H.Hô, Ill. Fl. Vietnam 2: 61. f. 3768. 1992.

*Eugenia pseudosyzygioides* M.R.Hend., Gard. Bull. Singapore 11: 315. 1947.

*Syzygium caudatum* Wall., Numer. List no. 3591. 1831. *nom. nud.*

*Eugenia viminea* Wall., Numer. List no. 3593B. 1831. *nom. nud.*

Fig. 1

Large evergreen trees, to 20 m tall; old stems often buttressed at the base; bole straight; bark smooth, later becomes rough, slightly flaky, greyish-brown when mature; blaze ultimately turning reddish-brown; branches very slender, sub-terete and light green later become terete and pale greyish-brown, thickened at nodes; inter nodes 3–4 cm long. Leaves crimson-red when young; petioles slender, 0.5–1.5 cm long, slightly depressed above, black when dry; lamina elliptic-lanceolate to elliptic-oblong or ovate-elliptic, 6–9 × 1.5–5.5 cm, thinly coriaceous, pellucid punctate, cuneate at base, acuminate to caudate-acuminate at apex, acumen 0.5–1.5 cm long, slightly revolute along margins, greenish above, pale green beneath; midrib slender, slightly depressed above, raised beneath, black when dry; lateral nerves 35–42 per side, sub-parallel, narrowly spaced, 1–2 mm apart, indistinct above, distinct beneath; tertiaries faint, finely reticulate; intramarginal nerve 1-tiered, conspicuous, slender, *c.* 1 mm from margin. Inflorescence both terminal and axillary, 4–9 cm long, sub-corymbose panicles; flowers *c.* 38; peduncles 1.7–2.5 cm long, slender; peduncle and ramifications angled; ultimate branches end in 3 flowers. Bracts and bracteoles deltoid, *c.* 0.8 × 0.3 mm. Flowers sessile, 0.8–1 cm diam. at anthesis. Hypanthium campanulate, 3–3.5 × 2.8–3 mm, reddish outside. Calyx shallowly 4-lobed; lobes deltoid, reddish. Petals orbicular, *c.* 2 mm across, white with pinkish tinge, membranous, gland dotted, calyptrate. Stamens many, unequal, 3.5–5 mm long, white; anthers ovate; filaments filiform. Ovary 2-locular; ovules 19–22 per locule; style slender, *c.* 5 mm long; stigma simple, acute. Fruit globose to subglobose, 1.1–1.5 × 1.1–1.4 cm, pericarp fleshy, green turns red to purple black when ripe, with smooth to undulating calyx rims, *c.* 1 mm high, 1-seeded.

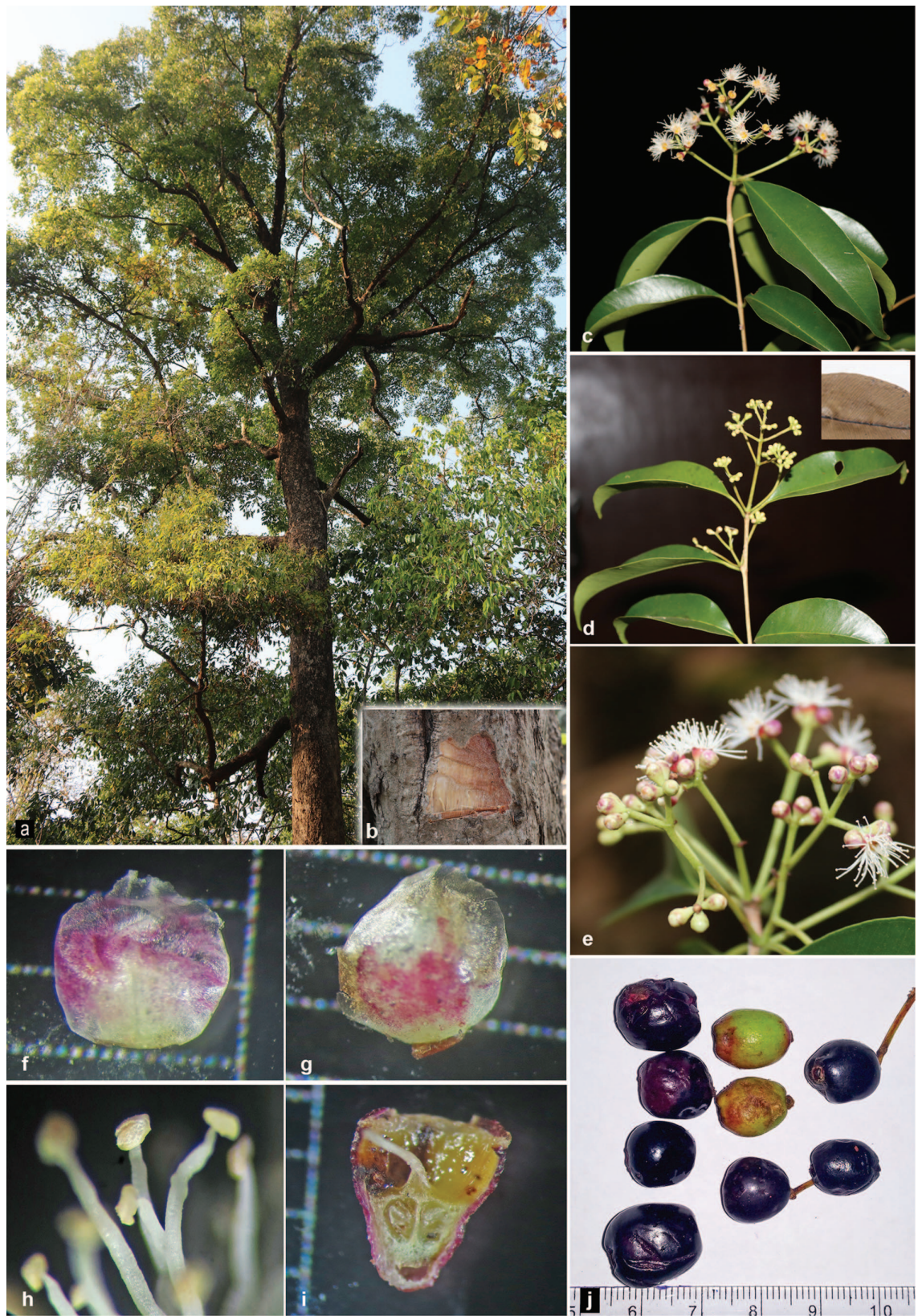
*Flowering & fruiting:* Flowering and fruiting from March to May.

*Habitat:* *Syzygium syzygioides* is found in the lowland mixed evergreen forests, at an elevation of ±110 m above sea level and is associated with *Syzygium mundagam* (Bourd.) Chithra (Myrtaceae), *Ixora brachiata* Roxb. ex DC. (Rubiaceae), *Artocarpus hirsutus* Lam. (Moraceae), *Lannea coromandelica* (Houtt.) Merr. (Anacardiaceae), *Macaranga peltata* (Roxb.) Muell.-Arg. (Euphorbiaceae), *Mallotus philippensis* (Lam.) Muell.-Arg. (Euphorbiaceae), *Calycopteris floribunda* (Roxb.) Poir. (Combretaceae), *Aporosa cardiosperma* (Gaertn.) Merr. (Euphorbiaceae), *Capparis fusifera* Dunn (Capparidaceae), *Mangifera indica* L. (Anacardiaceae), *Flacourtia montana* Graham (Flacourtiaceae), *Xanthophyllum arnotianum* Wight (Xanthophyllaceae), *Artabotrys hexapetalus* (Linn.f.) Bhandari (Annonaceae), *Salacia brunoniana* Wight & Arn. (Celastraceae), *Terminalia paniculata* Roth (Combretaceae), etc.

*Distribution:* Bangladesh, Cambodia, India, Laos, Malesia, Myanmar, Thailand and Vietnam.

*Specimens examined:* INDIA. Kerala, Kollam district, Arippa, ±110 m., 08.03.2019, S.M. Shareef 79283, 79284; *Ibid.*, 16.03.2019, S.M. Shareef 79287, 79288; *Ibid.*, 30.04.2019, S.M. Shareef 79292 (TBGT).

*Notes:* *Syzygium syzygioides* is an elegant tree which is more attractive during its flushing and flowering periods. It can be easily recognized from other species in the Western Ghats by the presence of slender and terete branchlets, crimson coloured young foliage, axillary and terminal inflorescences, small but white flowers with reddish tinged hypanthium and petals and small globose to subglobose fruits. The ripe fruits are edible (Deb, 1981), sweet but are not used by the inhabitants of the present locality. The author noticed that the seedlings of this species are collected by the forest nursery at Kulathupuzha, near Arippa and are planted in degraded forest areas of Kollam, Pathanamthitta and Thiruvananthapuram districts as part of afforestation programmes. They locally named it as 'Tholnjal', but correct identity of the species was unknown to them. As part of *ex-situ* conservation, this species was successfully



**Fig. 1.** *Syzygium syzygioides* (Miq.) Merr. & L.M. Perry: **a.** Habit; **b.** Bark showing blaze; **c-d.** Flowering twig (inset: Leaf–under side); **e.** Inflorescence; **f & g.** Petals; **h.** Stamens; **i.** L.S. of hypanthium showing ovary; **j.** Fruits (photos by S.M. Shareef).

introduced in Jawaharlal Nehru Tropical Botanic Garden and Research Institute, Palode, Thiruvananthapuram.

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