

CORRESPONDENCE

Occurrence of *Balanophora abbreviata* Blume (Balanophoraceae) in Tamil Nadu, IndiaC. Rajasekar¹, R. Silambarasan², P. Sakthidhasan³ and R. Kottaimuthu^{1*}¹Department of Botany, Alagappa University, Karaikudi-630 003, Tamil Nadu, India²Department of Botany, AVVM Sri Pushpam College, Poondi 613 503, Tamil Nadu, India³Department of Botany, Bharathidasan University, Tiruchirapalli-620 024, Tamil Nadu, India

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ABSTRACT

Balanophora abbreviata Blume is reported as an addition to the Balanophoraceae of Tamil Nadu. The present communication provides the detailed description, distribution, ecological notes along with a photo plate.

KEYWORDS: *Balanophora*, Eastern Ghats, Distribution, Kolli Hills.

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Introduction

Balanophora J.R. Forster & G. Forster (Balanophoraceae) is a poorly studied genus of root holoparasite (Chhetri *et al.*, 2018) native to temperate and tropical regions of Asia and the Pacific (Hansen, 1972). The genus is known to have 15 species (Hansen, 1999; Hansen & Kubitzki, 2015) of which seven species viz., *B. abbreviata*, *B. dioica*, *B. fungosa*, *B. harlandii*, *B. indica*, *B. involucrata* and *B. polyandra* are reported from India (Balakrishnan, 2012; Kipgen & Singh, 2010). During a recent floristic survey on Kolli Hills, the authors have collected some diminutive fleshy root parasite and it is characterized by the combination of characters: distichous scale leaves, inflorescence bisexual, small ovoid or ovoid to lanceolate spikes, tetramerous and zygomorphic male flowers located below the female flowers. A critical examination revealed that the specimen is distinct from the hitherto known *Balanophora* taxa of Tamil Nadu (Kumari, 1987; Viswanathan *et al.*, 2000). On critical study of literature (Areal & Shivamurthy, 1974; Hansen, 1972), the specimens were identified as *Balanophora abbreviata* Blume, a species hitherto unrecorded from the state of Tamil Nadu (Kumari, 1987; Manickam *et al.*, 2003; Matthew, 1995, 1999; Pallithanam, 2001). Hence, it is reported here as an addition to the Balanophoraceae of Tamil Nadu. A detailed description along with photographs is provided to facilitate easy identification of this species in field.

Taxonomic Treatment

Balanophora abbreviata Blume, Enum. Pl. Javae 1: 87. 1827; Areal & G. R. Shivamurthy in Curr. Sci. 44(3): 97. 1975; Sasidh. & Sivar., Fl. Thrissur For.: 389. 1996; Anilkumar & al., Fl. Pathanamthitta: 431. 2005. *Acroblastum ambavanense* Reddi in Willdenowia 5(3): 389. 1969.

Plants monoecious, 5–10 cm; tubers single or several together in a mass, branching from base; single tuber obconical, narrowed at base, broad near top, 1 - 2 cm long, finely granular, warty. Leaves scaly, 3–7, ovate, 1–2 x 0.5–1.5 cm, distichous, slightly imbricate, obtuse or emarginate at apex. Male flowers: 10 - 20, in 1 - 2 cm long area below the female portion of spadices, sessile or with ca 1 mm long pedicels; flowers usually tetra or penta-merous, bisymmetric or slightly zygomorphic. Tepals 4–6, 1–2 mm long, if 4-merous, then the 2 lateral tepals narrow, ovate, acute and 2 median tepals wide, truncate or almost square; synandrium broadly ovoid, ca 1 x 1.5–2 mm, laterally compressed; anthers divided into 15–25 parallel loculi; pollen grains spherical, exine spinulose with 10–12 circular pores. Female flowers aggregated on an ovoid capitulum, ca 1.5 x 1 cm. Carpels ovoid or ellipsoid, minute, 300 - 450 µm long.

Flowering: October – December.

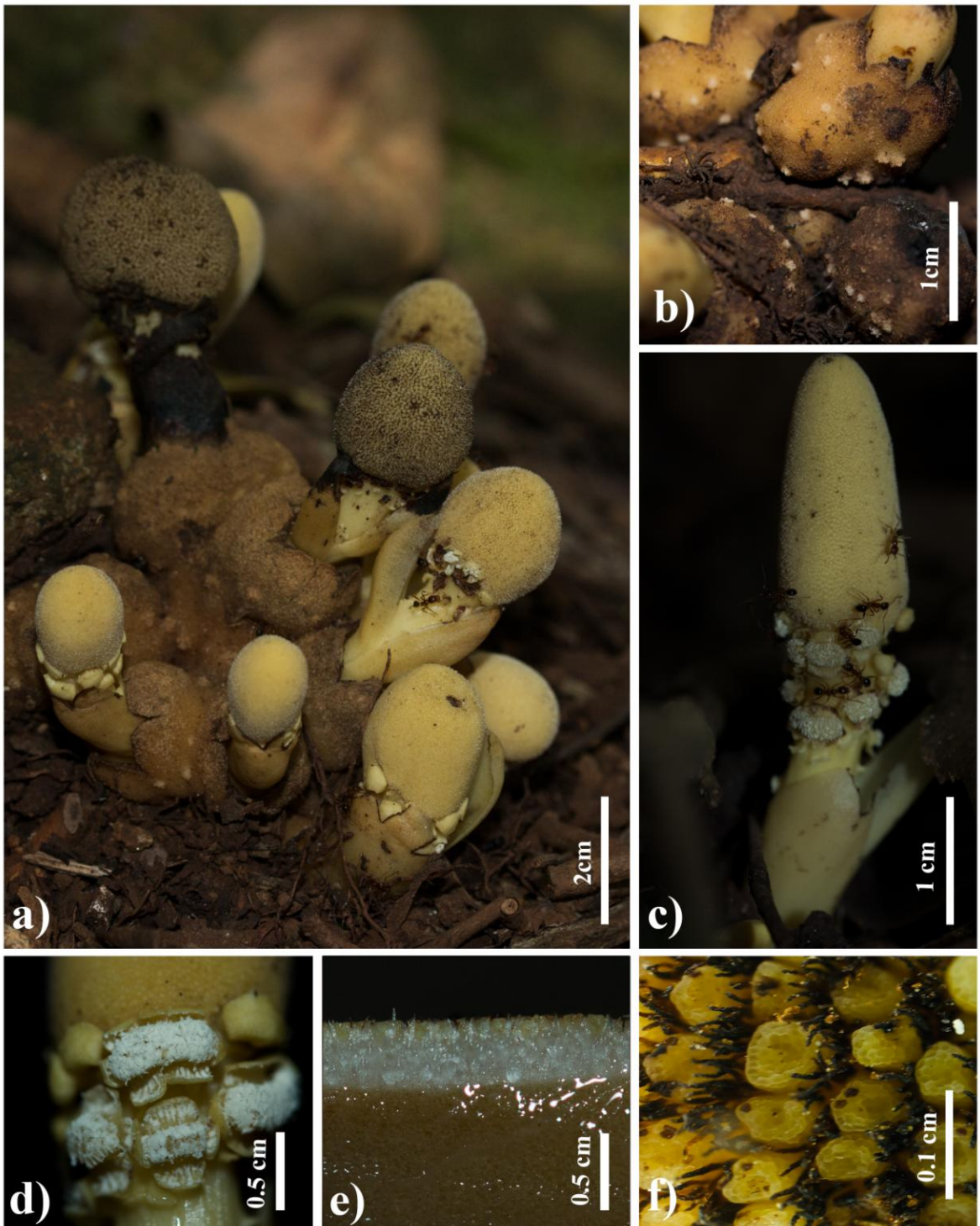


Figure 1. *Balanophora abbreviata*. a-Habit; b-Roots; c-Inflorescence; d-Staminate flowers; e-Longitudinal section of pistillate inflorescence; f-Female flowers close up.

Distribution: INDIA (Andaman Islands, Arunachal Pradesh, Assam, Karnataka, Manipur, Meghalaya, Mizoram, Nagaland, Odisha, Sikkim, Tripura, West Bengal and Tamil Nadu [present report]), AFRICA, NEPAL, BHUTAN, SW. CHINA, VIETNAM, THAILAND and MYANMAR to MALESIA.

Ecology: It is an ephemeral easily overlooked by its diminutive size. It is found growing at an altitude of 1000-1020 m in the tropical semi evergreen forests and also along the road sides. Associated species include *Cansjera rheedii*, *Peperomia wightiana*, *Croton laccifer*, *Teucrium heynei*, *Plectranthus mollis*, *Alseodaphne semicarpifolia*, *Lycianthes laevis*, *Syzygium hemispehericum*, *Ceropegia candellabrum*, *Psydrax umbellatum*, *Diploclissia glaucescens*, *Phyllanthus wightianus*, *Eugenia bracteata*, *Psychotria octosulcata*, *Ophiopogon intermedius* var. *pauciflorus*, *Canarium strictum*, *Piper hymenophyllum* and *Artocarpus integrifolius*.

Specimens examined: Tamil Nadu, Namakkal Dist., Kolli Hills, 1000-1020 m, 13 Oct 2018, *Rajasekar et al.* 120 (Alagappa University Herbarium); same place, 21 Oct 2018, *Rajasekar et al.* 140 (spirit collection, Bharathidasan University Herbarium).

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