



## Recollection of a rare epiphytic orchid *Taeniophyllum filiforme* J.J. Sm. (Orchidaceae) after a lapse of 135 years from South Andaman Islands, India

K. Karthigeyan<sup>1</sup>, R. Sumathi<sup>2</sup> & J. Jayanthi<sup>3</sup>

<sup>1</sup> Central National Herbarium, Botanical Survey of India, A.J.C.B. Indian Botanic Garden, P.O. Botanic Garden, Howrah, West Bengal 711103, India

<sup>2</sup> Foundation for Revitalisation of Local Health Traditions (FRLHT), 74/2, Jarakabande Kaval, Attur Post (via Yelahanka), Bengaluru Karnataka 560064, India

<sup>3</sup> Botanical Survey of India, Western Regional Centre, 7 - Koregaon Road, Pune, Maharashtra 411001, India  
Email: <sup>1</sup> karthigeyan.murthy@gmail.com (corresponding author), <sup>2</sup> sumathi.ramamurthy@gmail.com, <sup>3</sup> jayanthi.bsi@gmail.com

The genus *Taeniophyllum* Blume is a group of small monopodial, leafless epiphytic orchid with a minute central stem. The generic name denotes the tapeworm-like long roots. The roots are green, contain chlorophyll that performs photosynthesis and the true leaves are reduced to tiny scales covering the stem. It belongs to the Vandaeae group of the tribe Epidendroideae of the family Orchidaceae (Seidenfaden 1988; Seidenfaden & Wood 1992; Comber 2001; Mabberley 2008). So far 170 species have been reported which are distributed from tropical Africa, India and Sri Lanka, East and

Southeast Asia, to Australia and the Pacific Islands (Comber 1990; Mabberley 2008). Nine species are reported from India including four endemics (Kumar & Manilal 1994). Three species are known to occur in the Andaman Islands, namely, the endemic *Taeniophyllum andamanicum* N.P. Balakr. & Bhargava, *T. filiforme* J. J. Sm. and *T. insulare* Seidenf. (Rao 1986; Mathew 1998; Pandey & Diwakar 2008).

The occurrence of *Taeniophyllum filiforme* in the Andaman Islands was first known when Dr. Lars Johnson identified this species from the collection made by Kurz from the South Andamans in 1867 deposited in Kew. After that there was no record of this extremely rare species from the Andaman Islands and the occurrence of this interesting species remained a mystery. While inventorising the floristic diversity of Rutland Island during the year 2002 this flimsy orchid was found growing on the branches of *Pterocarpus dalbergioides* Roxb. ex DC. and only a few individuals were observed. On scrutiny of literature it was identified as *Taeniophyllum filiforme*, an extremely rare orchid in the inland forests of the Andaman Islands. The present collection of this tiny orchid from the tropical forests of South Andaman is a recollection after a lapse of 135 years. Since this orchid is leafless, only the green roots appear on the bark of trees, the pale yellow flowers are very short lived and this could be one of the reasons for being unnoticed over many years. *Taeniophyllum filiforme* is also listed in the CITES Appendix II by the World Conservation Monitoring Centre (UNEP WCMC 2003). Detailed description and illustration along with notes on its ecology and distribution are provided for easy identification of this rare orchid.

*Taeniophyllum* Blume, Bijdr. 355. 1825; Hook.f., Flora British India 6: 76. 1890. Lectotype: *T. obtusum* Blume.

*Taeniophyllum filiforme* J.J. Sm. Bull. Inst. Bot. Buitenzorg 7: 4. 1900; Seidenf. in Opera Bot. 95: 21. 1988; J.B. Comber in Orchids Java 360. 1990; Seidenf. & J.J. Wood in Orchids Penin. Malaysia & Singapore 579. 1992; J.B. Comber in Orchids Sumatra 980. 2001. *T. macrorrhizum* Ridl. in Fl. Malay Penin. 4: 176. 1924. (Fig. 1; Images 1&2).

Epiphytes. Roots wiry, more or less flat, green. Inflorescence arising from the base, 1–2 flowered,

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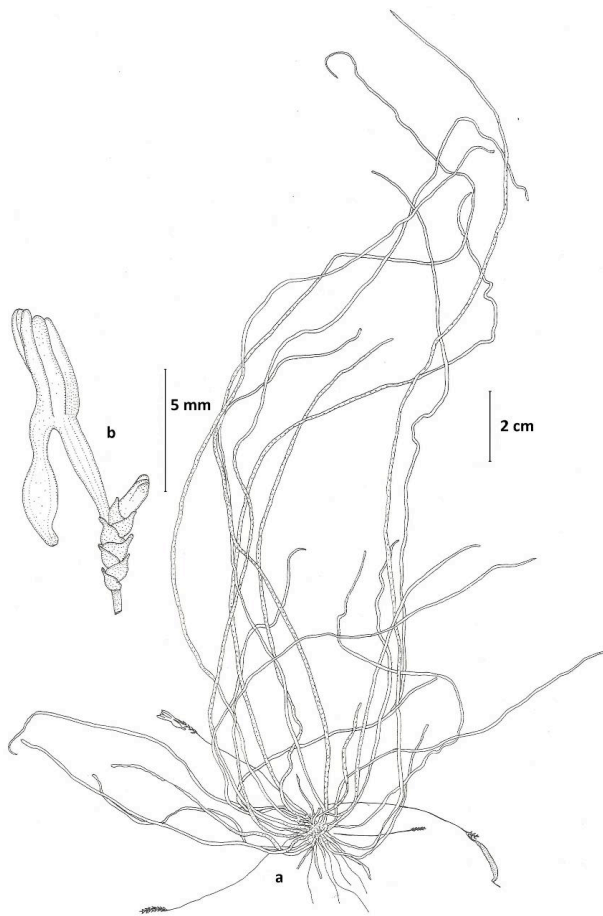
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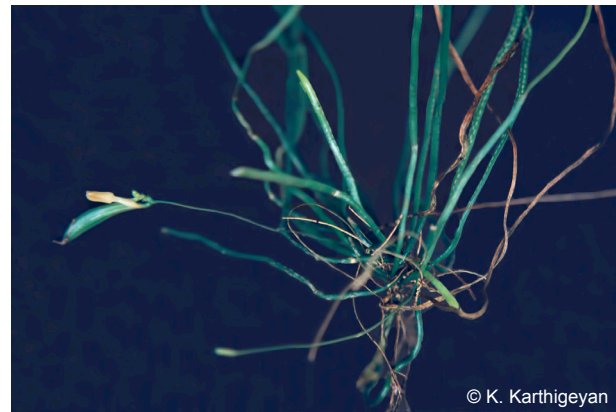
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**Figure 1. *Taeniophyllum filiforme* J.J. Sm.**  
a - Habit; b - Flower



**Image 1. *Taeniophyllum filiforme* habit**



**Image 2. *Taeniophyllum filiforme* close up view of flower**

ca. 5.5cm long, slender. Bracts ca. 1.5mm long, membranous. Flowers pale yellow, ca. 1x0.25 cm. Pedicel with ovary ca. 4x1 mm. Dorsal sepal narrowly oblong, ca. 4x1 mm, obtuse at apex. Lateral sepals narrowly oblong, ca. 4x1.5 mm, obtuse at apex. Petals oblong - lanceolate, ca. 4.5x1.5 mm, obtuse at apex. Lip fleshy, ca. 3.8 x 2.5 mm, pale yellow, sheathing the column; spur club - shaped, c. 4.5 x 1.8 mm. Column ca. 1mm long, with a long upwardly facing beak on the operculum.

**Specimen examined:** 28.vi.2002, inland evergreen forests, Rutland Island, South Andamans, Andaman & Nicobar Islands, India, coll. K. Karthigeyan, 6086 Port Blair herbarium (PBL) (Image 3).

**Flowering & Fruiting:** June–August.

**Ecology:** Extremely rare; in the inland forests of Rutland Island growing on the tree trunks of *Pterocarpus dalbergioides* Roxb. ex DC.

**Distribution:** India (Andaman Islands); Peninsular Malaysia, Thailand and Indonesia.

**Note:** This species can easily escape from sight owing to its small leafless habit, green roots that grow on the tree trunks either near the forest floor or among the dense foliage of smaller twigs. This species is distributed in Peninsular Malaysia, Thailand and Indonesia. In the Andaman Islands only very few individuals were located from a single spot.

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**BOTANICAL SURVEY OF INDIA**  
 Andaman & Nicobar Regional Centre, Port Blair  
 Flora of Mahatma Gandhi Marine National Park, South Andaman  
 Collection No. 6086  
 Family Orchidaceae  
 Genus Taeniophyllum Blume  
 Species Taeniophyllum filiforme J.J. Sm.  
 Locality Rutland Island, South Andaman  
 Notes Extremely rare; in the inland forests of  
Rutland Island growing on the tree trunks of  
Pterocarpus dalbergioides.  
 Collector K. Karthigeyan  
 Date 28.06.2002

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Image 3. Herbarium of *Taeniophyllum filiforme*