**FISSIDENS GRIFFITHII GANGULEE (MUSCI : FISSIDENTALES) - AN ADDITION TO THE BRYOFLORA OF INDIA**

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Abstract: *Fissidens griffithii*, a moss, earlier known to occur only in Bhutan, is recorded for India from the southern Western Ghats of Tamil Nadu. A detailed description and an illustration are provided.

**INTRODUCTION**

The Western Ghats in general and the region formerly known as the Tirunelveli-Travancore hills, located at the southern end of Tamil Nadu and Kerala respectively, in particular though have been well studied for flowering plants, the cryptogamic flora except perhaps for ferns, still remains almost totally ignored. Hence, with the aim of consolidating the bryoflora of the Western Ghats in the districts of Kanyakumari (formerly part of south Travancore, Kerala) and Tirunelveli in Tamil Nadu we began collecting three years ago. A species of *Fissidens*, *viz.*, *F. griffithii*, so far considered to be endemic to Bhutan (Gangulee, 1971), is added here to the moss flora of India from the Western Ghats of Kanyakumari District. A detailed description and an illustration are provided below.

*Fissidens griffithii* Gangulee in Nova Hedwigia 8: 143. 1964 & Moss. E. India 1(2): 520. 1971. - Type: Bhutan, Griffith 52 (NY) (Fig. 1 A-G)

Plants ca. 4 mm; stem unbranched, reddish brown. Leaves 6-8 pairs, oblong-ligulate, slightly narrow in the middle, 1-1.5 mm long, bent on one side towards the apex, neither curled nor contorted when dry; dorsal lamina narrowing below meeting the costa at the point of attachment; sheathing lamina unequal, open, usually terminating at the costa; costa percurrent-excurrent, orange; cells quadrate-hexagonal, those towards the apex 8-10 μm, those towards the base 10-14 μm, those near the costa at the base 16-18 μm, marginal ones corrugated due to projection of the papillae. Seta to 4 mm long, geniculate, brown. Capsules inclined, to 0.9 x 0.4 mm, brown; operculum conic, rostrate, straight; peristome dicranate, to 0.21 mm, rough. Spores 10-15 μm, yellow-brown with an elongated papilla-like protuberance.

Habitat: Corticolous on *Tamarindus indica* tree. Rare.

Distribution: Bhutan (Gangulee, 1971) and India (Tamil Nadu).

Specimens examined: Tamil Nadu, Kanyakumari Distr., W. Ghats, Maramalai, C.M.S. Glenbeck Estate, mixed plantations of clove, cocoa and mangosteen, 450 m, 23.1.1999, A.E.D. Daniels 402 (MH, SCCH).

*Fissidens macrosporoides* Dixon & P. Vard. which is distributed in the Western Himalayas and northern Western Ghats (*vide* Chopra & Kumar, 1981) is closely allied to *F. griffithii* Gangulee but differs from it in the leaf pairs being 9-12, costa percurrent or subcurrent, setae 1.5-1.6 mm, peristome densely papillate, and larger spores (25-30 μm) and their texture.

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REFERENCES

