TWO MOSSES NEW TO THE BRYOFLORA OF THE INDIAN MAINLAND

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ABSTRACT

Two mosses, viz., Calymperes moluccense and C. taitense, earlier known to occur only in the Andamans in India, are recorded for the Indian mainland. They are described in detail and illustrated.

Keywords: Andamans, New Records, Mainland India, Calymperes moluccense, Calymperes taitense.

INTRODUCTION

Since the lower groups of plants are continued to be neglected in India, studies on the bryoflora of the Southern Western Ghats were initiated in the Tirunelveli-Travancore hills about a decade ago with a view to consolidating the flora and the important findings are published as and when found. In an earlier contribution 4 mosses, viz., Calymperes motleyi, Fissidens robinsonii, Leucophanes glaucescens and L. nicobaricum were recorded for the Indian mainland (Daniels & Daniel, 2005). In the present contribution two mosses, viz., Calymperes moluccense Schwägr. and C. taitense (Sull.) Mitt., earlier known to be distributed only in the Andaman & Nicobar Islands in India, are added here to the bryoflora of the Indian mainland. Each species is provided with the correct name, basionym/synonyms, if any, a detailed description, notes on habitat and distribution and an illustration. Specimens cited are at SCCN (Herbarium, Botany Department, Scott Christian College, Nagercoil).


Plants 4 - 6 mm high, caespitose or forming mats, pale green. Leaves curled and falcate when dry, erectotamiform to spreading when wet, ovate-lingulate, cuneate at base, 1.5 - 3 x 0.4 - 0.6 mm, dimorphic; nongemmiferous ones obovate to lingulate, acute; margin entire at tip, faintly toothed at base; cells hexagonal to quadrate, 1-papillate; apical and median cells 4 - 8 x 4 - 8 μm; basal ones at margin 16 - 32 x 4 - 8 μm; those of cancellina 9- or 10-rowed on either side of costa, 20 - 40 x 16 - 40 μm, transparent, elongate, rectangular, smooth; teniola, submarginal, 2- or 3-rowed, extending to a little below apex; costa excurrent. Gemmae 120 - 200 x 24 - 40 μm, green, radiating and clustered at costal apex. Sporophyte not seen.

Habitat: Corticolous, in riparian forests, c. 500 m.

Distribution: Indonesia (Moluccas), Sri Lanka and India: Andaman & Nicobars and Tamil Nadu (W. Ghats of Kanyakumari dist.).

Specimen examined: Tamil Nadu, Kanyakumari dist., W. Ghats, Lower Kodaiyar, c. 500 m, 22.01. 2009, A.E.D. Daniels & J.L. Mabel 106.


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Fig. 1(A-F). Calymperes moluccense Schwgr.: A. Habit; B. Leaf; C. Leaf apex with gemmae; D. Gemmae; E. Leaf median cells; F. Leaf basal cells with teniola and cancellina.
Fig. 2(A-H). Calymperes taitense (Sull.) Mitt.: A. Habit; B. Leaf; C. Leaf apex; D. Leaf apical cells; E. Leaf median cells; F. Median cells with teniola; G. Leaf basal cells with cancellina and teniola; H. Cancellina cells.
Plants 1 - 2 cm high, caespitose, green. Leaves closer above, lax below, erectopatent, curled when dry, 1.5 - 2.5 × 0.3 - 0.7 μm, ovate-lingulate, serrate at margin; cells incrassate, quadrate-rectangular - hexagonal, cells 8 - 20 × 6 - 16 μm, unipapillate; cancellinae cells 9 - 13-rowed, hyaline, 16 - 32 × 12 - 20 μm, rectangular, on either side of costa; teniola submarginal, 3- or 4-rowed, extending to a little below apex; costa excurrent, gemmiferous. Sporophyte not seen.

_Habitat:_ Corticolous, in degraded evergreen forests, 200 - 550 m.

_Distribution:_ South East Asia, Oceania and India: Andamans, Tamil Nadu (W. Ghats of Tirunelveli and Kanyakumari dists.) and Kerala (W. Ghats of Thiruvananthapuram dist.).


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