

Jan-Peter Frahm

Mosses and Liverworts of
the Western Ghats, India -
a picture book

Archive for Bryology Special Volume No. 14

2nd. revised ed. 2013

ISSN 9045 - 3466

Foreword

India is one of the bryological hot spots in the world. Its biodiversity is a result of the collision of tropical and holarctic elements. Within India, the Western Ghats in SW-India contribute a large deal of species to this biodiversity, mainly due to the monsoon climate with high precipitation during the rainy season and also due to its elevation. Therefore this region was a focus of bryological exploration in the 19. and early 20. century.

The Western Ghats belong mainly to the state of Kerala, from which 307 species of mosses were reported (Manju et al. 2008). For neighbouring state of Tamil Nadu, even 493 taxa of mosses were recorded (Daniels 2010). The northern part belongs to the state of Karnataka and is less explored. A recent checklist of the mosses (Frahm et al. 2013) includes only 152 species. Liverworts are even less known and exact figures of the species numbers are lacking.

In November 2012, the author spent two weeks in a small region of Coorg, together with Uwe Schwarz from Bangalore, who organized the trip, and the lichenologist Felix Schumm. During this trip, some bryophyte picture were taken, which are assembled here to a small picture book. Liverworts are underrepresented because of difficulties with identification. Presumably most of the species shown here were never been illustrated before and therefore the pictures give a first vivid impression of the bryoflora of Karnataka.

Frahm, J.-P., Schwarz. U., Manju, C.N. 2013. A checklist of the mosses of Karnataka, India. *Archive for Bryology* 158: 1-15.

Manju, C. N., K. P. Rajesh, and P. V. Madhusoodanan 2008. Checklist of the bryophytes of Kerala, India. *Tropical Bryology Research Reports* 7:1–24.

Daniels, A.E.D. 2010. Checklist of the Bryophytes of Tamil Nadu, India. *Archive for Bryology* 65, 117 pp.

I like to thank Alfons Schäfer-Verwimp for the identification of some species and S.R. Gradstein for revisions.

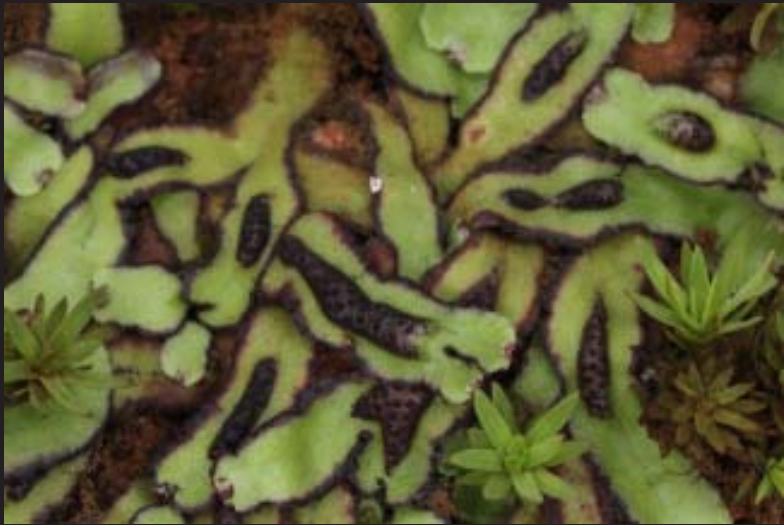
LIVERWORTS



Anthoceros sp.



Asterella wallichiana



Asterella wallichiana



Chandonanthus birmnesis



Cololejeunea spp.



Cyathodium cavernarum



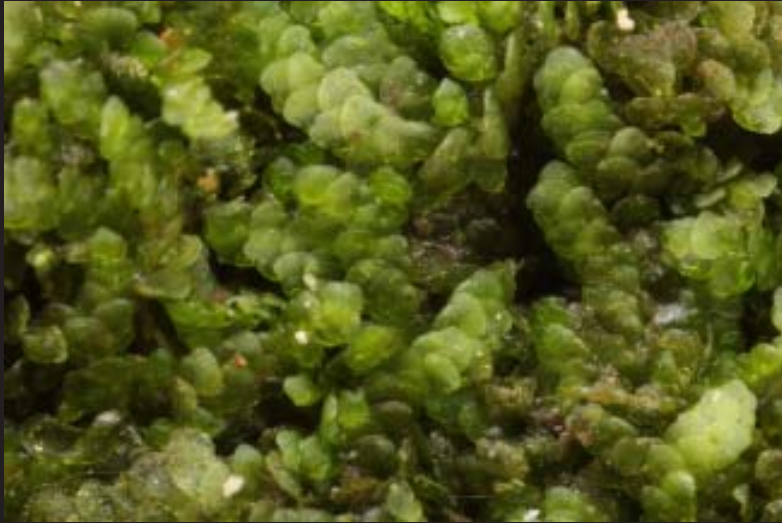
Dumortiera hirsuta



Frullania subg. Chonanthelia obscura



Gongylanthus indicus



Lejeunea spp,



Leptolejeunea sp.



Lopholejeunea subfusca



Lophocolea kurzii



Notoscyphus lutescens



Pallavicinia levieri



Phaeoceros laevis



Jubula javanica



Spruceanthus cf. *polymorphus*



Targionia *hypophylla*



Spruceanthus cf. *polymorphus*

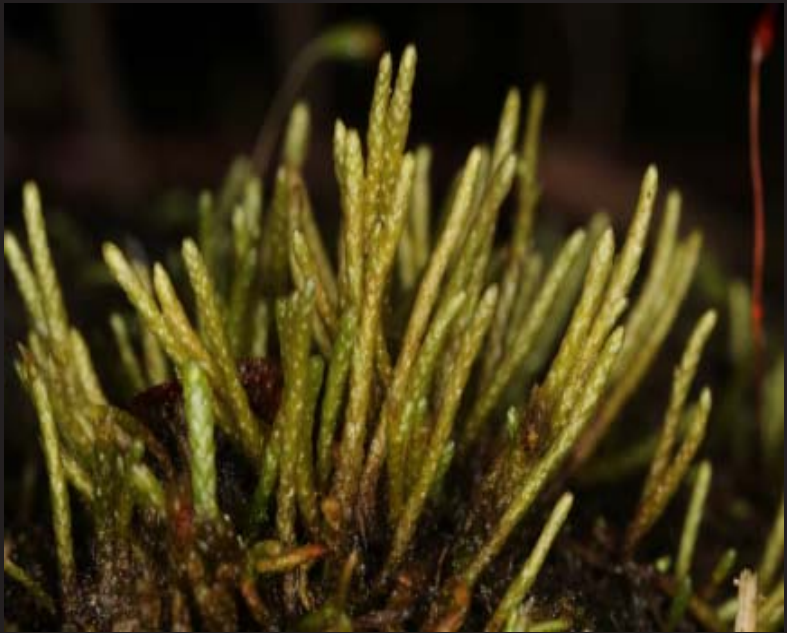
MOSSES



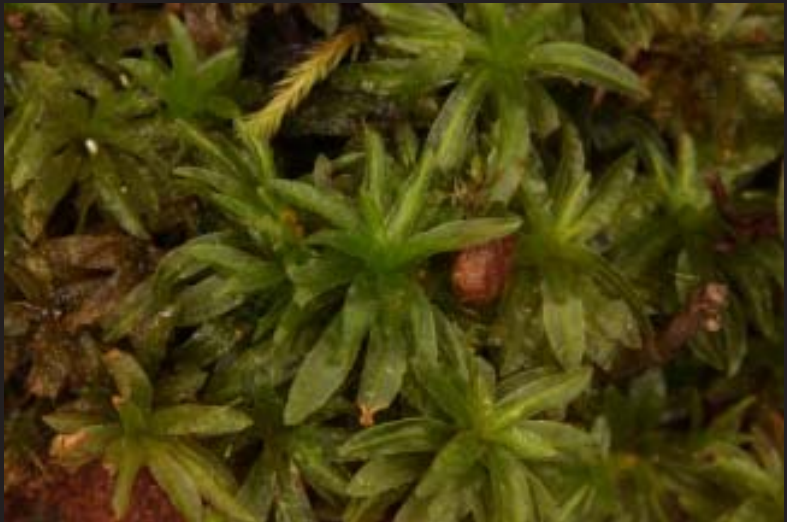
Acroporium spp.



Aerobryopsis longissima



Anomobryum auratum



Atrichum pallidum



Barbella bombycina



Brachymerium exile



Brachymenium longicolle



Brachymenium nepalense



Bryum billardieri



Bryum neilgheriense



Bryum wightii



Calymperes erosum



Campylopus fragilis ssp. *goughii*



Campylopus ericoides



Campylopus fragilis ssp. *goughii*



Campylopus schmidii



Campylopus recurvus



Campylopus umbellatus



Claopodium assurgens



Cryptopapillaria fuscescens



Curvcladium kurzii



Cyathophorum adianthum



Daltonia sp.



Diaphanodon blandus



Entodon chloropus



Entodon plicatus



Fabronia sp



Entosthodon wallichii



Fissidens sedgwickii



Floribundaria floribunda



Floribundaria floribunda



Garckea flexuosa



Funaria hygrometrica



Funaria hygrometrica



Himantocladium plumula



Homaliodendron crassinervium



Hyophila involuta



Holomitrium javanicum



Hypopterygium tamariscinum



Leptophascum leptophyllum



Leucobryum juniperoideum



Leucoloma amoene-virens



Macromitrium densum



Macromitrium densum



Macromitrium sulcatum



Meteriopsis reclinata



Microcampylopus khasianus



Microodus brasiliensis



Microthuidium sp.



Octoblepharum albidum



Philonotis mollis



Philonotis thwaitesii



Pinnatella alopecuroides



Pinnatella limbata



Pogonatum neesii



Pogonatum neesii



Pogonatum patulum



Pterobryopsis conchifolia



Pterobryopsis conchifolia



Pterobryopsis flexipes



Pterobryopsis gedehensis



Pterobryopsis gedehensis



Racopilum sp.



Racomitrium cuspidigerum





Schoenobryum concavifolium



Symphysodontella tortifolia



Symphysodontella tortifolia



Thamniopsis utacamundiana



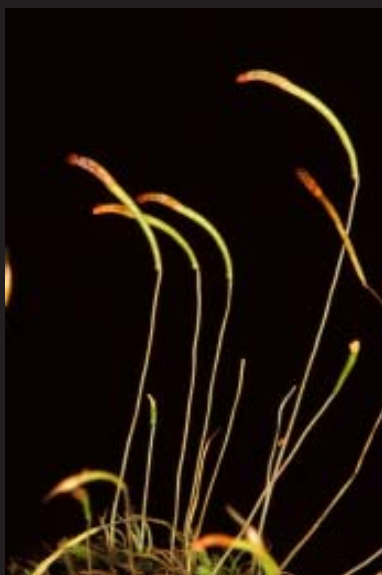
Thuidium glaucinum



Trachypodopsis serrulata



Trematodon longicollis



Trematodon longicollis



Trematodon sp.