



## Research Article

## ***Plagiochila magna* Inoue. (Plagiochilaceae) from Mathikettan Shola National Park, Idukki- New record to Peninsular India.**

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**Abstract:** The paper reports the occurrence of *Plagiochila magna* Inoue., leafy liverworts from the Mathikettan Shola National Park, Idukki, Kerala. The specimens have not been reported so far from Peninsular India.

**Keywords:** *Plagiochila*, Mathikettan Shola National Park, Peninsular India.

### Introduction

A specimen of the genus *Plagiochila* belonging to Plagiochilaceae was collected from the Mathikettan Shola National Park of Idukki District in Kerala. The specimen did not match with any of the species of the genus known so far from Peninsular India. The collected specimen upon closer examination proved to be *Plagiochila magna* and provides as the new distributional record to India. The genus *Plagiochila* (Dum.) Dum. is the largest genus of Hepaticae in the world (Geissler & Bischler 1989). The genus is well studied in Asian countries such as Japan (Inoue 1958a, b) Bhutan (Long & Grolle 1990) and China (Grolle & So 1997, 1998, 1999; So 2001). In India, the genus is known by about 85 species (Inoue 1960, 1962, 1964, 1965; Srivastava & Dixit 1994, 1996) and in South India represented about 10 species (Inoue 1960; So 2001; Manju & Madhusoodanan 2006; Madhusoodanan *et al.*, 2007; Manju *et al.*, 2009).

Mathikettan Shola National Park is situated within the geographic co-ordinates of 76°14' to 76°16'E longitude and 9°57'to 10°01'N latitude in the Poopara village, Udumbanchola taluk of Idukki district in Kerala. The altitude ranges between 1200 to 1984 m. The National park covers an area of 12.82 sq. km, which receives both South-west and North-east monsoons profusely. The average annual rainfall ranges between 2000-2700 mm.

### Systematic Description

*Plagiochila magna* Inoue., J. Hattori. Bot. Lab. No 28:209-218(1965).

Plants tufted on bark and rocks, pale brownish green. Stem 6-8.5cm long, 3-4 mm wide including leaves; Branches rare, irregularly-lateral. Stem brownish, 300-315µm in diameter, cortex yellowish brown, thick walled, 3-4 layered, cells 13-18×9-12 µm; medullary cells thin walled, larger, whitish brown, 12-14 layers, 17-25×15-20 µm. Leaves imbricate, broadly triangular-oval, 2-2.2mm×1.8-2mm; postical margin extend up to half of the stem, somewhat straight, entire, 2-3 dentate near at apex; antical margin broad at base, irregularly dentate, 16-21 spines, apex broadly rounded; teeth 4-6 cells long, 3-4 cells uniseriate, 2-4 cells wide at base, teeth cells enlarged, 22-40×10-15 µm. Leaves basal cells polymorphic, thick walled, trigonous, 35-45×20-35 µm; median cells somewhat irregularly rounded, thick walled, trigonous; apical cells polymorphic, thick walled, trigonous, 18-20×16-18 µm; marginal cells somewhat rectangular, thick walled, 20-24×16-18 µm. Rhizoids on to base of the stem. Sporophyte unknown. (Plate No: 1.)

**Ecology:** Seen on rock and on bark in association with other bryophytes such as *Thuidium* sp., *Homaliodendron flabellatum* etc. at 1600-1850m altitude ranges.

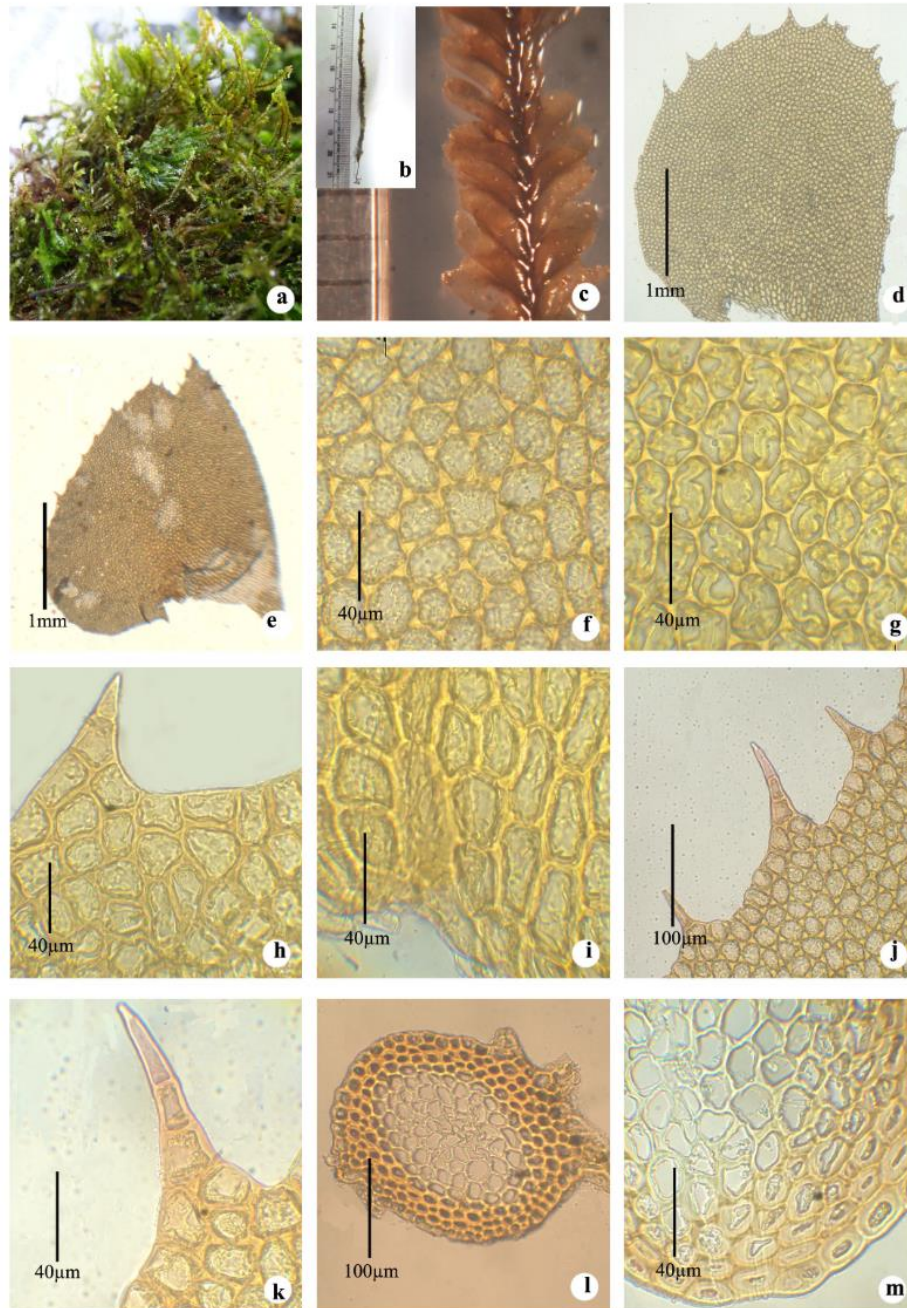
**Distribution:** Japan, China, India; Eastern Himalaya, Meghalaya, East Khasi Hills. Kerala; Idukki, Mathikettan shola National Park (Mannankudi, Vellapara).

**Specimens Examined:** India, Kerala, Idukki, Mathikettan Shola National Park, Mannankudi (ca.1700m) Rajilesh V K 8909, Vellapara (ca.1800m) Rajilesh V K 11588.

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*Plagiochiila magna* Inoue. a:Habit, b&c:Habit enlarged view, d&e:Leaves, f:Leaf tip cells, g:Leaf middle cells, h:Marginal cells, i:Basal cells, J:Leaf marginal cells with teeth, k:Teeth enlarged, l:Stem T S, m:Stem cells enlarged.

**Notes:** This taxon is distinguished from other species is being ovate-triangular leaves, marginal teeth 16-21 total in number, cells thick walled with large nodulose trigones.

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**Conflict of interest:** Nil