

**PORELLA PERROTTETIANA**  
**(PORELLACEAE, MARCHANTIOPHYTA) A SPECIES**  
**FROM THE WESTERN GHATS OF KERALA**

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*Porella perrottetiana* Trev. is reported from the Western Ghats of Kerala. This is the first record of this species from Kerala.

Key words: Kerala, little known, new record, *Porella perrottetiana*, Porellaceae

## INTRODUCTION

*Porella* is the best known and widely distributed tropical genus of the order Porellales with about 60 species in the world and 27 taxa in India (Dandotiya *et al.* 2011, Daniels 2010, Nair *et al.* 2005, Singh and Nath 2007, Singh and Singh 2006, 2015). Chopra (1943) recorded a few species from South India. Most of the genera earlier reported from South India were under *Madotheca* and Hattori (1978, 1979) synonymised all the species known under *Madotheca* to *Porella*. Hence a total of eight species, one variety and one subspecies viz., *Porella acutifolia* (Lehm. et Lindb.) Trevis. var. *acutifolia*, *Porella caespitans* (Steph.) S. Hatt. var. *cordifolia* (Steph.) S. Hatt., *Porella campylophylla* (Lehm. et Lindb.) Trevis. subsp. *campylophylla*, *Porella campylophylla* (Lehm. et Lindb.) Trevis. subsp. *lancistipula* (Steph.) S. Hatt., *Porella chinensis* (Steph.) S. Hatt. var. *chinensis*, *Porella chinensis* (Steph.) S. Hatt. var. *irregularis* (Steph.) S. Hatt., *Porella kashyapii* (R. S. Chopra) Kachroo, *Porella madagascariensis* (Nees et Mont.) Trevis., *Porella perrottetiana* (Mont.) Trevis. var. *perrottetiana*, *Porella plumosa* (Mitt.) Inoue were reported from Tamil Nadu, all these known under *Madotheca* until 1978. From Kerala only three species viz., *Porella acutifolia*

(Lehm. et Lindenb.) Trevis., *Porella caespitans* (Steph.) S. Hatt., *Porella campylophylla* (Lehm. et Lindenb.) Trevis. are reported (Nair and Madhusoodanan 2006, Nair *et al.* 2005, 2006, Pócs *et al.* 2007).

*Porella perrottetiana* (Mont.) Trevis. is first collected from Nielgheri Hills in Tamil Nadu (Montagne 1842). After Montagne's report this species was collected by several authors from different areas of Tamil Nadu, such as Kotagiri and Shembaganur (Chopra 1938). All known under *Madotheca perrottetiana*. This species was also collected from Ootacamund and Kodaikanal (Hattori 1967) and Dodabetta (Hattori 1969). Hattori (1978) synonymised *Madotheca*

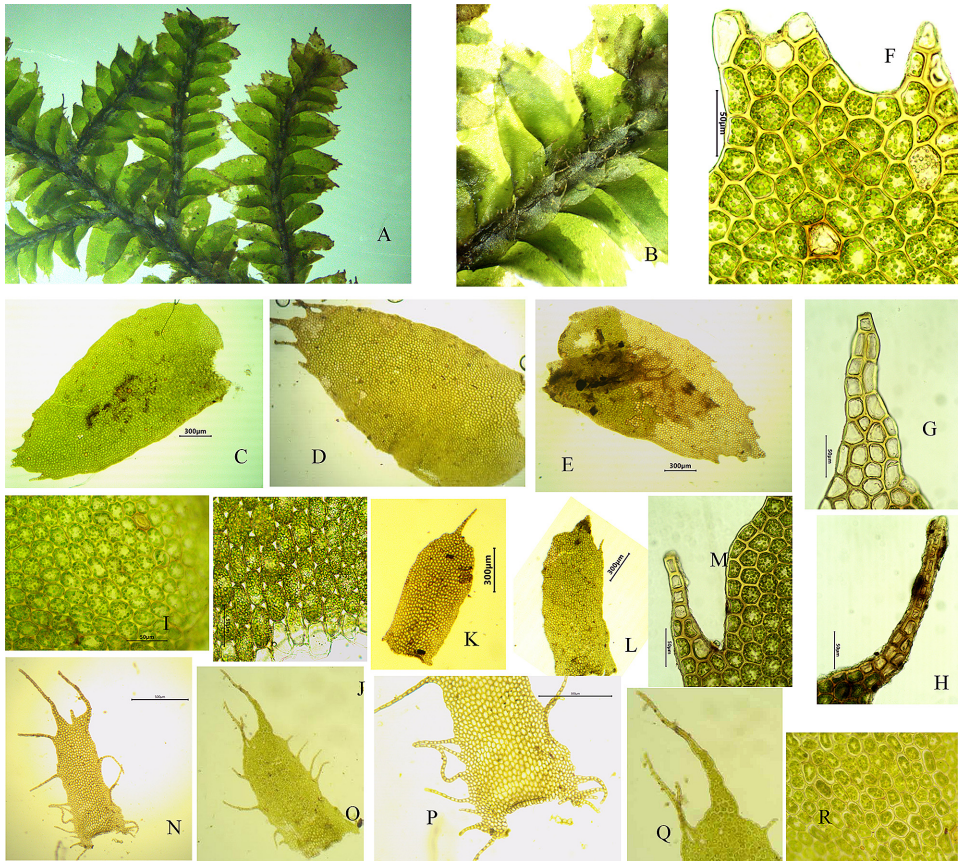


Fig. 1. *Porella perrottetiana*. A = habit dorsal view; B = branch ventral view; C–D = leaf lobe; E = leaf lobule attached to lobe; F = leaf tip cells; G, H, M = leaf tip spines; I = leaf middle cells; J = leaf basal cells; K–L = underleaves; N–O = leaf lobules; P = leaf lobule base; P = leaf lobule tip; Q = underleaf cells

*perrottetiana* under *Porella perrottetiana*. Later Udar and Shaheen (1983) reported this species from Nilgiris and Ootacamund in Tamil Nadu. Daniels (2010) listed this species based on earlier collections. After a long gap of 30 years we could collect this species from Anamudi Shola National Park of Western Ghats in Kerala State. The species is described in detail with photographs.

*Porella perrottetiana* (Mont.) Trevis.

(Fig. 1)

Basionym: *Madotheca perrottetiana* Mont., Ann. Sci. Nat., Bot., sér. 2. 18: 15 (1842). = *Porella perrottetiana* (Mont.) Trevis., Mem. Reale 1st Lombardo Sci. Ser. 3 Cl. Sci. Mat. 4: 408 (1877).

Plants pale greenish to brownish green, branching pseudo-dichotomous, branches short; stem 4–6 cm long and 2–3 mm wide including leaves, creeping or ascending; branches 3–3.5 mm long, leaf lobes opposite, 6–8 mm long, imbricate to ovate oblong, apex narrow, 5–6 spines; spines unequal, not parallel, spines with single cell in lateral side, apical spines with 8 or 9 long cells of  $39\text{--}42 \times 17\text{--}20 \mu\text{m}$  in size, basal cells with 2–4(5) rows of rhomboidal cells; mid laminal cells more or less spherical,  $80\text{--}95 \mu\text{m}$  diagonally; mid basal cells rectangular,  $40\text{--}48 \times 21\text{--}28 \mu\text{m}$ ; presence of trigones, trigones prominent at basal cells; leaf lobules attached to leaf lobe at the extreme base, ligulate-ovate lanceolate with narrow apex;  $1.15\text{--}1.30 \text{ mm} \times 45\text{--}50 \text{ mm}$ ; spines very few in lobule compared to underleaf, apical spine  $0.20\text{--}0.30 \text{ mm}$  long; oil bodies over 25 per leaf cell, homogenous, spherical,  $4\text{--}6 \mu\text{m}$  in diameter; underleaves  $1.5\text{--}1.7 \text{ mm} \times 0.30\text{--}0.35 \text{ mm}$ , broader than stem,  $1.50\text{--}1.65 \text{ mm}$  long including spines, 15–18 number of spines present throughout the margin, spines  $0.13\text{--}0.65 \text{ mm}$  long. Spines present at tip with  $0.6\text{--}0.7 \text{ mm}$  long.

Habitat and distribution: It is predominantly a high altitude species found growing on the bark of trees creeping and the branches are ascending (and growing rarely also on rock cliffs). This species was earlier reported from Tamil Nadu in India and China, Japan and Vietnam (also at relatively low altitudes with climate wet enough).

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