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# *Riccia cavernosa* Hoffm (Marchantiophyta), A New Record to Tamil Nadu, India

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## Abstract

*Riccia cavernosa Hoffm*. is reported for the first time for the state Tamil Nadu from the country India. Detailed morphological descriptions of *Riccia cavernosa* are provided to facilitate easy identification.

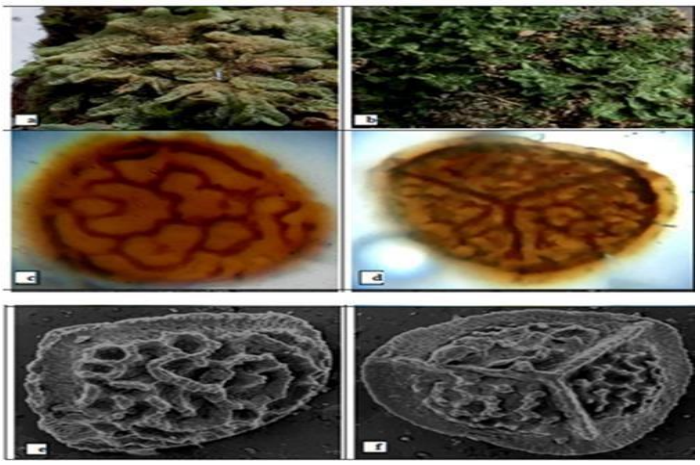
**Keywords:** *Riccia cavernosa*; Tamil nadu; Thallus; Riccia; Dharmapuri.

## Introduction

*Riccia L.* the most widely distributed genus of family Ricciaceae. It is widely distributed in tropical and temperate regions of the world. Totally 13 species of Ricciaceae represented in Tamil Nadu. The genus of Riccia grows in complete rosette or partially rosette. Tamil Nadu is the tenth largest state and lies in the Southern most part of the India. Dharmapuri is a district in western part of Tamil Nadu in India. It located between latitudes N1147'and 1233' and longitudes E 7702' and 7840'. The district is surrounded by hills and forests, and the terrains of rolling plains type. It is in the geographically important area in south India. The present study provides brief taxonomic descriptions of *R.cavensoa* based on observation of Light Microscope and SEM micrographs.

## Materials and Methods

*Riccia cavernosa* were collected from PDRV Matriculation Higher Secondary School at Dharmapuri district, Tamil Nadu, India during winters. Collected specimen was preserved in FAA and preserved in 70% alcohol for further studies. The spores were dehydrated by alcohol, then that the spores placed over the adhesive surface of double-sided tape affixed on the aluminum stubs and, gold coating done. The spores were stereo-scanned for microstructures under suitable magnification at an accelerating potential of 10 K.V. using Scanning Electron Microscopes viz. VEGA 3TESCAN installed at Sastra University, Thanjavur (TamilNadu), India



**Figures: 1:** a) *R. cavrnosa* thallus, b) Dried thallus, c Light microscope -Distal surface, d) proximal surface, e) SEM Distal surface and f) proximal surface

## Identification of Specimens

It was carried out with relevant available literature [1-5]

## Taxonomic Treatments

Riccia cavernosa Hoffm.,Deutschl. (Figure 1). 2 (Cryptog.): 95. "1795" 1796.

Thallus monoecious, dichotomously branched. Complete or incomplete rosettes (8-10) mm wide. Thalli medium-sized (1.5-2) mm broad, (3-4.5) mm long, segment (1.5-2) mm, (2-4) furcate, dichotomously branched. Dorsal surface are light green or whitish-green. Thallus oblong, obtuse, spongy with large cavities; irregular perforation on the dorsal surface, inconspicuous groove only at the apex. Thallus was without ventral scales, with both tuberculate and smooth rhizoids. Gametophyte stages are not seen. Sporophyte stages are seen at a ventral surface. No scales at ventral surface. In cross section thallus differentiated into two zones are photosynthetic with large air chambers and pores and lower compact and parenchymatous storage. Spores globose or sub-globose, brown or dark brown, reticulate, (70-78) µm diameter. Distal surface convex. Prominent lamellae, incomplete reticulations, sometimes free standing or anastomosing. Distal surface widely spaced or crowded and occasionally with a nearly continuous ridge along periphery at inner side of wing. Proximal surface with triradiate mark, with granules. Simple or branching, and anastomosing ridges which occasionally form reticulum, wing broad up to (4-6) µm.

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