

Marchantia sp.**Systematic Position of Marchantia:**

Kingdom: Plantae
 Division: Marchantiophyta
 Class: Marchantiopsida
 Order: Marchantiales
 Family: Marchantiaceae
 Genus: *Marchantia*

Distribution and Habitat of Marchantia:

Marchantia, the most important genus of family Marchantiaceae is represented by about 65 species. The name *Marchantia* was given in honour of Nicolas Merchant, director of botanical garden of Gaston d' Orleans in Blois, France.

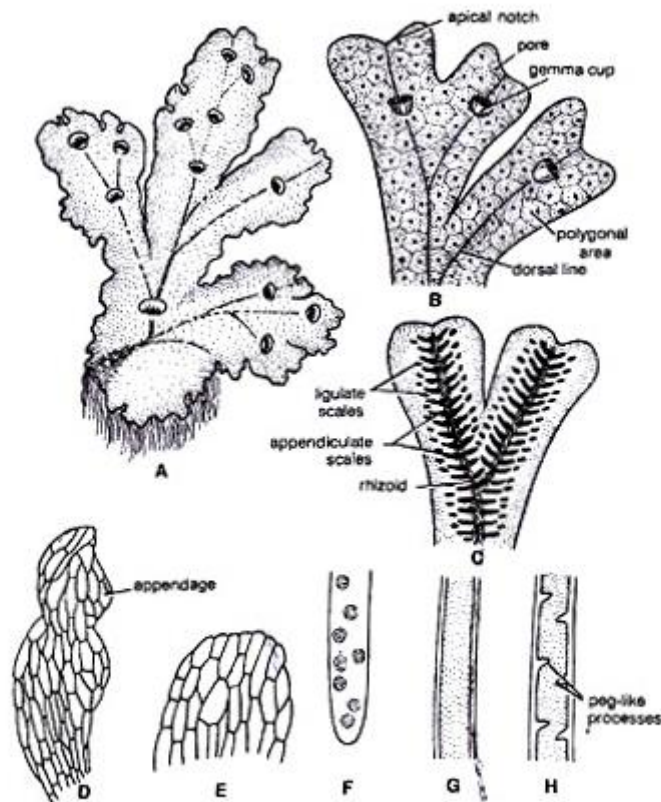


Fig. 1. (A-H). *Marchantia*. Thallus structure (A) Vegetative thallus, (B) Dorsal surface, (C) Ventral surface, (D) Appendiculate scale, (E) Ligulate scale, (F) Tuberculated rhizoid (surface view), (G) Smooth-walled rhizoid, (H) Tuberculated rhizoid showing internal view.

Structure of Mature Sporogonium:

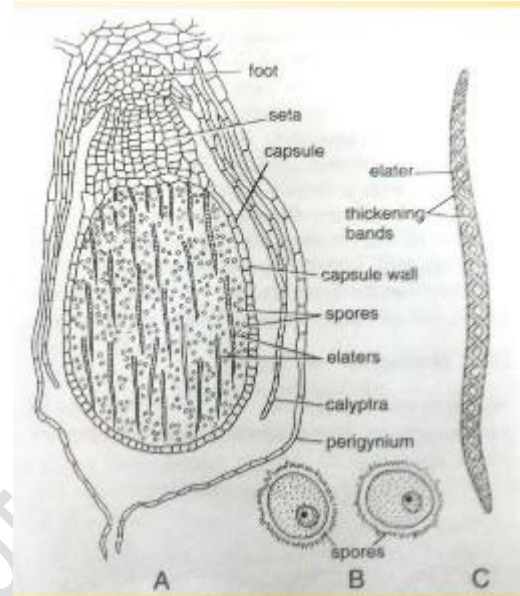
A mature sporogonium can be differentiated into three parts, viz., the foot, seta and capsule. Foot. It is bulbous and multicellular. It is composed of parenchymatous cells. It acts as anchoring and absorbing organ. It absorbs the food from the adjoining gametophytic cells for the developing sporophyte.

Seta:

It connects the foot and the capsule. At maturity, due to many transverse divisions it elongates and pushes the capsule through three protective layers viz., calyptra, perigynium and perichaetium.

Capsule:

It is oval in shape and has a single layered wall which encloses spores and elaters. It has been estimated that as many as 3,00,000 spores may be produced in single sporogonium and there are 128 spores in relation to one elater.



Dispersal of Spores:

As the Sporogonium matures, seta elongates rapidly and pushes the capsule in the air through the protective layers (Fig. 13 A). The ripe capsule wall dehisces from apex to middle by four to six irregular teeth or valves. The annular thickening in the cells of the capsule wall causes the valves to roll backward exposing the spores and elaters.

Short note on Gemma cup of *Marchantia*

In *Marchantia* the special vegetative bodies called Gemmae. Gemmae are produced in large number and in long succession within small cup-like structures (cupules) called gemmae cup borne on the dorsal surface of the gametophyte along the midrib. A mature is a

multicellular discoid body with one-celled hyaline stalk. Each gemmae is vertically inserted in the gemma cup with the stalk. Each gemmae after detachment from the gemma cup germinates under favourable conditions into a new plant.

