

PERISTOME

INTRODUCTION → In most Bryopsida the mouth of the capsule just below the operculum is surrounded by a ring of teeth known as Peristome. It is derived from a greek word meaning "Around the mouth." The teeth of the peristome vary in number, form, colour, length, sculpture direction, connection and in many other points in different groups of moss.

TYPES OF PERISTOME → On the basis of origin and fundamental structure the peristome can be divided into two main types.

1. Nematodontous peristome.
2. Arthroodontous peristome.

1. NEMATODONTOUS PERISTOME

Characters -

1. The peristome forming zone consist of several concentric layers of cells of the amphithecium.
2. The peristome teeth are solid consisting of bundles of dead cells and are without external markings.

Example - The nematodontous peristome occur in the members of Tetraphilales, Polytrichales, Daxosoniales and the orders

Boxbaumiales.

In Polytrichales the peristome consist of a ring of 32 or 64 short pyramidal, solid teeth. Each tooth is made up of a central pillar of fibre like cells bounded on the side by lines of 'V' shaped cells.

In Daxosoniales the peristome forming zone is broad. The peristome consist of numerous much elongated filaments which become separated by several thin walled tissues but in Boxbaumiales the peristome is intermediate between typical nematodontous and typical arthroodontous type.

2. ARTHRODONTOUS PERISTOME

Characteres —

1. The peristome forming zone consist either of 2 to 3 layers of cells of the amphithecium.
2. The peristome teeth are thin, membrane-hous and articulated.

Example — They occur in Dicranales, Fissigentales, Grimmiales, Pottiales etc.

In Dicranum the peristome has 60 teeth which are usually splits above. In Fissigenus the teeth has spirally arranged papillae. In Grimmiales the outer layer of the teeth is thickened and lack ventricostriae but the articu-

lations are strongly thickened, presenting irregular trabiculae in the outside.

In the older Pottiaceae the peristome is single. It consists of 16 straight or spirally twisted teeth which are entire or divided into 32 filiform divisions.

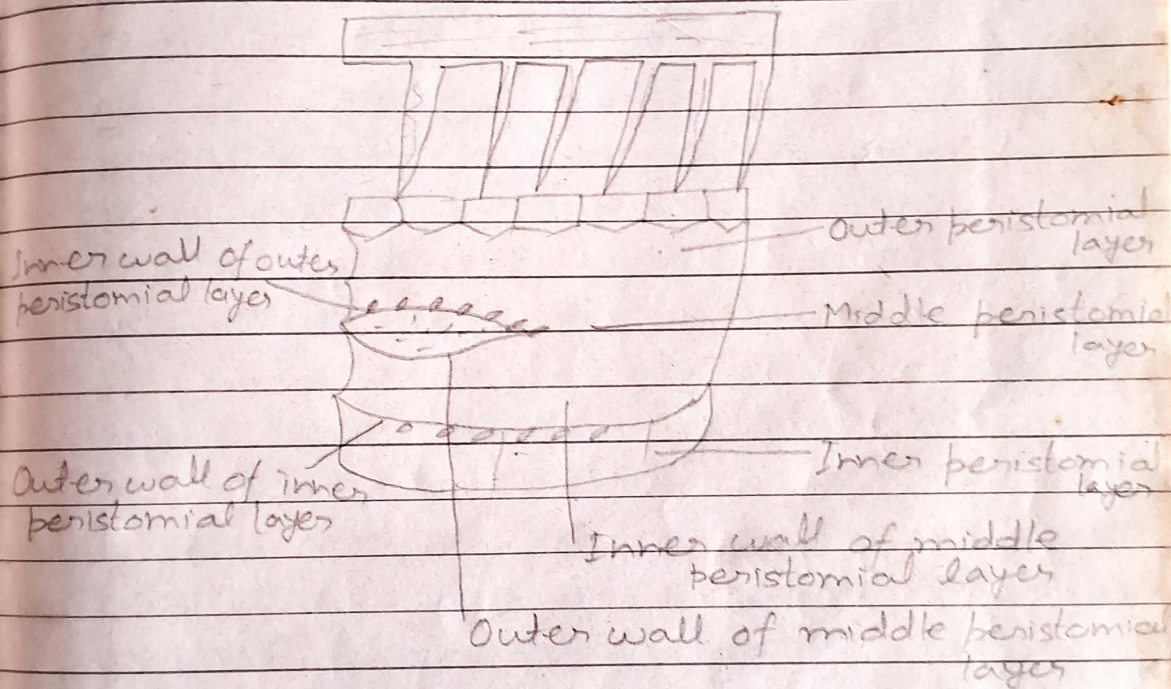


Fig - T.S of Tip of developing capsule showing one of the 16 similar sectors

IMPORTANCE →

1. Peristome affords a very important basis of natural classification of the Bryidae.
2. They help in spore dispersal.