

ELATERS

DEFINITION → These are spiral, banded, hygroscopic structure that help in dispersal of spores.

OCCURRENCE → The presence of elaters have been reported in the sporophytes of several Bryophyta, especially the members of Hepaticopsida such as Marchantia, Targionia, Reboulia and others.

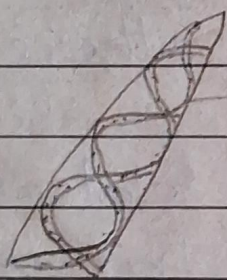
ORIGIN OF ELATERS → The elaters develop from spore mother cells. In various members of Bryophyta the spore mother cell fail to divide meiotically. They elongate and develop 2 or more spiral thickening on their wall to form the elaters.

STRUCTURE OF ELATER → Elater are sterile structures. They are elongated cell with spiral thickening on their wall. There may be only one thickening on the wall of the elaters as in Macrocraia, Riccardia, Stephensoniella and in genera belonging to Lejuneaceae and Frullaneaceae or two spiral thickening as in Athalmia, Sauchia, Mannia etc.

The elaters are either diffused and unattached to the wall

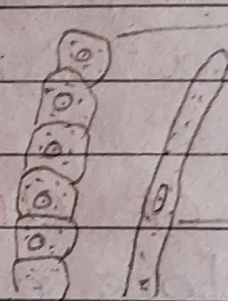
of the capsule or as in some Jurgenia
-niales. # They are attached to the
wall of the capsule.

FUNCTION → Elaters are hygroscopic
structure. In dry weather they twist
to develop Jerk in the sporogonium
helping to disperse the spore away
from mother plant.



Bands

ELATER



Spore mother cells

Elaters

Row of spore mother cells
& portion of undeveloped elater