

Department of Botany
D.B. College, Jaynar.
L.N.M.U., D.B.G.
Lecture No. 16

BY: DR. RANJANA
ASST. PROFESSOR
(GUEST)

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B.Sc. PART I

CORE CONCEPT OF BRYOPHYTA.

Xerophytic characters of Sphagnum:

1. The fasciated branches.
2. The hyaline cortical cells enveloping the inner tissues in mature tissues.
3. Characteristic arrangement of the dead hyaline cells with pores and fibres and living green cells.
4. Lack of rhizoids in the adult gametophore.
5. No special means for vegetative reproduction.
6. Sphagnum are complete or partially seem to be hygrophytes or hydrophytes.
~~but~~ but the peculiar physiology in fact show characters which are xerophytic in nature. In Sphagnum plants compactness of habit.
2. Close imbrication of leaves

on the branches.

- 3. Concave leaves with hooded or inrolled apical portions,
- 4. Formation of capillary channels along which water passes,
- 5. Intermixture of dead empty cells with living green cells. presence of reservoir for the storage of water.
- 6. presence of some substance of colloidal nature in the cell walls which absorbs the base and liberates the acid.
- 7 - The ion exchange capacity of sphagnum probably resides in peptic substance in the walls of cells which behave electrolytically in a manner precisely similar to that of artificial ion exchange ~~resin~~ resins.

