

## Sphagnum

Some what submergical in shape they are cushions and filled with water.

The assimilatory cells are narrow and alive they contain chloroplast and are thus green in colour and photosynthetic in function. They are situated between the dead hyaline cells forming a net work.

In a few submerged species of Sphagnum all the cells are of only one kind and colorless.

### Reproduction →

In Sphagnum reproduction takes place by the following two methods: →

#### Vegetative Reproduction :- →

Vegetative reproduction is a very common method of reproduction and it takes place by means of innovations. The innovations are special branches which are produced in the main stem in the form of lateral axillary branches.

By progressive death and decay of older portion such branches become separated from the parent plant and finally develops into an independent new plant.

#### Sexual Reproduction :- →

Sphagnum reproduces sexually with the help of male sex organ Antheridium and the female sex organ Archegonium. Both the sex organs are found on short modified leafy branches when antheridia are found on such branches the branches are called antheridial branches. The special branches containing archegonia are called archegonial branches. Some species of Sphagnum are monoecious while some are dioecious, but the antheridia and archegonia are always formed on separate branches, either on the same plant or different plants.

## Anthridium

Each anthridium branch is a sterile branch structure which resembles the corkin inflorescence. In most SPS the anthridial branches appear near the apex of the main shoot but are displaced downwards by the overgrowth of the apex.

The anthridial branches are densely covered by brightly colored leaves. The leaves resemble the bract leaves but are smaller than the bract leaves.

## Anthridium

Position → Each anthridium is found singly in the axils of leaves on the anthridial branch. Thus they are axillary in position and are homologous to axillary buds.

The anthridia are borne in acrobeltous succession on the anthridial branches.

STRUCTURE → Each anthridium consists of two parts:

- ① Utricular body and
- ② Stalk.

The body of the anthridium is spherical or oval in shape which is surrounded by a jacket layer of sterile cells known as Anthridial jacket. It is one cell thick and surrounds a mass of androcytes. Each androcyte in mature anthridium metamorphoses to become an antheroid.

The stalk is a long multicellular structure which is composed of 2 to 4 vertical rows of cells.

Antherozoid → Each antherozoid is a spirally coiled bilobate structure forming two coils of shallow ring-shaped spiral. The body of the antherozoid consists of three regions:-

- (1) The anterior end of antherozoid comprises the nutritive organ of cytoplasmic origin, the flagellum and the