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Class : Deg. I (Hons.)

Paper : I (Algae)

Topic : Sargassum (Contd.)

Lecture No. - 36

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• Sexual Reproduction in Sargassum (Contd.):

• Antheridia:

Numerous antheridia developed on branched antheridial filaments in the male conceptacle.

They are borne in clusters usually on the lower branches of the branched paraphysis.

The paraphysis arises from the wall of the male conceptacle. The mature antheridium is a small ovoid structure with a two layered wall.

It contains 64 biflagellate male cells or sperms.

At maturity, the outer layer of the antheridial wall gelatinises. The male cell or sperms are extruded in the inner layer.

These oblong packets of sperms are extruded out of the conceptacle through the ostiole.

Then, the enveloping layer gelatinises in the sea-water at one or both ends.

The sperms are liberated in the sea-water.

Each liberated sperm is a pear-shaped structure with a pointed anterior end.

• It has two laterally inserted flagella of unequal length. The longer flagellum is directed backward and shorter directed forward. Flagella arises from the blepharoplast. The reported eye-spot is derived from the chromatophore.

• Development of Antheridium:

At first, antheridium arises from the cell-wall of the male conceptacle. It grows into a papilla-like outgrowth and divides by a transverse wall into a basal stalk cell and an upper antheridial cell.

The stalk-cell grows into a branch pushing the first terminal antheridium to one side.

The branch cell again divides into the terminal antheridium and basal branch cell. This series is repeated indefinitely, and results in the formation of much branched paraphysis.

The upper branches of these paraphysis do not bear any antheridia. They remain sterile.

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