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Class : Deg.-I (Hons.)

Paper : I (Algae)

Topic : Sargassum (Contd.)

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* Sexual Reproduction in Sargassum (Contd.):

• Sex Organs in Sargassum:

Sexual reproduction takes place through well-developed sex-organs, antheridia and oogonia, which occur in hollow flask-shaped cavities called conceptacles, at the ends of branches of receptacles.

Plant may be monoecious, bearing the sex-organs in two distinct conceptacles or the same receptacle or on two separate receptacles, or they may be dioecious, the organs being borne by two separate plants.

The monoecious condition is, however, more usual than the other.

Each conceptacle has a minute opening at the apex called ostiole. The male sex organ is antheridium and the female is oogonium.

• Oogonium:

The oogonia borne directly on the wall of conceptacle and lie embedded in its wall. It has a single nucleus and contains plenty of oil-droops. During maturation, nucleus undergoes three successive divisions.

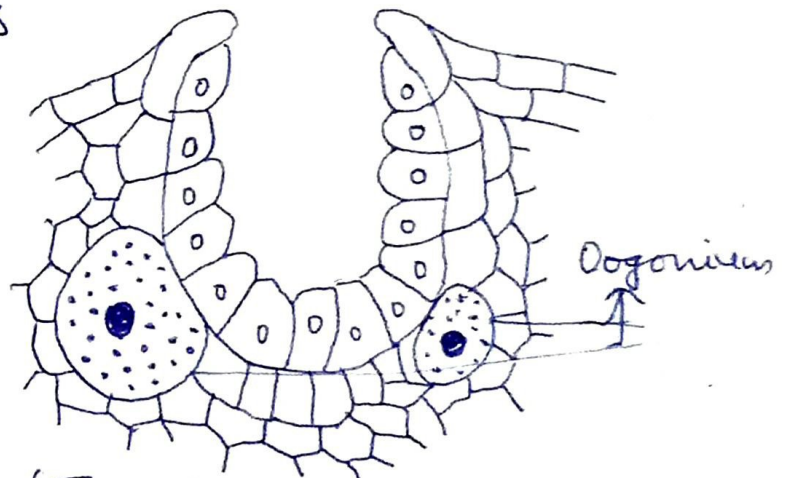
First division is meiotic. As a result, eight haploid daughter nuclei are formed. Towards maturity, the protoplast of the oogonium rounds off to form a single ovum or egg.

• Young ovum is eight nucleate, out of them, only one enlarges and seven nuclei degenerate.

At maturity, the oogonial wall thickens and get differentiated into three layers, outer thin exochite, the middle thick mesochite and innermost endochite.

Mature oogonia are discharged through the ostiole.

Each oogonia remains attached to the conceptacle wall by means of long gelatinous stalk.



(Fig: V.S. of Female Conceptacle)
in Sargassum

(Continued.)