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Class : Deg - I (Hons.)

Paper : I (Group - 'A' - Algae)

Topic : Chara (Continued)

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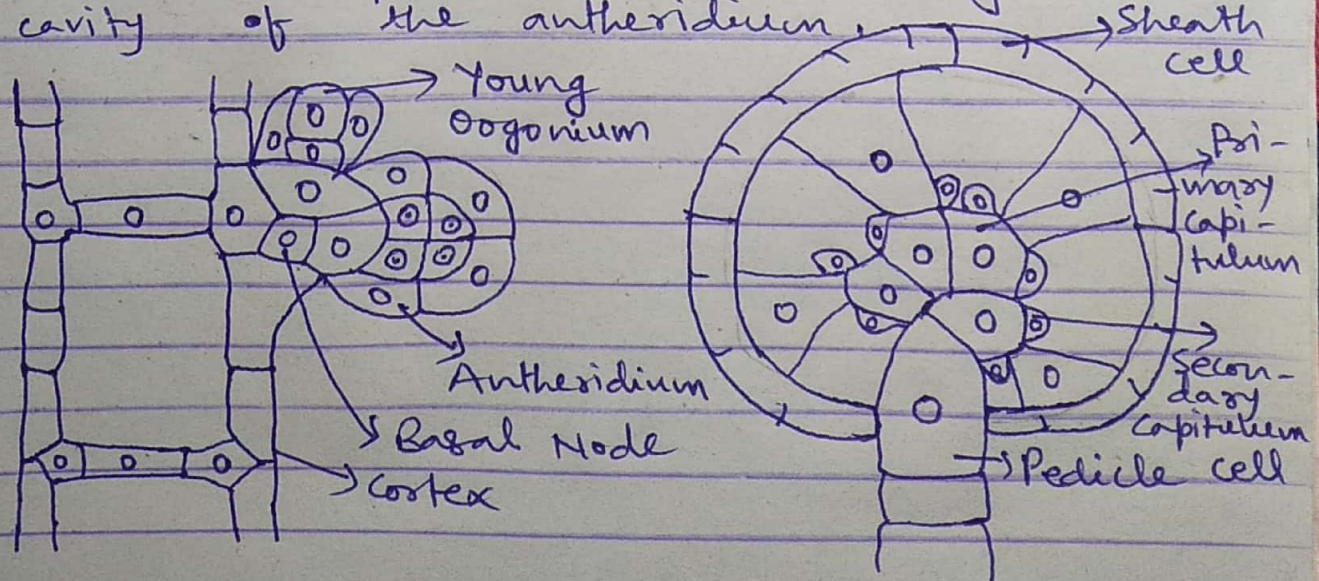
### Chara (Reproduction) - (Continued)

#### The Antheridium or Globule of Chara:

- It is a very complex body.
- It is spherical in shape and turns red or orange when mature.
- Its wall is composed of eight, large, curved, plate-like cells, which are somewhat triangular, called shield-cells. These have a peculiar thickening on the surface and their walls are folded with the joints fitting into one-another. The shield cells expand rapidly, giving rise to a cavity within the antheridium.
- Besides, their outer walls form ingrowths, dividing the cells into a number of compartments.
- From the centre of each shield, an elongated cylindrical cell, called the manubrium or handle cell, projects inwards. Evidently there are eight manubria.

Each of them terminates inwardly in a roundish cell, called the primary capitulum.

- The primary capitulum cuts off six smaller cells, known as secondary capitulum.
- The secondary capitulum produces a pair of long, slender antheridial filament.
- The antheridial filaments form a tangled mass in the cavity of antheridium. The protoplast of an antheridial cell forms a single, coiled, biciliate antherozoid.
- A single antheridium may produce as many as 20,000 - 50,000 antherozoids.
- When the antheridium matures, the shields separate from one another.
- Besides, there is an elongated stalk cell, called the pedicel cell, projecting into the cavity of the antheridium.



(Fig: Sex organ of Chara, showing internal structure (diagrammatic))

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