

CHOLOROPHYCEAE



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General characteristics

- The cells are eukaryotic in nature. Usually there is only one nucleus in each cell, but in Siphonales and Cladophorales many nuclei are present in their coenocytic body.
- Thallus is typically green coloured due to the presence of chlorophyll, contained in the chloroplast.

- Besides chlorophyll, the cells contain other pigments like carotenes, xanthophylls, lutein, lycopene and violaxanthin.
- Flagella are 1 to many, equal in size and inserted either apically or sub-apically. The flagella show typical 9+2 arrangement when viewed under E.M.





- The cell wall is mainly made up of cellulose.
- Inner to the cell wall, semipermeable cell membrane is present which encircles the protoplast. The cytoplasm contains many small vacuoles which pushes the nucleus with cytoplasm towards the periphery and called primordial utricle.



- The flagellate cells have eye-spot or stigma in the anterior portion, which remain inserted at one side of the chloroplast.
- The pigments are located in the chloroplast. Chloroplast generally contains pyrenoid(s). Major reserve food product is starch
- Phycobilins are absent.

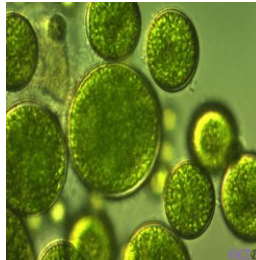


- They reproduce by all the three means i.e., vegetative (cell division and fragmentation), asexual (zoospore, aplanospore, akinete etc.) and sexual (isogamy to oogamy).
- Generally the zygote or oospore is the only diploid structure in their life cycle.

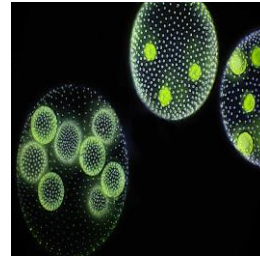
Common members



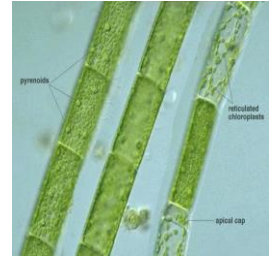
Chlamydomonas



Chlorella



Volvox



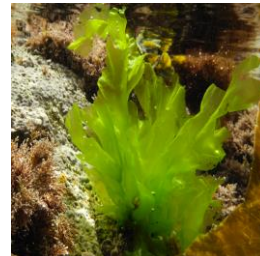
Oedogonium



Cephaleuros



Acetabularia



Ulva



Chara

**Thank
You**

