



GREEN ALGAE

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The 1st course of master programme of CORELIS

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GREEN ALGAE

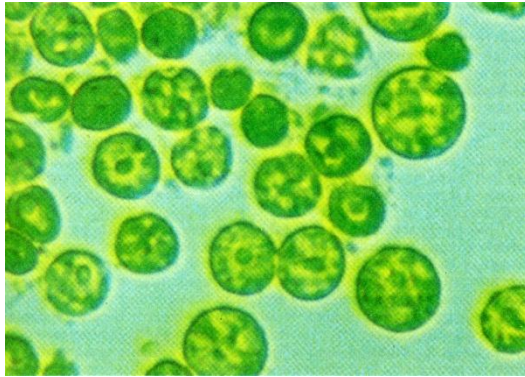
- The green algae is the most diverse and biggest group of algae.
- The group contains about 7000 living species.
- They are eukaryote and more closed to the land plants.
- Most of the green algae are freshwater and only 10% live in seas.



The green algae in freshwater pond

The green algae include 5 classes:

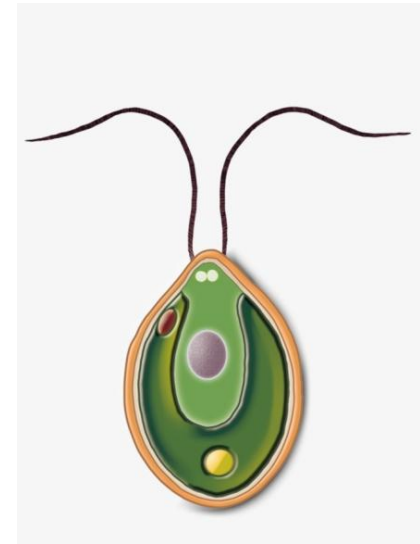
- Volvocophyceae (volvox, chlamydomonas)
- Protococcophyceae (chlorella)
- Ulotrichophyceae (ulva)
- Siphonophyceae (caulerpa)
- Conjugatophyceae (spirogyra)



Chlorella



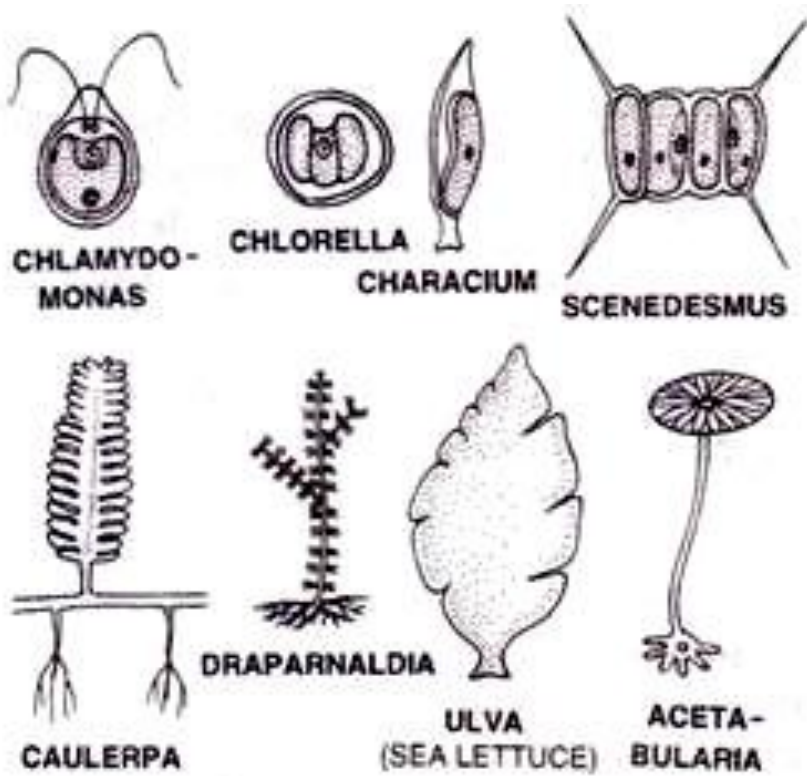
Volvox



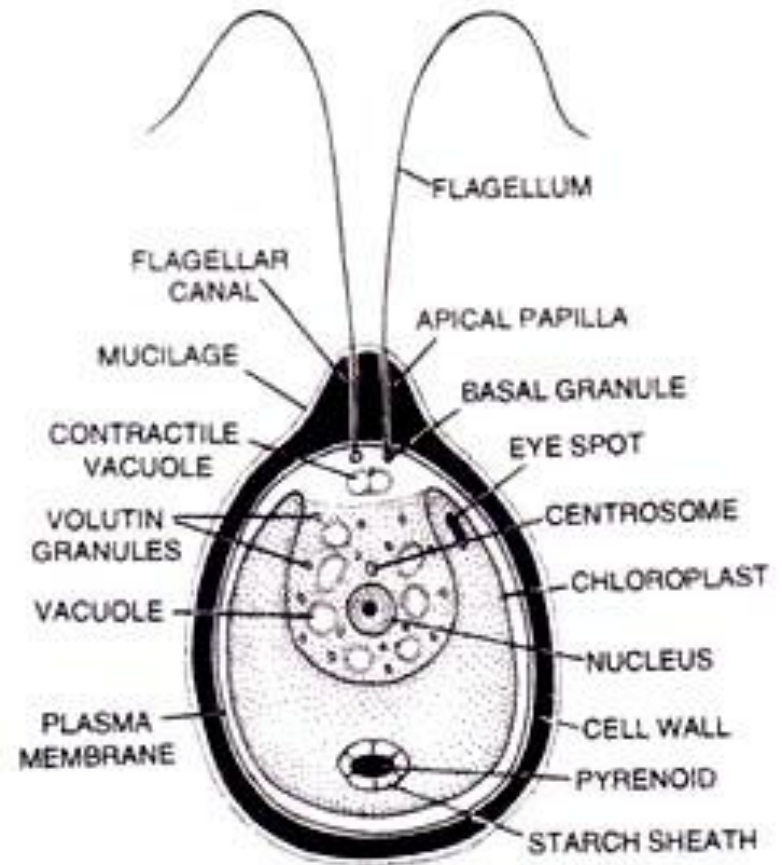
Chlamydomonas



Spirogyra



Other representatives of the green algae



The structure of chlamydomonas

SEDIMENTS

The sediments of the green algae meet in peat deposits of ponds.



They can also grow on moist soils, walls, rocks and tree trunks. Strains of *Chlorella* can bear moderate hot waters. Some forms live in snow or frozen lakes (e.g., *Seotiella*, *Homidium*).

TIME SPAN

The green algae appeared about 3 billion years ago in Precambrian. But multicellular green algae appeared about 1 billion years ago. Among the green algae were preserved forms which give representation about complication of structure.



HABITAT PARAMETERS

- The green algae can sustain high t° to 50°C .
- They prefer acid waters where pH is less 7.
- Deep to 6 meters.
- They can give a colour to glaciers, snow.



Snow thawing and reproduction
of chlamydomonas



Chlorella

The biggest diversity of the green algae is observed in eutrophic and mesotrophic swamps and seas.



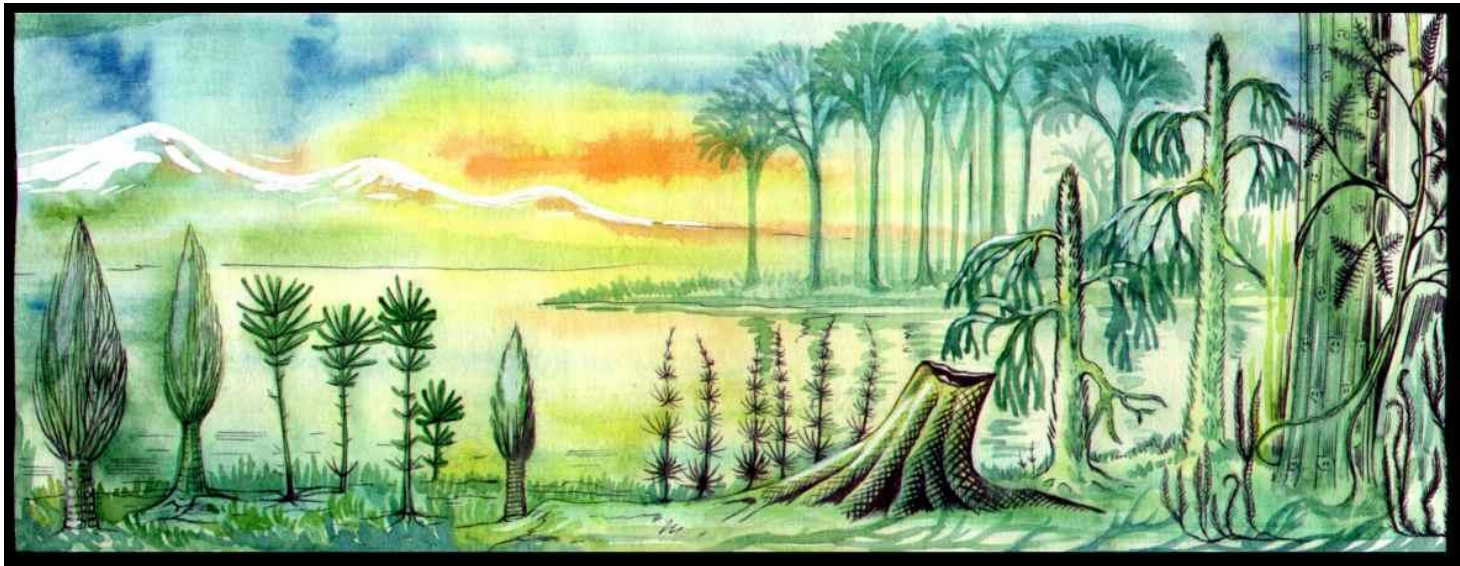
“The green algae attack
China”



*Enteromorpha
prolifera.*

RECONSTRUCTIONS

The green algae are important indicators of environmental conditions. They are quickly capable to respond to environmental changes. They leave reliable morphological and biogeochemical records in lakes and ponds sediments and can be used by paleolimnologists to reconstruct past environments.



A green snake is visible in a terrarium, partially obscured by a dense layer of bright green moss. In the background, there are several yellowish-green fern fronds. The scene is lit from above, creating a soft glow on the plants. The text "THANK YOU FOR YOUR ATTENTION!" is overlaid in the center in a white, serif font.

**THANK YOU FOR
YOUR
ATTENTION!**