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Cyanobacteria:

Cyanobacteria is a phylum comprised of photosynthetic bacteria that live in aquatic habitats and moist soils. Others are considered as an endosymbiont, serving as an endosymbiotic plastids in many eukaryotic cells. Cyanobacteria are found to play a role in producing gaseous oxygen as a byproduct of photosynthesis. They are also believed to be associated with the Great Oxygenation Event. Some of them are nitrogen-fixers. Some live singly or in colonies, forming filaments or spheres.

Classification of Cyanobacteria:

In the five-kingdom scheme of classification, Cyanobacteria used to be called Cyanophyta and is one of the phyla of the Kingdom Protista. Other phyla are Euglenophyta, Chrysophyta, Pyrrophyta, Chlorophyta, Phaeophyta, and Rhodophyta.⁽¹⁾ These phyla are groups of plant-like protists due to their photosynthetic capability. They do not have true roots, stems, and leaves as embryophytes do.

Recent studies and findings, though, caused changes in the taxonomic positions and led to newer systems of classification.⁽²⁾ At present, Cyanophyta (also called blue-green algae) is now referred to as Cyanobacteria, a phylum of bacteria. That is because this clade is comprised of species that are prokaryotic. In phycology, the

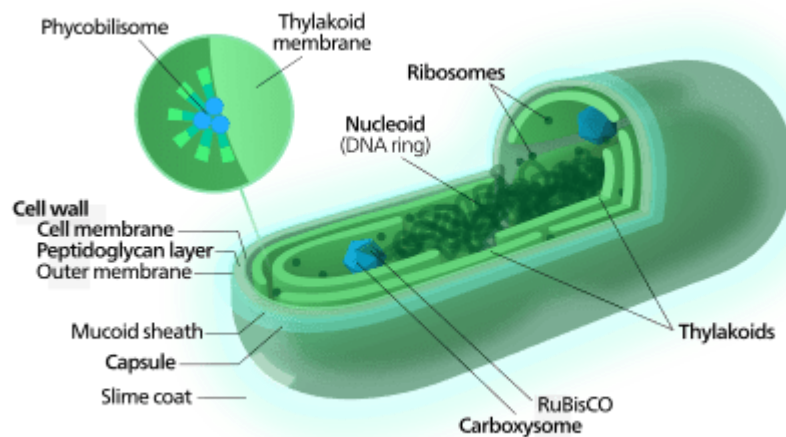
blue-green algae are the only prokaryotic algae; the rest are eukaryotes. Thus, they are now classified as bacteria belonging to Phylum Cyanobacteria.

Sub-groups

Cyanobacterial sub-groups are classified as follows based on morphology:

- Chroococcales
- Pleurocapsales
- Oscillatoriales
- Nostocales
- Stigonematales

General characteristics of Cyanobacteria:



(Fig.- A diagram of a typical cyanobacterial cell showing parts)