

~~General characteristics~~

Study of Algae — Phycology

Algae — Seaweed

collectively called chlorophyll bearing non-vascular thalloid organisms.

- Term algae was coined by Linnaeus (1754)
- Linnaeus placed algae with Liverworts & Lichen under class cryptogamia.
- But Whittaker's Classification.

Blue green Algae — Monera

Diatoms

Dinoflagellates

Euglenoids

— Protista

Green

Brown

Red

Algae

— Plantae

F.E. Fritsch — Father of algology/phycolon

M.O.P. Iyenger — Father of Modern
Algology of India.

- His important contribution is discovery of heterotrichous terrestrial alga i.e. (Frittschiellatuberosa)

General characteristics

1) Algae include a group of approx. 30,000 species — generally aquatic
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Fresh water & Marine

2) Size varies from microscopic forms to the filamentous forms.

3) All members of algae are chlorophyllous, non-vascular thallophytes.

4) Mode of Reproduction is vegetative, Asexual and Sexual.

5) Sexual reproduction involves isogamy, Anisogamy and Oogamy in different groups.

6) Different types of Life cycle present

• Haplontic — Haploid phase dominant

• Diplontic — Diploid phase dominant

Ex. Fucus (brown algae) • Haplodiplontic — Both haploid & diploid phase equally dominant.
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Ex. Kelp (Brown Algae)
Ectocarpus (Red Algae)
Polysiphonia (Red Algae)

7) Embryonic stage is absent.

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Isogamy - is a form of sexual Rep

which involve fusion of morphologically similar gametes, having similar shape & size.

Ex. Chlamydomonas, Cladophora, Ullothrix } Green Algae
spirogyra.

Anisogamy - type of sexual Rep in

which two dissimilar gametes unite to fuse. The gametes may differ in shape, size or form.

- Also known as Heterogamy.

Ex. Fucus Eudorina. (Green Algae)

Oogamy - Condition in which the female gamete is larger in size and remains immotile, whereas, male gametes is small in size and remains motile.

- It is a form of heterogamy.

ex. Volvox → green
Fucus → Brown
Gelidium, Gracilaria,
Porphyra, Polysiphonia }
↓
Red Algae.

Life cycle

