

Maria Bella-Hawaii - Gymnosperms

Matri No 19/MHS02/034

Dept Nursing Science

Course BIO 102

Assignment

1 In 1883, Eichler divided the kingdom plantae into two sub kingdoms namely Cryptogame and Phanerogamae.

- Cryptogame: 1) They are lower plants and they do not bear flowers or seeds which makes them to be non-flowering and seedless plants.

2) ^{their} reproductive organs are inconspicuous.

- They include three divisions, thallophyta, bryophyta and pteridophyta.

↓ Thallophyta e.g. spirogyra, ulothrix, cladophora and chara.

- They are predominantly aquatic freshwater or marine.

- The plants group are called algae.

↓ Algae

- Their body is simple and not well differentiated.

- They are autotrophic.

- They are divided into Monocots and Dicot.

• Their forms and sizes are variable.

* BRYOPHYTA

- Examples are: mosses and marchantia.

- They are called amphibians of the plant kingdom because they grow in moist areas.

- It has an embryo in its developmental process.

* PTERIDOPHYTA

- Examples are ferns, marsilea, pteris, salvinella etc.

- They bear sporangia which produce spores.

- Seeds are absent they produce naked embryo called spores.

SUB-KINGDOM PHANEROGAMA:

- They bear flowers and seed (Spermatophytes).

- Seeds are results of sexual reproductive process.

- The plant body is well differentiated into stems, leaves and roots.
- They are classified into Gymnosperms and angiosperms.
- Sub-^{Division} ~~Phylum~~ Gymnospermae
- Examples are Ginkgo, pine, Thuja, etc.
- It includes medium sized trees and shrubs.
- They bear naked seeds and are usually perennial woody and woody.
- Sub-division angiospermae
- They are flowering plants.
- They are the highly developed group of plants.
- They have plant embryo in seed structures called Cotyledons.

2 It serves as a source of Vitamin because they are the richest. Vitamins A, B and E are found abundantly in sea weeds.

- It serves as mineral content: High mineral content, up to five percent of the wet material, in which all the mineral elements important in human and animal physiology are found, makes sea weeds a unique supplement for a well balanced diet.
- The algae are used as a source of food by several sea animals because the marine algae are rich in iodine and several other important materials.

3 A unicellular form of algae. They are plant like alga and they contain chlorophyll. They include groups that have both multicellular and unicellular species. They are the most abundant form of algae in the ocean and they can also be found in freshwater. Chlamydomonas represents the unicellular and motile form of green algae. It is found in stagnant water.

4) It is either sexual or asexual.

The vegetative reproduction results in daughter cells because the genetic material contained in the mother cells is maintained in the daughter cells. The asexual reproduction involves the mitosis and pinning is vegetative because the gametes are morphologically identical.

5) Paramecium

1) Its sexual reproduction is binary conjugation.

2) It has a unicellular mobile shell.

3) It is a genus of green algae.

Volvox

Its sexual reproduction is binary conjugation.

It has a multicellular mobile shell.

It is a genus of green algae.

6) Fucus: It is a brown alga found in rocks at the sea shore. The structure is flattened, dichotomously branched thallus with a midrib. The body has a bladder-like shape and the plant to float. It varies in size from a few centimeters to about 2 meters.

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