Phycology/practical

Lab.7: **Yellow-green algae**

Division: chrysophyta (Yellow-green)

1-Class: chrysophyceae

2-Class: xanthophyceae

3- Class: bacillariophyceae(Diatomes)

General characteristics of chrysophyta:

 1-the chloroplast contains chlorophyll A and C, xanthophyll and carotenes.

2-the main reserve polysaccharides are chrysolaminarine, leucosin and oil droplets.

3-the flagellate cells bearing long hairy flagellum and short smooth flagellum, and some species have flagellum like structure named (Haptonema) arising from cell apex near other flagella. It is thought to aid in attachment, feeding and responses.

1-Class: chrysophyceae (golden algae) ……….. Genus: *Dinobryon*

1- fucoxanthin pigment is responsible for golden color.

2-cells are arranged in tree like colonies

Figure (1):*Dinobryon* colony

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2-Class: xanthophyceae (yellow-green algae)

Genus: *Vaucheria*

1- **diadinoxanthin** pigment is responsible for yellow-green color

2-This genus is characterized by multinucleate tubular branches lacking cross walls

called (**coenocytic**) except in association with reproductive organs.

3- There are two characterized species in *Vaucheria*:

a- *Vaucheria sessile*: in this species reproductive organs are setting directly on

algal body

 b- *Vaucheria geminata*: in this species reproductive organs are stalked on a

small holder.
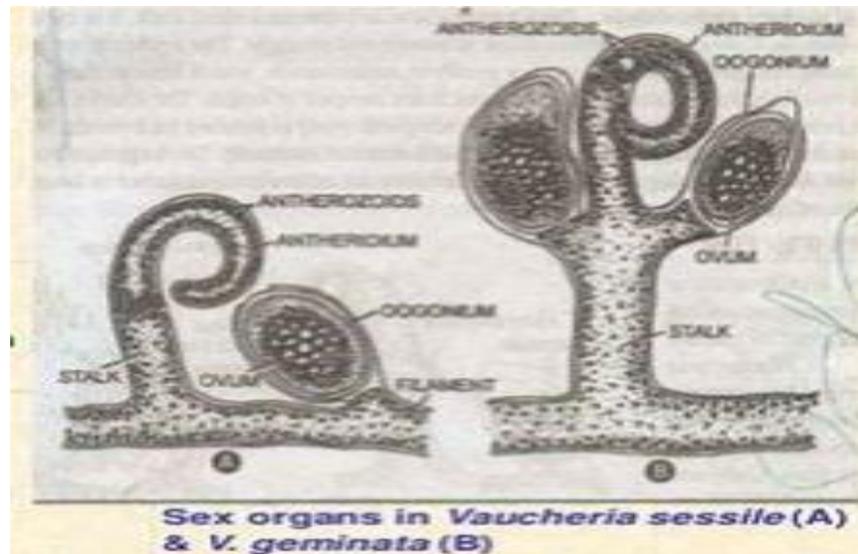
Figure(2): *Vaucheria* spp.

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Class: bacillariophyceae (Diatomes)

1- Algae within this class characterized by possessing a rigid overlapping cell wall saturated with silica materials called (frustule).

2- Diatoms are traditionally divided into two orders: centrales (centric diatoms)

The main differences between these orders

Characteristics	centric diatoms	pennate diatoms
Symmetry	Radial symmetry	Bilateral symmetry
Gliding motility	Non-motile	Some are motile
Plastids	Many, discoid	Two, plate like plastids
Example	*Cyclotella*	*Navicula*
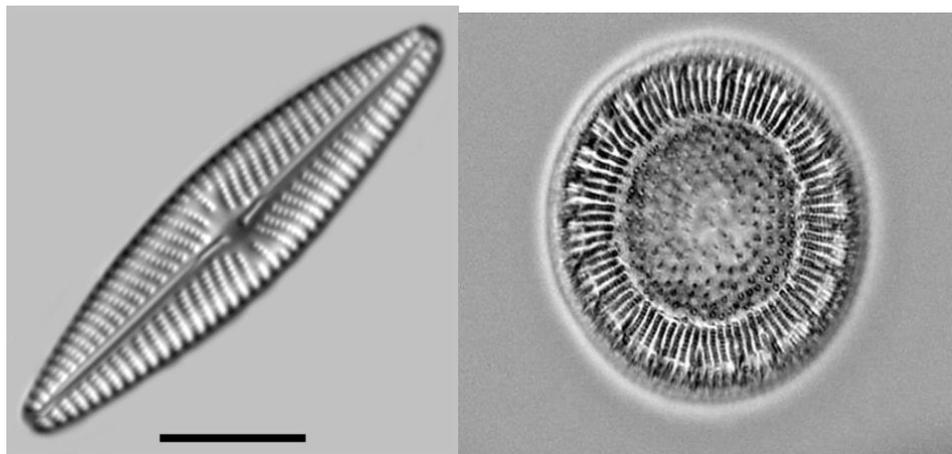
(A)   **(B)**

Figure(3): A:*Navicula* ,B: *Cyclotella*