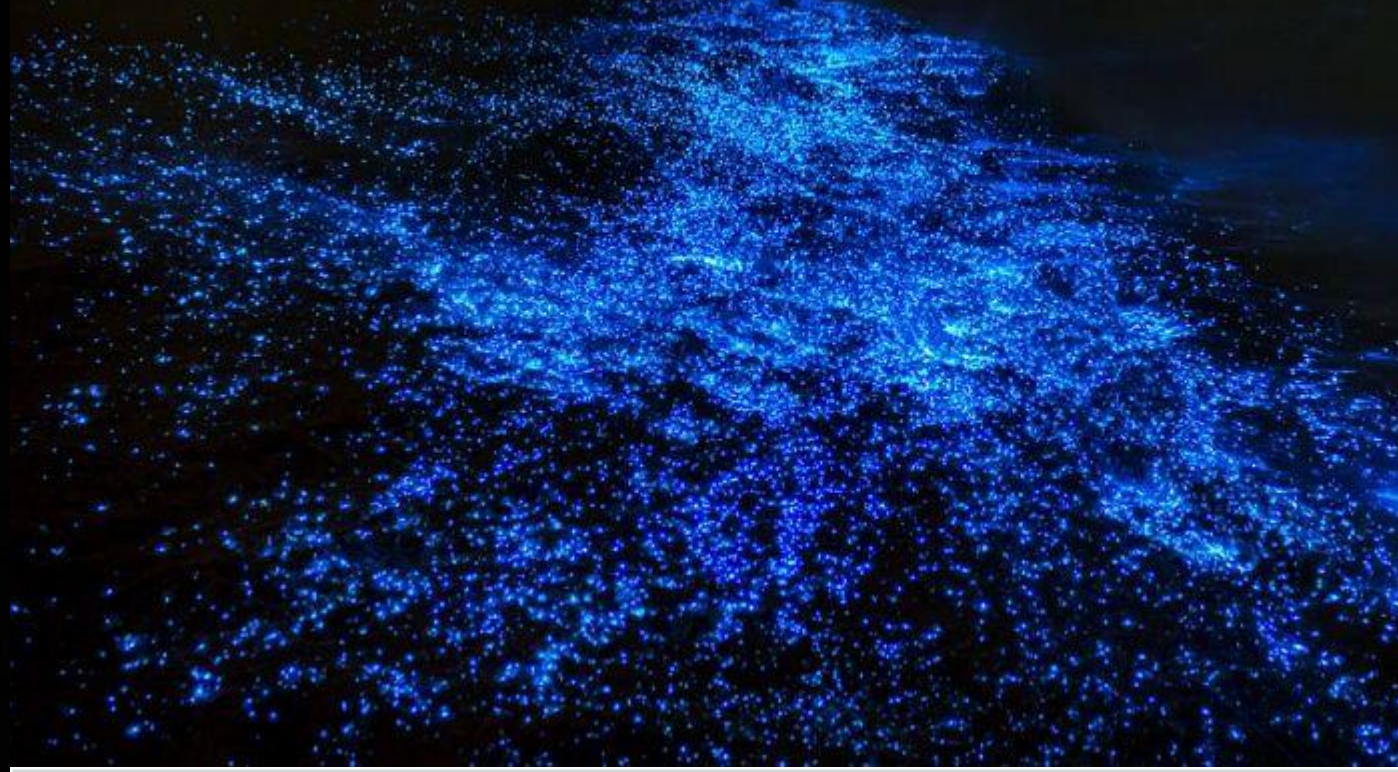
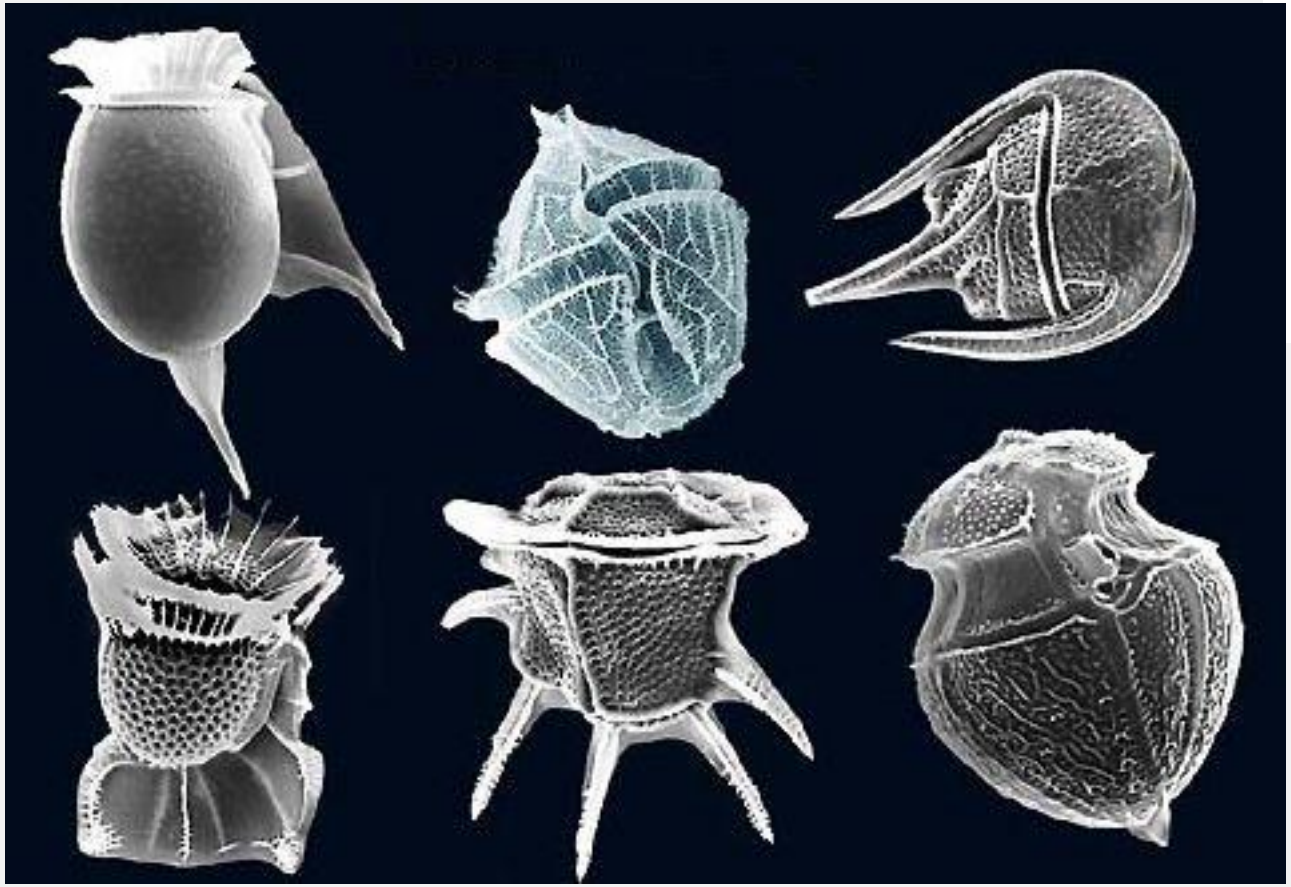
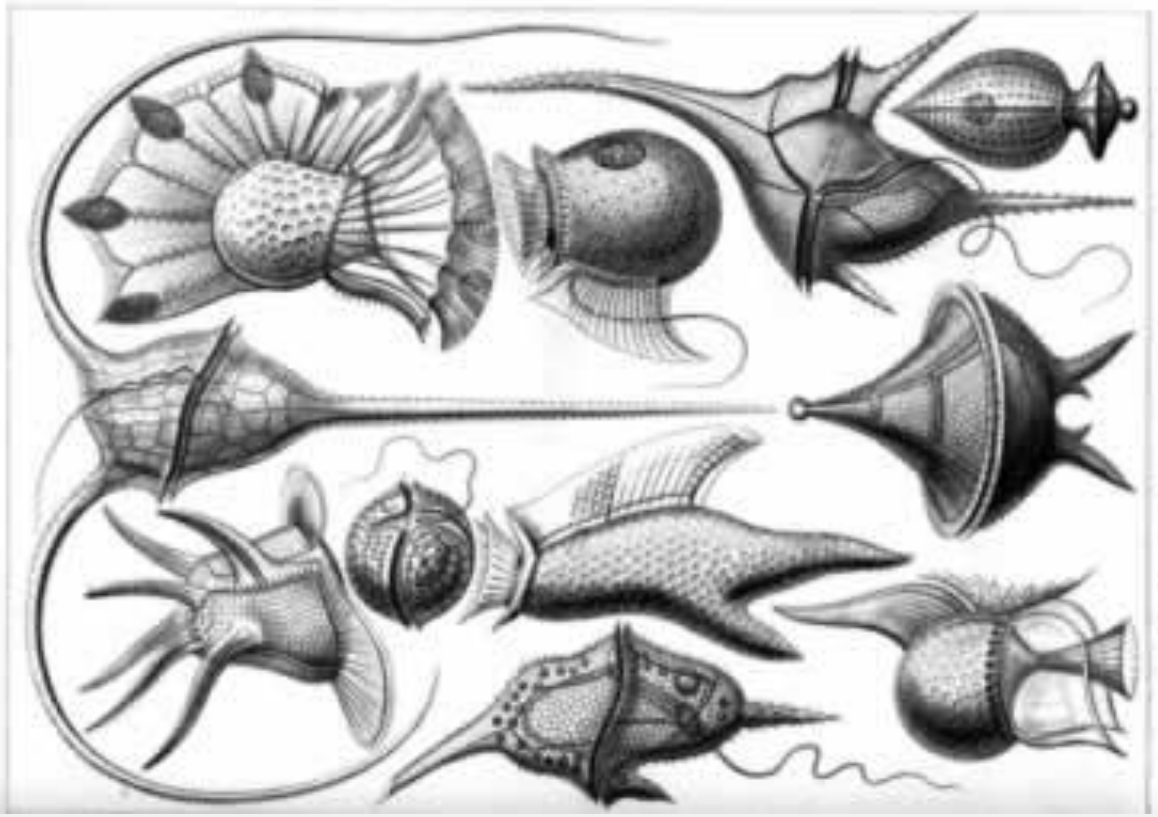


DINOFLAGELLATES

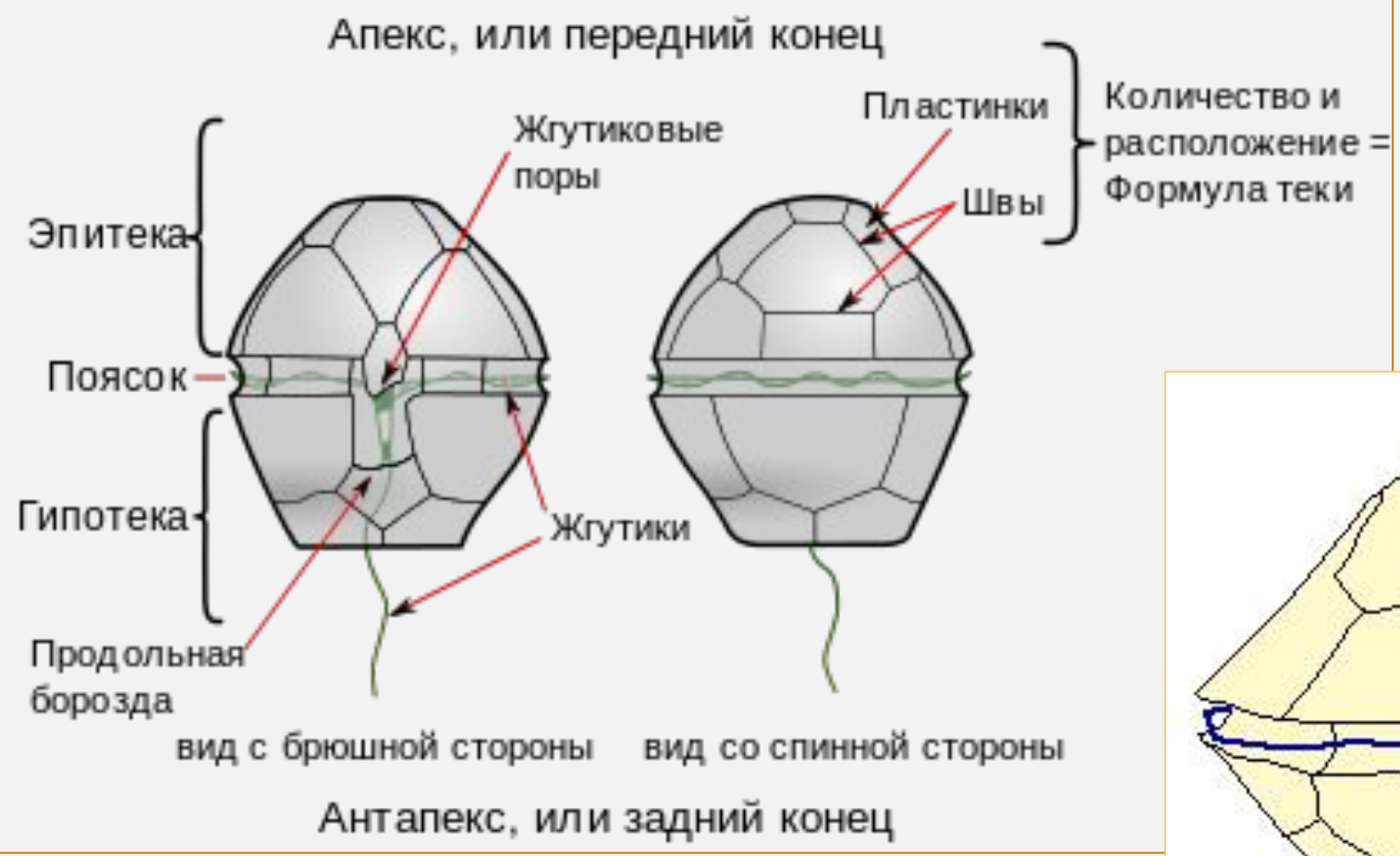
Svetlana Tashireva

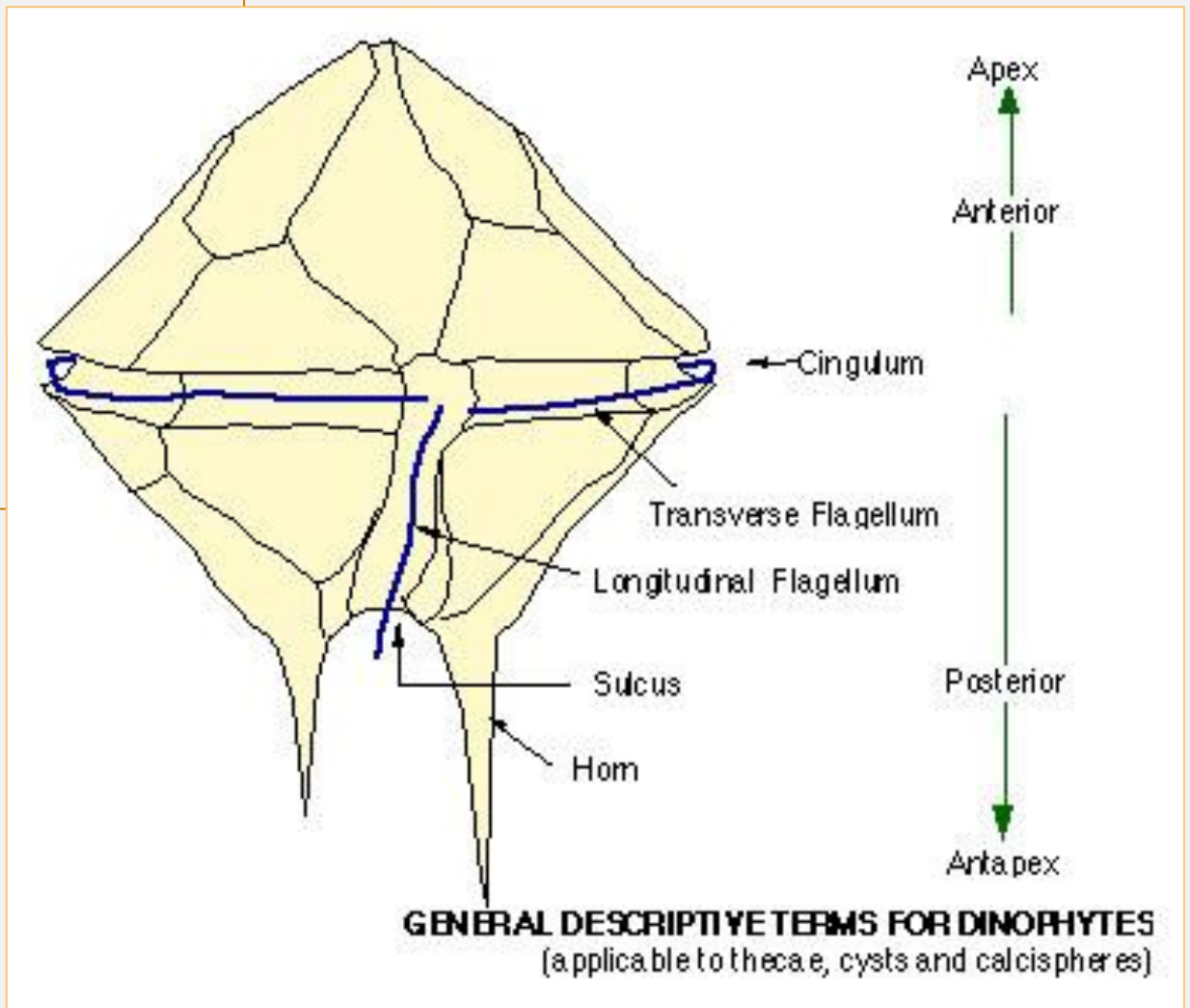
- Dinoflagellates are microscopic unicellular organisms occupying aquatic environments, from freshwater bodies to open ocean. They are also common in benthic environments and sea ice.



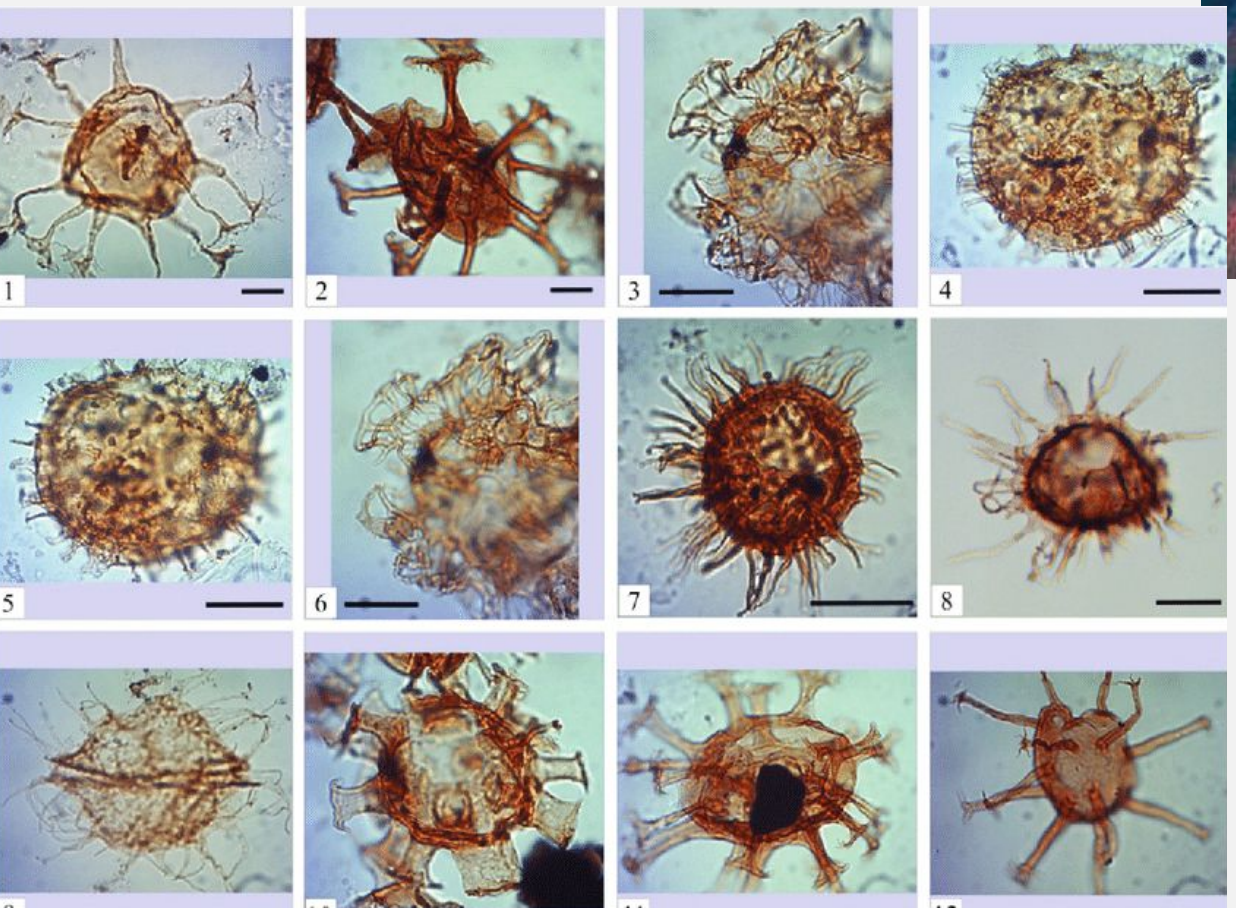


- Most dinoflagellates are planktonic and use their two flagella to swim in a spiral-like motion, which is the origin of their name (from the Greek word ‘dinos’ meaning whirling).


Апекс, или передний конец
Пластинки
Швы
Количество и расположение = Формула теки
Жгутиковые поры
Эпитека
Поясок
Гипотека
Жгутики
Продольная борозда
вид с брюшной стороны
вид со спинной стороны
Антапекс, или задний конец


Apex
Anterior
Cingulum
Transverse Flagellum
Longitudinal Flagellum
Sulcus
Hom
Posterior
Antapex
GENERAL DESCRIPTIVE TERMS FOR DINOPHYTES
(applicable to thecae, cysts and calcispheres)

Mainly represented as fossils by fossil dinocysts. Often used to determine the environmental conditions (paleoclimatologic and paleoecologic envistigations)



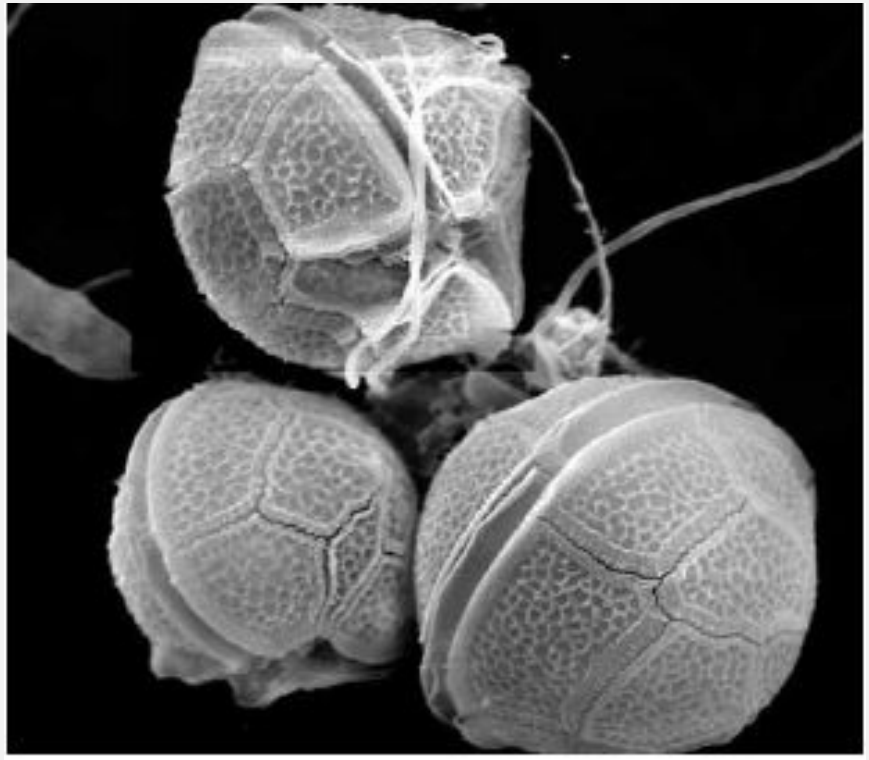
Harmful algal blooms

Bioluminescence

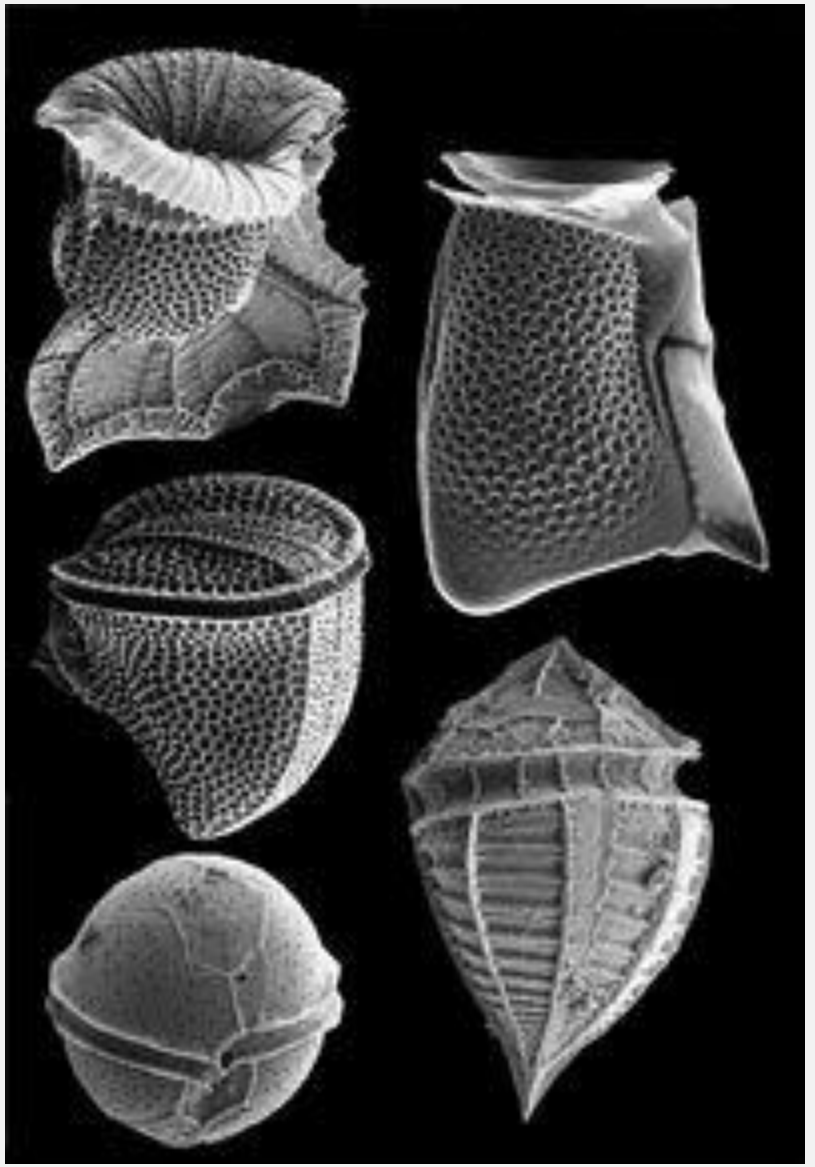
- In paleontology and Earth sciences, dinoflagellates merit particular interest since they yield microfossils, which constitute good biostratigraphical markers of the Mesozoic and Cenozoic and are useful paleoecological indicators of changes in sea-surface water masses.

  - The oldest known dinocysts date from the Silurian.
  - More abundant from the Triassic to the modern, with maximum diversity of species recorded during the Cretaceous and Paleogene.
  - Morphological diversity run-down since the Neogene.

- Dinoflagellate cysts are excellent paleoecological indicators: cyst assemblages and their absolute abundances have been shown to reflect changes in, for example, temperature, salinity and primary productivity, as well as the effects of industrial pollution and coastal proximity.
- Many paleontological studies have described the distribution patterns of dinocysts on the sea floor.



- In the field of Quaternary paleoceanography and paleoecology, the study of dinocysts is of growing interest. Because they are very resistant, dinocysts are generally well preserved in sediment despite dissolution that may affect calcareous or siliceous biological remains.




THANK YOU FOR YOUR ATTENTION