

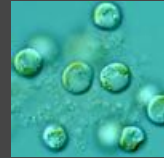
Stramenopiles III (Ch. 13): Pelagophyceans & Dictyochophyceans

**These small groups are important because
they form algal blooms!**

PELAGOPHYCEANS: *Aureoumbra*

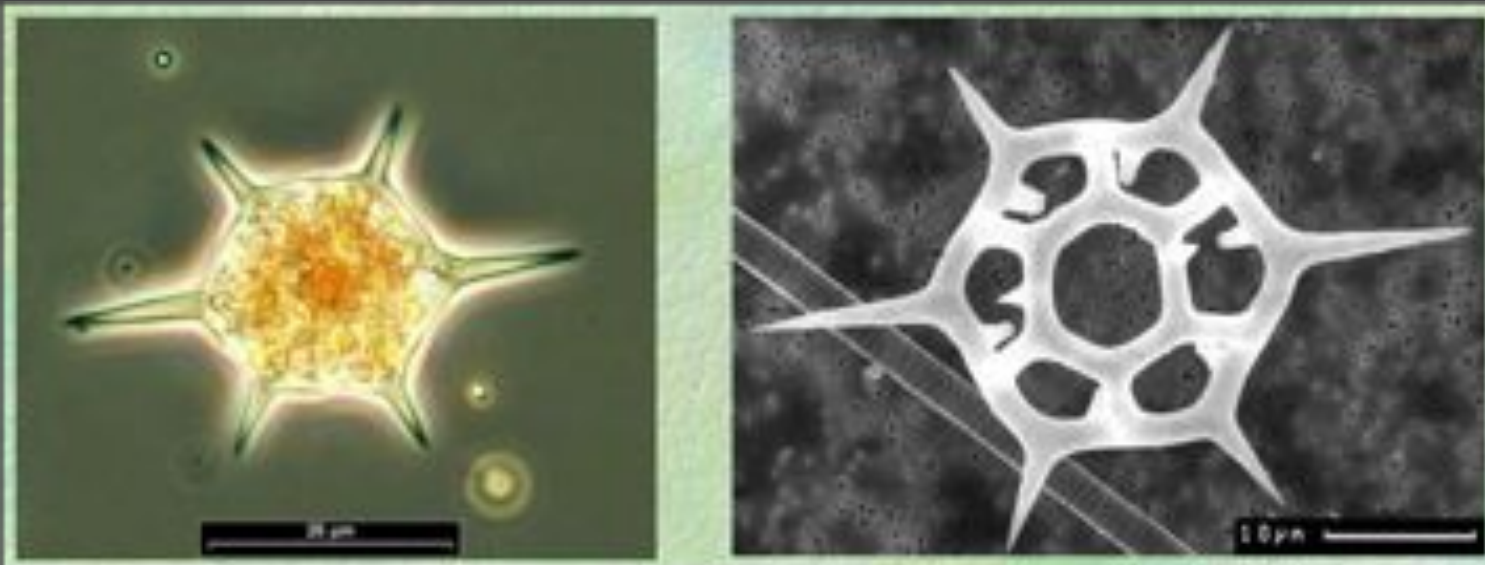
Cocoid and Monadoid forms

Aureoumbra is “Texas Brown Tide”



SILICOFLAGELLATES: *Dictyocha*

Marine with distinctive basket-shape external silica skeleton



Dictyocha

Stramenopiles IV (Ch. 14):

Xanthophyceae or Yellow-Green Algae

TRIBOPHYCEAE or (Xanthophyceae) or Yellow Green Algae

- Very similar to Green algae IKI/
Lugol solution necessary to test for
starch
- Cell with several chloroplasts and
pyrenoids!
- No fucoxanthine
- Lipids
- Cell wall with cellulose sometimes in
two pieces
- Coccoid, filamentous and
siphonaceous forms
- Parallel evolution with Green Algae!

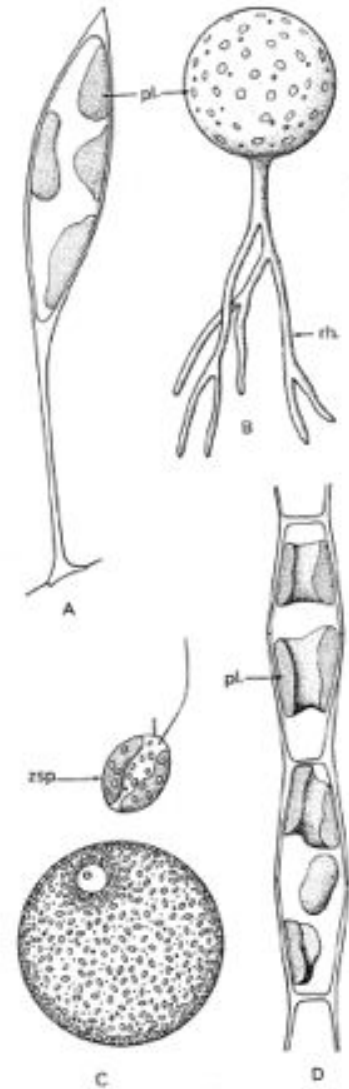
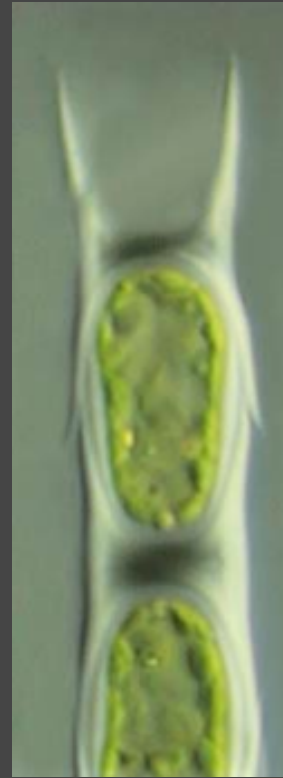
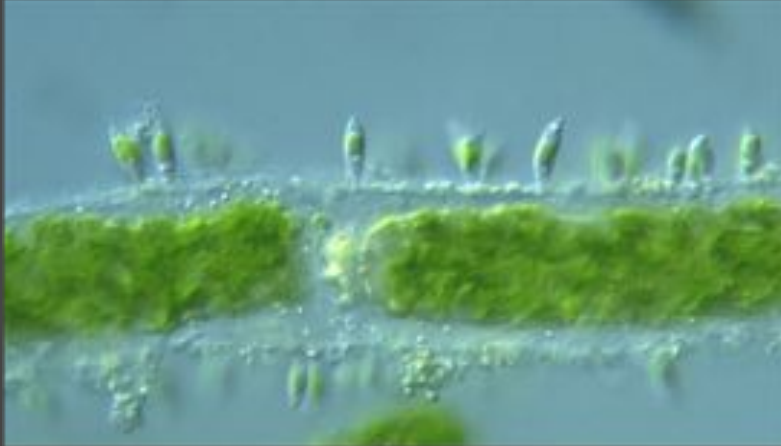


Fig. 40 Xanthophycées. - A. *Characiopsis* sp. : x 2500. - B. *Botrydium granulatum* : x 13. - C. *Halosphaeropsis virdis* (d'après P. Dangeard) : cellule végétative : x 100 et zoospore hétérokontée : x 400. - D. *Tribonema* sp. : fragment de filament : x 2000.

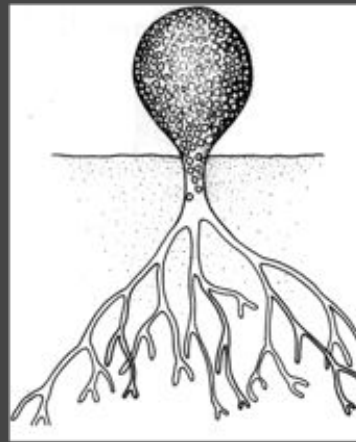
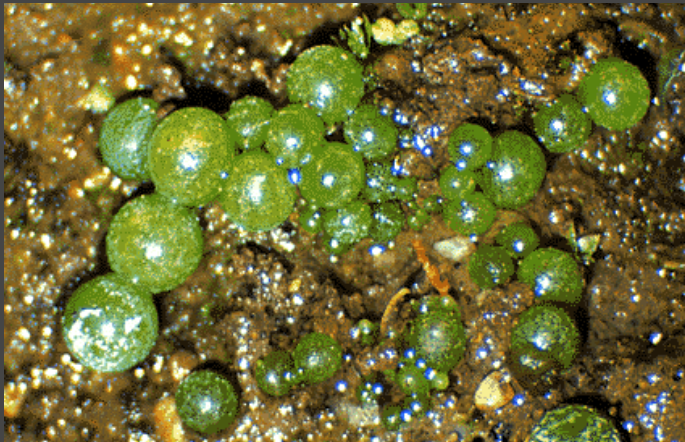
MORPHOLOGICAL DIVERSITY

More than 90 genera and 600 spp

Freshwater or soils



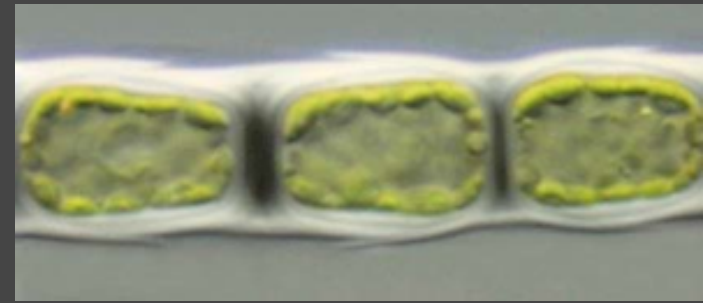
Characiopsis
Spindle-shape tribophyte
epiphytic on larger algae



Botrydium
Small multinucleated
vesicle on damp soil, with
colorless rhizoidal
filaments

Tribonema

Unbranched filaments, cell walls in two overlapping pieces “H-shape”

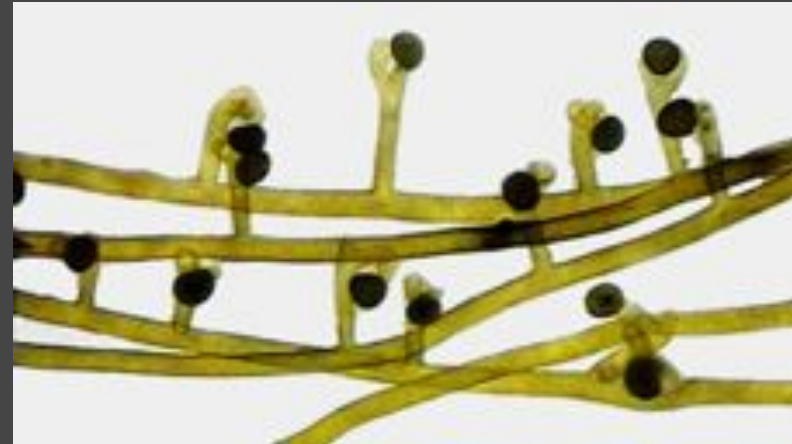


Ophiocytium

Elongated cells from straight to twisted, sometimes in “colonies” after germination of zoospores at the distal end of a parental cell

Vaucheria

Large and branched tubular coenocytes; on soil around lakes or saltmarshes or submerged in freshwater and seawater



Life cycle of *Vaucheria*

- Gametic Meiosis
- Vegetative phase is diploid
- Asexual reproduction by Synzoospores
- Sexual Reproduction by Oogamy (Antheridia and Oogonia)

