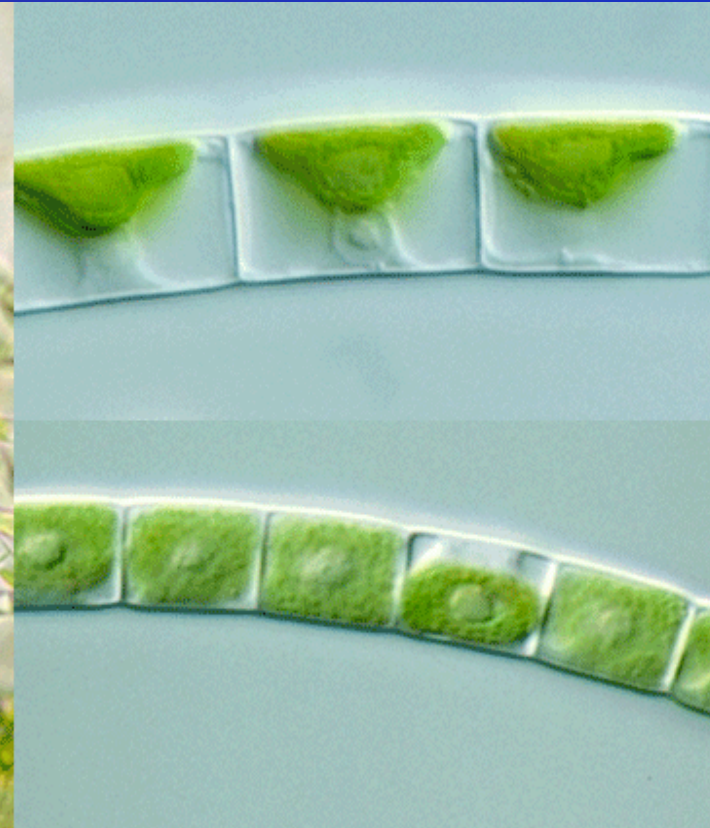
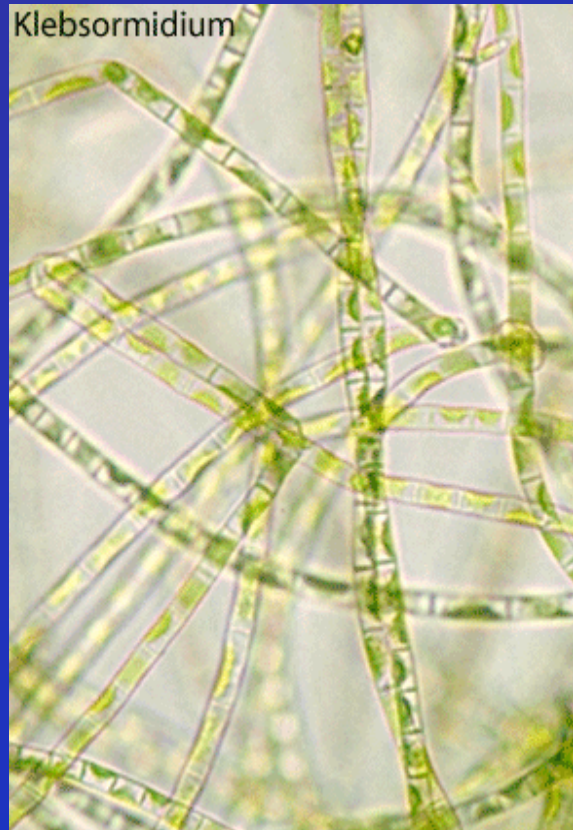


Přehled zelených vláknitých řas

Lenka Caisová

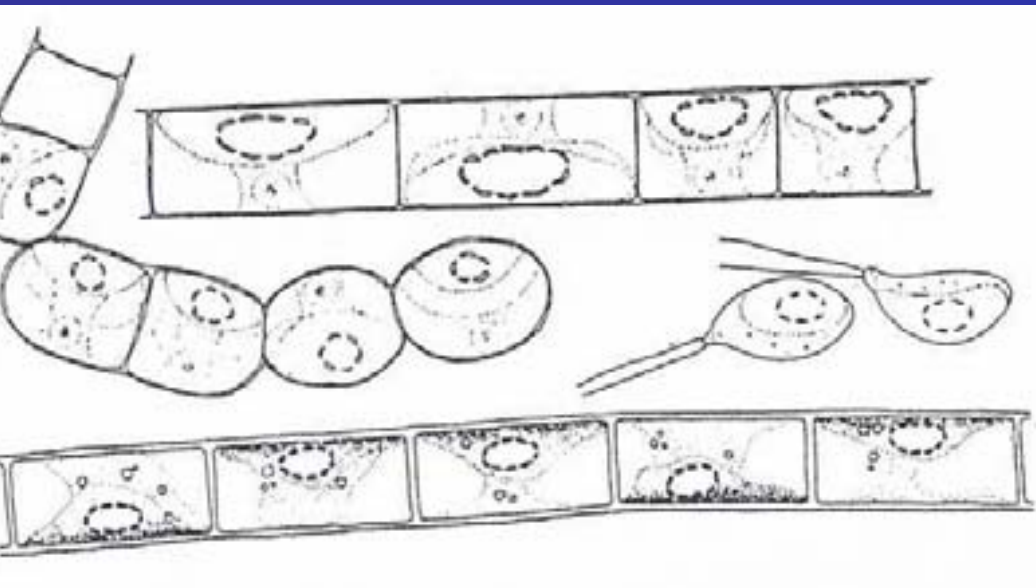
Klebsormidium (Hormidium, Chlorhormidium)

- trichální, rozpadavost vláken
- izopolární
- chloroplast s pyrenoidem



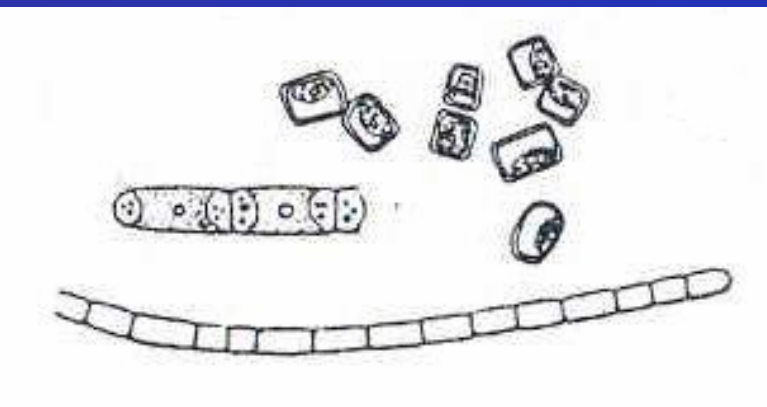
půda, litorál vod

K. flaccidum



- rozměry buněk
- tvar chloroplastu
- rozpadavost vláken

K. pseudostichococcus



- *K. flaccidum* - častější

Ulothrix

trichální

izopolární

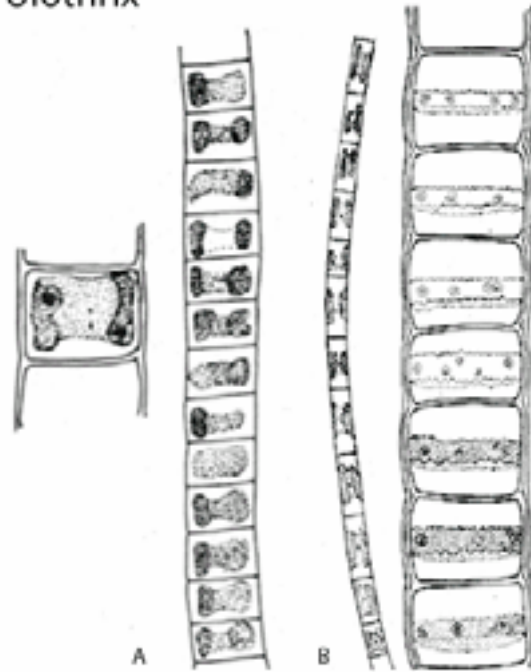
rhizoidy

apikální buňky zaoblené

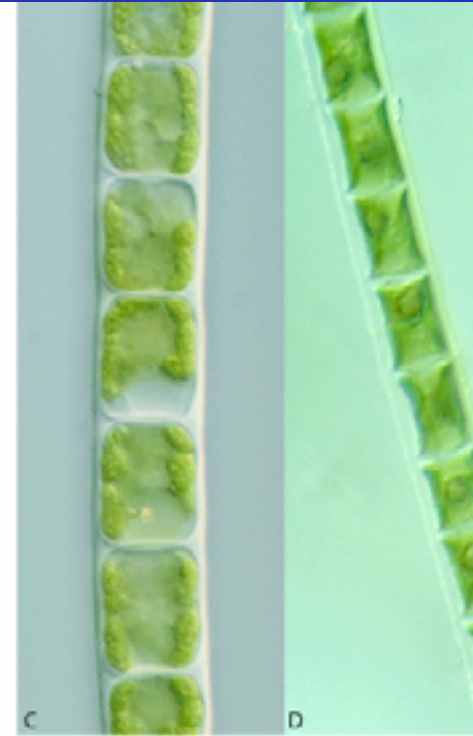
chloroplast s pyrenoidei

U. zonata

Ulothrix

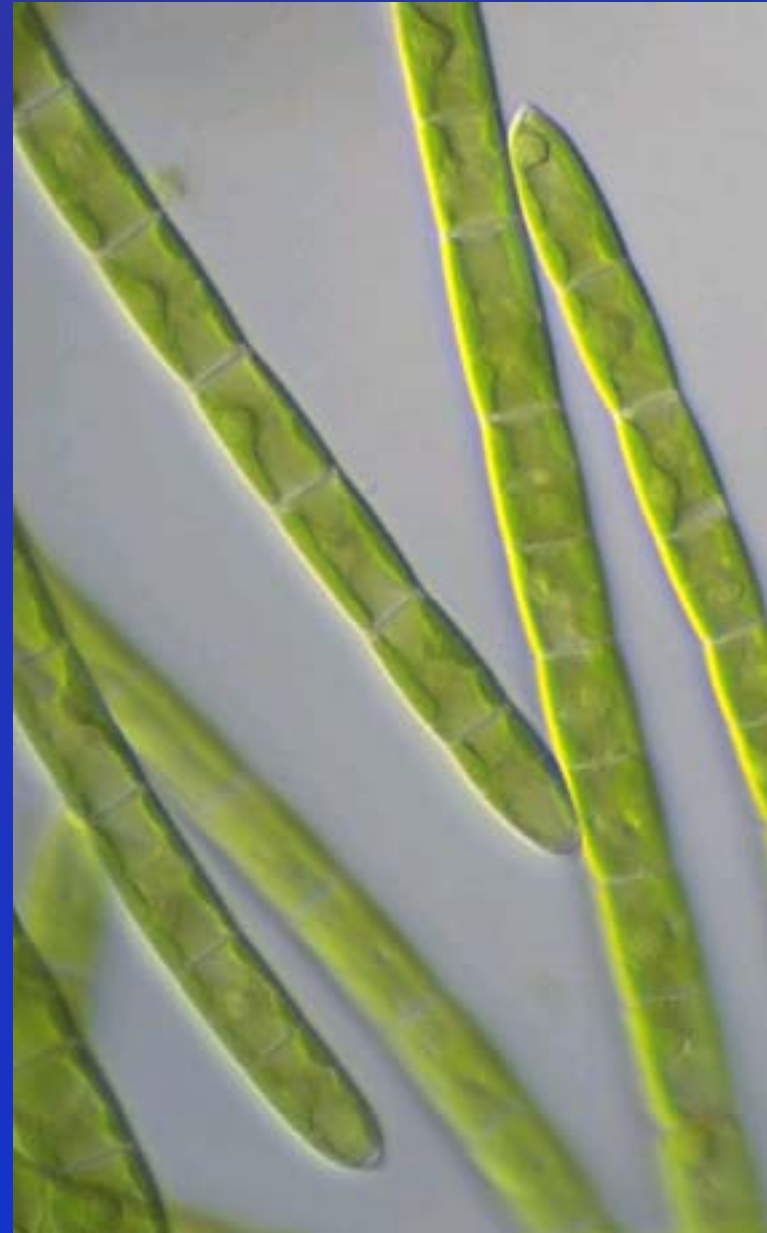


A, B after Prescott (1951)
C, D after Entwisle et al. (1997)



Uronema

- trichální
- heteropolární
- dermoid
- chloroplast s pyrenoidem (1, 5)



U. confervicolum

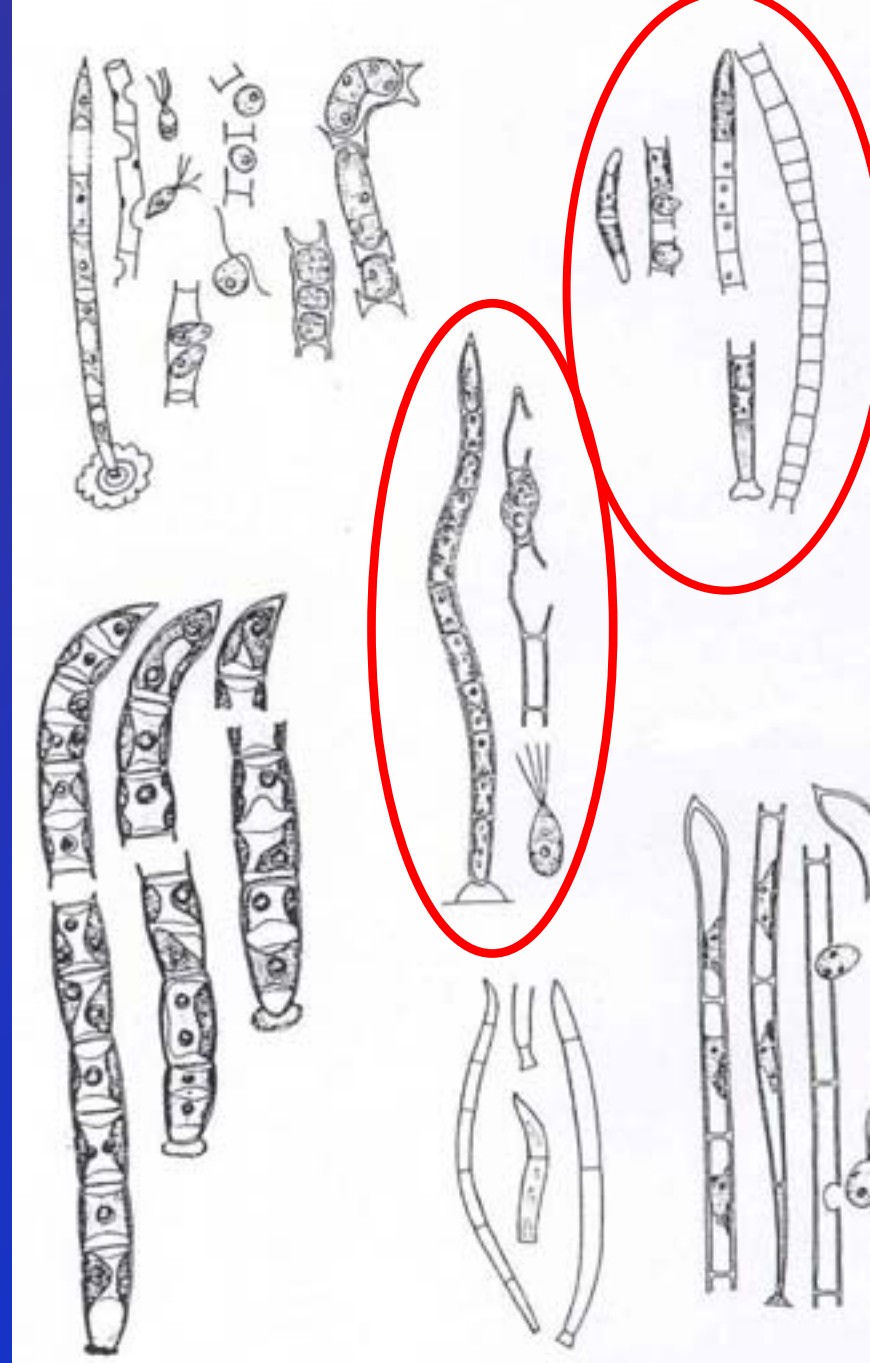
- vlákna do 1 mm
- dermoid
- chloroplast s 1 – 2 pyrenoidy

U. gigas

- vlákna 2 - 5 cm
- dermoid
- chloroplast s 1 – 5 pyrenoidy

U. africanum

U. elongatum

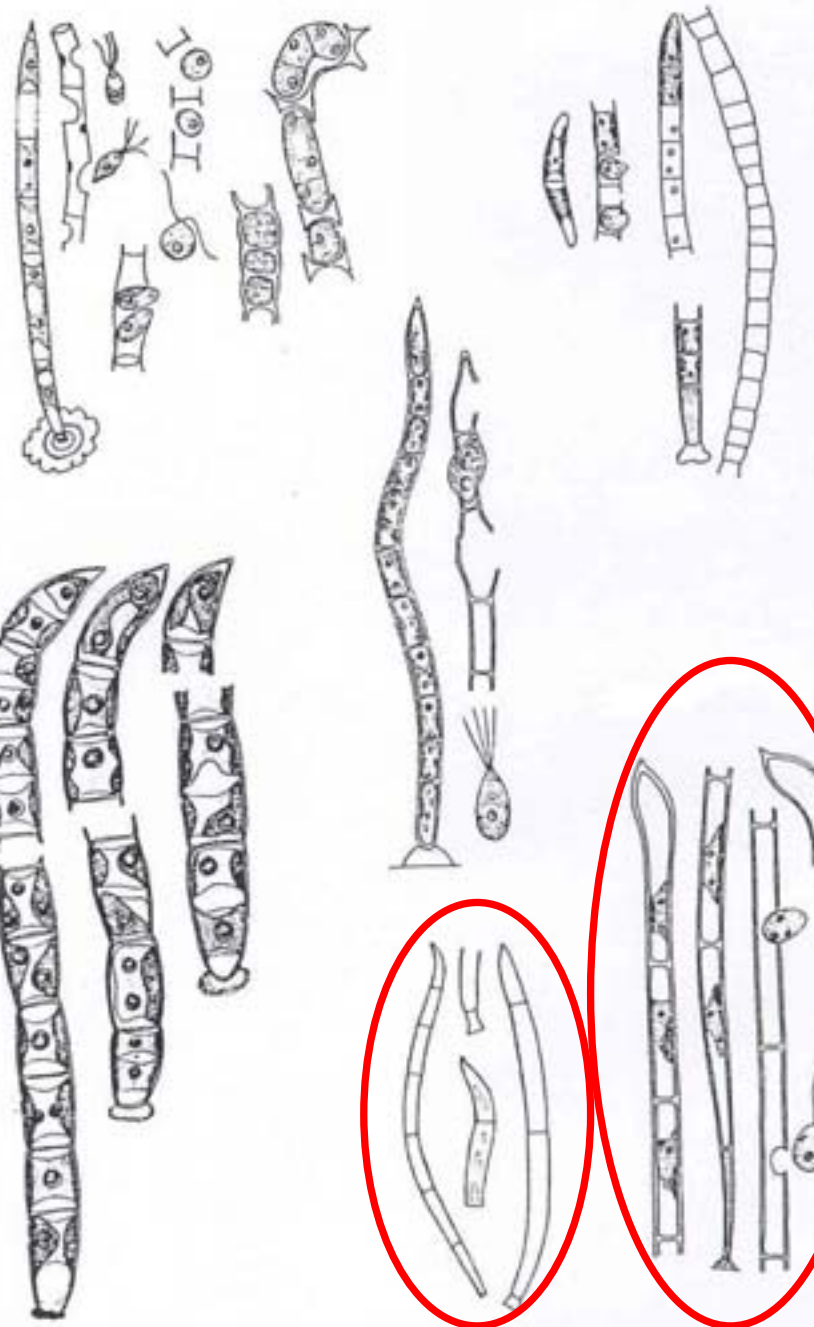


U. africanum

- 12 buň. vlákna
- apikální b. zahnutá
- chloroplast se 2 pyrenoidy

U. elongatum

- vlákna do 5 mm
- apikální b. rozšířená a ohnutá
- bazální b. směrem k dermoidu zúžená



Rhizoclonium

vatovité vlasy

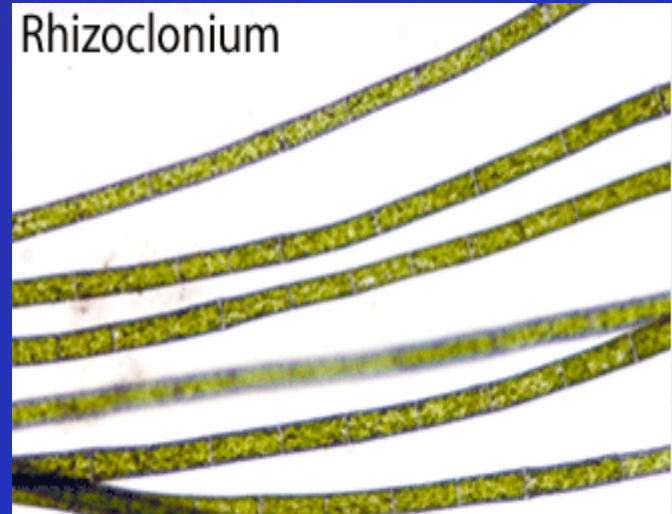
trichální až heterotrichální

izopolární

charakteristické spojení buněk

chloroplast s pyrenoidy

R. hieroglyphicum

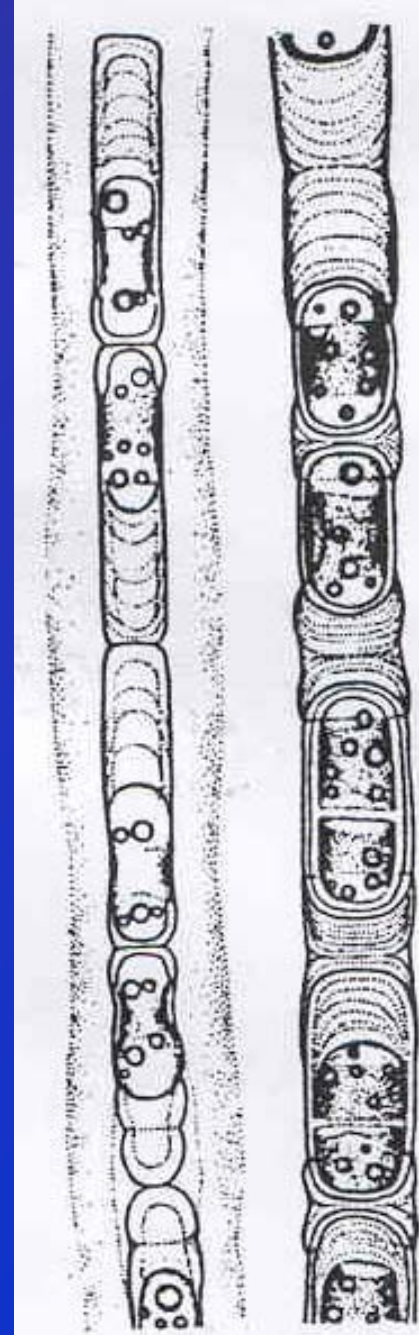


Binuclearia

- trichální
- polární
- buněčné stěny ve tvaru H, vrstevnaté
- chloroplast s pyrenoidem

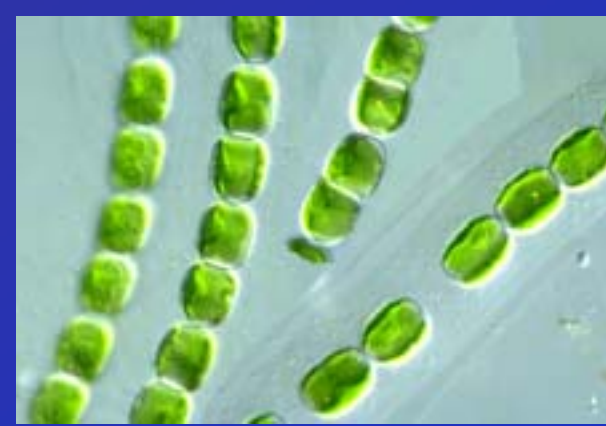
B. tectorum

- rašelinné biotopy, oligotrofní vody

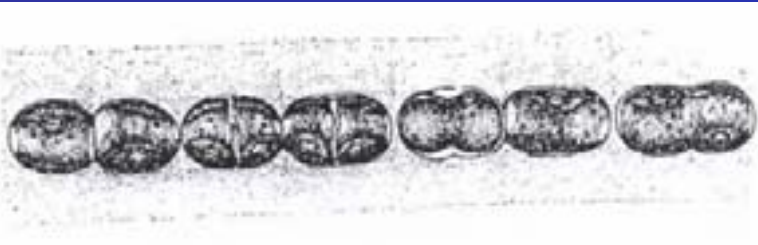


Geminella

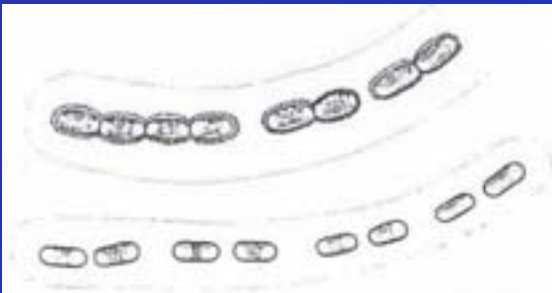
- trichální
- slizový obal, pochva
- jednoduchá b. s.
- chloroplast s pyrenoidem × *Gloeotila*



G. mutabilis



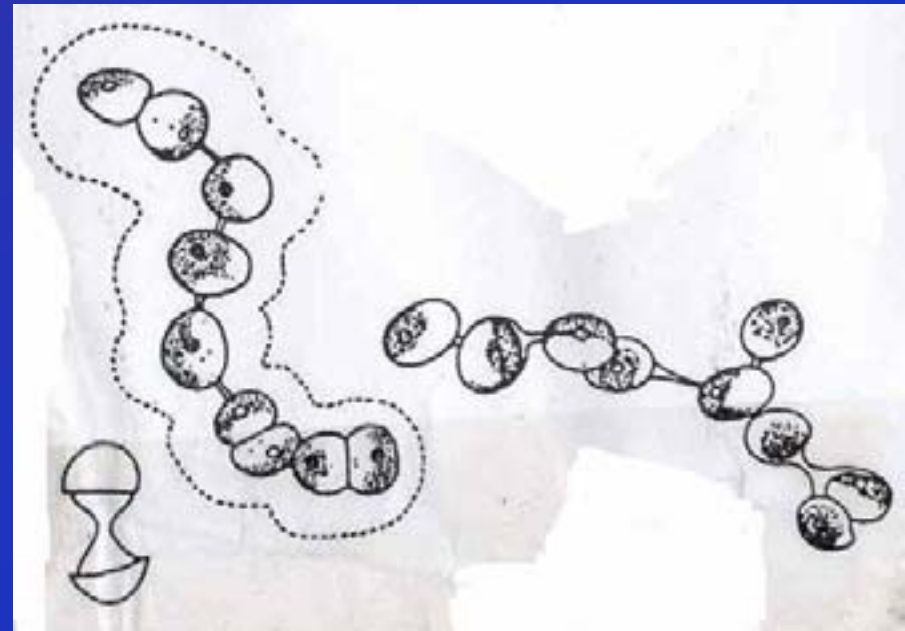
G. interrupta



Interfilum (Radiofilum)

- "trichální - heterotrichální,, - jedna či více řad
- slizový obal, pochva
- buňky spojené hyal. výběžky, dvoudílná b. s.
- chloroplast s pyrenoidem

I. paradoxum



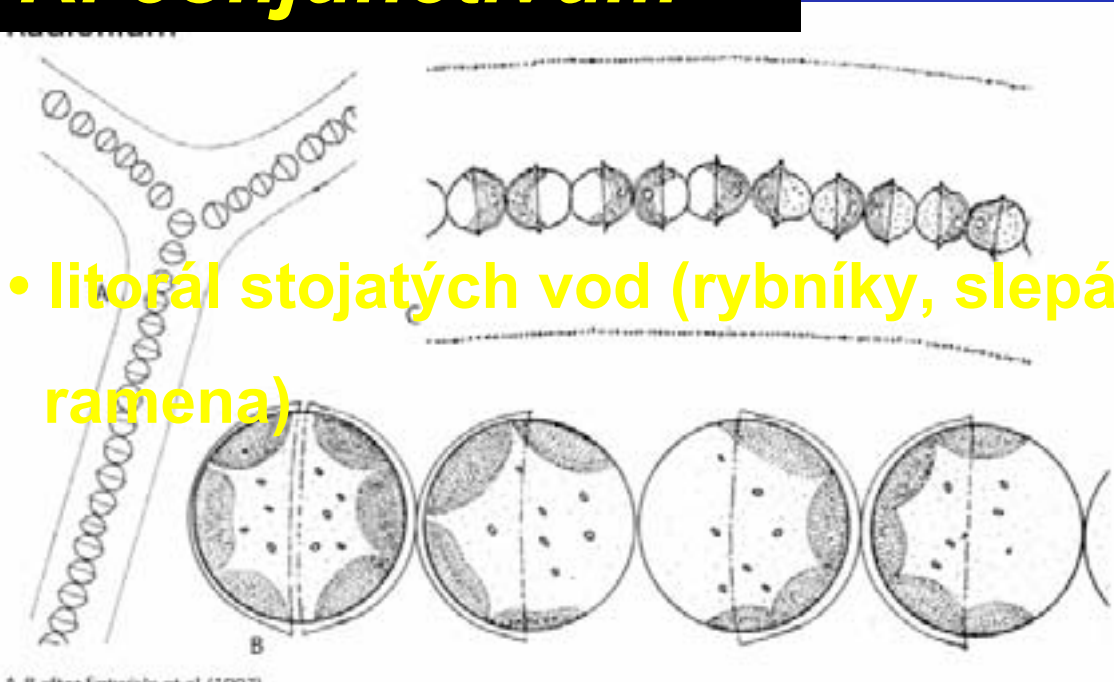
litorál malých nádrží, epifyticky (vířník *Ophridium versatile*)

Radiofilum

- "trichální,, - jedna či více řad
- slizový obal, pochva
- buňky spojené hyal. výběžky, dvoudílní b. s.
- chloroplast s pyrenoidem (1, 2) !

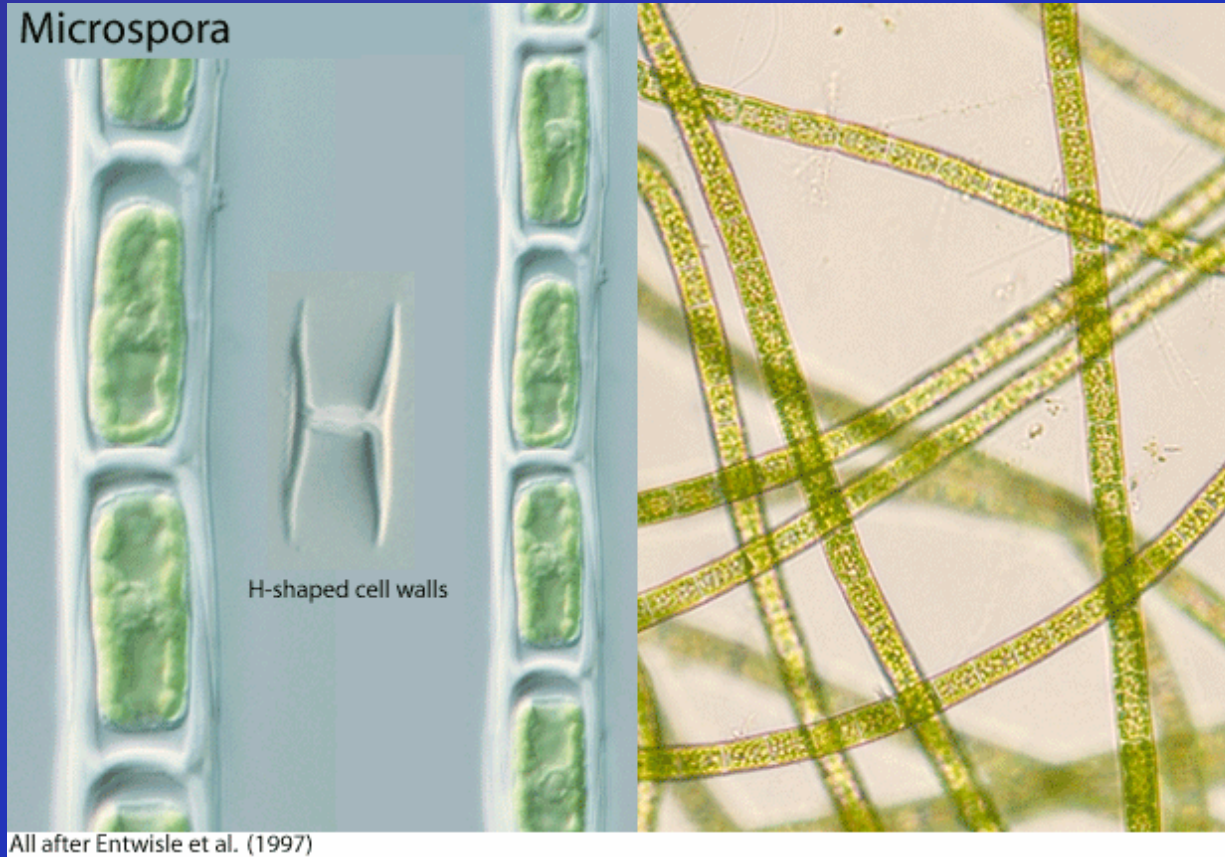
R. conjunctivum

- litorál stojatých vod (rybníky, slepá ramena)



Microspora

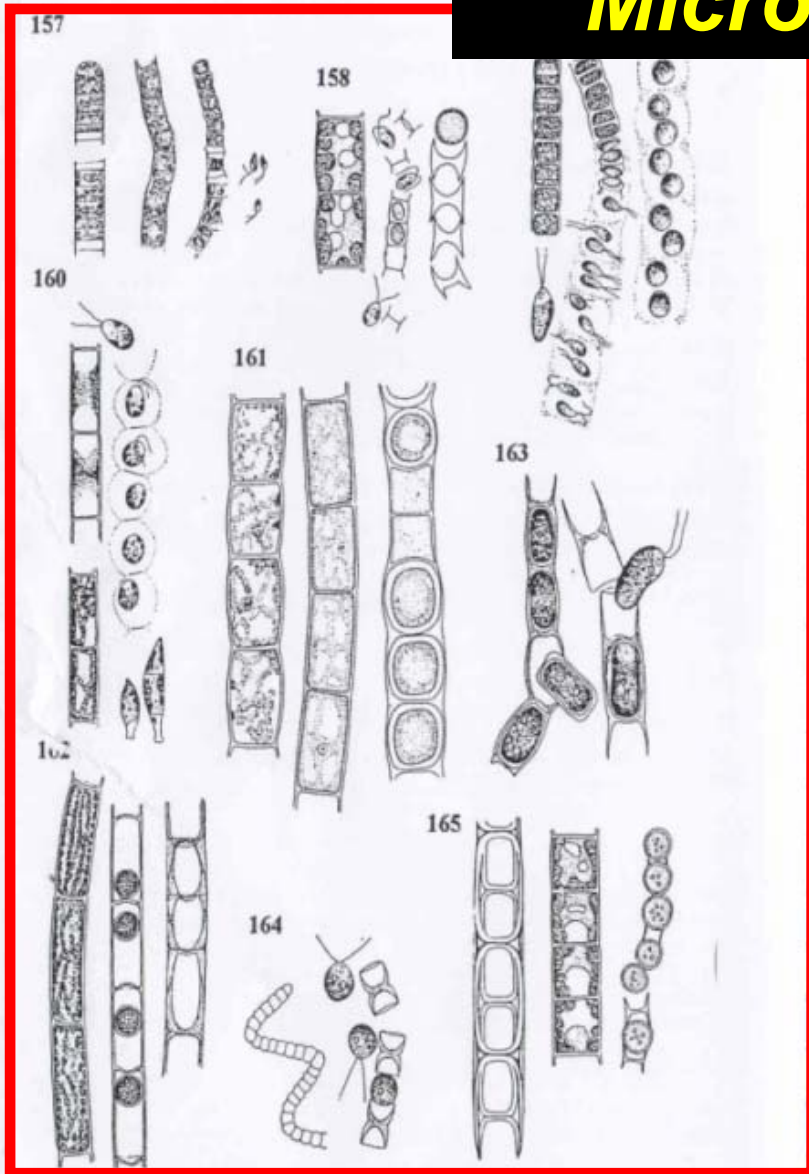
- trichální
- izopolární
- rhizoidy
- apod. b. zaoblené
- H kusy
- chloroplast bez P



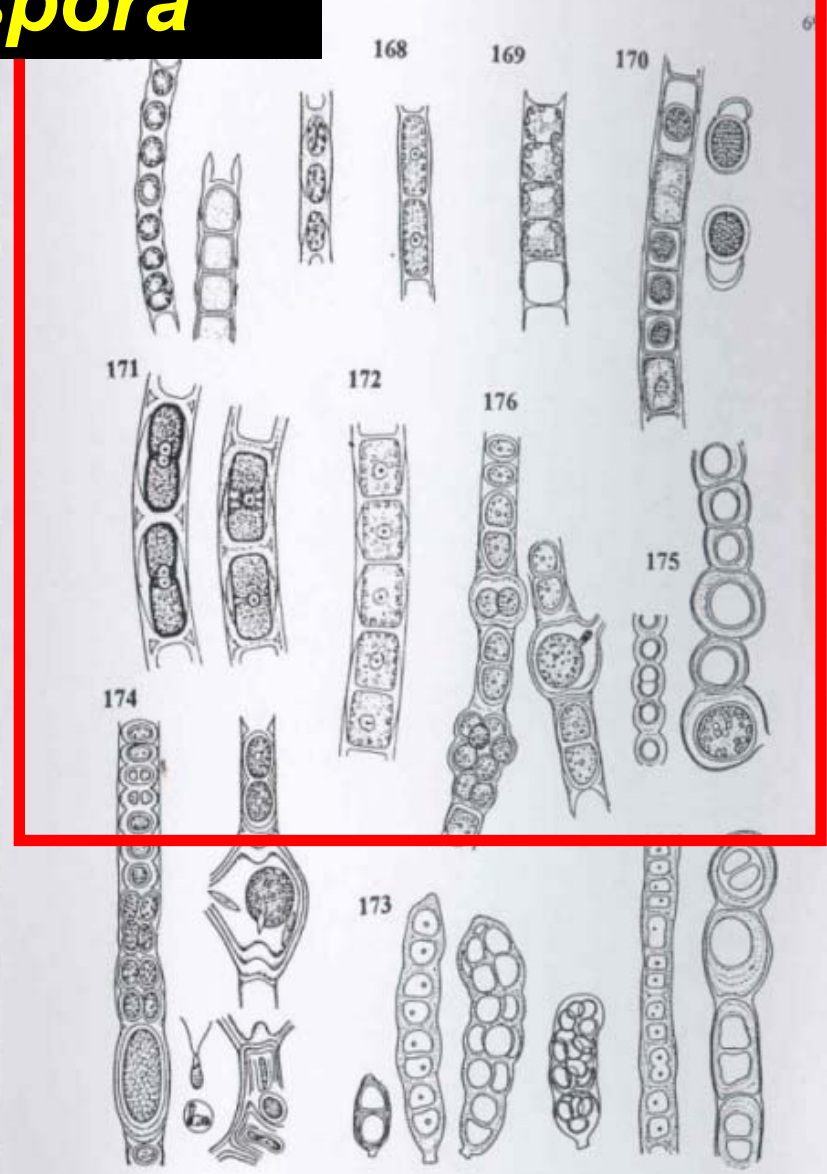
- **čisté a chladné vody?**

Pro určování doporučujeme článek Lokhorst (1999): Taxonomic study of the genus *Microspora*. – *Algological Studies* 93: 1-38.

Microspora



Obr. 157-165: 157 *Microsporopsis binzii*, 158 *Microspora tumidula*, 159 *M. quadrata*, 160 *M. stagnorum*, 161 *M. floccosa*, 162 *M. spirogyroides*, 163 *M. willeana*, 164 *M. lanterbornii*, 165 *M. abbreviata*.



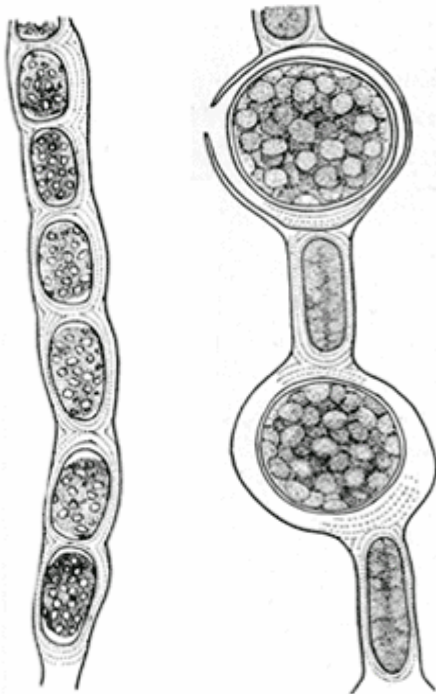
Obr. 166-176: 166 *Microspora palustris* var. *palustris*, 167 *M. pachyderma*, 168 *M. loefgrenii*, 169 *M. aequabilis* var. *aequabilis*, 170 *M. witrockii*, 171 *M. amoena* var. *amoena*, 172 *M. crassior*, 173 *Cylindrocapsa conferta*, 174 *C. involuta*, 175 *C. geminella* var. *geminella*, 176 *C. geminella* var. *minor*.

Zde tabule z publikace Hindák (1996):Kluč na určování nerozkonárených vláknitých zelených řas

Cylindrocapsa

- trichální
- slizová stopka (mladá st.)
- b. s. vrstevnatá (starší st.)
- chloroplast s pyrenoidem

Cylindrocapsa



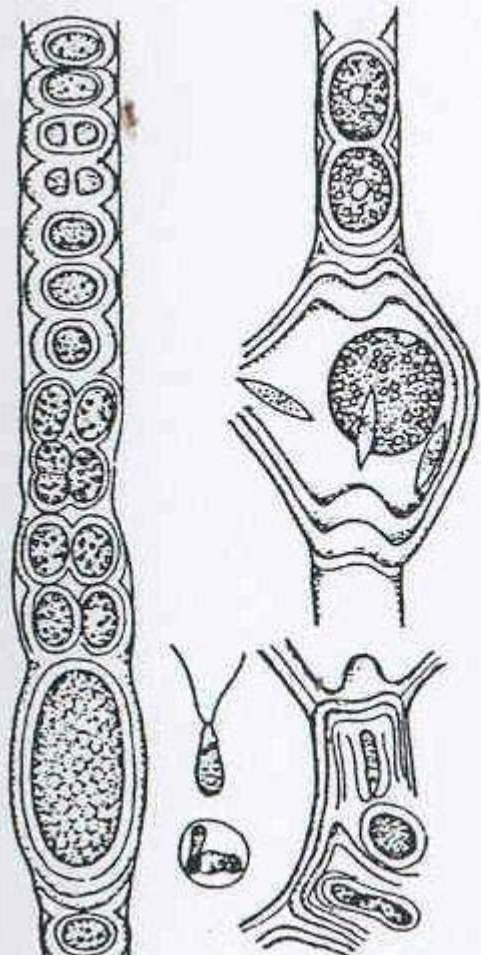
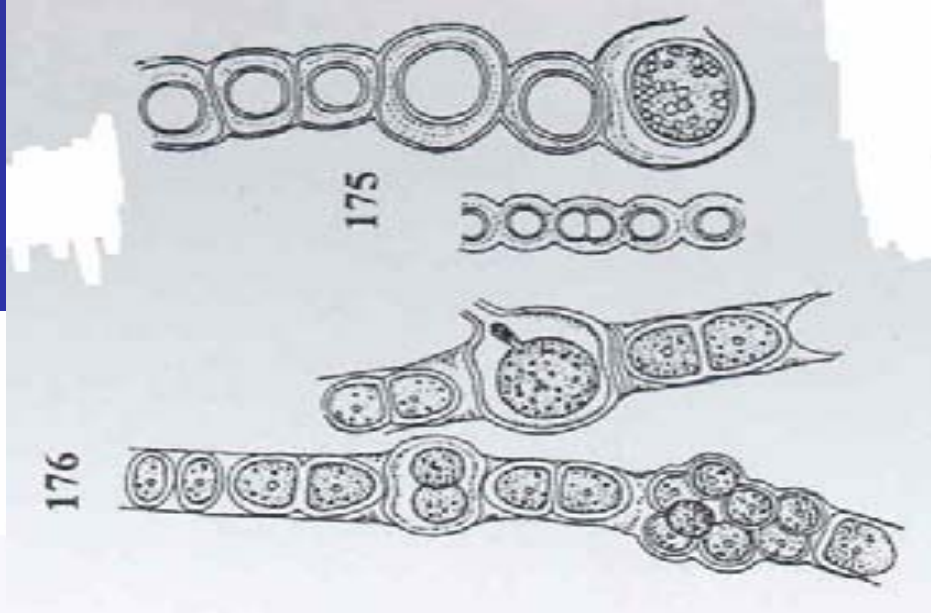
Prescott (1951)



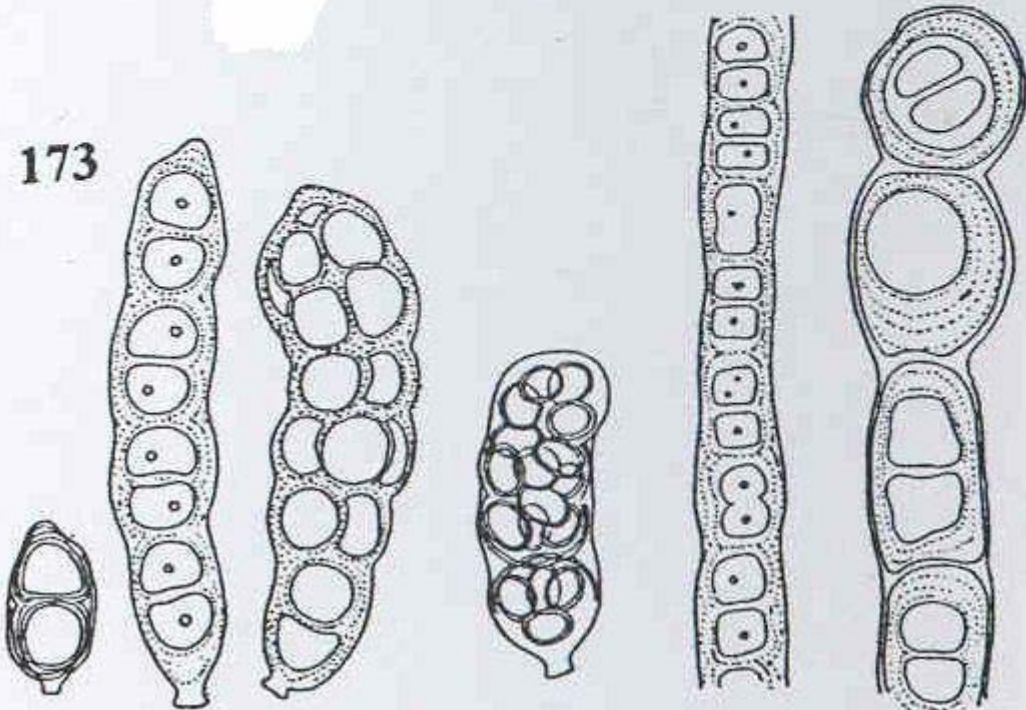
C. conferva

C. involuta

C. geminella

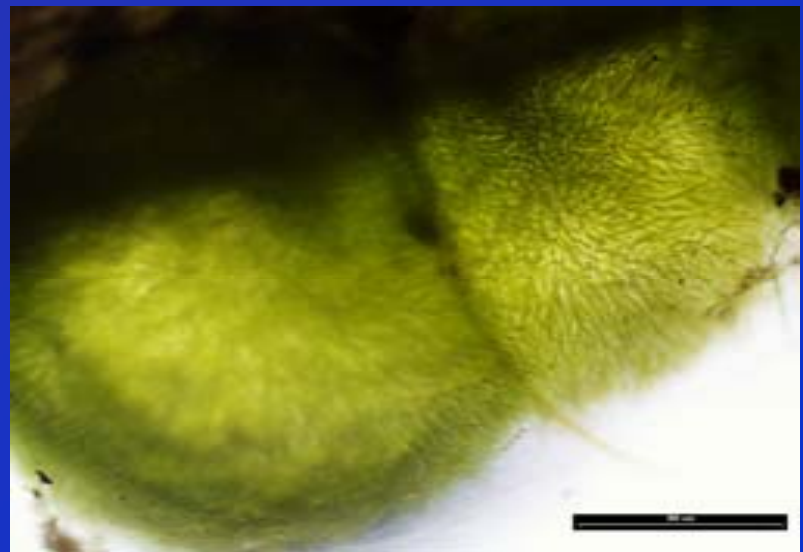


173



Chaetophorales

Chaetophora

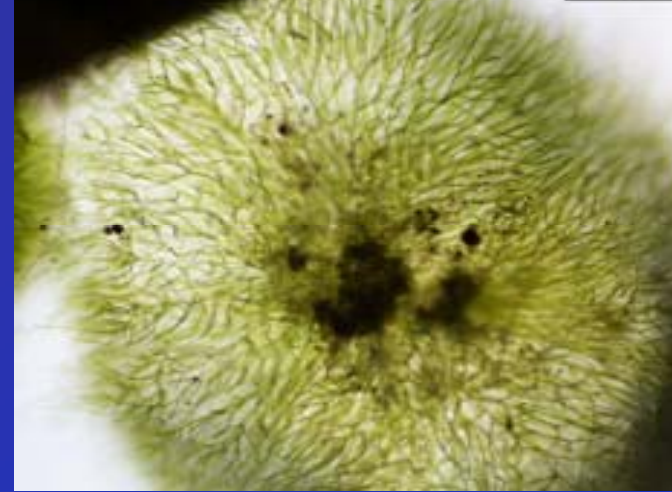


neterotrichální stélka obalena slizem

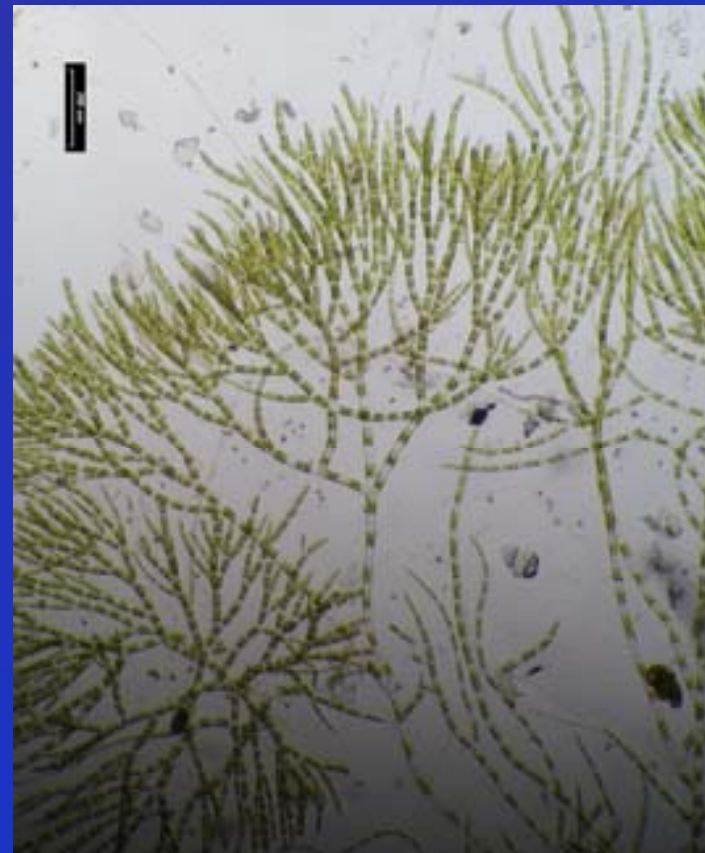
typický vzhled

hyalinní vlasovité zakončení

chloroplast s pyrenoidem

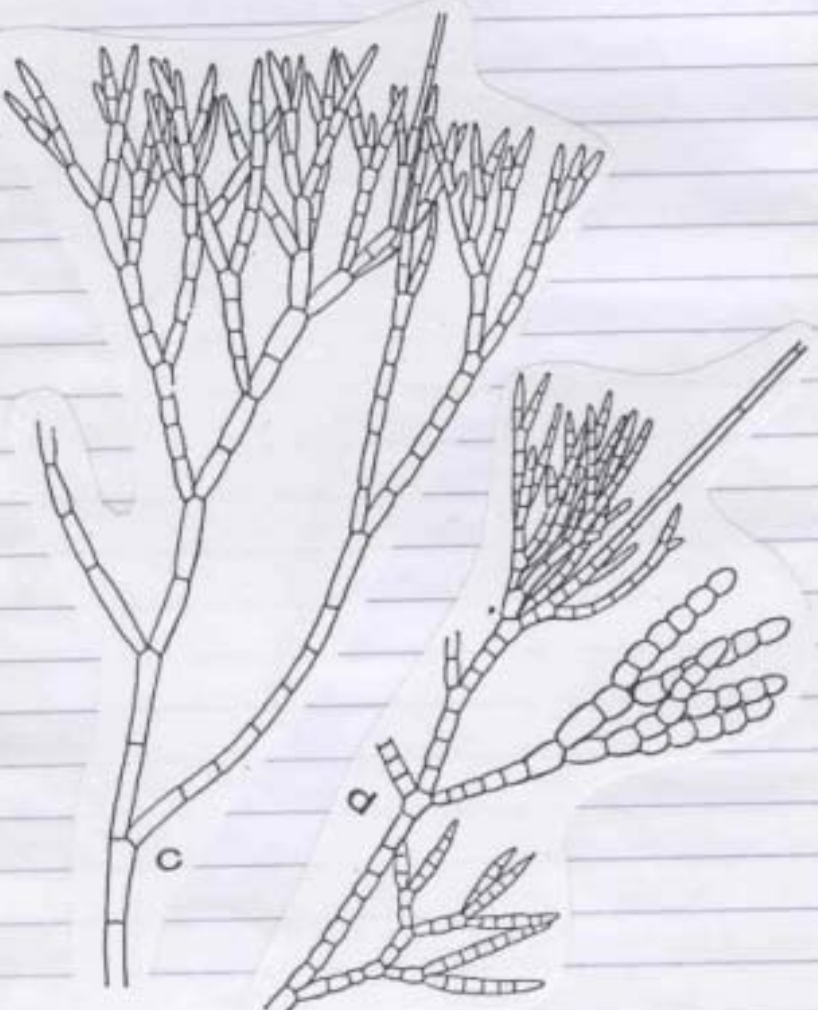


Ch. elegans



Chaetophora elegans

Části stébla: c, d, e



Vzhled (trn) kolonie: a



Vzhled listu: f
= Ch. elegans
var polydama



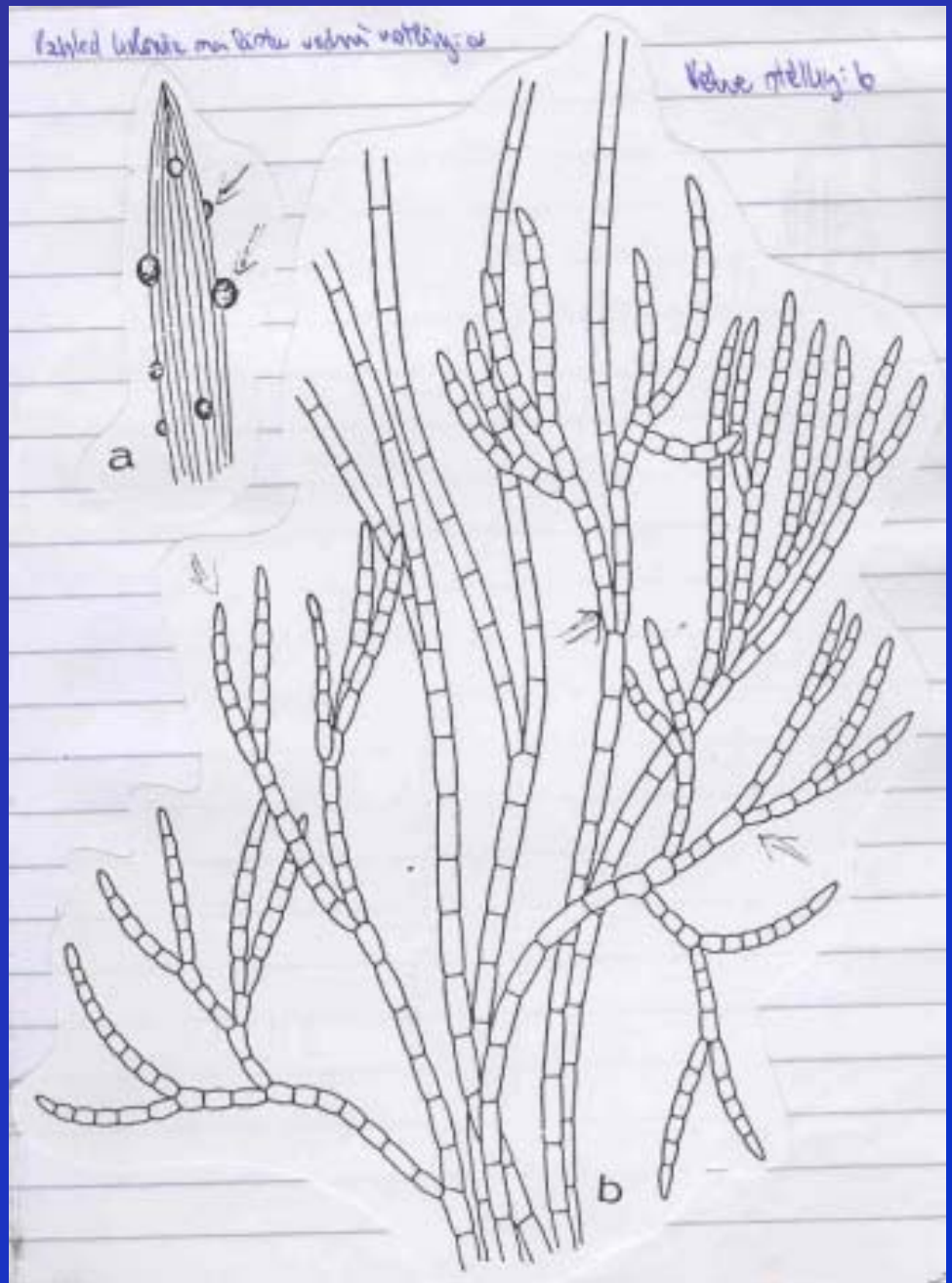
Ch. elegans 3n: g



slončnice o vlákně: h



Ch. pisiformis



Chaetophora

Ch. incrassata



Determinační znaky:

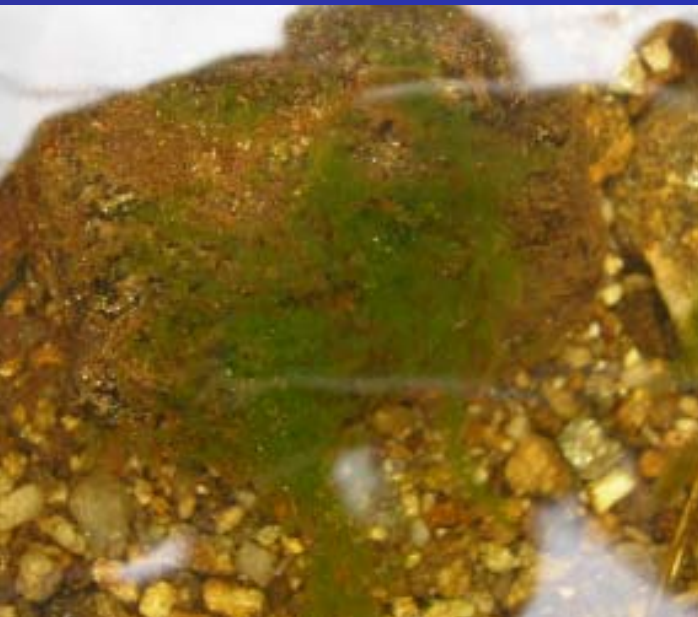
dichotomie makroskopické stélky

typická morfologie větví

bez hyalinních vlasů



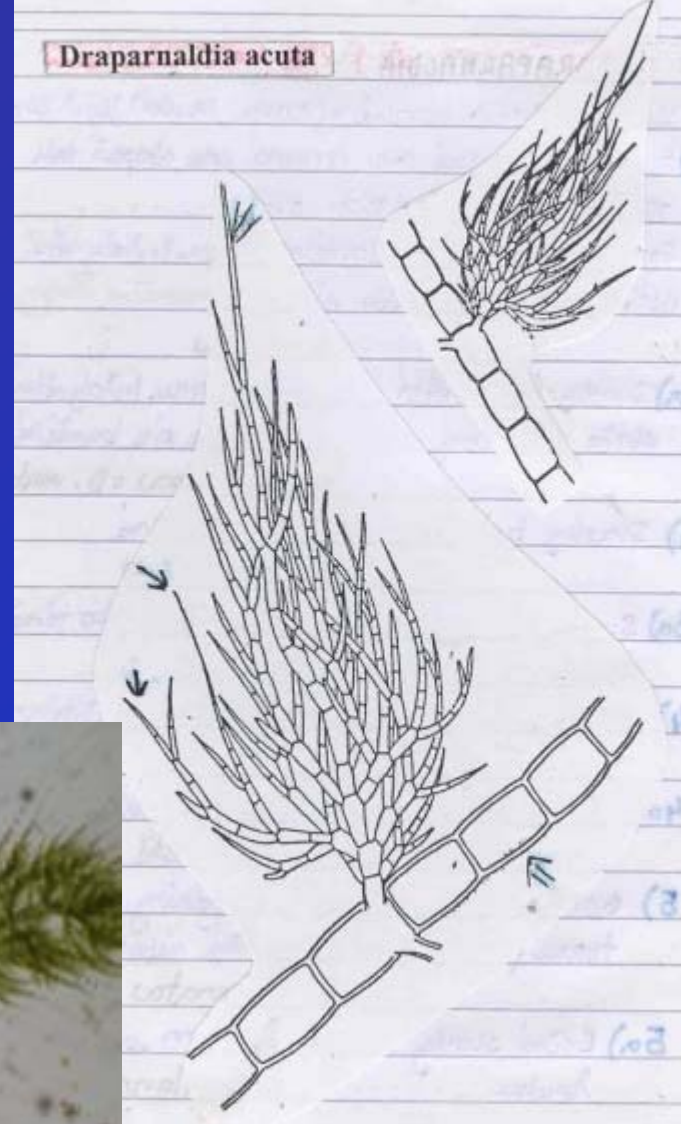
Draparnaldia



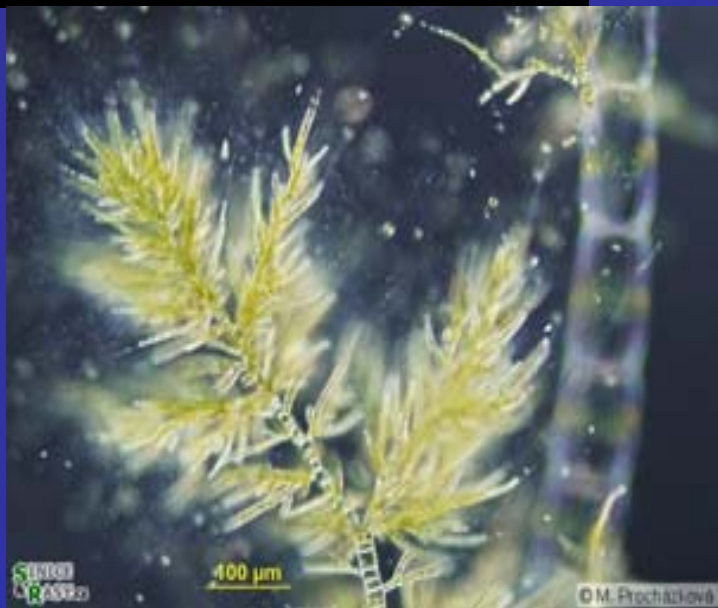
- heterotrichální
- makroskopické sliz. keříky
- chloroplast s pyrenoidy

D. acuta

Draparnaldia acuta



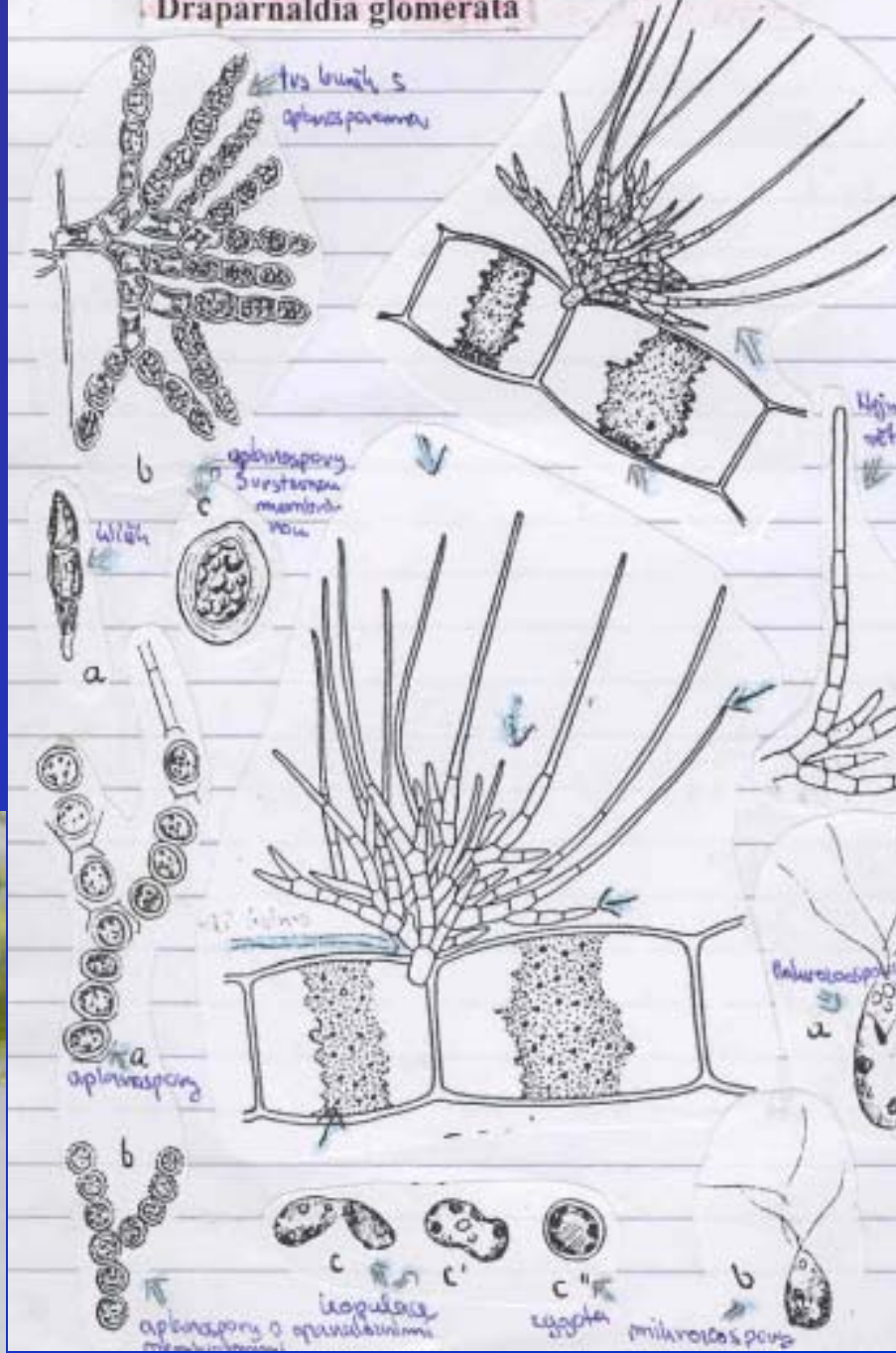
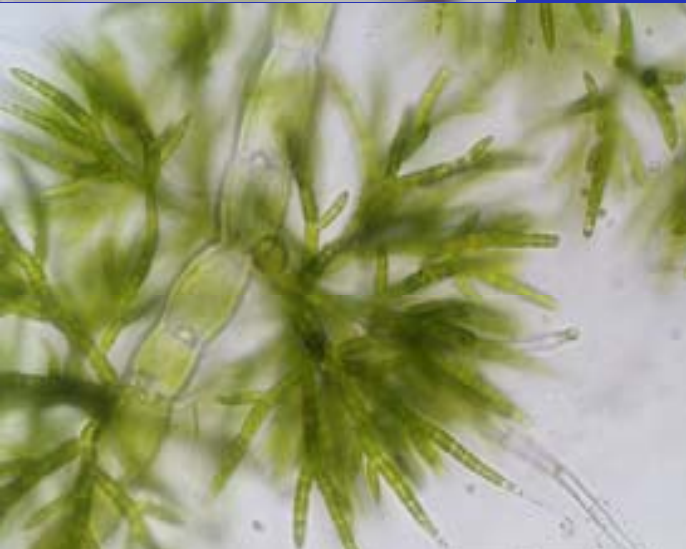
D. plumosa



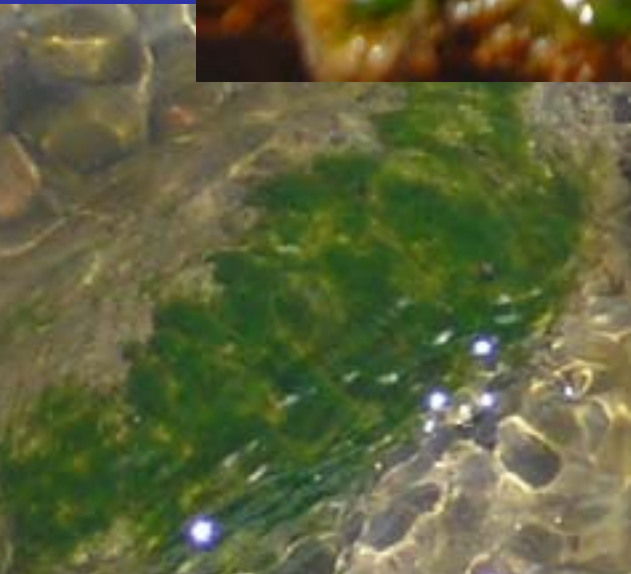
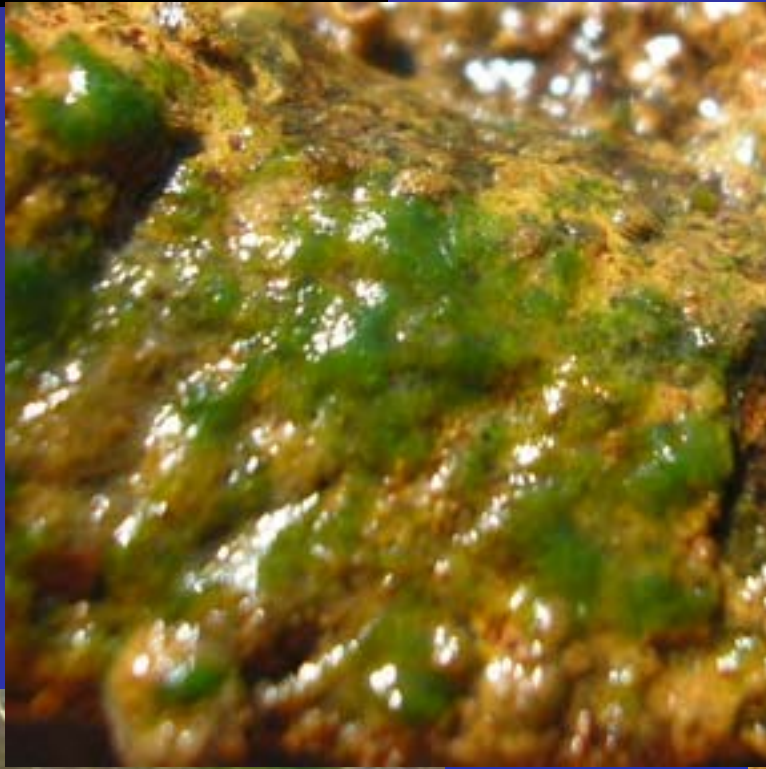
Draparnaldia plumosa (Vaucher) Agardh 1824 (= *D. mutabilis*)



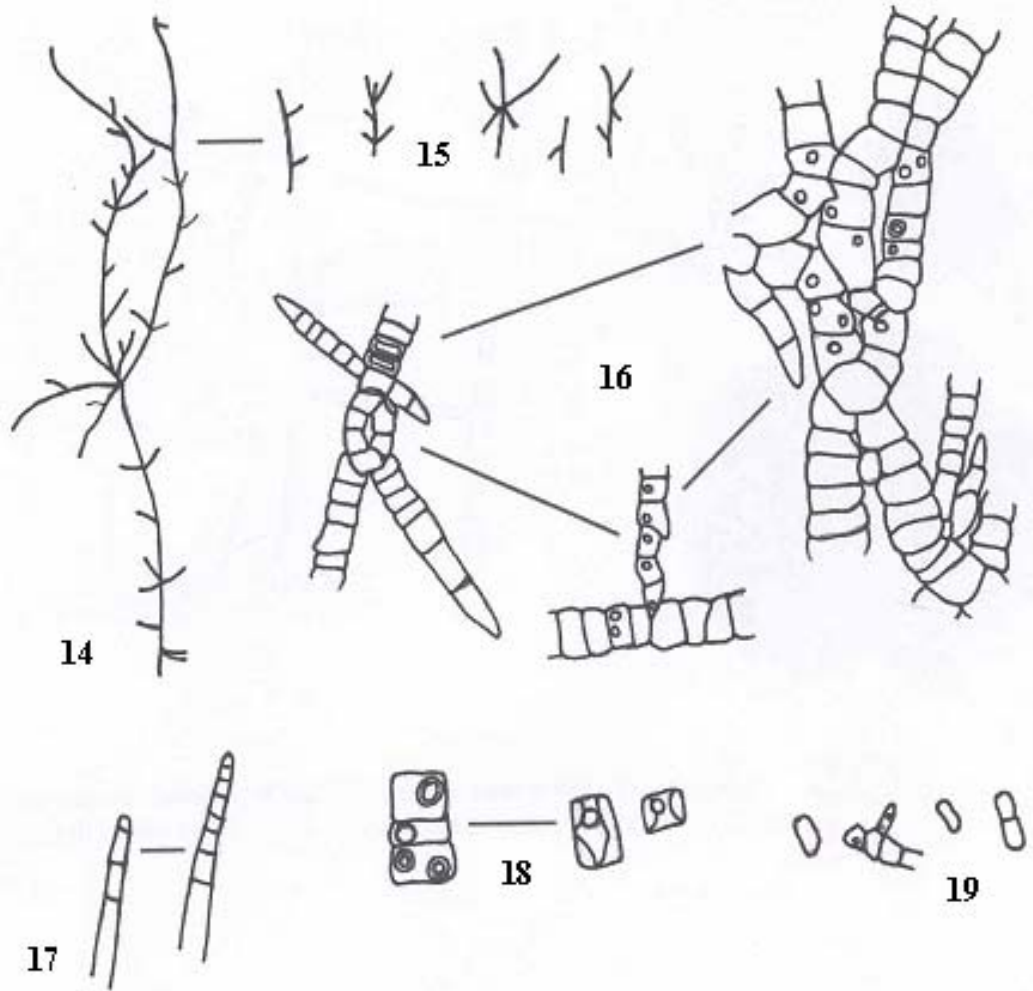
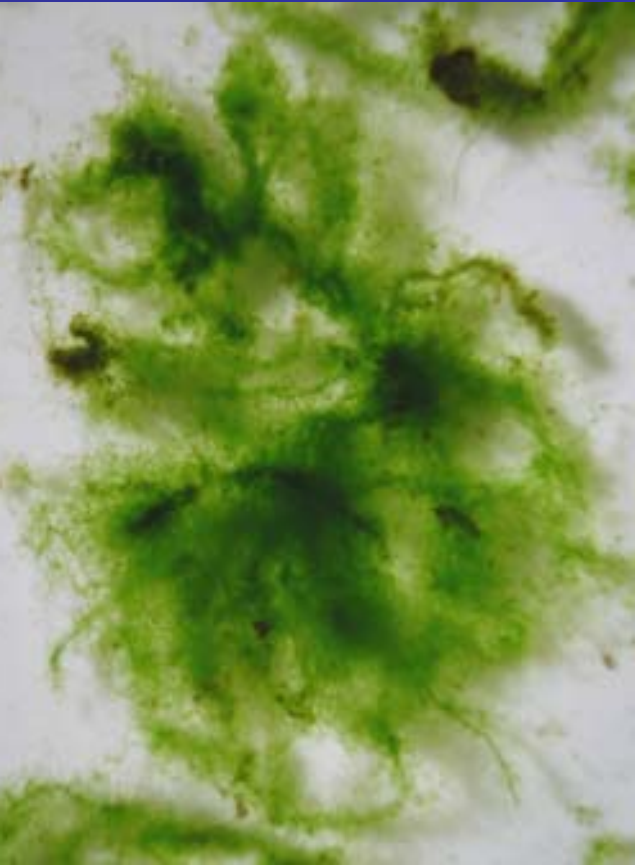
D. glomerata



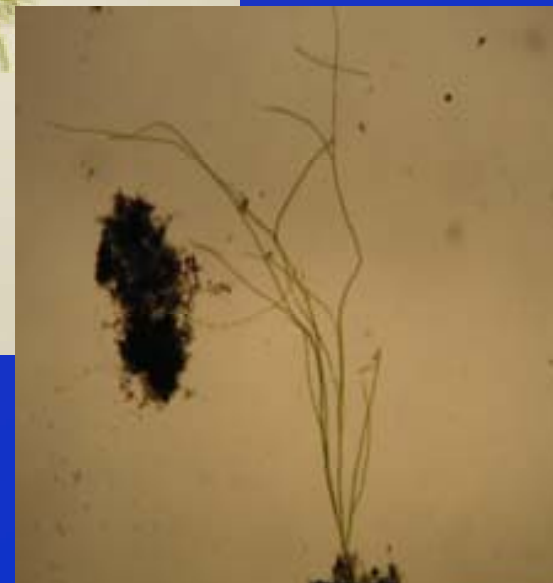
Stigeoclonium



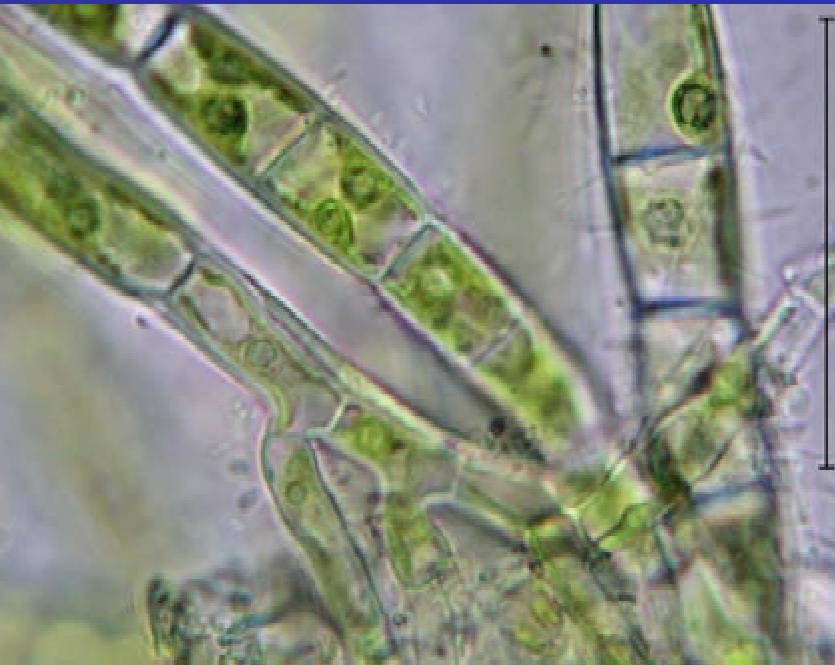
S. farctum



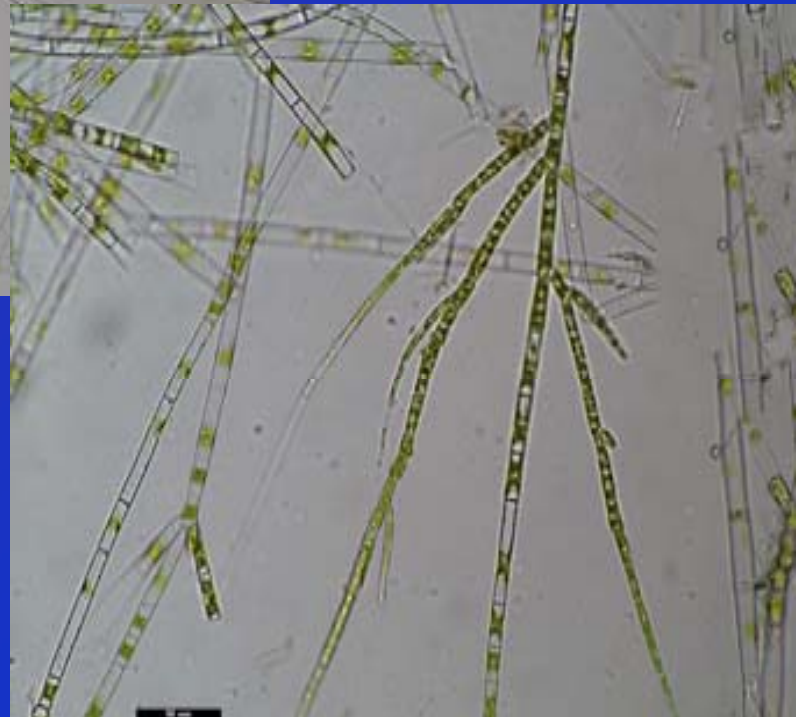
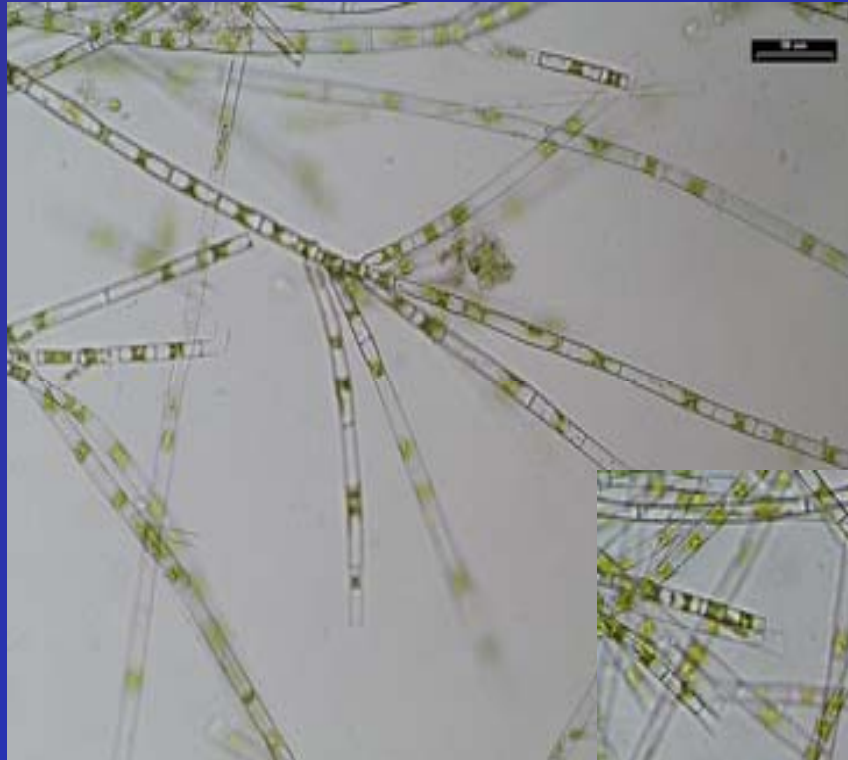
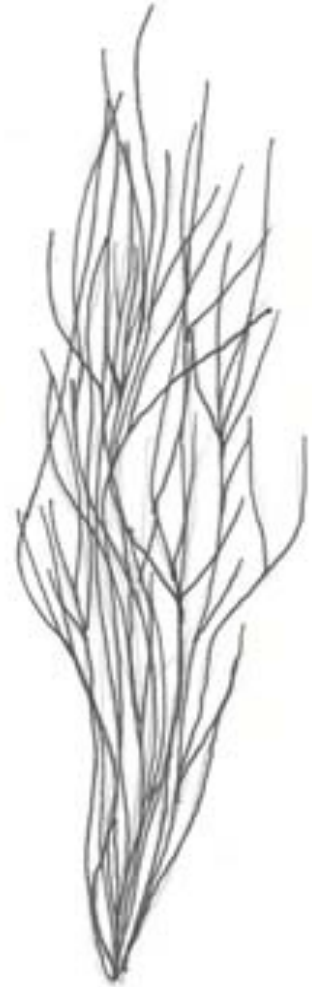
S. subsecundum



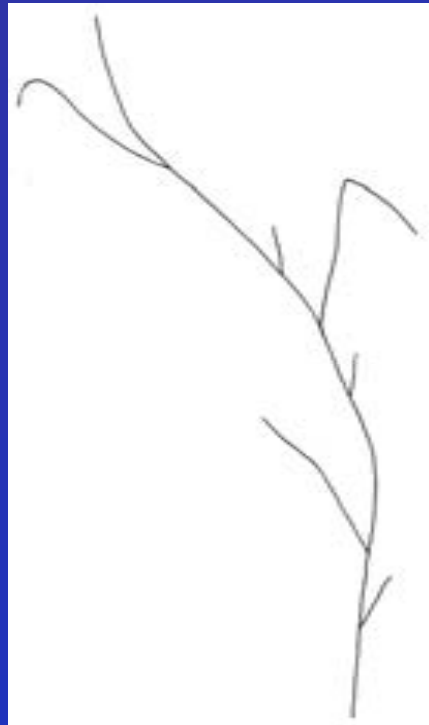
S. subsecundum



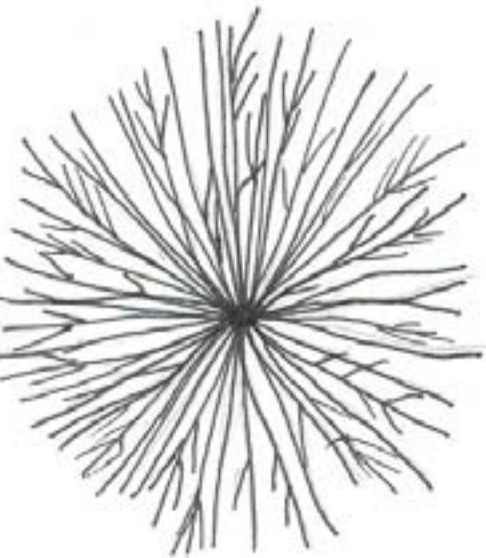
S. amoenum



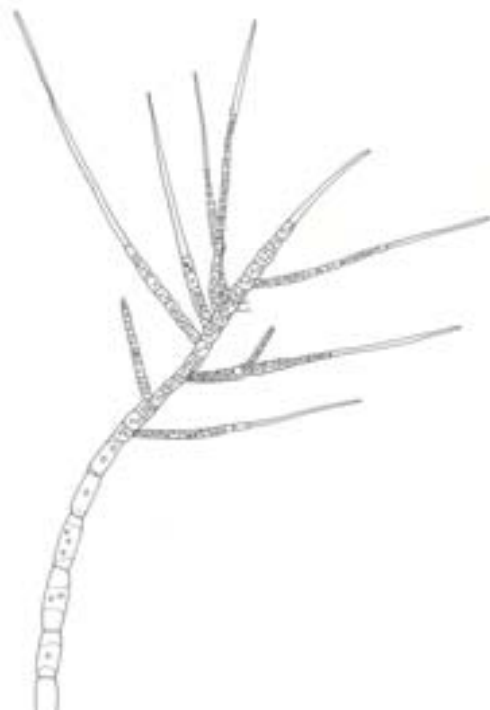
S. elongatum



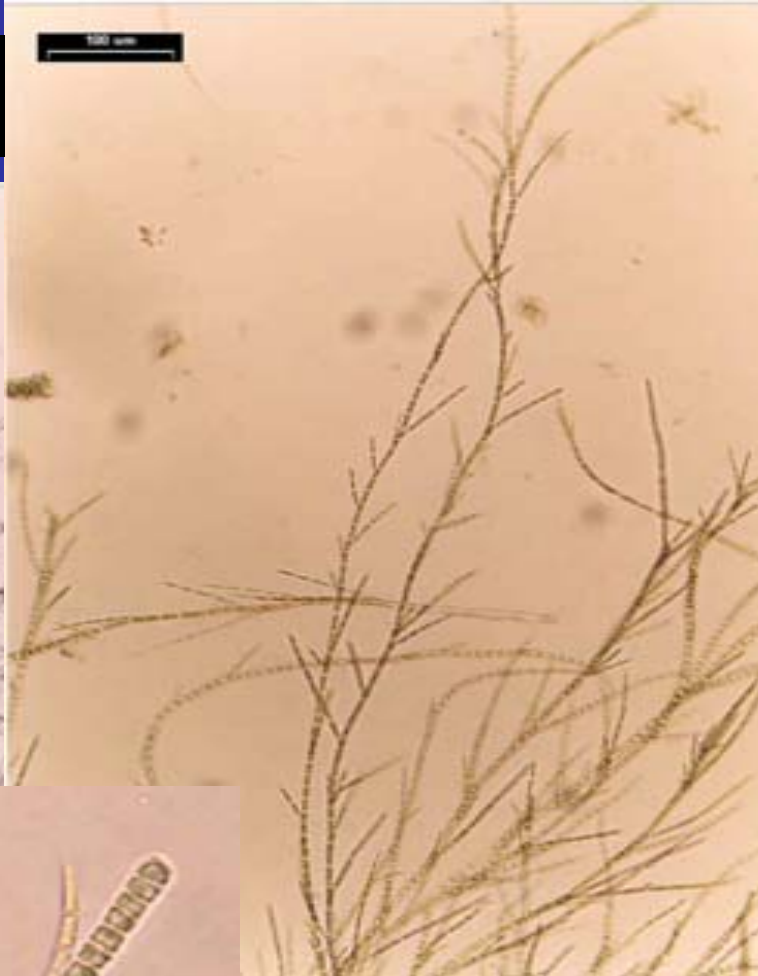
S. lubricum



100 μm



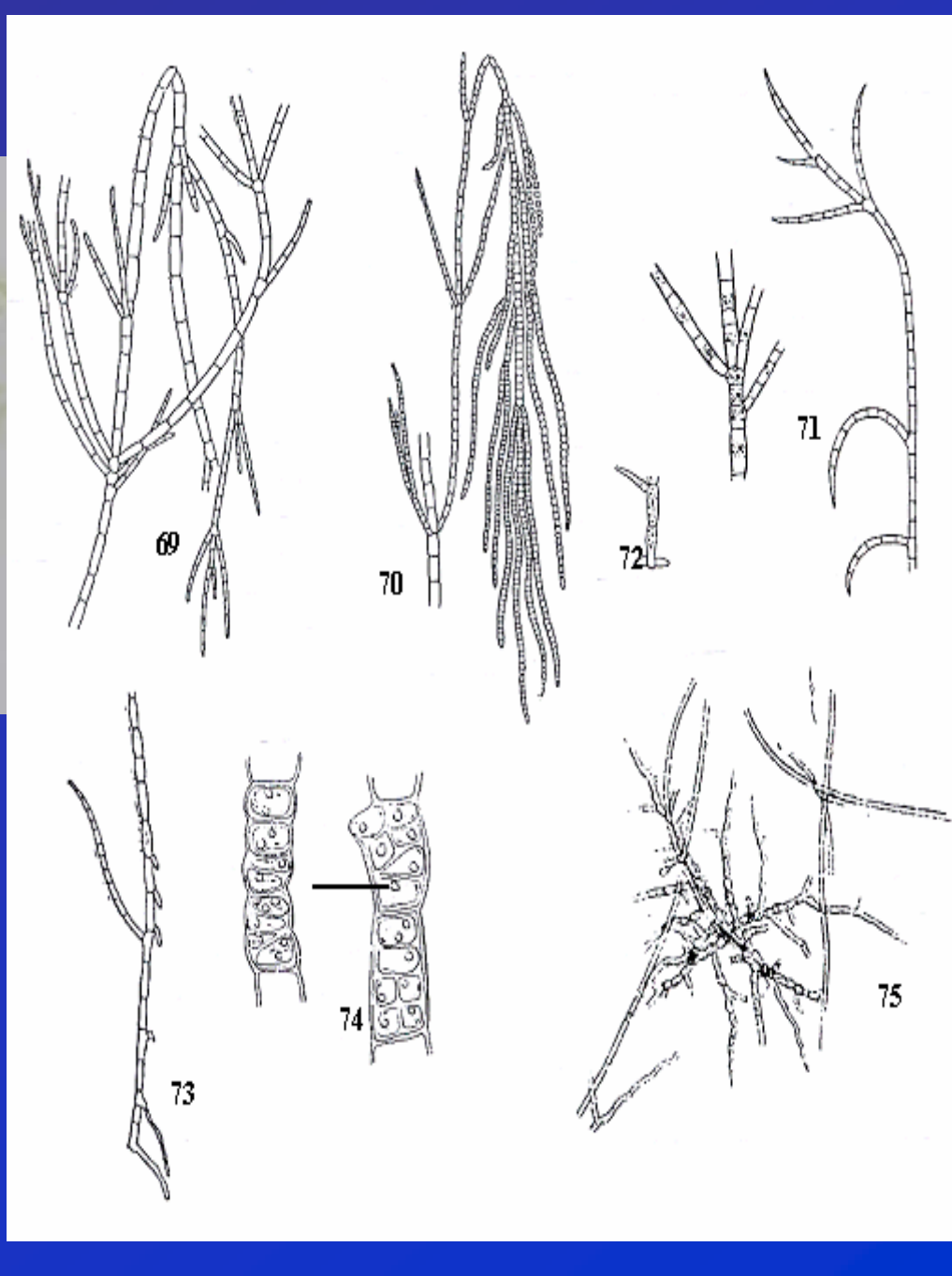
S. nanum



S. tenue

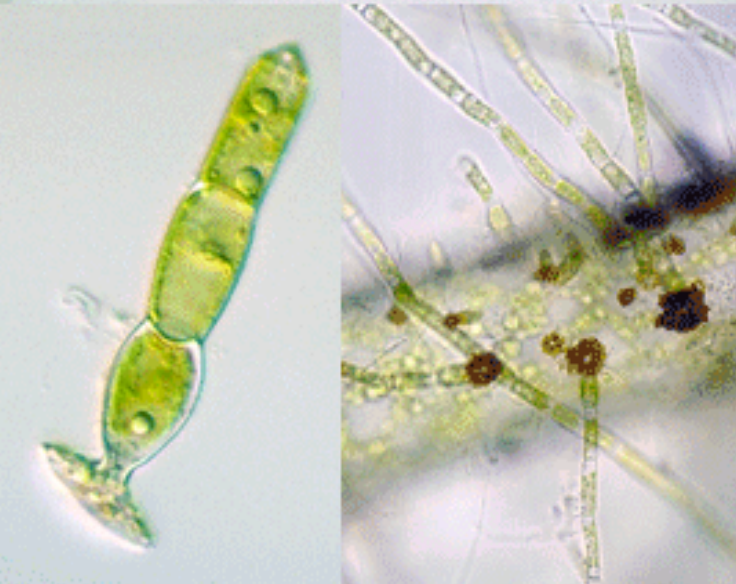
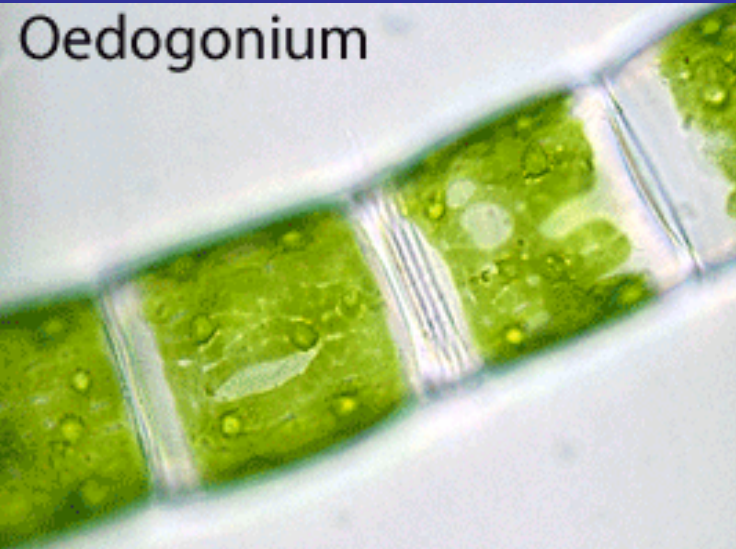


0,5 cm



Oedogonium

Oedogonium



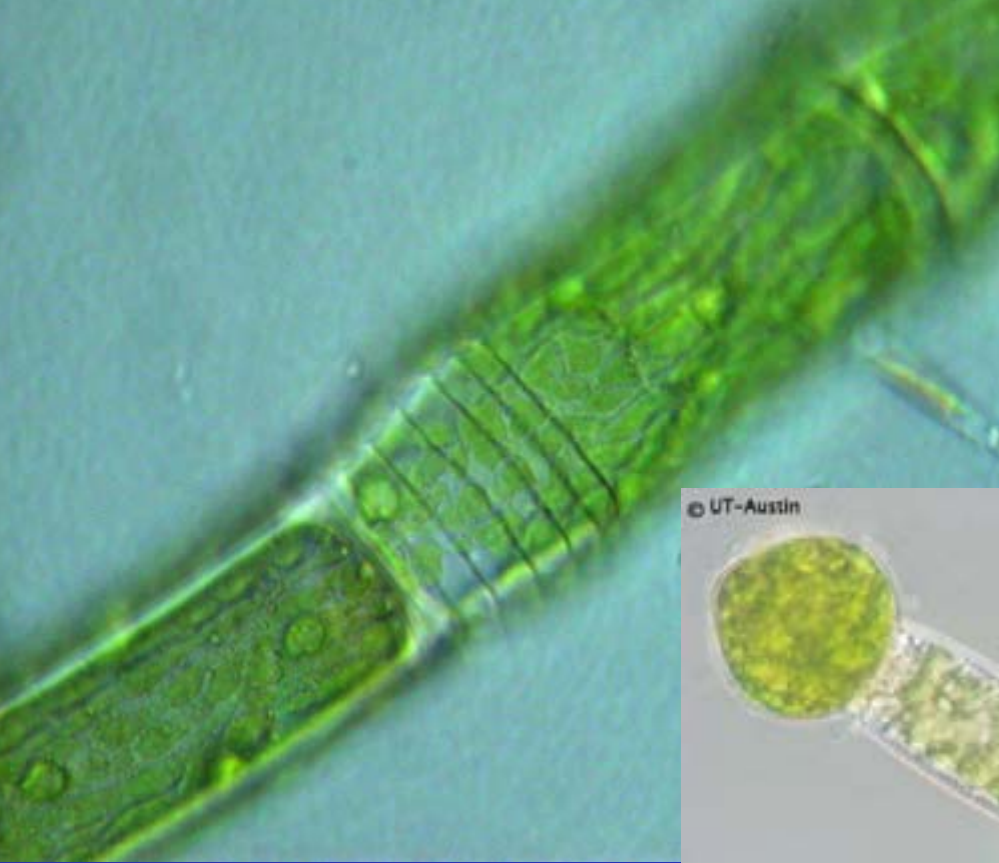
All after Entwisle et al. (1997)



Determinační znaky:

- límečky (kappen)
- oogonia
- typický tvar buňky

Oedogonium



© UT-Austin



D. undulatum

D. nodulosum



Bulbochaete

- heterotrichální
- polární
- epifyt

Determinační znaky:

hyalinní čepičky s vlasem

oogonia

Čistší vody

Bulbochaete



Microthamnion

- heterotrichální
- polární
- chloroplast bez pyrenoidu



NIES-479 *Microthamnion kützingianum*

10 μ m

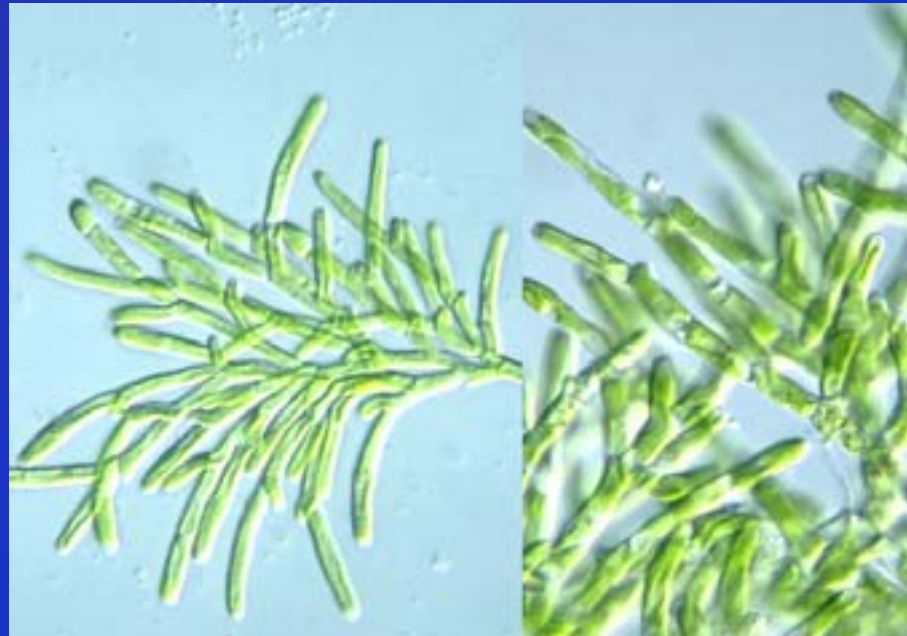
M. strictissimum

Gracilní stromečky
Vápencové a sirné prameny
minerální vody



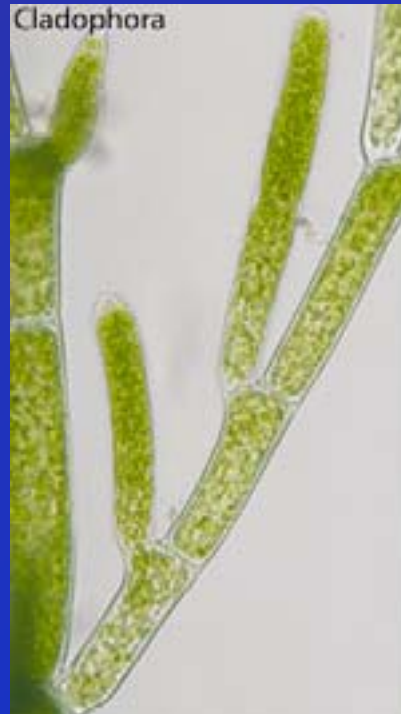
K. kützingianum

Robustnější
Čisté, mírně zaroslé vody,
kyselé a slatinné vody



Cladophora

- sifonokladální typ stélky
- typické větvení
- chloroplast s pyrenoidem
- schopnost tolerovat vysoký stupeň znečištění



STOJATÉ VODY:

C. globulina

C. fracta

TEKOUCÍ VODY:

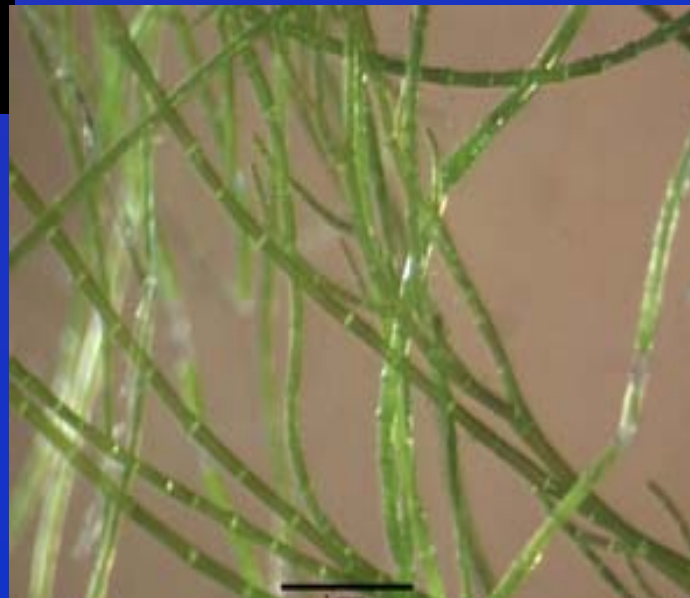
C. glomerata

Oslava:

C. moravica

JEZERA:

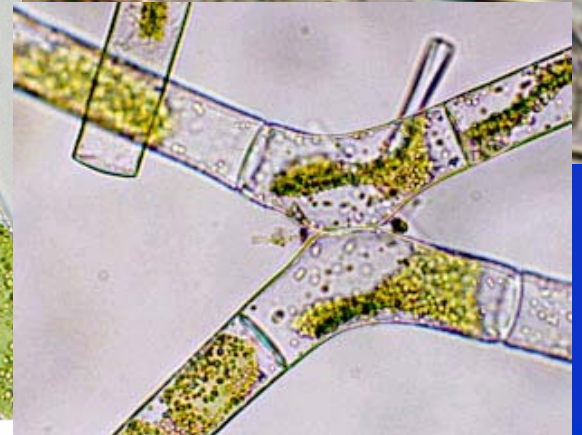
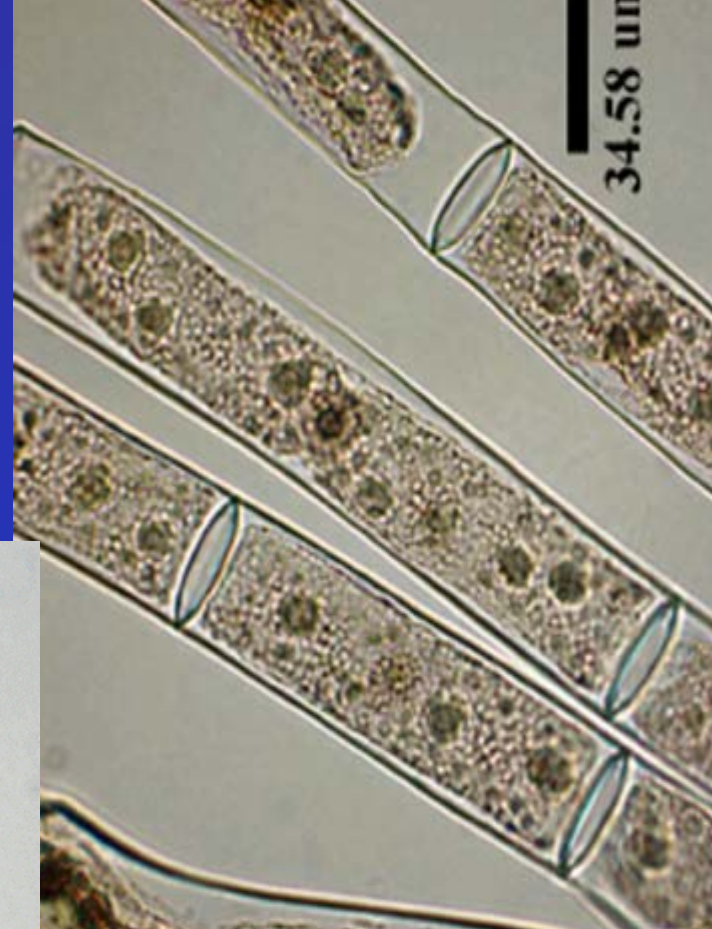
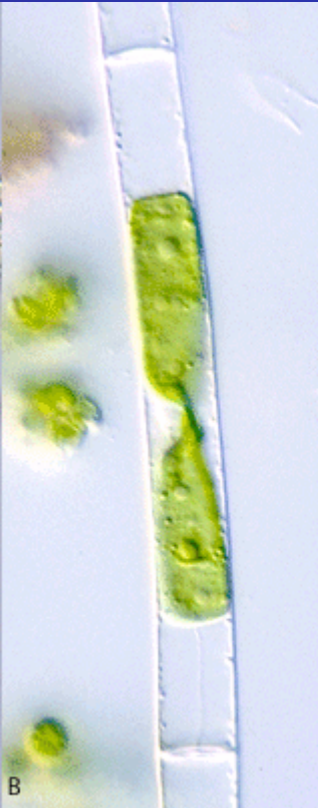
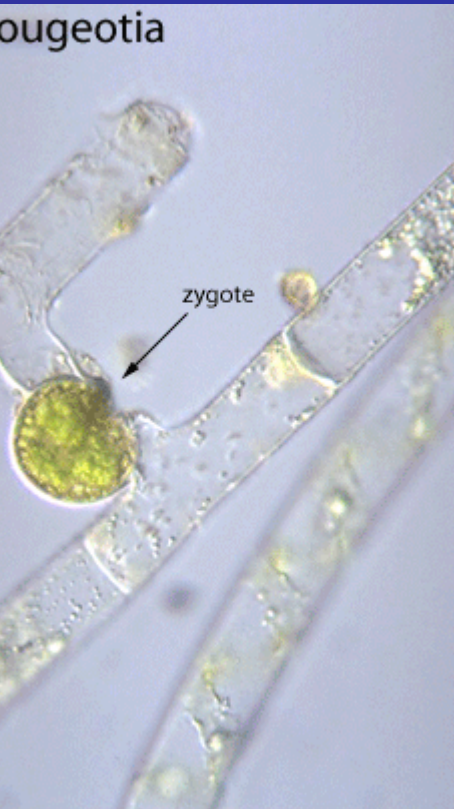
C. aegagropila



Mougeotia

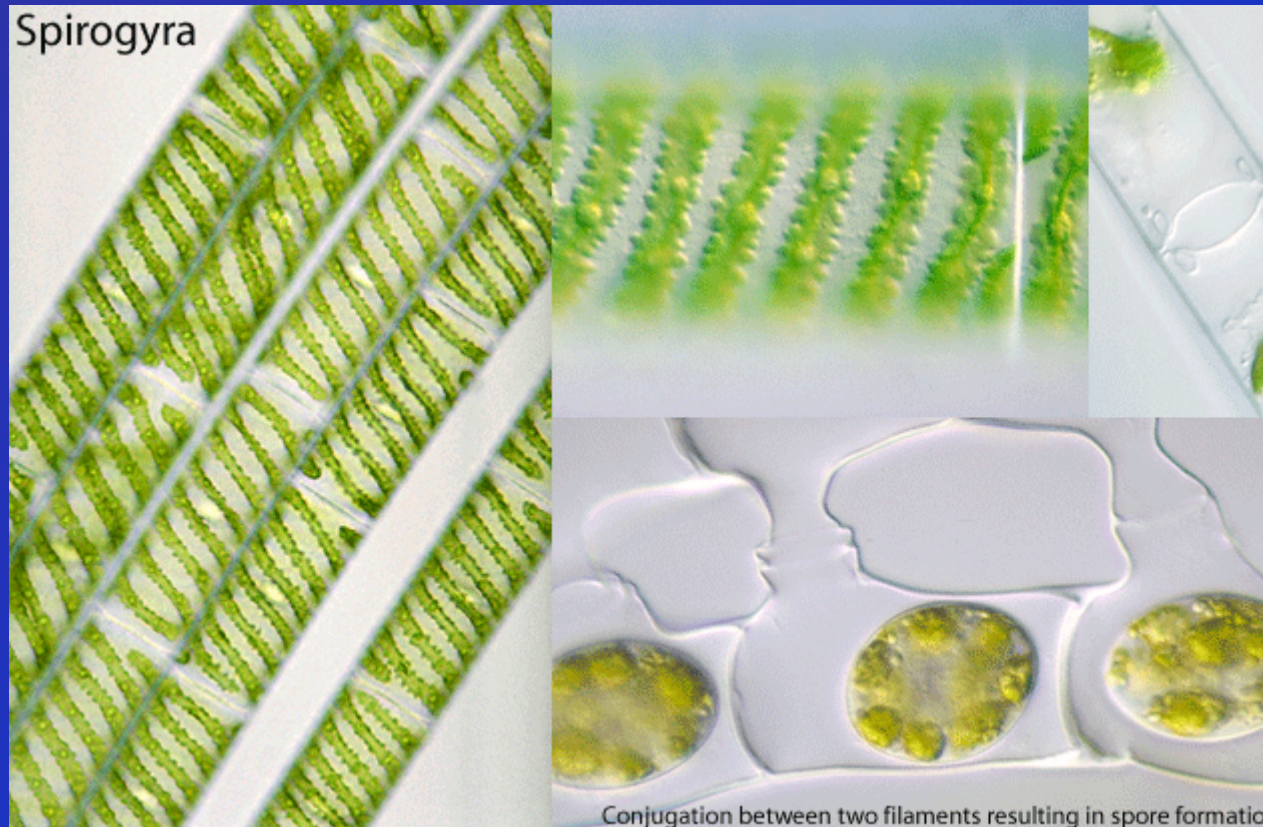
- trichální
- čočkovité spojení buněk
- chloroplast nástěnný s pyrenoidy

Mougeotia



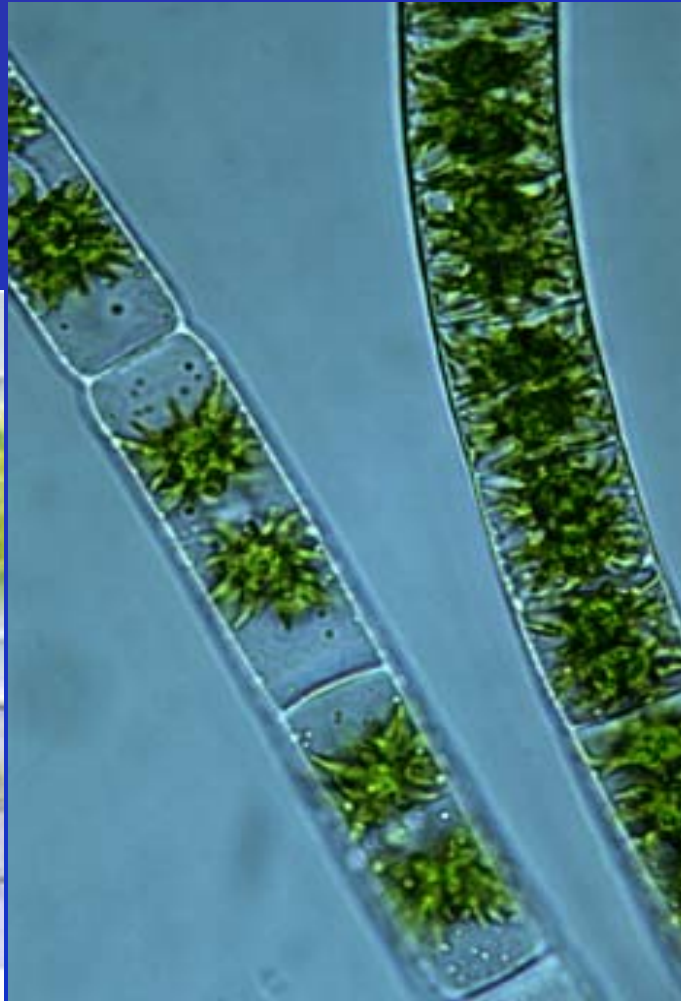
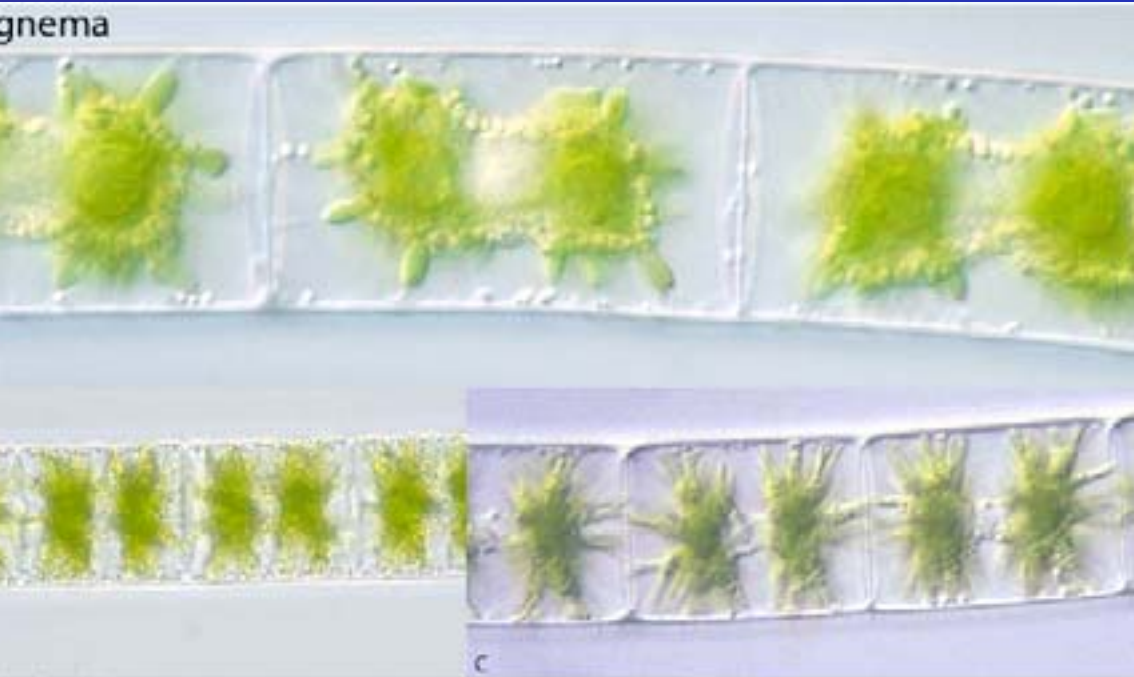
Spirogyra

- trichální
- chloroplast spirální s pyrenoidy
- taxonomicky složitý



Zygnema

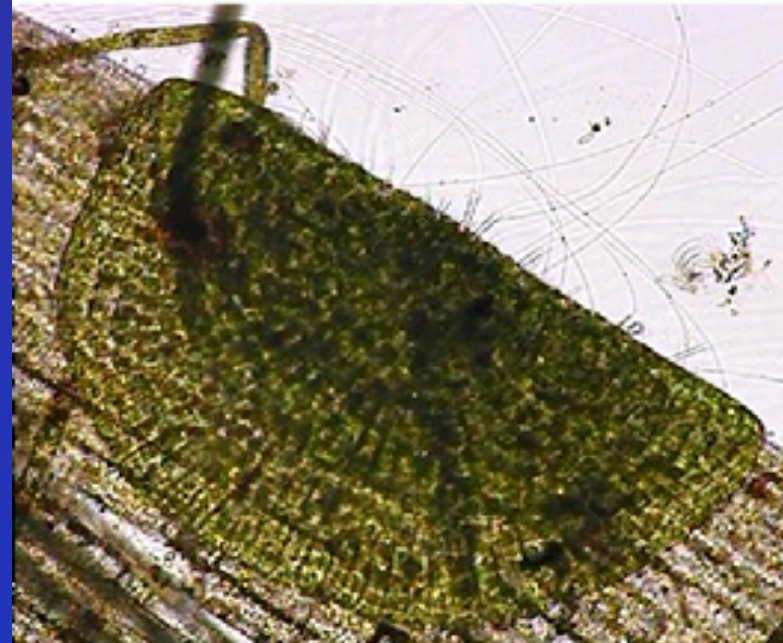
- trichální
- chloroplast hvězdičkovitý s pyrenoidem
- taxonomicky složitý



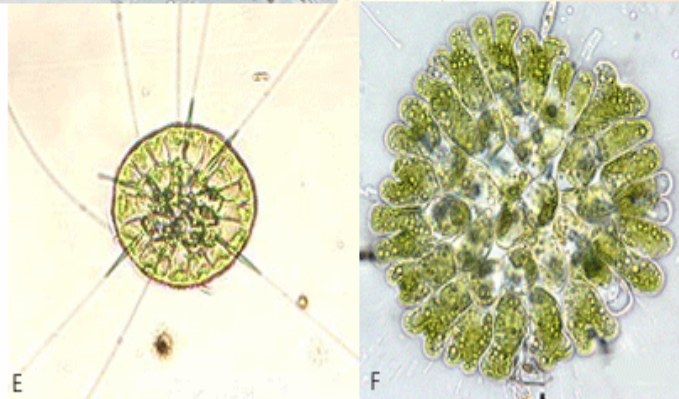
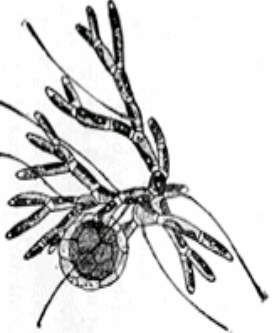
Coleochaete

- heterotrichální
- chloroplast s pyrenoidem
- epifyt

Coleochaete growing on edge of Elodea leaf



Coleochaete



Chara

- nevětvené větvičky
- 5 koronárních buněk

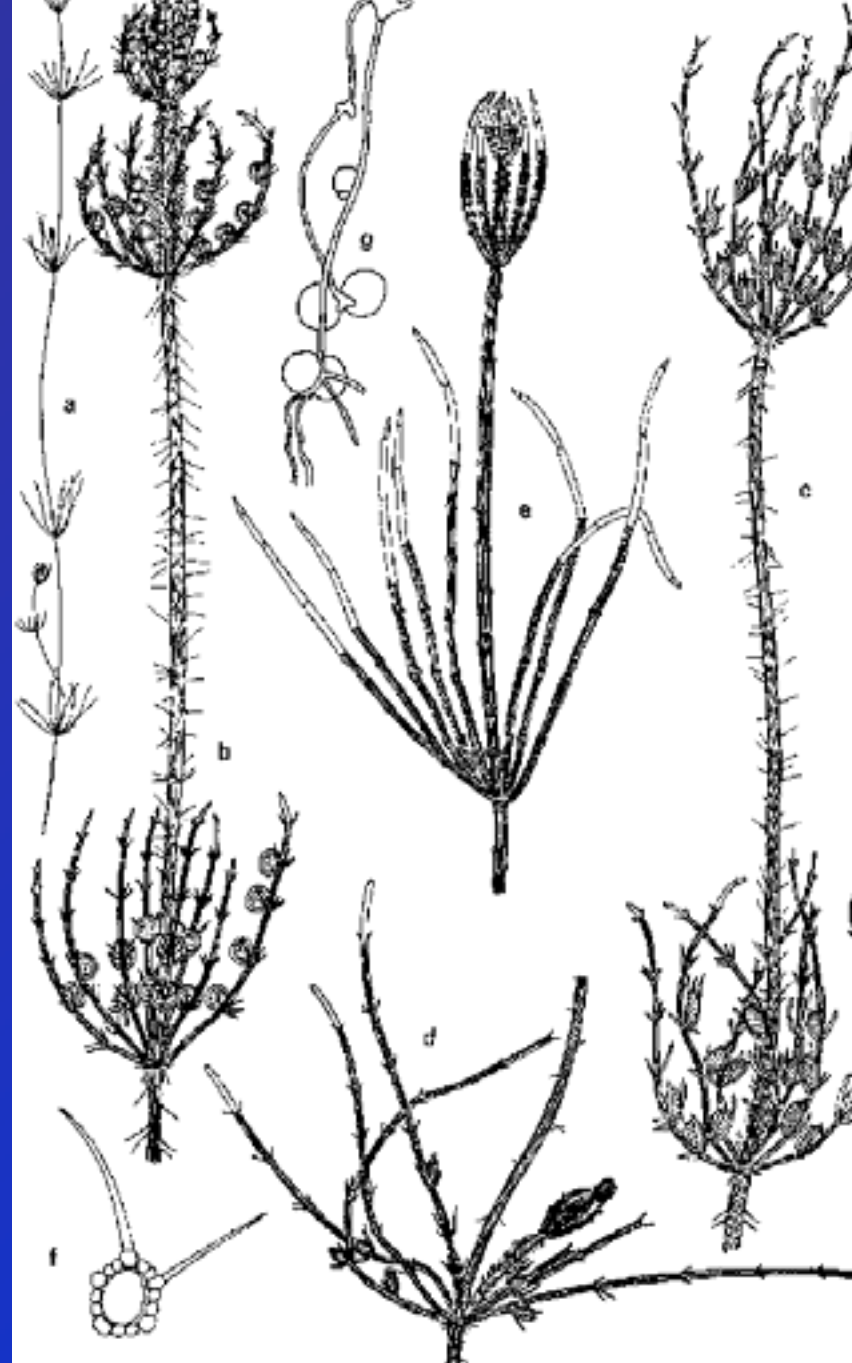
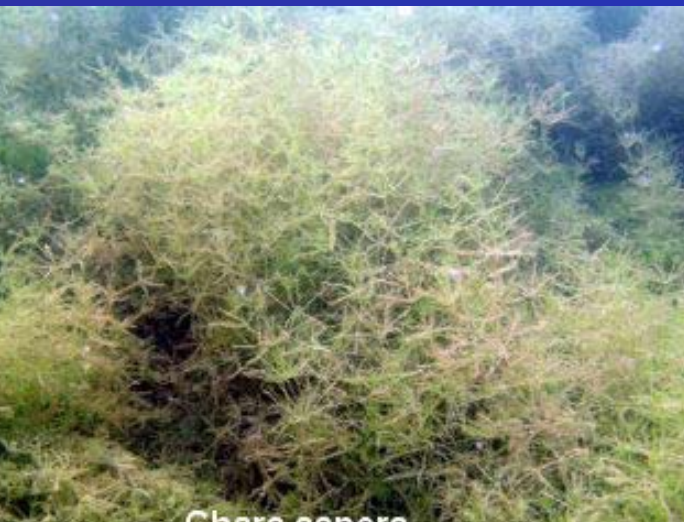
Nitella

- větvené větvičky
- 10 koronárních buněk



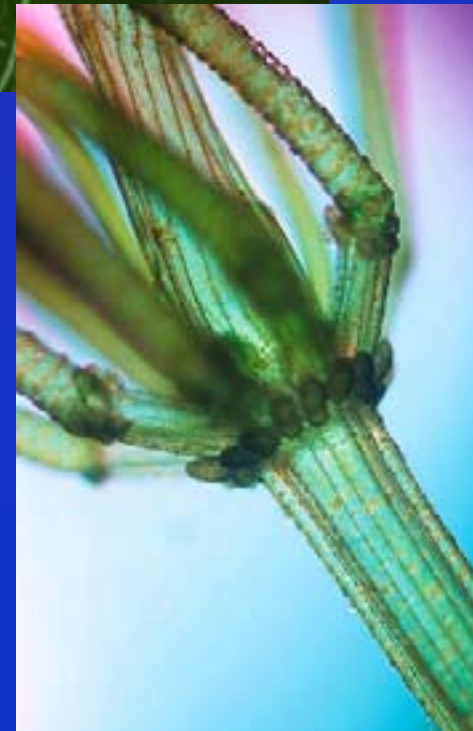
Ch. aspera

- cca 10 cm
- šedá až tmavězel. b.
- JEMNÉ OSTNY
- bílé cibulky na rhizoidy
- Máchovský rybník



Ch. vulgaris

- cca do 50 cm
- světlezel. b., inkrustace
- ± málo ostnů
- 2 řady stipul pod každým vět
- vypuštěné rybníky



Ch. fragilis

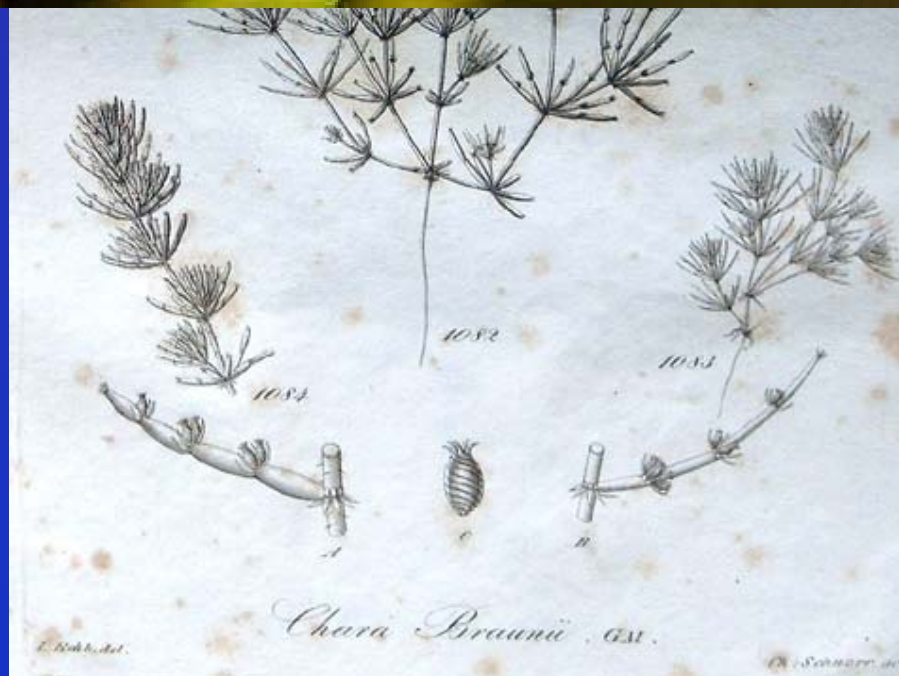
- světlezel. b., inkrustace
- téměř absence ostnů
- podélné rýhování
- malé stipuly
- velmi rozšířená



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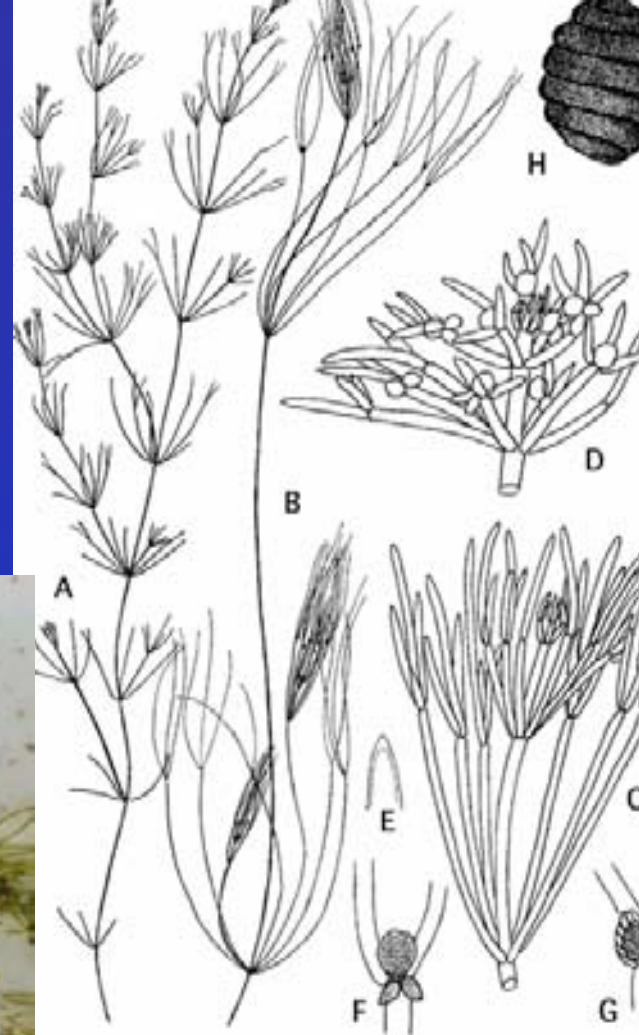
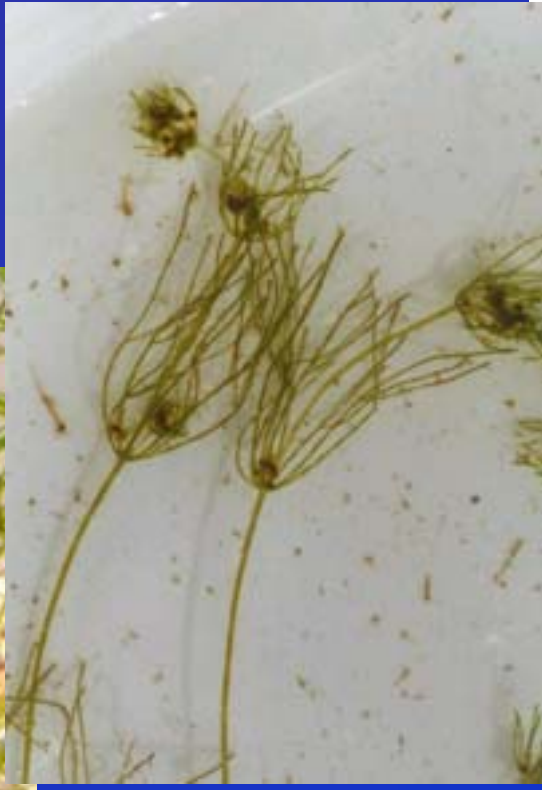
Ch. braunii

- světlezel. b.
- černá oogonia
- absence rýh
- řada nápadných stipul
- čisté vody, kaskády rybníků



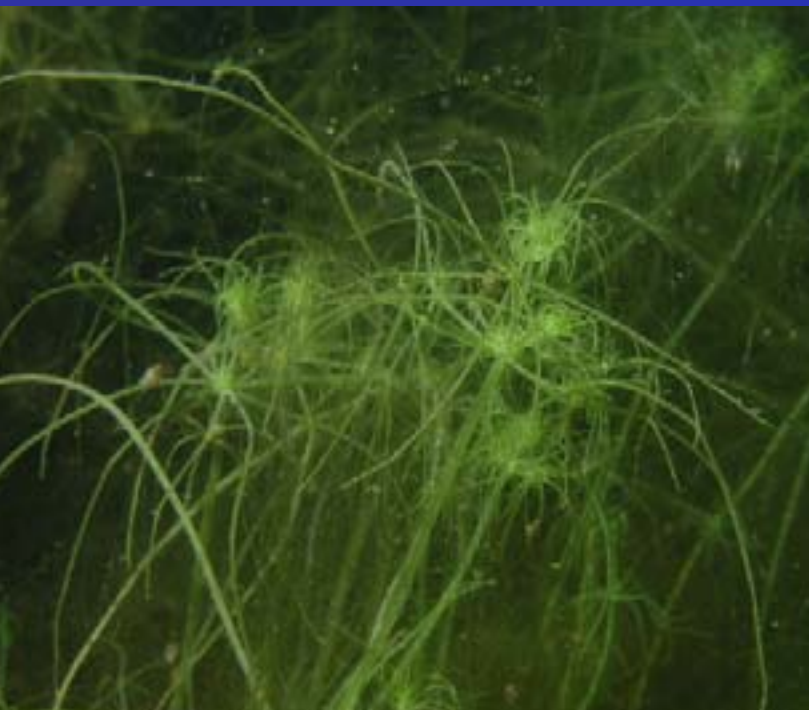
N. flexilis

- světlezel. b.
- inkrustace
- vrcholové b. – tlustá buň. stěna
- běžná



N. mucronata

- 15 – 30 cm
- tm.zel. – hnědozel. b.
- typické ukončení větvení
- jižní Morava - Valtice



Děkuji za pozornost