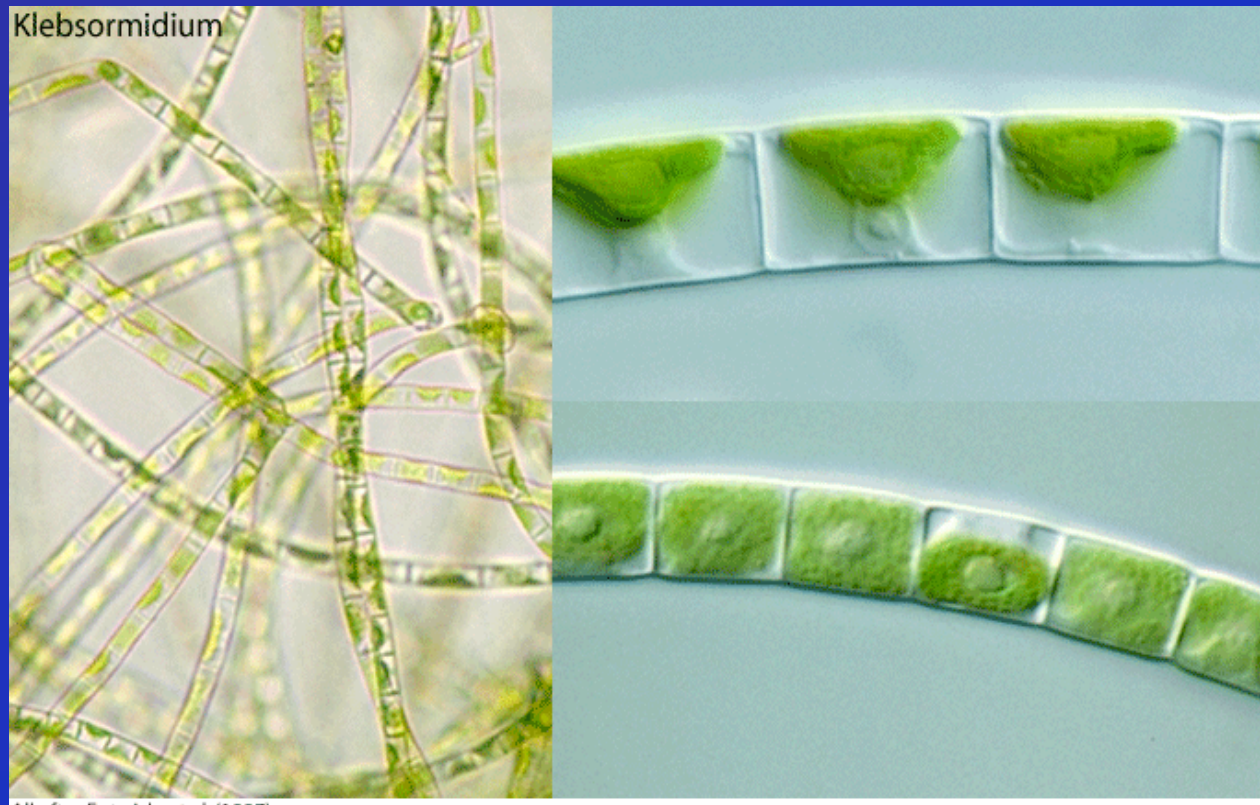
Přehled zelených vláknitých řas

Lenka Caisová

Klebsormidium (*Hormiduim, Chlorhormidium*)

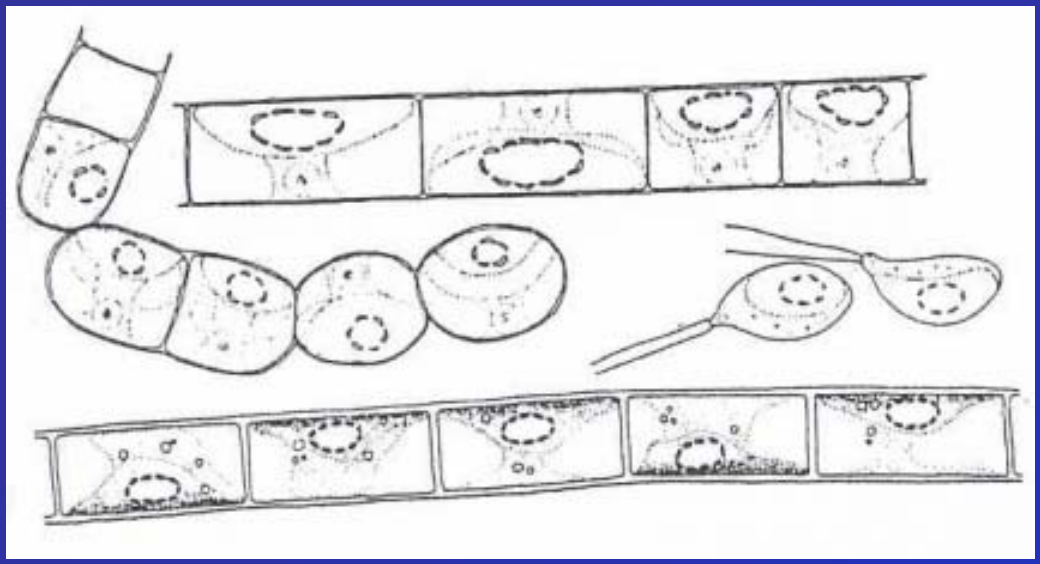
- trichální, rozpadavost vláken
- izopolární
- chloroplast s pyrenoidem



All after Entwisle et al. (1997)

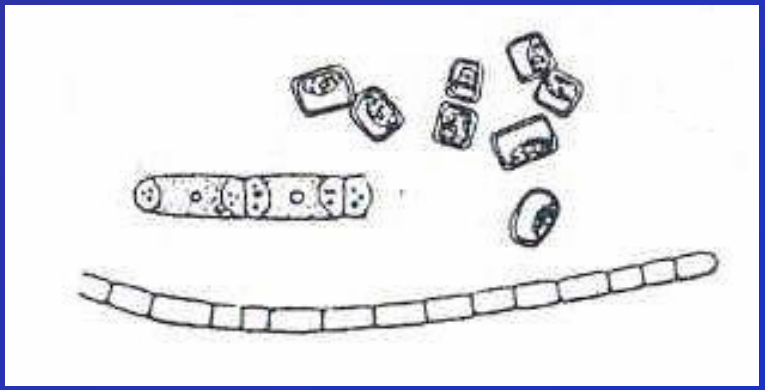
- půda, litorál vod

K. flaccidum



- rozměry buněk
- tvar chloroplastu
- rozpadavost vláken

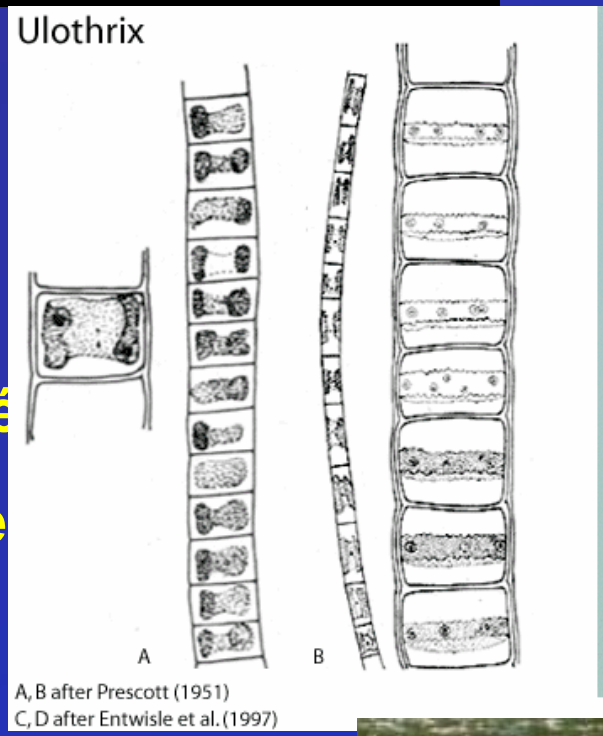
K. pseudostichococcus

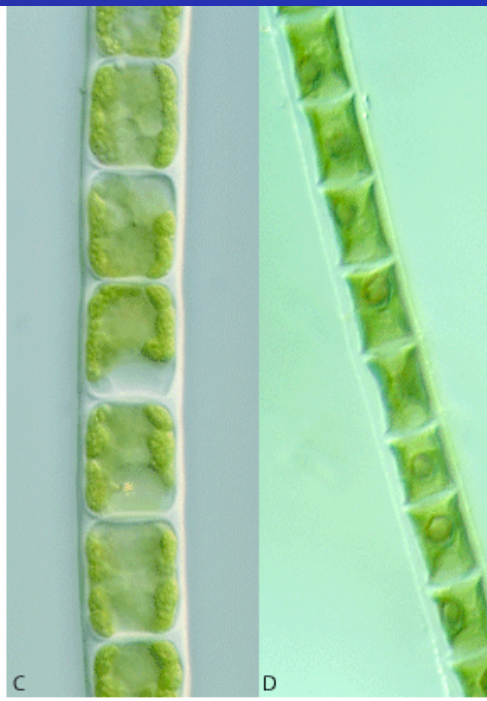


- *K. flaccidum* - častější

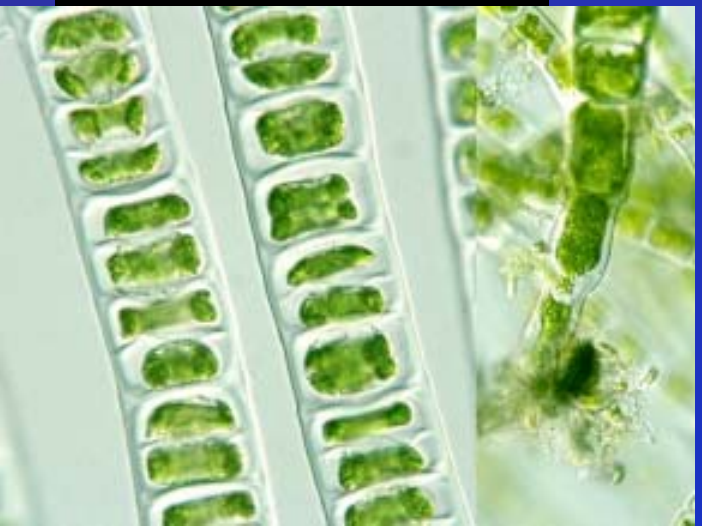
Ulothrix

- trichální
- izopolární
- rhizoidy
- apikální buňky zaoblené
- chloroplast s pyrenoide





U. zonata



Uronema

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

U. confervicolum

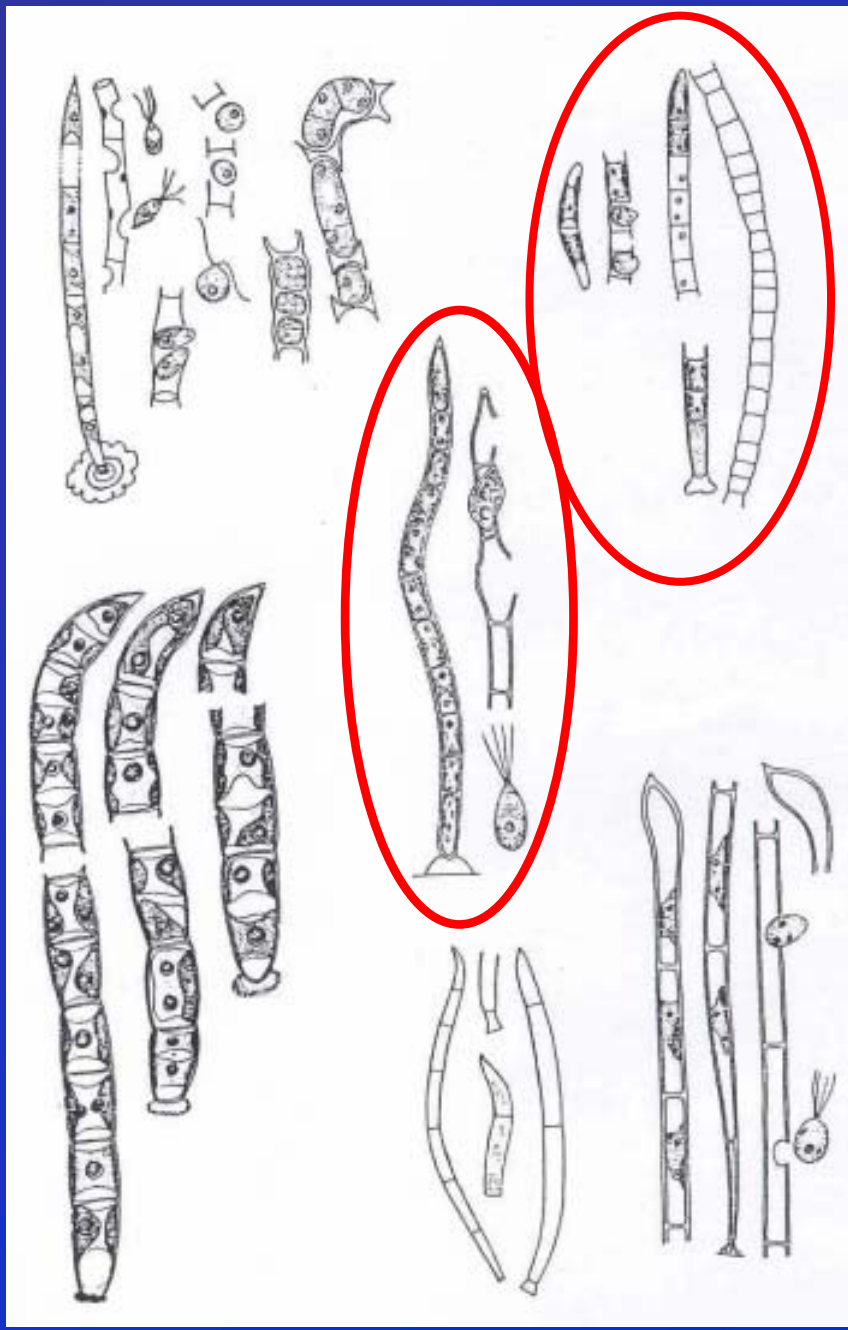
- vlákna do 1 mm
- dermoid
- chloroplast s 1 – 2 pyrenoidy

U. gigas

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

U. africanum

U. elongatum

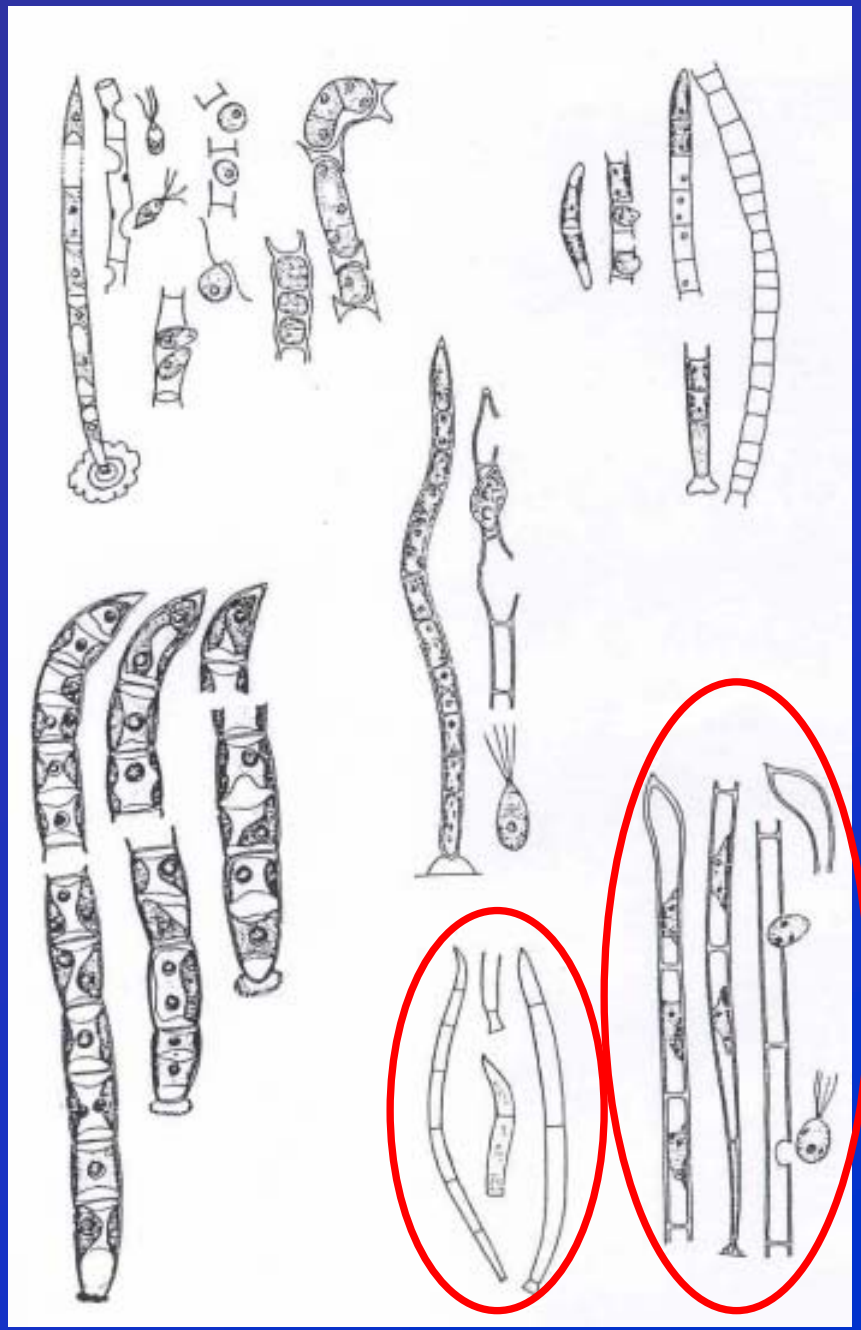


U. africanum

- 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

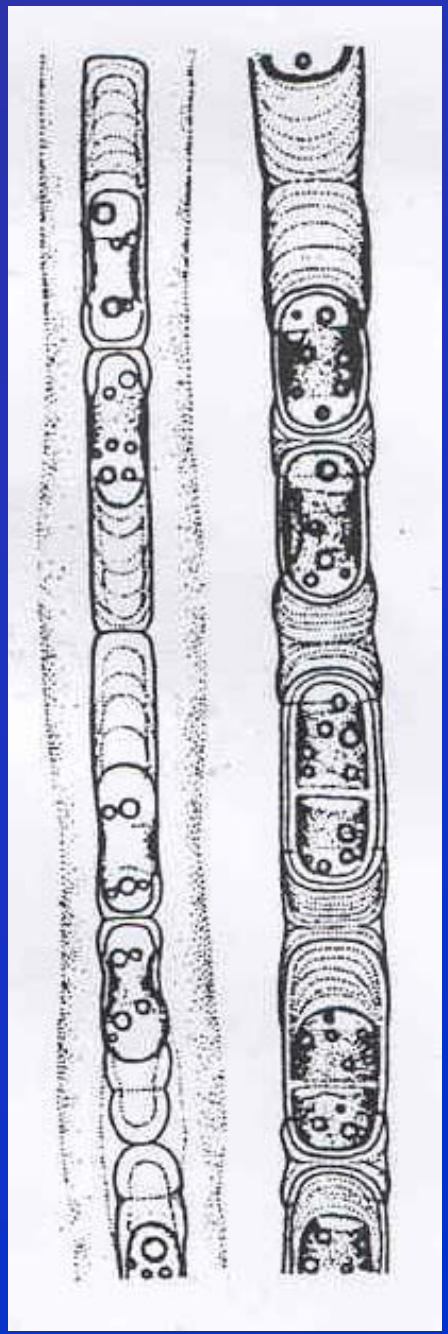
All after Entwisle et al. (1997)

Binuclearia

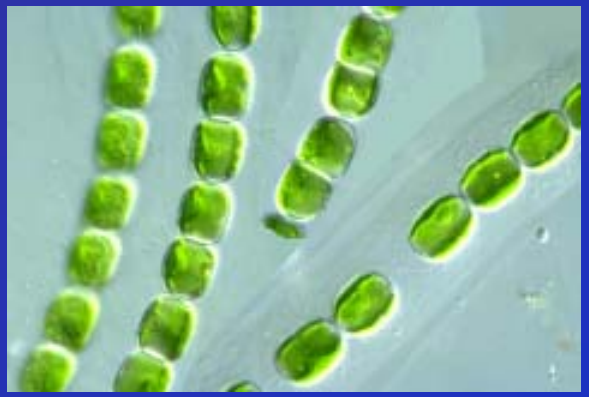
- trichální
- polární
- buněčné stěny ve tvaru H, vrstevnaté
- chloroplast s pyrenoidem

B. tectorum

- rašelinné biotopy, oligotrofní vody

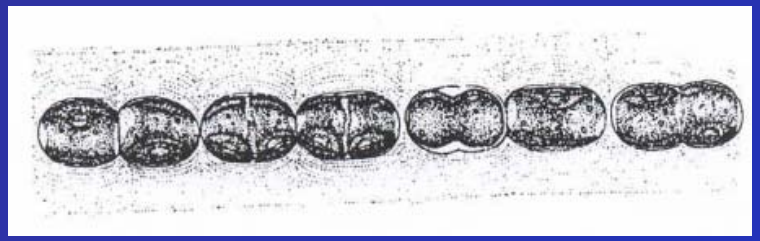


Geminella

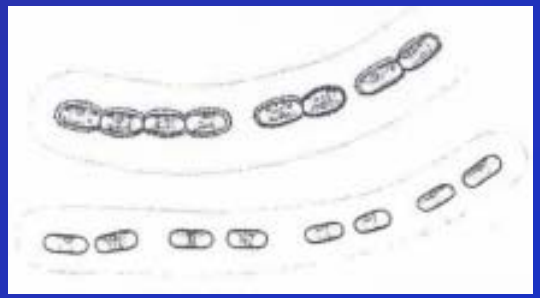


- trichální
- slizový obal, pochva
- jednoduchá b. s.
- chloroplast s pyrenoidem × *Gloeotila*

G. mutabilis



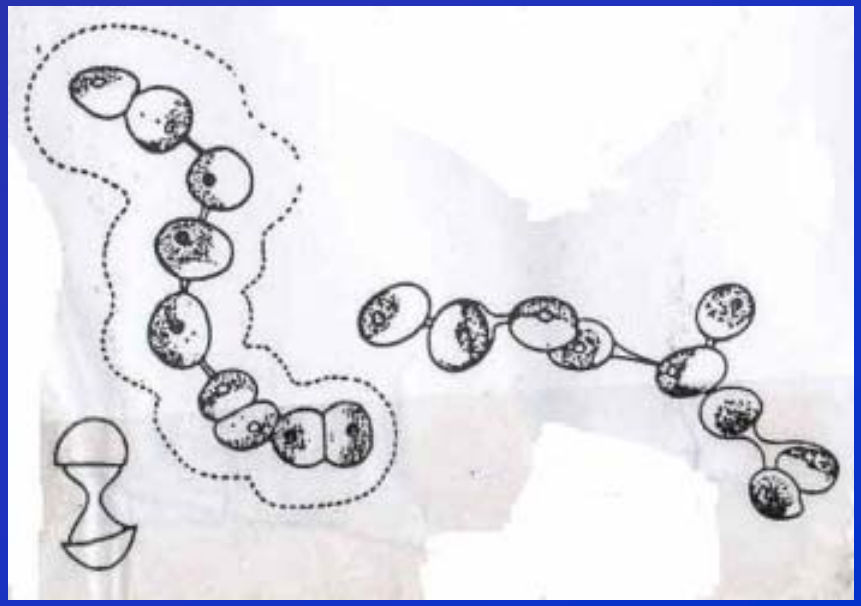
G. interrupta



Interfilum (*Radiofilum*)

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

I. paradoxum

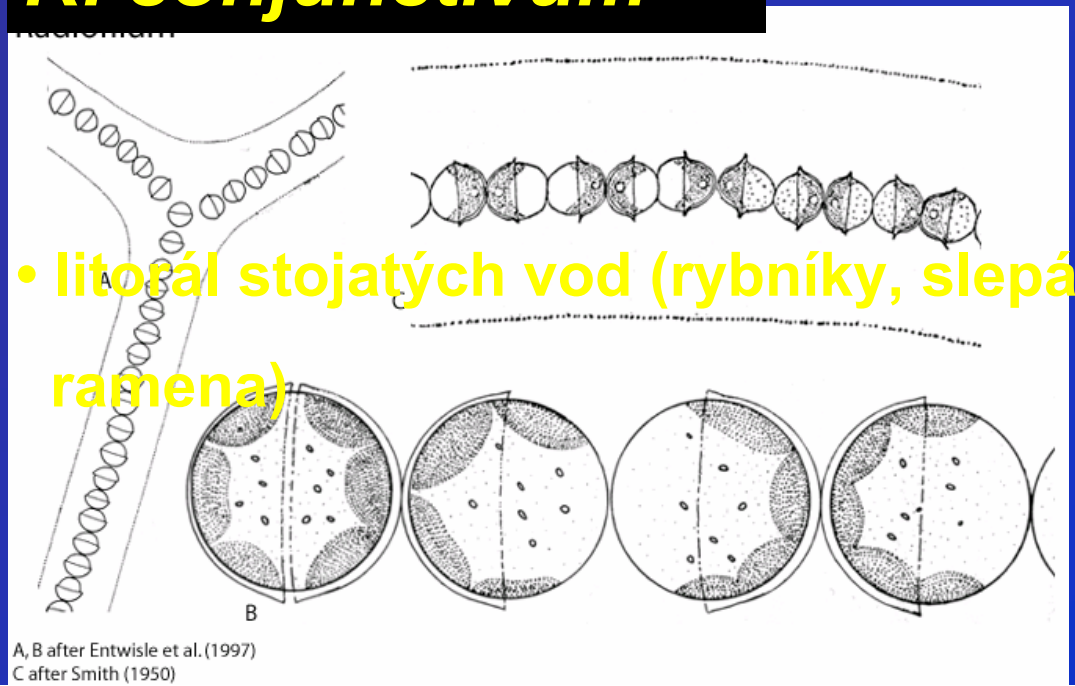


- litorál malých nádrží, epifyticky (vířník *Ophridium versatile*)

Radiofilum

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

R. conjunctivum

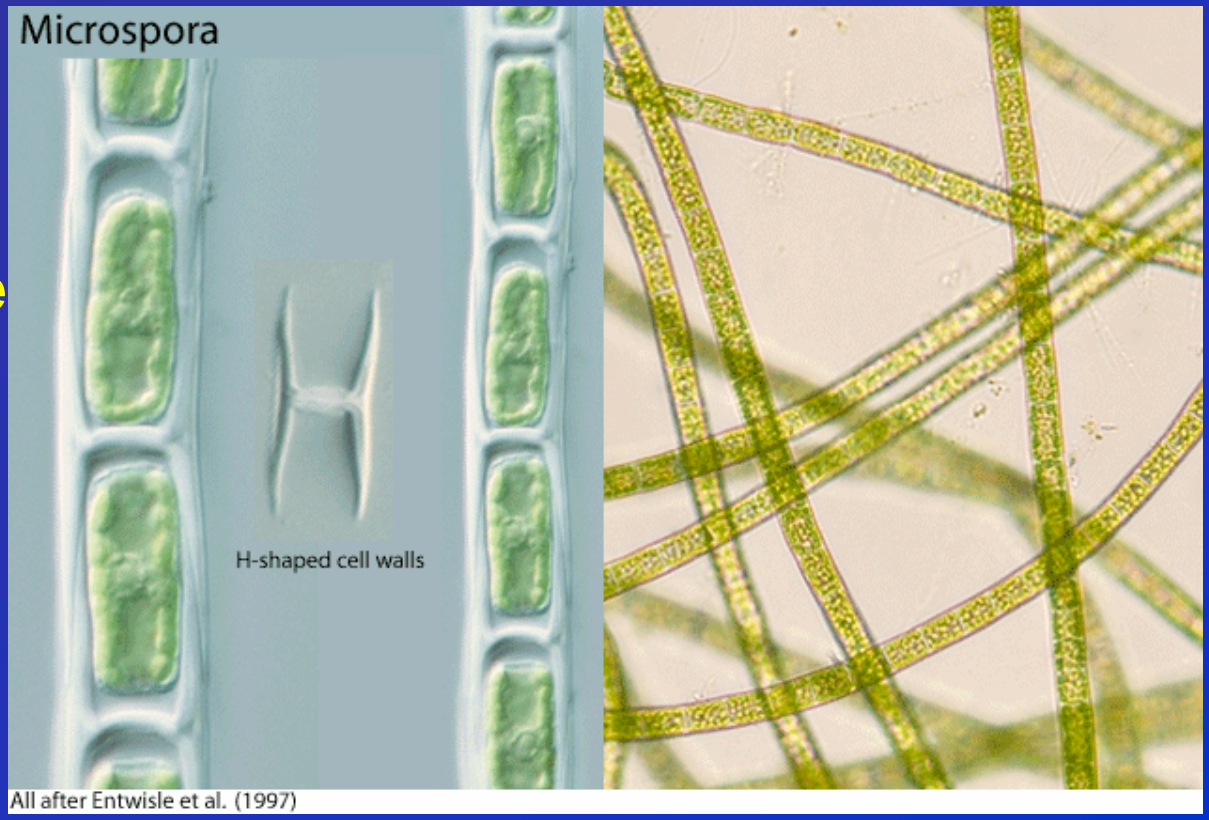


A, B after Entwisle et al. (1997)
C after Smith (1950)

- litorál stojatých vod (rybníky, slepá ramena)

Microspora

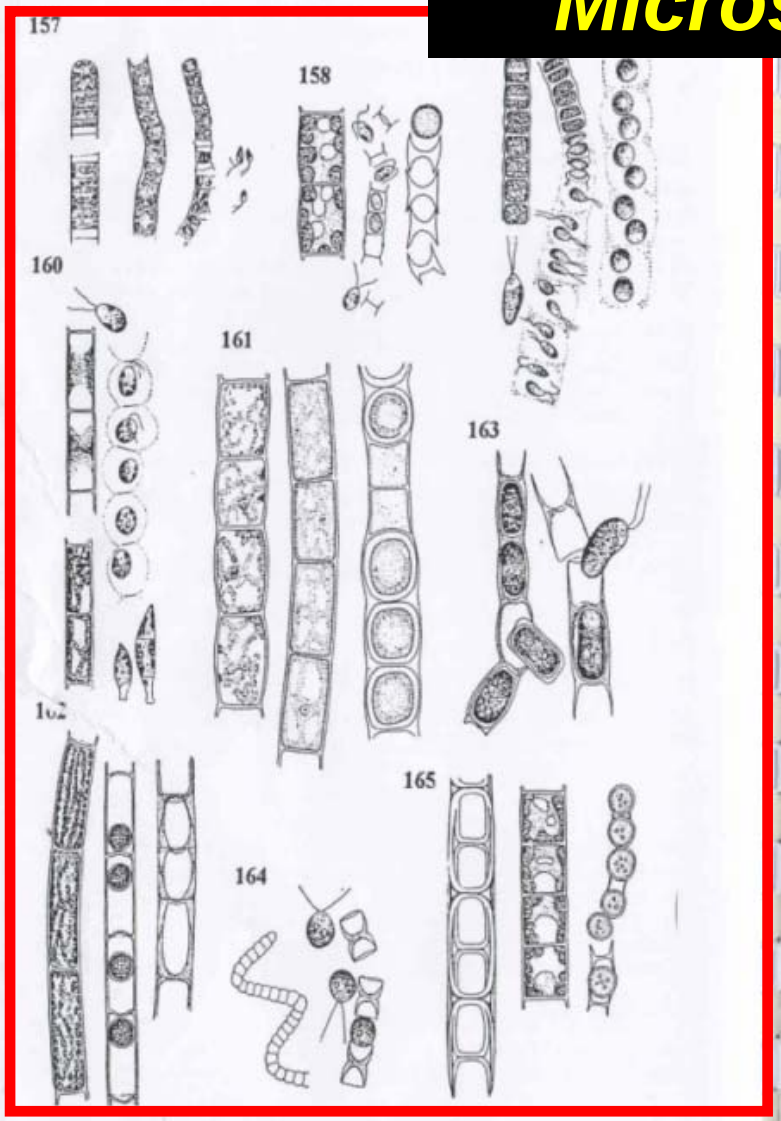
- trichální
- izopolární
- rhizoidy
- apod. b. zaoblené
- H kusy
- chloroplast bez P



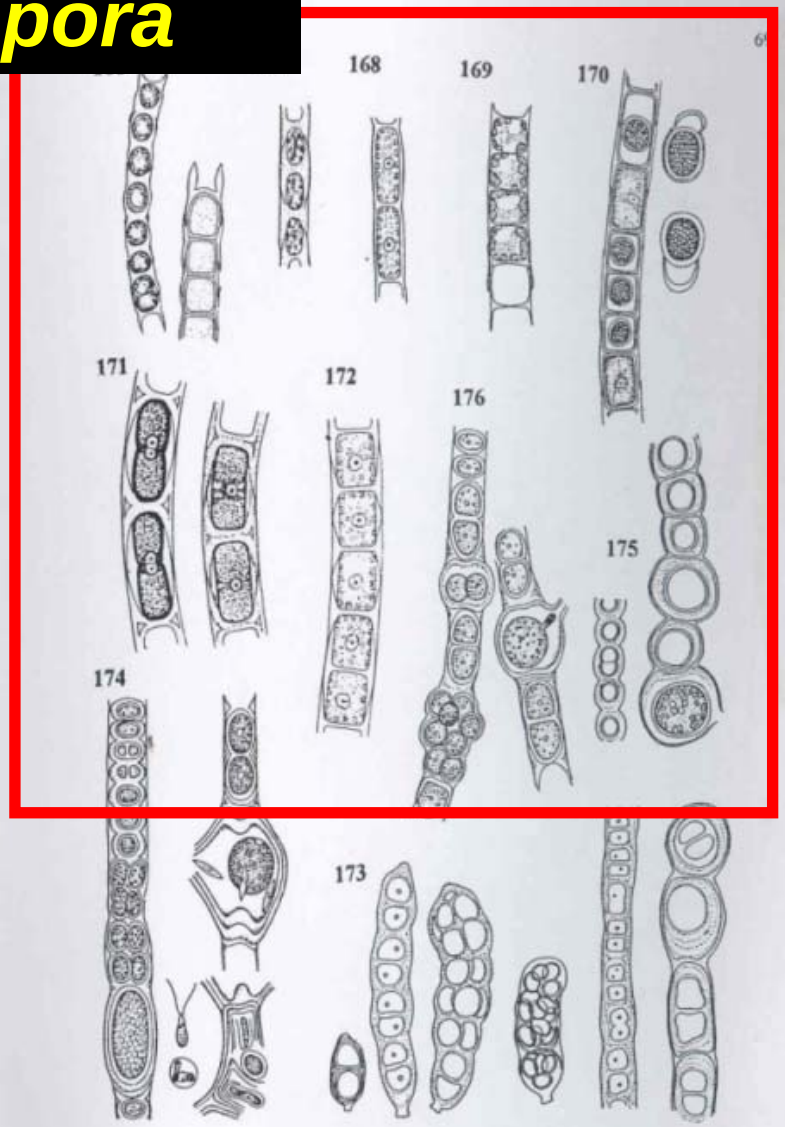
- čisté a chladné vody?

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. lauterbornii*, 165 *M. abbreviata*.

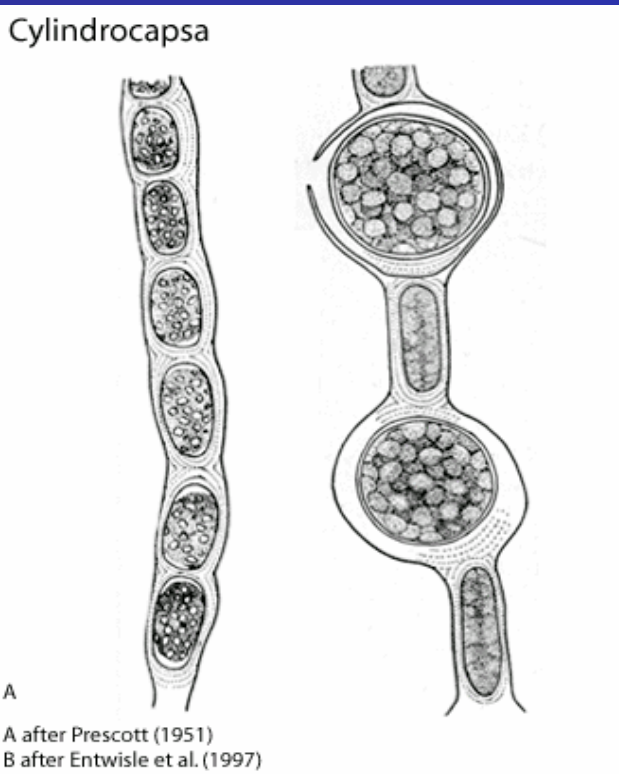


Obr. 166-176: 166 *Microspora palustris* var. *palustris*, 167 *M. pachyderma*, 168 *M. loefgrenii*, 169 *M. aequabilis* var. *aequabilis*, 170 *M. witrockii*, 171 *M. amoena* var. *amoena*, 172 *M. crassior*, 173 *Cylindrocapsa conferta*, 174 *C. involuta*, 175 *C. geminella* var. *geminella*, 176 *C.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

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

Cylindrocapsa

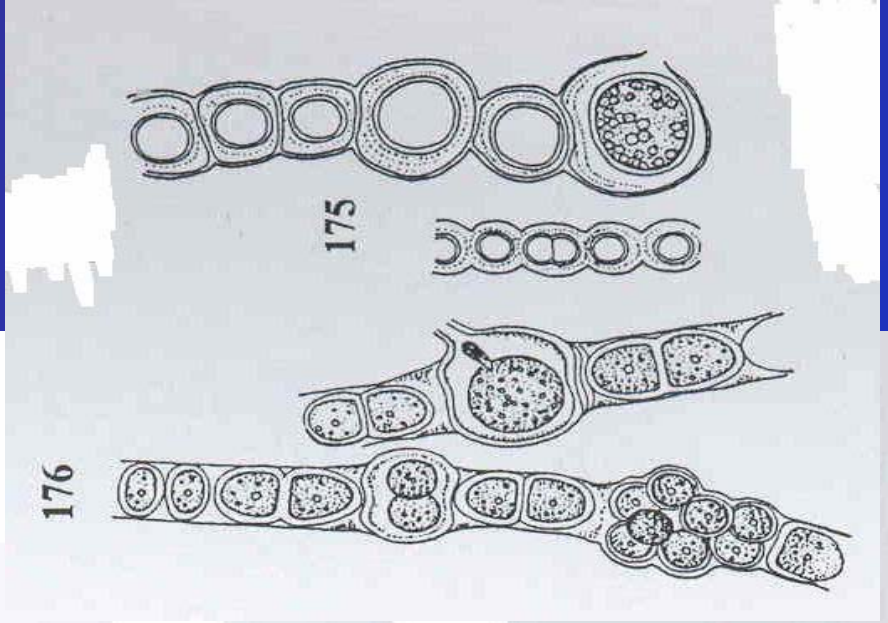
- trichální
- slizová stopka (mladá st.)
- b. s. vrstevnatá (starší st.)
- chloroplast s pyrenoidem

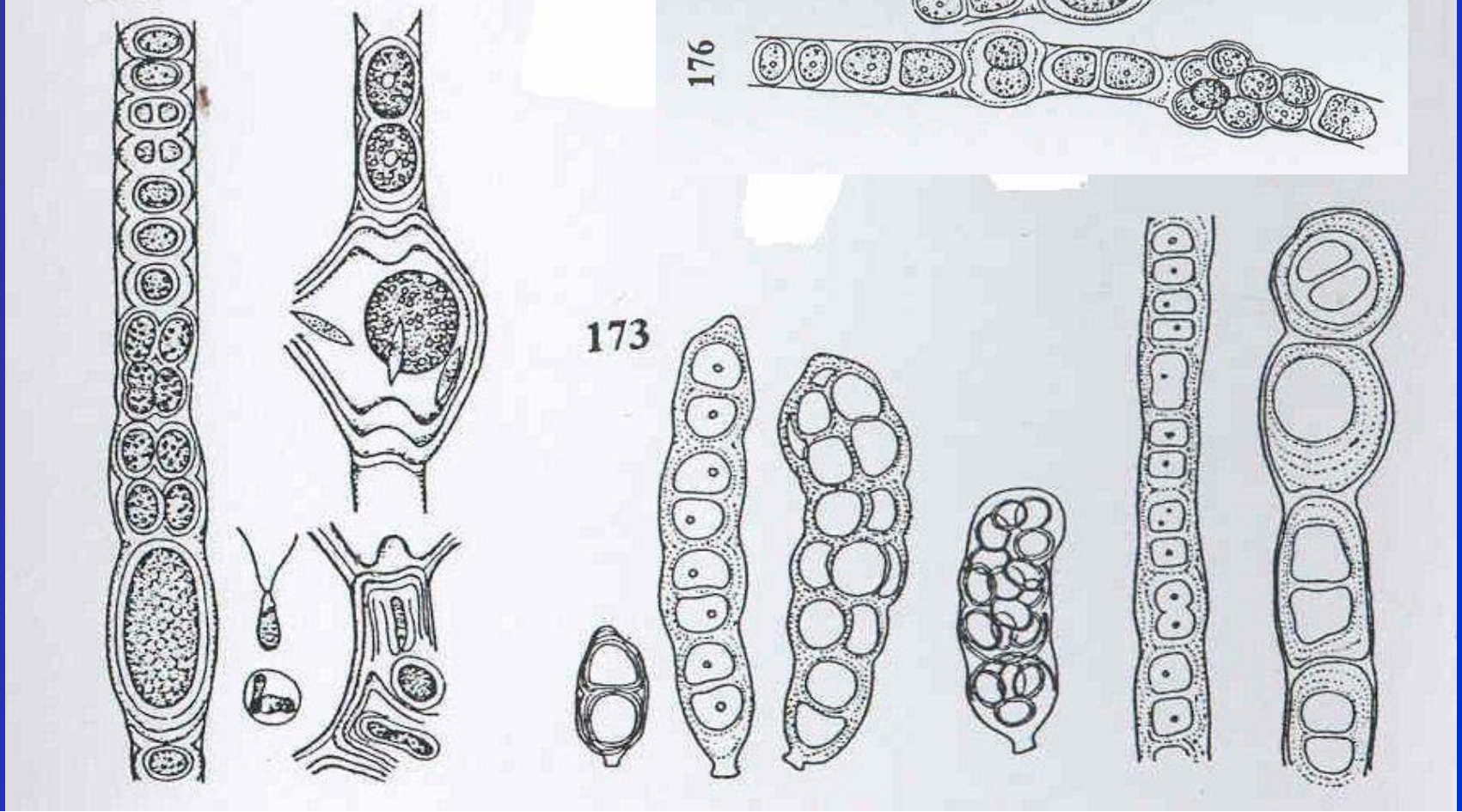


C. conferva

C. involuta

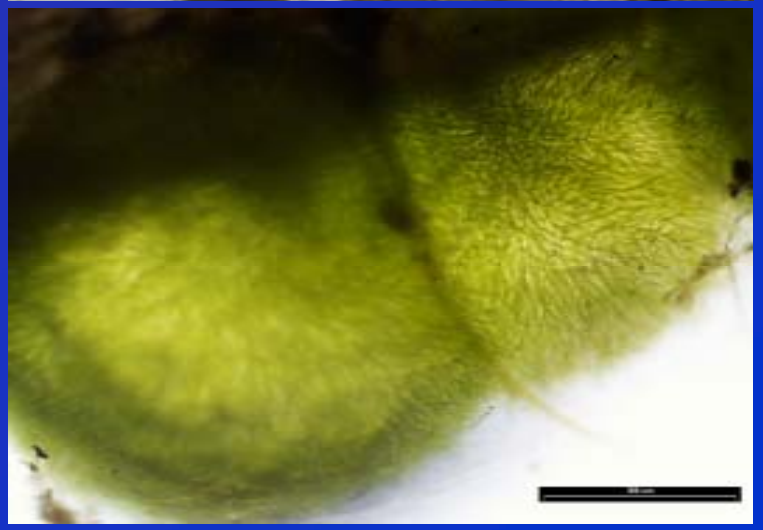
C. geminella



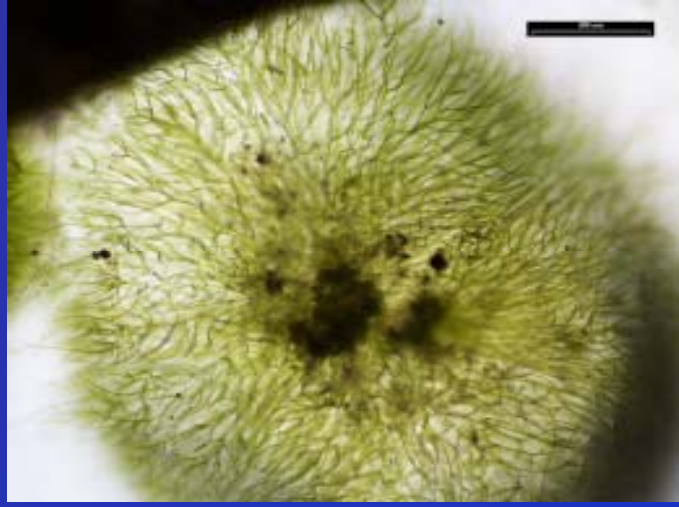


Chaetophorales

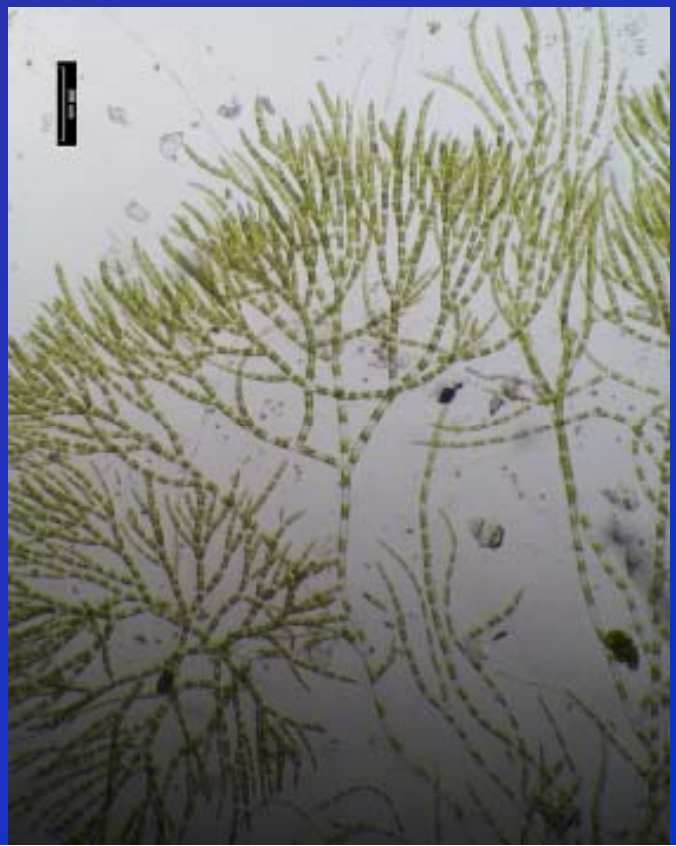
Chaetophora



- heterotrichální stélka obalená slizem
- typický vzhled
- hyalinní vlasovité zakončení
- chloroplast s pyrenoidem

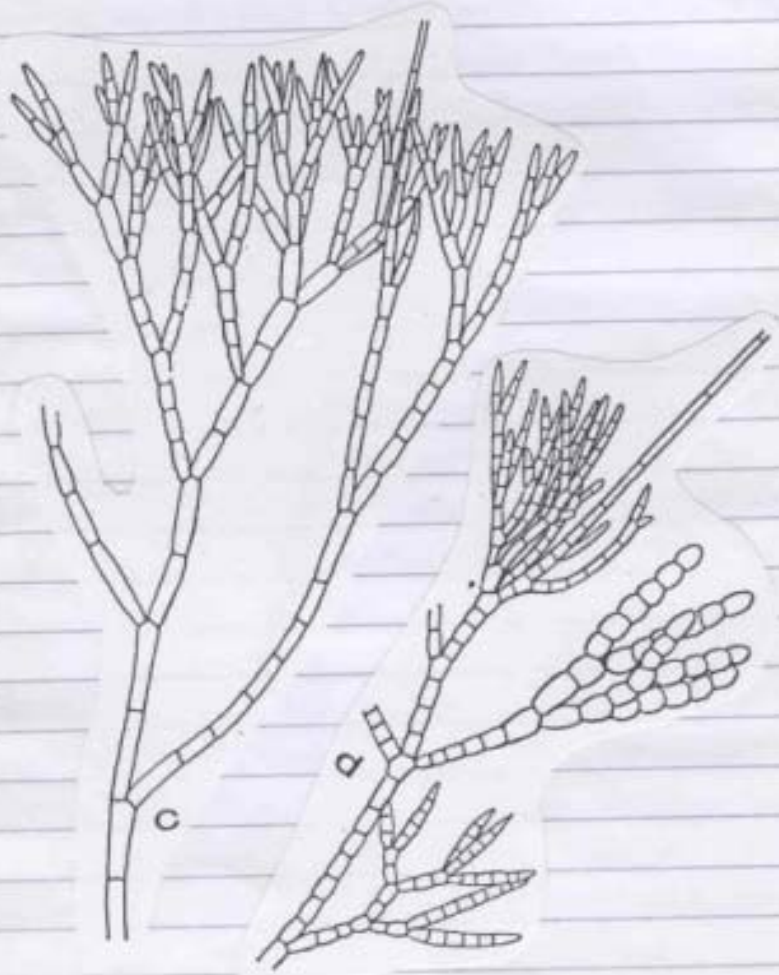


Ch. elegans



Chaetophora elegans

Částí stélky: c, d, e



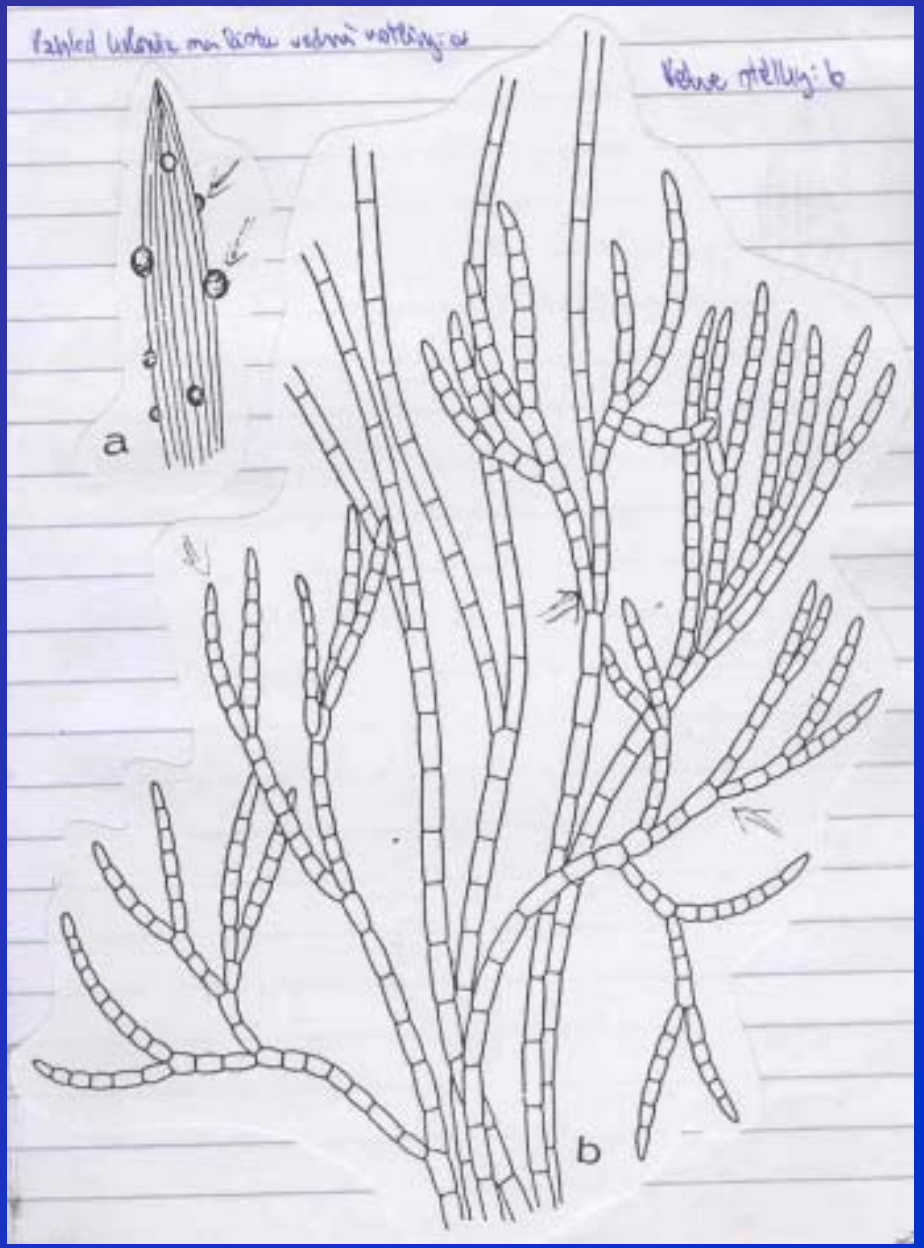
Vzhled (tvar) kolonie: a

Vzhled stélek: f
= Ch. elegans var polyclema

Ch. elegans 3n): g

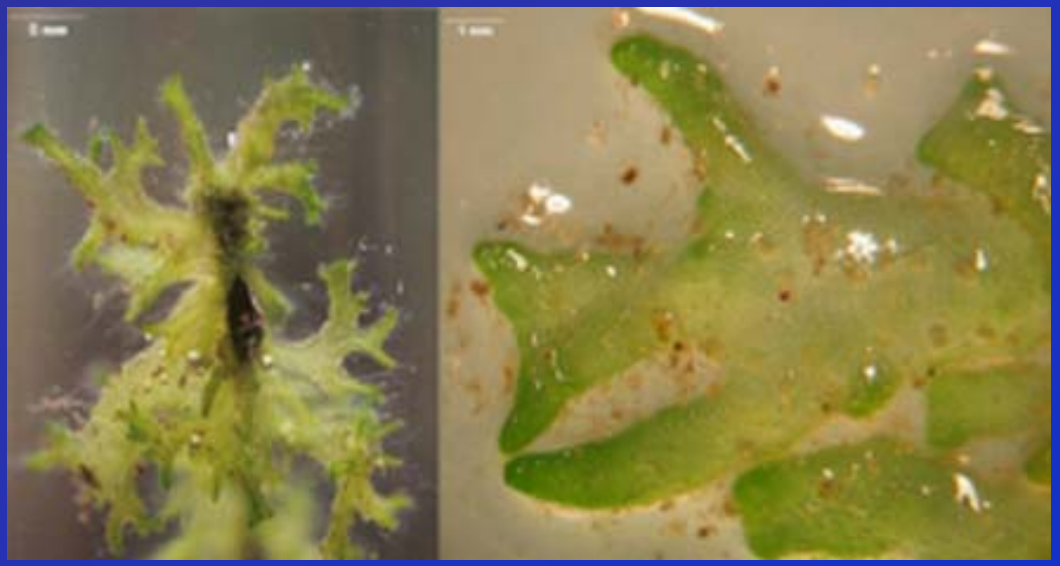
Zoospory s bičíkem: h

Ch. pisiformis



Chaetophora

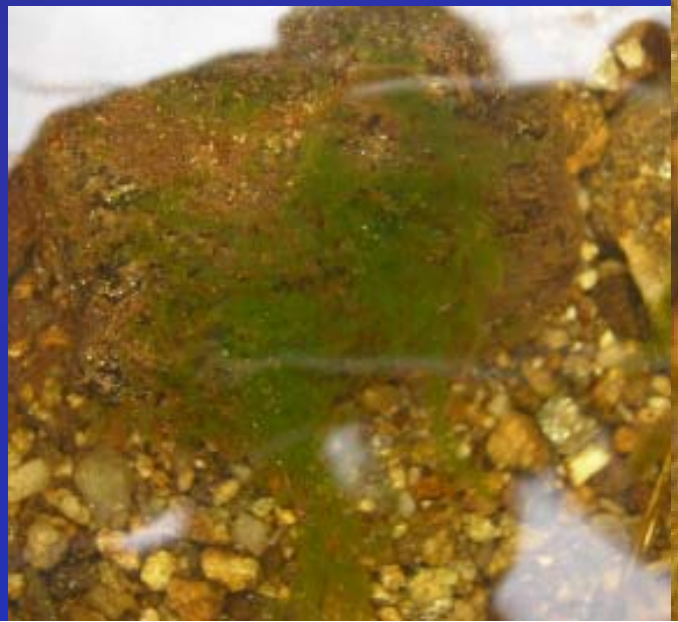
Ch. incrassata

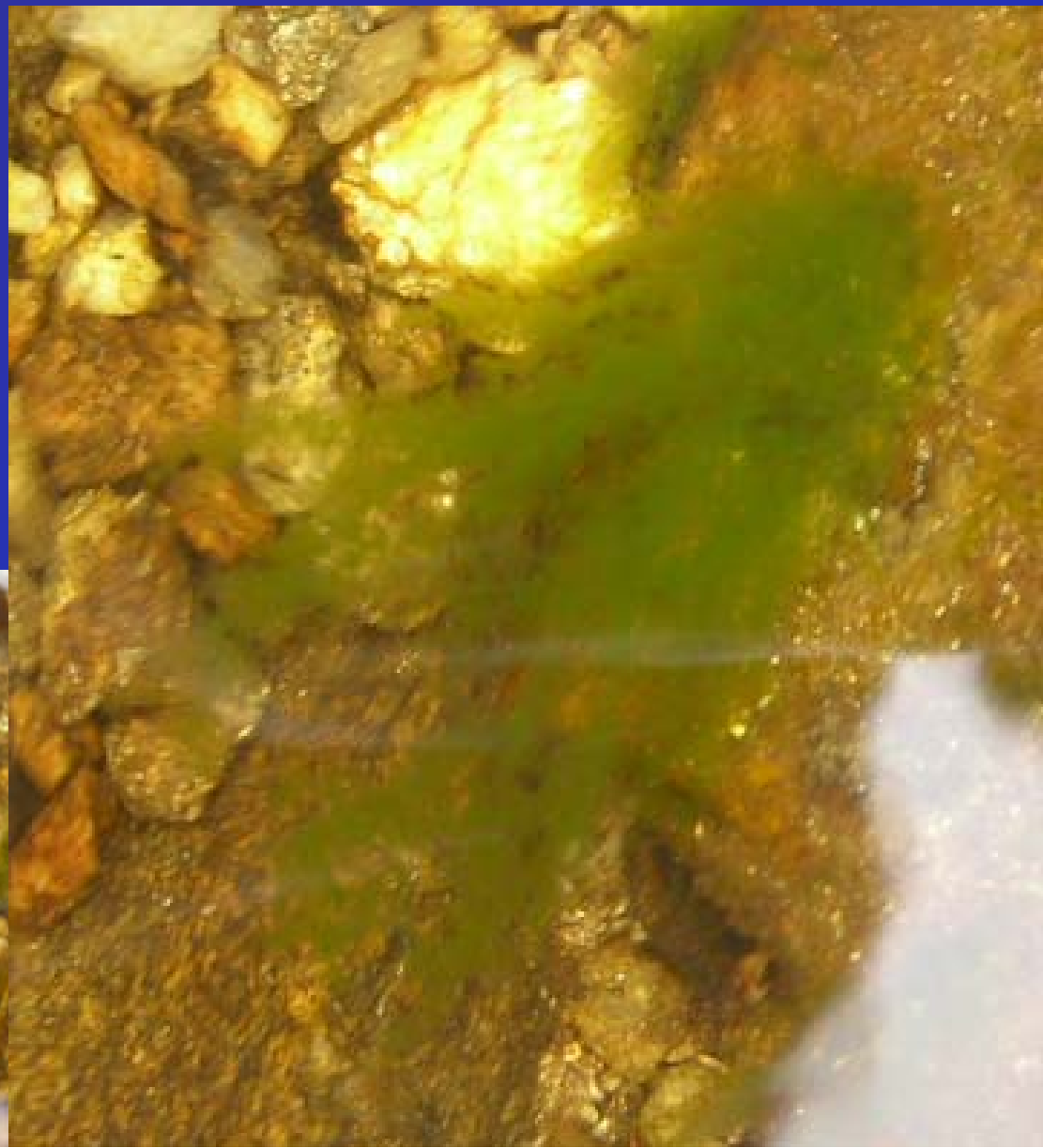


Determinační znaky:

- **dichotomie makroskopické stélky**
- **typická morfologie větví**
- **bez hyalinních vlasů**

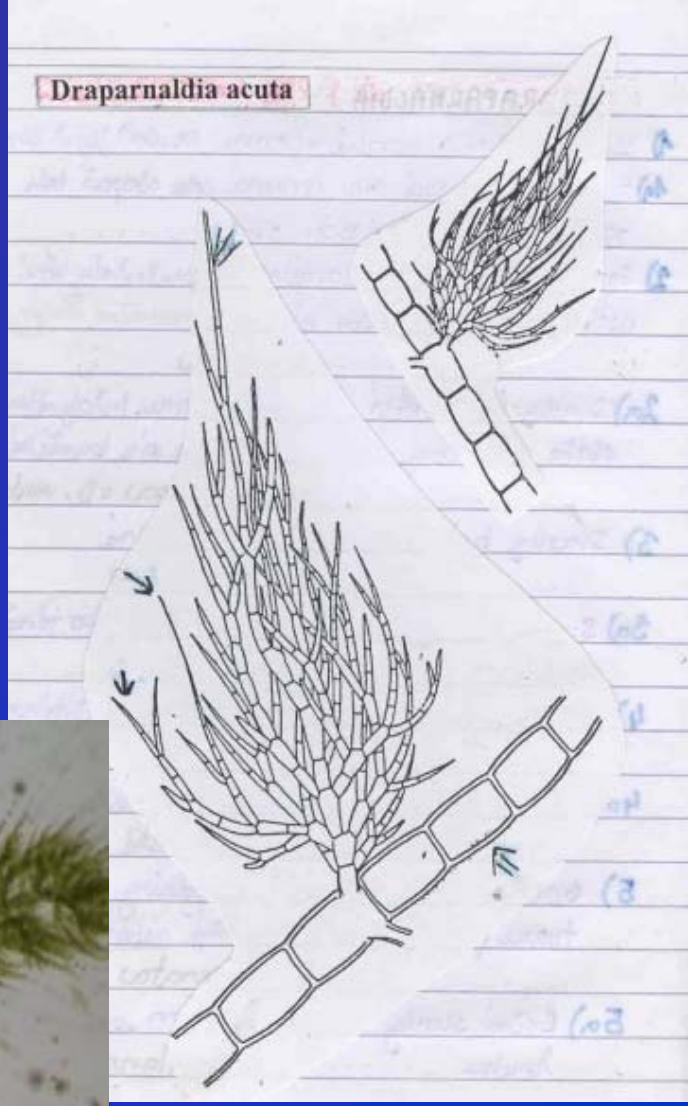
Draparnaldia





- heterotrichální
- makroskopické sliz. keříky
- chloroplast s pyrenoidy

D. acuta



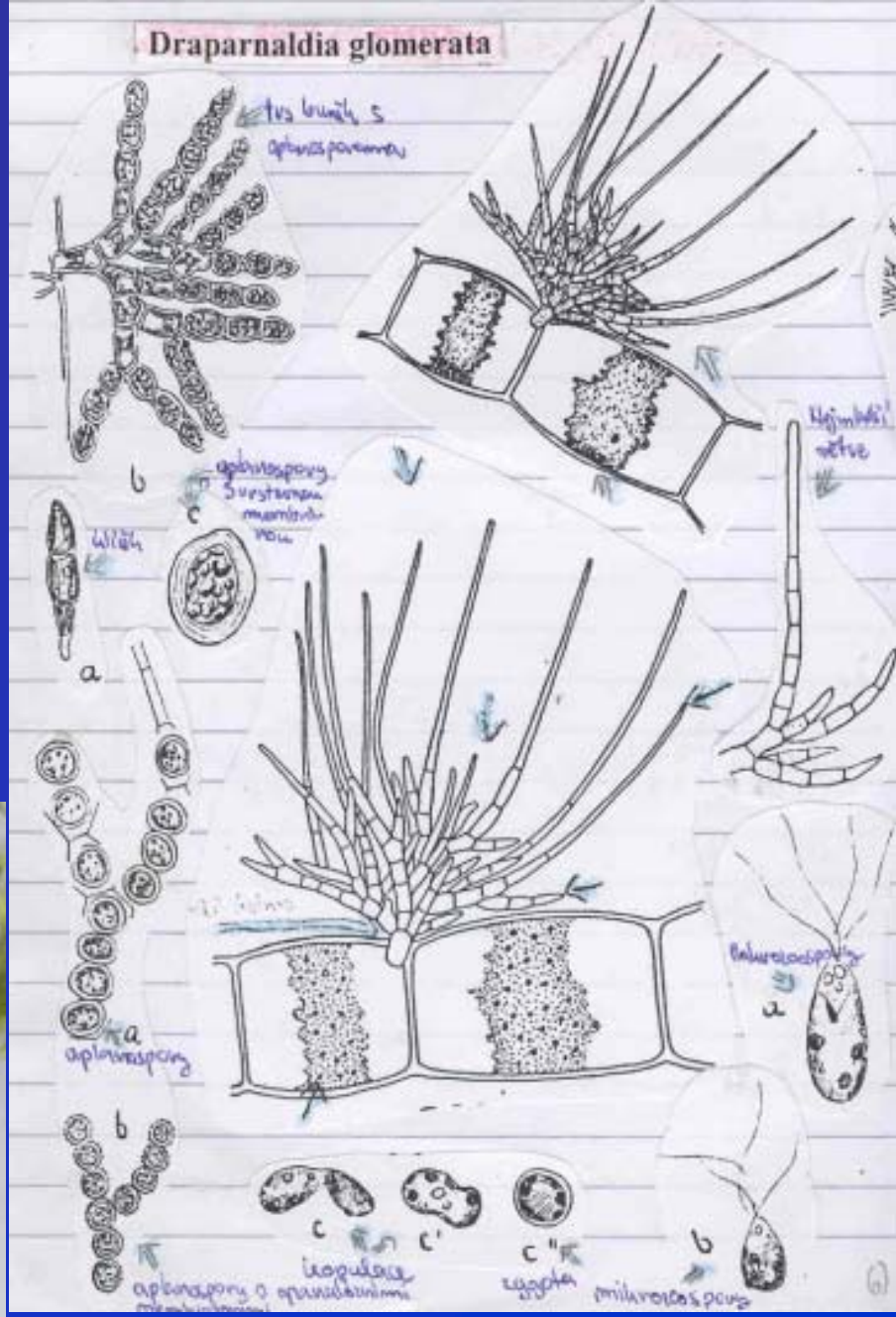
D. plumosa


400 µm
©M. Procházková

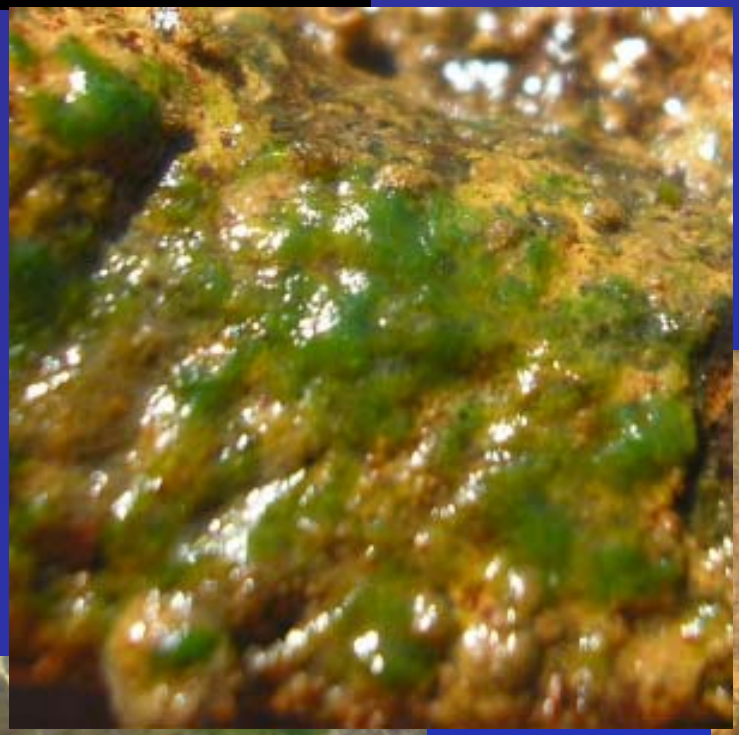

100 µm
©M. Procházková

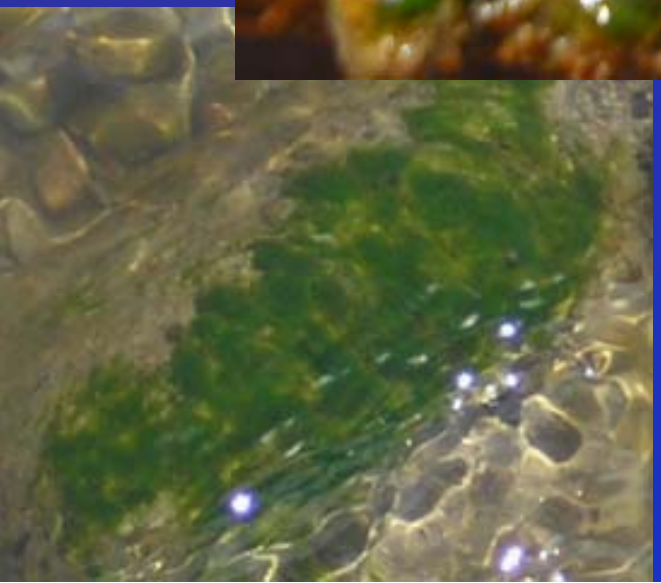

Draparnaldia plumosa (Vaucher) Agardh 1824 (= D. mutabilis)

D. glomerata

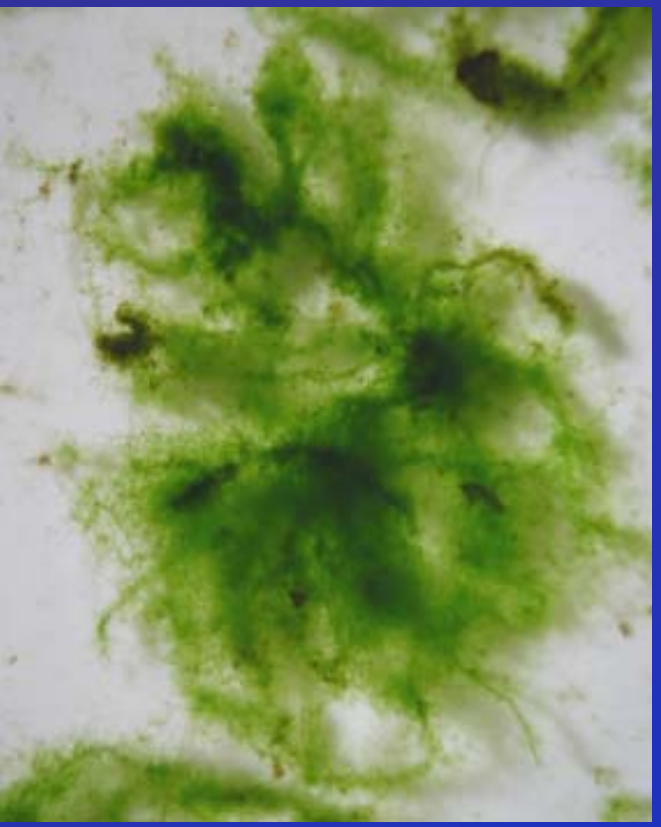


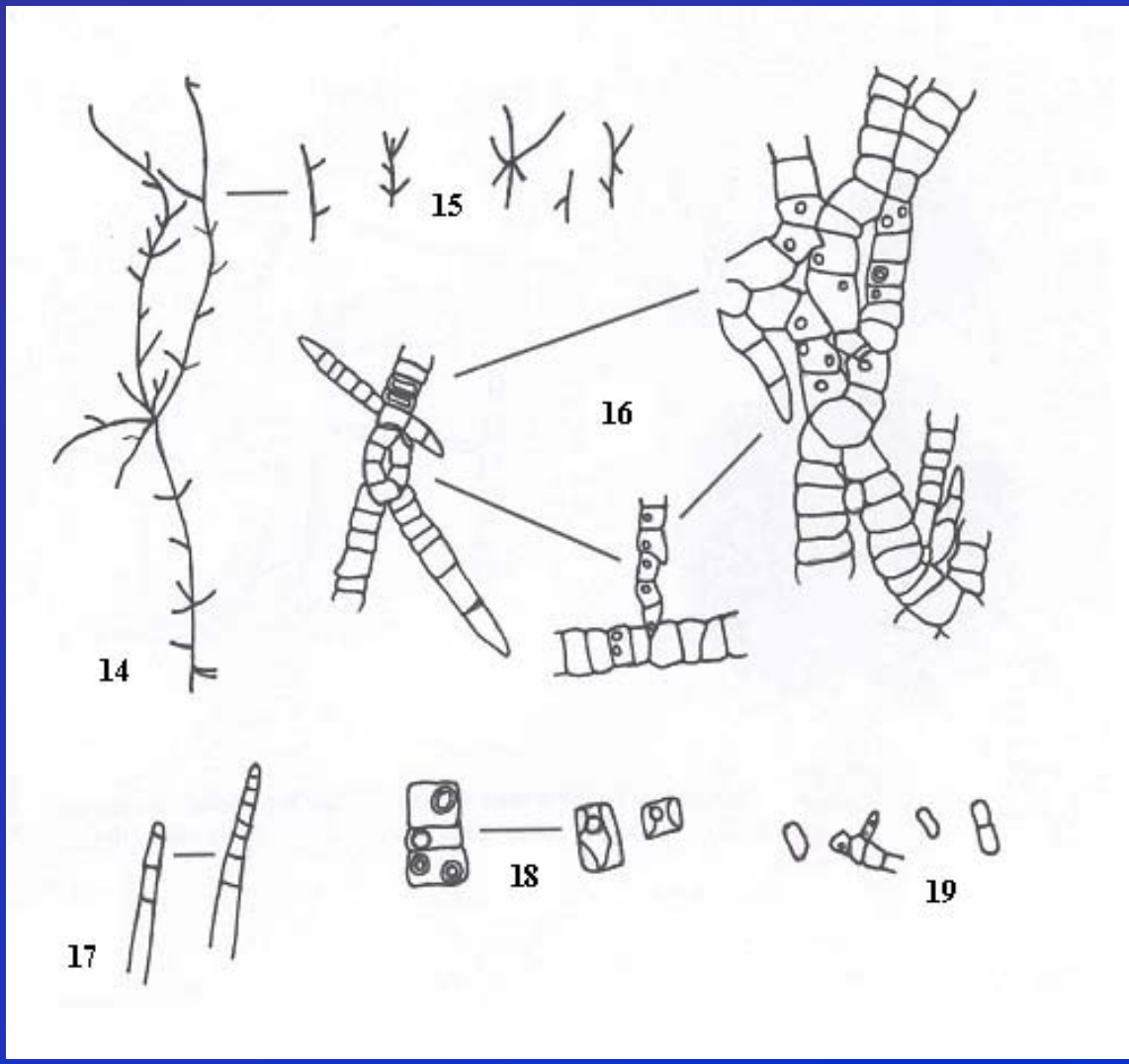
Stigeoclonium



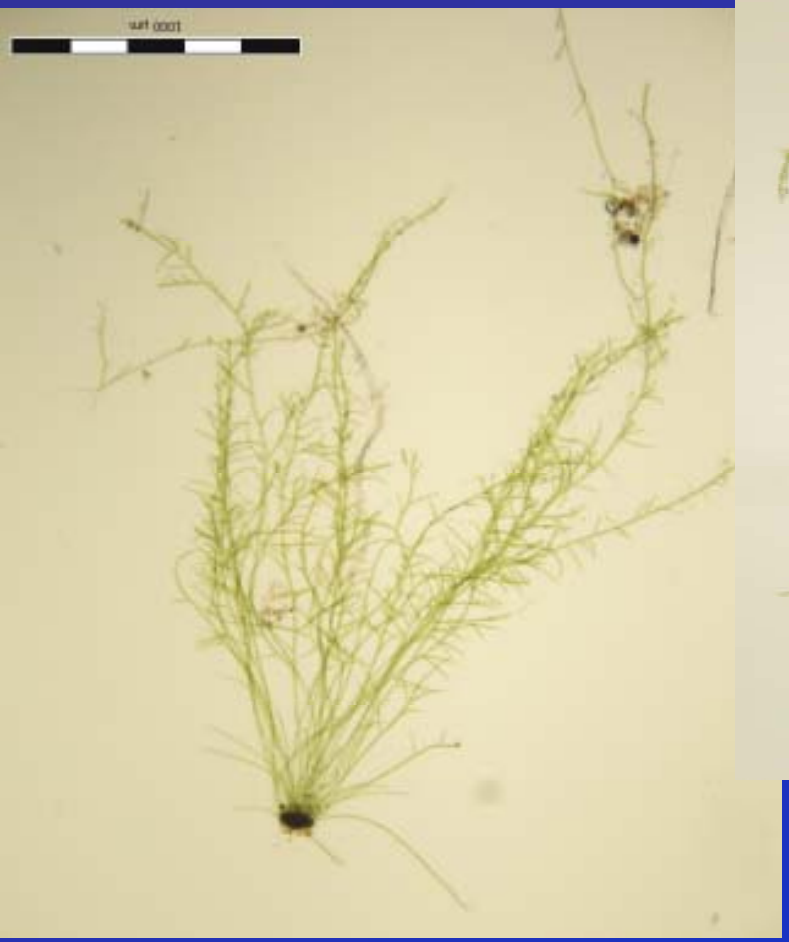


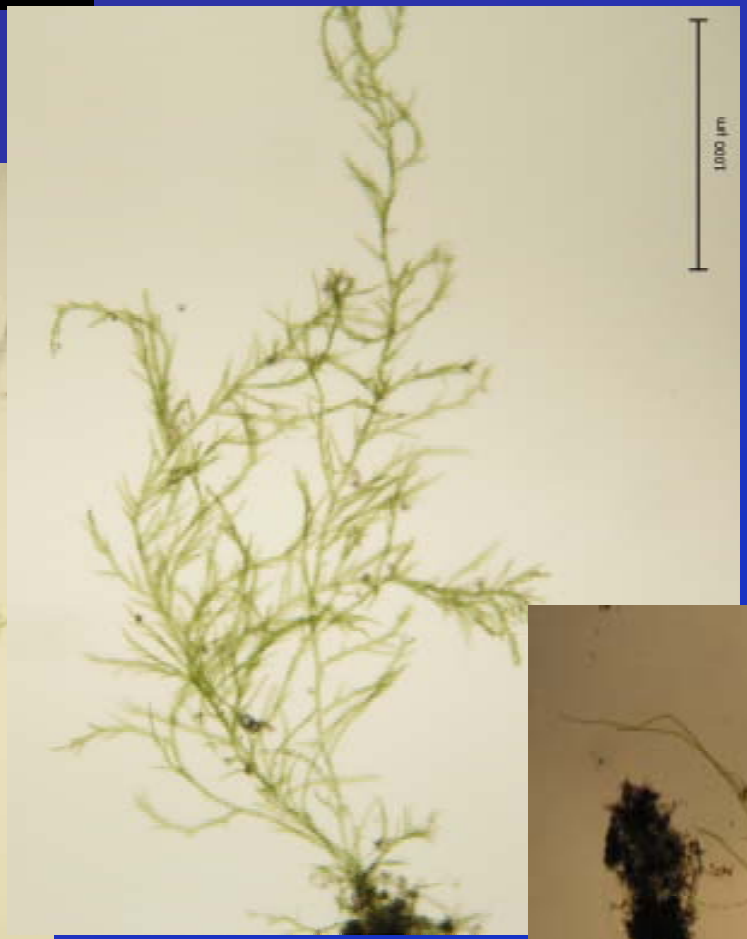
S. farctum

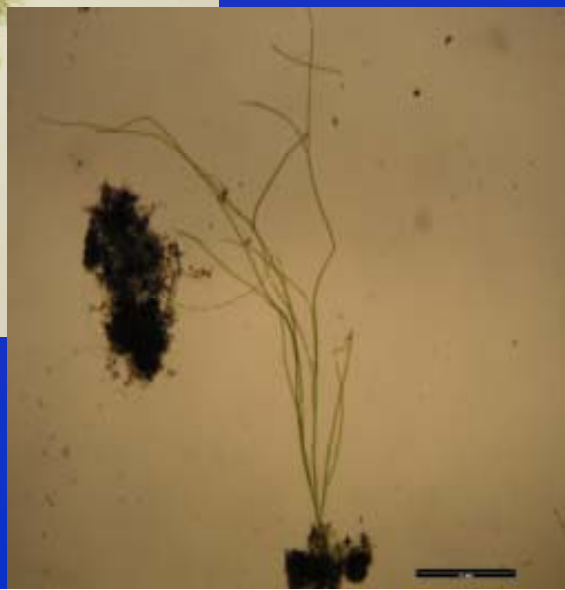




S. subsecundum

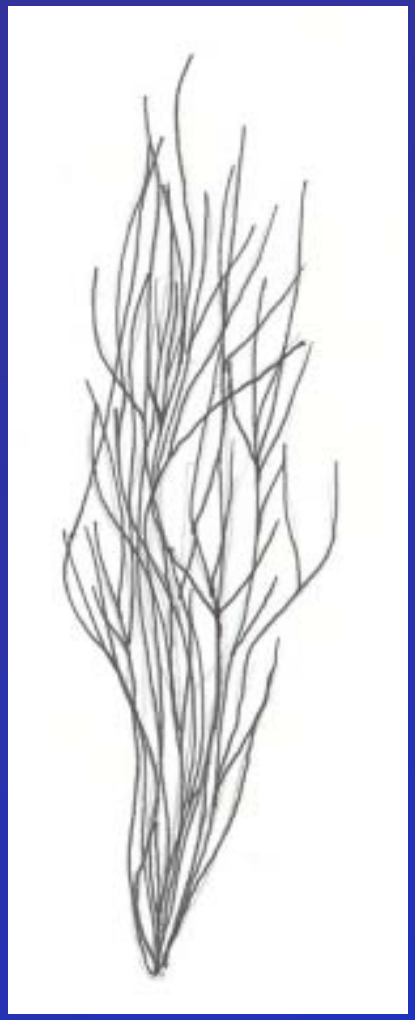


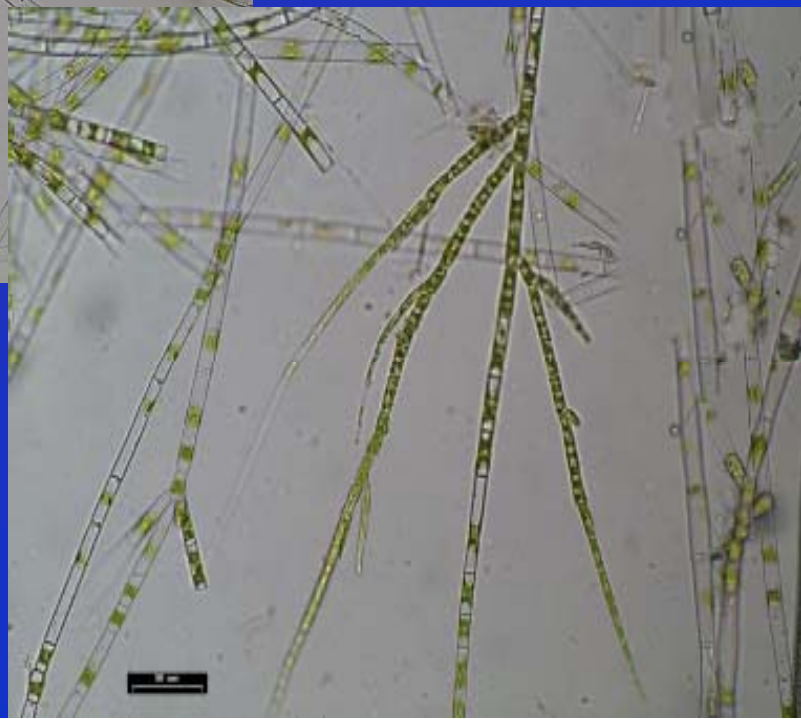




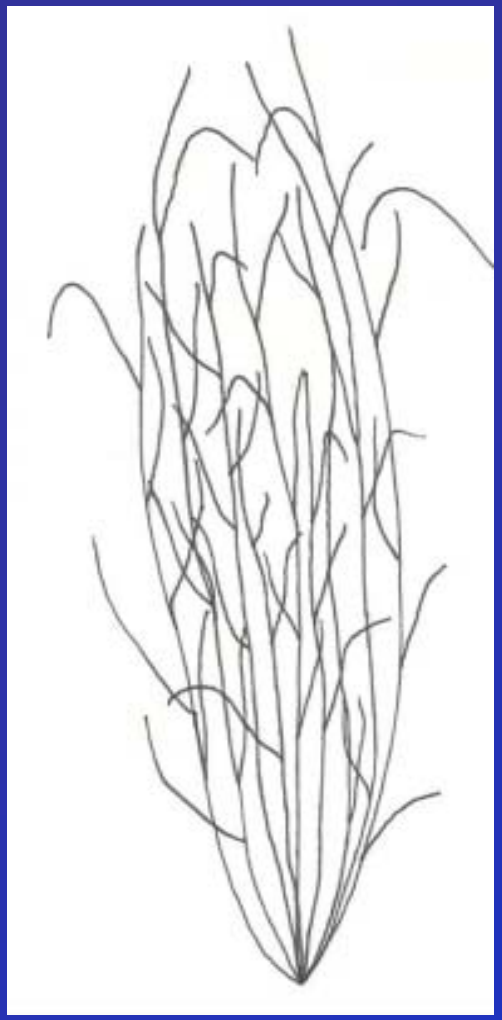
S. subsecundum

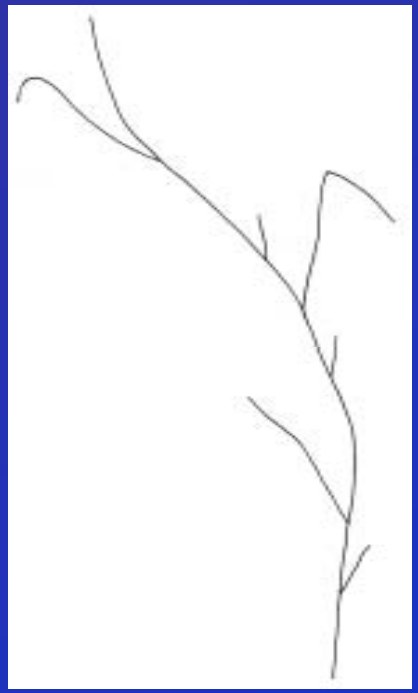
S. amoenum

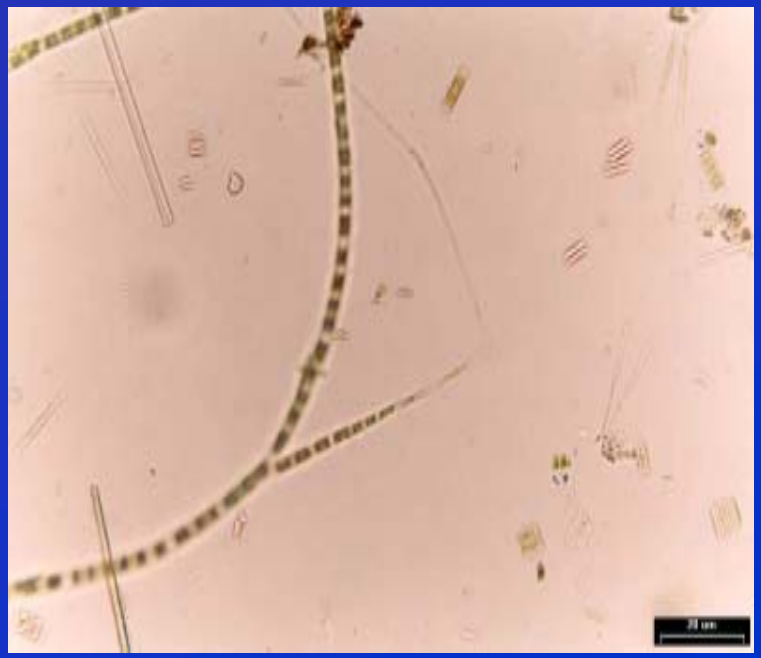




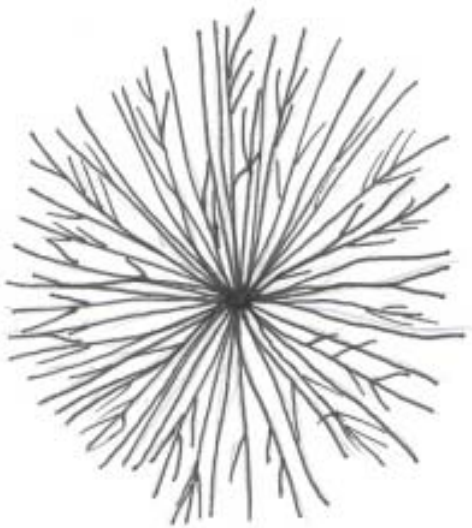
S. elongatum

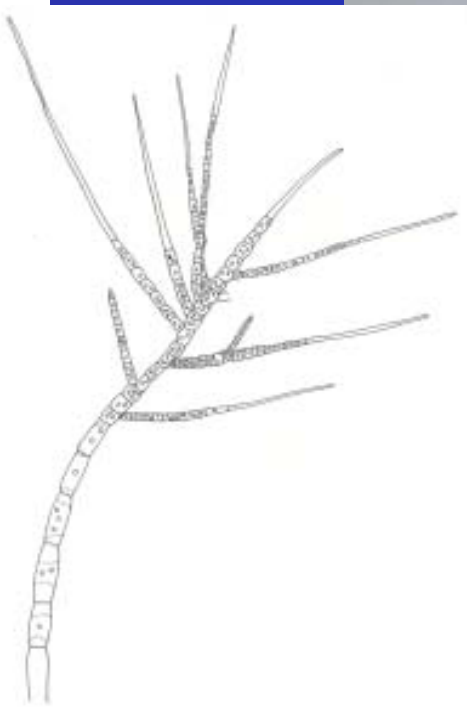




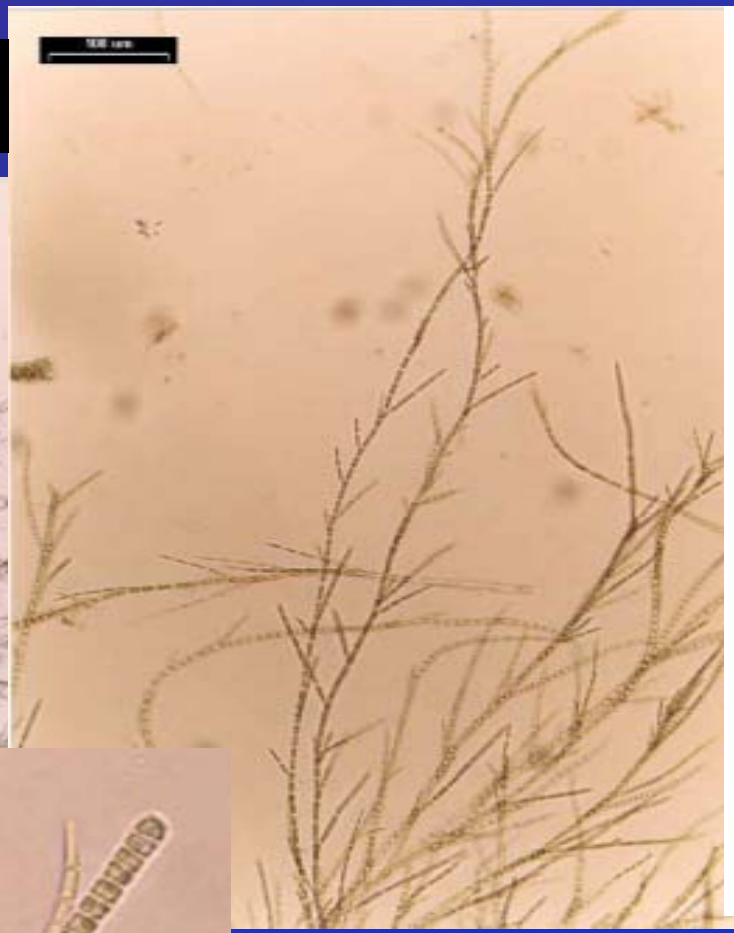


S. lubricum

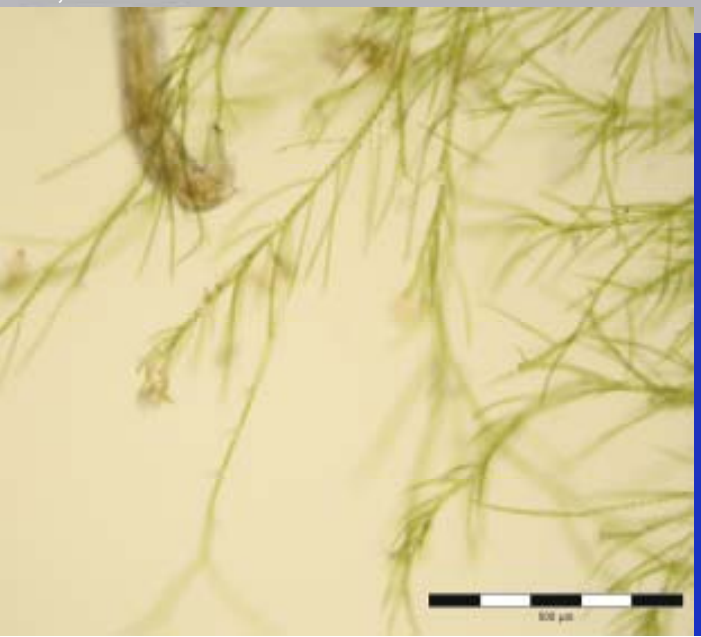


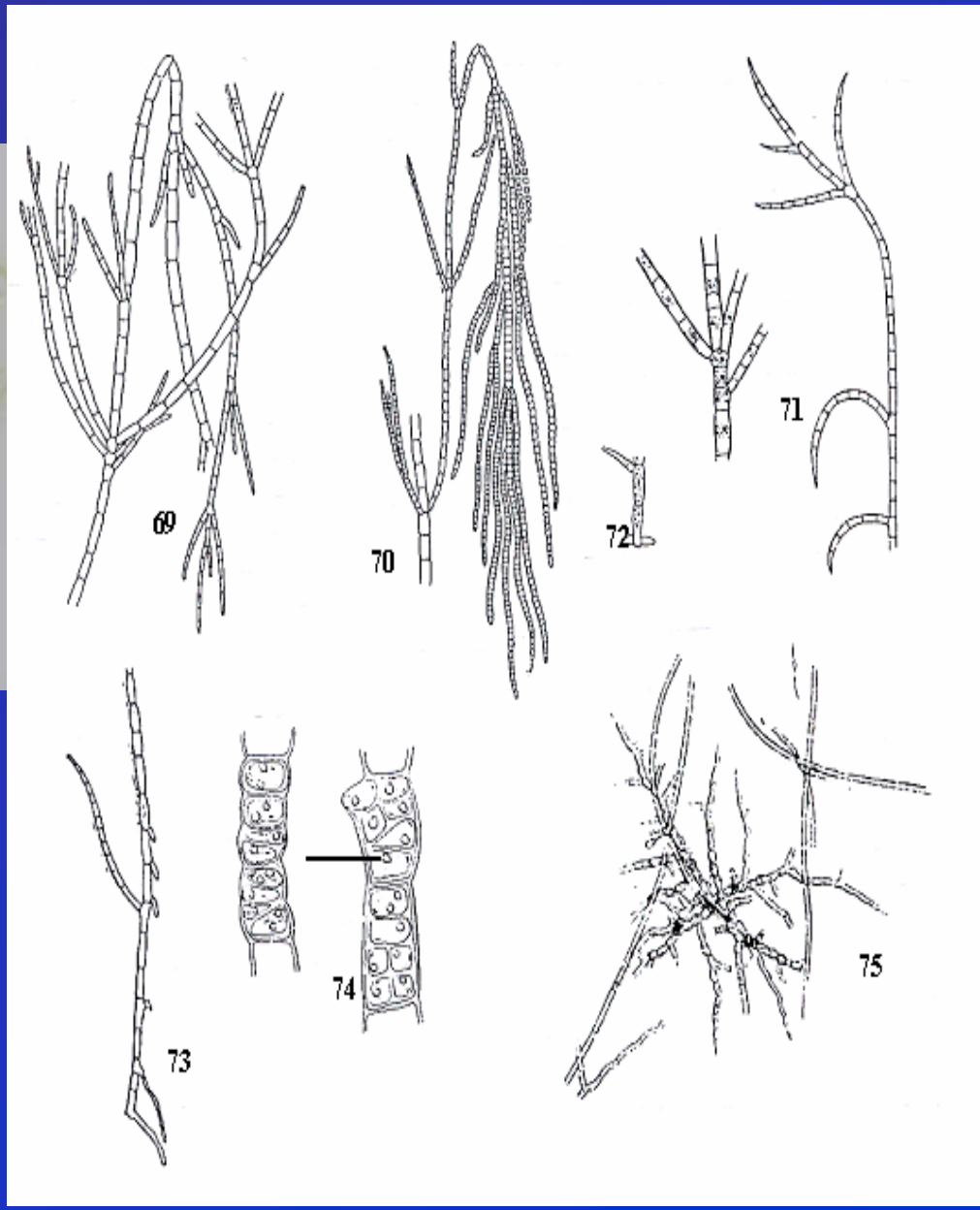


S. nanum

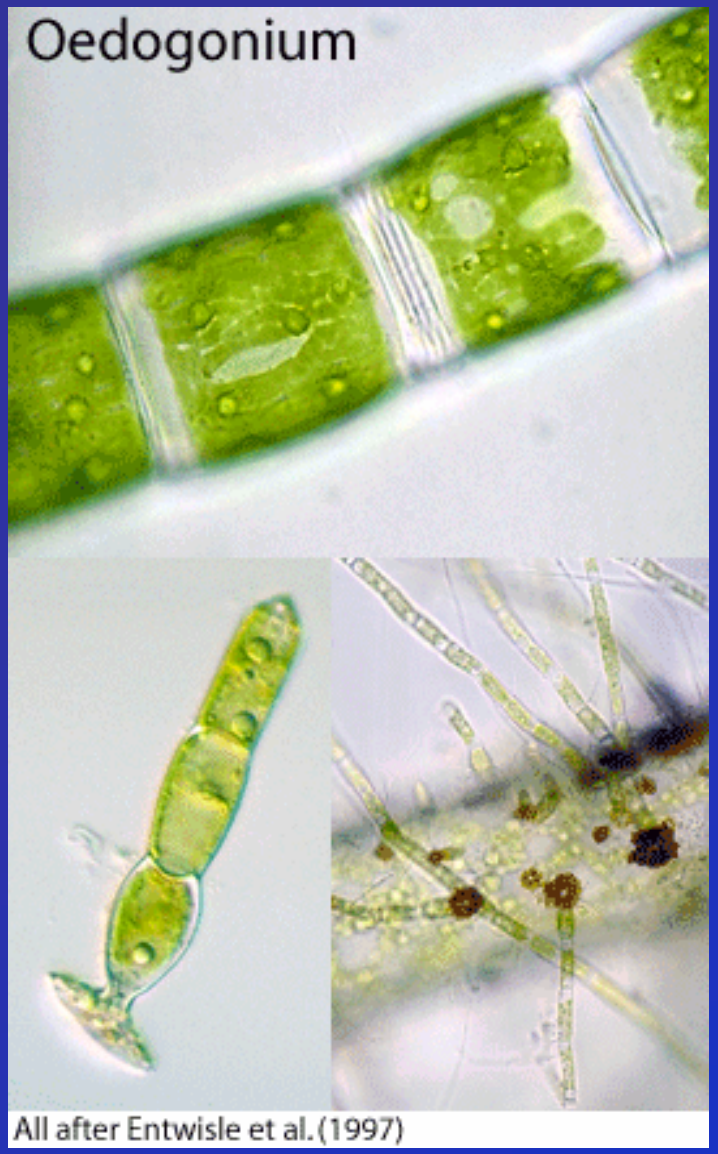


S. tenue





Oedogonium



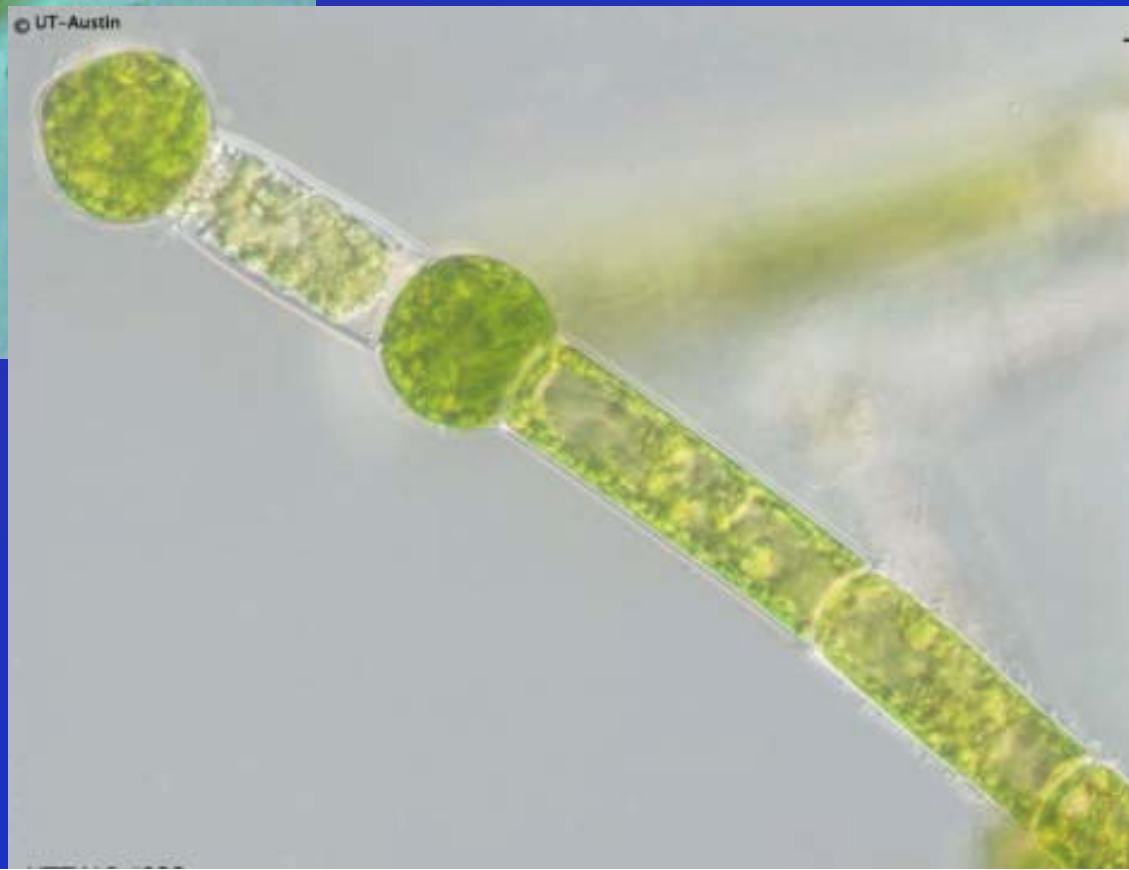
Determinační znaky:

- límečky (kappen)

- oogonia

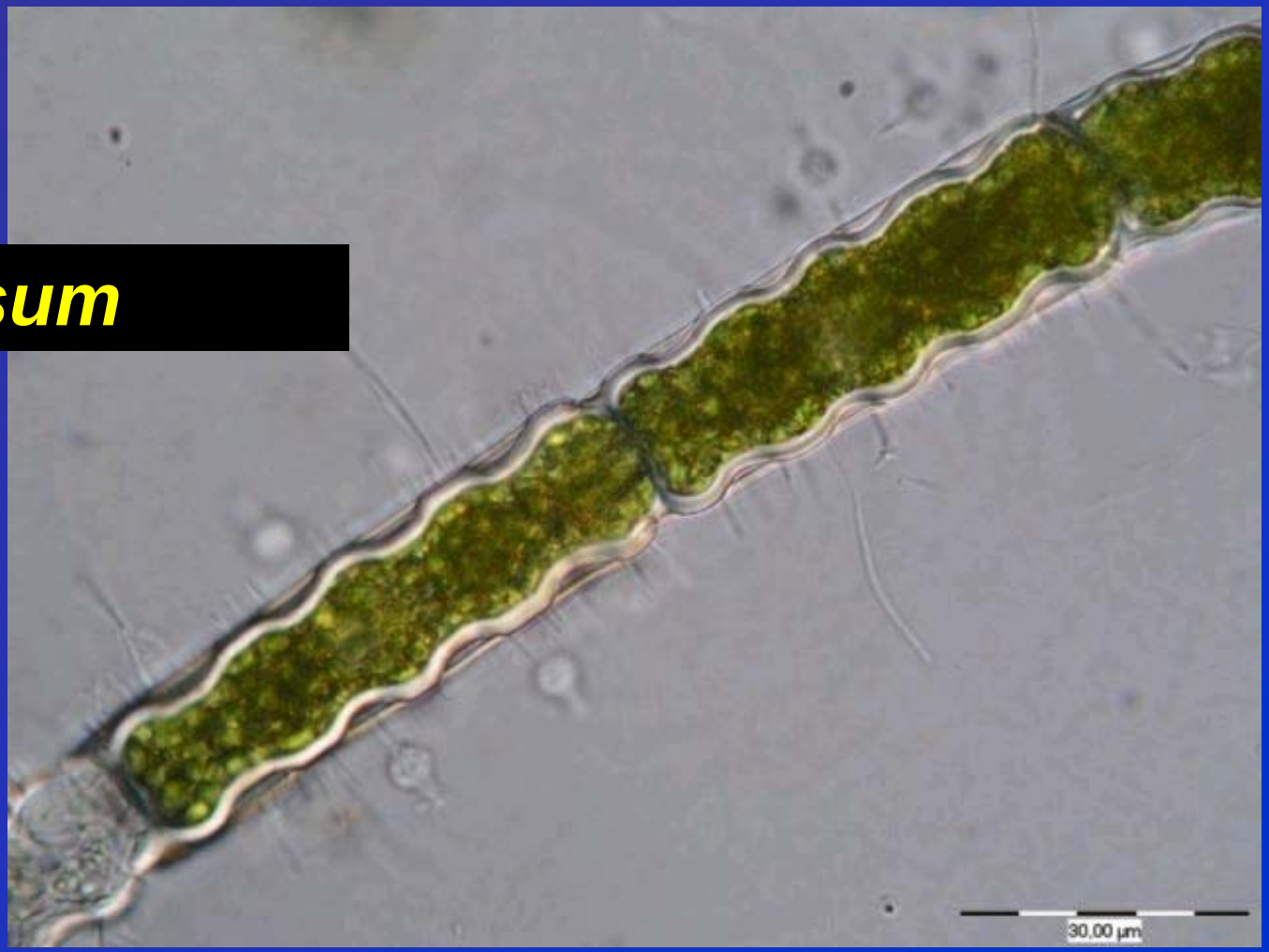
- typický tvar buňky

Oedogonium



O. undulatum

O. nodulosum



Bulbochaete

- heterotrichální
- polární
- epifyt

Determinační znaky:

hyalinní čepičky s vlasem

oogonia

Čistší vody

Bulbochaete

Microthamnion

- heterotrichální
- polární
- chloroplast bez pyrenoidu

M. strictissimum

Gracilní stromečky

Vápencové a sirné prameny

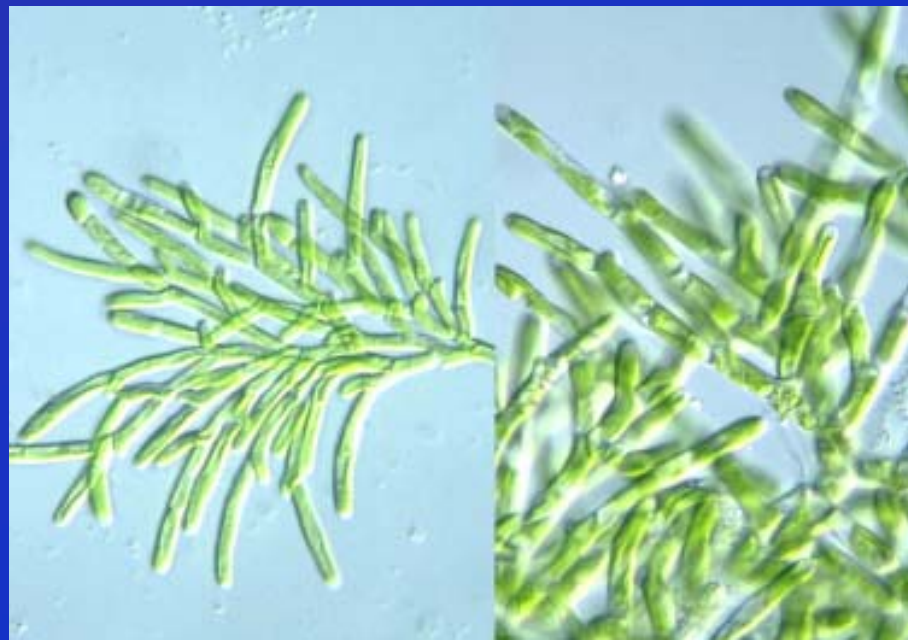
minerální vody

K. kützingianum

Robustnější

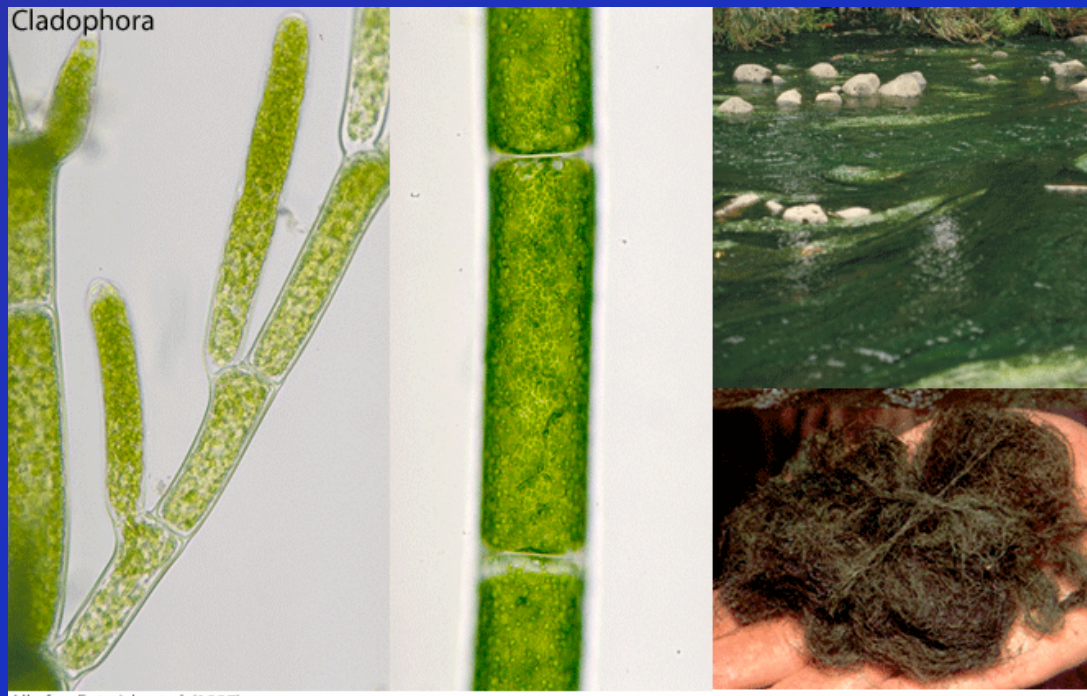
Čisté, mírně zaroslé vody,

kyselé a slatinné vody



Cladophora

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



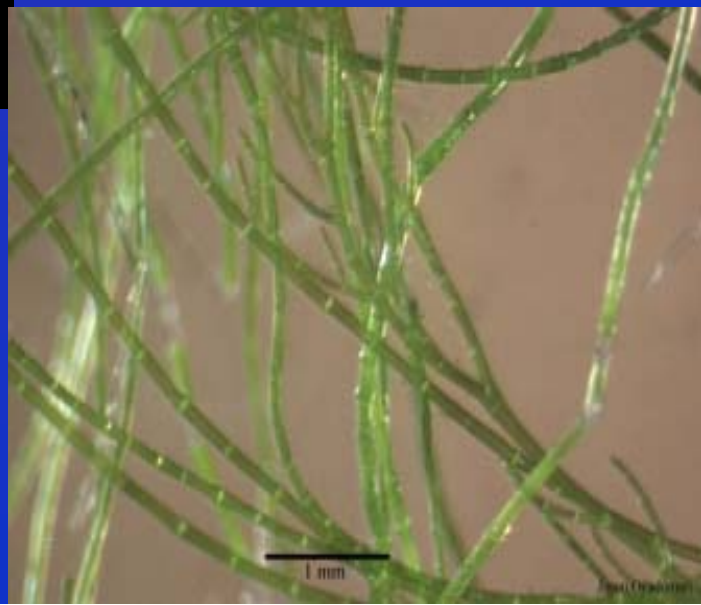
All after Entwisle et al. (1997)

STOJATÉ VODY: ***C. globulina*** ***C. fracta***

TEKOUCÍ VODY: ***C. glomerata***

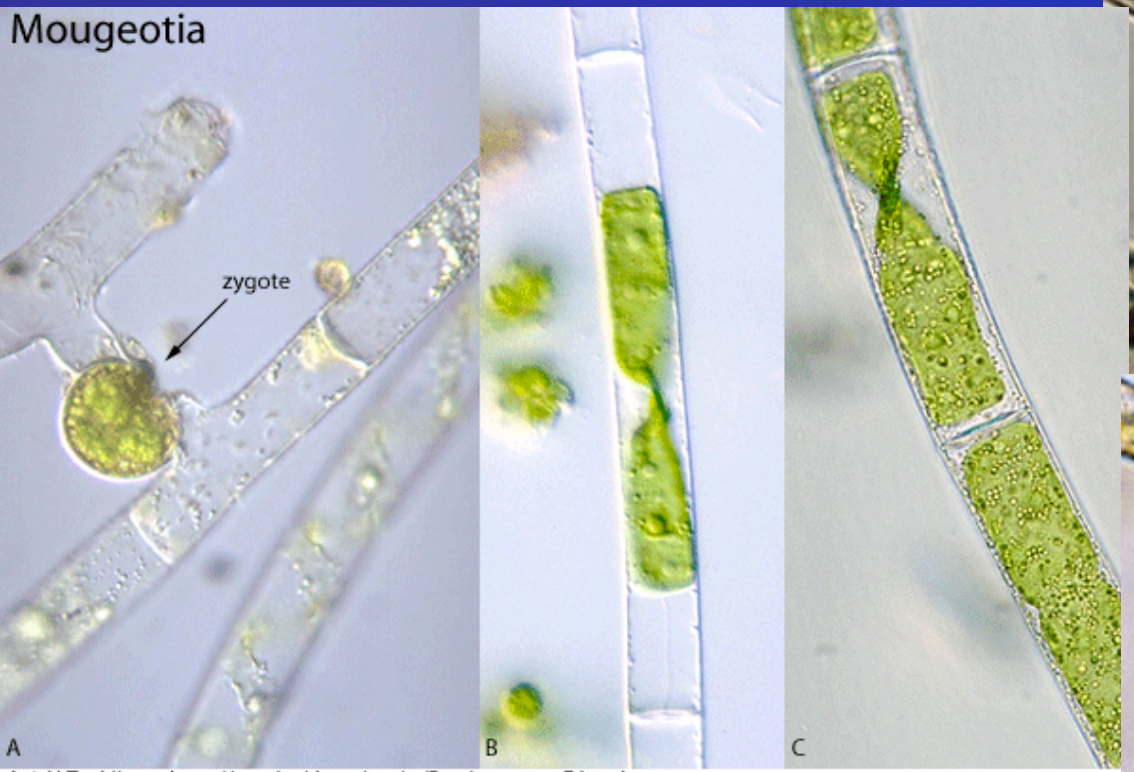
Oslava: ***C. moravica***

JEZERA: ***C. aegagropila***

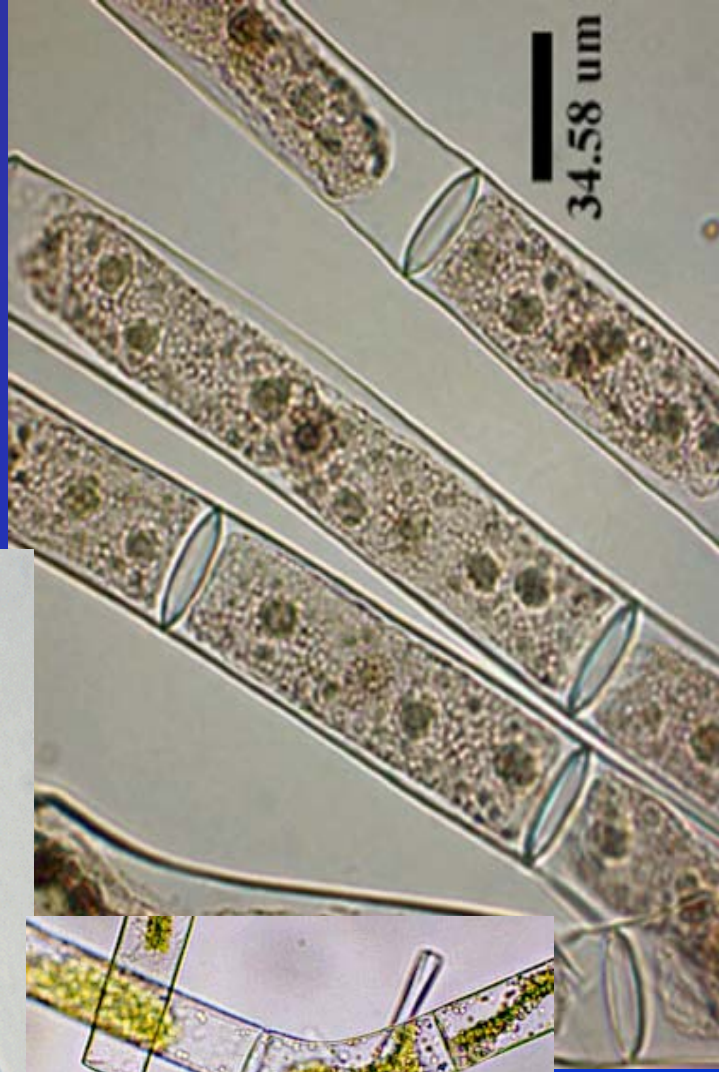


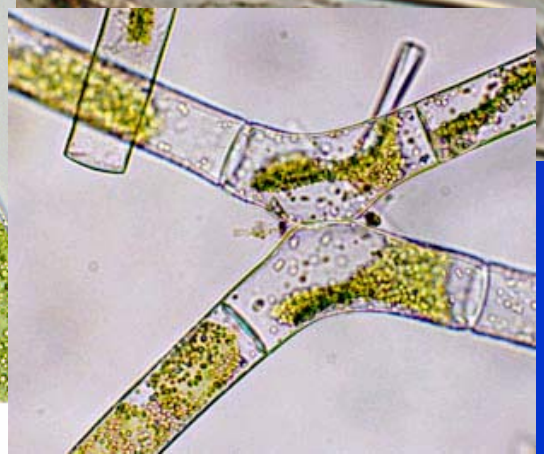
Mougeotia

- trichální
- čočkovité spojení buněk
- chloroplast nástěnný s pyrenoidy



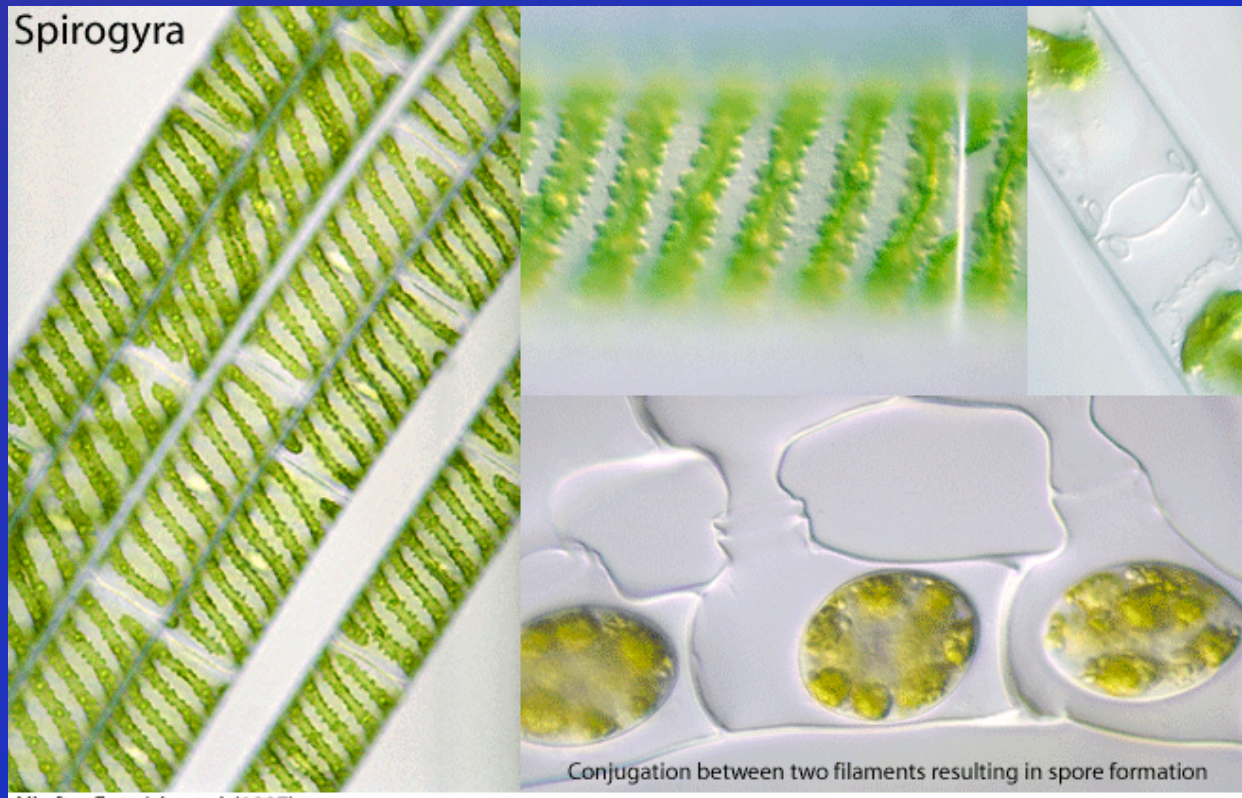
A © Y. Tsukii, see http://protist.i.hosei.ac.jp/Protist_menuE.html
B,C after Entwisle et al. (1997)





Spirogyra

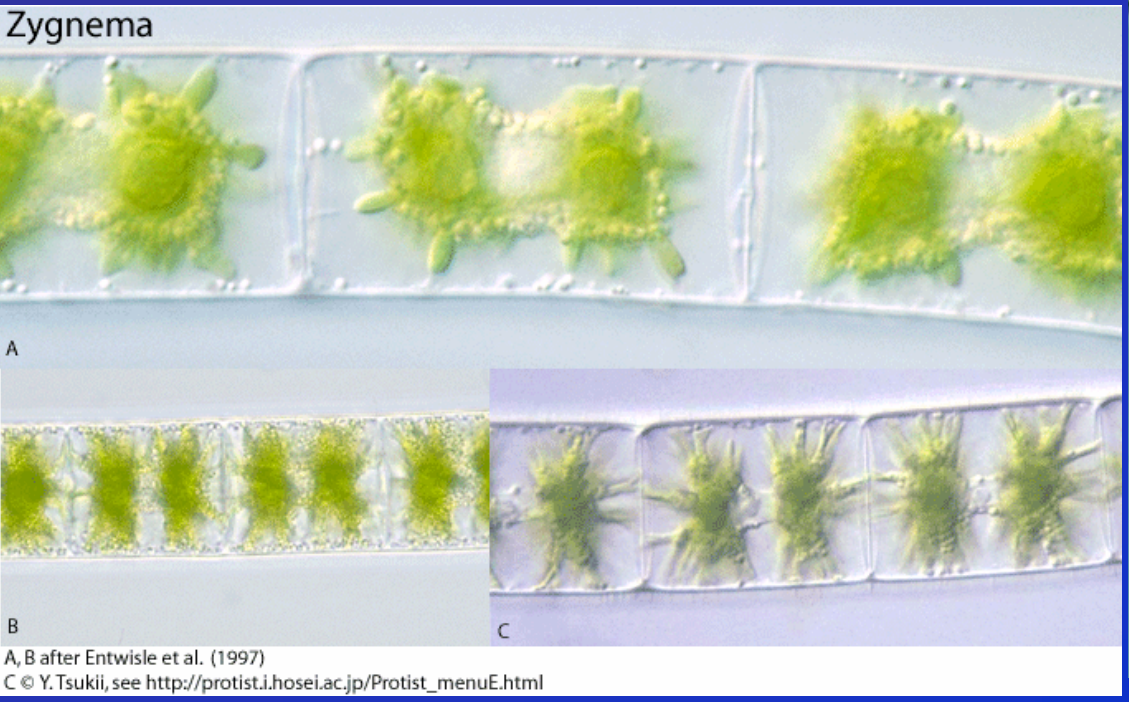
- trichální
- chloroplast spirální s pyrenoidy
- taxonomicky složitý



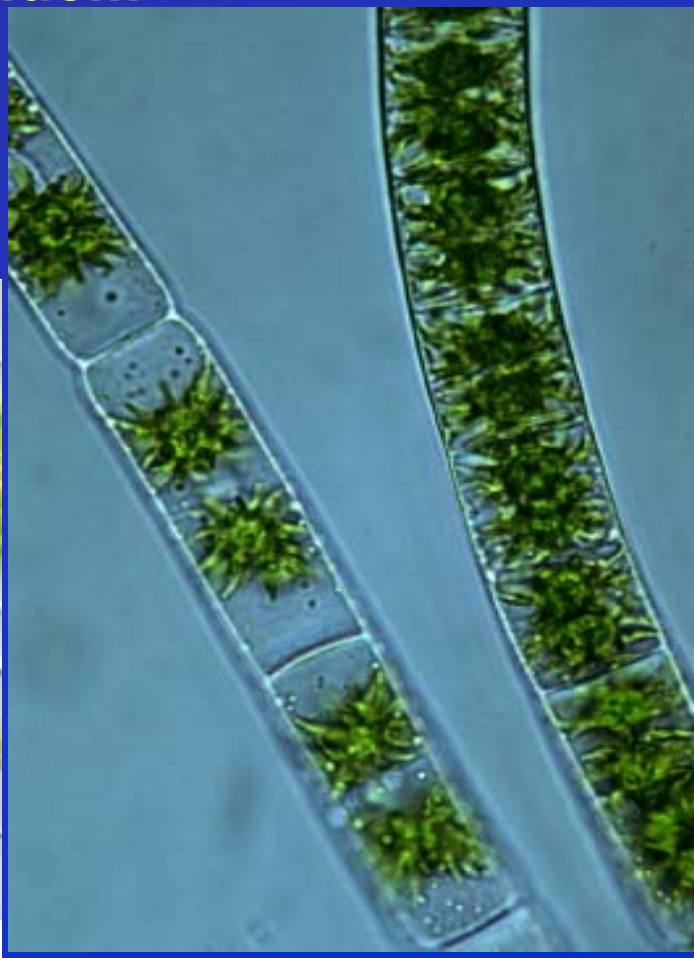
All after Entwisle et al. (1997)

Zygnema

- trichální
- chloroplast hvězdičkovitý s pyrenoidem
- taxonomicky složitý

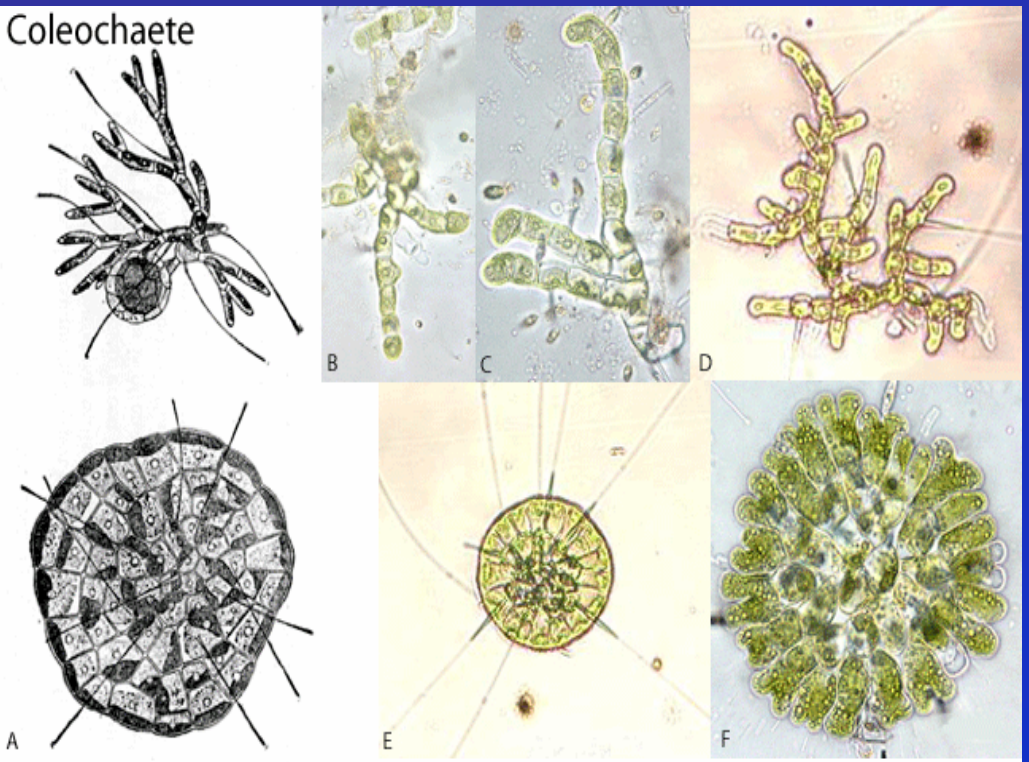


A, B after Entwisle et al. (1997)
C © Y. Tsukii, see http://protist.i.hosei.ac.jp/Protist_menuE.html



Coleochaete

- heterotrichální
- chloroplast s pyrenoidem
- epifyt



A after Smith (1950)
B, C, D, E, F © J. Kinross, see http://www.lifesciences.napier.ac.uk/JK/algalweb/algweb2.htm

Chara

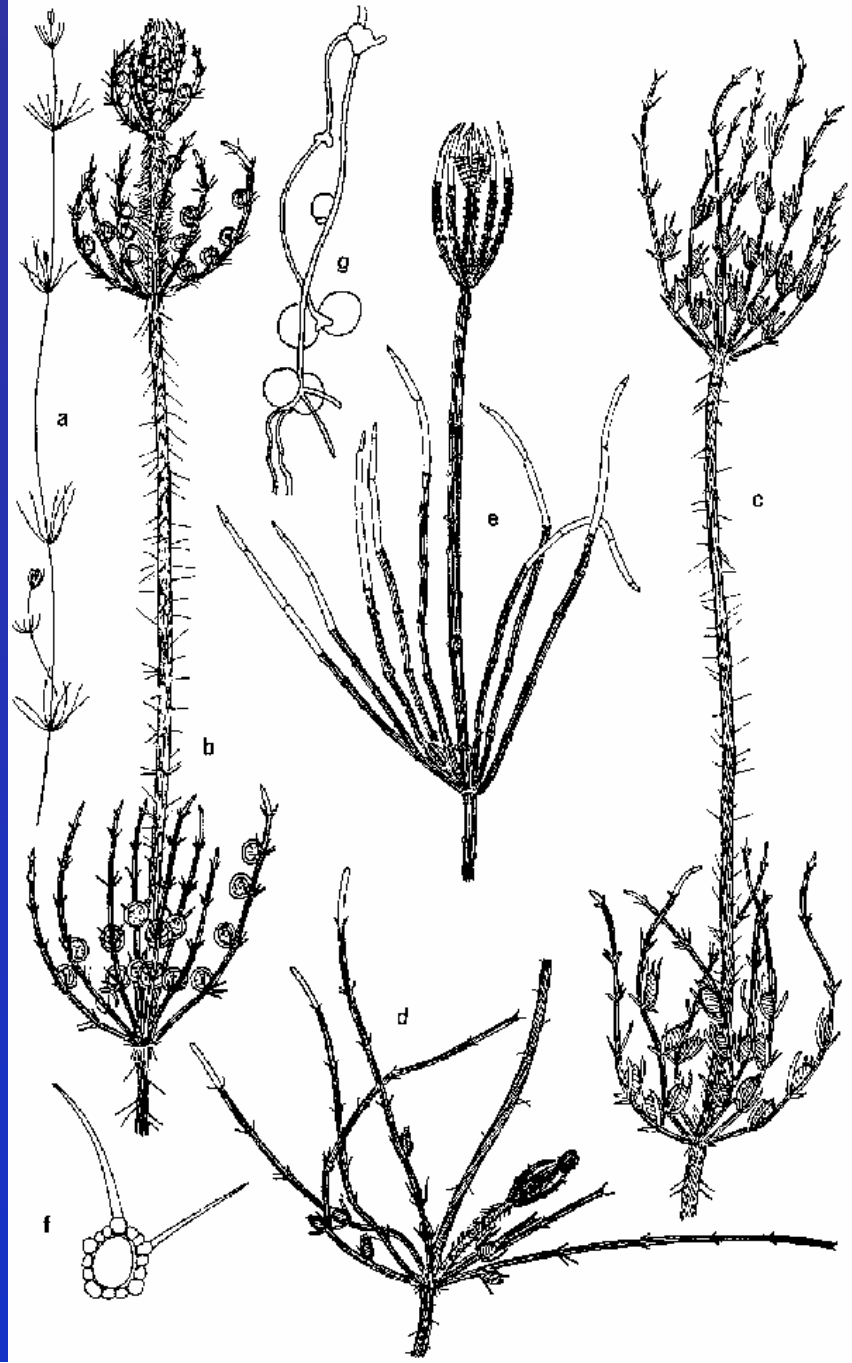
- nevětvené větvičky
- 5 koronárních buněk

Nitella

- větvené větvičky
- 10 koronárních buněk

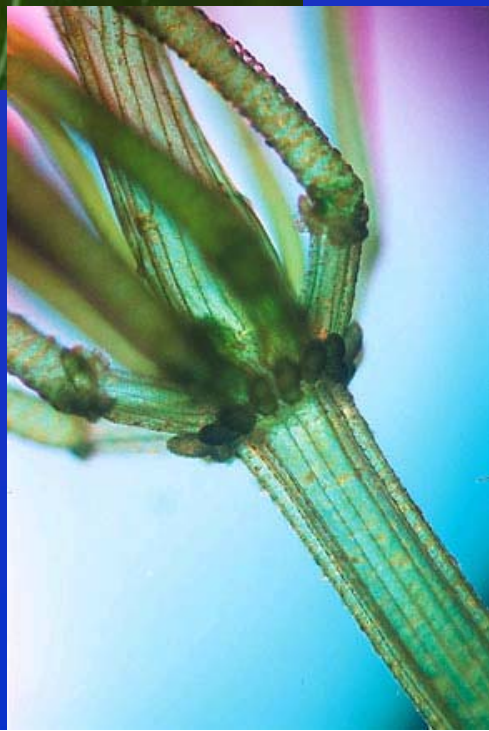
Ch. aspera

- 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

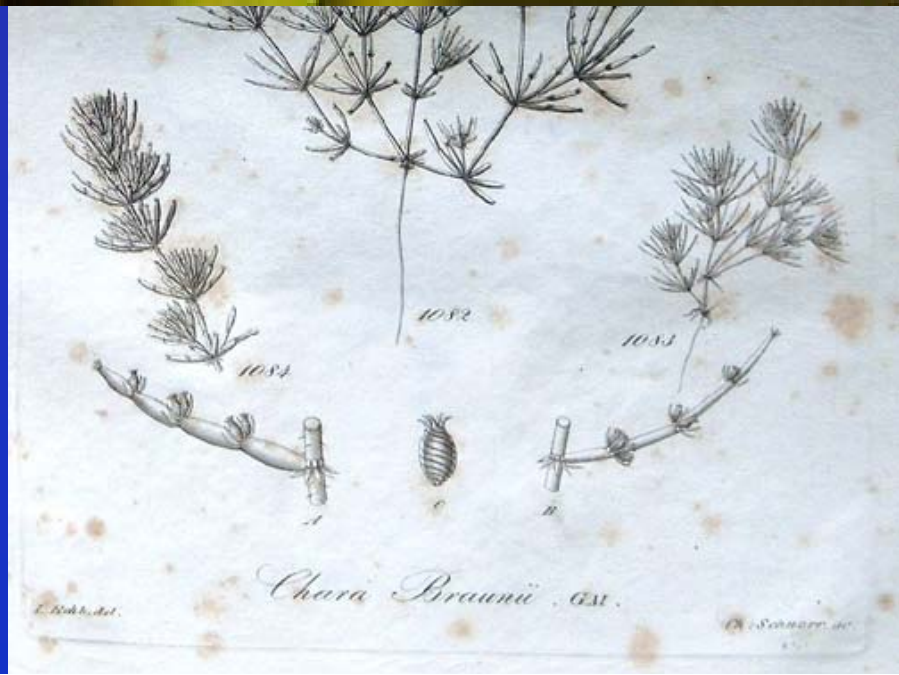


Ch. fragilis

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

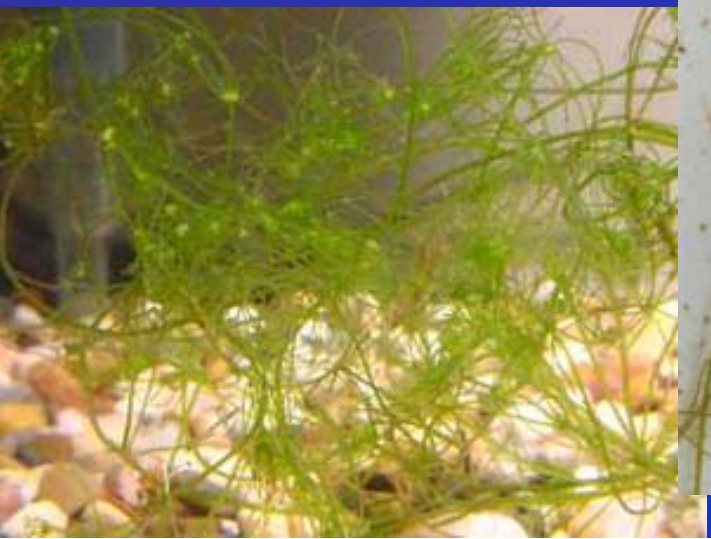
Ch. braunii

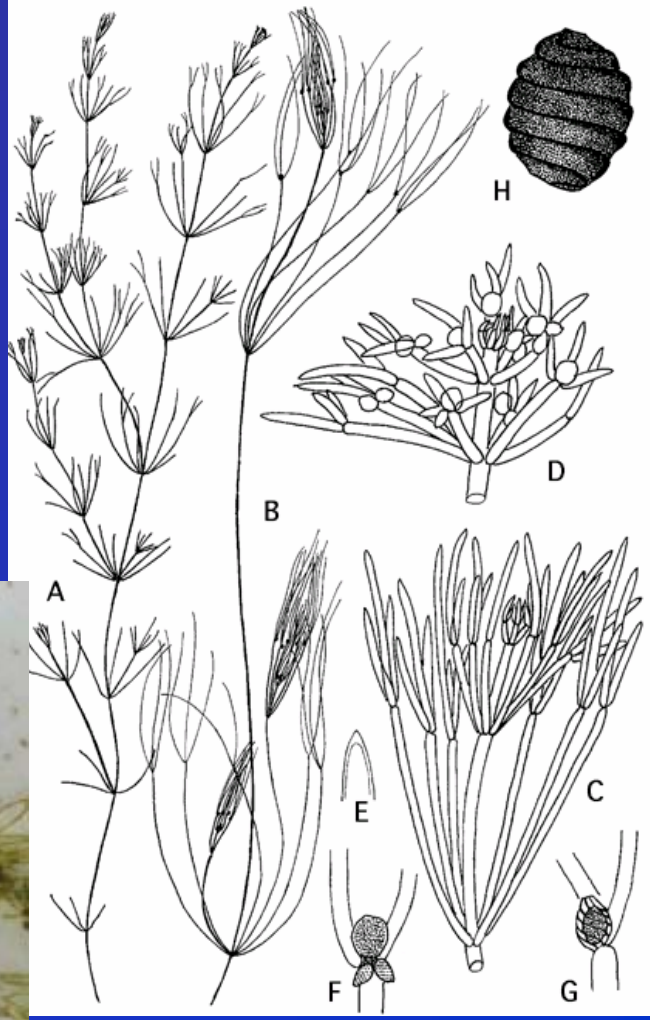
- světlezel. b.
- černá oogonia
- absence rýh
- řada nápadných stipul
- čisté vody, kaskády rybníků



N. flexilis

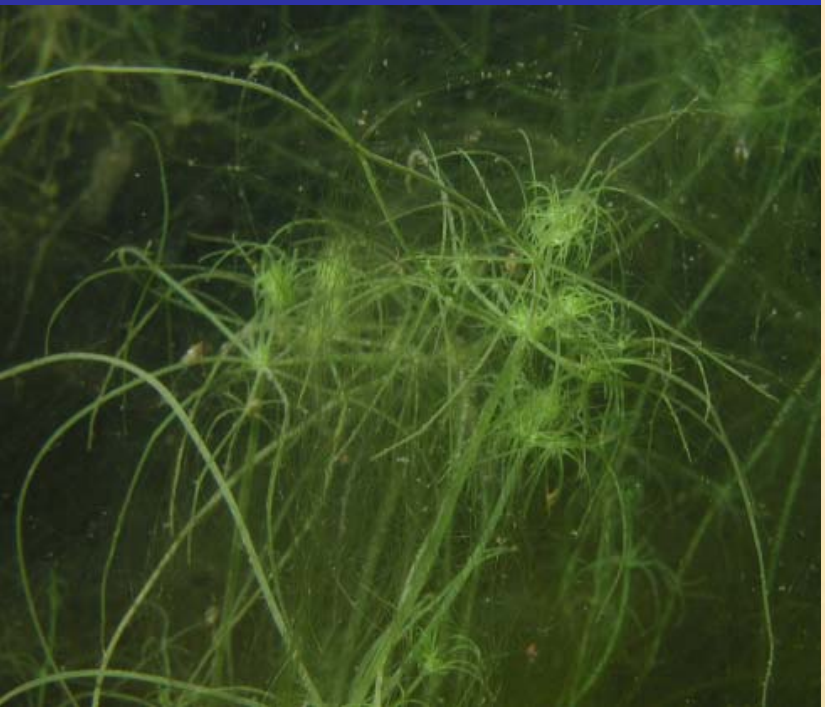
- světlezel. b.
- inkrustace
- vrcholové b. – tlustá buň. stěna
- běžná





N. mucronata

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



Děkuji za pozornost