

Systematic Botany. Lecture 27

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Outline

Questions and answers

Protista

Panalgae

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Panalgae

Previous final question: the answer

Name at least four algal groups (higher than genera)

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- ▶ Chromophyta, Phaeophyceae, Chrysophyceae, Dinzoa etc.

Protista

Panalgae

Ciliates—Pr-6

Phylum 33. CILIOPHORA [⁶*Paramecium*]

Subphylum ***Postciliodesmatophora*** [^{5,8}*Spirostomum*]

Classis 1(151). *Karyorelictea* [⁵*Trachelocera*]

2(152). *Heterotrichea* [⁵*Spirostomum*]

Subphylum ***Ventrata*** [^{5,8}*Paramecium*]

Classis 3(153). *Phyllopharyngea* [⁵*Podophrya*]¹⁰⁰

4(154). *Nassophorea* [⁵*Nassula*]¹⁰¹

5(155). *Colpodea* [⁵*Colpoda*]

6(156). *Prostomatea* [⁵*Prorodon*]

7(157). *Plagiopylea* [⁵*Plagiopyla*]

8(158). *Oligohymenophorea* [⁵*Paramecium*]

Subphylum ***Spirotrichia*** [^{5,8}*Oxytricha*]

Classis 9(159). *Protocruziidea* *Protocruzia* sed.m.

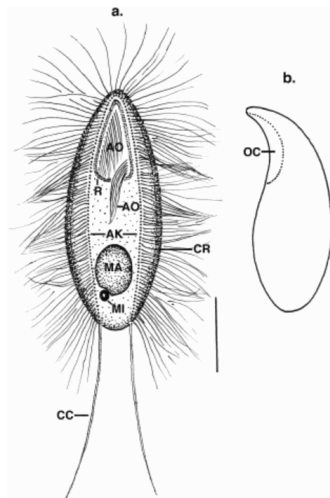
10(160). *Spirotrichea* [⁵*Oxytricha*]¹⁰²

Subphylum ***Lamellicorticata*** [^{5,8}*Clevelandella*]

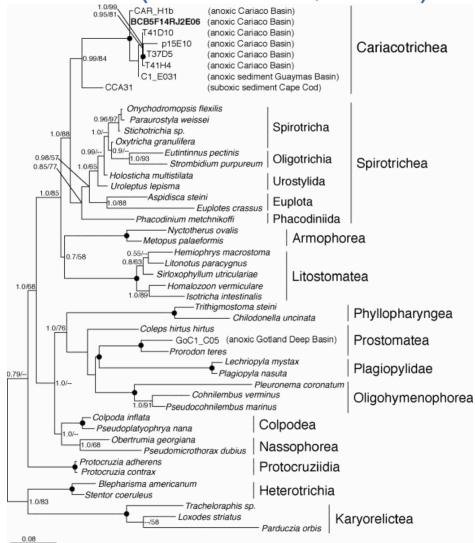
Classis 11(161). *Armophorea* [⁵*Clevelandella*]

12(162). *Litostomatea* [⁵*Spathidium*]

Cariacotrichea (Orsi et al., 2011)—new class of ciliates



Phylogeny of ciliates (Orsi et al., 2011)



Hacrobia—Pr-25, Pr-26

Infraregnum Hacrobia [^{6.5}*Cryptomonas*] s.m.

Phylum 34. CRYPTISTA [⁶*Cryptomonas*] s.a.

- Classis 1(163). *Cryptophyceae* [⁵*Cryptomonas*]¹⁰³
- 2(164). *Katablepharidea* [⁵*Katablepharis*] sed.m.¹⁰⁴
- 3(165). “*Biliphyta*” [⁵“*Biliphyta*”]¹⁰⁵
- 4(166). *Palpitomonadea* † [⁵*Palpitomonas*]
- 5(167). *Telonemea* [⁵*Telonema*] stat.m.

Phylum 35. CENTROHELIDA [⁶*Acanthocystis*] sed.m.

- Classis 1(168). *Holosea* [⁵*Luffisphaera*] i.s.¹⁰⁶
- 2(169). *Centrohelea* [⁵*Acanthocystis*]¹⁰⁷

Phylum 36. HAPTOPHYTA [⁶*Prymnesium*]

- Classis 1(170). *Prymnesiophyceae* [⁵*Prymnesium*]¹⁰⁸
- 2(171). “*Rappenomonadae*” [⁵“*Rappenomonas*”]¹⁰⁹

Lower Chlorobionta—Pr-33

Infraregnum Chlorobionta [^{6.5}*Volvox*]

Phylum 37. GLAUCOPHYTA [⁶*Glaucocystis*]

Classis 1(172). *Glaucophyceae* [⁵*Glaucocystis*]

Phylum 38. RHODOPHYTA [⁶*Bangia*]

Classis 1(173). *Cyanidiophyceae* [⁵*Cyanidium*]¹¹⁰

2(174). *Rhodellophyceae* s.a. [⁵*Rhodella*]¹¹¹

3(175). *Compsogonophyceae* [⁵*Compsopogon*]

4(176). *Bangiophyceae* [⁵*Bangia*]

5(177). *Florideophyceae* [⁵*Palmaria*]

Chlorophyta—Pr-28

Phylum 39. CHLOROPHYTA [⁶*Volvox*]* s.a.

Subphylum ***Chlorophytina*** [^{5,8}*Volvox*]

Classis 1(178). *Prasinococcophyceae* [⁵*Prasinococcus*]¹¹²

2(179). *Pyraminomonadophyceae* [⁵*Pyraminomonas*]

3(180). *Mamiellophyceae* [⁵*Mamiella*]

4(181). *Nephroselmidophyceae* [⁵*Nephroselmis*]* s.a.¹¹³

5(182). *Chlorodendrophyceae*[†] [⁵*Tetraselmis*]

6(183). *Trebouxiophyceae* [⁵*Chlorella*]¹¹⁴

7(184). *Chlorophyceae* [⁵*Volvox*]

8(185). *Ulvophyceae* [⁵*Ulva*]

Subphylum ***Charophytina*** [^{5,8}*Chara*]*

Classis 9(186). *Mesostigmatophyceae* [⁵*Mesostigma*]¹¹⁵

10(187). *Charophyceae* [⁵*Chara*]*¹¹⁶

Final question (2 points)

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Why it is still easy to find a new higher taxon (e.g., class) of protists?

For Further Reading



Margulis and Chapman. 2009.

Kingdoms and domains: an illustrated guide to the phyla of life on Earth. 4th edition.