

# Systematic Botany. Lecture 22

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# Outline

Questions and answers

Protista

Panmycota

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Protista

Panmycota

## Previous final question: the answer

Why fungi could be considered as protists?

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Why fungi could be considered as protists?

- ▶ Polyphyletic
- ▶ No tissues

## Primitive Basidiomycota (F-5)—basidial yeasts, smut and rust fungi

Phylum 20. BASIDIOMYCOTA [<sup>6</sup>*Agaricus*]

Subphylum *Ustilagomycotina* [<sup>5,8</sup>*Ustilago*]

Classis 1(65). *Exobasidiomycetes* [<sup>5</sup>*Exobasidium*]

2(66). *Ustilaginomycetes* [<sup>5</sup>*Ustilago*]

Subphylum *Pucciniomycotina* [<sup>5,8</sup>*Uredo*]

Classis 3(67). *Pucciniomycetes* [<sup>5</sup>*Uredo*]

4(68). *Atractiellomycetes* [<sup>5</sup>*Atractiella*]

5(69). *Cystobasidiomycetes* [<sup>5</sup>*Cystobasidium*]

6(70). *Agaricostilbomycetes* [<sup>5</sup>*Agaricostilbum*]

## Advanced Basidiomycota (F-5)—mushrooms

7(71). *Microbotryomycetes* [<sup>5</sup>*Microbotryum*]<sup>40</sup>

8(72). *Mixiomycetes* [<sup>5</sup>*Mixia*]

### Subphylum *Agaricomycotina* [<sup>5,8</sup>*Agaricus*]

Classis 9(73). *Wallemiomycetes* [<sup>5</sup>*Wallemia*] sed.m.<sup>41</sup>

10(74). *Bartheletiomycetes*<sup>†</sup> [<sup>5</sup>*Bartheletia*]

11(75). *Tremellomycetes* [<sup>5</sup>*Tremella*]

12(76). *Dacrymycetes* [<sup>5</sup>*Dacrymyces*]

13(77). *Agaricomycetes* [<sup>5</sup>*Agaricus*]

## Primitive Ascomycetes (F-4)—yeasts

Phylum 21. ASCOMYCOTA [<sup>6</sup>*Ascomyces*]<sup>42</sup>

Subphylum *Taphrinomycotina* [<sup>5,8</sup>*Ascomyces*]\*<sup>43</sup>

Classis 1(78). *Neoelectomyces* [<sup>5</sup>*Neoelecta*]

2(79). *Taphrinomycetes* [<sup>5</sup>*Ascomyces*]<sup>44</sup>

3(80). *Schizosaccharomyces* [<sup>5</sup>*Schizosaccaromyces*]<sup>45</sup>

4(81). *Saccharomyces* [<sup>5</sup>*Saccaromyces*]

## Advanced Ascomycetes (F-4)—molds and lichens

### Subphylum *Pezizomycotina* [<sup>5,8</sup>*Tuber*]

Classis 5(82). *Pezizomycetes* [<sup>5</sup>*Tuber*]

6(83). *Orbiliomycetes* [<sup>5</sup>*Orbililia*]

7(84). *Geoglossomycetes* [<sup>5</sup>*Geoglossum*]

8(85). *Lichniomycetes* [<sup>5</sup>*Lichnia*]

9(86). *Dothideomycetes* [<sup>5</sup>*Dothidea*]<sup>46</sup>

10(87). *Eurotiomycetes* [<sup>5</sup>*Penicillium*]

11(88). *Lecanoromycetes* [<sup>5</sup>*Lecanora*]<sup>47</sup>

12(89). *Laboulbeniomycetes* [<sup>5</sup>*Laboulbenia*]

13(90). *Leotiomycetes* [<sup>5</sup>*Leotia*]<sup>48</sup>

14(91). *Sordariomycetes* [<sup>5</sup>*Sordaria*]

## Final question (2 points)

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What are differences between Basidiomycota and Ascomycota?

## For Further Reading



Margulis and Chapman. 2009.

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