

Study Questions #5 and Quiz Questions #4
The Fungal Kingdom -- Fall 2006

Responses are due and will be discussed on Wednesday 8 November during lecture / workshop.

Quiz Questions

1. (a) Summarize the main evidence for the existence of common mycorrhizal networks (CMNs). (b) Why do you think their existence has been so widely accepted (at least among those highly enlightened individuals who study mycorrhizas)? (c) Summarize the main evidence against the existence of CMNs. (d) Based on the readings for Week 6 and any other relevant information you have, do you believe in CMNs? Why or why not? (20 pt)
2. Outline the processes involved and the changes that might occur to an initially free-living *Trebouxia* colony/cell as it becomes involved in a lichen symbiosis and eventually its offspring “escape” as soredia. Specifically focus on the algal perspective. (15 pts)

Study Questions

Complete questions 5-8 from last week

1. Why might a lichen have photomorphs? Explain and give several examples.
2. How are fungi (compared to bacteria) well adapted for the decomposition of plant matter but less competitive when decomposing animal remains?
3. Lichens are used to study air pollution. Explain how two different types of pollutants are accumulated by lichens and how they might affect the lichen. Be specific.
4. Construct a dichotomous key to the following 15 mushroom species: *Amanita lanei* (*calyptrata*), *A. ocreata*, *A. pantherina*, *Boletus* (*Xerocomus*) *chrysenteron*, *B. edulis*, *B. mirabilis*, *B. (X.) zelleri*, *Fomitopsis pinicola*, *Ganoderma applanatum*, *G. oregonense/tsugae*, *Leccinum* “*aurantiacum*,” *Laetiporus conifericola* (*sulphureus*), *Suillus brevipes*, *S. lakei*, *Trametes versicolor*.