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Homework on species concepts, speciation and punctuated equilibrium.

1. Compare and contrasts the biological, morphological or ecological definition of a species. Make sure you include definitions for each type of species in your answer.

2. a. What do peripatric and parapatric speciation have in common with allopatric speciation?

b. Compare and contrast allopatric and sympatric speciation.

c. Why do you suppose sympatric speciation has only been documented rarely?

3. On punctuated equilibrium. a. How could you determine if a phylogeny appears to evolve in a punctuated equilibrium or gradual manner?

b. What do we mean when we say that punctuated equilibrium theory predicts species selection?

c. What is the potential role of genetic drift in obtaining a punctuated equilibrium pattern of speciation with time?