

Lecture 10 Study Questions

1. What are the three main mechanisms of evolution? Which tend to make populations more different from each other genetically? More similar?
2. Does genetic drift have a greater or lesser effect when populations are small?
3. In the daddy longlegs reading, how did the scientists determine that there were 3 species instead of just 1?
4. A group of dandelion seeds arrive on a remote island and establish a new population. Initially, what mechanism of evolution would have the greatest effect? If the island was closer to the mainland, why might it be harder for the island population to speciate?
5. Two species of closely related owls live in the same forest. A phylogenetic analysis of the owls and their other relatives reveals that they share a common ancestor that also lived in the same forest. What type of speciation event likely produced the 2 owls?
6. Why is it so hard to come up with a single species concept that applies to all life?
7. Two male moose use their antlers to fight for access to a female for mating; what do we call this process in which males possessing certain traits (such as superior fighting ability) reproduce more than others?
8. What is taxonomy?