

Honors Biology Chapter 16 Natural Selection Problems

1. Anteaters have not always had the extremely long tongues they now use. Over the last 10 million years, their tongues have become impressively long. Which type of selection probably is working here and explain why.
 - A) directional
 - B) stabilizing
 - C) disruptive
2. Rabbits have a temperament that allows them to sit still most of the time, but allows them to get up and move before a predator gets too close. Rabbits that wait too long are removed from the gene pool. Rabbits that tend to move all the time are spotted by predators and eliminated with ease.
 - A) directional
 - B) stabilizing
 - C) disruptive
3. Oak trees have differentiated into species that produce many sizes of acorns. If there is a population of oak trees that has variation in acorn size, but a new squirrel population moves into the community and tends to select the medium sized acorns.
 - A) directional
 - B) stabilizing
 - C) disruptive
4. Please choose a species of organism that you have personally observed and explain how it may have developed its outstanding structural, behavioral, or physiological adaptations.

Choose only one adaptation that that population has. Please do the following:

1. Explain what the advantages of having the trait are to the population.
2. Explain how Darwin would have described its development using his theories of evolution.
3. Please classify the type of change as directional, stabilizing, or disruptive selection and explain why.