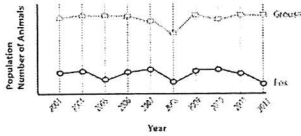


# Ecology Study Guide 1-5

- 1 According to the graph, in which year did the population of foxes show a decrease that is most likely the result of a decrease in the availability of a source of food?

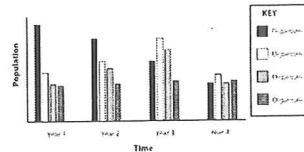


- A 2003  
**B 2008**  
 C 2005  
 D 2012
- 2 An increase in the population of an organism would most likely be associated with which of the following?
- A A series of severe weather events in the habitat  
**B A decrease in necessary resources available**  
 C An expansion of suitable living space  
 D An increase in animals that prey on the organism
- 3 What data would be most helpful to support the claim that the population of a certain plant is dependent on the rainfall in its habitat?
- A The average amount of water absorbed by the roots and given off by the leaves of these plants  
 B The amount of water retained in the soil in the area where the plants live  
**C Rainfall amounts and number of these plants in a certain habitat over several years**  
 D The heights and number of leaves produced by these plants under different moisture conditions

- 4 The milkweed plant serves an important role in the life cycle of the monarch butterfly. Adult monarchs lay their eggs on milkweed plants, and then caterpillars eat that same plant during their development. Based on the relationship between monarchs a

- A Population decrease in monarch butterflies should follow population decrease in milkweed.  
 B Population of monarch butterflies should remain constant when milkweed population decreases.  
 C Population increase in monarch butterflies should follow population decrease in milkweed.  
 D Population of milkweed should remain constant when monarch butterfly population increases.

- 5 The graph provides data on the populations of four organisms that share a habitat. This data supports a claim that which two organisms depend on each other?



- A Organism 1 and Organism 2  
**B Organism 2 and Organism 3**  
 C Organism 3 and Organism 4  
 D Organism 1 and Organism 4

# Ecology 6-10

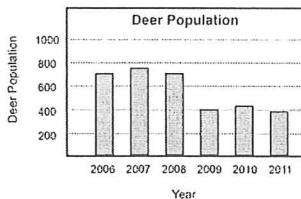
1 Eagles and grizzly bears live together in the same habitat. There will be competition between the eagles and the grizzly bears only if which of the following is true?

- A Grizzly bears hibernate during the winter while eagles remain active.
- B Pesticides in the fish population affect eagles' eggs and decrease their population.
- C Both grizzly bears and eagles feed on the same species of salmon.
- D Laws prevent humans from being able to hunt eagles or grizzly bears.

2 An increase in which of the following factors is likely to contribute to competition between two members of the same species living in a certain habitat?

- A Available food resources
- B Population of the species
- C Annual rainfall
- D Overall size of the habitat

3 The population of deer in a certain area is monitored over a period of six years. The data is represented in the graph provided. Which of the following is the most likely explanation for the change in population in 2009?



- A Wolves, which prey on deer, were being hunted more than usual.
- B Rainfall in the previous spring was higher than the yearly average.
- C Humans introduced grazing animals that feed on the same plants as the deer.
- D More insects that pollinate flowering plants move into the habitat.

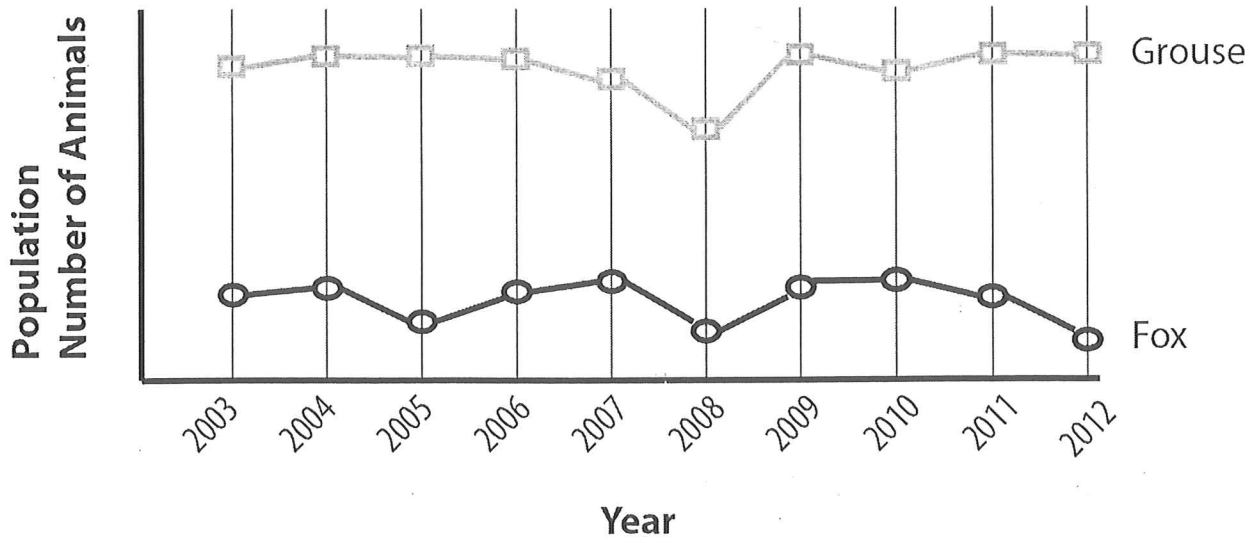
4 A student wants to investigate competition between two organisms. For the investigation, it is most important that the student should choose organisms that-

- A reproduce at the same rate.
- B are both active during the day.
- C have the same adaptations.
- D require the same resources.

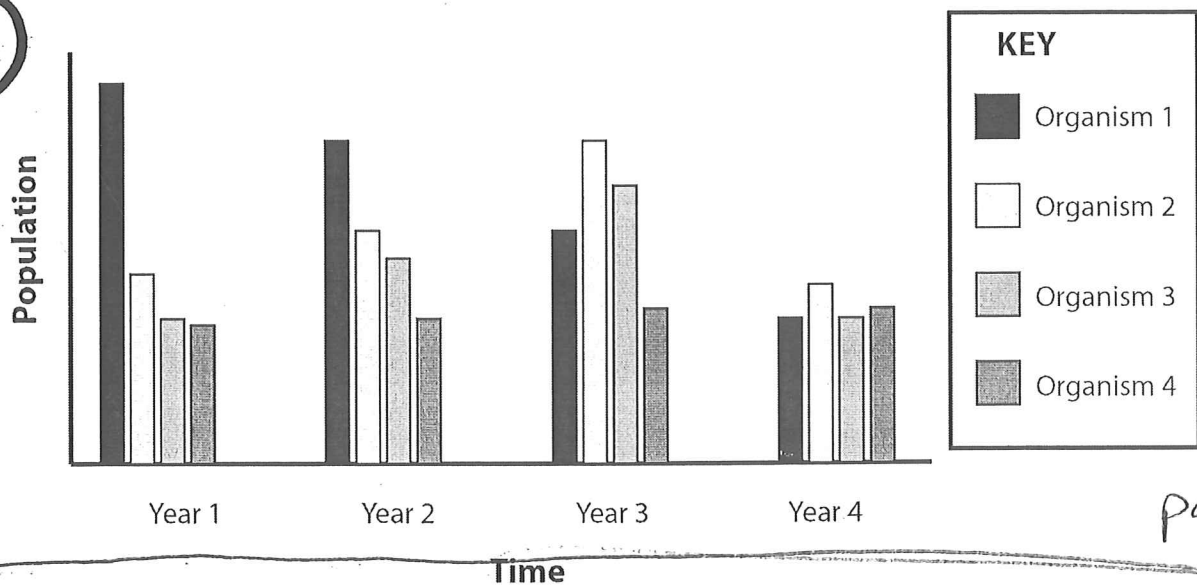
5 Two species of fish live in the same pond. They eat the same kinds of plants. They are eaten by the same water birds. Which of the following would increase competition between these two species of fish?

- A Average habitat temperature increases
- B Population of water birds increases
- C Number of food plants increases
- D Water level in the pond decreases

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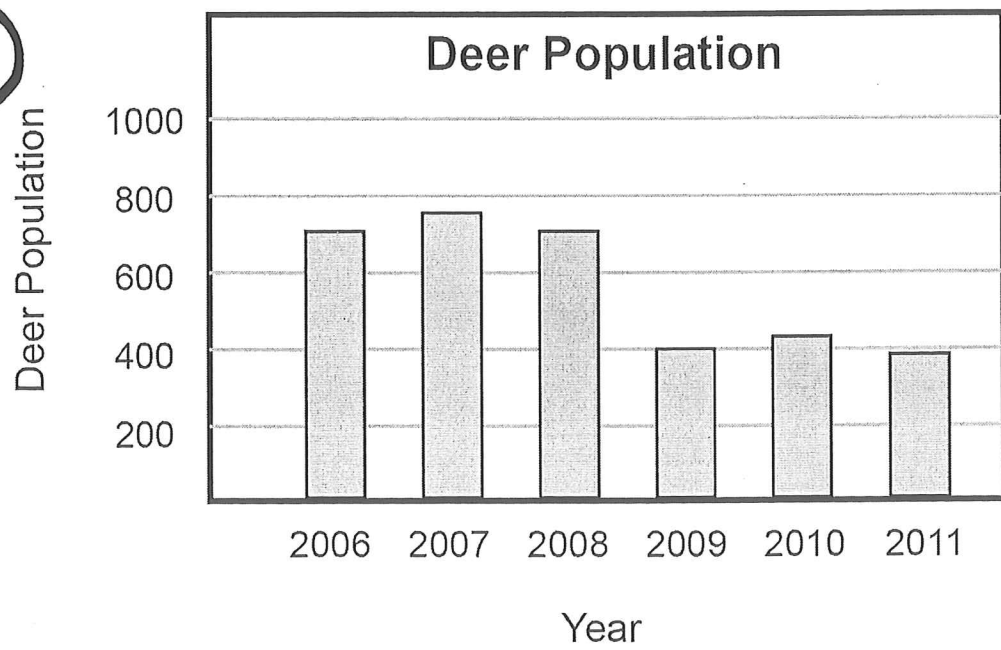


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