



CHAPTER 14

INTERACTIONS IN ECOSYSTEMS Chapter Test B

Multiple Choice

Choose the letter of the best answer. (15 credits)

- _____ 1. The European red squirrel population is declining due to competition with the North American gray squirrel. Most likely, what will eventually happen to the red squirrel?
 - a. It will win its competition with the gray squirrel.
 - b. It will be an ecological equivalent of the gray squirrel.
 - c. It will become extinct.
 - d. It will move to a different community.

- _____ 2. What word or phrase would be most appropriate opposite “commensalism” under “organism 2”?

Symbiosis 1	Organism 1	Organism 2	Example
Mutualism	Benefits	Benefits	Bee/Flowering Plant
Commensalism	Benefits		Human/Eyelash Mite
Parasitism	Benefits	Is Harmed	Dog/Flea

FIG. 14.1

- a. Neither Harms or Benefits
 - b. Is Harmed
 - c. Benefits
 - d. Benefits over Time
- _____ 3. The white-tailed deer and the kangaroo are both large herbivorous mammals that occupy similar niches but live on different continents. They are an example of
 - a. ecological equivalents.
 - b. competitors.
 - c. niche partitioning.
 - d. competitive exclusion.

- _____ 4. A herd of caribou has more births than deaths and more immigration than emigration. What will most likely happen to the size of the herd?
 - a. It will increase.
 - b. It will decrease.
 - c. It will increase, and then decrease.
 - d. It will stay the same.
- _____ 5. In 1988 several large forest fires occurred in Yellowstone National Park. What process occurred after these fires?
 - a. primary succession
 - b. secondary succession
 - c. pioneer succession
 - d. symbiotic succession
- _____ 6. Which statement is most likely true about the Daphnia population shown in the graph?

DAPHNIA POPULATION GROWTH

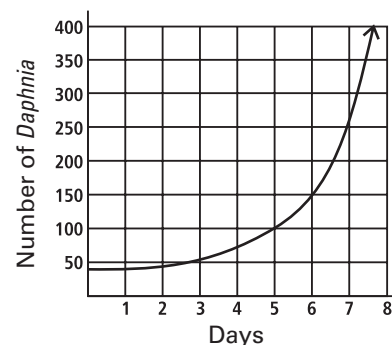


FIG. 14.2

- a. It has reached its carrying capacity.
- b. It has a large food supply.
- c. It has a small food supply.
- d. It will level off during day 8.

CHAPTER 14 Interactions in Ecosystems

CHAPTER TEST B, CONTINUED

- _____ **7.** Lions eat zebras. Zebras are part of the lion's
- biotic factors.
 - ecological niche.
 - local habitat.
 - abiotic conditions.
- _____ **8.** Parasitism is most similar to
- interspecific competition.
 - mutualism.
 - commensalism.
 - predation.
- _____ **9.** Fourteen beavers live in a pond with an area of 2 square kilometers. What is the population density of the beavers?
- 7 beavers per square kilometer
 - 14 beavers per square kilometer
 - 16 beavers per square kilometer
 - 28 beavers per square kilometer
- _____ **10.** An alder tree is not a pioneer species because
- alder trees are a form of lichen.
 - it is not one of the trees that make up the final forest.
 - smaller organisms come before trees in succession.
 - pioneer species are always animals.
- _____ **11.** Which of these is a density-independent limiting factor?
- any increase in population
 - the introduction of a parasite
 - a decrease in predators
 - an earthquake
- _____ **12.** The new island of Surtsey was formed near Iceland by a series of volcanic eruptions. Which of these processes occurred first on Surtsey?
- A complex ecosystem developed.
 - Volcanic rock broke down into soil.
 - Plants grew on the island.
 - Animals moved onto the island.
- _____ **13.** Many endoparasites lack complex digestive systems. Which is the most likely reason for this?
- Endoparasites eat only plants, which are easy to digest.
 - Endoparasites do not usually kill their hosts.
 - Endoparasites feed on food already digested by the host.
 - Endoparasites live only inside their hosts, not outside.
- _____ **14.** What might happen if an organism with type III survivorship were introduced into a new environment with no predators?
- It would become extinct.
 - Its survivorship would change to type I.
 - Its population would increase rapidly.
 - Its birth rate would decrease.
- _____ **15.** Bobcats are generally solitary and establish territories of a certain size where they hunt for food. What type of population dispersion would you expect bobcats to have?
- clumped dispersion
 - uniform dispersion
 - random dispersion
 - competitive dispersion