

Bio.12-Q1W3-H.W

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- ___ 1. Which country would you expect to have the greatest biodiversity?
 - a. Ecuador
 - b. United States
 - c. England
 - d. Norway
- ___ 2. You are studying a chain of islands in the Pacific Ocean. They all have similar climates, but some are larger than others. The largest island will probably offer the most —
 - a. biodiversity.
 - b. niches.
 - c. Both A and B
 - d. Neither A nor B
- ___ 3. Cyclosporine, an antirejection drug given to people with organ transplants, was originally isolated from —
 - a. willow bark.
 - b. penicillium mold.
 - c. a soil fungus.
 - d. rosy periwinkle.
- ___ 4. When the number of organisms within a species drops to a level so low that extinction is possible, what is the species called?
 - a. Endangered
 - b. Threatened
 - c. Degraded
 - d. Minimal
- ___ 5. Which of the following best describes the result of habitat fragmentation?
 - a. Increased biodiversity
 - b. Decreased biodiversity
 - c. No effect on biodiversity
 - d. Decreased water and land pollution
- ___ 6. The different conditions that arise along the boundaries of an ecosystem are called an edge effect. Which of the following is most likely to cause an increase in the edge effect in an ecosystem?
 - a. Habitat fragmentation
 - b. Acid precipitation
 - c. Habitat corridors
 - d. All of the above
- ___ 7. Some forms of pollution cause the soil within an ecosystem to become less fertile by removing its nutrients. Which of the following forms of pollutants is responsible for this loss of soil fertility?
 - a. Chlorofluorocarbons
 - b. Sulfur dioxide
 - c. DDT
 - d. Salt
- ___ 8. Which of the following most seeks to preserve habitats?
 - a. The U.S. Endangered Species Act of 1973
 - b. The Convention of International Trade in Endangered Species
 - c. Reintroduction programs
 - d. Establishment of national parks
- ___ 9. Which of the following species was NOT saved from extinction by being kept in captivity?
 - a. Ginkgo tree
 - b. California condor
 - c. Brown pelican
 - d. Black-footed ferret
- ___ 10. The major threat to biodiversity is _____.
 - a. habitat fragmentation
 - b. habitat loss
 - c. habitat degradation
 - d. exotic species
- ___ 11. The major focus of conservation biology is _____.
 - a. to prevent cruelty to animals
 - b. to keep animals in zoos for people to see
 - c. protect species from extinction
 - d. stop hunting
- ___ 12. Acid rain changes the pH of soil, killing some trees. This is an example of _____.
 - a. habitat fragmentation
 - b. habitat loss
 - c. habitat degradation
 - d. exotic species

- b. global warming problems d. exotic species

Table 5-1 shows the population sizes for 5 different species in four different areas.

Area	Species U	Species V	Species W	Species X	Species Y	Species Z
A	3	7	2	2	2	4
B	0	6	8	0	6	6
C	0	0	2	0	0	2
D	4	3	11	1	6	0

Table 5-1

- _____ 13. From Table 5-1, which species has the highest average population size?
- a. Species W c. Species Y
- b. Species X d. Species Z
- _____ 14. If the four areas in Table 5-1 were the only places in the world to find these organisms, which species most likely faces the greatest chance of extinction?
- a. Species U c. Species Y
- b. Species X d. Species Z
- _____ 15. Which area in Table 5-1 has the greatest biodiversity?
- a. Area A c. Area C
- b. Area B d. Area D
- _____ 16. If all four areas in Table 5-1 had identical climate and geology, which one would probably have the smallest area?
- a. Area A c. Area C
- b. Area B d. Area D

For many years orchid collectors searched Exotic Islands for the beautiful Kimmarie Orchid, which is found no place else in the world. After they found the orchid, they brought it back to their homes. In the last couple of years the Kimmarie Orchid has not been found on the island. As a result, hobbyists are now sending the Kimmarie Orchid to be replanted on the island.

- _____ 17. The Kimmarrie Orchid became extinct in the wild due to _____.
 - a. habitat loss
 - b. exotics
 - c. habitat degradation
 - d. overcollection
- _____ 18. The hobbyists are trying to correct the Kimmarrie Orchid problem they caused by using _____.
 - a. exotic species
 - b. a reintroduction program
 - c. habitat corridors
 - d. habitat fragments
- _____ 19. Island A has an area of 30 square kilometers. Island B has an area of 400 square kilometers. The islands are near each other. Which of the following statements is most likely to be true?
 - a. Island A has greater biodiversity and a higher percentage of edge effect than Island B.
 - b. Island A has less biodiversity and a higher percentage of edge effect than Island B.
 - c. Island A has greater biodiversity and a lower percentage of edge effect than Island B.
 - d. Island A has less biodiversity and a lower percentage of edge effect than Island B.
- _____ 20. Consider the following pairs of organisms: large predators and small predators; large herbivores and small herbivores; and migratory animals and non-migratory animals. The two animals most likely to suffer the most from habitat fragmentation are the _____.
 - a. large predators and migratory animals

- b. large herbivores and large predators
 - c. non-migratory animals and small herbivores
 - d. migratory animals and large herbivores
- ___ 21. Which one of the following is NOT a cause of acid precipitation?
- a. sulfur dioxide from burning coal
 - b. nitrogen oxides from car exhaust
 - c. destruction of the ozone layer
- ___ 22. Carnivorous birds that fed on organisms exposed to this chemical produced fragile eggs. The chemical is ____.
- a. CFC
 - b. DNA
 - c. DDT
 - d. nitrogen oxide
- ___ 23. Which is NOT true of the U.S. Endangered Species Act?
- a. It was responsible for the creation of Yellowstone National Park.
 - b. President Nixon signed it into law in 1973.
 - c. It was partially responsible for the recovery of some threatened species.
 - d. Other countries have created similar laws.
- ___ 24. A conservation biology organization wants to raise money to buy a strip of land to connect Protected Area A to Natural Park Area B. This strip would most likely serve ____.
- a. as a road for tourists
 - b. as a wildlife corridor
 - c. to fragment the habitat
 - d. to slow ozone destruction
- ___ 25. Which of the following species is extinct?
- a. American bald eagle
 - b. bison (buffalo)
 - c. passenger pigeon
 - d. giant panda
- ___ 26. Water and air pollution are examples of ____.
- a. habitat fragmentation
 - b. habitat degradation
 - c. edge effect
 - d. sustainable use
- ___ 27. If the communities in Figure 5-4 were put in order of least to most biological diversity, they would be ____.

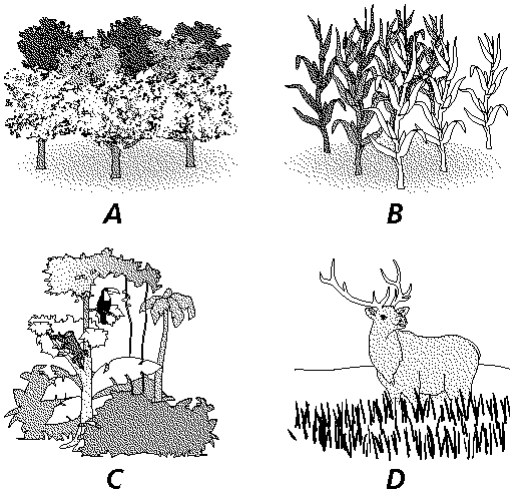


Figure 5-4

- a. ABCD
- b. CADB
- c. DBCA
- d. BDAC

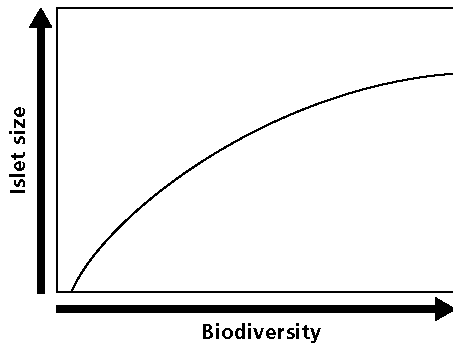


Figure 5-5

- ___ 28. What does the graph in Figure 5-5 tell you?
- the farther from land, the more biodiversity
 - the larger the islet, the more biodiversity
 - islet size and biodiversity are not related
 - biodiversity decreases with islet size
- ___ 29. Using the graph in Figure 5-5, extrapolate what would happen to biodiversity on a large island or continent.
- biodiversity would increase greatly
 - biodiversity would decrease greatly
 - biodiversity would first increase, then decrease
 - biodiversity would remain constant
- ___ 30. Using the information from the graph in Figure 5-5, predict what would happen to biodiversity if the ocean level increased.
- it would increase
 - it would remain the same
 - it would decrease
 - it would disappear

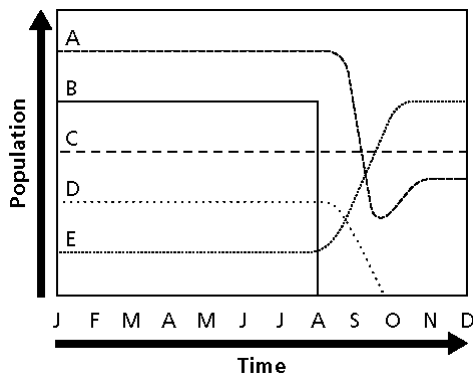


Figure 5-6

- ___ 31. What happened to species B in the graph shown in Figure 5-6?
- it increased in biodiversity
 - it decreased in population slightly
 - it became carnivorous
 - it became extinct
- ___ 32. What effect did the loss of species B have on species A and D in Figure 5-6?
- it caused the populations of A and D to decrease
 - it caused the populations of A and D to increase
 - it caused the populations of A and D to become extinct
 - it had no effect on the populations of A and D
- ___ 33. Suggest what happened to species E in Figure 5-6.
- it became extinct
 - it stopped eating species B

- b. it replaced species B in its niche d. it started eating species A

Table:
Populations and Extinctions

Island	Area (km ²)	Initial No. of Species	Extinctions
A	850,000	175	25
B	300,000	140	35
C	90,000	80	50

Figure 5-7

- ____ 34. What is the percent loss of species on island A, according to Figure 5-7?
- a. 12.5% c. 25%
- b. 14% d. 30%
- ____ 35. What factor, according to the data in Figure 5-7, has the greatest impact on species loss?
- a. the original number of species c. the area of the island
- b. the distance from the mainland d. the climate
- ____ 36. Using Figure 5-7, predict what the approximate species loss would be on an island that is 500,000 km² in size.
- a. less than 25 c. between 35 and 50
- b. between 25 and 35 d. more than 50

Modified True/False

Indicate whether the statement is true or false.

- ____ 37. Ecologists work with local people to find ways to protect wildlife habitats. _____
- ____ 38. The number of species in an area is a measure of biodiversity. _____
- ____ 39. Temperate deciduous forests have more biodiversity than any other terrestrial biome.

- ____ 40. A conservation biologist's main concern is protecting biodiversity. _____
- ____ 41. Habitat fragmentation is the biggest threat to biodiversity. _____
- ____ 42. The pesticide CFC damaged the eggs of the American bald eagle. _____
- ____ 43. When roads cut across natural areas, this produces habitat fragmentation. _____
- ____ 44. A plot of protected land may have different conditions at the edges than in the middle. This is known as corridor effect. _____
- ____ 45. A species that is brought to a place where it never lived is considered a(n) native species.
