

Assessment

Chapter Test C

Populations and Communities

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

- _____ 1. Weather and climate are environmental conditions that affect populations and are known as
- density-dependent factors.
 - density-independent factors.
 - logistical factors.
 - diversity factors.
- _____ 2. Some interactions among species are the result of a long evolutionary history in which the species
- feed on one another.
 - avoid one another.
 - coevolve due to mutual influence.
 - cause other species to become extinct.
- _____ 3. A long-term relationship in which both participating species benefit is known as
- parasitism.
 - mutualism.
 - predation.
 - commensalism.
- _____ 4. Thorns, spines, and toxic compounds are examples of
- symbiosis.
 - coevolution.
 - plant/animal interaction.
 - plant defenses.
- _____ 5. An example of an internal human parasite is a
- hookworm.
 - flea.
 - mosquito.
 - tick.
- _____ 6. Some orchids and trees are
- parasites.
 - predators.
 - mutualistic.
 - commensalistic.

Chapter Test C *continued*

- _____ 7. All the ways in which an organism interacts with its environment make up its
- ecosystem.
 - niche.
 - habitat.
 - community.
- _____ 8. Resources for which species compete include which of the following?
- living space
 - light
 - food
 - All of the above
- _____ 9. A fundamental niche is
- the largest niche where a species can live without competition.
 - the place where an organism lives.
 - the competition habits of an organism.
 - a major biological community.
- _____ 10. The total niche an organism is potentially able to occupy within an ecosystem is its
- realized niche.
 - habitat.
 - fundamental niche.
 - community.
- _____ 11. Carrying capacity is the
- largest population an environment can support at any given time.
 - the maximum number of offspring a female can support at one time.
 - the amount of evolutionary change that is possible in a species.
 - the number of competitors in a population at one time.
- _____ 12. The principle of competitive exclusion states that if two species are competing, the species that uses the resource more efficiently will eventually
- increase its use of the common resource.
 - grow exponentially and then level off.
 - eliminate the other species entirely.
 - eliminate the other species locally.
- _____ 13. Areas that have a high degree of biodiversity
- experience greater stability in adverse conditions.
 - demonstrate more competition for resources among species.
 - generally have less living space per species.
 - experience an overall reduction in resources.

Chapter Test C *continued*

- _____ 14. Predation can increase biodiversity by
- a. reducing the numbers of overcrowding prey species.
 - b. increasing competition for resources among prey species.
 - c. increasing the number of pollinators in an area.
 - d. None of the above
- _____ 15. Which of the following does *not* represent a population?
- a. all the robins in Austin, Texas
 - b. all the grass frogs in a pond in Central Park, New York City
 - c. all the birds in Chicago, Illinois
 - d. all the black bears in Yosemite National Park

In the space provided, write the letter of the description that best matches each term.

- | | |
|-----------------------------|--|
| _____ 16. carrying capacity | a. I'm so important; this ecosystem will collapse without me. |
| _____ 17. realized niche | b. This isn't where I can possibly function if necessary, but where I function <i>best</i> . |
| _____ 18. fundamental niche | c. Let me flower in your branches; you'll never know I'm here! |
| _____ 19. coevolution | d. I'll clean your teeth if you will protect me from predators. |
| _____ 20. mutualism | e. If I have to, I can function in a wider range, but I might not like it. |
| _____ 21. commensalism | f. I may change if you change because we're a team. |
| _____ 22. keystone species | g. There's just not enough to go around; something has to give! |

Read each question, and write your answer in the space provided.

23. If you were determining how the size of a population might change, what four features of the population would you examine?
