



Name: _____ Date: _____

CASE STUDY

How do species interactions shape ecosystems (p 173)



1. What types of trees were overgrazed by elk? _____
2. How did overgrazing affect beaver populations? _____
3. When were wolves reintroduced to Yellowstone? _____

6.1 Habitats, Niches, and Species Interactions

4. The actual place an organism lives is called its _____
5. Each microhabitat has its own set of environmental conditions called its _____
6. _____ refers to the range of environmental conditions where an organism can survive?
7. If conditions rise above or fall below this range, organisms experience _____
8. A _____ describes where an organism lives and what it does for a living.
9. Each species in a habitat occupies a separate niche. Where in a tree does the Cape May Warbler live (fig 6-3)

10. Competition between members of the same species is called _____ competition.
11. (Fig 6-4) What happens to *P. caudatum* when it's grown with *P. aurelia*?

12. What principle states that no two species can occupy the same niche? _____
13. Explain how the North American Warblers illustrate this principle:

14. If wolves catch elk more often in open space, what will elk do? _____
15. _____ affect the size and distribution of plant populations in a community.

Keystone Species

16. What are the main "enemies" of kelp forests? _____
17. What controls their population? _____
18. A _____ species plays a vital role in maintaining structure and stability of an ecosystem
19. What animal is currently threatening otter populations? _____
20. What type of symbiosis occurs when one organism benefits but the other doesn't benefit but is not harmed?

21. What type of symbiosis occurs when both organisms benefit? _____
What example is given for this type of symbiosis? _____
22. A relationship where one organism benefits and the other is harmed is called _____
What example is given for this type of symbiosis? _____



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6.2 Succession

1. Ecological succession refers to a series of somewhat _____ events that occur over time.
2. The first species to colonize barren areas are called _____ species.
3. What type of species grows on bare rock? _____
4. Secondary succession occurs after a _____
that doesn't completely destroy the community.
5. Secondary succession often follows _____ or hurricanes.
6. How is primary succession different from secondary succession?



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7. Areas that proceed through the stages of selection eventually form a stable _____ community.
 8. Why might the original community not return after the clearcutting of a rainforest? _____
 9. What disturbance occurred at Mount St. Helens? _____

6.3 Biodiversity, Ecosystems and Resilience

10. _____ can be defined as the variety and variability of animals and plants.
11. Species diversity refers to the number of different _____ living in an area.
12. How does biodiversity benefit humans with regard to medicine? _____
13. How does biodiversity benefit humans with regard to agriculture? _____
14. _____ describes a system's ability to recover after a disturbance.
15. How does a resilient microbiome help soil? _____
16. How do algae and plants help water? _____
17. How do healthy ecosystems affect carbon? _____
18. How do healthy ecosystems buffer the effects of coastal wetlands? _____

CASE STUDY

19. How did wolves shape the ecosystem of Yellowstone?

20. Wolves still remain a controversial issue in areas where ranchers keep sheep and other livestock. What strategies could be put in place to reduce the number of livestock lost to wolves?