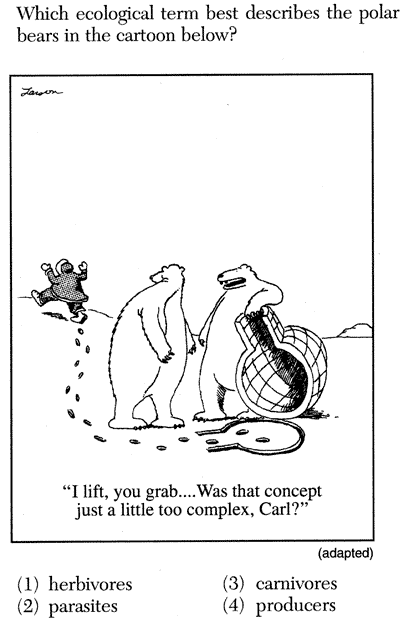
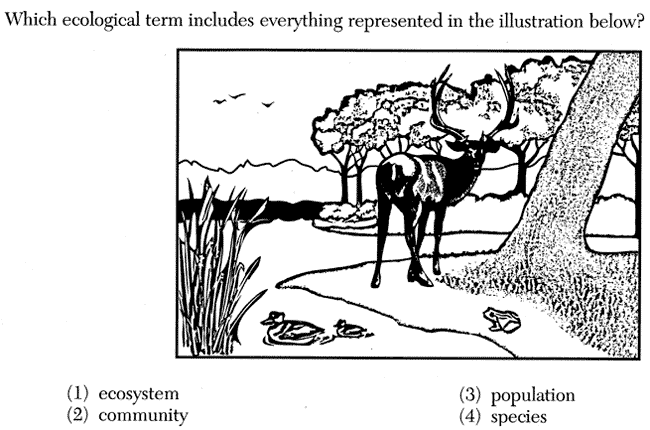
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Ecology Assessment

1. An environment can support only as many organisms as the available energy, minerals, and oxygen will allow. Which term is best described by this statement
   1. Biological feedback
   2. Carrying capacity
   3. Homeostatic control
   4. Biological diversity
2. Which ecological term best describes the polar bears in the cartoon below?



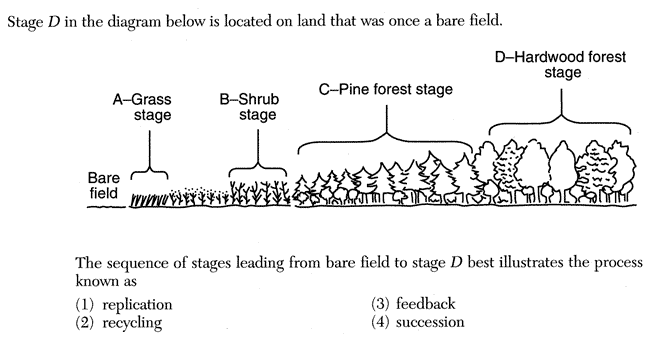
* 1. Herbivores
  2. Parasites
  3. Carnivores
  4. Producers

1. Decomposers are important in the environment because they
   1. Convert large molecules into simpler molecules that can then be recycled
   2. Release head from large molecules so that the hear can be recycles through the ecosystem
   3. Can take in carbon dioxide and convert into oxygen
   4. Convert molecules of dead organisms into permanent biotic parts of an ecosystem
2. Which ecological term includes everything represented in the illustration below?



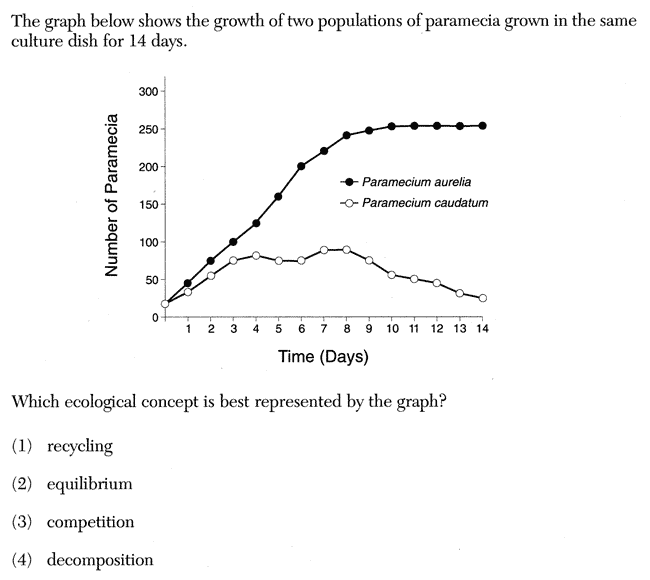
* 1. Ecosystem
  2. Community
  3. Population
  4. Species

1. Stage D in the diagram below is located on land that was once a bare field. The sequence of stage leading from bare field to stage D best illustrates the process known as



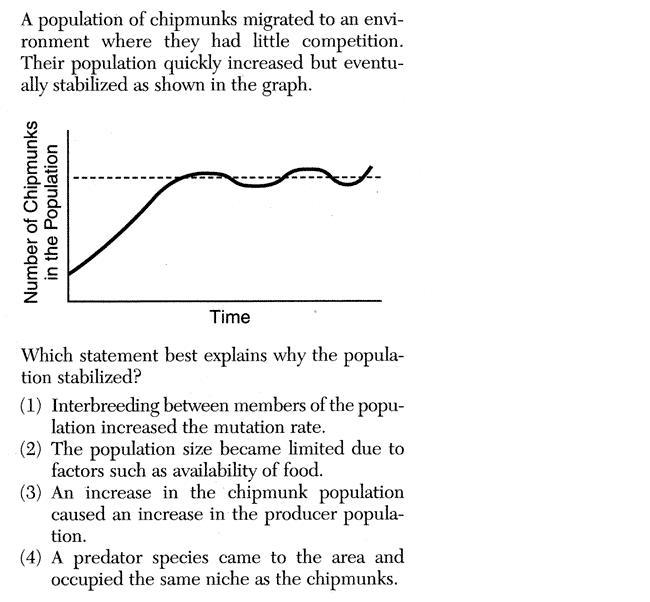
* 1. Replication
  2. Recycling
  3. Feedback
  4. Succession

1. Dodder is a creeping vine that is parasitic on other plants. Which characteristic does dodder share with all other heterotrophs?
   1. It produces nutrients by photosynthesis
   2. It must grow in bright locations
   3. It consumes preformed organic molecules
   4. It remains in one place for its entire life
2. Which of organisms would be in greatest danger of becoming extinct?
   1. A population of organisms having few variations living in a stable environment
   2. A population of organisms having few variations living in an unstable environment
   3. A population of organisms having many variations living in a stable environment
   4. A population of organisms having many variations living in an unstable environment
3. Communities have attempted to control the size of mosquito populations to prevent the spread of certain diseases such as malaria and encephalitis. Which control method is most likely to cause the least ecological damage?
   1. Draining the swamps where mosquitoes breed
   2. Spraying swamps with chemical pesticides to kill mosquitoes
   3. Spraying oil over swamps to suffocate mosquito larvae
   4. Increasing populations of native fish that feed on mosquito larvae in the swamps
4. In a forest community, a shelf fungus and a slug live on the side of a decaying tree trunk. The fungus digests and absorbs materials from the tree, while the slug eats algae growing on the outside of the trunk. These organisms do not compete with one another because they occupy
   1. The same habitat, but different niches
   2. The same niche, but different habitats
   3. The same niche and the same habitat
   4. Different habitats and different niches
5. The graph below shows the growth of two populations of paramecia grown in the same culture dish for 14 days. Which ecological concept is best represented by the graph?



* 1. Recycling
  2. Equilibrium
  3. Competition
  4. Decomposition

1. A population of chipmunks migrated to an environment where they had little competition. Their population quickly increased but eventually stabilized as shown in the graph. Which statement best explains why the population stabilized?



* 1. Interbreeding between members of the population increased the mutation rate
  2. The population size became limited due to factors such as availability of food
  3. An increase in the chipmunk population caused an increase in the producer population
  4. A predator species came to the area and occupied the same niche as the chipmunks

1. If humans remove carnivorous predators such as wolves and coyotes from an ecosystem, what will probably be the first observable results?
   1. The natural prey will die off
   2. Certain plant populations will increase
   3. Certain herbivores will exceed carrying capacity
   4. The decomposers will fill the predator niche
2. What situation has had the most negative effect on the ecosystem of Earth?
   1. Use of air pollution controls
   2. Use of natural predators to control insect pests
   3. Recycling glass, plastic, and metal
   4. Increasing human population
3. In an ecosystem, the presence of many different species is critical for the survival of some forms of life when
   1. Ecosystems remain stable over long periods of time
   2. Significant changes occur in the ecosystem
   3. Natural selection does not occur
   4. The finite resources of earth increase
4. Which animal has modified ecosystems more than any other animal and has had the greatest negative impact on world ecosystems?
   1. Gypsy moth
   2. Zebra mussel
   3. Human
   4. Shark