

Chapter 28 Ecosystems

Due June 5th

Read pgs. 221-226 and Answer questions 1-35

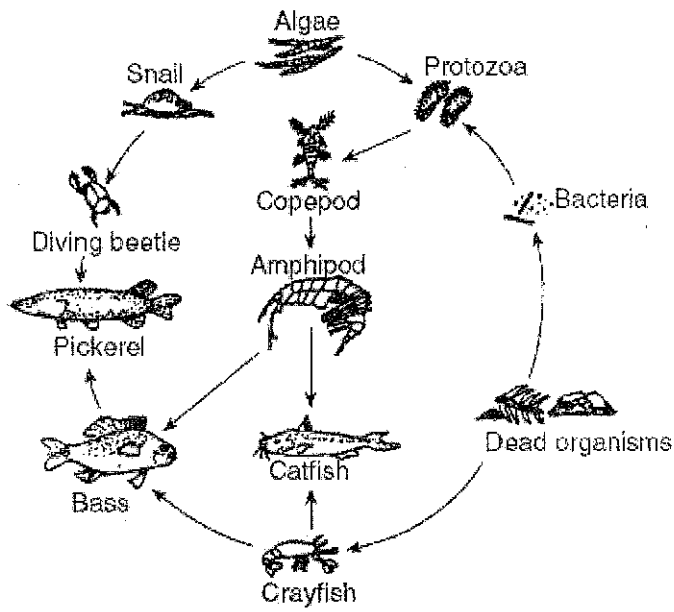
Then complete Check for Understanding #4 (You received these in your last packet #31-40)

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|------------|------------|------------|
| 1.) _____ | 14.) _____ | 27.) _____ |
| 2.) _____ | 15.) _____ | 28.) _____ |
| 3.) _____ | 16.) _____ | 29.) _____ |
| 4.) _____ | 17.) _____ | 30.) _____ |
| 5.) _____ | 18.) _____ | 31.) _____ |
| 6.) _____ | 19.) _____ | 32.) _____ |
| 7.) _____ | 20.) _____ | 33.) _____ |
| 8.) _____ | 21.) _____ | 34.) _____ |
| 9.) _____ | 22.) _____ | 35.) _____ |
| 10.) _____ | 23.) _____ | |
| 11.) _____ | 24.) _____ | |
| 12.) _____ | 25.) _____ | |
| 13.) _____ | 26.) _____ | |

31 A food web is more stable than a food chain because a food web

- 1 transfers all of the producer energy to herbivores
- 2 reduces the number of niches in the ecosystem
- 3 includes alternative pathways for energy flow
- 4 includes more consumers than producers

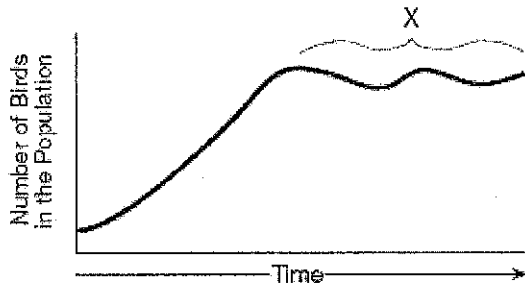
32 A food web is shown below.



Which organisms feed on *both* producers and decomposers?

- 1 amphipods
- 2 catfish
- 3 crayfish
- 4 protozoa

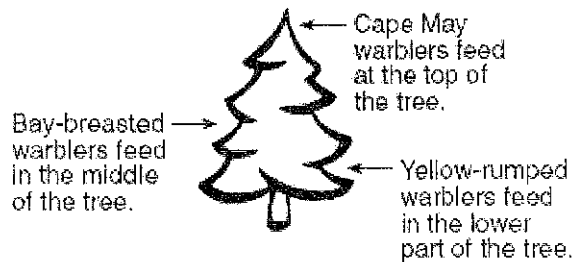
33 The graph below shows the number of birds in a population.



Which statement best explains section *X* of the graph?

- 1 Interbreeding between members of this population increased the mutation rate.
- 2 An increase in the bird population caused an increase in the producer population.
- 3 The population reached a state of dynamic equilibrium due to limiting factors.
- 4 Another species came to the area and provided food for the birds.

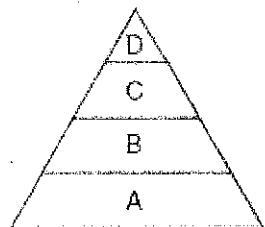
34 The feeding niches of three bird species are shown in the diagram below.



What is the advantage of these different feeding niches for the birds?

- 1 less competition for food
- 2 fewer abiotic resources for each bird species
- 3 fewer biotic resources for each bird species
- 4 less energy available as the birds feed higher in the tree

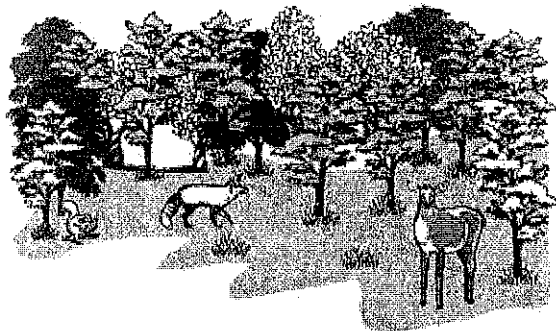
35 The diagram below represents an energy pyramid.



At each successive level from A to D, the amount of available energy

- 1 increases, only
- 2 decreases, only
- 3 increases, then decreases
- 4 remains the same

36 Which statement describes the ecosystem represented in the diagram?



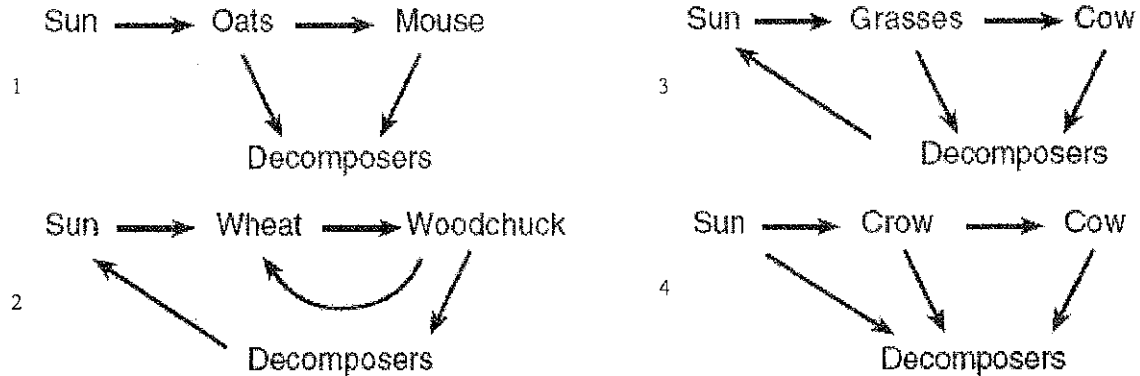
- 1 This ecosystem would be the first stage in ecological succession.
- 2 This ecosystem would most likely lack decomposers.
- 3 All of the organisms in this ecosystem are producers.
- 4 All of the organisms in this ecosystem depend on the activities of biological catalysts.

37 Which information concerning a desert is provided by the quotation below?

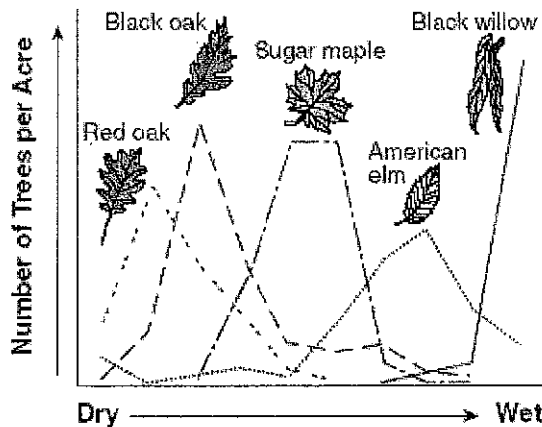
"The desert is arid, with less than 25 cm of rain per year. The plants are spaced far apart, or are grouped around water sources. Most of the animals are active at night."

- 1 daily temperature range and types of autotrophs
- 2 time of rainy season and type of food used by heterotrophs
- 3 identity of a limiting factor and behavior of heterotrophs
- 4 type of nutrition in animals and distribution of autotrophs

38 Four students each drew an illustration to show the flow of energy in a field ecosystem. Which illustration is *most* accurate?



39 The graph below shows the effect of moisture on the number of trees per acre of five tree species.



Which observation best represents information shown in the graph?

- 1 All five species grow in the same habitat.
- 2 The American elm grows in the widest range of moisture conditions.
- 3 Red oaks can grow in wetter conditions than black willows.
- 4 Sugar maples can grow anywhere black oaks can grow.

40 When habitats are destroyed, there are usually fewer niches for animals and plants. This action would most likely *not* lead to a change in the amount of

- 1 biodiversity
- 2 competition
- 3 interaction between species
- 4 solar radiation reaching the area