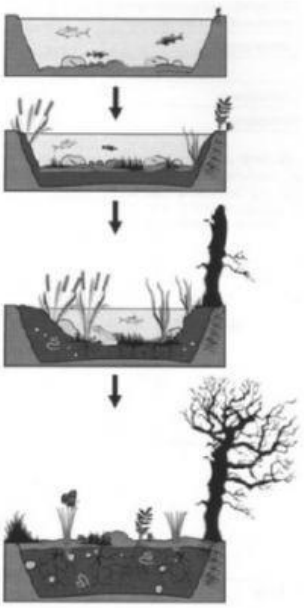
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Homework: Ecological Succession Continued

Use the diagram below to answer questions 1 through 6.



1. Which ecological process is illustrated in this sequence of pictures?
A biological evolution
B ecological succession
C nitrification
D precipitation

2. What factor drives the process of terrestrial succession in which this lake becomes a forest?
A growth of microorganisms
B increases in insect population
C deposition of sediments
D increases in pH of the water

3. Which of the following organisms might first appear in a pond or lake?
A grass
B algae
C small fish
D hardwood trees

4. After a long period of time, a pond or lake will eventually become a stable forest community that is referred to as the –
A pioneer community
B moss population
C climax community
D biosphere

5. Biodiversity describes the amount of variation present in an ecosystem. How is the biodiversity of an ecosystem affected as it proceeds through the stages of ecological succession?
A the biodiversity increases throughout
B the biodiversity decreases throughout
C the biodiversity decreases, then increases
D the biodiversity remains steady throughout

6. Which sequence best represents the stages of succession that would most likely occur?
A bare rock → forest → moss → lichens
B grassland → forest → marsh → lake
C lake → marsh → grassland → shrubs → forest
D pine forest → grassland → shrubs → lichens

7. Ecological succession would best be defined as –
A the natural cycle of carbon being exchanged between producers and consumers
B communities replacing each other until a stable community is formed
C ecosystems being consistently altered by a number of natural disasters
D energy flowing through organisms in complex food webs

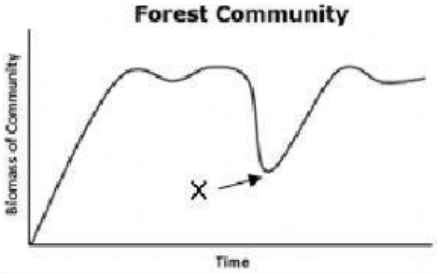
8. During ecological succession, a grass community is replaced by a community of shrubs. This change is primarily a result of the fact that the grass community –
A evolves over several decades into a new species bushes that dominates the ecosystem
B was no longer able to produce viable offspring which could live in this ecosystem
C removed nutrients from the soil until only shrubs were able to grow
D modified its environment making it more suitable for the shrub community

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9. At the end of ecological succession, a stable community is reached. Which of the following best describes a climax community if it left alone?

A most of the biomass is in lichens
B it does not contain any animals
C it changes very quickly
D it remains until the climate changes

Use the graph to answer questions 10 – 11.



10. Which of the following scenarios could explain the drop in biomass labeled **X** in the graph to the right?

A Felled trees are replanted by humans
B A forest fire is started by lightening
C Bioaccumulation of toxins affects top predators
D Pollution in an ecosystem is drastically reduced

11. Based on the data in the graph, what will happen to an ecosystem after its climax community has been destroyed?

A It will proceed through the stages of succession until it returns to a stable community
B It will remain in a state of disarray and never recover from the natural disaster
C The community will recover, but the biodiversity will never be regained
D The original hardwood forest will forever be replaced by a softwood forest

12. Which statement best describes a pioneer population found in the beginning of ecological succession?

A They are completely heterotrophic.
B The do not appear until animals arrive.
C They modify their environment.
D The only exist in tropical biomes

13. Starting on *barren rock* what is the usual ecological succession of organisms?

A grasses → shrubs → lichens → trees
B lichens → shrubs → grasses → trees
C trees → shrubs → grasses → lichens
D lichens → grasses → shrubs → trees

Answer the following questions about populations, communities and ecosystems.

14. A student surveys her neighborhood and reports that it contains 6 dogs, 4 cats and 1 gerbil. This data best describes the -

A pet population **B** pet ecosystem **C** pet domain **D** pet community

15. Which of the following describes all of the living and abiotic factors in a geographical area?

A ecosystem **B** community **C** niche **D** population

16. Which of the sequences below is listed from the least complex to the most complex?

A ecosystem, community, population
B population, ecosystem, community
C population, community, ecosystem
D community, ecosystem, population

17. All of the members of one species that inhabit a specific area are called -

A a community **B** an ecosystem **C** a population **D** an organism

18. A plot of land contains soil, decomposers, producers, consistent rainfall, mild temperatures and a community of herbivores and carnivores. This set of data best describes -

A a community **B** an ecosystem **C** a population **D** an organ system

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