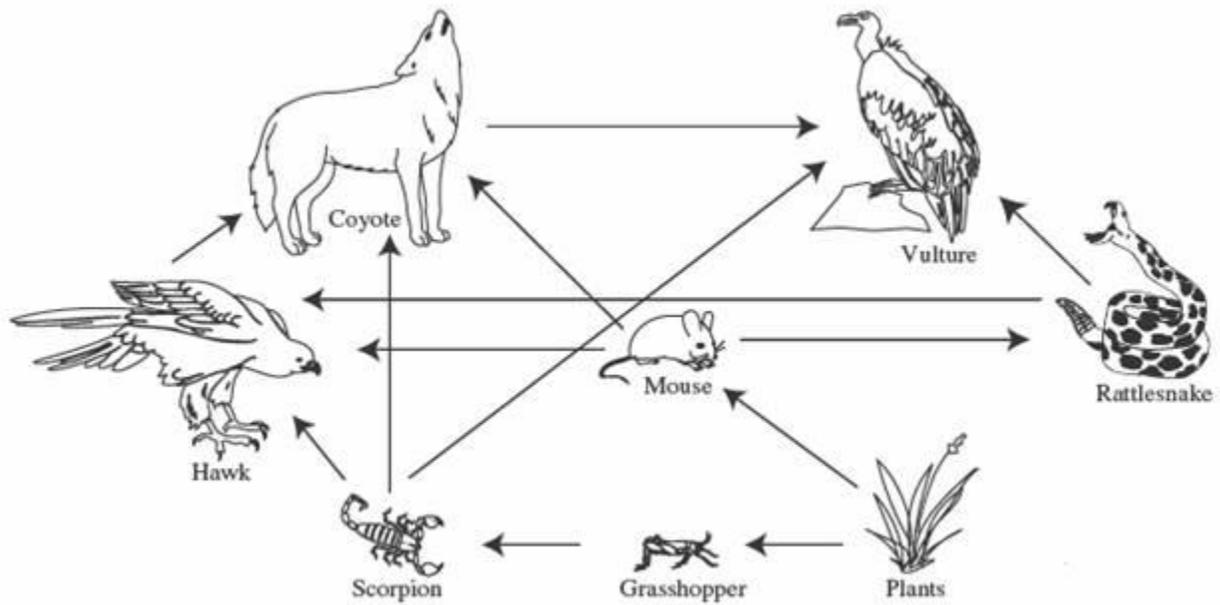


1. Which of the following symbiotic relationships is considered parasitic?

- A. ticks feeding on a dog
- B. bees transporting pollen from flowers
- C. pilotfish swimming under sharks
- D. birds eating the insects from the back of a hippopotamus

This online assessment item contains material that has been released to the public by the Massachusetts Department of Education.

2. The diagram below shows some of the feeding relationships in a desert food web.

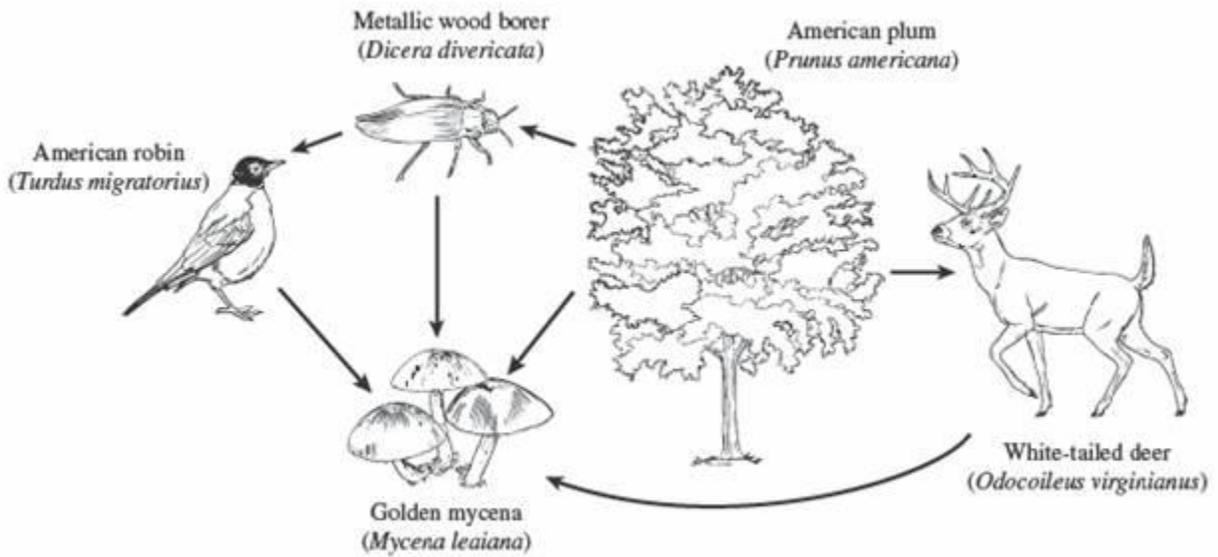


Which of the following trophic levels is **not** shown in this diagram?

- A. producers
- B. decomposers
- C. primary consumers
- D. secondary consumers

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3. A food web is shown below.



Which organism in this food web is a decomposer?

- A. American plum
- B. Golden mycena
- C. Metallic wood borer
- D. White-tailed deer

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4. Which of the following types of organisms would benefit most directly from the products of decomposer organisms?

- A. the decomposers themselves
 - B. the primary consumers
 - C. the secondary consumers
 - D. the producers
-

5. Oxygen is released into the air by

- A. the Sun.
 - B. animals.
 - C. volcanoes.
 - D. plants.
-

6. The students in Mr. Smith's class wanted to learn about the ducks in a pond near their school. Which question could the class answer by making observations at the pond?

- A. Where do the ducks go when they migrate?
 - B. Which part of the pond do the ducks use for feeding?
 - C. How many ducks were there last May?
 - D. How many years have pairs of ducks been together?
-

7. Which organism is likely to be at the beginning of a food chain for a pond?

- A. sunfish
 - B. freshwater shrimp
 - C. paramecium
 - D. green algae
-

8. The picture below shows the animal tracks Jeremy found by a riverbank.



Which of the following events probably took place in area X of the picture?

- A. Animal 1 was eaten by animal 2.
 - B. Animal 2 flew away.
 - C. Animal 2 was eaten by animal 1.
 - D. Animal 1 stepped in the tracks of animal 2 when leaving area X.
-

9. In the presence of sunlight green plants give off

- A. oxygen.
 - B. carbon dioxide.
 - C. nitrogen.
 - D. hydrogen.
-

10. Which statement is true about the relationship between bacteria and humans?

- A. All bacteria are harmful to humans.
 - B. Some bacteria are harmful to humans and other bacteria are helpful.
 - C. All bacteria are helpful to humans.
 - D. Bacteria are neither helpful nor harmful to humans.
-

11. Which food is made with the help of bacteria?

- A. yogurt
 - B. soda
 - C. bread
 - D. vinegar
-

12. Which substance is used by producers to make food?

- A. nitrogen
 - B. oxygen
 - C. silicon
 - D. water
-

13. The food web below is similar to food webs found in wetlands in Georgia.



What is the original source of the MATTER that the otter uses as food?

- A. nightjar
 - B. trout
 - C. the Sun
 - D. waterweed
-

14. Look at the food web below.



What would MOST LIKELY happen in the ecosystem if the population of maned geese greatly increased?

- A. The lizards would have less competition.
- B. The kookaburras would have more competition.
- C. The amount of available food for the frogs would increase.
- D. The amount of available food for the insects would decrease.

15. Which of these BEST explains why predators need plants, such as grass, in their ecosystems?

- A. Plants are a large part of their diets.
- B. Plants provide safety for the predators.
- C. Plants break down the organisms that the predators eat.
- D. Plants provide food for the animals that the predators eat.

16. Look at the diagram of a food web.



The removal of which organism would have the GREATEST effect on all remaining organisms in the food web?

- A. grass
 - B. hawk
 - C. mouse
 - D. sparrow
-

17. The diagram below shows a food web.



Which population of organisms would MOST LIKELY increase if there were fewer grasshoppers?

- A. frogs
- B. hawks
- C. mice
- D. owls

18. The diagram below shows relationships between organisms in a food web.



What do the arrows in the diagram represent?

- A. the location and movement of organisms within the food web
- B. which organisms are most closely related within the food web
- C. the movement of carbon dioxide through the organisms in a food web
- D. the transfer of matter and energy through the organisms in a food web

19. Jenna's class studied a forest food web. Which of these organisms can BEST turn dead plant and animal matter into substances that can be reused by the ecosystem?

- A. bacteria
 - B. birds
 - C. mice
 - D. plants
-

20. In the ocean scene below, which of the following are MOST LIKELY at the top of the food chain?



- A. the two forms of kelp
- B. the seal and the otter
- C. the fish and the snails
- D. the plankton and algae

Answer Key

1. A) ticks feeding on a dog
 2. B) decomposers
 3. B) Golden mycena
 4. D) the producers
 5. D) plants.
 6. B) Which part of the pond do the ducks use for feeding?
 7. D) green algae
 8. A) Animal 1 was eaten by animal 2.
 9. A) oxygen.
 10. B) Some bacteria are harmful to humans and other bacteria are helpful.
 11. A) yogurt
 12. D) water
 13. D) waterweed
 14. D) The amount of available food for the insects would decrease.
 15. D) Plants provide food for the animals that the predators eat.
 16. A) grass
 17. C) mice
 18. D) the transfer of matter and energy through the organisms in a food web
 19. A) bacteria
 20. B) the seal and the otter
-