Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**ECOLOGY STUDY GUIDE**

P. \_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Label numbered items as abiotic or biotic.***

***Label lettered items as: organism, population, community***.

The water

Not the water

5. Explain the difference between an organism’s habitat and its niche.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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6. a. Write two examples of a Red Wolf’s habitat:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 b. Write two examples of a Red Wolf’s niche: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Fill in the blank squares to complete the graphic organizer with the name, description, example, and any other helpful information. In the “example” enter***

**Symbiosis**

Close relationship between two organisms where at least one benefits



­­­­­­­­­­­­­­­­

7. Mutualism

9.

8.

One benefits, the other is harmed

Ex.

 Ex:

Ex: A bird builds its nest in a tree.

Bird ☺

Tree



***Use the food web to answer the questions.***

FIGURE 2



10. What does the shrew eat for energy?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11. What is the primary source of energy for this food web?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

12. The mountain lion would compete for the snake with what other organism?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

13. What would happen to the mountain lion population if the deer and rabbit were removed from this ecosystem? Explain.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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14. How would the changes in the deer and rabbit population discussed in #13 affect at least two other organisms in the ecosystem? Explain.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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***Energy Pyramid Directions: Choose a word from the list below to fill in the name of each level. Then write the name of one organism from the above food web in Figure 2 that belongs on that level.***

**Word list:** primary consumer, producers, secondary consumer, tertiary consumer



**Use Figure 3 to answer the following questions**.



FIGURE 3

20. In month 7, the deer population reached

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

 (not a number)

21. List two possible limiting factors causing

 The population of deer to level-off.

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



 22. ***Continue the line on the graph to show what most likely would happen to a population of a certain animal if a new predator were introduced at time ‘A’.***

**Mastery Questions: You will need to:**

1. analyze a food web based on changes in populations at first and over time and include in your explanation the words “carrying capacity.”

2. create and label a food web.

3. interpret a population graph that includes two different prey populations and one predator population.

FIGURE 4