

Study Guide – Lichen Test

Field Biology

Hints:

- Make sure you UNDERSTAND all the terms in this study guide
- Practice taking these questions and changing them to form possible test questions (some things to try: 1. change the “rules” of ecology, 2. change the data presented in the problem, 3. start with the answer and work backwards, or 4. change the initial conditions presented in the problem)
- Read through the questions and discuss them before starting your answer
- Write all of your thoughts down – you will be able to use your notes on the test
- Ask questions whenever possible
- The test will be based on “what if” questions that ask you to demonstrate your understanding of the material we’ve gone over and speak intelligently about lichens.

1. Describe the symbiotic relationship that makes up a lichen. How does each participant contribute?
2. Explain, in general, the relationship between lichens and air quality. What are some lichens (of the ones we studied) that are most sensitive to air pollution?
3. How do lichens get water, carbon dioxide, oxygen, and trace minerals? Why is the source of these nutrients critical to our understanding of lichens?
4. What are the scientific and common names of the seven lichens we’ve studied? How can you identify them visually?
5. What is a symbiotic relationship? Describe a real or invented example of a symbiotic relationship other than lichens.
6. What does the data table below indicate?

	Amount of Parmelia (mm)	
	Medium Diameter Branches	Large Diameter Branches
	15	10
	22	11
	31	16
	10	27
	41	31
	52	17
	31	11
average	28.8571	17.5714286
t-test	0.1083	

7. What are some of the types of medical uses, ecological relationships, and other uses that you found for lichens when you did the research for your lichen herbarium?