**APES- Chapter #6- Guided Reading**



***Ecosystems and Ecosystem Management***

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1: Create a food web diagramming ***The Acorn Connection*** *(on a separate piece of paper)*

2: What are the ***basic characteristics of ecosystems***?

3: Create a trophic pyramid diagramming the ***Hot Spring Ecosystems in Yellowstone National Park*** *(on a separate piece of paper)*

4: Define ***community-level interactions*** and *give an example*.

5: In the **Sea Otter** example on pgs 104-105, What is the **Keystone Species*? Explain why.***

6: Define and explain **Watershed** and give an example.

7: Read, ***“How Are the Borders of an Ecosystem Defined?”*** and answer the following questions:

* *Given the intricate connections between the aquatic and terrestrial ecosystems along salmon streams,* ***how would you define the boundaries of the ecosystem****?*
* *When more adult salmon reach the spawning grounds than are needed to maintain the population, some are considered excess.* ***How might the research described here affect that view?***
* *Some biologists have called salmon a* ***keystone species****.* ***Given what you know about keystone species, how would you argue for or against this designation****?*
* *In recent years, the numbers of anadromous fish along the Pacific Coast of North America have declined precipitously because of overfishing and habitat destruction****. What effects would you predict this might have on the ecology of freshwater streams and their adjoining land areas?***
* *What types of management decisions about fish, wildlife, and forests would follow from recognizing the* ***connection between aquatic and terrestrial ecosystems****?*

**Study Questions:**

1. What is the difference between an *ecosystem and an ecological community?*

2: In what ways would an increase in the number of sea otters and a change in their geographic distribution benefit fisherman? *In what ways would these changes be a problem for fisherman?*

3: Based on the discussion in this chapter, *would you expect a highly polluted ecosystem to have many species or few species?*

4: Is our species a *keystone species (humans)?* **Explain.**

5: Which of the *following are ecosystems*? *Which are ecological communities? Which are neither?*

1. **Chicago**
2. **A 1,000-ha farm in Illinois**
3. **A sewage-treatment plant**
4. **The Illinois River**
5. **Lake Michigan**

***On your own: Do the “Eco-Test” for Chapter #6 in your Botkin- Student Review Guide***