

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Block: \_\_\_\_\_

Miller and Spoolman's Living in the Environment 16<sup>th</sup> ed.

## Chapter 8 Reading Guide – Aquatic Biodiversity

### Case Study – Why Should We Care about Coral Reefs?

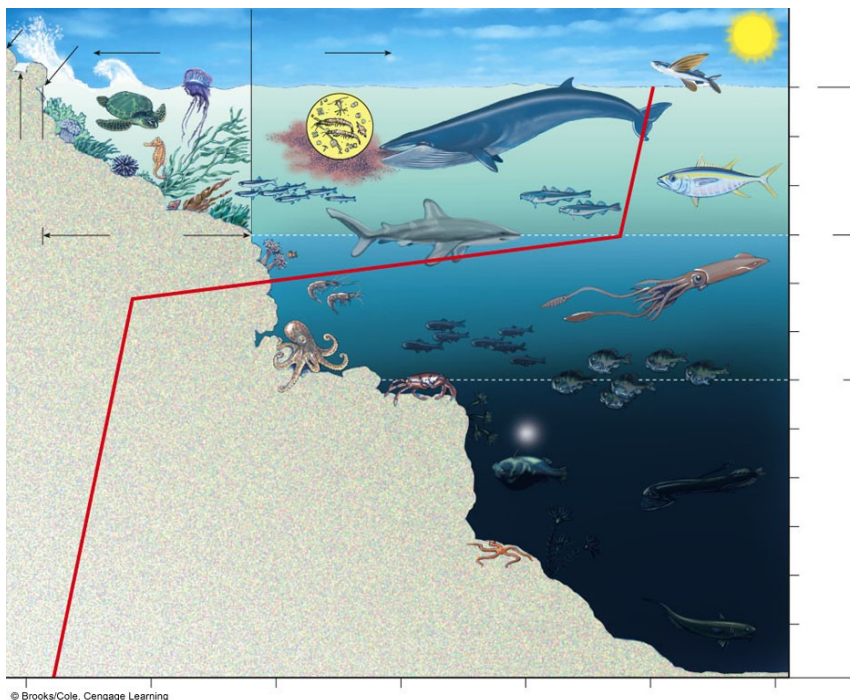
1. Describe coral reef's ecological and economic services.
2. Why and how are coral reefs threatened?

### Section 8-1 What Is the General Nature of Aquatic Systems?

3. List the 2 types of aquatic life zones and examples of each.
4. Identify the three layers of aquatic systems and the key abiotic factors in these systems.

### Section 8-2 – Why Are Marine Aquatic Systems Important?

5. List and explain three ecological and three economic services of marine ecosystems.
6. Describe estuaries and coastal wetlands, including their abiotic and biotic factors and services.
7. Use the figure below to identify characteristics of the major life zones in an ocean.



8. Describe rocky and sandy shores, including their abiotic and biotic factors and services.

#### Section 8-3 – How Have Human Activities Affected Marine Ecosystems?

9. List the major impacts on coral reefs, and what services are being impacted.
10. Explain why the Chesapeake Bay is an estuary in trouble. What is being done to address the problems?

#### Section 8-4 – Why Are Freshwater Ecosystems Important?

11. List and explain three ecological and three economic services of freshwater ecosystems.
12. Distinguish among hypereutrophic, mesotrophic, oligotrophic, and eutrophic lakes.
13. Explain how cultural eutrophication affects the ecological and economic services they provide.
14. Follow a molecule of water from its origin to the ocean, describing the types of flowing water in a watershed.
15. Explain the disaster that was New Orleans as part of a larger aquatic system (what fresh- and saltwater causes resulted in the disaster that was experienced).
16. Describe inland wetlands and the services they provide.

#### Section 8-5 – How Have Human Activities Affected Freshwater Ecosystems?

17. Explain four major ways humans are affecting the freshwater systems.

List any questions you have after reading this chapter.