



## Underwater Ecosystem Adventure

### E-Field Trip Review

Name \_\_\_\_\_ Date \_\_\_\_\_

*As you take the electronic field trip through Biscayne National Park to learn about its different ecosystems, answer the following questions.*

**Multiple Choice Questions:** Circle the correct answer.

1. The four ecosystems of Biscayne National Park are:
  - a. Mangrove shoreline, coral bay, Key West, and seagrass estuary
  - b. Coral reefs, Key Biscayne, Florida Keys, and red mangroves
  - c. Shallow Estuary, Florida Keys, Mangrove shoreline, and coral reef
  - d. Biscayne Bay, corals, the Mangrove Shoreline, and shallow estuary
2. How much of Biscayne National Park's 173,000 acres are underwater?
  - a. 100%
  - b. 95%
  - c. 90%
  - d. 85%
3. The organisms living inside the limestone skeleton of a coral are called:
  - a. Exoskeletons
  - b. Coral heads
  - c. Reefs
  - d. Polyps
4. One type of reef fish that comes out to feed at night is the:
  - a. Trumpetfish
  - b. Queen Parrotfish
  - c. Spotted Trunkfish
  - d. Barracuda

5. The base of the Mangrove Shoreline food web is:
  - a. Prop roots
  - b. Bacteria
  - c. Nutrients
  - d. Dead leaves
  
6. An estuary is:
  - a. Filled with saltwater
  - b. Where freshwater and saltwater meet
  - c. Filled with freshwater
  - d. Mostly freshwater with some saltwater
  
7. Which of the following is NOT a service provided by mangroves?
  - a. Keeping waters clean by catching debris
  - b. Providing important habitat for young fish
  - c. Acting as a food source for grazing animals in the bay
  - d. All of these are essential services mangroves provide for us and the ecosystem
  
8. The Florida Keys are formed from:
  - a. Lime and stone
  - b. Living coral reefs
  - c. Sand
  - d. Dead coral reefs
  
9. Animals like the spiny lobster spend their lives in two of Biscayne National Park's ecosystems. How?
  - a. They grow up on the coral reef and when they are adults migrate to the bay
  - b. They feed in the bay but spend the rest of their time at the coral reef
  - c. They grow up in the bay and when they are adults they migrate to the coral reef
  - d. They migrate from the coral reef to the bay to have baby lobsters
  
10. Which of the following is NOT a hazard posed to Biscayne National Park as a result of increasing populations of people?
  - a. Overfishing
  - b. Commercial fishing
  - c. Marine debris
  - d. Vessels running aground

### True/False Questions:

Coral reefs are referred to as the “rainforests of the sea” because of their large biological diversity. Answer the following True/False questions about reef diversity.

- \_\_\_\_\_ Biscayne National Park has more fish species alone than Yellowstone, Yosemite, or Grand Canyon National Park has combined number of vertebrate species.
- \_\_\_\_\_ Corals and reef animals are only active during the day.
- \_\_\_\_\_ Corals have been used in the treatment of cancer and heart diseases.
- \_\_\_\_\_ The queen parrot fish sleeps in a mucous pouch secreted from its fin.
- \_\_\_\_\_ Corals are made from small plants that eat tiny animals called zooplankton.
- \_\_\_\_\_ A coral’s exoskeleton is made from cartilage that grows large and can become homes or hideaways for more sea creatures.
- \_\_\_\_\_ Although coral reefs cover less than 1% of the Earth’s surface, they are home to 25% of all marine fish species.
- \_\_\_\_\_ Without the existence of coral reefs, parts of Florida would be under water.

### Food Web Activity:

See the attached sheet to *fill in the blanks* of Biscayne National Park’s food web. Then, answer the following questions.

1. What important role do bacteria play in the mangrove shoreline as well as in other plant communities?
  
2. What is transferred through this and all food webs?

3. Phytoplankton need clear water to obtain sunlight to photosynthesize. If Biscayne's waters became clouded from pollution and the phytoplankton were eliminated from the food web, how many and which other organisms would be affected? List them here.

- a. What industries would also be affected if this happened? Name 3.

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**Critical Thinking Questions:**

1. Fisheries in Biscayne National Park and around the world are a renewable resource. What factors contribute to their inability to renew themselves as quickly? List 3 factors.

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2. Coral reefs in Biscayne National Park and around the world coexist with other ecosystems, such as mangroves and estuaries. What would be lost by the reefs if these relationships were damaged? List 3 services or resources that reefs would lose.

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3. Human stressors on the limited resources of ecosystems all over the world are altering the size of animal and plant populations, many of which are becoming endangered or extinct. What is the staff at Biscayne National Park doing to counteract this pressure? List 4 ways they are helping.

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