



## Virtual Field Trip: Episode 1 – “Wet Wonders” Activity Sheet

1. The study of freshwater ecosystems is called \_\_\_\_\_.
2. Who was the pioneer in limnology mentioned in the video that worked at the Savannah River Site in the 1950s?  
\_\_\_\_\_.
3. In the example given, what is the pollution tolerant group for damselflies?
  - a. Pollution intolerant
  - b. Somewhat pollution intolerant
  - c. Somewhat pollution tolerant
  - d. Pollution tolerant
4. The sediment layer on the bottom of the pond where many macroinvertebrates are found is called the \_\_\_\_\_.
5. Name one tool that scientists can use to collect or observe macroinvertebrates. \_\_\_\_\_.
6. Why do tadpoles and frogs have a 0 point value on the pollution tolerant scale for macroinvertebrates?  
\_\_\_\_\_
7. Name one fact about a water scorpion.  
\_\_\_\_\_
8. Which is worth more points on the pollution tolerant scale, a red midge or a brown midge? \_\_\_\_\_



9. Name one macroinvertebrate, found at the pond, that is pollution intolerant.

\_\_\_\_\_

10. Ms. Kimberly and Ms. Beth found the water quality of the pond at SRS to be

\_\_\_\_\_.

- a. Excellent
- b. Good
- c. Fair
- d. Poor

11. If the water quality of the pond was poor, name one additional abiotic test that could help scientists pinpoint the problem.

\_\_\_\_\_

12. True or False. Certain types of macroinvertebrates found thriving in a body of water can tell you if that water is clean or polluted.

\_\_\_\_\_

### “Wet Wonders” Vocabulary

**Macroinvertebrates** – Benthic macroinvertebrates are animals without a backbone, large enough to be seen with the naked eye, that live on the bottom of lakes, rivers, and ponds. They include crustaceans and worms, but most are aquatic insects.

**Dichotomous key** – A key created by scientists to help identify and classify organisms into specific categories based on their characteristics.

**Biotic Factors** – Any living components of an ecosystem.

**Abiotic Factors** – Any non-living factor that can affect the ecosystem.



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### ANSWER KEY

1. The study of freshwater ecosystems is called limnology.
2. Who was the pioneer in limnology mentioned in the video that worked at the Savannah River Site in the 1950s?
  - Dr. Ruth Patrick
3. In the example given, what is the pollution tolerant group for damselflies?
  - a. Pollution intolerant
  - b. Somewhat pollution intolerant
  - c. Somewhat pollution tolerant**
  - d. Pollution tolerant
4. The sediment layer on the bottom of the pond where many macroinvertebrates are found is called the benthic layer.
5. Name one tool that scientists can use to collect or observe macroinvertebrates.
  - D-net, pipette, petri dish, field microscope, light microscope, collection tray/container
6. Why do tadpoles and frogs have a 0 point value on the pollution tolerance scale for macroinvertebrates?
  - They are vertebrates.
  - They have a backbone.
7. Name one fact about a water scorpion.
  - Water scorpions have 2 pinchers in the front.
  - They are called a scorpion, but they are not a true scorpion.
  - They have a breathing tube.
  - They can stay underwater up to 30 minutes.
  - A water scorpion’s nickname is “snorkel butt”.
8. Which is worth more points on the pollution tolerance scale, a red midge or a brown midge?
  - Brown midge

9. Name one macroinvertebrate, found at the pond, that is pollution intolerant.

- Caddisfly, mayfly

10. Ms. Kimberly and Ms. Beth found the water quality of the pond at SRS to be \_\_\_\_\_.

- a. **Excellent**
- b. Good
- c. Fair
- d. Poor

11. If the water quality of the pond was poor, name one additional abiotic test that could help scientists pinpoint the problem.

- Water turbidity, pH, nitrate levels, temperature

12. True or False. Certain types of macroinvertebrates found thriving in a body of water can tell you if that water is clean or polluted.

- True

### **“Wet Wonders” Vocabulary**

**Macroinvertebrates** – Benthic macroinvertebrates are animals without a backbone, large enough to be seen with the naked eye, that live on the bottom of lakes, rivers, and ponds. They include crustaceans and worms, but most are aquatic insects.

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