

Fresh Water: The Rivers

A very small part of all the water on Earth is fresh water. It is very important because many organisms need to have fresh water to survive.

There are many kinds of freshwater habitats ranging from fast-moving creeks and streams to huge, sluggish rivers. There are also still waters varying in size from tiny rainwater puddles to the giant Great Lakes.

Each type of freshwater habitat has its own set of plants and animals that are dependent on it. Rivers begin as rainfall and ground water that gather on high ground and begin their trip to the sea. The headwaters of a river often consist of a stream of clear, cool water that rushes down over rocks and gravel. It's hard for aquatic plants to get a foothold in these fast waters, but mosses, liverworts, and ferns will line the stream banks.

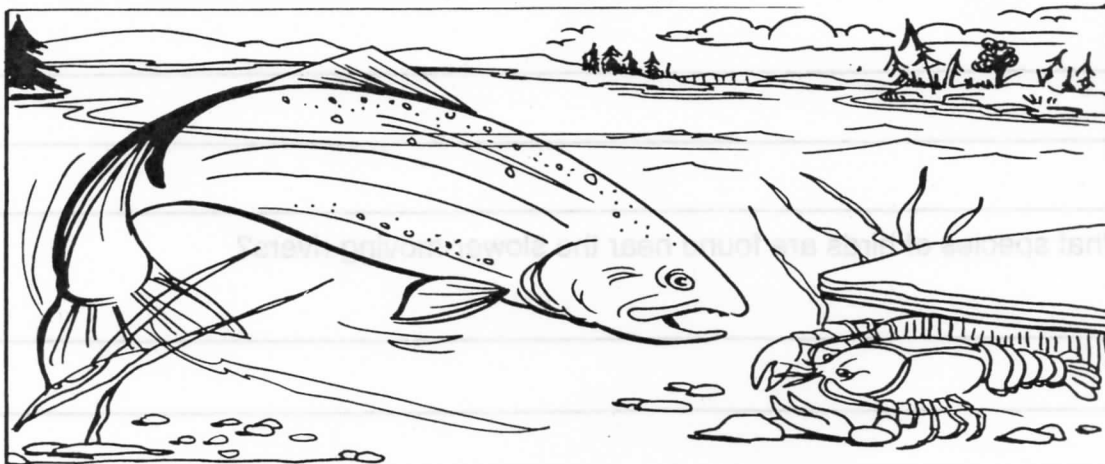
Animals can survive in this swift water by hiding in crevices or attaching themselves to rocks. Many of these animals are filter feeders. They let the fast-moving water bring them food.

Insects such as caddisflies, mayflies, and black flies spend the larval stages of their lives in swift waters. Under rocks, crayfish, leeches, and some types of minnows can be found. The larvae of the huge dobson fly is called the hellgramite. This strange-looking animal has pinchers on one end for gathering its food and a suction cup on the other end to keep it from washing downstream. Fish such as the stream-lined trout live in these turbulent waters. The constant motion of the water keeps a high oxygen level in the water. A small bird, called a dipper or water ouzel, walks under the fast-moving water and feeds on insect larvae.

As the stream grows into a river and the land begins to level out, the water moves less rapidly. Gravel, sand, and silt begin to settle out and these deposits cause the river to twist and turn. Back waters and pools form. More types of plants can be seen; now they can send their roots into the sediments.

Many types of insects are found, along with worms, mollusks, and salamanders. Several more types of fish can be found in these waters, including predators such as northern pike, small-mouthed bass, and perch. The increased vegetation offers nesting cover and food for a variety of ducks, grebes, and herons.

Finally, the river crosses the flat, coastal lands and empties into the sea. This very slow-moving water is lower in oxygen, but still rich in aquatic life. Saltwater animals may even use the lower river as a nursery for their young.



Name: _____ Date: _____

For the student:

1. Is a lot of Earth's water fresh water?

2. What are headwaters?

3. Are many plants found in headwaters? Why or why not?

4. Are many animals found in headwaters? Why or why not?

5. Do any insects live in the water? Name two.

6. What happens to the water in a stream as the land levels out?

7. Are rivers useful to saltwater animals? If so, how? If not, why?

8. What species of birds are found near the slower-moving rivers?
