

River Ecology

Did you know that everything around you—the trees, birds, soil, water, reptiles, plants, and other animals—is connected? Each depends on the other for food, shelter, and water for survival. This is called ecology and it is the study of the relationships among living things and the physical world. These relationships decide where species live and how many of each can live there. In certain conditions a particular species can have an advantage over others, but it is important to remember that conditions can change. Can you think of a way conditions might change here and how that might affect the animals and plants that call this place home? What if the river dried up or flooded? What if all the trees were cut down or fell because of a storm? Which animals might be able to continue to survive and which might need to find new homes?

The places that provide plants and animals with the things they need to survive are called habitats. Examples of habitats can be as broad as the Lamprey River in front of you, and the surrounding

forest, or as specific as a dead tree, the sandy soils down at the beach, or between the roots of a tree in a wetland. Related collections of these habitats are called ecosystems.

Interactions among living things within an ecosystem can be represented using food chains. A food chain is a way of organizing living things by what they eat or how they get energy. Plants absorb energy from the sun to create chemical energy through a process of photosynthesis. Consumers are not able to make their own energy, so they need to eat—or consume—either plants or animals to survive. Animals that only eat plants are called herbivores while animals that only eat other animals are called carnivores. Some animals prefer to eat both plants and animals and they are called omnivores.

A simple food chain shows who eats what. In the real world, simple food chains cannot show all the possible interactions, but multiple food chains can be combined to create a food web.



An example of riverine habitat along the Lamprey River.

Credit: Abigail Gronberg



An example of snake habitat in the forest.

Credit: Abigail Gronberg



Semi-aquatic animals can use the space underneath rooted trees in wetlands as shelter. Credit: Abigail Gronberg



A snag or dead tree used as habitat by many different forest animals.

Credit: Abigail Gronberg

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