

Who Lives in Moving Water?

Most of Earth is covered by water, but very little of it is freshwater. Freshwater is an important natural resource that many living things need to survive. But plants and animals, like river otters and trout, have special adaptations to live in stream and river habitats.



A stream or river is a long body of moving water. **Trees often line the river or stream bank helping to shade the running water** and keep water temperatures much cooler than a pond or lake. Rivers and streams rarely freeze because the water is flowing all the time.

As the flowing water bubbles and gurgles over rocks and logs in the water oxygen is infused into the water. **Running water has a lot more oxygen in it than still water.** The creatures that live in streams & rivers need more oxygen than creatures that live in the quiet waters of a lake or pond.

Fish like trout (below) like cool, running water with lots of oxygen, so they prefer rivers & streams. They also need water that is clean & clear. Fish like bass, which are found more often in ponds & lakes, don't need as much oxygen.

Some of Pennsylvania's cleanest streams offer the best trout fishing around. If you see or catch a trout that's a pretty good sign that the water is healthy.



Plants help rivers & streams in several ways. **The shade from the trees helps to keep the water cool**, making these habitats suitable for a host of creatures that require cooler waters in order to survive.

In addition, **the leaves falling into the water from the overhanging plants help to introduce nutrients (food) into the underwater food chain.** Many aquatic insects help to shred the fallen leaves into smaller pieces of food, both for themselves and other small organisms. Those creatures that fed on the leaves become food for the larger creatures living in the stream.

This important aquatic food chain begins with the trees that line the stream and riverbanks.

Eventually, the trees growing along a river or stream bank will start to topple as the moving water slowly erodes soil away from their roots. When those trees lose their “foot-hold” they will fall across or into the water. The trunk and branches create wonderful habitat for lots of small creatures that need shelter underwater.



So How are Ponds & Lakes Different from Rivers & Streams?

- ◆ Ponds & lakes have mostly still, calm water.
- ◆ Calm water has less oxygen in it.
- ◆ Most ponds & lakes do not have trees shading them because tree branches don't reach across a large pond or lake.
- ◆ The sun can warm the water easier in ponds & lakes.
- ◆ Warm water has less oxygen.
- ◆ Ponds & lakes often freeze during the winter since the water doesn't move.
- ◆ Plants & animals living in ponds & lakes are physically adapted for living in calmer, warmer waters with lower oxygen levels.