



River Anatomy

The United States has more than 250,000 rivers. That's 3.5 million river miles! No matter how different these rivers are, they share some basic features:

Headwaters

The beginning of a river is called its headwaters. Even if a river becomes huge and powerful, its headwaters often don't start out that way. Some headwaters are springs that come from under the ground. Others are marshy areas fed by mountain snow. A river's headwaters can be huge, with thousands of small streams that flow together, or just a trickle from a lake or pond. What happens in the headwaters is very important to the health of the whole river, because anything that happens upstream affects everything downstream.

Tributaries

A tributary is a river that feeds into another river, rather than ending in a lake, pond, or ocean. If a river is large, there's a good chance that much of its water comes from tributaries.

Channel

The shape of a river channel depends on how much water has been flowing in it for how long, over what kinds of soil or rock, and through what vegetation. There are many different kinds of river channels – some are wide and constantly changing, some crisscross like a braid, and others stay in one main channel between steep banks. The bends in a river called "meanders" are caused by the water taking away soil on the outside of a river bend and laying it down the inside of a river bend over time. Each kind of river channel has unique benefits to the environment.

Riverbank

The land next to the river is called the riverbank, and the streamside trees and other vegetation is sometimes called the "riparian zone." This is an important, nutrient-rich area for wildlife, replenished by the river when it floods. These areas also provide valuable services like protection from erosion during floods, and filtering polluted run-off from cities and farms.

Mouth/Delta

The end of a river is its mouth, or delta. At a river's delta, the land flattens out and the water loses speed, spreading into a fan shape. Usually this happens when the river meets an ocean, lake, or wetland. As the river slows and spreads out, it can no longer transport all of the sand and sediment it has picked up along its journey from the headwaters. It begins to lay down all the rocks, silt and driftwood it has been carrying along. Because these materials and nutrients help build fertile farmland, deltas have been called "cradles" of human civilization. Deltas are "cradles" for many other animals as well, providing breeding and nesting grounds for hundreds of species. If a delta is near the ocean, tidal saltwater mixes with freshwater, creating a unique, brackish habitat.