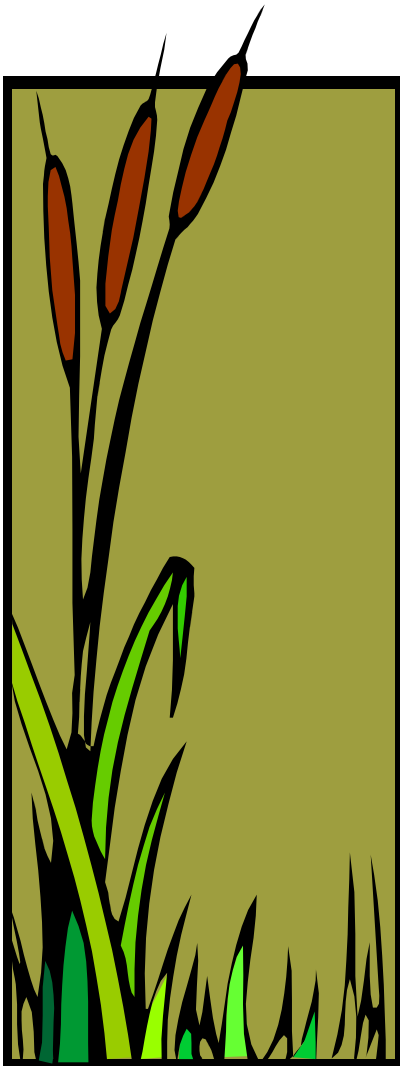

What Makes a Wetland a Wetland?

The water's up to your ankles and a pungent smell reaches your nose. You move along slowly, watching a great blue heron fish for its lunch. When you round a bend, you're startled by a flock of ducks as they take off from the water. A dragonfly zips past your head as you watch the ducks fly up over the trees.

You could be in a swamp. Or a salt marsh. Or any of a number of different types of wetlands. In this chapter we'll discuss just what we mean by the word *wetland* – and we'll look at what makes these soggy habitats so special.

WATERLOGGED WORLDS

It's hard to find a lot of absolute characteristics that apply to all wetlands. That's because there are so many different kinds of bogs, marshes, swamps, and other wetlands. (For descriptions of the different types of wetlands, see the background information on pages 18-20 in the "Saltwater Wetlands" activity guide.) But all wetlands share some characteristics that set them apart from other kinds of habitats.

What They Are and What They Aren't: Of course, all wetlands are wet – but so are ponds, lakes streams, rivers, and oceans. Does that mean, then, that these particular bodies of water are wetlands too?

In general, no. Most scientists who study wetlands restrict their definition of these habitats to areas that, at least periodically, have waterlogged soils or are covered with a relatively shallow layer of water. These areas support plants and animals that have adapted to living in a watery environment.

Soggy Surroundings: The reason that wetlands are wet varies. Since most wetlands are located in low-lying areas, rain and runoff help to keep them saturated. Also, some wetlands lie in places where the groundwater is at or very near the surface of the ground, which means that they're constantly being "fed" from below. Other wetlands stay wet because they're next to rivers or other bodies of water that regularly overflow their boundaries. And along the coast, the tides keep many other wetlands saturated.

Beavers and Other Builders: Some wetlands get started with a little "outside" help. Beavers, for example, are important wetland builders. The rivers and streams that they dam often flood large areas, turning meadows into marshes or parts of forests into swampland.

People sometimes create wetlands too – both intentionally and unintentionally. For example, a state game and fish agency might flood an area so that waterfowl will have more places to breed. On the other hand, a swamp or marsh might get its start accidentally when construction blocks the natural flow of water and causes a stream to back up and overflow.

WETLANDS AT WORK

Wetlands give the world a lot of "free services." Here's a look at some of the important functions they perform.

Flood Busters: An easy and cheap way of controlling floods is to leave wetlands in their natural state. That's because wetlands act like giant, shallow bowls. Water flowing into these "bowls" naturally loses velocity as it collects and spreads out. Wetland vegetation helps to slow down fast-moving water too. As a result, flood damage to developed areas near wetlands is often much less than damage to areas located near wetlands that have been drained and filled.

Silt Trappers: When flood waters are slowed by wetlands, the silt and other sediments they carry settle out among the roots and stems of wetland plants. This helps to protect streams, lakes, and other bodies of water downstream from a build-up of sediment that could otherwise clog aquatic animals' gills and bury their eggs. It also helps protect water supplies from pollutants and other impurities. That's because wetland plants can take up and use nutrients and chemicals that the silt may contain. If it weren't for wetlands, these impurities might eventually contaminate rivers, lakes, groundwater, and other water supplies – some of which are used as sources of drinking water.

Storm Breakers: Farms, forests, and buildings that are located behind wetlands along the seashore and large lakes often fare much better during storms than those that aren't. Wetlands serve as buffers between the winds and waves of storms and the areas beyond. But "taking the punishment" isn't all wetlands do during storms. They also bind soil and help to keep it from eroding. Mangrove swamps are particularly good at this. In fact, certain islands cleared of their mangrove swamps have become so severely eroded that they're not longer visible above the ocean's surface. (For more about mangrove swamps, see the background information on page 20 in the "Saltwater Wetlands" activity guide.)

WETLANDS AND WILDLIFE

Acre for acre, there is more life in a healthy wetland than there is in almost any other kind of habitat. These productive places can support huge numbers of insects, fish, birds, and other animals. Below is a rundown of some of the ways wildlife uses wetlands.

Migration Vacations: If you visited a wetland in fall or spring, chances are you'd see many kinds of migrant birds. And depending on exactly where you were, you could see hundreds or even thousands of them: ducks and geese, herons and egrets, sandpipers and plovers, maybe even eagles and ospreys. These and other birds converge on wetlands enroute to their winter or summer homes. Here they "refuel" on the rich food supply before getting on with their journeys. (Many birds nest and winter in wetlands too – but the bird population of most wetlands goes way up during migration.)

Natural Nurseries: There's another segment of wetland society for which wetlands are vitally important temporary homes. These are the young of certain fish, crabs, and other creatures that spend their earliest days in wetlands before moving on to open water. The thick vegetation of a wetland is a good place to hide, and the rich food supply gets growing animals off to a healthy start.

Havens for Rare Ones: Wood storks, snail kites, whooping cranes, and American crocodiles are all endangered species – and they all live in wetlands. In fact, about 35 percent of all of the animals and plants listed as threatened or endangered in the United States either live in wetlands or depend on

them in some way. That means that more than a third of the nation's rare animals and plants are inseparably linked to areas that, altogether, make up only about five percent of the total land area in the lower 48 states. This fact doesn't seem to leave room for much optimism – especially since wetlands are still being dredged, drained, and filled in for farms, houses, and other developments. But wetlands are getting some protection. For more information, check out this link: http://www.nwf.org/Wildlife/Wild-Places/Coastal-Louisiana.aspx