Horizon's Homeschool

PART 4: Wetlands

LESSON

What is a wetland?

A **wetland** is an area that does not drain water well, leaving the ground to be **saturated** (full of water). The saturated ground leads to **hydric** (wet) soils that support **hydrophytic** (water-loving) plants. Wetlands are commonly found along shorelines, rivers, lakes, and ponds. The 3 main components of a wetland are:

1) **Soil** – does not drain easily and has water between each grain of soil; is usually a dark color due to the presence of organic matter and minerals
2) **Water** – can be fresh, salt, or brackish (mixture of fresh and saltwater)
3) **Plants** – adapted to growing in very wet conditions

What else is in a wetland?

Wetlands function as their own **ecosystem**. An **ecosystem** is a biological community, its physical environment, and the things that live inside it, all interacting together. The wetland ecosystem is the balance between the species that live in wetlands and the environment around them.

Species commonly found living in wetlands include:

Plants:

- Cattails
- Bald cypress
- Spanish moss
- Lily pads
- Palmetto
- Reed grasses

Frog on Lily Pad

Snake

Palmetto

Geese

Wildlife:

- Birds – ducks, geese, seagulls
- Mammals – otters, muskrats, beavers,
- Amphibians – frogs, toads, salamanders
- Fish – catfish, herring, salmon
- Reptiles – snakes, turtles, alligators, lizards

Are there different types of wetlands?

Wetlands can look different and have different kinds of plants, soil, and types of wildlife, but all share the characteristic that the ground is saturated. Common types of wetlands found in Texas include marshes, swamps, ponds, playa lakes, lagoons, and riparian habitats (areas along rivers and streams).

Playa Lake

Riparian Habitat

Swamp

Marsh

Why are wetlands important?

Wetlands act as a transition zone that links organisms on land to organisms in water. Wetlands have a variety of important jobs, including:

- Filtering water and removing pollutants – wetlands trap pollutants in their soils and break down suspended solids to neutralize harmful bacteria
- Providing habitat for a variety of plant and wildlife species
- Collecting and storing flood water – wetlands store excess water and release it slowly by reducing the volume (amount) of runoff and decreasing the risk of nearby flooding
- Protecting shorelines from getting damaged by storms – wetlands help stabilize the shoreline and protect land from heavy wave action
- Providing a place for water-loving foods to grow (such as rice, fish, and cranberries)
- Providing a place of recreation for fishing and other outdoor activities

Wetlands are disappearing at an alarming rate. Because wetlands are so important, we must work together to find sustainable methods to save them. ***Sustainable*** *means that these methods will not hurt the ecosystem and will keep it healthy for a very long time.*

Why are wetlands disappearing?

- Pollution – Air and water pollution can disrupt and destruct the balance of the wetland ecosystem
- Draining – The water in wetlands is drained to provide a field filled with rich nutrients for growing crops
- Filling and dredging – Wetlands are filled in or removed for development (houses, streets, stores, airports, etc.)

How is Horizon Environmental involved?

The wetland biologists who work at Horizon go out to examine project sites and determine if wetlands are present. If wetlands are observed, Horizon works with land developers to try to protect wetlands as much as possible by avoiding them when they build. Sometimes, Horizon helps create, enhance, and restore wetlands by planting wetland species and working with land developers to ensure the proper **hydrology** (flow of water) is available to sustain the wetland ecosystem. We want to continue to develop for human needs while preserving delicate wetland ecosystems.

How can *you* get involved?

Wetlands are all around us. Take a walk outdoors and look along the shorelines of local ponds and creeks. Do you see any components of a wetland ecosystem? Can you name any of the plants or wildlife? Enjoy the beauty of wetlands up close and share your knowledge to help raise awareness about their importance.

How much did *you* learn? Take the quiz to see!

To learn more about what we do at Horizon, please visit our Services page. Thanks for joining us!

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