



Identifying Wetlands

In North Carolina



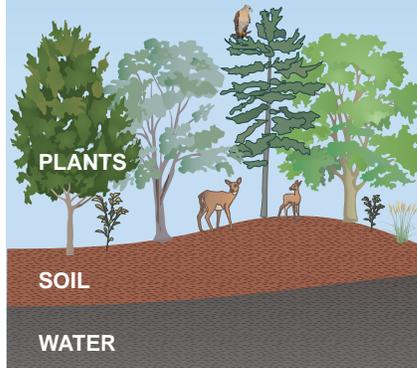
THE BASICS

What is a wetland?

Three things make a place a wetland. Those three things are *water, soil, and plants*. The right amount of water keeps the soil wet, and wetland plants like to grow in these wet soils. Most wetland plants are different from plants outside of wetlands. There are lots of wetlands in North Carolina. Have you ever visited a wetland? What did you see there?

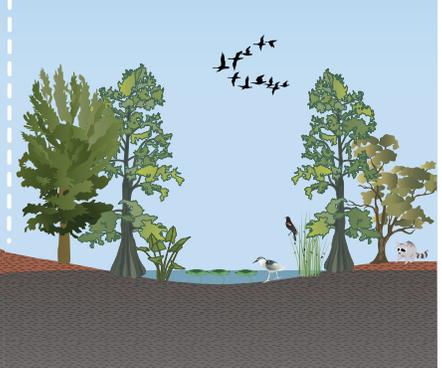
UPLAND ECOSYSTEMS

occur where water is far enough below the soil surface that only certain plants can thrive.



WETLAND ECOSYSTEMS

form when there is enough water near or at the soil surface to support plants that can thrive with a lot of water.



Uplands vs. Wetlands

WANT TO KNOW MORE?

The amount of water, type of soil, and types of plants varies among wetlands.

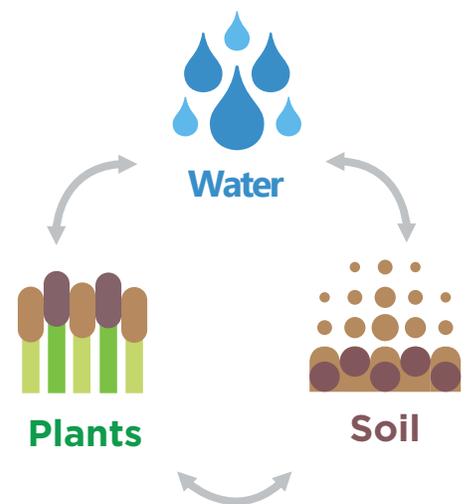
Wetlands exist across North Carolina and are found in areas that collect and hold water. If water stays for a long enough time, it begins to turn regular soil into hydric soil. Hydric soil makes a great home for wetland plants, which love to grow in water. These three things working together create the different wetland habitats.

(For more detailed information on each feature, see our Wetland Hydrology, Soils, and Plants factsheets.)

Have you ever visited a wetland? Why do you think wetlands are important?

Why care about wetlands?

So you know what a wetland is, but why should you care? Wetlands are very important to our ecosystems as they have numerous functions and benefits. They are home to hundreds of animal and plant species and also act as a nursery for young wildlife. They prevent soil erosion and flooding, and also filter chemicals and other toxins out of groundwater. Aside from ecological benefits, wetlands also provide us with opportunities for recreation. People visit wetlands to fish, boat, birdwatch, camp, bike, and much more. You may have even visited a wetland before and not known it, as many North Carolina state parks and recreation areas contain lands classified as wetlands. Visit our webpage and see a map of them all!





LET'S GET TECHNICAL

Water, soil, and plants. These three things interact in special ways to make wetlands.

The Army Corps of Engineers and U.S. Environmental Protection Agency define wetlands as “areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.”

What does all of that mean? Let's break the definition into 3 important parts: water, soil, and plants. These three things interact in special ways to make wetlands.

Water must be present in a wetland. When water collects in depressions in the earth and stays for a long time, it will influence changes in the soil, types of plants that grow, and animals that will live there. The amount of water varies between wetland types and determines which kinds of plants and animals can live there. Some wetlands have water permanently, and some are seasonal wetlands that periodically dry out. However, even if a wetland is “dry” on the surface it will still have water near the soil surface, maintaining the wetland hydrology and resulting ecology. (For more info, take a look at our Wetland Hydrology factsheet.)

Soil in wetlands is made hydric by the prolonged presence of water. Hydric soil is different from upland soil both chemically and physically. Once it is formed, it has low levels of oxygen, which can cause it to have a grey color. It may also be very dark in color because of all the dead plant material in it that has difficulty decaying without sufficient oxygen. (See our Wetland Soils factsheet for more details.)

Plants in wetlands are particular types that can tolerate and thrive in hydric soils. Wetland plants have adaptations that allow them to flourish in wet, low-oxygen environments, and draw wildlife into the wetlands by acting as a food source and habitat. (Our Wetland Plants factsheet discusses this in greater detail.)

Determining the location and extent of a wetland is done through a wetland delineation. During a wetland delineation, trained scientists examine soil characteristics, the amount and duration of the water, the types of plants, and secondary wetland indicators. A wetland boundary is determined using this information. In North Carolina, the Army Corps of Engineers makes the official determination of wetland areas that are subject to wetland laws (jurisdictional wetland areas). A permit may be required for any activity impacting this jurisdictional wetland area, because activities like filling and draining may affect downstream water quality.



SUPPLEMENTAL LINKS

Glossary: <http://www.ncwetlands.org/wp-content/uploads/NCWetlands-Glossary-of-wetland-terms.pdf>

Factsheet: Wetland Hydrology, Wetland Soils, Wetland Plants

Curriculum: 1.E.2, 3.L.2, 8.E.1, EEn2.3, EEn2.4, Bio2.1



CITATION

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www.ncwetlands.org

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