WETLANDS

Wetlands are natural areas of land that are covered by or saturated with water for at least part of the year. Most of the Chicago region's largest wetlands have been drained, filled, or dredged since white settlement.

Prior to colonization, the **Calumet region** in southeastern Cook County was renowned for the wetlands around Wolf Lake, where hunters would come in pursuit of the incredible abundance of waterfowl species that thrived there. The remaining wetlands in the Chicago region today are still important habitats that harbor **high levels of biodiversity**, especially organisms that require at least part of their life cycle to be completed in water such as many **insects** (e.g. dragonflies, damselflies, mayflies, and flies) and **amphibians** (e.g. salamanders, frogs, and toads).

Although many of the largest wetlands have been destroyed or severely altered in the Chicago region, there remains nevertheless a great diversity of smaller wetlands in the forest preserves and in places like Oakton College's Des Plaines campus. Some of these wetland varieties include **marshes, sedge meadows, vernal ponds, fens, and bogs**.

Marshes are usually permanent bodies of water that are surrounded by and interspersed with vegetation. A hemi-marsh contains an equal amount of open water and vegetated areas and provides valuable sheltered nooks for waterbirds to nest during the breeding season and to rest during migration. Skokie Lagoons, a wetland near Oakton's Skokie campus, was once one of the Chicago region's most extensive and richest marshes before it was excavated in the 1930s to create the series of recreational lagoons that canoeists and kayakers paddle through today.

Sedge meadows are wet, open, and often sunny fields where **sedges** (*Carex* species) – graminoid plants related to grasses – dominate and provide important habitat to countless animals. Sedge meadows are often located near streams, lakes, or other larger wetlands.

Ephemeral or vernal ponds – like the wetland here between the main building of the Des Plaines campus and Parking Lot A – are very important habitats for many species that breed in early spring such as amphibians. These ponds only last for a month or two in the spring depending on rain and snowfall amounts. Since predatory fish can't survive in these ephemeral wetlands, these habitats are ideal places for amphibians to safely reproduce.

Fens are a rare kind of wetland differentiated from other wetlands by their alkaline, mineral-rich water. The water in fens percolates through limestone and emerges near the surface as a seep or a spring. **Bogs** – on the other hand – are acidic wetlands with very low levels of dissolved oxygen in the water. Also rare in the Chicago region, bogs are usually found farther north and are home to plants such as **peat moss** (*Sphagnum* spp.) and **carnivorous plants** such as pitcher plants (*Sarracenia* spp.) and sundews (*Drosera* spp.).

The final type of wetlands that exist on Oakton's Des Plaines campus are **wet savannas and woodlands** which develop on land containing a layer of impermeable clay in the subsoil that makes it difficult for water to percolate through the soil. These areas often have standing water in the springtime and the dominant tree is usually the **swamp white oak** (*Quercus bicolor*). The understory has plants characteristic of wet prairies or sedge meadows. By fall, the ground is often dry enough to carry a fire through the ecosystem, which is an important ecological management technique that helps control shade-tolerant trees and invasive plant species.

In addition to supporting high levels of biodiversity, wetlands are incredibly important to humans in suburban and urban landscapes due to their **ability to help control floods**. As humans destroyed and converted wetlands to other kinds of land use – often replacing them with impervious surfaces and structures such as concrete, asphalt, and buildings – the risk of flooding during storms increased significantly.

Our remaining wetland remnants, and those areas we have restored more recently to become wetlands again, provide us with a hugely **valuable ecological service** by capturing, confining, and storing the water that comes down during large rainstorms. Without these natural areas, countless basements would be flooded more regularly, and hundreds of millions of dollars in flood damage would routinely occur to our homes and other important buildings in our lives.

Wetlands are also **ecosystems that clean water** by both filtering water through sediments and providing places where microbes degrade organic pollutants – ultimately returning some of that water to groundwater in aquifers from which many people derive their **drinking water**.

Wetlands - defined by abundant water, the molecule of life - have so much going on above, within, and below the water, making life of all kinds possible!

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