



ARKANSAS
MULTI-AGENCY
WETLAND
PLANNING TEAM



WETLANDS IN ARKANSAS

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Wetlands are areas where the periodic or permanent presence of water controls the characteristics of the environment and associated plants and animals. They include marshes, swamps, and similar areas found in flats, in depressions in the landscape, on slopes where groundwater emerges to the land surface, and between dry land and open water along the edges of streams, rivers, lakes, and coastlines.

When the upper part of soil is saturated with water during the growing season, soil organisms consume the oxygen in the soil and cause "hydric" soil conditions unsuitable for most plants. The plants that can grow in such conditions, such as marsh grasses or bottomland hardwood trees, are called "hydrophytes." Together, hydric soils, hydrophytes, and the saturation of soil during the growing season indicate that a wetland is present. Surface ponding of water is not necessary for an area to be considered a wetland, and many important wetland types have variable water regimes that leave them dry for extended periods. Some examples of these in Arkansas are vernal pools (pools that form due to spring rains but are dry at other times of the year), wet flats, wet prairie, and seasonal seeps. Formal wetland definitions have been developed by several federal agencies in the United States. These definitions include considerable detail and are used for regulatory and management purposes.

Wetlands cover approximately eight percent of Arkansas' land surface. The wetlands of Arkansas are found in diverse physiographic settings and have many unique characteristics, ultimately due to the complex geologic history of the state. The Classification and Characterization Project illustrates this diversity.

The majority of Arkansas' wetlands are riverine and depressional wetlands associated with the floodplains

of the Mississippi River and its major tributaries. Collectively, these areas are commonly referred to as "bottoms" or "bottomland hardwood forests." The value of these wetlands is immense. The Mississippi is the world's third-largest river, and drains two-thirds of the Continental United States. While the Mississippi itself has been hydrologically altered by a series of levees, many of the tributaries within Arkansas support the best of the remaining floodplain forests. The Cache-Lower White River area is an outstanding example of a regional bottomland hardwood complex. It has been recognized by the 49 nations of the Ramsar Convention as one of the 17 "Wetlands of International Importance" to be found in the United States of America, putting it on par with the Everglades for ecological significance. It represents the largest continuous expanse of bottomland hardwoods in the Lower Mississippi Valley. Approximately one-third of the remaining bottomland hardwoods in the Arkansas Delta are found within the Cache-Lower White Rivers 10-year floodplain. It is home to the only remaining population of black bears native to Arkansas, and not reintroduced after extirpation.

The lower 41 miles of the Arkansas River represent the last stretch of undisturbed large low-gradient river in Arkansas. Channel migration, pointbar building, shoreline erosion, and bank sloughing that once characterized all riverine wetlands of the lower Mississippi valley still occur here. The lower Arkansas is listed in the Registry of Arkansas Natural and Scenic Rivers.

The wetlands of the Delta comprise internationally important wintering habitat for migratory waterbirds. In the White River NWR alone, 3,000 - 10,000 Canada geese and up to 300,000 ducks have been recorded, approximately one-third of the total found in Arkansas and 10% of the Mississippi Flyway total.

Although Arkansas might be best known for its bottomland hardwood forests and cypress swamps, Arkansas actually has a wide variety of wetland types contributing to its diversity and unique plant and animal habitats. Arkansas is home to five major classes of wetlands based on water source, geology, and landscape position. Some of these wetland types may

have similar vegetation, but the fact that they have different hydrology and soil chemistry means that they are able to provide unique combinations of wetland functions.

Terraces left by ancient rivers can be found in parts of the Delta, Coastal Plain, and Arkansas River Valley. These areas are no longer flooded by modern rivers, but contain wet flat-woods and prairies, and isolated depressional wetlands. The wetland hydrology of the flats is maintained by precipitation, and the nature of the wetland determined in part by the nature of the particular terrace soil. As such, they may be alkali or acidic, and harbor unique plant species. Isolated depressional wetlands can also be hydrologically driven by precipitation alone, but some types (Sand Ponds, Valley Train Ponds, and Headwater Swamps) are also fed by shallow seasonal groundwater. These wetlands sometimes support rare plant species such as pond berry.

Slope wetlands found in the mountain areas and Coastal Plain are also groundwater-driven. The characteristics of these wetlands are influenced by their associated geologic formations and groundwater chemistry. They can also harbor unique plants, including unusual orchids and ferns. The Ozark mountains are also home to unique riverine wetlands such as a Spring Run, where groundwater emerges from the mountainside to become an instant stream, complete with riparian habitat.

The wetlands of Arkansas are diverse and important resources. They provide beauty in our landscape, opportunities for recreation, and functions that reach far beyond wildlife habitat.



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