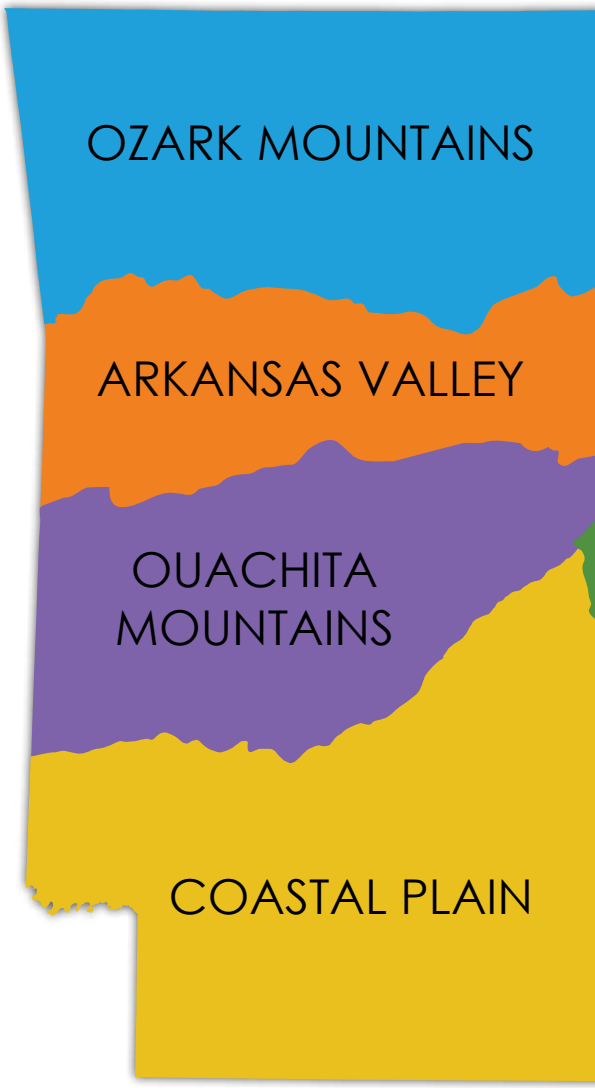
Natural Divisions

OZARK MOUNTAINS

The flat-topped OZARK MOUNTAINS are more accurately described as uplifted plateaus separated in three distinct subdivisions. Each has a unique topography, geology, and vegetation. The Boston Plateau is the highest, with streams that cut through its valleys to form the headwaters of the White, Buffalo, Mulberry, Big Piney, and Little Red Rivers. In most areas oak-hickory forests predominate, but shortleaf pine trees can be found on its sunnier and drier south-facing slopes. The Springfield Plateau is lower in elevation, and its plateau surface forms extensive, relatively flat plains. The underlying limestone here contains prominent cave and karst features. Rocky, open glades and widespread hardwood forests are natural communities still found here. The once extensive tallgrass prairies have almost all been converted to pastures, cities, or developed for other uses. The Salem Plateau is the lowest in elevation and forms extensive plains, with numerous rock exposures and bluffs along streams. Its level hilltops with rocky soils were once covered with oak forests, open oak woodlands, and open rocky glades.



Traversing the center of the state, the ARKANSAS VALLEY parallels the Arkansas River (and Interstate 40) for most of its length. Up to 40-miles wide at some points, the Arkansas Valley features dissected plateaus similar to those found in the Ozark Mountains to the north and ridges like those found in the Ouachita Mountains to the south. Steep-sided mesas, such as Petit Jean Mountain, Mount Nebo, and Mount Magazine, are unique to this natural division. The Arkansas River and its tributaries formed wide bottomlands and flat terraces that contribute to the distinctive character and natural communities of the valley. Average precipitation declines noticeably from east to west in the Arkansas Valley. The natural vegetation responds to this precipitation gradient as forests at the eastern end give way to open woodlands, savannas, and prairies at the western end.

ARKANSAS VALLEY

OUACHITA MOUNTAINS

Created by violent folding of the Earth's crust, the OUACHITA MOUNTAINS are characterized by narrow ridges that sometimes run over 100 miles long. Generally on an east-to-west alignment, the Ouachita Mountains are an unusual formation for North America. Because of this orientation, the south-facing slopes of the ridges are more exposed to the heat and light of the sun, pine and dry oak woodlands can be found here. North-facing slopes are cooler and with more moisture present support diverse hardwood forests. Small creeks, often fed by seeps and springs on the mountains, have narrow floodplains with high plant diversity. Outcrops of sandstone, shale, and novaculite rock form glade openings dominated by grasses, wildflowers, and shrubs.

# of Arkansas

CROWLEY'S RIDGE

The smallest of the natural divisions, CROWLEY'S RIDGE extends 150 miles from southeastern Missouri almost due south to the city of Helena, Arkansas. It ranges from one-half mile to 20 miles wide, except for one break that occurs outside of Marianna, Arkansas. Up to 200 feet higher than the surrounding Delta, the ridge was formed as the Delta rivers carved out their valleys leaving a narrow strip of older ocean-bottom materials that became the base of Crowley's Ridge. When the last glaciers retreated, the rivers deposited silt in their floodplains. The silt dried out, was picked up by winds, and piled atop Crowley's Ridge. This wind-blown dust, or loess, capping the ridge gives it much of its unique character. Water cuts through it very easily and has eroded deep valleys and sharp ridges. The steep hills of Crowley's Ridge support upland forests with hardwood trees that have adapted to well-drained slopes. Streams here are small, and at times flow rapidly down steep slopes.

COASTAL PLAIN

A rolling landscape, the COASTAL PLAIN was once covered by the water of the Gulf of Mexico. The sands and gravel that once formed the floor of the Gulf and its beaches now support forest habitat dominated by pine trees. After the Gulf of Mexico retreated, large rivers began coursing through the area creating wide floodplains and terraces. The floodplains are now dominated by bottomland hardwoods while extensive pine flatwoods are characteristic of the terraces. The lowest terrace also supports several smaller habitats such as saline barrens, which are home to specific grassland communities with plants adapted to its unique soil conditions. The blackland prairie region of southwest Arkansas is marked by chalk outcrops, black velvety soil, and cuestas. The chalk is made up of the shells of marine animals that drifted to the ocean floor. Cuestas are long, low ridges with a relatively steep face on one side and a long, gentle slope on the other.

MISSISSIPPI ALLUVIAL PLAIN

Often called the Delta, the MISSISSIPPI ALLUVIAL PLAIN covers the eastern third of Arkansas. This area was also once covered by the Gulf of Mexico. After the gulf receded, big rivers such as the White, the Mississippi, the Arkansas, and even the Ohio, flowed through the area, sweeping away the ocean bottom and replacing it with sand, silt, and clay. Oxbow lakes are prominent features. Swamps, sloughs, and the margins of bayous and lakes are flooded more than half of the time, supporting vegetation dominated by cypress and tupelo trees. Oak, persimmon, and native pecan trees thrive with the abundant water and deep soil. Not all of the Mississippi Alluvial Plain was covered by forest. As its name implies, the Grand Prairie of eastern Arkansas once contained impressive grasslands which were the largest in the state. Over 400,000 acres of tallgrass prairie occurred here prior to European settlement.