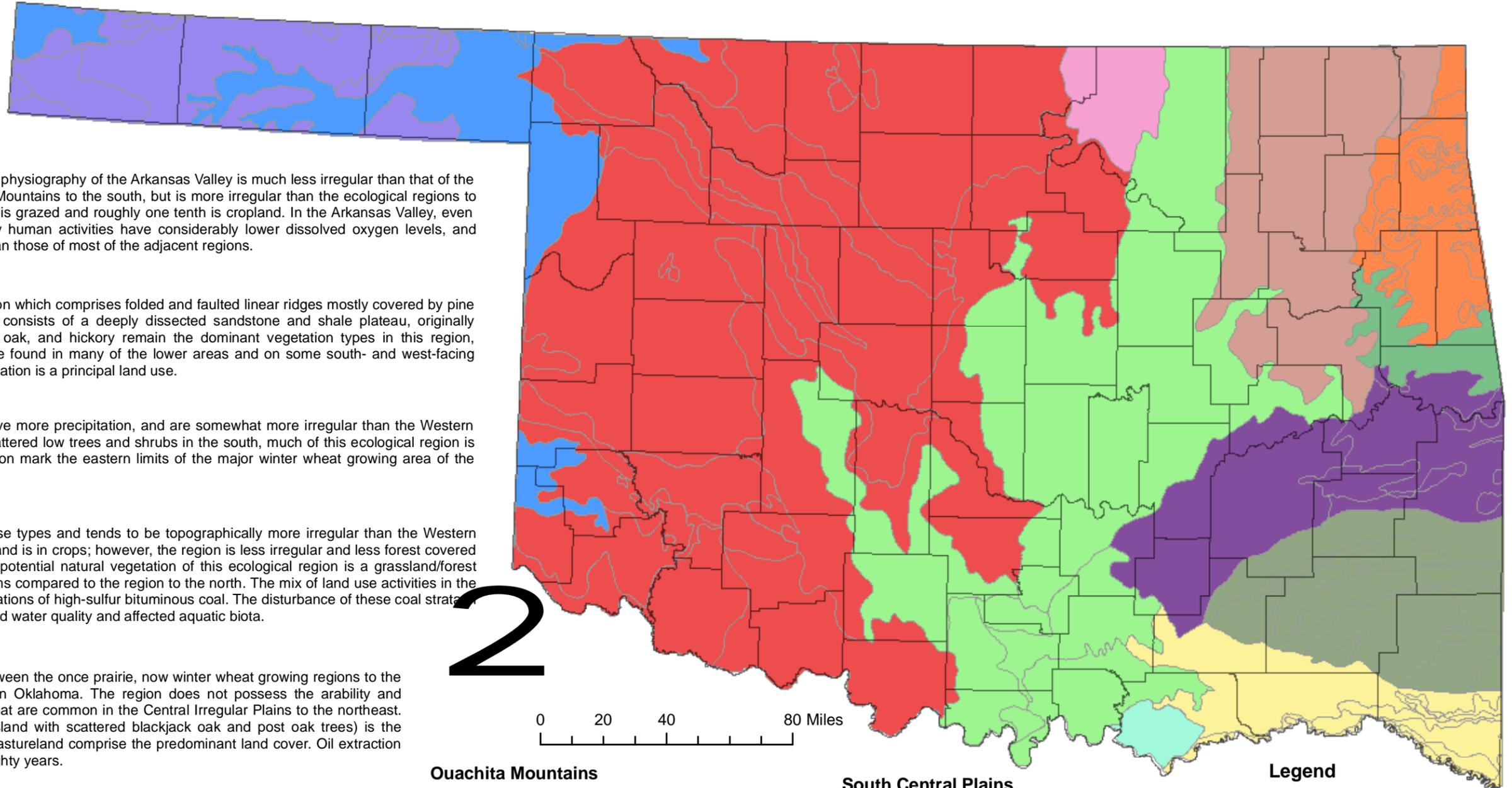




# The Ecoregions of Oklahoma



## Arkansas Valley

A region of mostly forested valleys and ridges, the physiography of the Arkansas Valley is much less irregular than that of the Boston Mountains to the north and the Ouachita Mountains to the south, but is more irregular than the ecological regions to the west and east. About one fourth of the region is grazed and roughly one tenth is cropland. In the Arkansas Valley, even streams that have been relatively unimpacted by human activities have considerably lower dissolved oxygen levels, and hence support different biological communities, than those of most of the adjacent regions.

## Boston Mountains

In contrast to the nearby Ouachita Mountains region which comprises folded and faulted linear ridges mostly covered by pine forests, the Boston Mountains ecological region consists of a deeply dissected sandstone and shale plateau, originally covered by oak-hickory forests. Red oak, white oak, and hickory remain the dominant vegetation types in this region, although shortleaf pine and eastern red cedar are found in many of the lower areas and on some south- and west-facing slopes. The region is sparsely populated and recreation is a principal land use.

## Central Great Plains

The Central Great Plains are slightly lower, receive more precipitation, and are somewhat more irregular than the Western High Plains to the west. Once grassland, with scattered low trees and shrubs in the south, much of this ecological region is now cropland. The eastern boundary of the region mark the eastern limits of the major winter wheat growing area of the United States.

## Central Irregular Plains

The Central Irregular Plains has a mix of land use types and tends to be topographically more irregular than the Western Corn Belt Plains to the north, where most of the land is in crops; however, the region is less irregular and less forest covered than the ecoregions to the south and east. The potential natural vegetation of this ecological region is a grassland/forest mosaic with wider forested strips along the streams compared to the region to the north. The mix of land use activities in the Central Irregular Plains also includes mining operations of high-sulfur bituminous coal. The disturbance of these coal strata, southern Iowa and northern Missouri has degraded water quality and affected aquatic biota.

## Cross Timbers

The Cross Timbers region is a transition area between the once prairie, now winter wheat growing regions to the west, and the forested low mountains of eastern Oklahoma. The region does not possess the arability and suitability for crops such as corn and soybeans that are common in the Central Irregular Plains to the northeast. Transitional "cross-timbers" (little bluestem grassland with scattered blackjack oak and post oak trees) is the native vegetation, and presently rangeland and pastureland comprise the predominant land cover. Oil extraction has been a major activity in this region for over eighty years.

## East Central Texas Plains

Also called the "Claypan Area", this region of irregular plains was originally covered by a post oak savanna vegetation, in contrast to the more open prairie-type regions to the north, south and west and the piney woods to the east. The bulk of this region is now used for pasture and range.

## Flint Hills

The Flint Hills is a region of limestone and shale open hills with relatively narrow steep valleys. In contrast to surrounding ecological regions that are mostly in cropland, most of the Flint Hills is grazed by beef cattle. Potential natural vegetation in the region is tallgrass prairie.

## High Plains

Higher and drier than the Central Great Plains to the east, and in contrast to the irregular, mostly grassland or grazing land of the Northwestern Great Plains to the north, much of the Oklahoma's High Plains comprises smooth to slightly irregular plains having a high percentage of cropland. Grama-buffalo grass is the potential natural vegetation in this region as compared to mostly wheatgrass-needlegrass to the north, Trans-Pecos shrub savanna to the south, and taller grasses to the east. The northern boundary of this ecological region is also the approximate northern limit of winter wheat and sorghum and the southern limit of spring wheat.

## Ouachita Mountains

The Ouachita Mountains ecological region is made up of sharply defined east-west trending ridges, formed through erosion of compressed sedimentary rock formations. Once covered by oak-hickory-pine forests, most of this region is now in loblolly and shortleaf pine. Commercial logging is the major land use in the region.

## Ozark Highlands

The Ozark Highlands ecoregion has a more irregular physiography and is generally more forested than adjacent regions, with the exception of the Boston Mountains to the south. The majority of this dissected limestone plateau is forested; oak-hickory is the predominant type, but stands of oak and pine are also common. Less than one fourth of the core of this region has been cleared for pasture and cropland, but half or more of the periphery, while not as agricultural as bordering ecological regions, is in cropland and pasture.

## South Central Plains

Locally termed the "piney woods", this region of mostly irregular plains was once blanketed by oak-hickory-pine forests, but is now predominantly in loblolly and shortleaf pine. Only about one sixth of the region is in cropland, whereas about two thirds is in forests and woodland. Lumber and pulpwood production are major economic activities

## Southwestern Tablelands

Unlike most adjacent Great Plains ecological regions, little of the Southwestern Tablelands is in cropland. Much of this elevated tableland is in sub humid grassland and semiarid grazing land. The potential natural vegetation in this region is grama-buffalo grass with some mesquite-buffalo grass in the southeast and shinnery (midgrass prairie with open low and shrubs) along the Canadian River.

## Legend

- Arkansas Valley
- Boston Mountains
- Central Great Plains
- Central Irregular Plains
- Cross Timbers
- East Central Texas Plains
- Flint Hills
- High Plains
- Ouachita Mountains
- Ozark Highlands
- South Central Plains
- Southwestern Tablelands