

**TEXAS PARKS AND WILDLIFE**



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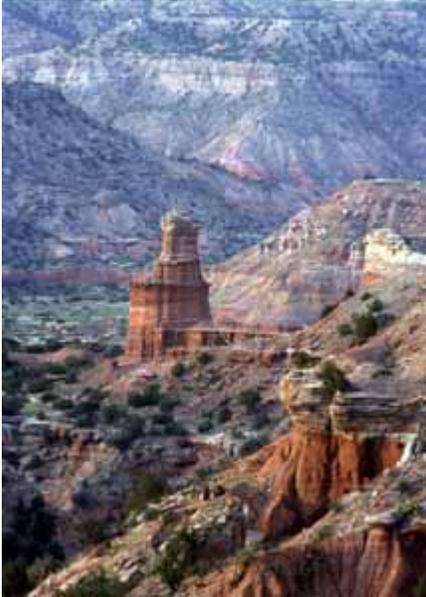
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## REGIONAL DESCRIPTION

This region has mostly flat, grassy land or plains and is on a high, flat plateau. Natural vegetation consists of mixed-grass plains, shortgrass high plains, shinnery oak grasslands, and mesquite grasslands. The Western Short Grasslands are among the most biologically diverse ecoregions in the United



States and Canada. This ecoregion once supported one of the most impressive American bison migrations in the world.

Much of the Rolling Red Plains has been altered by agriculture and ranching. Remaining natural plant communities are affected by fragmentation, direct loss due to crops, pasture, and overgrazing. During the past 100 years, more than half of the native prairies in Texas have been lost to urban development or converted to cropland. Loss of habitat has caused concern about some of the prairie-

dependent species like the lesser prairie-chicken, swift fox, mountain plover, black-tailed prairie dog, and pronghorns. Grassland restoration in Texas is rapidly becoming a priority for private landowners. The Texas Parks and Wildlife Department also has two ongoing prairie restoration projects in the Panhandle district: Rita Blanca National Grasslands in Dallam County and Copper Breaks State Park in Hardemann County. These areas provide examples of fully restored grasslands and support populations of indigenous wildlife such as black-tailed prairie dogs and ferruginous hawks.

Palo Duro Canyon and Caprock Canyons State Parks are in this region. The remarkable canyons were carved by rivers. They are sometimes called "inverted mountains" since the land is relatively flat until you reach the long and steep canyons in the ground.

Playa lakes play an essential role in this region, and they are the prime waterfowl wintering grounds for the North American Central Flyway. Playas are shallow,

circular-shaped wetlands that are primarily filled by rainfall. Most playas are seasonally flooded basins. In good years, these shallow basins collect about three or four feet of water. Some playas found in cropland settings may also receive water from irrigation runoff. Playas average slightly more than 15 acres in size. In ancient times, bison used these wetlands as watering holes and wallows, and the Native



American tribes who followed the bison found good hunting, water and many edible plants nearby. Today, farmers often plant grain crops like wheat or corn around playas, which provide feeding, wintering and breeding areas for ducks, geese and other migratory birds. Over time, the moisture either evaporates or filters through the soil to recharge the aquifer. Playas provide the most significant wetland habitats in the southern quarter of the Central Flyway for migrating and wintering birds. Up to 2 million ducks and hundreds of thousands of geese take winter refuge here. Shorebirds, wading birds, game birds, hawks and owls, and a variety of mammals also find food and shelter in playas. Learn more about [Playa Lakes](#).

The Canadian River is the only river in Texas that flows northward. From New Mexico, it flows across the Texas Panhandle into Oklahoma and eventually into the Arkansas River.

The Ogallala Aquifer is the primary water source for this region, providing 97 percent of this area's water needs. Approximately 90 percent of the water demand is for irrigation. The Ogallala Aquifer lies under the Panhandle Plains and extends north to three other states. Water is being pumped from the Ogallala faster than it can recharge. Learn more about the [Panhandle](#) region, its [history](#), [wildlife](#), and [state parks](#).

## Topography and Characteristics

This area forms the southern end of the Great Plains. The western and eastern parts of the Panhandle region are strikingly divided by deep canyons carved by rivers and their tributaries that wind their way through this area.

Extending from the Panhandle south to the Pecos River, the High Plains have been described as a sea of waving grasslands. The 20 million acres of this region fills most of the “handle portion” of the state. It is a relatively high and level plateau of sandy to heavy, dark calcareous clay soils over an impervious layer of caliche. The soil is neutral to slightly alkaline. Caliche, soil mixed with chunks of calcium carbonate, generally is found 2 to 5 feet under surface soils.

**Major Rivers:** Red, Pecos, Canadian, Colorado and Brazos.

**Major Aquifer:** Ogallala, Seymour, Nacotoch, Alluvium, Cenozoic, Pecos, Edwards-Trinity

**Size:** 81,500 sq. mi.

Learn more about the [rivers](#) and [lakes](#) in this region.

## Major Cities / Rainfall / Elevation

CITY	AVERAGE ANNUAL PRECIPITATION	ELEVATION
Abilene	23.78 in.	1,790 ft.
Amarillo	19.71 in.	3,586ft.
Borger	21.98 in.	3,140 ft.
Boys Ranch	18.18 in.	3,191 ft.
Brownwood	28.32 in.	1,385 ft.
Clarendon	23.89 in.	2,700 ft.
Lamesa	19.07 in.	2,965 ft.
Lubbock	18.69 in.	3,254 ft.
Memphis	22.51 in.	2,090 ft.
Midland	14.80 in.	2,862 ft.
Muleshoe	17.37 in.	3,825 ft.
Paducah	24.11 in.	1,900 ft.
Perryton	20.88 in.	2,942 ft.

Source: National Climate Data Center, U.S. Dept of Commerce, [www.ncdc.noaa.gov](http://www.ncdc.noaa.gov)

## Common Vegetation

Sugarberry	Mtn. mahogany	Acacia
Plains cottonwood	Chokecherry	Fragrant sumac
Honey mesquite	Prairie crabapple	Prickly-pear cactus
Bur oak	Eastern red cedar	Narrow-leaf yucca
Peach-leaf willow	Saltbush	Sideoats gramma
Western soapberry	Silver agarita	Coral honeysuckle

Learn more on our Wildscapes page: [Plant Guidance for the High Plains](#) and for the [Rolling Plains](#)

## Rare Plants & Habitats

Texas poppy-mallow

Learn more about [Endangered and Threatened Plants](#).

## Common Wildlife

Badger	Prairie dog	Snowy plover
Burrowing owl	Pinyon mouse	Swainson's hawk
Flathead chub	Plains hognose snake	Swift fox
Great horned owl	Pronghorn antelope	Thirteen-lined ground squirrel
Mule deer	Roadrunner	Walleye
		Western diamondback rattlesnake

Learn more about these animals on our [Wildlife Fact Sheets](#)

## Rare Animals

Black-footed ferret	Interior least tern
Palo Duro mouse	Texas kangaroo rat
Black-capped vireo	Concho water snake

Learn more about [Endangered and Threatened Species](#).

# ISSUES AND TOPICS OF CONCERNS

To become environmentally literate, we first have to consider these core concepts:

1. Fish and wildlife resources are a public trust.

*Did you know that ownership of land does not convey ownership of wildlife? Example, a deer inhabiting Joe's ranch does not belong to Joe—the deer belongs to all of us.*

2. Conservation and management of terrestrial and water resources are essential to sustaining fish and wildlife, the outdoor landscape, and the quality of our lives.

*Would you agree that we all enjoy looking at a beautiful and healthy scenic landscape?*

3. Understanding and active participation in the stewardship and support of our natural resources is key.

*Would you agree that when one participates in a service project such as a tree planting, that they take pride and ownership in that habitat now and in the future?*

These are the first three of five core concepts endorsed by Association of Fish & Wildlife Agencies (AFWA). Learn more about the [AFWA Core Concepts](#).

With the above concepts in mind, TPWD held a series of focus meetings with leading biologists across the state. They were asked: *“What issues in your area are most important for people to know or understand?”*

## Terrestrial Issues:

- Importance of Grasslands and Prairies
- Understanding Management Practices
- Understanding Wetlands
- Finding a Balance – Competing Uses for Land and Water

## Aquatic Issues:

- Ogallala Water Issues
- Invasive Species Management
- Future of Water
- Riparian Corridors

Learn more about the [wildlife habitats of the Panhandle](#). Explore the [Wildlife Management Areas \(WMA\) of the Panhandle](#). Learn more about the [state of water in the Panhandle](#) region.

## **Project WILD Activities relative to regional issues**

- From Bison to Bread: The American Prairie (importance of grasslands)
- Ethni-reasoning (finding a balance)
- Riparian Retreat (riparian corridors)
- Blue-Ribbon Niche (riparian corridors)
- Wetland Metaphors (understanding wetlands)

## **Project WILD Activities with Texas Adaptations**

- Checks and Balances
- Happy Prairie (adapted from Dragonfly Pond)
- Here Today, Gone Tomorrow
- Quick Freeze Prairie Dogs
- Surviving as a Black-footed Ferret
- Watershed (Aquatic)
- World Travelers

## **TPWD Resources**

People:

Find your local [Game Warden](#)  
Find your local Wildlife [Biologist](#)

Student publications and activities:

[Coloring pages](#) for the Panhandle  
[Teacher activities](#) for the Panhandle  
[Short grass Prairie](#) activities

Maps:

High Plains ecoregion [Map](#) and Rolling Plains ecoregion [Map](#)  
Major Aquifers [map](#)  
Minor Aquifers [map](#)  
Additional [maps](#) (rainfall, vegetation, river basins, etc)

Media, Videos and Web casts:

[Videos](#) about the state parks of the Panhandle region  
[Webcasts](#) for the Panhandle region  
Search the [TPW Magazine](#) for articles about the Panhandle

Habitat and Wildlife Publications:

Habitat:

- [Land Fragmentation in Texas: Meeting the Challenge](#)
- [Guidelines for Native Grassland Restoration](#)
- [Panhandle Wildlife Trails](#) map and info

- [An Analysis of Texas Waterways](#): A Report on the Physical Characteristics of Rivers, Streams, and Bayous in Texas
  - [Canadian River Basin](#) map
  - [Colorado River](#)
  - [Pecos River](#)
  - [Red River](#) and [basin map](#)

Wetlands:

- [Texas Wetlands Conservation Plan](#)
- [Wetlands Assistance Guide for Landowners](#)
- [Texas Treasures: Wetlands](#)

Wildlife:

- [Scaled Quail Biology and Management](#)
- [Lesser Prairie Chicken](#)
- [Lesser Prairie Chicken brochure](#)
- [Birds of the High Plains and Rolling Plains](#)
- [Project Prairie Birds: A Citizen Science Project](#)
- [On the Waterfowl of Texas](#)
- [Migratory Birds of Texas](#)
- [Bison](#) lessons and activities
- [Black-tailed Prairie Dog Monitoring Project](#)
- [Black-tailed Prairie Dog Conservation and Management](#)
- [Where have all the Quail Gone?](#)
- [Swift Fox](#) brochure
- [Black-footed ferret](#)
- [Black-footed ferret: Management Guidelines](#)



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