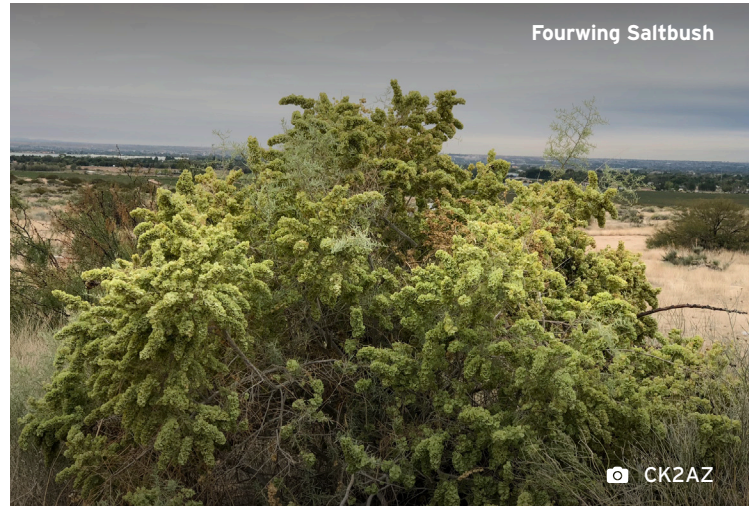


CRITTER CONNECTIONS

**ROLLING PLAINS
ECOREGION**



FOURWING SALTBUSSH



Fourwing saltbush, scientific name *Atriplex canescens*, is a native shrub that can be found in the Rolling Plains ecoregion of Texas. This plant gets its name from the unique four-winged tan fruit that follows bright yellow flowers and its ability to grow in salty soils. It can reach heights of eight feet, though it most commonly grows three to four feet tall, and can be twice as wide as it is tall, giving it a rounded shape. It has lots of densely packed branches and is evergreen, meaning its small leaves stay green year-round.

Fourwing saltbush is incredibly important for the ecosystems it is found in. This fast-growing plant has an extensive root

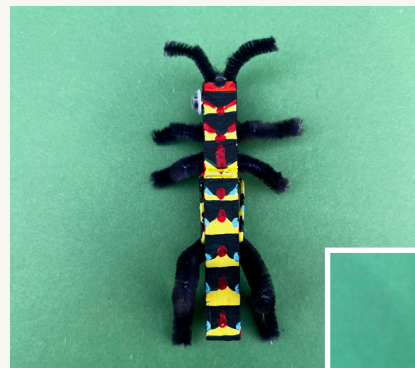
system that can grow up to 20 feet deep, which helps keep the soil in place and slow erosion! It is drought and heat tolerant, meaning it can withstand periods of dry and hot weather. This native Texas plant is a good source of food for wildlife. Pronghorn, deer, jackrabbits, quail, ground squirrels, and more eat the nutritious leaves, fruit, and seeds of this plant. Even more, the fourwing saltbush provides cover from weather and predators. Some critters will use this plant for nesting, roosting, or shade. How neat!

📷 Cover photo courtesy of Mary

HOPPIN' GRASSHOPPER

For this craft you will need a clothespin, markers or paint, construction paper or pipe cleaners, glue, and googly eyes (optional).

1. Color the rainbow grasshopper's pattern (photo in feature article) onto the clothespin. This will be the body of your grasshopper.
2. Create two back legs out of construction paper or pipe cleaners. Glue them to the bottom half of the clothespin. Optional - add antennas and front legs.
3. Add eyes to the front of the clothespin using a marker or googly eyes.
4. Lay the clothespin on a flat surface. Press on the top half of the clothespin. How far did your rainbow grasshopper jump?



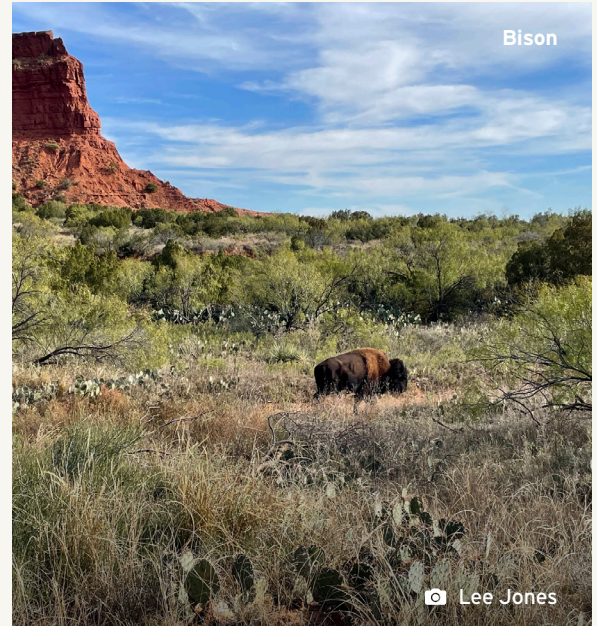
Read the feature article to learn more about the rainbow grasshopper and other critters found in the Rolling Plains ecoregion.



Activity Source: Play Street Museum

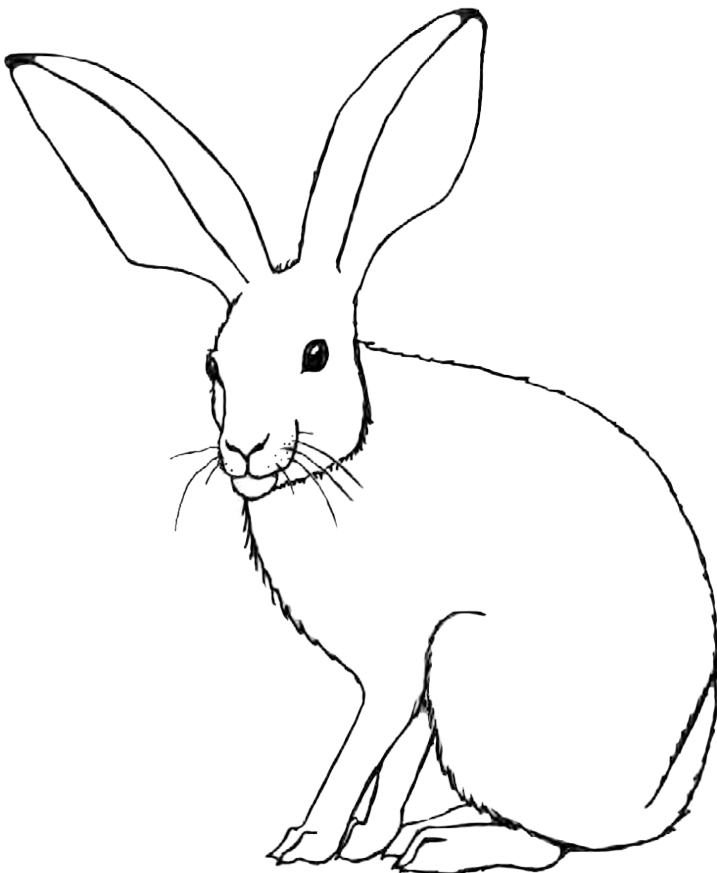
DID YOU KNOW...

- ... that Texas is home to 10 different ecoregions?
- ... that the Rolling Plains ecoregion is in north-central Texas?
- ... that the fourwing saltbush's roots can grow up to 20 feet deep?
- ... that the Texas state bison herd lives in Caprock Canyons State Park?
- ... that the Palo Duro Canyon is the second largest canyon system in the United States?
- ... that Northern Bobwhite quail are named after their call?
- ... that black-tailed jackrabbits can reach speeds of 30 miles per hour?
- ... that black-tailed jackrabbits have two kinds of droppings?
- ... that the Concho water snake can grow up to three feet long?
- ... that the rainbow grasshopper is sometimes called the painted grasshopper?



COLOR ME BLACK-TAILED JACKRABBIT

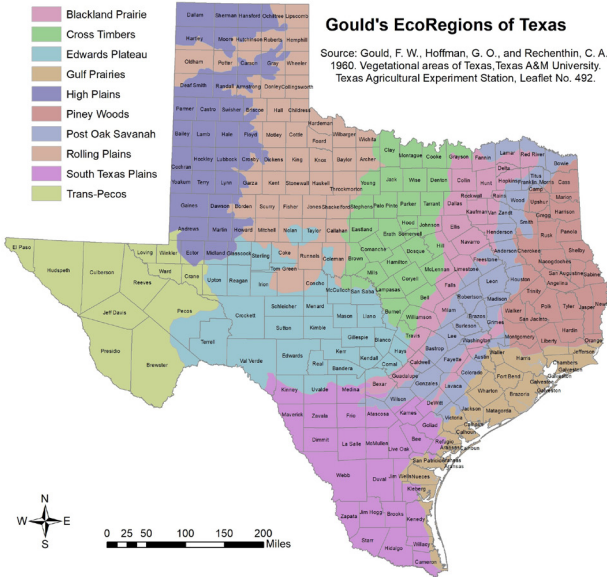
(Lepus californicus)



ROLLING PLAINS ECOREGION

By Amber Brown
Conservation Education Specialist, Texas Wildlife Association

📷 Alexander Hatley



Texas is home to 10 different Gould's ecoregions as seen on the map above. Ecoregions are areas of land that share similar climate, **topography**, and soils. In this series, we will dive into each of Texas' 10 ecoregions one Critter Connections issue at a time. Next up - the Rolling Plains!

The Rolling Plains ecoregion, located in north-central Texas, lies between the High Plains and Cross Timbers. This ecoregion makes up part of the southern end of the Great



Plains, an area that stretches from Canada to Texas. Within this region you can find many different types of landscapes like steep jagged canyons, arid badlands, and gently rolling prairies! This diverse landscape supports a wide array

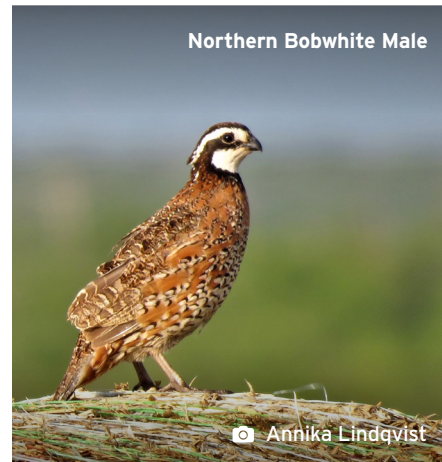
of wildlife like grassland birds, pronghorn, and **endemic** species like the Palo Duro mouse.

Beyond wildlife, this area is home to remarkable history and landscapes. The first cattle ranch in the Texas Panhandle, the JA Ranch, was established by Charles Goodnight and John Adair near the Palo Duro Canyon in 1877. Not long after, Charles and Mary Ann Goodnight created a bison herd, helping preserve the Southern Plains bison. Today, the descendants make up the official Texas state bison herd and reside in the Caprock Canyons State Park. Additionally, the Palo Duro Canyon, sometimes called the Grand Canyon

of Texas, is the second largest canyon system in the country and can be accessed through Palo Duro Canyon State Park. While the historic prairies of this area that once supported thousands of roaming bison, pronghorn, and black-tailed prairie dogs are no longer present, the Rolling Plains ecoregion still has a lot to offer. From its beautiful red soils

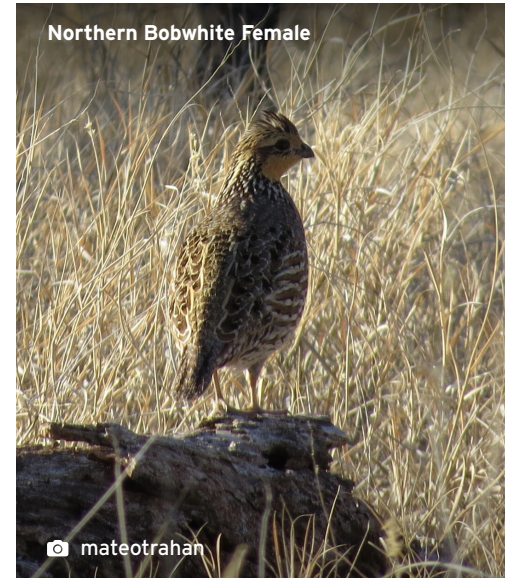
to landmark features like Lighthouse Rock and even fossils that tell the story of eras past, this area is a unique part of Texas. Let's learn more about the critters that can be found in this ecoregion!

Texas is home to four different species of quail. One quail species you can find in the Rolling Plains ecoregion is the Northern Bobwhite. This native Texas bird got its name from its distinct call, a whistle that sounds like *bob-WHITE*. Bobwhite quail are identified by their reddish-brown color, round bodies, rounded wings, and short tails. Male and female bobwhite quail look similar, aside from their face markings. A female quail has a tan face with a brown line near her eye, while a male quail stands out with a white face and black



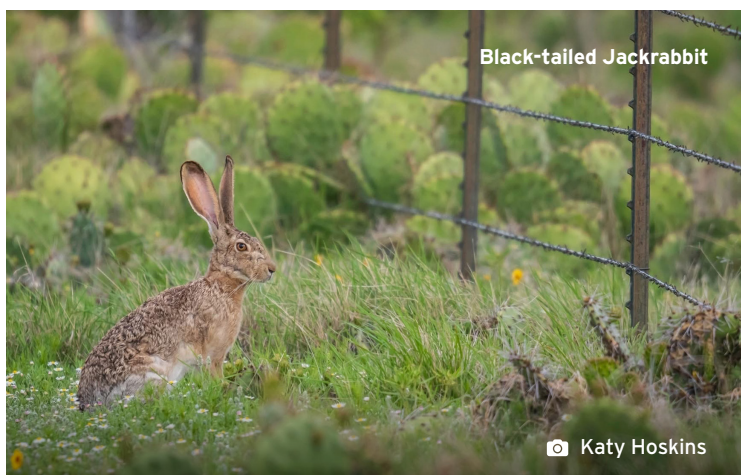
stripe near his eye. Northern Bobwhites will travel in groups of 10-15 birds, called a covey. They are ground-dwelling birds meaning they search for food, nest, and **roost** on the ground. They prefer areas with grass that grows in clumps, called bunchgrass. This allows them to

easily move along the ground while still being protected from predators and the weather. When disturbed, they will explode into flight and quickly disappear into the nearest cover. At night, the covey will roost in a circle on the ground with their



bodies touching and heads facing out. These well-known Texas critters eat seeds, leaves, berries, and insects. In turn, they are preyed upon by hawks, owls, and coyotes. Bobwhite quail were once common across Texas but have faced a sharp decline like other grassland birds due to habitat loss, fire suppression, and **urbanization**.

One native mammal you can find in the Rolling Plains ecoregion of Texas is the black-tailed jackrabbit. Despite its name, this critter is actually a hare. Hares have larger bodies, bigger ears, and longer back legs than rabbits. Black-tailed jackrabbits have light brown fur with small black streaks that help them blend in with their surroundings as they rest in shallow depressions during the day. At night these critters come to life! They begin searching for food as the sun goes down and continue through the night, using their large ears and eyes on the sides of their heads to scan for predators. When startled, these critters will run away reaching speeds of 30 miles per hour, taking zigzagging turns and jumping over 20 feet to escape. They will flash the white undersides of their tails to alert others of danger. Jackrabbits like to be in open areas, which allows them to see predators like coyotes, bobcats, and raptors. Because these **herbivores** get enough water from the food they consume, they do not need to drink, allowing them to thrive in dry environments. Jackrabbits have two types of droppings, one soft pellet that is full of vitamins and protein and one dry pellet. They will eat the soft pellets to extract the nutrients. After digestion, they excrete the waste products as dry pellets, which they leave behind.



Black-tailed Jackrabbit

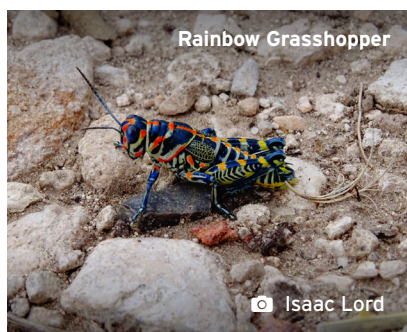
Katy Hoskins

Another critter endemic to the Rolling Plains ecoregion of Texas is the Concho water snake, found only in the Concho and Colorado river basins. This native Texas reptile grows up to three feet long and can be identified by its light brown body with reddish-brown bands. The Concho water snake is preyed upon by other snakes, raccoons, and birds like herons, hawks, and owls. In turn, it preys on minnows, catfish, and sunfish. Due to its limited range, the Concho water snake is sensitive to habitat loss, but conservation efforts like water flow management and artificial **riffles** help restore the area it occupies.



Concho Water Snake

scottwahlberg



Rainbow Grasshopper

Isaac Lord

One unexpected sight in the Great Plains, including the Rolling Plains ecoregion of Texas, is the brightly colored rainbow grasshopper. This native Texas insect, known for its beautiful orange, yellow, white, and black

markings, does not blend in with its surroundings. Instead, it uses its bright colors to warn predators that it is poisonous or tastes bad, an adaptation known as aposematism. Sometimes called the painted grasshopper or barber pole grasshopper, these herbivores are preyed upon by small mammals, birds, amphibians, and reptiles.

Like other areas of Texas, this ecoregion faces challenges like urbanization, conversion of native prairies into agriculture, fire suppression, overgrazing, and **brush encroachment**. Through conservation efforts, establishment of state parks, and continued work of conservationists, research scientists, private landowners, and citizens, the Rolling Plains ecoregion has a bright future ahead!

WORD BANK

- Topography** - an area's physical shape; for example rivers, hills, and valleys
- Endemic** - found in a specific place and native to the area it is found in
- Roost** - a place where birds rest or sleep
- Urbanization** - the process of making an area more urban
- Herbivores** - eats only plant materials
- Riffles** - shallow, rocky part of a river where water moves quickly
- Brush encroachment** - the spread of woody plants like trees and shrubs into grassland areas

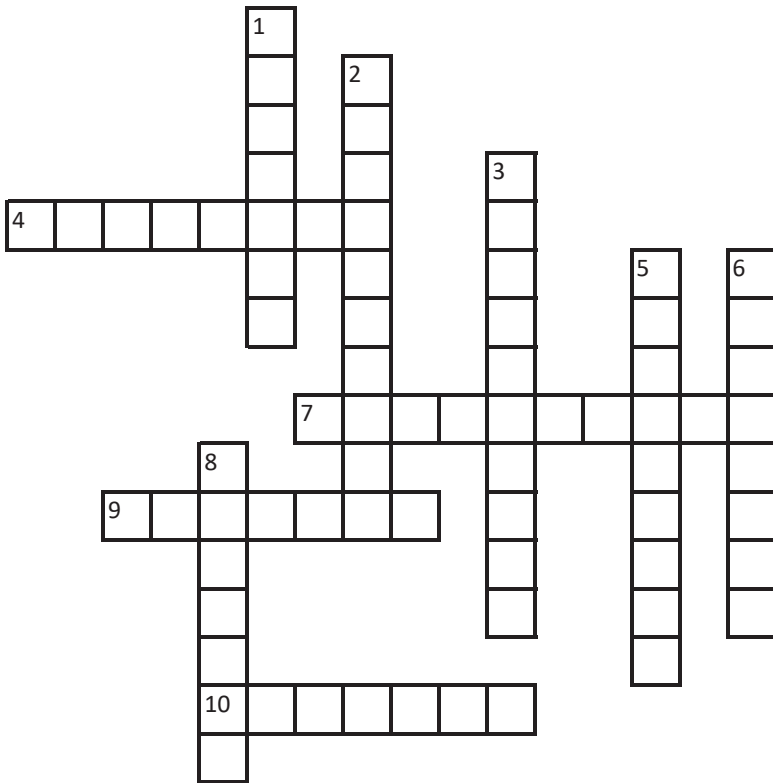
LEARN MORE ONLINE

www.texas-wildlife.org/critter-connections-library
 Visit the **Critter Connections** library for enrichment activities and resources to take your learning to the next level.

Article Source:
The Natural History of Texas by
 Brian R. Chapman and Eric G. Bolen



ROLLING PLAINS CROSSWORD



ACROSS:

4. Northern _____; native bird
7. Black-tailed _____; native mammal
9. Rainbow grasshopper; sometimes called the _____ grasshopper
10. Found in a specific place and native to the area it is found

DOWN:

1. The _____ Plains ecoregion
2. Concho _____; native reptile
3. An area's physical shape; for example rivers, hills, and valleys
5. Eats only plant materials
6. Fourwing _____; native shrub
8. Shallow, rocky part of a river where water moves quickly

Visit the Critter Connections library at www.texas-wildlife.org/critter-connections-library to view the answer key.

NANCY'S CORNER

Charles and Mary Ann (Molly) Goodnight, often referred to as the Father and Mother of the Texas Panhandle, are known for their impacts to the region. Charles was a Texas Ranger scout and cattle rancher who helped create the first cattle ranch in the Texas Panhandle. Molly was a cattlemoan, teacher, and doctor who spurred the movement to save the bison.

After seeing the quick decline of bison and listening to the orphaned calves cry at night, Molly urged her husband to conserve the species. In doing so, the Goodnights preserved the Southern Plains bison. The descendants of this herd, now Texas' state bison herd, were donated to the Texas Parks and Wildlife Department and live in the Caprock Canyons State Park. Thanks to the Goodnights' stewardship actions, these native Texas mammals can be admired by future generations to come.

Imagine you are a natural resource steward like the Goodnights. Observe the plants, water, and wildlife in your ecoregion. What natural resources in your area need help? What role do they play in their ecosystem, and what other critters rely on them for survival? How would conserving them benefit your ecoregion? What are some stewardship actions you can take to help conserve the natural resources in your ecoregion? Create a nature journal and reflect on these questions.





Youth Education

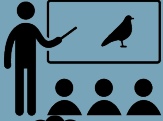
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