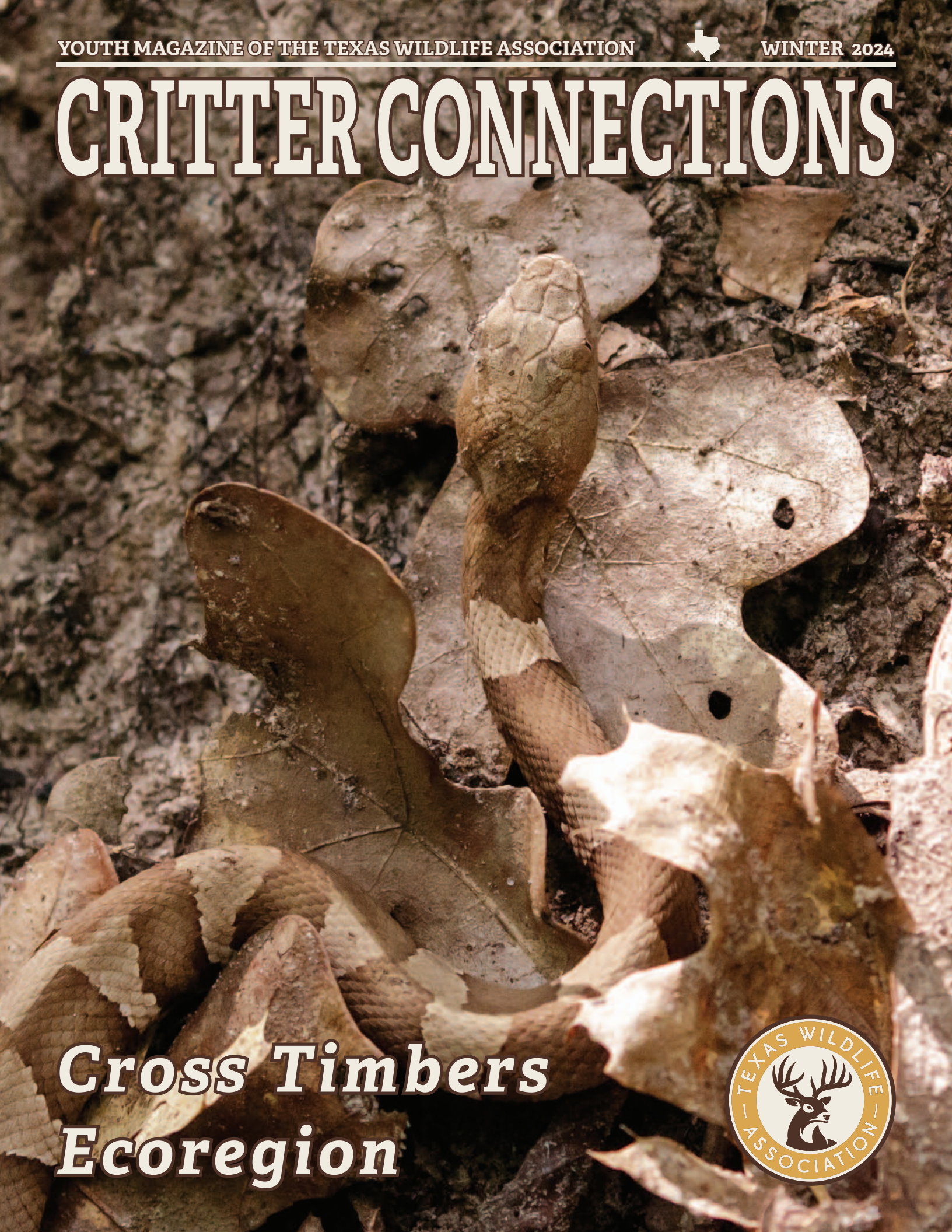




# CRITTER CONNECTIONS



**Cross Timbers  
Ecoregion**







# Blackjack Oak



Blackjack Oak

One plant you can find in the Cross Timbers ecoregion of Texas is the blackjack oak, scientific name *Quercus marilandica*. The blackjack oak is small, shrubby oak tree known for its dark, almost-black bark and lobed leaves. This tree can be found in the eastern and central United States. Within the Cross Timbers ecoregion, this native Texas tree can be found in the forested belts, growing up to 50-60 feet tall but rarely reaching over 40 feet tall. For example, a 100-year-old tree can grow to be only 20 feet tall. This is due, in part, to where this tree grows.

These drought tolerant trees grow in tough areas – preferring dry, rocky or even sandy soils where few tree species can

thrive. Blackjack oaks do not like to be in the shade. They prefer areas where they can get full sunlight. In fact, these trees evolved to live in very dry areas so they can get the amount of sunlight needed to grow.

These trees play an important role in the life cycles of the Texas wildlife that depend on them for survival. The blackjack oak's leaves and acorns provide food for animals like the white-tailed deer and wild turkey. They also provide nesting sites for birds, cover from threats like predators, and shelter from weather like high or low temperatures, wind and rain. What a neat native Texas plant!



Blackjack Oak Leaves

Article Source:  
<http://ctufc.org/native-trees/blackjack-oak-tree/>

Photos by Sam Kieschnick, Madison Gover

Cover photo by Meghan Cassidy

## Eastern Spotted Skunk Puppet

For this activity you will need a paper bag, black and white construction paper (optional – markers), googly eyes (optional), glue or tape, and scissors.

1. Cover all sides and the bottom of your paper bag with black construction paper (optional – you can color the bag instead). This will be the body of your skunk.
2. Using black construction paper, cut out a tail and two ears.
3. Using white construction paper, cut out a triangle and two thin stripes for the head, fringe for the tail, and spots for the back (see photos for reference).
4. Glue or tape the tail, ears, stripes and spots onto the skunk.
5. Add eyes and a pink oval for a nose. If desired, you can add a pink piece of paper under the flap of the bag for a tongue.

Now you have your very own eastern spotted skunk puppet! What kind of food does this animal eat? What kind of ecosystem does it live in? Read the Cross Timbers Ecoregion article to learn more about this crafty critter!



Activity Source and Photos: Amber Brown

# Did you know...



- ...that Texas has 10 ecoregions?
- ...that blackjack oaks do not like to be in the shade?
- ...that the Cross Timbers ecoregion is home to both forests and prairies?
- ...that the Cross Timbers ecoregion was a landmark for settlers traveling west?
- ...that the eastern spotted skunk can spray accurately up to 10 feet?
- ...that eastern red bats roost in trees?
- ...that there are three species of copperhead snakes in Texas?
- ...that the spotted chorus frog lives in prairies?
- ...that the Painted Bunting's call is described as sweet?
- ...that conservationists, biologists and land managers are restoring wildlife habitats?



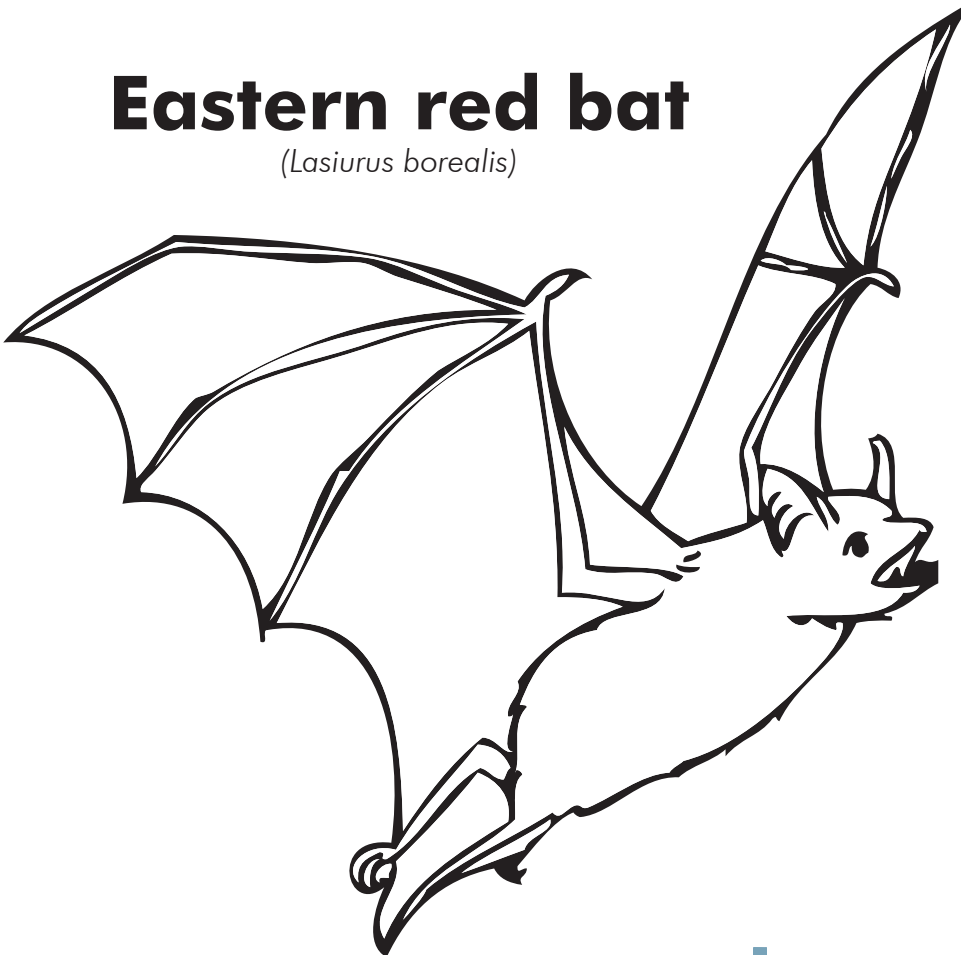
Painted Bunting

Photo by Dakota Lynch

## Color Me

### Eastern red bat

*(Lasiurus borealis)*



Activity source: Sheri Amsel - [www.exploringnature.org](http://www.exploringnature.org)  
Photo by Joe Girgente

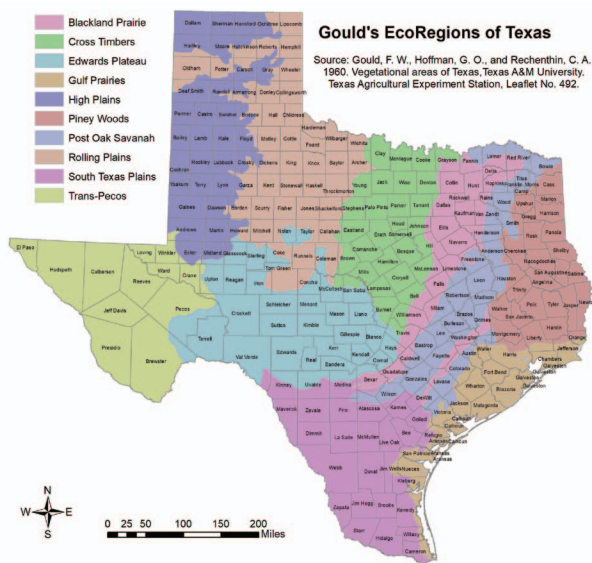




By Amber Brown

Texas is home to 10 different Gould's ecoregions as seen on the map below. 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 Cross Timbers!

The Cross Timbers ecoregion is located in north central Texas. It begins at the Texas-Oklahoma state line and stretches south until it reaches central Texas. Within this region, you can find several large cities like Denton, Fort Worth and parts of Dallas. This area is made up of tall grass prairies with alternating bands of timbered, also called forested, areas. Historically, this area was considered a landmark for settlers as they were traveling west because of the distinct bands of short forests surrounded by tall grass prairies. These were known among travelers as the last forested areas they would encounter until they reached the mountains. This is how this ecoregion got its name - travelers had to 'crisscross' the bands of forests within this ecoregion before they reached the open plains.



We now know that this area is considered a transition zone. Transition zones are areas where two different habitat types meet and blend. In this case, the Cross Timbers marks the transition of the forested areas of the southeastern United States, to the open grasslands of the great plains. Because of the different habitat types, or subregions, within this ecoregion, a wide variety of wildlife can be found.

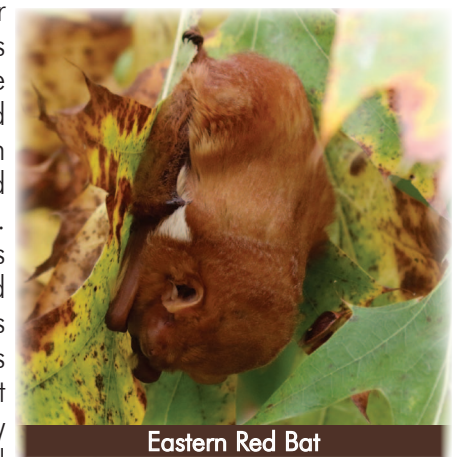
One native Texas critter you can find throughout the Cross Timbers ecoregion is the eastern spotted skunk. This nocturnal mammal is one of five Texas skunks and can be found in forested areas and tall grass prairies in parts of the state. This spotted



Eastern Spotted Skunk

critter is smaller than the common striped skunk and can even climb trees! Like other skunks, this native Texas mammal is known for its smelly defense, but did you know it will use other defense tactics before spraying? When disturbed or frightened, the eastern spotted skunk will do a series of handstands as a warning before finally forming a horseshoe shape by facing its head and tail towards its threat, lifting its tail, and spraying. It's rare to come across one in the wild, but if you do – don't get too close! They can spray accurately up to 10 feet! Eastern spotted skunks eat a variety of small mammals, birds, insects and fruits. This once common critter is now a rare sight to see.

Some wildlife prefer one of this ecoregion's habitat types over the other. The eastern red bat, for example, can be found in the forested areas of this ecoregion. This native Texas mammal is considered one of North America's most common tree bats and is one of the few bat species in the country that roost in trees instead



Eastern Red Bat

of caves and crevices. This bat can safely blend in with its surroundings while roosting because of its **camouflage**. Its reddish-brown fur and small body disguise it as a dead leaf, blending it seamlessly into its surroundings. If you look closer at this mammal's fur, you will find white spots on each of its shoulders and see that each hair is tipped with white, making it appear frosted. This native bat can be found swooping through the night sky as it searches for its next meal – likely





moths, flying ants or beetles. This critter has adapted to urban areas by hunting under streetlights at night, where its prey is concentrated. Eastern red bat predators include opossums, hawks, owls and blue jays. It is important that if you see a bat, you never touch it!

Another critter you can find in the forested areas of the Cross Timbers ecoregion is the broad-banded copperhead snake. This native Texas snake can grow to be 20 – 30 inches long and has alternating bands of tan and reddish-brown, which helps camouflage this reptile as it slithers about on the forest floor. These snakes prefer lightly wooded areas with plenty of leaf litter and like to be near a water source. They are considered an ambush predator, meaning they will sit camouflaged in an area and wait for their prey like lizards, frogs and insects to arrive. Texas is home to three species of copperhead snakes, and all are venomous. This means that a bite from the broad-banded copperhead will inject a toxin that can seriously harm humans, so don't approach this critter if you see it in the wild!

A native Texas amphibian you can find in the prairies of the Cross Timbers ecoregion is the spotted chorus frog, also called the Clark's tree frog. This nocturnal critter can be grey or green, with lighter green spots on its back and a light-colored belly. These small frogs only grow to be 1.25 inches in length, but don't let their size fool you – this critter can 'sing' louder than you think! While these small amphibians prefer the grasslands and prairies, they can also be found in areas near water sources like ponds, marshes, flooded fields and even ditches in the spring. As they gather, they begin to fill the night with their song, which some **naturalists** say sounds like running a finger over the teeth of a comb. Their diet is mostly insects, and, like other frogs, they can drink water by absorbing it through their skin. How neat!

One native Texas bird you can find in the Cross Timbers ecoregion is the Painted Bunting. The Painted Bunting is a small, brightly colored bird with a personality as big as Texas! These critters get their name from the male's bright red, blue, yellow and green



**Broad-banded Copperhead**



**Spotted Chorus Frog**



**Painted Bunting**

feathers. The females are a solid yellow-green color. Painted Buntings can be found bouncing around where woody areas meet an open field, commonly referred to as **edge habitat**, looking for its next meal of insects or seeds. This critter's unique song is commonly described as light and sweet. Like other grassland birds, Painted Buntings are an **indicator species**, meaning that it reflects the health of its habitat.

The Cross Timbers, like other Texas ecoregions, are not immune to conservation challenges. Due to continued **urbanization** of these areas, we are seeing the fragmentation, or breaking up, and removal of wildlife habitat. Furthermore, this area's historic wildfires maintained its prairies and forests, keeping them in the appropriate stage of **succession**. With the increase in urban areas, it is more difficult for conservationists to use certain management tools like prescribed fire to maintain these habitats. This has caused the trees and other woody plants to grow thicker in the forested areas and begin to move into the prairies, a process known to conservationists as **brush encroachment**.

While the Cross Timbers ecoregion faces new conservation challenges, it's still as unique today as it was hundreds of years ago. This area marks the end of the forested landscape of the southeastern United States and the beginning of the vast, open grasslands of the great plains - providing a home to extraordinary Texas critters in the process. Through the continued efforts of conservationists, wildlife biologists and land managers, we are seeing these wildlife habitats restored.

*Learn more about the Cross Timbers ecoregion and enhance your students' Critter Connections experience! Go to the Critter Connections webpage at [www.texas-wildlife.org/critter-connections-magazine](http://www.texas-wildlife.org/critter-connections-magazine) for enrichment activities and resources to take your learning to the next level.*

### WORD BANK

- Topography** – an area's physical shape; for example rivers, hills and valleys
- Camouflage** – the coloration or design of an animal that allows it to blend in with its environment
- Naturalists** – a person who studies the natural world
- Edge habitat** – where two habitat types meet
- Indicator species** – a plant or animal whose presence reflects the health of its environment
- Urbanization** – process of making an area more urban
- Succession** – the changes in an ecosystem over time
- Brush encroachment** – the spread of woody plants like trees and shrubs into grassland areas

Article sources:

[https://tpwd.texas.gov/landwater/land/habitats/cross\\_timbers/ecoregions/cross\\_timbers.phtml](https://tpwd.texas.gov/landwater/land/habitats/cross_timbers/ecoregions/cross_timbers.phtml); The Mammals of Texas, Seventh Edition by David J. Schmidly and Robert D. Bradley; Texas Snakes A Field Guide by James R. Dixon, John E. Werler, Michael R. J. Forstner; [dfwherp.org/spotted-chorus-frog.pdf](http://dfwherp.org/spotted-chorus-frog.pdf)

Photos by Derek Wiley, Anthony Brais, Ed O'Connor, Court Harding, Michelle Koch, USFWS Southwest Region



# Ecoregion Match

K Z C S Z F S L Q D E C K U E  
F A I S D F B Q A I G Y N O D  
E Z O Y N N E E L R A N U R G  
U C Y K D F H P N L L R K V E  
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O U U C R O S S T I M B E R S  
S P R L V U A T X Z T A G P Q  
G N I T N U B D E T N I A P S

## FIND THESE WORDS:

**Blackjack oak**

**Camouflage**

**Copperhead**

**Cross Timbers**

**Ecoregion**

**Edge**

**Nocturnal**

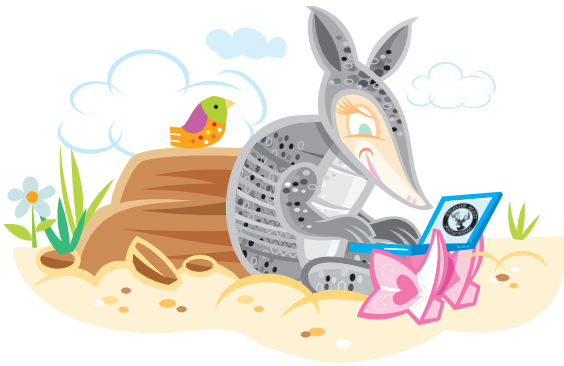
**Painted Bunting**

**Spotted skunk**

**Succession**



## Nancy's Corner



The Smithsonian estimated in a 2014 study that window collisions likely kill between 365 million and 1 billion birds per year in the United States alone. During the day, birds may fly into windows because the window reflects the outside scenery, confusing the bird. At night, birds may fly into windows because of lights, which can even pull birds off their migration path. When a bird flies into a window it can be stunned, leaving it vulnerable to nearby predators, or it may suffer injuries that it will die from after flying off.

One way we can help our feathered friends is by reducing the chance of window collisions. We can help reduce these window collisions by installing window screens, placing physical barriers to break up the reflections and turning off unnecessary lights at night. Some items that can be used to break up reflections include tape, paracord, string and paint placed in a grid pattern at least two inches apart. Head to the American Bird Conservancy website and search for 'Getting Clear on Birds and Glass' to learn more about creating bird safe windows.





# Formal Education Programs

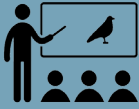
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[www.texas-wildlife.org](http://www.texas-wildlife.org)

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TWA is a membership-based, non-profit organization whose goal is to educate all people, especially the youth of Texas about conservation, management and stewardship of wildlife and habitat on private land.

All education programs are made possible through memberships, grants and donations. Learn more about the levels of membership as well as the educational programs TWA offers on our website.

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