



# CRITTER CONNECTIONS



***Edwards Plateau  
Ecoregion***





# Ashe Juniper



Shredding Bark

The Ashe Juniper, scientific name *Juniperus ashei*, is a native tree that can be found in the Edwards Plateau ecoregion of Texas. This tree is often described as small or shrubby, with green scaled leaves, and bark that peels off mature trees in long strips. These native Texas plants are drought tolerant, meaning they can survive the frequent Texas droughts, and evergreen, meaning they stay green year-round. If you look closely, you can find small round berries that birds, deer, and other wildlife enjoy.



Leaves and Berries

Ashe Junipers have been present in central Texas for thousands of years and are incredibly helpful to their environment. They act as a host to the juniper hairstreak butterfly, provide nesting sites for several bird species, help stabilize the soil on steep hillsides, act as a natural windbreak, and provide cover for wildlife from predators and weather. Most notably, this plant is important to the Golden-cheeked Warbler, an endangered species of bird – so much so that without this tree, the Golden-cheeked Warbler could not survive! These birds only nest in Texas and primarily use the bark of mature Ashe Juniper trees to build their nest. As such, loss of old growth Ashe Juniper is one of the leading causes of the Golden-cheeked Warblers decline.

Like other brush species, when not managed properly these plants can spread into areas that were previously covered in grass, a process called brush encroachment. Still, the benefits outweigh the challenges, as these trees provide habitat for wildlife, help build healthy soil and play an important role in the life cycle of vulnerable species. What a neat native Texas plant!

Article Source:  
Lady Bird Johnson Wildflower Center and Native Plant Society of Texas

Photos by Homer Edward Price and Melissa McMasters

Cover photo by Jason Crotty

## Build a Nest

Golden-cheeked Warblers, the only bird known to nest exclusively in Texas, use Ashe Juniper bark to build their nest. For this craft you will need – a lunch or snack size paper bag, brown construction paper, 2-4 white pom poms, brown marker and brown pipe cleaners (optional).

1. Open the paper bag and roll the top towards the bottom until it forms a shallow bowl. Squeeze the paper bag into a round nest shape. This will be the base of your nest.
2. Tear the brown construction paper into narrow strips, mimicking the shredding bark of mature Ashe Juniper trees.
3. Glue the brown paper strips to your paper bag nest base.
4. Use the brown marker to make small dots on the white pom poms to mimic Golden-cheeked Warbler eggs. Place the eggs in your nest.
5. Optional – use a stick or twist brown pipe cleaners together to form a branch to rest your nest on.

Now you have your very own Golden-cheeked Warbler nest. Learn more about these special birds and other incredible critters in the Edwards Plateau Ecoregion article!



Activity Source and Photos: Amber Brown

# Did you know...



- ... that Texas has 10 different ecoregions?
- ... that the Ashe Juniper helps build healthy soil?
- ... that the Edwards Plateau ecoregion is also called the Texas Hill Country?
- ... that the Edwards Plateau ecoregion is home to over one quarter of Texas' endemic species?
- ... that Bexar county is home to over one thousand caves?
- ... that the Golden-cheeked Warbler only nests in Texas?
- ... that the false spike was considered extinct until it was rediscovered in 2011?
- ... that the Guadalupe bass is the state fish of Texas?
- ... that fairy shrimp live in vernal pools?
- ... that the Edwards plateau ecoregion has the most white-tailed deer of Texas' 10 ecoregions?



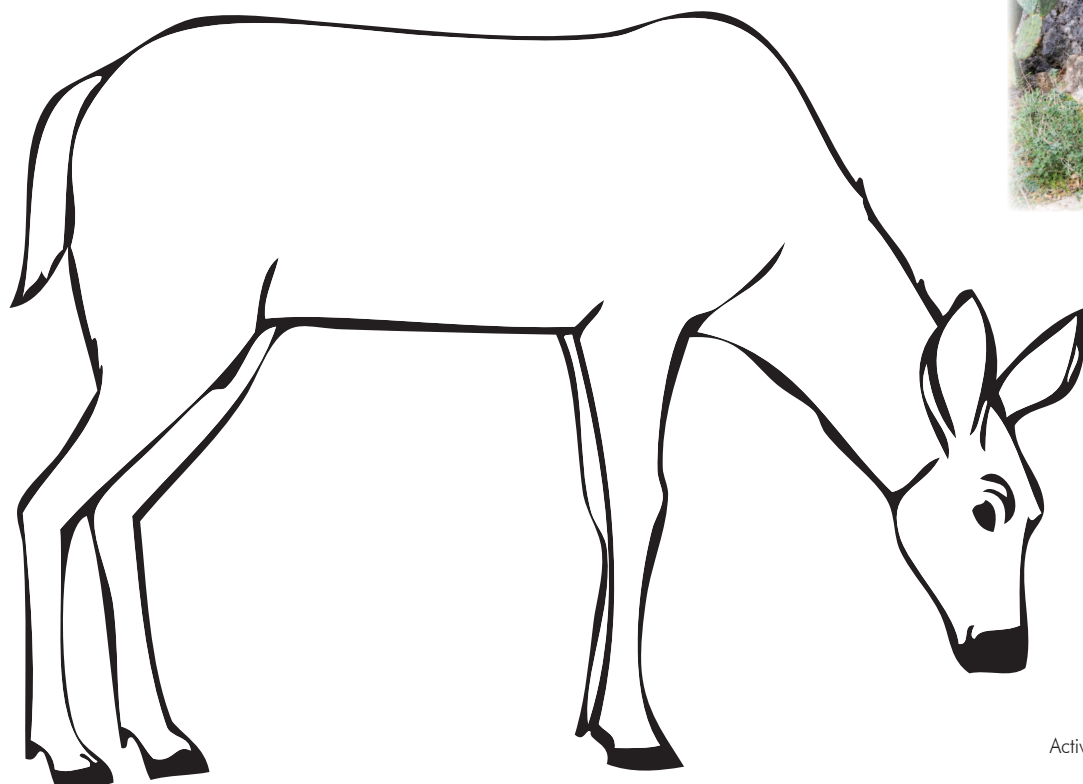
Guadalupe River

Photo by Amber Brown

## Color Me

### White-tailed Deer

*Odocoileus virginianus*



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



# Edwards Plateau Ecoregion



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 Edwards Plateau!

The Edwards Plateau ecoregion, located in west central Texas, includes cities like Austin, Del Rio, San Angelo and San Antonio. When people think of the Edwards Plateau ecoregion, also called the Texas Hill Country, most picture tall hills, steep limestone canyons and clear rivers; but the Edwards Plateau has much more to offer! As this ecoregion stretches west, the tall hills become flatter plateaus, average rainfall decreases and more desert-like plants emerge. While this ecoregion varies in temperature and average rainfall, it comes together to create an area that has stolen the hearts of Texans for generations.

The Edwards Plateau ecoregion is home to iconic landmarks such as the Lost Maples, a **relic** population of maple trees; Enchanted Rock, a large granite dome that has

prompted several myths and legends over the years; Bracken Cave, home to the world's largest colony of Mexican free-tailed bats; and the Devils River, one of the few remaining **pristine**, untouched areas of Texas. Furthermore, this ecoregion is home to over one quarter of Texas' **endemic** plants and wildlife and provides important habitat for many endangered species. Still, this area is more than what meets the eye. A trip below ground will reveal many of Texas' caves – over 1,000 in Bexar County alone, the famed Edwards Aquifer that feeds crystal clear springs, and bedrock over one billion years old! The unique landscapes of this area create habitat for many of Texas' native plants and wildlife.

In the limestone hills and deep canyons of the Edwards Plateau ecoregion, lives the endangered Golden-cheeked Warbler. This songbird, who lives up to its name with bright yellow cheeks



Golden-cheeked Warbler

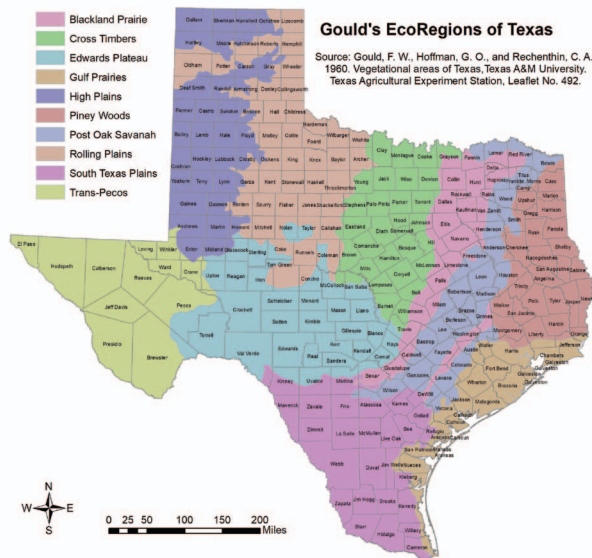
contrasting its black and white body, is the only bird species whose entire population nests exclusively in the state of Texas. These critters can be found in the juniper-oak woodlands of the Edwards Plateau ecoregion from spring to mid-summer, fluttering between trees while looking for insects and building their nests out of bark from mature Ashe Juniper trees. Due to continued habitat loss and **fragmentation**, we are in danger of losing this rare, migratory bird forever.

When you think of the rivers that flow through the Edwards Plateau ecoregion, mussels may not be the first animal that comes to mind, but this ecoregion is home to almost half of the state's freshwater mussel species! These often-overlooked critters play a mighty big role in their environment – freshwater mussels are filter feeders, which means they get their food by filtering it from the water, and in the process, clean the water for plants, wildlife and people. These aquatic superheroes can filter up to 15 gallons of water a day in search of algae, plankton and other food. This has earned them the nickname "Liver of the River."

One native Texas mussel is the false spike. This critter was thought to be extinct until it was rediscovered in the Guadalupe River in 2011! This rare, endangered freshwater mussel is endemic to, meaning it can only be found in, the Guadalupe River basin.



False Spike





Another freshwater critter endemic to the waterways of the Edwards Plateau ecoregion is the state fish of Texas – the Guadalupe bass! This critter was named the official state fish of Texas in 1989 after a group of third grade students from Decatur Intermediate School in Wise County began a campaign that led them to testify at the state capitol. The students were inspired after learning Texas had no state fish and that the native Guadalupe bass, the only bass species found solely in the state of Texas, was facing conservation challenges like habitat loss and the introduction of a nonnative species. With the support of the Texas Parks and Wildlife Department, the students secured a victory for themselves and the Guadalupe bass! This legendary conservation story is a reminder of the impact young Texans can have on shaping conservation in our state. How cool!



Guadalupe Bass

One neat feature you can find in the Edwards Plateau ecoregion is **vernal pools**. The vernal pools found here are formed by the slow weathering of rock over time until a shallow depression is made. When it rains, these low spots fill with water and come to life as wildlife that otherwise lie dormant in the dry periods emerge. This small but mighty ecosystem is home to wildlife like frogs and salamanders. A native Texas critter you will find in these temporary pools are fairy shrimp. Fairy shrimp are tiny freshwater shrimp that hatch as the pool fills with rainwater. These tiny critters grow to be about half an inch long and swim upside down! Vernal pools are very important to the areas they are found within because they provide food, water and habitat for plants and wildlife. It's important that we protect these delicate Texas treasures by observing them from a distance.



Vernal Pools

White-tailed deer are found across Texas, but the Edwards Plateau ecoregion is home to the largest population in the state with over one million estimated! White-tailed deer get their name from the white underside of their tail, and they let others know there is danger nearby with a quick flash of this bright white fur. These native Texas mammals are crepuscular, meaning they are most active



White-tailed Deer

around dawn and dusk. The male and female white-tailed deer, called bucks and doe, look different. Bucks will grow **antlers** each spring after shedding them in the winter. Doe, on the other hand, do not have antlers. In the spring and summer, doe will leave their fawns in areas where they are **camouflaged** by their brown fur and white spots when looking for food, so if you see a young white-tailed deer alone, don't worry! The doe is nearby and will return to her fawn.

While this area faces many conservation challenges, the biggest threat to the Edwards Plateau ecoregion is **urbanization** and human development. As the population increases and cities grow outwards, a process called urban sprawl, we are rapidly losing wildlife habitat and shrinking aquifer recharge zones. This has a ripple effect that leads to other challenges like decreased water quality, reduced stream flow rates and loss of habitat for vulnerable species. Still, there is hope! Conservation organizations are working to restore and protect wildlife habitats. Additionally, the Endangered Species Act, a law that protects threatened and endangered plants and animals, helps at-risk critters by offering protection, funding and awareness to help conserve and recover the species. Even more, citizens are helping by raising awareness of the special plants and wildlife that call this area home, conserving water, planting native plants and more! The Edwards Plateau ecoregion has been a special place for many Texans over the years, and with proper care, can continue to be for years to come.

*Learn more about the Edwards Plateau 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
- Relic** – survived from an earlier time
- Pristine** – original and pure; unspoiled
- Endemic** – found in a specific place and native to the area it is found in
- Fragmentation** – the process of splitting, or breaking, something into smaller pieces
- Vernal pools** – temporary pools that hold water only part of the year
- Antlers** – bony growths on the head of deer; shed and regrown each year
- Camouflaged** – to blend in with surroundings
- Urbanization** – process of making an area more urban

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

Photos by Randy von Liski, Bettina Arrigoni, Clint Robertson TPWD, Nick Loveland, Larry D. Moore, Sarah Richter

# Ecoregion Match

- 1) Also called the Texas Hill Country
  - 2) Temporary pools that hold water for part of the year
  - 3) To blend in with surroundings
  - 4) A mussel species rediscovered in 2011
  - 5) An endangered bird with bright yellow cheeks
  - 6) State fish of Texas
  - 7) A mammal that uses its tail to warn others of danger
  - 8) Home to the world's largest Mexican free-tailed bat colony
  - 9) Law that protects threatened and endangered species
  - 10) Process of cities growing outwards
- A) False spike
  - B) Guadalupe bass
  - C) Edwards Plateau ecoregion
  - D) White-tailed deer
  - E) Vernal pools
  - F) Golden-cheeked Warbler
  - G) Camouflage
  - H) Urban sprawl
  - I) Bracken Cave
  - J) Endangered Species Act

Answers: 1. C, 2. E, 3. G, 4. A, 5. F, 6. B, 7. D, 8. I, 9. J, 10. H



## Nancy's Corner



As we learned in the feature article, the official state fish of Texas, the Guadalupe Bass, can be found in the Edwards Plateau ecoregion. This native Texas critter is well known among anglers, or people who fish, as an exciting catch due to their power and fight. Many anglers travel for miles to see this one-of-a-kind fish and to take in the breathtaking scenery of the Texas Hill Country. Guadalupe bass can be found in the Blanco, Colorado, Guadalupe, Llano, Paluxy and Pedernales rivers as well as Onion Creek. Head to one of these waterways to try to catch this state symbol of Texas! While you are

there, be sure to take in the views that the Texas Hill Country offers – like the towering hills, deep rocky canyons and clear waters. What other native Texas critters can you find on your fishing adventure?

Before heading outdoors, check the Texas Parks and Wildlife Department website to learn more about fishing regulations, licenses and locations to find this fabulous, finned critter! Take a photo with your catch and *Critter Connections*, and share with us!



# Youth Education

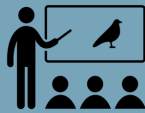
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[www.texas-wildlife.org](http://www.texas-wildlife.org)

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