What’s shaking, TWA?

It’s springtime and we Texans know what this means—bluebonnets! From March until May, thousands of people travel the state’s highways and back roads looking for vast stretches of fields filled with the yearly blooms. Many are even able to enjoy them from their own backyards. Seas of these blue and white flowers offer picturesque backgrounds for taking family photos, a tradition among Texans welcoming the season of warmer weather.

Grant and I were on our way to the Bluebonnet Festival in Burnet County when we just had to stop and walk through a gorgeous roadside patch of bluebonnets and other wildflowers. There were others who took a pause from their travels to simply sit among the flowers and enjoy the sounds and smells of spring. As the warm wind blew over our faces, there was a sudden disruption in the peaceful air by a loud buzzing sound nearby…

When I turned to look behind me, there was a rattlesnake! I must have jumped twelve feet straight up into the air and when I landed, the small rattler was already slithering away from where I sat. The thick bluebonnets had given her such good cover that I was completely unaware that I was resting right next to her. Had I not heard the rattling of her tail, I might have stepped on her!

Grant had scurried far away and cautiously returned to our area. He said, “That little rattler must have been only a foot long! How can such a small snake make such a loud sound?”

“That, my friend, is one of the most fascinating examples of an animal’s ability to defend itself from danger,” I replied. “Rattlesnakes need to stay hidden so that they may strike prey, but will sound an alarm of warning by shaking their tails to avoid being injured by larger animals. She probably thought I was going to lie down and roll over her like a steamroller.”

Grant chuckled for a second. “Seriously, though. She could have bitten you!”

“I know,” I said. “Isn’t it awesome that she didn’t even strike at me? She just slithered away to find another place to hide in the bluebonnets away from all of us. Besides, she knew I was well-protected by my shell. I am also one of those fascinating animals who can defend themselves.”

Grant just stared at me and said, “Well then, I guess it’s a good thing I wasn’t sitting where you were, seeing as how I could have been her next cute and fuzzy meal.”

The both of us laughed as our startled nerves began to settle down. We agreed that though we were safe, any chance encounter with a rattlesnake could potentially turn dangerous or deadly. We planned to research more about these noise-making rattlesnakes when we returned home.

Before getting back on the road, we reminded everyone to watch their steps while in the wildflowers. Our Texas bluebonnets may be beautiful, but there might also be other animals enjoying or hiding within the thick, inviting flower patches.

Happy ‘Tails’ to You!

Nancy
Nine-band

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___ Online $35

All members receive a one year subscription to our monthly magazine, Texas Wildlife.

Common Snake Sense

Rattlesnakes play a part in keeping nature balanced, so it is important that we become aware of their behaviors and respect them in their environment. Consider the following scenarios and choose the best “common sense” action:

1. You are walking along a pasture road and notice a rattlesnake is slowly crossing the path just up ahead. You:
   A. Yell, “Move, snake! I’m coming!”
   B. Walk quickly towards it so that it will move out of the way.
   C. Stop where you are and either turn back the way you came, or continue after the snake has passed and is at a safe distance.

2. You and a friend come upon a small rattlesnake that has been injured. It is still alive and slightly moving. You:
   A. Dare your friend to pick it up and hold it.
   B. Leave the rattlesnake alone where it is and let nature take its course.
   C. Take it home and try to help it get better.

3. You’re riding your bike through an open field near your neighborhood. You notice an interesting hole in the ground and want to know what lives in it. You:
   A. Stick a camera in as far as it can go and see if anything shows up in the picture.
   B. Find a long stick and poke around inside the hole to see if anything comes out.
   C. Take a look from a safe distance and look for animal clues outside of the hole.

4. You find an antler shed in some tall grass, reach down to grab it, and see a rattlesnake coiled up next to it. You:
   A. Slowly move away from it to avoid alarming the snake and causing defensive behaviors.
   B. Quickly grab the antler anyways and make a run for it.
   C. Stomp your feet to scare the snake so that it will go away.

5. You’re packing for a trip to Big Bend National Park and know you will be hiking in the wilderness. You:
   A. Be sure to pack your stylish flip-flops.
   B. Remember to take your thick hiking boots to protect your feet from harmful plants and animals.
   C. Pack your warm, fuzzy house slippers because they will keep your feet comfortable.

If you are ever in an area where snakes can be found, or happen to have a chance encounter with one, keep these tips in mind to protect both you and a snake from potential harm: S top and head back the way you came, N ever touch or try to handle, A void specific snake habitats, K eep calm to avoid defensive behaviors, and E njoy the outdoors safely.
Rattler Words Round-Up

Directions: Just as rattlesnakes are masters of camouflage, words are hidden in this grid of letters. Find and circle each of the following rattler words.

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MLRLROSSPPEMEASLV
ZNFINIRTRORVSFKANGSE
QZKETYMEAHDAZJWZRS
NSPREDGOIBXXLNBVDVZC
GINPABJMDUOJNSGPCHLA
VRMTHAENFTGRGREPTILEL
UEEOVAOOOGTTSULATORCE
SRSVEVMBIPAOHEQTQVJGS
IMKUALBICNHRTQVPXCA
LJVILOVTOFCRAIPYOKL
OMDHXMYOAAVEIREQYKPC
NCOOOWPOPOTCAEZRKNQGM
REBMITSNXCXCRJWIKXF
GAXXJGREADETPPPYEMRMA
GPLACCHAATVCAGNAHYTW
TVRMRBBKLOGLIWMIWLS
WZUEEKPNNKCOZJZLHVJHNQ
WXJGYWJSISHSMZYSUCSNLG
GDCAMOUGACWORJWJA
EASEOPWHUKNJBHHBKL
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Diamondback Tube Rattler

Adapted from www.activitybucket.com; Photos by Cara Bierschwale

Create your own rattlesnake from recycled toilet paper tubes.
Add a rattling tail for real sound effects!

Materials: 5 toilet paper tubes, tape, markers, plastic bottle cap, scissors, small gravel rock (8-10 pieces), yarn (black or brown)

Directions:
1. To create your rattlesnake’s head and tail, set aside two of the tubes and flatten one end on each. For the head, make a small slit at the two corners of the flattened end and round out the ‘mouth’ slightly. For the tail, slit both corners of the flattened end to make a point. Save the trimming for steps 2 and 6.
2. Lay out the tubes in order, from head to tail. Color and decorate the top halves of the tubes to resemble a diamondback's pattern of diamond-like shapes along the back. Be sure to add realistic features, such as the cheek stripes and banded tail. For the belly, color horizontal stripes along the bottom halves. With some tube trimmings, cut out a forked tongue. Tape it onto the lower jaw and color the inside of the mouth.
3. Using one end of the scissors, carefully pierce small holes in each tube. For the three tubes which make up the middle of the snake, make four holes (two at each end, about one-half inch from the ends and directly opposite of each other). For the head and tail, make two holes at the un-flattened ends only in the same manner.
4. Lay the tubes in order and cut two pieces of yarn which each measure twice the length of the snake. Starting at one of the head’s holes, tie and knot the end of one piece of yarn (trim the excess). Begin joining the tubes by threading the yarn in and out of the holes of one entire side of the snake. Leave the extra yarn lying inside of the tail tube and repeat on the other side of the snake with the second piece of yarn. Adjust the looseness of the yarn as desired and tie the two loose ends of yarn in a double knot just inside of the tail (trim the excess).
5. To make the rattle, fill the bottle cap with the gravel and cover it with tape and another piece of tube trimming. Secure the cap and gravel inside of the tail using tape and rattle away!
This occurs in late summer through autumn and average litter sizes are of nine to fourteen newborns.

Prairie Rattlesnakes are common in the Panhandle and may also be found on the western plateaus. They are smaller than a diamondback and have 35 to 55 oval-shaped brown patches along the back. Interestingly, the prairie's venom is slightly more lethal than the diamondback's because it contains more toxins that damage nerve cells. The Timber Rattlesnake, which prefers dense thickets, is widely distributed across the eastern third of the state and is currently listed as threatened in Texas. In West Texas and the Edward's Plateau canyons, the Northern Blacktail Rattlesnake tends to live in rather remote areas where it is less likely to be encountered and is the only rattler with a chocolate to black forehead and solid charcoal tail. The Mojave Rattlesnake lives along the Rio Grande just west of Big Bend National Park and often appears to resemble a diamondback on the front half of its body and a prairie rattler on its rear half. Both the Mottled Rock and Banded Rock Rattlesnakes are the smallest of the West Texas rattlers, averaging less than 24 inches long. They are rock-dwellers whose variable coloration of light and dark patches, pinks and blues allows for good camouflage among the rocks.

Natural predators of rattlesnakes include hawks, eagles, coyotes, feral pigs, owls, roadrunners, weasels, king snakes and blue indigo snakes, while newborns can be easily taken by raccoons, skunks, opossums, ravens and crows. Rattlesnakes are most affected by the destruction or changing of their habitat. Because human and wildlife habitats often overlap, people who are likely to encounter a rattler include hikers, environmental workers and landowners. Awareness of rattlesnake ranges and behavior, along with a healthy dose of common sense, can help us all coexist safely with these infamous Texas reptiles.

Sources:
Texas Rattlers

By Cara Bierschwale

For many people, the very thought of snakes sends shivers down their spines. Although snakes have no limbs, eyelids or outer ears, these reptiles are master hunters with well-developed senses. They are able to move with ease and camouflage themselves for a stealthy ambush, making snakes some of the most feared and misunderstood members of the animal kingdom. In particular, rattlesnakes are commonly considered dangerous creatures striking panic with the sound of their buzzing rattles. Yet, they occupy an important place in the food chain as carnivorous predators and help control rodent populations. Even so, because rattlesnakes are venomous and have the potential to strike at humans, it is beneficial to exercise caution and awareness should a rattlesnake be nearby.

Rattlesnakes belong to a subfamily of venomous vipers called pit vipers. Most are characterized by stocky bodies, wide and triangular heads, keeled scales and long, hinged fangs. They have a pair of heat-sensitive pits between their eyes and nostrils for detecting warm-blooded animals. Rattlesnakes occur in the Americas, and there are over 30 known species of these snakes, with many additional subspecies.

The rattlesnakes’ genus name, *Crotalus*, means “rattle” or “castanet” and clearly refers to the unique warning structure at the end of the tail. This well-recognized feature is made up of 12 loose, flattened and interlocking rings of keratin which make a buzzing sound when the tail rapidly vibrates. A rattlesnake is born with a “prebutton” and will add a segment each time it sheds its skin. According to some, a rattlesnake’s age can be determined by counting the segments, assuming they can shed up to four times per year. However, old rattles periodically break off like long fingernails do, so the number of rattles does not accurately indicate age.

Rattlesnakes are generally sluggish and rely on camouflage to remain unseen. Scale patterns of geometric shapes along the tops of their bodies help break up their solid appearance so they can blend in with the ground. As opposed to actively hunting, most rattlesnakes will hide and wait for prey to pass by and then attack by striking. Their heat pits allow them to detect the presence, distance and direction of movement of prey which include mice, rats, frogs, lizards, ground squirrels, small birds and other small mammals.

Rattlesnakes also “smell” prey by flicking their forked tongues in and out, picking up odor particles and passing them over a sensory organ at the roof of the mouth called the Jacobson’s organ. Once prey is detected, rattlesnakes kill with a venomous bite rather than by constriction. The fangs are positioned at the front of the mouth for quick, deadly stabs and are revealed as the snake widely opens its jaws. As from a doctor’s needle, the toxic venom, from sacs in the upper jaw, flows through tiny tubes inside of the fangs and is injected into prey. The venom from each rattler species varies and is designed to break down blood cells and tissue proteins, destroy nerve cells, or a combination of all. For smaller prey that can be swallowed whole, their large fangs are not needed and are simply folded away.

After Arizona, Texas ranks second as home to the most number of species and subspecies of rattlesnakes. Seven of these are species of *Crotalus* and include the Western Diamondback, Prairie, Timber (or Canebrake), Northern Blacktail, Mojave, Mottled Rock, and Banded Rock Rattlesnakes. The other three species, belonging to the genus *Sistrurus* (meaning “tail rattler”), include the Western and Desert Massasaugas and Pygmy Rattlesnakes. They differ from the larger *Crotalus* species in size, scale arrangement and venom yield. In addition, their rattles are relatively small and produce a high-pitched ringing sound than a buzzing rattle.

By far the largest and most widespread serpent in Texas is the Western Diamondback Rattlesnake. This species inhabits the western two-thirds of the state and is one of the most likely to be noticed due to its diurnal (daytime) preyscanning behavior, and is easily recognized by the scale pattern of large diamonds along its back. Its species name *alecto* is Latin for “frightful” or “grim” and this snake is statistically the most dangerous since nearly all of the most serious cases of snakebites treated in Texas every year are from diamondbacks. Like other rattlers, diamondbacks give birth to live young which hatch from eggs inside of the female.
Did you know...

...a rattlesnake’s appetite and interest in particular prey animals seems to be shaped by what it had killed and eaten earlier in life?
...extremely large rattlesnakes are actual genetic giants, rather than very old snakes?
...rattlesnakes’ heat-sensing pits have an effective range of only one foot or so, but this gives them a remarkable hunting advantage at night?
...the record age of the longest-lived diamondback kept in confinement is 26 years? Typical life expectancy is over 20 years.
...rattlesnakes prefer a temperature range of 80 degrees F - 90 degrees F? Species like the diamondbacks will spend the cold winter months with other snakes in dens (caves or burrows).
...an adult rattlesnake goes about two weeks between meals?

Color Me

Western Diamondback Rattlesnake
(Crotalus atrox)

- White cheek stripes
- Chocolate-gray cheek bands
- Black and brown pattern of “diamonds” with light edges
- Black-and-white banded tail
TEXAS WILDLIFE ASSOCIATION

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WHERE THE WILD THINGS ARE.

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