



September/October 2017

Xplor

HARDCORE HOARDERS

SCAMPER INSIDE TO
LEARN ABOUT MISSOURI'S
NUTTIEST MAMMALS



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Barely bigger than a blue jay, the **American kestrel** is Missouri's smallest falcon.

by David Stonner





Xplor

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Xplor (ISSN 2151-8351) is published bimonthly. It is a publication of the Missouri Department of Conservation, 2901 West Truman Boulevard, Jefferson City, MO (Mailing address: PO Box 180, Jefferson City, MO 65102.) Subscription free to Missouri residents (one per household); out of state \$5 per year; out of country \$8 per year. Please allow 6–8 weeks for first issue. Notification of address change must include both old and new address (send mailing label with the subscriber number on it) with 60-day notice. Preferred periodical postage paid at Jefferson City, Missouri, and at additional entry offices. **Postmaster:** Send correspondence to *Xplor Circulation*, PO Box 180, Jefferson City, MO 65102-0180. Phone: 573-751-4115, ext. 3856 or 3249.

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ON THE COVER

Eastern Chipmunk
by Noppadol Paothong

GET OUT!

FUN THINGS TO DO
AND GREAT PLACES
TO DISCOVER NATURE



September is the start of fall hunting season.

ASK A GROWN-UP TO TAKE YOU DOVE, TEAL, OR RABBIT HUNTING. It's a good way to learn how critters live and how the food chain works.



LOOK FOR GLOWWORMS (aka firefly larvae) in low water at night.



BAG SOME TASTY BLACK WALNUTS to make trail mix cookies on Page 18.



In late October, **YOU'LL HAVE A CHANCE TO SEE BEAVERS,** which are normally active at night, gathering winter food during the day.

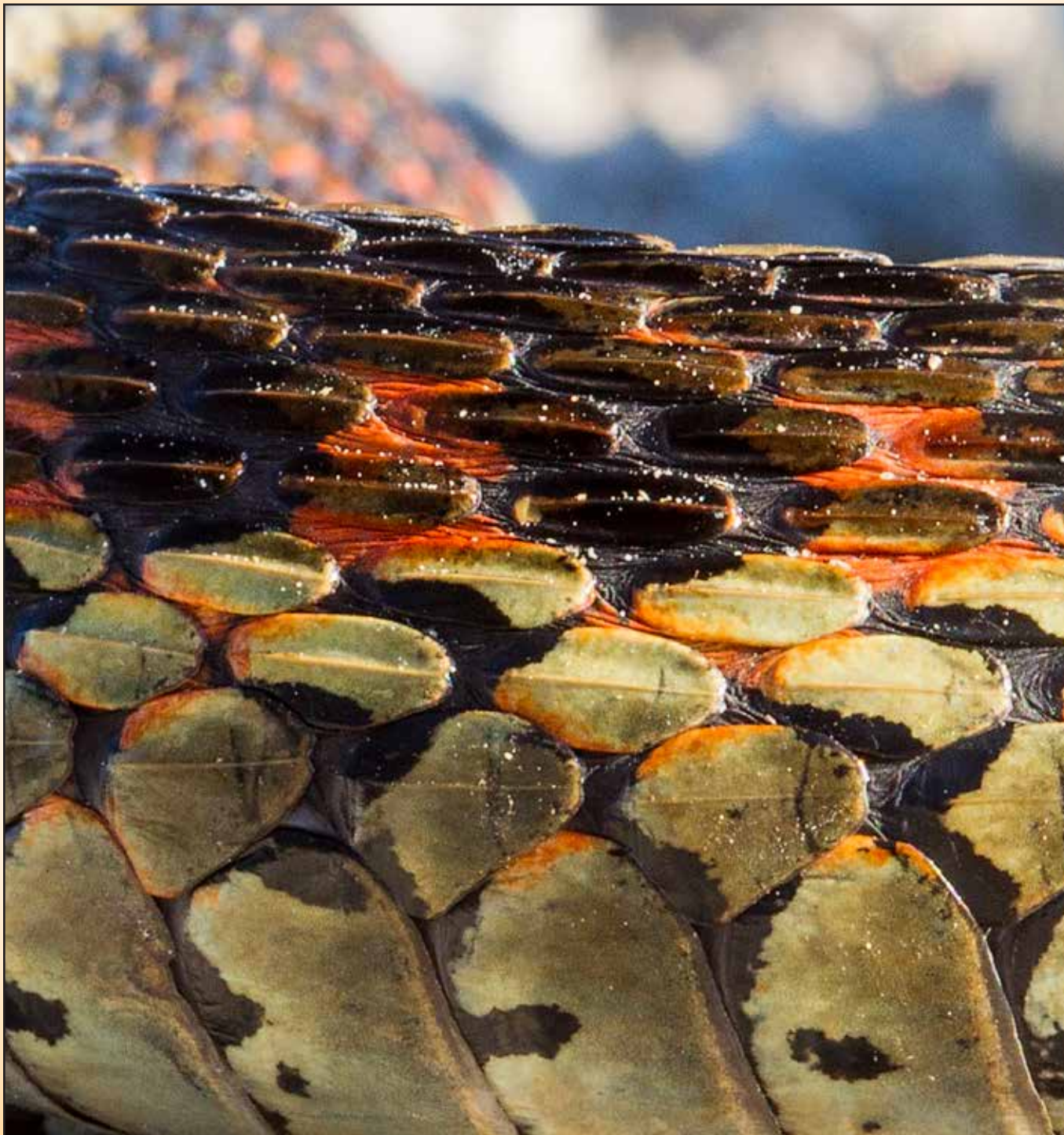


HIKE A TRAIL or float a stream to see Missouri's show of fall colors.

Walnuts: Norbert Frank, University of West Hungary, Bugwood.org

WHAT IS IT?

DON'T KNOW?
Jump to Page 20 to find out.



- ① I'm named for a thing that holds up your socks.
- ② I live in the woods, often under some rocks.

- ③ I eat lots of frogs, but I wouldn't hurt you,
- ④ I'll head for the bushes if you say, "Boo!"

Into the WILD Cypress Swamp

The Bootheel's cypress swamps are home to some of Missouri's most amazing plants and animals. Pull on your rubber boots, and let's wade in!



LOOK

Most ducks migrate through Missouri in spring and fall, but **hooded mergansers** hang out in Bootheel swamps all year. The duck is easy to identify by the large crest on its head. Males have black-and-white crests. Females have reddish-brown crests.

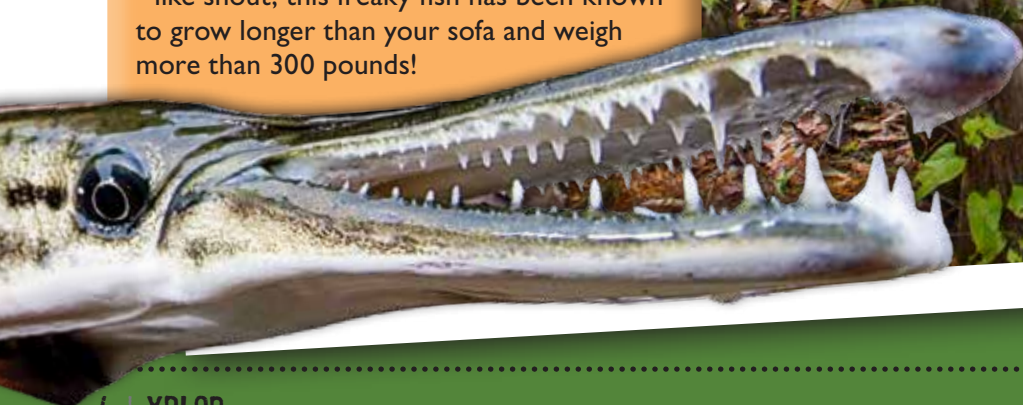
What Happened Here?

If you find what look like raisins on a log, **DON'T EAT THEM!** Swamp rabbits often jump in the water to escape predators. They rest on stumps and logs, leaving behind raisinlike scat.



Did You Know?

The alligator gar is one of North America's largest freshwater fishes. Named for its toothy smile and alligator-like snout, this freaky fish has been known to grow longer than your sofa and weigh more than 300 pounds!



Take a Closer Look

These floating green specks are **duckweed**, Missouri's tiniest flowering plants. Under the right conditions, duckweeds can double in number in less than three days. As its name suggests, ducks (and lots of other animals) eat duckweed.



Did You Know?

Lesser sirens look like eels, but they're actually amphibians. If the swamp dries out, the siren burrows into the mud. Thick slime on its skin hardens to form a shell around its body. The shell keeps the siren from drying out, allowing it to survive for weeks without water.

Listen

With leaf-green skin, **green treefrogs** are easier to hear than see. The 2-inch-long frogs sound like a Canada goose honking: *ronk, ronk, ronk*. They call loudest during rainy weather, which is why some people call them rain frogs.

Heads Up!

Swamps grow a healthy crop of mosquitoes. Be sure to wear bug spray.

LOOK



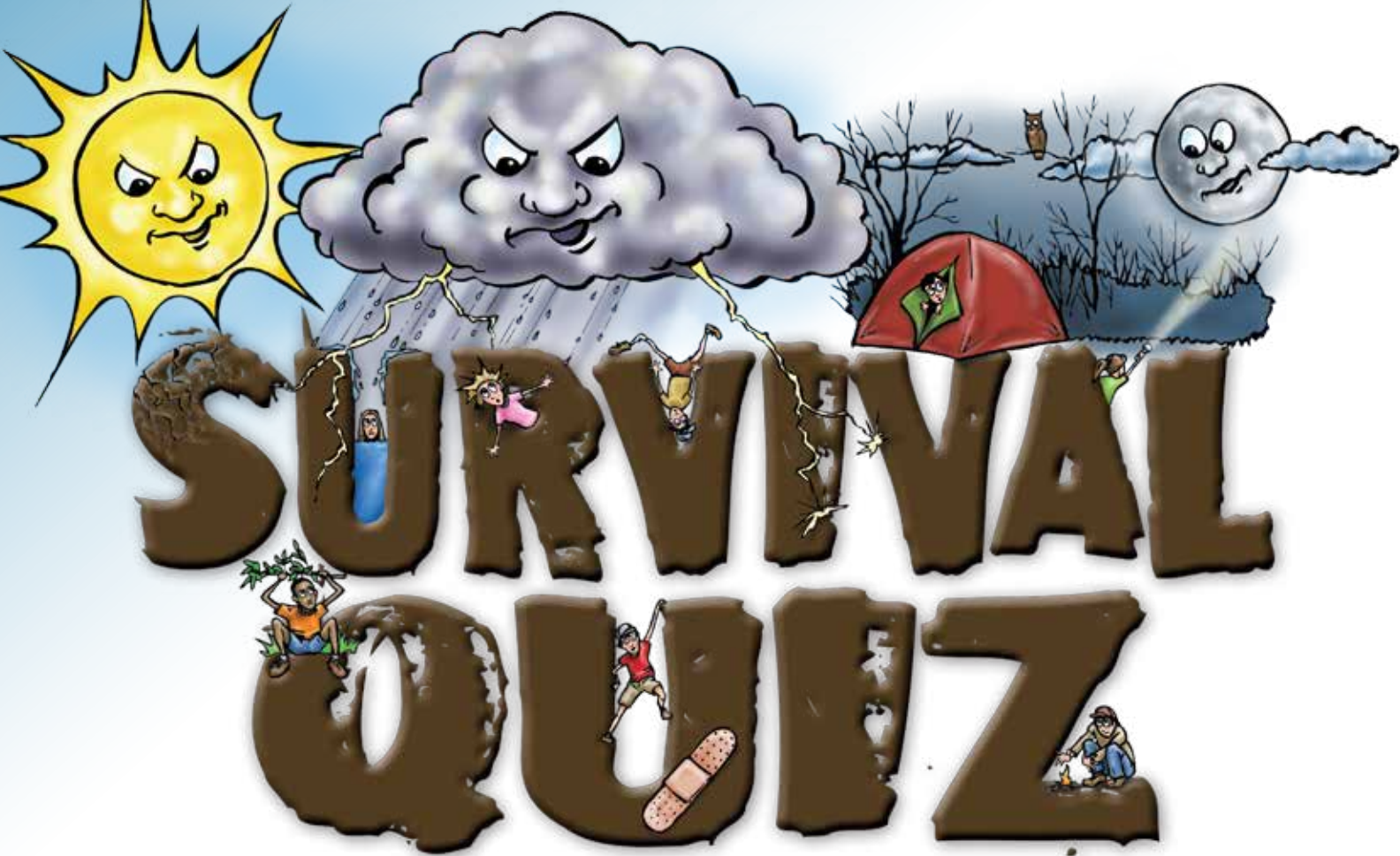
Bald cypress trees have bumpy stumps that stick out of the water. The stumps, called "knees," act like snorkels to carry air down to the tree's roots.

LOOK

Double-crested cormorants produce less oil than other water birds. So when they dive for fish, their feathers get soaked. Look for cormorants standing on stumps, holding their waterlogged wings out to dry.

Smell

A handful of swamp muck contains billions of bacteria and other microscopic organisms. Some of these teeny-tiny creatures break down dead plants and animals. As they do, they release gases that smell like rotten eggs. *Pee-yoo!*

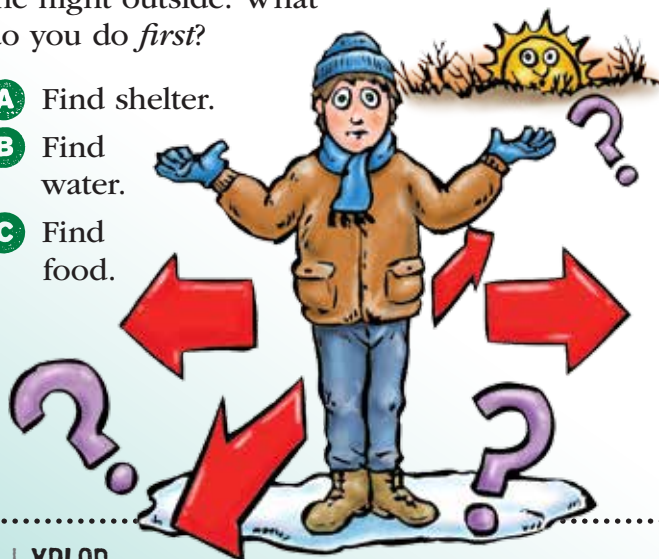


by Matt Seek • artwork by Mark Raitchel

They say adventure is what happens when things go wrong. Take our quiz to find out if you know what to do when adventure strikes.

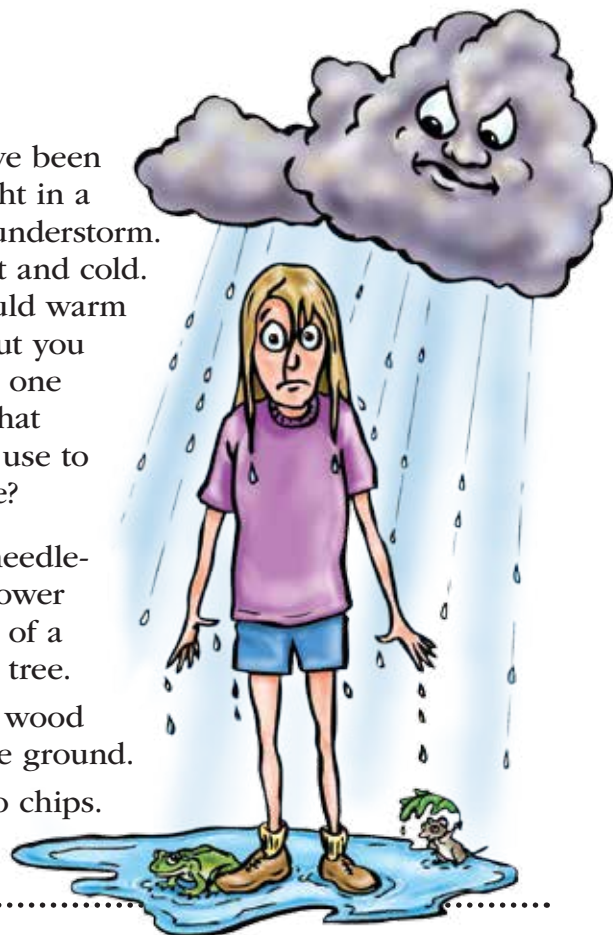
1 You went for a winter walk and got lost. The sun is dropping quickly. Panic sets in as you realize you'll be spending the night outside. What do you do *first*?

- A** Find shelter.
- B** Find water.
- C** Find food.



2 You've been caught in a spring thunderstorm. You're wet and cold. A fire would warm you up, but you have only one match. What *can't* you use to start a fire?

- A** The needle-free lower limbs of a cedar tree.
- B** Dead wood on the ground.
- C** Potato chips.





3 You're biking the Katy Trail in July. It's 100 degrees out and so humid it feels like you're pedaling through a cloud. You've been drinking gallons of water, but you still feel weak and groggy. What should you do?

- A** Eat a handful of salty peanuts or potato chips.
- B** Drink more. You can never drink too much when it's hot.
- C** Stop pedaling and cool off in a shady spot.



5 It's Day Two of a five-day backpacking trip on the Ozark Trail, and you and your buddy have stumbled off the path and become lost. What should you do?

- A** Stop walking, stay where you are, and wait for someone to find you.
- B** Retrace your steps to try and find the trail.
- C** Build a huge signal fire to guide rescuers to your location.

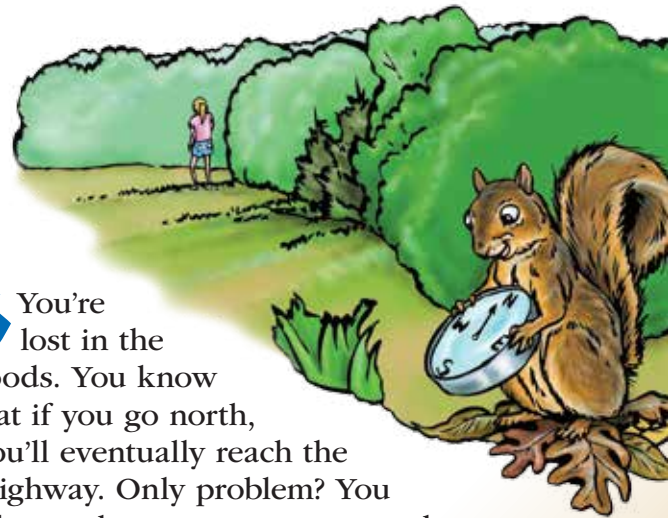
4 While paddling the Current River, you swamped your canoe, and all of your water got swept away. It's blazing hot, and you're really thirsty. What's your best option?

- A** Find a spring. The cool, clear water bubbling up from the ground is safe to drink.
- B** Find a cool place to hang out. Wait for other floaters to paddle by and ask them for water.
- C** You're surrounded by sweet, crystal-clear water. Drink up!



6 You're lost in the woods. You know that if you go north, you'll eventually reach the highway. Only problem? You dropped your compass somewhere. What can you do?

- A** Look for moss. It always grows on the north side of trees.
- B** Wait until dark. Use the Big Dipper to locate the North Star.
- C** Follow a river upstream. Nearly all streams in Missouri flow south.





7 You're lost in the Ozarks, and you haven't eaten in three days. Your stomach has begun to growl like a cranky badger. What's your best option?

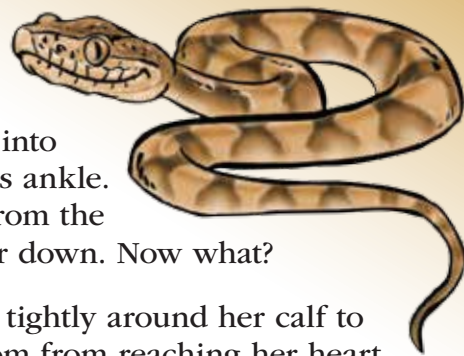
- A** Find mushrooms. Animals nibble on them. You figure if they're safe for an animal to eat, they're safe for you to eat.
- B** Find some plump, white berries. Birds feast on them. Pluck off a couple and pop them in your pie hole.
- C** Drink some water to keep your belly full and tough it out. Try not to think about cheeseburgers. Or pizza. Or ...

8 You round a corner in the trail and see a mama bear with her cubs. They're busy gobbling blackberries, so they haven't seen you — yet. What should you do?

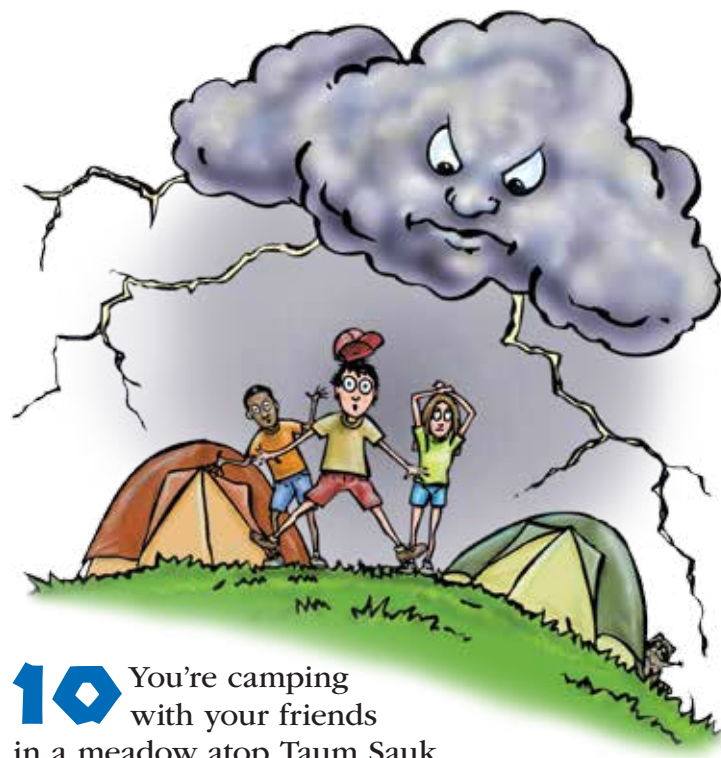
- A** Wave your arms and yell. Black bears are scared of humans and will run away when they see you.
- B** Toss them the PB and J you made for lunch. While they're distracted by the treat, run quickly past them.
- C** Back slowly away and walk back the way you came.



9 A copperhead sank its fangs into your hiking buddy's ankle. You get her away from the snake and calm her down. Now what?

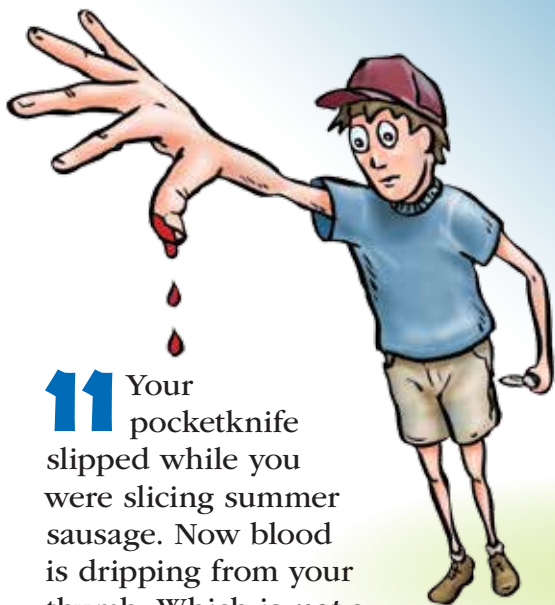


- A** Tie some cord tightly around her calf to keep the venom from reaching her heart.
- B** Use your pocketknife to slice open the fang marks then suck out the venom.
- C** Help her lie down, keep her calm, and use your cellphone to call 911.



10 You're camping with your friends in a meadow atop Taum Sauk Mountain. A thunderstorm is bearing down, and lightning sizzles nearby. You should:

- A** Sit on top of your sleeping pad. The foam will insulate you from a lightning strike.
- B** Grab your rain gear, leave camp, and move quickly downhill to a low spot away from tall, isolated trees.
- C** Take shelter under the gnarly lone oak at your campsite. You can tell by the scar on its trunk that it has been struck by lightning before, and lightning never strikes the same spot twice.



11 Your pocketknife slipped while you were slicing summer sausage. Now blood is dripping from your thumb. Which is *not* a good way to treat your boo-boo?

- A** Apply pressure to the cut. Once the bleeding slows, put on a bandage.
- B** Tie cord tightly around your thumb above the cut to stop the bleeding.
- C** Use super glue to stick the skin back together.

12 Which is *not* a good reason to use your cellphone to call for help?



- A** You fell off a bluff and woke up at the base dizzy and nauseated.
- B** Your 3-year-old brother wandered away from camp. No one can find him, and it's getting dark and starting to drizzle.
- C** You sliced your finger while hiking. You're going to need stitches, and it's 20 minutes back to the parking lot.

ANSWERS

- 1** **A** In extreme cold, you can survive for only three hours without shelter, but three days without water, and three weeks without food.
- 2** **B** After rain, downed wood is too wet to light. Lower cedar branches are usually kept dry by dense branches above. Oily potato chips burn well but quickly.
- 3** **A** When you sweat, you lose salts — which your brain and muscles need — as well as water. As long as your pee is clear and frequent, you're drinking enough.
- 4** **B** Only in a life-or-death situation should you drink untreated water. The Current River is a busy stream. Someone will be by soon to give you a drink.
- 5** **B** You have food and water. You have a buddy. Try to find the trail. If you're still lost after Day Three, stay put and signal for help.
- 6** **B** Moss doesn't always grow on the north side of trees, and streams in Missouri flow in every direction. The North Star always points north.
- 7** **C** Just because you're hungry doesn't mean you're going to die. But eating the wrong mushroom can kill you, and white berries are always a no-no.
- 8** **C** It's true that black bears are scared of people, but mother bears have been known to defend their cubs.
- 9** **C** Experts no longer recommend sucking out venom, and you should never use a tourniquet for a snake bite (see Answer 11).
- 10** **B** During a lightning storm, always take shelter in a low-lying area away from tall, isolated objects. Lightning can strike the same spot twice.
- 11** **B** Unless you're bleeding so badly you might die, never tie a cord (called a tourniquet) above the wound. If it's left on too long, you could lose your finger.
- 12** **C** You should always call for help after getting knocked out. And small children can't warm themselves well enough to survive cold, wet weather.

HOW MANY DID YOU GET RIGHT?

1-3:

Do.
Not.
Leave.
Your.
Room.

4-6:

Better brush
up on your
first-aid
and survival
skills.

7-9:

You aren't
Bear Grylls,
but you know
how to handle
yourself.

10-12:

Call the
Discovery
Channel. You're
ready for your
own reality show.

Nut Jobs

Your guide to
Missouri's nuttiest
mammal family

by Matt Seek



The squirrel family tree has many branches. Tree squirrels, ground squirrels, flying squirrels, chipmunks, marmots, and prairie dogs all belong to this big clan. In fact, more than 250 kinds of squirrels exist worldwide. They're found on every continent except Australia and Antarctica. Seven kinds of squirrels live in Missouri.

No matter where they're found, all squirrels share a buck-toothed smile and a bushy-tailed behind. They use their front

teeth, called incisors, to gnaw on nuts and wood, clip vegetation and roots, and chew through soil when digging. In most squirrels, the incisors never quit growing. If they did, they'd quickly be worn down by all the use they get! Squirrels that live in trees generally have longer tails than those that live on the ground. And some squirrels — including chipmunks, woodchucks, and ground squirrels — have pockets of skin in their mouths called cheek pouches that can be packed full of nuts and seeds.

Thirteen-Lined Ground Squirrel and Franklin's Ground Squirrel

As their name suggests, ground squirrels live on the ground — or, more precisely, under the ground. Their paws have long claws to help them dig, and their bodies are long and skinny to squirm through tight tunnels. Toward the end of summer, ground squirrels pack on pounds until they have doubled in weight. Then, each chubby squirrel plugs the openings to its burrow, crawls into its nest, curls into a furry ball, and falls into a deep, DEEP sleep known as hibernation (*high-bur-nay-shun*). The super snoozers slumber for up to seven months, living off their fat until spring.

Fun Facts

Ground squirrels are curious creatures. When startled, they bolt for their burrows, but once inside, they immediately pop their heads back out for a peek.

Franklin's ground squirrels spend only 10 percent of their lives above ground.

Thirteen-lined ground squirrels usually have 13 stripes — seven light ones and six dark ones. But some have more stripes, and some have fewer stripes.

In a Nutshell

Appearance: Thirteen-lined ground squirrels are chipmunk-sized (but skinnier) with yellowish-tan fur and stripes on their backs. Franklin's ground squirrels are slightly larger and have grayish-brown fur.

Sounds: Ground squirrels give a clear, sharp whistle when alarmed.

Home: Thirteen-lined ground squirrels prefer cemeteries, well-grazed pastures, and areas with short grasses. Franklin's ground squirrels prefer prairies, roadsides, weedy fencerows, and areas with taller grasses.

Favorite Foods: Grasses, seeds, and insects



Franklin's Ground Squirrel Range



Thirteen-Lined Ground Squirrel Range



In a Nutshell

Appearance: Woodchucks are Missouri's largest, chubbiest squirrels. They have grayish-brown fur, broad heads, blunt noses, and short, bushy tails.

Sounds: When alarmed, woodchucks give a loud, shrill whistle. That's why some people call them "whistle pigs."

Home: Woodchucks build their burrows at woodland edges, in fencerows, and along brushy stream banks. The main entrance to the burrow is usually under a tree stump or rock and has a big pile of fresh dirt around it.

Favorite Foods: Woodchucks are vegetarians and eat many kinds of plants, fruits, and vegetables.



Woodchuck Range

Woodchuck

Woodchucks — aka groundhogs — are big-league burrowers. They dig an extensive network of tunnels and chambers in which to sleep, hide, and raise their babies. They're so good at digging, they may finish a small burrow in a single day. When woodchucks move out of their burrows, other animals move in. Foxes, weasels, badgers, skunks, rabbits, and opossums all take shelter in woodchuck burrows — sometimes while the woodchuck is still living there.

Fun Facts

Say what? Woodchucks can close their ears to keep out dirt when burrowing.

Like ground squirrels, woodchucks hibernate. During its deep sleep, a woodchuck breathes once every four minutes, and its heart beats only five times a minute.

Woodchucks may remove more than 700 pounds of soil while digging their network of tunnels.

Woodchucks usually stay on the ground but have been known to climb trees to get apples and other fruits.



Eastern Chipmunk

In the fall, chipmunks have just one thought in their furry little heads: storing enough food for winter. The hardcore hoarders forage on the forest floor, stuffing their cheeks like grocery sacks and then scurrying back to their burrows to unload their treasures. A single chipmunk may pack its winter pantry with enough nuts and acorns to fill nine 2-liter soda bottles. Chipmunks build a bed on top of this pile of food. In the fall, the bed is near the roof of the nest. But by spring, the hungry 'munk has eaten most of its stash, and its bed has dropped to the floor.

Fun Facts

In parks and well-used campsites, chipmunks learn to swipe unwatched food from picnic tables, backpacks, and open coolers.



In a Nutshell

Appearance: Chipmunks have a flattened tail, reddish-brown fur on their backs, white fur on their bellies, and stripes on their sides and heads.

Sounds: A loud *chip* is often sung for several minutes at a rate of 130 chips each minute.

Home: Chipmunks prefer the edges of woods rather than deep forests. They build burrows in wooded banks, under fallen trees, or inside rock piles. They also live in stone walls, under shrubs, and inside sheds in cities and towns.

Favorite Foods: Mostly nuts, seeds, and berries but sometimes insects



Eastern Chipmunk Range

Hey chubby cheeks! A chipmunk can cram nine acorns in its mouth — four in each cheek pouch and one between its teeth.



Chipmunks often sing together in the spring and fall. Birds are sometimes attracted to the choruses of chipmunks.

Different naps for different chaps: Some chipmunks hibernate all winter, some only during cold snaps, and some stay awake all winter long.

In a Nutshell

Appearance: Gray squirrels have grayish-brown fur on their backs and white fur on their bellies. Fox squirrels are slightly larger and have reddish-brown fur.

Sounds: Tree squirrels are chatterboxes and make many different sounds. When angry or alarmed, they give a *cherk, cherk, cherk* call.

Home: Gray and fox squirrels live wherever large nut trees are found. They make leafy nests in tree holes and on branches.

Favorite Foods: Acorns, nuts, corn, berries, insects, and bird eggs



Eastern Gray Squirrel Range



Eastern Fox Squirrel Range

Eastern Gray Squirrel and Eastern Fox Squirrel

Tree squirrels use their long bushy tails for balance when scampering from branch to branch. When it's sunny, they curl their tails over their heads for shade. When it's rainy, they use their tails like umbrellas. When it's cold, they wrap their tails around themselves like blankets. If a squirrel slips off a branch, it uses its tail like a parachute to slow its fall. And if a squirrel is angry or alarmed, it flicks its tail to warn other squirrels. You might say that tree squirrels have really talented tails!

Fun Facts

When fox and gray squirrels catch the love bug, males chase females up, down, and around trees. Sometimes several males chase the same female. When this happens, the stronger, faster guy usually gets the girl.



Fox squirrel

Tree squirrels often visit bird feeders and birdbaths.



Gray squirrel

One way to tell gray and fox squirrels apart is by their skeletons. Gray squirrels have white bones. Fox squirrels have pink bones.

Southern Flying Squirrel

At night, while gray and fox squirrels are curled in their nests dreaming of acorns, flying squirrels dive through the dark, gathering the real thing. To glide, this tiny forest flyer climbs to a high perch and then plunges spread-eagle into thin air. *Wheee!* Draped between the squirrely skydiver's legs is a flap of skin that billows like a furry parachute. By changing the slack in this flap and steering with its long, flat tail, the squirrel can swoop around branches and sail safely to its destination.

Fun Facts

With a lofty launch site and a strong tailwind, flying squirrels can glide as far as five school buses parked end to end.

When you shine a flashlight at a flying squirrel's eyes they seem to glow ruby red. Spooky!

Flying squirrels can't pack on fat like other squirrels (if they got chubby, it would be hard to glide). So when winter rolls around, flying squirrels huddle together in tree cavities to stay warm. Fifty squirrels were once found packed inside a single tree.

In a Nutshell

Appearance: Flying squirrels are chipmunk-sized with a mouselike face, huge eyes, long whiskers, and loose folds of skin between their front and back legs. Their fur is brownish-gray on the back and white on the belly.

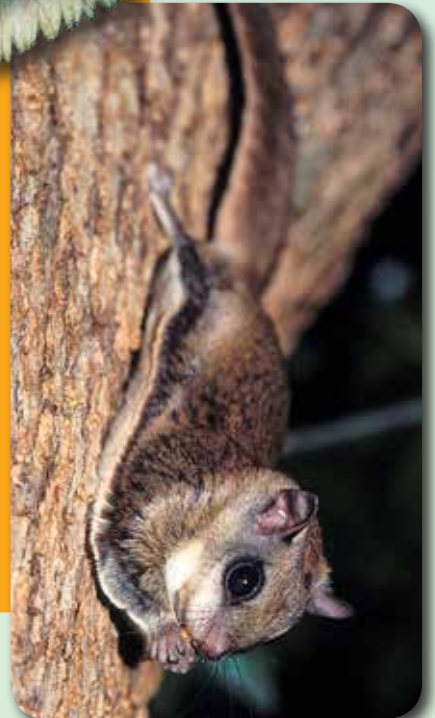
Sounds: A high-pitched tseet is the most common call, but flying squirrels also squeal when angry and chirp when content.

Home: Flying squirrels prefer dense oak-hickory forests near water but also live in cities where nut trees are thick. They nest in small tree cavities, often made by woodpeckers, usually 20 to 30 feet above the ground.

Favorite Foods: Acorns, hickory nuts, fruits, insects, and bird eggs



Southern Flying Squirrel Range



THE STRUGGLE TO SURVIVE ISN'T ALWAYS A FAIR FIGHT

THIS ISSUE:

EASTERN SCREECH-OWL VS LITTLE BROWN BAT

Illustrated by David Besenger



Night Sight

Keen eyesight and sensitive hearing help the owl target prey in the air and on the ground, even at night.

Woodsy Winger

This little woodland owl is built to flit silently among the trees.

Trapper Talons

Once they contact prey, the strong, sharp talons close and crush.

AeroBATIC

The bat, too, is a master flyer, able to dive and dart through the dark to catch a meal — or avoid becoming the owl's midnight snack.

AND THE WINNER IS...

Screech-owls don't target little brown bats — moths and mice are easier to catch! But if a bat flies past its perch, an owl may dive and even catch it. The owl wins this time.

STRANGE but TRUE!

YOUR GUIDE TO ALL THE
UNUSUAL, UNIQUE,
AND **UNBELIEVABLE**
STUFF THAT GOES ON IN NATURE

To reach their wintering grounds in the rainforests of South America, **BLACKPOLL WARBLERS** fly up to 1,800 miles over the Atlantic Ocean. During this time, the marathon migrators often fly for three days straight without resting.



During fall, **BLUE JAYS** may collect and bury up to 5,000 acorns each. The feathered foresters forget to eat some of the acorns, and many sprout into oak trees the following spring.

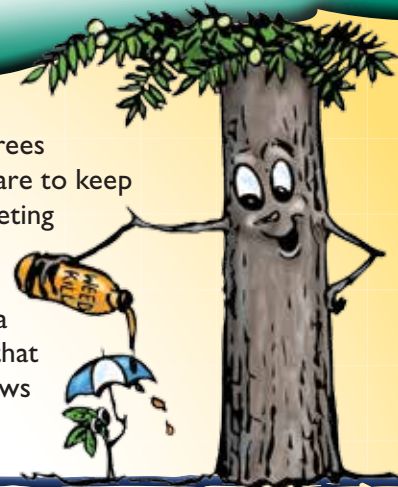
PIED-BILLED GREBES

eat their own feathers. Why? The feathers pile up in a grebe's stomach and act as a filter to keep pokey prey parts — such as crayfish claws and fish spines — from piercing the bird's intestines.



BLACK WALNUT

trees engage in chemical warfare to keep other plants from competing with them for sunlight, water, and nutrients. The toxic trees release a chemical called juglone that kills some plants and slows the growth of others.



MARBLED SALAMANDER

When a predator threatens a **MARBLED SALAMANDER**, the chunky, 4-inch-long amphibian secretes a milky poison from its tail. Biologists believe the toxic tail is enough to keep many predators from taking a nibble.



In the fall, **BEAVERS** collect up to 2,000 pounds of tasty, tender branches and stash them in the mud in the deepest part of their pool.

When winter comes, hungry beavers swim under the ice to grab a stick for a snack.



SPIDERS

don't have wings, but that doesn't mean they can't fly. To move long distances, spiders climb a tall perch and let out strands of silk. When the silk catches the wind, the spider lets go and up, up, and away it flies.

HOW TO

Make Trail Mix Cookies With Native Nuts

Leaves aren't the only things that fall in fall. Pecans, walnuts, and hickory nuts also drop. If you can find these tasty nuts before the squirrels do, you can use them to make yummy cookies.



HERE'S WHAT YOU NEED

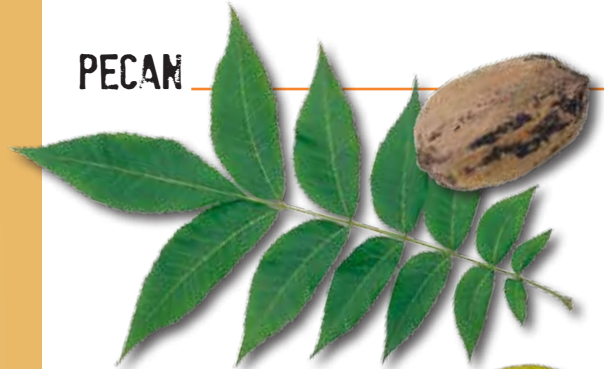
- Hammer
- Parchment paper
- Large, rectangular cookie sheet
- 2 large mixing bowls
- Electric mixer
- Measuring cups and spoons
- Mixing spoon
- Ice cream scoop
- Spatula
- 2 cups flour
- 1 cup oats
- $\frac{3}{4}$ teaspoon baking soda
- $\frac{1}{2}$ teaspoon salt
- 1 cup brown sugar
- $\frac{1}{2}$ cup white sugar
- 1 $\frac{1}{2}$ sticks of unsalted butter cut into cubes
- 2 eggs
- 1 tablespoon vanilla
- 1 cup chocolate chips
- $\frac{3}{4}$ cup chopped pecans, walnuts, or hickory nuts
- $\frac{3}{4}$ cup dried cranberries, blueberries, or cherries

HERE'S WHAT YOU DO

- 1** Gather a bucket of pecans, walnuts, or hickory nuts. Use a hammer to crack open the hard shells and then pick out the nuts inside. Be sure you don't leave shells in the crevices of the nuts. No one wants to bite down on a hard shell in a soft cookie!
- 2** Set your oven to 350 degrees. Line a cookie sheet with parchment paper.
- 3** In a large bowl, stir together the flour, oats, baking soda, and salt.
- 4** In a different bowl, use an electric mixer to combine the brown sugar, white sugar, butter, eggs, and vanilla.
- 5** Add the ingredients from the first bowl into the second bowl. Mix in chocolate chips, nuts, and berries. Chill the dough in the refrigerator for 20 minutes.
- 6** Use an ice cream scoop to place balls of dough onto the cookie sheet. Smash each dough ball until it's about an inch thick. Leave an inch of space between each cookie and the ones around it.
- 7** Bake the cookies for 15 to 20 minutes until they're golden brown. Let the cookies cool on a counter before eating (if you have the willpower).

NATIVE NUT IDENTIFICATION

PECAN



WALNUT



HICKORY



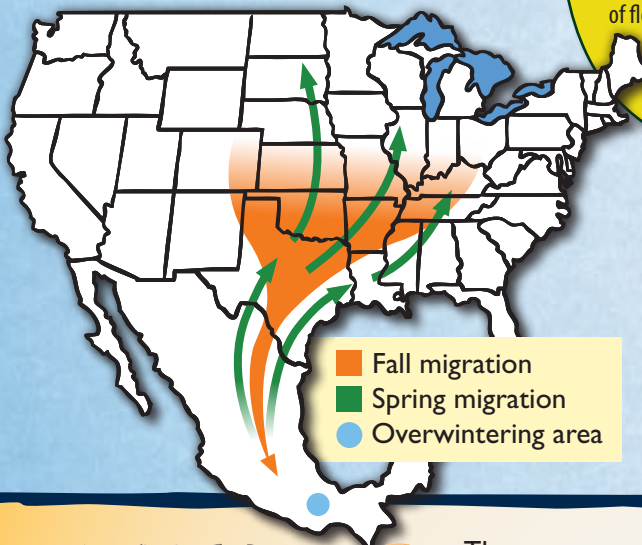
To learn about Missouri's nuttiest trees, visit mdc.mo.gov/field-guide and type "hickory" into the search bar.

XPLOR MOR



Migration Marathon

Imagine traveling to a place you've never been to before. You have neither a suitcase nor a map. To get there, you must fly thousands of miles and pit your wits against predators and dangerous weather. Sound scary? Migrating monarchs do it every fall.



- Fall migration
- Spring migration
- Overwintering area

| | | | | |
|--|---|--|---|--|
| <p>Wahoo! Someone planted wildflowers in their backyard.</p> | <p>Wheeee! A strong tailwind helps you flutter faster. Roll again.</p> | <p>On average, you move 30 miles south each day.</p> | <p>A kingbird nibbled your wing. It didn't know you are poisonous. Skip a turn to heal.</p> | <p>Nothing but corn as far as your compound eyes can see. It must be Iowa.</p> |
| <p>Missouri's grasslands and wetlands are full of flowers. It's like a 300-mile-long buffet!</p> | <p>Pawnee Prairie is golden with goldenrod. Guzzle nectar then move ahead one square.</p> | <p>Flowers fuel your flutter. Most monarchs <i>gain</i> weight during migration.</p> | <p>Smartweed is blooming at Eagle Bluffs. Guzzle nectar then move ahead one square.</p> | <p>Weird. A human caught you in a net then stuck a sticker on your wing.</p> |

HOW TO PLAY

Gather three pennies and an assortment of small objects to use as game pieces. Place a game piece for each player on the square marked "start." Take turns tossing the pennies, counting how many land heads-up, and moving the game pieces forward that many spaces. Don't forget to read what's printed on the squares. The first player to finish wins.

WHAT IS IT?

— FROM PAGE 3 —

These pretty snakes are named for the striped garters men used to wear to hold up their socks. Harmless, shy, and common statewide, gartersnakes favor wet areas like damp woods and creek-sides. They eat frogs, tadpoles, toads, salamanders, and earthworms. You may see gartersnakes anytime from March through November. In winter, they take shelter in animal burrows or gather in deep cracks in bluffs or rocky hillsides. Learn more about Missouri's snakes at mdc.mo.gov/field-guide.



THE



START

FINISH



Your journey begins in September on a milkweed plant in Minnesota.

Way to go! Against all odds, you made it back to Missouri.

A spring thunderstorm blows you back one square.

Milkweed is poisonous. By eating it, monarchs become poisonous too.

Watch out! A hungry blue jay almost snapped you up for a snack.

Milkweed is the only thing baby monarchs (caterpillars) will eat.

Days are getting shorter and nights are getting colder. Time to flutter south.

Monarchs born in fall live up to nine months. Other monarchs live a few weeks.

You just hatched from a chrysalis. You weigh less than a dime. Ready to fly 2,500 miles?

Must. Keep. Fluttering.

The Ozark hills sure look pretty in the springtime.

Arkansas is covered with milkweed sprouts. Skip a turn to lay eggs.

Dodging cars on I-90 was terrifying. Hope you don't have to do that again!

Sooner than later you reach the Sooner State. Welcome to Oklahoma.

An early frost has you grounded. Skip a turn to let the sun warm your wings.

Drought wilted the wildflowers around Tulsa. Skip a turn to search for food.

The oilfields of Oklahoma can't help you refuel. Fly ahead one square.

A brisk headwind blows you back one square.

To learn how to tag migrating monarchs, visit monarchwatch.org.

Diamond Grove Prairie blazes with blazing star. Guzzle nectar then move ahead one square.

They say, "don't mess with Texas," but you decide to take your chances.

Wind comes sweeping down the plain in Oklahoma. In fact, it sweeps you back a square.

Look out! An assassin bug nearly assassinated you while you sipped nectar.

When will monarchs return? Track migration at learner.org/jnorth.



Like all monarchs, you fly during the day and rest in trees at night.

You're over Louisiana Cajun Country, but there's no time for gumbo. Must fly north.

Houston, we have a problem. There's nothing to eat in Houston. Fly ahead one square.

The Texas Hill Country brims with wildflowers. Roll again.

A rainy day keeps you clinging to your roost in a live oak tree. Skip a turn.

Monarchs use the sun to help find their way.



You're now entering U.S. airspace. Welcome back to Texas.

Spring has sprung. Time to fly north.

You spend four months snoozing and don't eat the entire time.

Fat is where it's at. Packing on weight helps you survive winter.

Hurricane Maya makes landfall. Winds blow you back one square.

Hola little butterfly. Bienvenidos a Mexico.

Trick or treat! By Halloween you've made it to the mountains of central Mexico.

Oh, no! Illegal loggers have cut down the trees. Fly one square farther to find a winter roost.

Though it's your first trip to Mexico, somehow you know you must spend winter here.

Hope you like crowds. Millions of monarchs huddle together in fir trees during winter.

SUBSCRIBE ONLINE

mdc.mo.gov/xplor

FREE TO MISSOURI HOUSEHOLDS

CRITTER CORNER

Missouri Tarantula



This stocky, hairy creature is the Show-Me State's largest spider. Despite what you might see in horror movies, tarantulas don't spin webs to catch their prey. They walk on the ground and grab insects. Like other spiders, they have fangs and venom that subdues their prey and that helps digest it, but tarantulas are not aggressive to humans. In Missouri, tarantulas live in dry, rocky areas called glades. Learn more at mdc.mo.gov/field-guide.