



March/April 2015

Xplor

FANTASTIC FEET

OUTSIDE, THERE ARE FANTASTIC FEET ALL AROUND YOU — HIGH IN THE SKY AND EVEN DEEP UNDERGROUND.



CONTENTS

FEATURES

6 Nature in the City
Some wild new neighbors are moving into cities and suburbs across Missouri.

10 Fantastic Feet
The far-out feats of these funky feet just can't be beat.

DEPARTMENTS

- 2** Get Out!
- 3** What Is It?
- 4** Into the Wild
- 16** Predator vs. Prey
- 17** Strange but True
- 18** How To
- 20** Xplor More

Stars twinkle above Caney Mountain Conservation Area.

by David Stonner



GOVERNOR
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Marilynn J. Bradford

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Brett Dufur
Les Fortenberry
Karen Hudson
Regina Knauer
Nichole LeClair Terrill
Noppadol Paothong
Marci Porter
Mark Raithe
Laura Scheuler
Matt Seek
David Stonner
Stephanie Thurber
Cliff White

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ON THE COVER

Green Treefrog
by Noppadol Paothong

GET OUT!

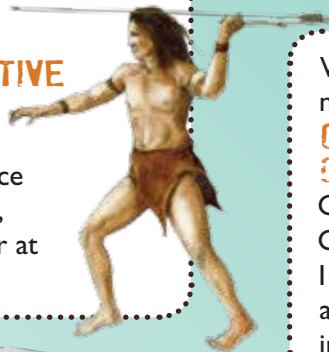
DON'T MISS THE CHANCE TO DISCOVER NATURE AT THESE FUN EVENTS



1

Learn about early Missouri hunting at **ATLATLS AND ARCHERY: PRIMITIVE HUNTING IN MISSOURI.**

Central Regional Office in Columbia. March 7, 9 a.m.–3 p.m. Register at 573-815-7900.



2

With a compass, find true north at **ORIENTEERING: QUEST FOR LEPRECHAUM GOLD.**

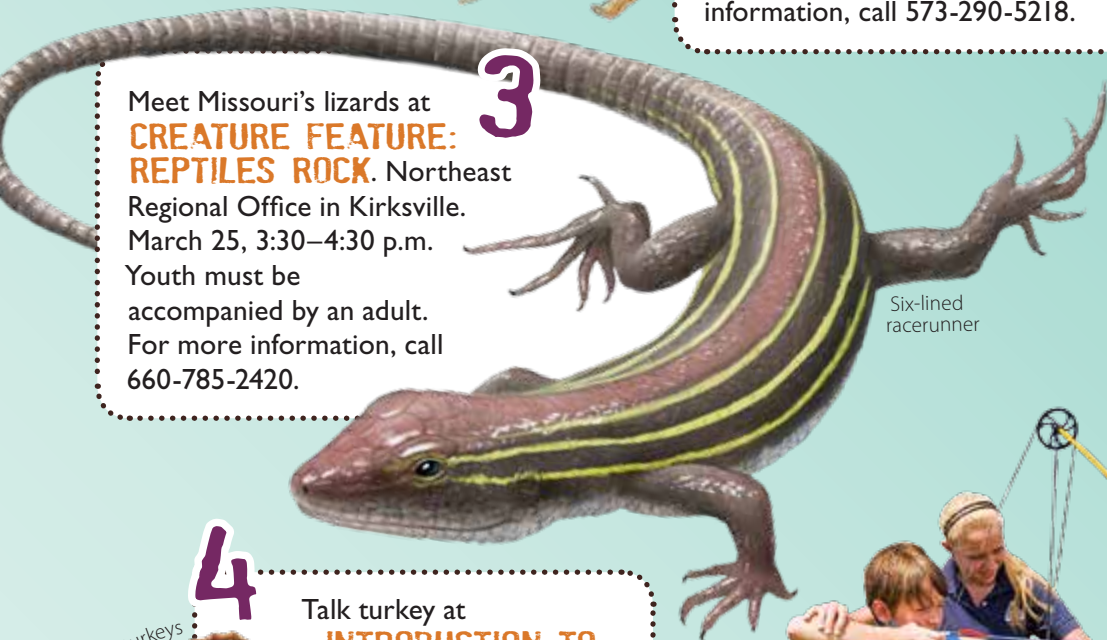
Cape Girardeau Conservation Nature Center. March 7, 10–11:30 a.m. Youth must be accompanied by an adult. For more information, call 573-290-5218.



3

Meet Missouri's lizards at **CREATURE FEATURE: REPTILES ROCK.**

Northeast Regional Office in Kirksville. March 25, 3:30–4:30 p.m. Youth must be accompanied by an adult. For more information, call 660-785-2420.



Six-lined racerunner

4

Talk turkey at **INTRODUCTION TO TURKEY HUNTING.**

Wildcat Glades Conservation & Audubon Center in Joplin. April 1, 6–9 p.m. Youth must be accompanied by an adult. Register at 417-629-3423.



5

Bag some bull's-eye basics at **BEGINNING ARCHERY.** Jay Henges Shooting Range in High Ridge. April 21, 6–7:30 p.m. Youth must be accompanied by an adult. Advance registration required. Call 636-938-9548.



With winter almost gone and spring right around the corner, there's plenty to discover outside in March and April. Watch for these natural events around the following dates.

MARCH 1

Ducks and geese migrate north through mid-April.

MARCH 14

Wild turkeys gobble through early May.

MARCH 16

Spring peeper calling is at its peak.

APRIL 4

Total lunar eclipse occurs.

APRIL 18

Whip-poor-wills begin calling.

APRIL 20

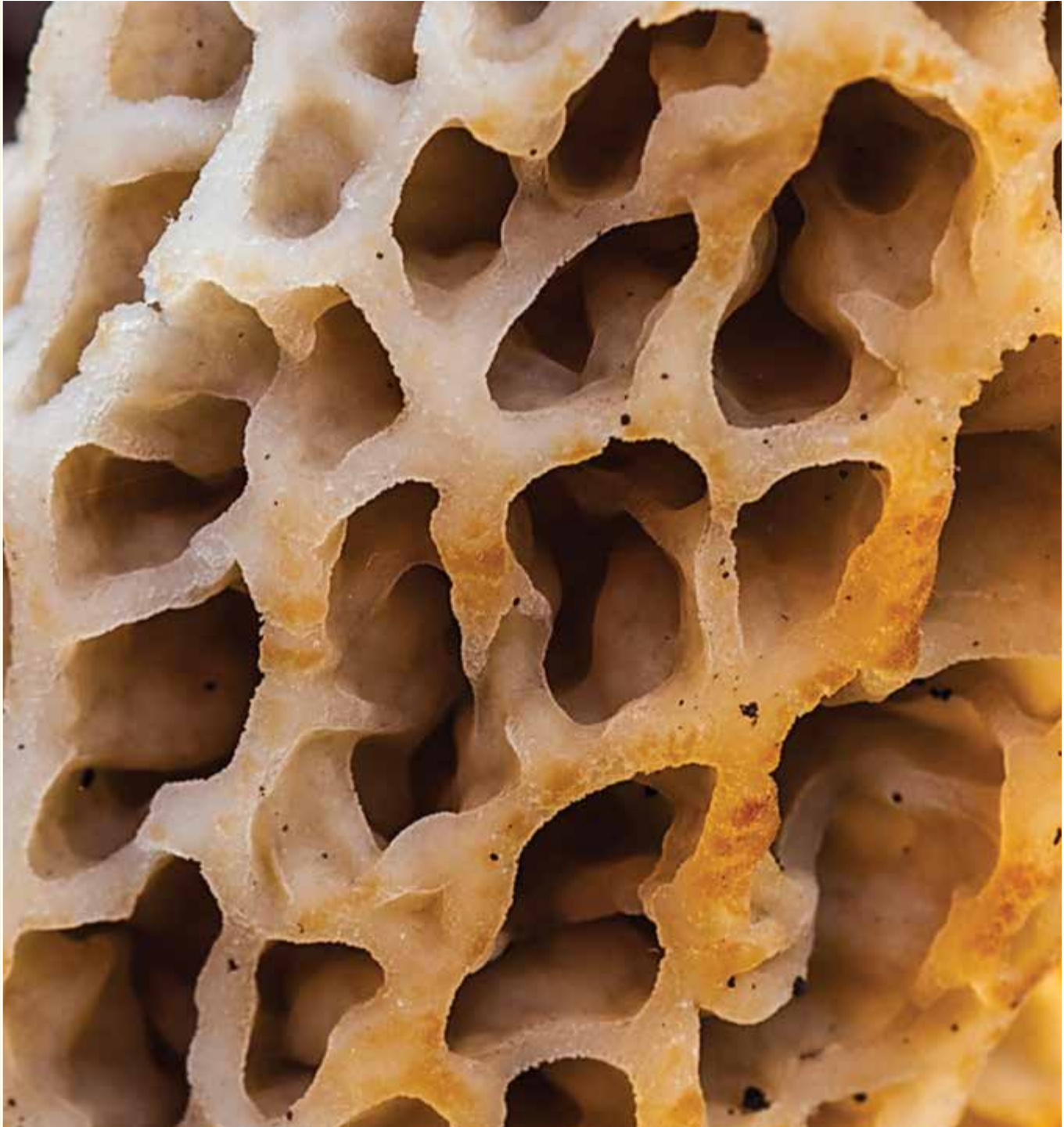
Look for flowering dogwood trees.

APRIL 23

Turtles crossing roads. Watch out!

WHAT IS IT?

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



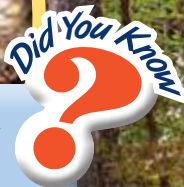
- ① Looking for my spores is never a bore.
- ② Watch your toes — that's down where I like to grow.
- ③ I pop up after a warm spring rain.
- ④ People squeal when they see me because I'm a "fun guy."

Into the WILD spring woods

Missouri's woodlands are magical in the spring. So lace up your boots, shoulder your pack, and head into the wild. But first, read this.



Did you know you can eat a tree? The pink flowers on a redbud tree taste nutty and sweet. The best way to sample them is to bury your face in a branch and nibble away like you're eating corn on the cob. Just watch out for bees — they like redbuds, too.



You can tell whether a box turtle is a boy or girl by looking at its eyes. Boys usually have reddish-colored eyes. Girls usually have yellowish-brown eyes.



Never munch mushrooms unless you're sure they're safe to eat. Eating the wrong 'shroom can make you deathly sick.



Take a Closer Look

Morel mushrooms are nature's Easter eggs. They're small, sort of egg-shaped, and hidden among leaves on the forest floor. Searching for them is tons of fun and worth the effort because they taste yummy. Morels pop up in April after a warm rain has moistened the soil and when temperatures stay above 50 for a few days.



Scarlet tanager



Reva Dow photo
Baltimore oriole



Prothonotary warbler



Tennessee warbler



Indigo bunting

LOOK

In spring, birdwatchers get “warbler neck,” an injury caused by hours spent looking high into trees at singing songbirds. Raise your binoculars and you’re sure to see a rainbow of feathers, from red tanagers to blue buntings.

Go outside and see how many colors you can spot.



Columbine

Photo Op

The blooms of many spring wildflowers last just a day, but a photo lasts forever. Follow these tips to take stunning flower portraits:

- ✧ Shoot when it’s cloudy. The soft, even light of an overcast day will make the flower’s colors pop.
- ✧ Get down and get close. Lie on your belly to shoot a side view of the flower, and make sure the plant fills most of the frame.
- ✧ Shaky hands lead to blurry photos, so hold your camera steady. Use a tripod or brace your elbows on the ground.



Wild turkey

Listen

From March through May, male wild turkeys gobble to attract mates. Their loud calls sound funny to us — like a cross between a witch’s cackle and a dog choking on a squeaky toy — but female turkeys find them hard to resist.

Do More

Youth turkey season is April 11–12. For the deets, visit mdc.mo.gov/node/132.

NATURE IN THE CITY

by Matt Seek

Although the mean streets of the city seem like a hard place for animals to survive, many of the same critters found in Missouri's wildest places are turning up in our most crowded spaces.

SiouxZee and Coal are like most suburban parents. They own a cozy home with a spectacular view and a nice-sized backyard. It's a short commute from downtown St. Louis and a safe place to raise their growing family. Both parents work hard to put pigeons on the table.

Pigeons?

Yep. SiouxZee and Coal are peregrine falcons, the fastest birds in the sky, capable of feather-whipping dives approaching 200 miles per hour. And like peregrines in Kansas City, Springfield, and Jefferson City, they've traded the cliffs they normally nest on for skyscrapers and other buildings.

Forty years ago, peregrines were in danger of disappearing, with fewer than 50 nesting pairs in the United States. When biologists released falcons in wild places to try to boost their numbers, predators such as great horned owls took a heavy toll. But peregrines released in cities seemed to do just fine. Cities contained fewer predators, skyscrapers were as easy to nest on as cliffs, and the streets were chock-full of pigeons and starlings to eat. Now, peregrine numbers have rebounded, and the majestic birds regularly nest atop skyscrapers in downtown Kansas City, an energy plant near St. Louis, and the Capitol dome in Jefferson City.



Peregrine falcon



Wild turkey



To watch a pair of peregrines raise their hungry family, visit mdc.mo.gov/node/16934.

Birds in the 'Burbs

The Show-Me State's cities have large parks, lots of green space, and neighborhoods lush with trees. These areas offer surprisingly good habitat for wild critters to make their homes, raise their babies, and find food to eat.

For years, western kingbirds have nested atop the lights of Kauffman Stadium in Kansas City while the Royals play baseball below. Wild turkeys have been spotted strutting on front lawns and weaving in and out of parked cars near the Plaza in Kansas City and in the busy Central West End neighborhood of St. Louis. And, more than 200 kinds of birds have been recorded in St. Louis's Forest Park, including white pelicans, trumpeter swans, and bald eagles.



Western kingbird



Box turtle

Give Turtles a Brake

In the springtime, box turtles awake from a long winter sleep and begin crawling around to look for mates and places to lay eggs. Many turtles cross busy city streets in their quest. Though their tough shells shield them from predators, they're no match for vehicles that weigh more than a ton. Help your parents watch the road for turtles, especially in April and May. If there's no traffic, you can stop and gently help a turtle to the other side of the road.

KEEP WILD LIFE WILD!



Here are a few ways to get along with your wild neighbors.

- Place trash in a can that has a tight, locking lid. This will make it tough for raccoons and opossums to find a free meal.
- Feed your pets indoors. Leaving pet food outside is an invitation for unwelcome dinner guests.
- Keep your kitty inside. Biologists estimate that house cats kill 2.4 billion birds in the United States every year.
- Leave baby birds, newborn rabbits, and small fawns where you find them. They aren't abandoned. Mom is probably nearby and may not come back until you leave.
- If your wild neighbors are causing problems, call your local Conservation Department office for help.

City Critters

It isn't just feathered creatures who are making their homes in cities. Deer, raccoons, and opossums are a regular sight in most urban areas, and more surprising four-legged fur balls are turning up as well. In many places, when poodles and golden retrievers leave the dog park at the end of the day, their wild cousins come out to play. The yipping of coyotes is commonly heard in many metro areas after dark, and red and gray foxes are regularly seen trotting across city parks and suburban backyards at dusk. For the past few years, a pair of red foxes has raised their pups mere blocks from Columbia's busy mall. Mink regularly patrol the waterways of Forest Park, and bobcats are occasionally seen snoozing in trees above biking trails in Columbia, Jefferson City, and Springfield. These urban predators stay mostly out of sight and earn their keep by eating rats, mice, and other pests.





Southern flying squirrel

Nature's Night Shift

A big reason urban animals go unnoticed is because many come out at night, when most folks are inside watching TV or tucked into bed. Stay outside after dark and you might hear the whiny of a screech owl or the deep *hoo-HOOT-hoo-hoo* of a great horned owl. You might see red bats fluttering under streetlights to munch moths, or nighthawks, which nest on the gravel roofs of shopping centers, swooping and diving to bag bugs. If you have a bird feeder, keep an eye on it. When the lights go out, flying squirrels glide down from the treetops to raid sunflower seeds.



Gray fox

FANTASTIC FEET

by Brett Dufur
artwork by
David Besenger

Think feet stink? Then read on. Feet are fantastic. Feet help us get where we need to go. You probably even know someone who can scratch their nose with a toe! Humans aren't the only ones with fantastic feet. Fancy feet make many animals amazing, too. When you're outside, there are fantastic feet all around you — high in the sky and even deep underground.

BEAVER

The beaver is a sleek swimmer thanks to powerful, webbed back feet. It can swim as fast as you walk. Dinner stuck in your teeth? Not a problem if you're a beaver. Beavers have a special double toenail on each back foot that serves as a handy toothpick when they get wood splinters stuck in their teeth. The double toenail also helps them groom to keep their coat well oiled and water repellent.



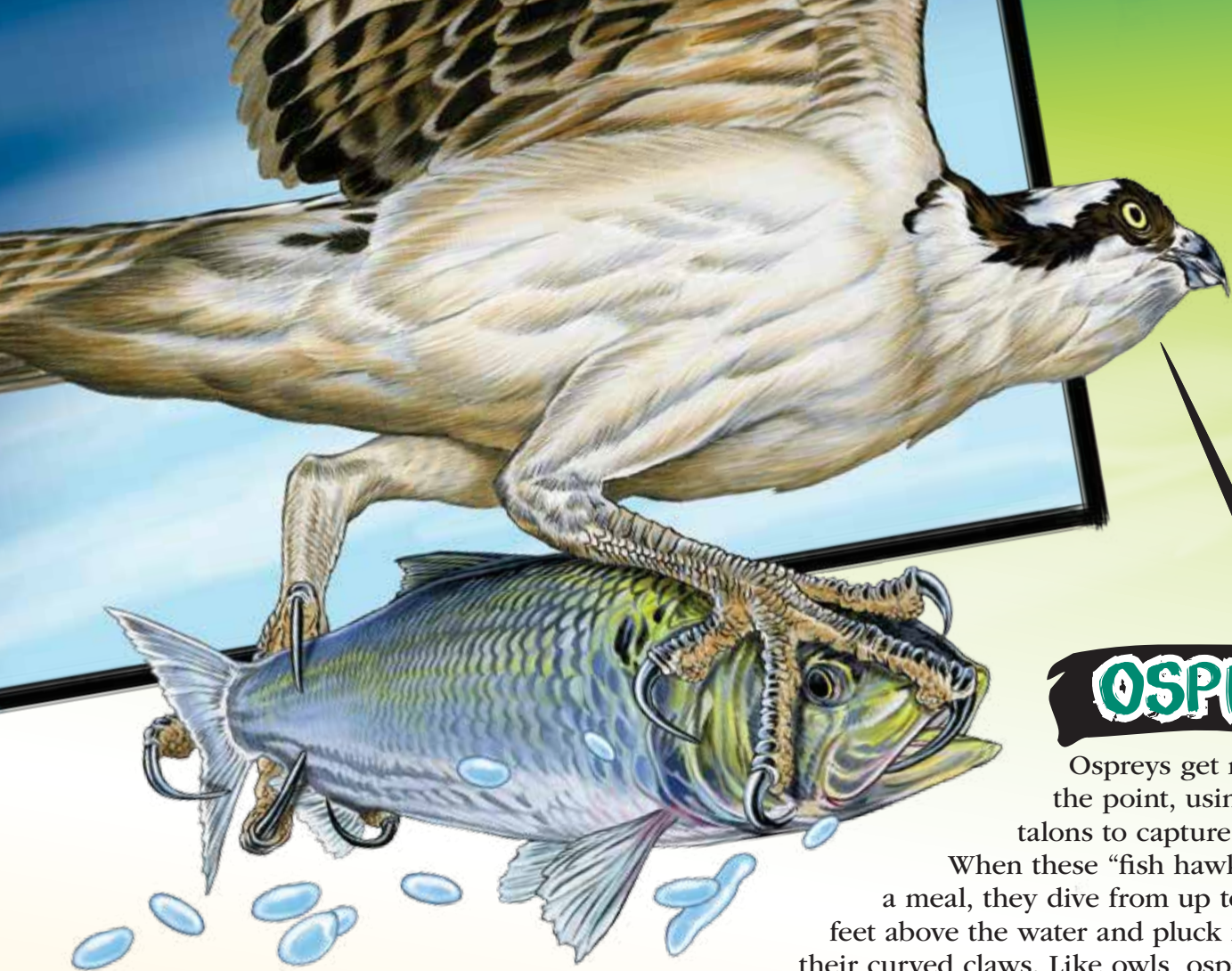
EASTERN MOLE

The mole is perfectly designed for life underground. The mole's big and powerful front feet claw through the earth with a swimming motion. Webbed toes push dirt out of the way. A special extra bone attached to the wrist acts like a shovel edge. Some moles tunnel 15 feet per hour or up to 100 feet in a day. Always on the hunt, they eat half their body weight each day, including worms, grubs, and other creepy-crawlies.



GRAY TREEFROG

Gray treefrogs are the masters of sticking on but not sticking out, thanks to suction cup toes and lots of camouflage. They produce slimy mucus that makes their large toe pads extra sticky. Treefrogs can hold on to not only the trees where they live, but also smooth surfaces like windows and flowerpots — any place that puts them closer to their next meal.



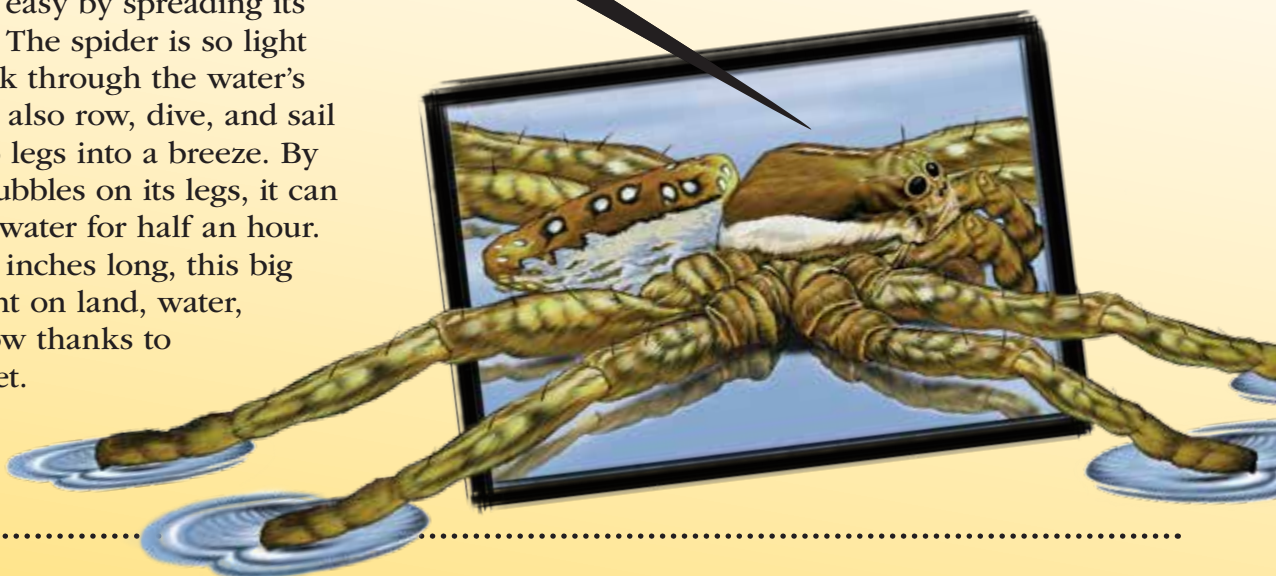
OSPREY

Ospreys get right to the point, using sharp talons to capture fish.

When these “fish hawks” spot a meal, they dive from up to 100 feet above the water and pluck fish with their curved claws. Like owls, ospreys can flip an outer toe around so that two toes point forward and two point backward to better grasp prey. Barbs on the birds’ feet help to grip slippery fish. Then, while still in flight, ospreys point the fish forward to reduce wind drag.

SIX-SPOTTED FISHING SPIDER

The fishing spider makes walking on water look easy by spreading its legs out wide. The spider is so light it doesn’t break through the water’s surface. It can also row, dive, and sail by raising two legs into a breeze. By trapping air bubbles on its legs, it can breathe underwater for half an hour. Measuring 2.5 inches long, this big spider can hunt on land, water, and deep below thanks to its fantastic feet.



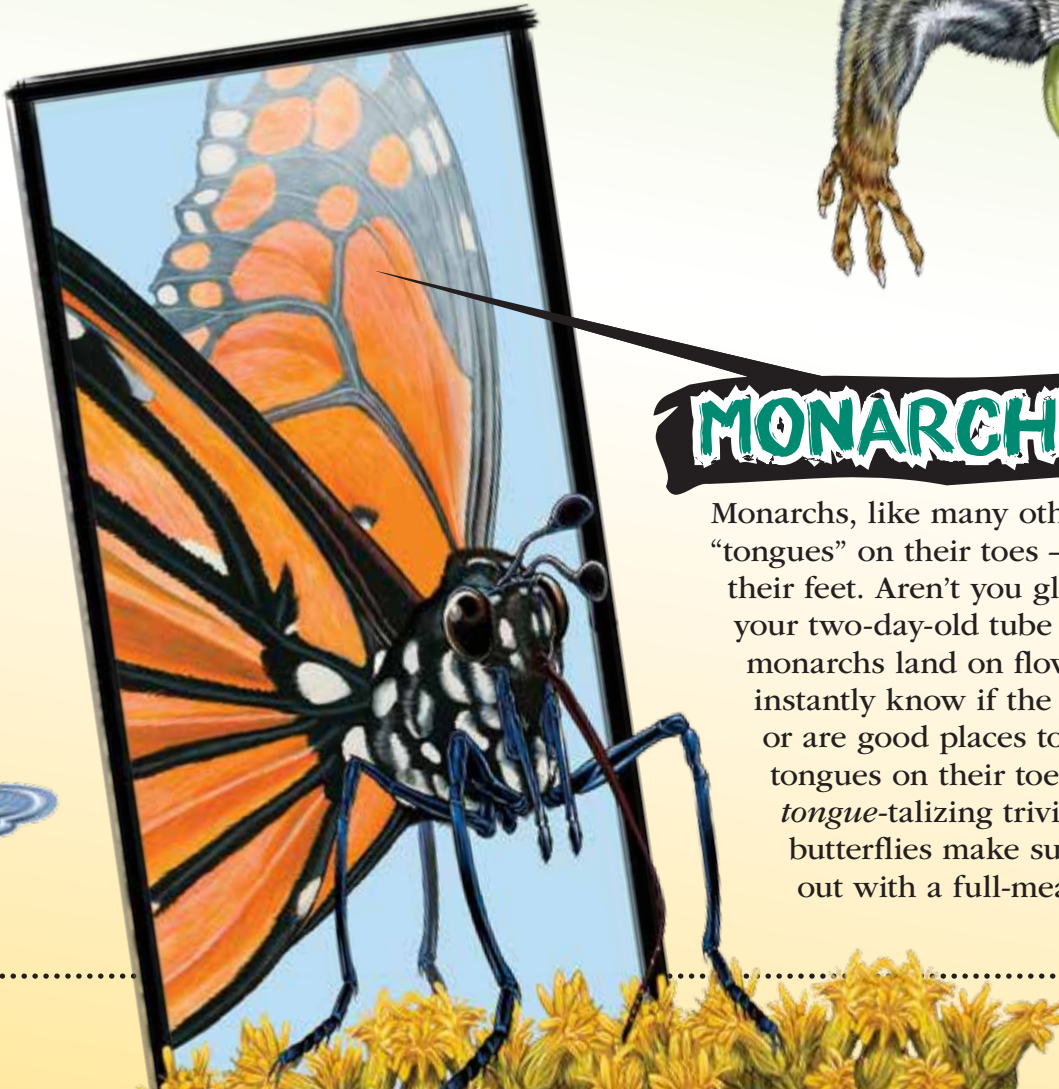
EASTERN GRAY SQUIRREL

The eastern gray squirrel spends much of its time in tree branches and often scampers to the ground to gather or bury food. The squirrel has sharp claws for holding onto tree bark and acorns. Its back feet can turn backward and hold on tight — perfect for sprinting down a tree trunk headfirst or hanging from a local bird feeder.



MONARCH

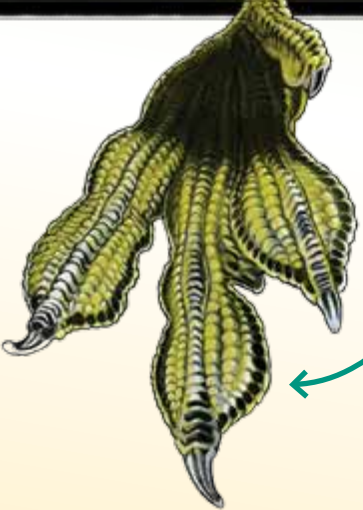
Monarchs, like many other butterflies, have “tongues” on their toes — they can taste with their feet. Aren’t you glad you can’t taste your two-day-old tube socks? Whew! When monarchs land on flowers or plants, they instantly know if the plants have nectar or are good places to lay eggs. Having tongues on their toes is more than just *tongue*-talizing trivia, it helps mother butterflies make sure their babies start out with a full-meal deal.





AMERICAN COOT

Although the coot bobs on lakes, it's not a duck. A coot's feet are almost comical. Their green feet are gigantic compared to their body size. Their toes have side flaps (or **lobes**) that help support the bird's weight on mucky ground. Those feet become the next best thing to flippers when swimming. The flaps fold back on the forward stroke to move easily through the water. Then the flaps open up like a duck foot to paddle forward.



RACCOON

The black fur around a raccoon's eyes looks like a robber's mask, but the only thing this bushy-tailed bandit wants to steal is food. They pick berries and persimmons with their hands, just like humans. With their nimble fingers, raccoons also are good at untying knots, turning doorknobs, and opening jars. Having more nerve endings in their hands than humans means raccoon paws are supersensitive and well-equipped for the bandit life.





RED BAT

While the red bat hangs upside down, its claws and special tendons keep a grip without using any muscles. This allows the bat to rest without falling from its roost (it can even remain hanging after death). Red bats don't cluster in caves like many other bats. They spend their days hanging from tree branches, often by one foot, even when strong winds blow.

BOBCAT

Bobcats are *purr*fect assassins. They usually keep their claws tucked into their paws so the claws stay razor sharp. But when a bobcat's ready for business, out come its terrible toenails to hook into prey and hang on until the bobcat can put its teeth into play. Rabbits top the menu in Missouri, but bobcats will eat whatever they can catch. Thanks to an arsenal of sharp claws, jaws, and eyeballs, they catch quite a lot.



Illustrated by David Besenger

THIS ISSUE:

LEAST WEASEL VS WHITE-FOOTED MOUSE

Teensy-Weensy Weasel

The least weasel is the smallest type of weasel in the world and also the smallest meat-eating mammal. This mouse-sized critter often attacks prey much bigger than itself.

A+ for Attitude

Least weasels eat half their body weight daily (one to two mice). When attacking an adult mouse, the weasel grasps the back of the head and bites through the skull several times.

Midnight Snacker

The white-footed mouse's large eyes help it see in dim light, so it can eat late and try to stay alive. Its long, sensitive whiskers and nose also help it explore at night.

Underground Hunter

The least weasel's long, slender body and small, flattened head allow it to dive through holes less than an inch around. It can easily chase prey into their burrows.

Turbo for Trouble

On the run, the mouse's back feet stretch ahead of its front feet. It also can run on just its hind feet, holding its front feet up high.

AND, THE WINNER IS...

Once this least weasel was on the hunt, there was no place for the white-footed mouse to hide. Throughout the forest, however, hundreds of other mice lived to see another day.



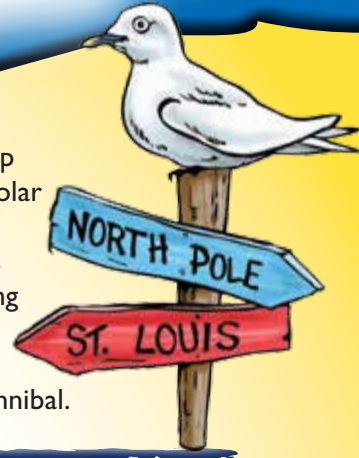
STRANGE but TRUE!

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

BATS are the only mammals that can truly fly. But to stay up, bats must stay slimmed down. An Indiana bat, for example, has a wingspan of nearly a foot, but the furry bug muncher weighs less than two nickels.



IVORY GULLS usually keep company with icebergs and polar bears high in the Arctic. But in January 2015, birdwatchers spotted one of these ice-loving *brrrrds* for the first time in Missouri, hanging out on the Mississippi River north of Hannibal.



MAYFLIES spend most of their lives underwater. When they turn into adults, they float to the surface, sprout wings, and fly away. But adult mayflies don't have working mouthparts. Because they can't eat or drink, they usually die within 24 hours.



When threatened, **ZEBRA SWALLOWTAIL CATERPILLARS** wave a yellow, forked organ called an osmeterium (*oz-muh-tear-ee-um*). The organ is coated with a stinky liquid that ants and spiders find disgusting.



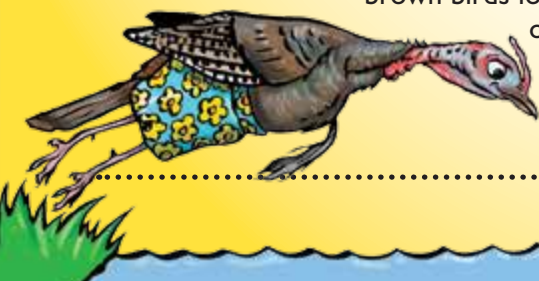
BLACK-THROATED GREEN WARBLERS get chatty during mating season. Males pick an easily seen perch and belt out songs — *zoo-zee, zoo-zoo-zee* — over and over. One particularly motor-beaked bird sang 466 songs in an hour.



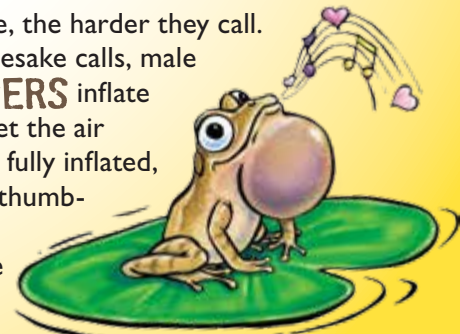
Female **MAP TURTLES** are larger than males and have wider, stronger jaws that are perfect for crushing clams, mussels, and large snails. Males, because of their weaker jaws, stick to softer foods such as crayfish, aquatic insects, and small snails.



WILD TURKEYS don't like to swim — heck, they prefer not to fly — but when pressed, they can. The big brown birds fold up their wings, fan out their tails, stretch out their necks, and kick feverishly with their long legs.



The bigger they are, the harder they call. To make their namesake calls, male **SPRING PEEPER**s inflate their throats and let the air squeak out. When fully inflated, the throat on this thumb-sized frog can be nearly as big as the rest of its body!



HOW TO

Tie-Dye a Camo T-Shirt

HERE'S WHAT YOU NEED:

- Plastic dropcloth or large trash bag
- White t-shirt (100 percent cotton)
- Rubber bands
- Bucket or tub
- Soda ash (Look for it at craft stores or where swimming pool supplies are sold.)
- Tie-dye kit (Make sure the kit has green, brown, and black dyes.)
- Three squirt or squeeze bottles
- Plastic gloves
- Paper towels
- Paper plate
- Zip-top bag (gallon size)

HERE'S WHAT YOU DO:

1 Put on old clothes and place a plastic dropcloth over your work space.

Remember: Dye will stain whatever it touches, including your skin.

2 Lay your t-shirt flat on a table. Starting in the middle of the shirt, scrunch up the fabric until you've made a flat, round bundle with lots of wrinkles.



3 Put lots of rubber bands around the bundle to hold it tightly together.



4 In a clean bucket, mix half a cup of soda ash with a gallon of warm water. Soak your bundled-up shirt in the water for an hour. While it's soaking, mix up the dye according to the kit's directions. Fill each of the squirt bottles with a different color.

5

Put on plastic gloves and remove your shirt from the soda ash water. Lay the bundle flat and push out as much water as you can.

6

Stack 10 paper towels on a paper plate. Place the bundle on the towels. Using the squirt bottles, soak the top third of the bundle with green dye, the middle third with brown dye, and the lower third with black dye. Flip the bundle over and do the same thing on the other side. Make sure dye soaks into the shirt or you'll have lots of white areas.

7

Put the bundle in a zip-top bag and leave it there for 24 hours.

8

Take off the rubber bands and rinse the shirt in cold water until no more dye flows out. For the brightest colors, let the shirt dry in the sun. Then wash it by itself in cold water using a normal laundry detergent. Run it through the dryer, and it's ready to wear.



XPLOR MOR

Hide and Skink

It's amazing how many critters you can find if you just take the time to look. Practice counting the little brown skins, spring peepers, and carpenter ants in this puzzle, then head outside to see how many real creepy crawlies you can find in the leaves on the forest floor.

I COUNTED:



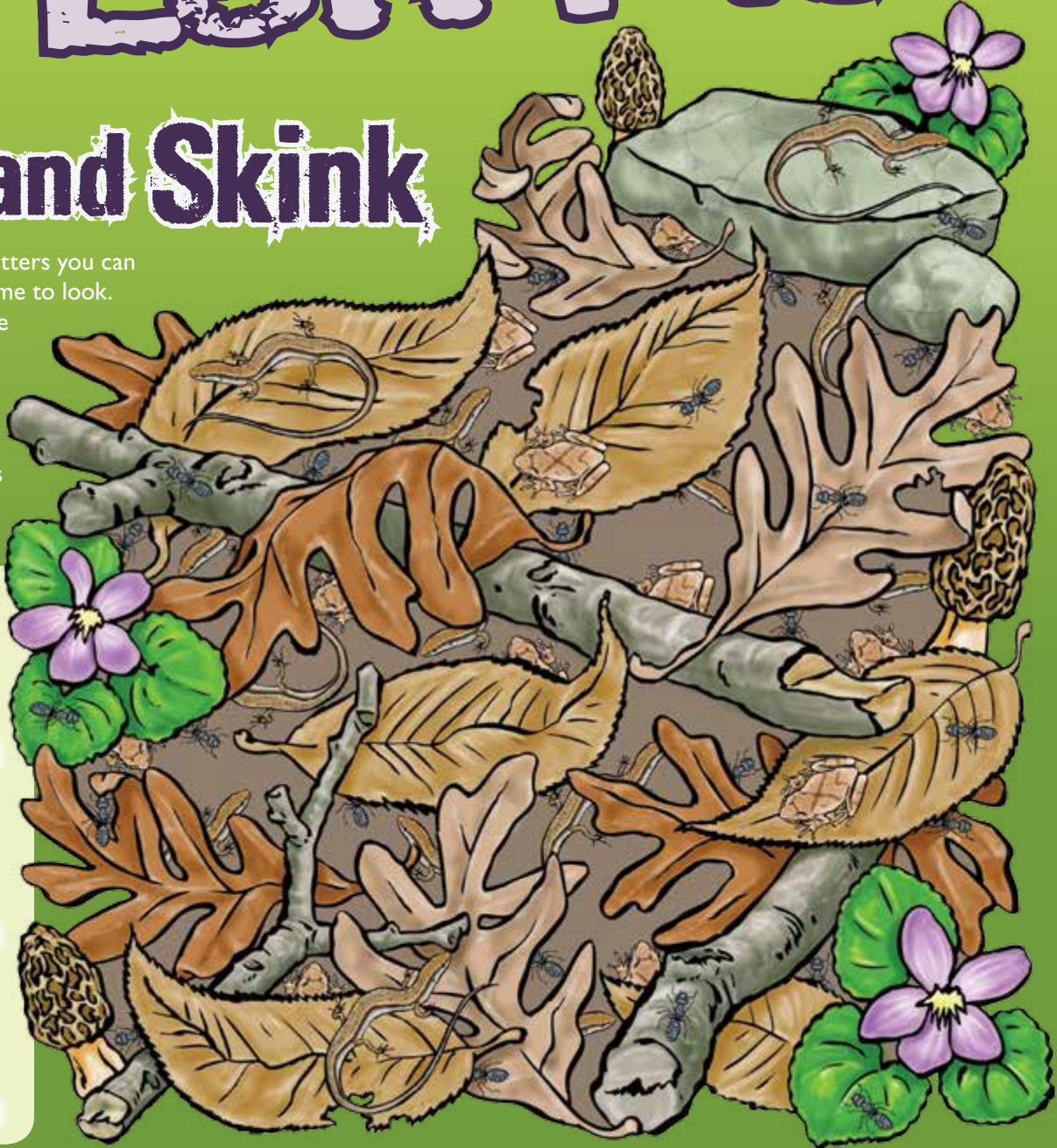
Carpenter ants



Spring peepers



Little brown skinks



WHAT IS IT?

— FROM PAGE 3 —

In spring, mouth-watering morel mushrooms start popping up on forest floors throughout Missouri. So head to the woods for some fungi fun! Scout the forest floor carefully — morels are only 3 to 4 inches tall. Morels are easy to ID. With an adult's help, morels are easy to cook and are delicious. Get hunting and ID tips at mdc.mo.gov/node/3397. Watch a fun morel-hunting video at mdc.mo.gov/node/10277



F... Bloomdoggie

According to the dictionary, a “boondoggle” is a useless project or activity — in other words, a waste of time. Some people might think wandering through the woods in search of wildflowers is a boondoggle, but we think it’s the perfect way to spend a sunny spring day.

How many of these woodland flowers can you find?



■ **Blue phlox**



■ **Dutchman’s breeches**



■ **Spring beauty**



■ **Common violet**



■ **Spiderwort**



■ **Wake robin**



■ **Trout lily**



■ **Columbine**

Dutchman’s breeches - Rob Routledge, Sault College, Bugwood.org; Blue Phlox - Karan A. Rawlins, University of Georgia, Bugwood.org; Common violet - Rob Routledge, Sault College, Bugwood.org; Wake robin - William M. Ciesla, Forest Health Management International, Bugwood.org.

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FREE TO MISSOURI HOUSEHOLDS

CRITTER CORNER

Green Treefrog



When you hear the *guank, guank* call of the green treefrog, it sounds a lot like a duck. A chorus of green treefrogs can sound like Canada geese. Look for these thumb-sized, Kermit-green frogs with their vivid white stripes in bottomlands, swamps, and marshes in southeast Missouri. They spend most of the day resting, hidden among plants. At night, they hunt for insects.