MISSOURI DEPARTMENT OF CONSERVATION

adventures in nature

December 2011/January 2012

YEARS

CELEBRATE 75 YEARS OF CONSERVATION



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We recycle. You can, too! Share *Xplor* with friends.

ON THE COVER red-bellied woodpecker

YOU'RE INVITED TO

A t*Xplor*, we never miss a birthday. We like the pointy hats, the games and the cake—especially the cake. So when we found out the Missouri Conservation Department was turning 75, we decided to throw a party.

Conservation is a big word for a simple idea. It means taking care of nature so kids like you—and your kids and their kids and all who come after—can explore a forest, fish for smallmouth bass in a clear Ozark stream or watch an eagle soar above a foggy marsh. It means leaving nature better off than when you found it. This special issue of *Xplor* is your invitation to join

This special issue of *Apior* is your invitance, j our conservation celebration. (Don't worry, the next *Xplor* will look like what you've come to expect with a few fantastic surprises.) And, though we're the ones having a birthday, you're the one who gets the goodies. So blow out the candles, cut the cake and flip through these pages for 75 things you can do, see, hear, smell and taste because of conservation. Happy birthday to us—and to you!



HERE ARE 75 REASONS TO CELEBRATE.

Talk to a Turkey.

The future was once murky for Missouri's wild turkeys. Overhunting and habitat destruction in the early 1900s had whittled turkey numbers down to 2,500 birds. In the 1950s, biologists began moving turkeys from areas where they were plentiful to areas where they were scarce. Thanks to these efforts, Missouri now has half a million turkeys, giving hunters and wildlife watchers something to gobble about.

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Bet you can't get through today without using something that comes from trees. If you're reading this magazine, you've already lost—paper comes from trees. So does the lumber in your house, the circuit board in your smartphone and the diapers on your baby brother. Conservation Department foresters strive to ensure

Conservation Department Missouri's forests provide homes for animals, places to hike and hunt, and a steady supply of trees to make thousands of great things.

WOOD PULP

is used to make paper, cardboard, paper plates, paper sacks, board games, napkins, toilet paper, tissues, diapers and—oh, yeah—Xplor.

WOOD

is used to make furniture, guitars, drums, baseball bats, baskets, bird houses, tool handles and paddles.

SAP

from trees is used in maple syrup, crayons, chewing gum and rubber.

.......

CELLULOSE

......

from trees is used to make computer chips, plastics and soap.



Endangered species are living things that are *in danger* of disappearing from a place forever. Check out these strange-but-true facts about five of Missouri's endangered animals the Conservation Department is trying to save. Then, visit **mdc.mo.gov/node/4067** to learn how you can help.

INDIANA BAT

Indiana bats raise their babies under the loose, scaly bark of trees such as hickories.

EASTERN MASSASAUGA RATTLESNAKE

These small, venomous rattlesnakes often spend winter hibernating in crayfish burrows.

PALLID STURGEON



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A sturgeon can extend its rubbery mouth like a Slinky to suck up prey from muddy river bottoms.



A spotted skunk often does a handstand and walks around on its front paws before spraying its stinky scent.

GREATER PRAIRIE CHICKEN

To attract a mate, male prairie chickens dance by quickly stamping their feet. They also make booming calls that can be heard more than a mile away.



Once upon a time, some people wanted to build dams on Missouri's wildest, prettiest rivers. The Conservation Department joined others to say "no way." Missourians listened, and voted to keep the streams dam-free.

SLEEP UNDER THE STARS

More than 1,000 conservation areas dot Missouri, and most offer a scenic place to pitch a tent. Find a nearby campsite at mdc.mo.gov/atlas.

BREATHE FRESH AIR; **DRINK CLEAN WATER.**

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A forest the size of a football field makes enough oxygen to keep 18 people breathing for a whole year. Wetland plants absorb tons of dirt and pollution, helping filter the water we drink. Protecting and restoring these and other habitats has been the Conservation Department's number one job for the past 75 years.

SIGHT IN YOUR GUN AT A SHOOTING RANGE.

If your sharpshooting needs sharpening, ask an adult to take you to a Conservation Department shooting range. For details, aim your browser at mdc.mo.gov/node/6209.

Superman wears an "S." Batman has a cool bat symbol. Connect the holes to reveal Conservation's heroic logo.

FISH FOR LIVING FOSSILS.

Paddlefish began swimming behind their spoon-shaped schnozes nearly 50 million years before dinosaurs arrived. But about 100 years ago, pollution and overfishing caused paddlefish numbers to sink, and later, dams in big rivers blocked parent fish from swimming upstream to lay eggs. Paddlefish might have followed Tyrannosaurs to extinction if a team of Conservation Department biologists hadn't figured out how to raise paddlefish in fish hatcheries. Thanks to their efforts, you can still catch these living fossils today.

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Create Habitat for Wildlife

Whether you want to build a bat house, plant a backyard prairie or help your parents increase wild turkeys on their farm, the Conservation Department has information and people who can help you create habitat for wildlife. Plan your *babi-tactics* at **mdc.mo.gov/landwater-care**. LISTY WATER

Center. Whether you want to hike a wildflower-laced trail, tickle a box turtle, climb to the top of a fire tower or learn how to call in a turkey, the Conservation Department's nature centers offer an adventure each time you visit. Here are five to explore throughout the state.

Visit 2

BURR OAK WOODS Conservation Nature Center

RUNGE CONSERVATION NATURE CENTER

POWDER VALLEY CONSERVATION NATURE CENTER





CAPE GIRARDEAU CONSERVATION

NATURE CENTER



Thirty years ago, bald eagles were endangered because of habitat loss, illegal shooting and pollution. The Conservation Department helped eagles claw their way back, and today thousands visit the Show-Me State every winter. For a close-up look at our national symbol, attend Eagle Days. There you'll get eye-to-eye with captive eagles and peer through telescopes to watch wild eagles soar. For details, flap over to mdc.mo.gov/node/3478.



Nature is awesome, and we want to help you experience it. That's why the Conservation Department employs writers, naturalists, outdoor skills specialists and others to teach you how to catch catfish, use a compass or cook a Dutch-oven cobbler that will make your taste buds turn cartwheels.



INGREDIENTS

package yellow cake mix
cans of fruit pie filling
can of lemon-lime soda
tablespoons of butter

GEAR

A 12-inch Dutch oven can cook nearly anything, including a killer cobbler.

Extra-long kitchen tongs are essential for moving red-hot coals or charcoal.

Use a lid lifter to carefully remove a hot Dutch-oven lid.

Wear heavy leather gloves to protect your hands.

An aluminum poultry pan (look for them at farm stores) helps hold coals in place and protects the ground, but it isn't essential.

Lining your oven with heavy-duty aluminum foil (not shown) makes cleanup a breeze.

INSTRUCTIONS

Let a campfire burn down to coals or use charcoal. Line the inside of the Dutch oven with foil. Pour in cake mix, pie filling and soda, and stir gently. Flake butter on top, and put the lid on the oven. Using gloves and tongs, and with an adult's help, space 8 coals (or charcoal briquettes) in a circle and set the oven on top of them. Place 16 coals on the oven's lid as shown in the illustration above. Be careful! Bake for 30 minutes, then lift the oven off the bottom coals but leave the top coals on. Bake 15 minutes more, or until the cake is golden-brown. Let the cobbler cool 10 minutes—if you can wait that long!

Invasive plants and animals, such as rock snot, multiply quickly and take homes away from other plants and animals. Learn how you can keep these unwanted invaders away by visiting mdc.mo.gov/node/4086.

Imagine a classroom where birds

chirp, desks are swapped for rocks

along a stream, binoculars replace white boards, and where you sharpen

nature-watching skills more than pencils. Sound too cool for school?

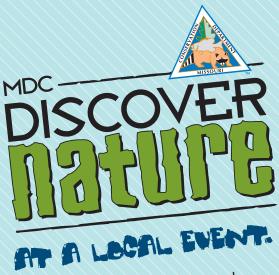
It's not. Just ask your teacher to

visit mdc.mo.gov/node/9019

a new school program by the

Conservation Department.

and check out Nature Unleashed,



Want to go on a nighttime owl prowl, build a bird feeder or learn more about Missouri's wild predators? The Conservation Department offers thousands of cool events across the state every year. Check out the three below, then visit mdc.mo.gov/events for others.



OWL PROWL at Rockwoods Reservation, St. Louis December 9, 6:30 to 8 p.m. call 636-458-2236

ORNAMENTS FROM NATURE

ornamento the at the Anita B. Gorman Conservation Discovery Center, Kansas City December 17, 10 a.m. to 2:30 p.m. call 816-759-7300



NATURE TRIVIA NIGHT

at the Cape Girardeau Conservation Nature Center January 12, 5 to 7 p.m. coll 573-290-5218



Since 1957, the Conservation Department and countless volunteer instructors have taught more than a million people how to hunt safely. This keeps Missouri's woods safe not only for hunters, but also for hikers, birdwatchers and everyone else. If you enjoy hunting, enroll in a hunter-education course. Learn more at mdc.mo.gov/node/3477.





Streams are nature's blood vessels, and about 110,000 miles of water-filled arteries flow through Missouri. Like human arteries, streams can get plugged up by trash, dirt and unwanted critters. Join a Stream Team to keep thriving streams clean and nurse sick ones back to health. For details, flow over to mdc.mo.gov/node/4961.



If you're 6 to 15 years old, the Conservation Department offers special turkey, deer, duck, pheasant and quail hunts just for you. Get details at mdc.mo.gov/hunting-trapping.





If it weren't for beavers—Missouri's largest rodent—St. Louis might not exist. In the 1600s, people in Europe were gaga for beaver-fur hats. To supply demand, Pierre Laclede and Auguste Chouteau started a fur-trading post at present-day St. Louis in 1764. People flocked to the city even as beavers grew scarce. The fashion craze finally fizzled out, but it took nearly 75 years of sensible trapping laws to restore healthy beaver populations.



Frelic in a FEREST

In the early 1900s, Missouri's forests were in bad shape. Loggers had cut nearly all the trees, and people set huge fires to clear land and kill bugs. When the Conservation Department formed in 1937, one of its first jobs was to fight wildfires so trees could regrow. Foresters built lookout towers so they could spot blazes and rush to put them out. They also drove trucks equipped with projectors from town to town to show movies about preventing wildfires. Their efforts paid off, and today we have plenty of forests to explore.

WHICH REPTILE LIVES THE LONGEST?

Black rat snakes can live for 20–25 years in the wild. Hellbenders—large, aquatic salamanders—are capable of reaching their 35th birthday. But neither comes close to the lifespan of a three-toed box turtle. These small, land-loving turtles typically survive 50–80 years in the wild, and some even live past 100!



JEFF BRIGGLER, Herpetologist

(hur-peh-tol-o-jist) noun— A scientist who studies reptiles and amphibians

() AN OWL HAS BEGUN HOOTING OUTSIDE MY WINDOW EVERY NIGHT. WHAT-KIND-IS-IT?-

BECKY MATNEY, NATURALIST (*nach-ur-ah-list*) noun— A person who studies and teaches others about nature It's probably either a barred owl or a great horned owl. Listen closely when it hoots. Great horned owls make a statement when they hoot: Hoo hoohoo, hoooo, hoooo. Barred owls ask a question: Hoo hoo hoohooo? Hoo hoo hoohooahh? A barred owl's call is often described as "Who cooks for you? Who cooks for you all?"

WHERE DO_BUGS-GO-IN_WINTER?

Some insects die when it freezes, but most are well-adapted to cold temperatures. Many spend winter living in plants, in leaves piled up on the forest floor or underground. Wherever they hole up, most go into a dormant state called diapause (*die-ah-pawz*). This is like a deep sleep, except the insect's cells quit working for a bit. When it gets warmer, the insects wake up and their cells "turn back on."

TIM SMITH, Ombudsman

e up, (ahm-buds-man) nounc). A person employed by an agency to answer questions from the public and investigate complaints

Each year, the Conservation Department stocks more than a million rainbow trout in rivers and lakes across Missouri. Find a place to hook a few at mdc.mo.gov/node/5603.

Ladybug illustration by Steve Buchanan; Rainbow trout illustration by Joseph R. Tomelleri

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In the winter, bobwhite quail—chubby little birds who whistle their name—huddle together in coveys. Step unexpectedly into the middle of a covey, and your heart will stutter as quail burst noisily into the air around you. Quail habitat has disappeared in recent decades. To ensure quail don't disappear also, the Conservation Department is working hard to bring their habitat back.

Every fall, workers at the George O. White State Forest Nursery give squirrels a run for their money—er, nuts. Nursery workers collect tons of nuts and other seeds to grow the 4 million tree seedlings they ship to landowners every year. The nursery even provides free Arbor Day trees to Missouri fourth graders. To order trees or learn more about the nursery, plant this in your Web browser: mdc.mo.gov/node/3986.

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10 A When Lewis and Clark paddled through Missouri in 1804, our forests were crawling with black bears. But unregulated logging left many bears homeless, and unregulated hunting wiped out almost all the rest. Nowadays, thanks to smart forest management and hunting laws, bears are making a comeback. Although bears are shy and your chances of seeing one are slim, it pays to be bear aware. Learn how at mdc.mo.gov/node/3506.

Wander Around a Wetland.

Any time of year is a good time to meander through the marsh muck, but for a truly epic experience, visit a wetland in early spring. That's when thousands of ducks, geese and other water birds migrate north, making pit stops at Missouri's wetlands to rest and refuel. The Conservation Department manages more than 110,000 acres of wetlands. To gander at some ganders, check out these five.



COLUMBIA BOTTOM CONSERVATION AREA

FOUR RIVERS Conservation Area

FOUNTAIN GROVE Conservation area

> DUCK CREEK Conservation Area

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Whether looking for springtime morel mushrooms, hunting summer squirrels or simply hiking through a rainbow of fall colors, there's never a bad season or reason for a walk in the woods. Forests cover more than a third of Missouri, and the Conservation Department takes care of nearly 400,000 acres across the state. Here are five conservation areas with towering trees to explore.

POOSEY Conservation Area

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MAPLE WOODS Nature preserve

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PECK RANCH Conservation Area

ANGELINE Conservation Area

THREE CREEKS CONSERVATION AREA





WATCH A GOOSE GOSLING HATCH.

Resident Canada geese—those that don't migrate but live in Missouri all year-were once rare. In the 1950s, a Conservation Department biologist coaxed a few geese to nest in metal tubs at a wetland near Kansas City. Their babies stayed put and raised families of their own. The homebody geese multiplied, and today you can see fuzzy goslings nearly anywhere in Missouri.

WATCH A RIVER OTTER BELLY-SLIDE DOWN A SNOWBANK.

THIM A CONSERVATION AGENT

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agents make sure people to say thanks. meet an agent, be sure to say thanks.

gets a fair share of game and fish. Conservation gets a fair share of game and fish. the rules. So if you agents make sure people follow thanks. agents make sure people to say thanks. meet an agent, be sure to say thanks.

Otters play more than nearly any other critter. Just watch one belly-slide down a snowbank. But life wasn't always fun for Missouri's otters. Their numbers had dwindled to fewer than 100 by 1980. This spurred biologists to release otters from Louisiana into Missouri's rivers and wetlands. The otters liked their new homes. and today otters frolic throughout the state.

LET AN ARROW FLY IN GYM CLASS.

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Picture this: Your classmates are stretched out in a line, bows drawn, arrows pointed at targets posted at the far end of your school's gym. Sound interesting? Then ask your teacher to check out the Missouri National Archery in the Schools Program at mdc.mo.gov/node/3409.

DISCOVER NATURE'S DEEPEST, DARKEST SECRETS.

To take care of nature, you must understand how it works. Conservation Department biologists conduct dozens of studies each year to learn things such as what otters eat, how catfish raise their babies, and how fires help prairies. Here are three studies biologists are working on now.



TRACK BLACK BEARS.

With black bears on the comeback in Missouri, biologists hanker to learn more about their habits. To do so, researchers use donuts and other treats to lure hungry bears into traps. Once the bears are tranquilized, biologists fit the bears with special collars to track their movements. By following the bears about their day-to-day business, researchers hope to learn how many bears live in Missouri, what habitats they use and where they spend the winter.



WATCH TREES GROW.

How does logging affect plants and animals in a forest? That's the question biologists asked. But because trees grow slowly, they needed lots of time to get answers. The Missouri Ozark Forest Ecosystem Project was launched in 1990 and will last 100 years. But don't worry. Results are already trickling in, helping researchers understand how logging affects everything from towering oaks to tiny bugs.



RAISE BABY HELLBENDERS.

Hellbenders have a funny name, but there's nothing funny about how quickly they're disappearing from Missouri's streams. Habitat destruction, pollution and diseases have been hard on Missouri's largest amphibians. To boost their numbers, biologists are working to learn how to raise hellbenders in zoos and fish hatcheries. This way, when hellbenders are born in captivity, they can be released into the wild to multiply.

In the early years, the main thing that paid for conservation was selling hunting and fishing permits, so biologists focused on animals that could be hunted or fished for. But in 1976, the Conservation Department promised to spend more time on non-game wildlife such as bats, bald eagles and black bears. We also promised to buy more land so people had more places to watch birds, hike, camp—and hunt and fish. People valued these promises so much they agreed to help pay for them. They set up a conservation sales tax, and we've been making Missouri more natureful ever since.

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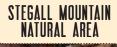


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Back in 1977, forward-thinking folks from the Conservation Department and the Department of Natural Resources partnered up to save the best and often last—examples of what Missouri might have looked like when Lewis and Clark paddled through in 1804. The "natural areas" they set up are some of the wildest, most pristine nooks and crannies in the Show-Me State. Here are five breathtaking ones to explore.

> WELDON SPRING HOLLOW Natural Area

> > PICKLE SPRINGS Natural Area



BLUE SPRING Natural Area

LITTLE BEAN MARSH NATURAL AREA

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Stop and Smell the Wildflowers.

When covered wagons first crossed Missouri, grasses and wildflowers stretched from one horizon to another across the northern third of the state. But as wagons stopped rolling and settlements sprang up, more and more prairies were plowed under. Today, less than 1 percent of our original prairies remains. But thanks to careful management and restoration by the Conservation Department and other agencies, there are still places to hear prairie chickens boom, wander among head-high grasses, and stop to smell wildflowers. Here are three.

> PAWNEE PRAIRIE Conservation Area

PAINT BRUSH PRAIRIE Conservation Area TABERVILLE PRAIRIE Conservation Area



BAG A **BUCK**

It's hard to believe, but white-tailed deer were once rare in Missouri. Unregulated hunting killed so many deer that by 1925 only about 400 were left in the state. The newly formed Conservation Department closed deer season in 1938 and began managing habitat and restoring whitetails throughout Missouri. Today, with a population of more than a million deer, hunters can bag a big buck in any county in Missouri.

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Whether you're launching a kayak, canoe or johnboat, the Conservation Department has you covered. Find a place to float your boat at **mdc.mo.gov/atlas**.



If someone tells you to take a hike, head to a conservation area. About 700 miles of trails zigzag through conservation areas, including nearly 40 miles of the Ozark Trail.





Race a Roadrunner.

If I told you Missouri had deserts full of cactuses, roadrunners and scorpions, you'd think I was crazy. But it's true. Glades are dry, rocky, barren places often found clinging to the sides of south-facing Ozark hills. Why visit a place so desolate and hot? Because the plants and animals there are cool—and found nowhere else in the Show-Me State. So, pack plenty of water and mount an expedition to explore these three mini deserts.



DANVILLE GLADES

VALLEY VIEW GLADES

SPOT SPOT SPOT SPOT

An endemic (*in-dem-ick*) is a plant or animal found in only one location in the whole wide world. Believe it or not, the Ozarks are packed with nearly 200 endemics. So if you want to see unique creatures such as the Niangua darter (a colorful, minnow-sized fish), Missouri woodland swallowtail (a beautiful butterfly) or St. Francis River crayfish (a lobster-like crawdad), you don't have to travel far—unless you live in France.



SURE SURE ... the Web at XPLORMO.ORG or MDC.MO.GOV.



Whether you're interested in creepy-crawlies or cuddly critters, chances are we've written a book or brochure about it. For a list of free publications, visit mdc.mo.gov/node/6248. To buy great books, calendars and DVDs, go to mdcnatureshop.com.

HEAR AN

BUGLE



The Conservation Department has a long history of bringing animals back to Missouri, and we're still going at it today. In May 2011, 34 wild elk were released into the rugged Ozark hills of Peck Ranch Conservation Area. Elk once roamed throughout Missouri, but unregulated hunting and habitat destruction erased them from the state by 1865. Biologists expect the newly released elk to multiply, so that soon the eerie bugle of a bull elk will once again be a common sound in the southeastern Ozarks.

BEPROUD

There's enough wildlife watchers in Missouri to fill the St. Louis Cardinal's Busch Stadium 47 times. But that's nothing. More than 5 million Missourians think it's important to protect nature. With that kind of support, it's no wonder Missouri's Conservation Department is respected throughout the world.



SUBSCRIBE ONLINE xplormo.org/node/2618 FREE TO MISSOURI HOUSEHOLDS

What is Conservation's 75th Sift?





Conservation means leaving nature a little better than you found it. So pitch in. Volunteer to clean a stream, plant a prairie or count critters. Study to become a forester, a conservation agent or a biologist. Share your energy, ideas and complaints. Because Missouri conservation will always exist because of and for you—and the next generation of Missourians.