MISSOURI DEPARTMENT OF CONSERVATION

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GOBBLE UP THESE TIPS TO BAG A TURKEY THIS SPRING



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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, Mo., 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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Send editorial comments to: Mailing address: Xplor Magazine, PO Box 180, Jefferson City, MO 65102-0180; E-mail: Xplor@mdc. mo.gov. Please note: Xplor does not accept unsolicited article queries, manuscripts, photographs or artwork. Any unsolicited material sent will not be returned.

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

B Nature's Recyclers These tiny creatures play a big role in nature.

Turkey Hunting School Don't worry kids. This school is cool!

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Visit www.xplormo.org for cool videos, sounds, photos, fun facts and more!



- 5 Yuck!

WILD TURKEY

photo by Noppadol Paothong

ON THE COVER 10

Reeling in a Rainbow photo by Dave Stonner

ast fall, Dave was photographing fly fishermen on the North Fork of the White River. The rainbow trout were putting up a fight.

"These trout were skittering across the surface—rolling and jumping and flipping and really churning up the water," Dave said.

So Dave plunged his camera into the ice-cold river to catch some of the action. He used a special bag to keep his camera dry. "But, since I couldn't put my eye to the camera, it was catch as catch can," Dave said. "I didn't know what I was getting until after I took the pictures."

All the bubbles in the photograph are from the trout's tail fin whipping up the water.

"I was capturing the moment and the energy rather than looking for a textbook perfect photo," Dave said.

Dave likes underwater photography. "It's a different way of seeing things. Each stream has a different character."

Next time you're exploring a stream, bring a swim mask and poke your head underwater.

"Get down close and see the wealth of life—all the larvae and crawdads," Dave said. "Even if you don't take pictures, you'll be amazed."

See more cool photos at www.xplormo.org/node/11707.

N ature wakes up in April and May. Birds sing, mushrooms pop from the ground, and fish get hungry enough to take your bait. With so much going on, sometimes it's hard to decide what to do. To help, here are a few fun things for you to discover.

^Seriodical cicada Go oh àn INSECT SAFARI

What's all the buzz about? Grab a magnifying glass and get outside to find out. Hundreds of kinds of insects call Missouri home, and some of the coolest come out in May. Listen for the romantic racket of cicadas singing for a mate, check your porch lights late at night to see giant silk moths, or prowl around a weedy field to smell the Green stink bug stench of a stink bug. For help figuring

UILD A NEST Ever wonder what it's like to be a bird? Find out by building a nest. Gather about 300 twigs and pieces of dead grass. Weave them together to form a bowl about as wide and deep as your hand. Then,

find a puddle and gather mud to cement the whole thing together. If building a nest seemed simple, try again. This time, however, use only your feet and beakoops, mouth. It's not as easy as birds make it look!

EAT a REDBUD TREE.

Before you start gnawing trees like a starving beaver, you should know two things. First, make sure the tree you're about to eat is a redbud. They're the ones with hot-pink flowers that bloom in early April. Second, eat just the flowers, which taste sweet and nutty, and avoid the rest of the tree, which tastes yucky. The best way to eat the flowers 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.



out what you've found, pick up a

copy of Show-Me Bugs, available at

www.mdcnatureshop.com.

Ever wonder what prowls around your backyard at night? It's easy to find out. Get a shallow aluminum cake pan and fill it with dirt. Just before bedtime place the pan outside on the ground, wet the dirt down, and sprinkle a handful of cat food over the dirt for bait. The next morning, scan the pan to see who ate the bait and left their footprints behind. For a guide to animal tracks, check out www.xplormo.org/node/11708.

> Dogbane leaf beetle, lady beetle, periodical cicada and green stink bug illustrations by Steve Buchanan

BASH some TRASH.

Litter pollutes our water, harms wildlife and makes nature look like a dump. This Earth Day, gather your friends and a few parents for a "No MOre Trash!" Bash. Pick a stream, roadside or other area in need of spring cleaning, arm your team with gloves and trash bags, and pitch in to pick up after people who pollute. A prettier environment is reward enough, but if you report your cleanup by May 15, you'll get pins for everyone who helped. For details, visit www.nomoretrash.org.

Make a TOAD ABODE

toad

What's covered in warts, eats bugs, and comes out only at night? It's a toad, and you can coax these chubby amphibians to live in your yard by building a toad house. Just grab a small clay pot and find a cool, moist place in your garden. Dig a shallow hole, lay the pot on its side, and bury it halfway in the soil. To make your toad house *toadally* cool, decorate the pot with paint, or glue on a pattern of pebbles.

Cook over a CAMPFIRE.

Few things beat the smell of wood smoke mixed with sizzling bacon, the curl of steam off a Dutch-oven cobbler, or the crunchy, gooey sensation of biting into a chocolatey s'more. So, wipe the drool off your chin, load your backpack with food and camping supplies—but mostly food—and hit the trail. For tasty, campfire-friendly recipes, blaze a trail to www.xplormo. org/node/11709.

Stalka NIGHTHAWK.

To show off for females, male nighthawks fly high in the air then dive straight toward the ground. Just before splatting, they pull up and swoop back skyward. Air rushing through their wings makes a hair-raising boom. You can see—and hear—nighthawks perform their death-defying dives over parking lots and flat, graveled rooftops in towns and cities. Nighthawks dive at females, rival males and even people. So, if you're going nighthawk watching, you might want to wear a helmet (just kidding)!

Looking for more ways to have fun outside? Find out about Discover Nature programs in your area at **www.xplormo.org/node/2616**.



CHRIS KENNEDY IS PART FISHERMAN, PART EXPLORER AND PART DINOSAUR HUNTER, LATENY HES BEEN ON THE LOOKOUT FOR A LIVING LEGEND—ALLIGATOR GAR.

Alligator Gar Wrangler

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XPLOR

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hris is smitten with his odd-looking finned friend. "They're just so cool! There's no other fish like it," Chris says. "People see those needle-sharp teeth, but alligator gar are not mean like people think. They're more like a lazy teddy bear."

Alligator gar have been around since the days of the dinosaurs. They are one of the largest fishes in North America and can reach more than 5 feet in length and weigh upwards of 200 pounds. Some live to be 100 years old. "But we still don't know much about these secretive fish," Chris says.

> Part of Chris' job as a fisheries biologist is to learn more about alligator gar so he can help preserve their habitat. But Chris knows there's more to it than just saving an odd-looking fish.

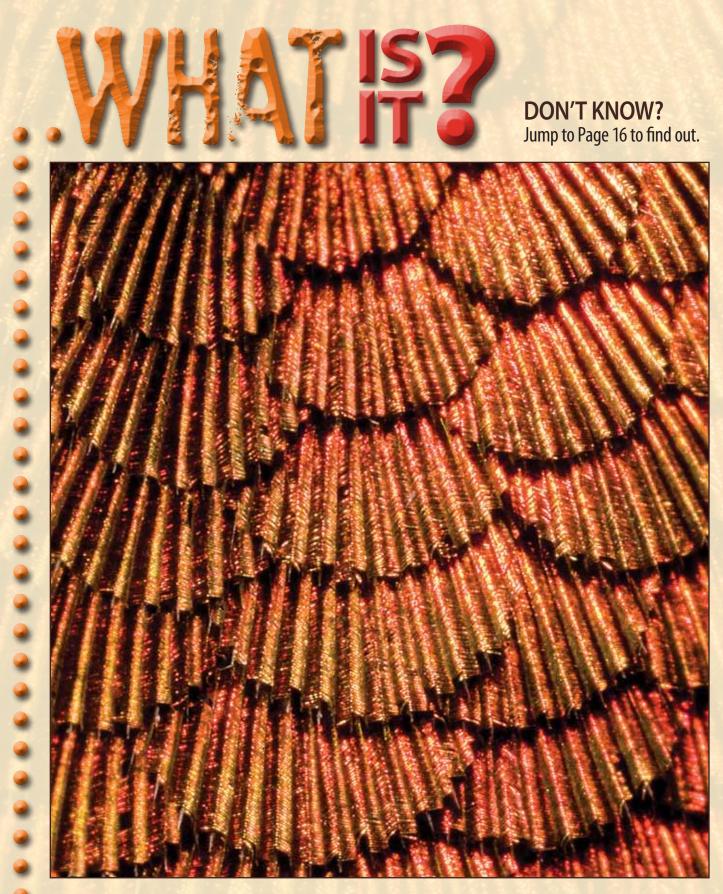
> "Restoring a healthy river system helps us all," Chris says. "The more wetlands and floodplains we have, the cleaner the water will be.That helps the fish and us."

YOUR GUIDE TO ALL THE MASTY STINKY, SLIMY AND GROSS STUFF THAT NATURE HAS TO OFFER CAROLINA MANTIS

> The praying mantis is nature's ninja. Masters of camouflage, praying mantises will rock back and forth like leaves in the wind, patiently creeping up on their unsuspecting prey until they are in range, then WHAAM! They use their lightning-quick legs to capture their victims. Mantises use sharp barbs on the back of their unusual limbs to keep a strong hold on grasshoppers, bumblebees and other insects.



Prepare yourself for the invasion of the 13-year cicadas! Like something out of a horror movie, these red-eyed insects have spent the past 13 years wriggling around underground. This spring, they'll crawl out of the ground, then out of their own skin—leaving behind an empty shell. They'll take over the state, blanketing entire trees in some areas. Although cicadas are harmless, their buzzing may drive you batty. You'll hear them for weeks as they hum to lure in mates.



l arrive in the spring. I'm covered in bling. l eat on the wing. I hum but don't sing.

In a muggy May evening, Rachel tied a pink plastic frog to her fishing line. The moment the lure hit water, a huge bass lunged for it. Rachel was so excited, she jerked the frog away before the fish could snatch it. Although she tried until Largemouth sundown, she couldn't get the big bass to strike again.

> The next morning, Rachel was up with the sun. In no time, she hooked the big bass. It weighed so much, she couldn't lift it out of the water. She yelled for her dad who waded out to unhook the lunker. "We can eat him, put him on the cabin wall, or turn him loose," her dad said. "You caught him, Rachel. You decide." Rachel didn't need to think long. "Turn him loose," she said. "Maybe we'll catch him again."

BY RACHEL SCHUMACHER , AGE 11

Rachel loves to tag along with her sister Lauren when their dad hunts for deer. She wants to be a herpetologist when she grows up and practices catching frogs, snakes and turtles. Like she did with the bass, Rachel always thinks of the future. She's helped protect endangered amphibians and started a Stream Team to clean up creeks. For her birthday, Rachel asked friends to donate money to the Conservation Heritage Foundation instead of giving presents. She mailed the foundation a check for \$100.

To learn about the Missouri Conservation Heritage Foundation, visit **www.mochf.org**.

Nature's by Matt Seek illustrated by David Besenger De De Conde Co

n an Ozark forest, a pile of dead leaves no bigger than this magazine is home to nearly 6,000 tiny creatures. They have an important job: turning nature's trash leaves, dead things, animal waste—into nutrients that plants need to grow. Let's take a micro-hike through the leaf litter to learn more about nature's tiny recyclers.

DAWID BESENGER

small bugs, BIG chores

Slugs, sow bugs and millipedes, like many creatures on the forest floor, chomp leaves into tiny pieces. Then, bacteria, fungi and other microscopic critters turn the crumbs left behind into nutrients. It takes this team of recyclers up to two years to turn a single leaf into plant food.

Sometimes recyclers get recycled. In addition to leaves, springtails eat bacteria and fungi. Although they're no bigger than the "s" in small, springtails can fling themselves 4 inches into the air. If you could jump like that, you could leap over a 20-story building! Springtails spring to avoid becoming a red velvet mite's meal. By gobbling creatures that eat bacteria and fungi, velvet mites keep recycling chugging along.

Nature wastes nothing, not even *ahem*—waste. Dung beetles roll balls of poop away from the pile to munch on later. They also lay their eggs inside the balls so their babies have plenty to eat. Some dung beetles can pull more than 1,000 times their own weight. You'd have to drag three school buses filled with kids to do the same!

Aillipede

Breaking it down

Oak trees turn nutrients into acorns. Turkeys turn acorns into muscle. Hunters turn turkeys into food. And, the cycle begins and ends with tiny recyclers such as sow bugs, springtails and dung beetles!

TURKEN HUMITUG Don't worry kids. This school is COOL!

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LESSON 1 - Find a teacher.

SLH

Want to know the secret to becoming a great turkey hunter? Find an experienced hunter to show you the ropes. If your parents or grandparents don't hunt, ask around. Perhaps a teacher, scout leader or a friend's parent is a turkey hunter. Plan your first hunt for youth turkey season, when kids age 6 to 15 are the only ones who can hunt.

LESSON 2 - Learn the lingo-and the rules.

Adult male turkeys are called toms or gobblers. Young males are called jakes. Female turkeys are called hens. All male turkeys have beards, which are tufts of stringy feathers growing out of their chests. Hens sometimes have beards, too, but not often. You can shoot only bearded turkeys during spring hunting season. To learn the rest of the rules, visit www.mdc.mo.gov/node/4066.

LESSON 3 Pattern your shotgun.

To better your odds of bagging a gobbler, practice shooting at paper targets before pulling the trigger on the real thing. This is called patterning your shotgun, and it will make you a better shot. You'll also learn how far you can shoot at a turkey—about 30 yards—and still pull off a clean kill. Download a gobbler target at www.xplormo.org/ node/3464.

LESSON 4 -Scout about.

Gobbler Profile

Vital Areas

Non-vital Areas

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Feel free to make copies of this for you and your friends

Brury shall an

Help make turl sport - test you on this actual si

To shoot a turkey, you have to find a turkey. Turkeys love a mix of woods and open areas. Ask a landowner for permission to hunt on their property or find a public area to hunt at www.mdc.mo.gov/atlas. Explore these places a week or two before turkey season. Look for turkey tracks and places where turkeys have scratched up leaves to find acorns to eat. If you find a bunch of turkey droppings under a tree, you've hit the jackpot. The tree is a roost, a place where turkeys spend the night, and it's a good sign turkeys are in the area.

key gobble

ey hunting a safer 'r shotgun pattern ze turkey head.*



LESSON 5 - Gear up.

Box call Most people hunt turkeys with a 12- or 20-gauge shotgun fitted with an extra-full choke. Load your gun with number 4- or 6-sized shot. If you have trouble holding the gun steady, a monopod—a stick to rest your gun on-might help. Turkeys have great eyesight and can see color, so wear camouflage from head to foot. Never wear white, red or blue in the woods because other hunters could mistake you for a gobbler. Don't forget to pack a backpack with handy odds and ends such as a flashlight, turkey calls, decoys, knife, map, compass, bug repellent, rain gear, snacks, water, toilet paper and—oh, yeah—your hunting permits.



LESSON 6 - Set up.

Turkey decov

You'll want to be in the turkey woods ready to hunt before sunrise. For safety, wear hunter orange when walking to and from your hunting spot. Find a tree to sit against with a trunk at least as wide as your shoulders. This breaks up your outline, making it harder for a turkey to spot you. It also keeps your back protected from other hunters. Tie something orange around the tree so other hunters know this is your spot.



LESSON 7 - Use a decoy-sometimes.

Turkey decoys—especially a jake and hen used together—can bring the toms trotting in, but use them with caution. Another hunter might think your decoys are real turkeys and creep in to take a shot at them. Never use a decoy in thick timber. Set up decoys only in areas where you can see 100 yards in all directions. Place a jake decoy 25 yards from where you'll be sitting. Put it up where you'll want a gobbler to be standing when you pull the trigger.

LESSON 8 - Learn to talk turkey.

Hunters use turkey calls to cluck, purr, putt and yelp like a hen who's looking for a boyfriend. There are all kinds of calls. Box and slate calls are easiest to get the hang of,



but you need both hands to use them. Mouth calls take longer to master but leave your hands free to handle a shotgun. For your first few hunts, it's best to have your teacher do the calling. If you try calling, don't worry too much about hitting a sour note. Some of the worst calling comes from hen turkeys. When a gobbler who's been making a racket suddenly shuts up, get ready. He could be sneaking toward you.

LESSON 9 - Hold still.

If a turkey sees you move, he'll tear off to the next county before you can raise your gun. When gobblers are near, don't swat mosquitoes, scratch chiggers or pick your nose. Keep your shotgun resting on your knees so you can pull it quickly to your shoulder when the turkey isn't looking. If you have an incurable case of the wiggles, consider hunting from a blind.

LESSON 10 - Take the shot.

Before you click off the safety, make *absolutely* sure the thing you're aiming at is a bearded turkey. Also take a look at what's behind your bird—you don't want another turkey or hunter to catch stray

pellets. Get your head down and your cheek tight against the gun's stock. Aim for the spot where the gobbler's neck meets his feathers. If the turkey moves his head or your aim is a bit high, you'll still make a decent shot. Click off the safety, take a deep breath, and *squee-e-eze* the trigger.

LESSON 11 - Stay put.

If your turkey tumbles, stay put and load another shell into your gun's chamber. The gobbler may get back up and try to run. It's normal for a turkey to flop a bit after he's been hit. Your teacher will let you know when it's okay to approach your bird. Wrap the turkey in hunter orange before packing it out of the woods. This way, other hunters won't mistake it for a live gobbler.

Final Exam

Maybe you'll bag a bird. Maybe you won't. But even if you don't shoot a turkey, sitting out in the spring woods is fun. You'll hear owls hoot, see raccoons scurry back to their dens, and maybe even find a few morel mushrooms. If you have fun and stay safe, you'll pass turkey hunting school either way.

Turkey feather

MAKE YOUR OWN

To keep its tiny wings aflutter, a ruby-throated hummingbird must eat nearly half its weight in insects and nectar every day. You'd have to drink nearly 160 cans of soda to do the same—what a sugar rush! To help ruby-throats refuel, make a hummingbird feeder. It's easy, just follow these steps.

MAKE HUMMINGBIRD NECTAR

When it comes to food, hummingbirds definitely have a sweet beak. Although they eat plenty of insects, the sugary nectar from flowers provides the energy that keeps them humming. Lucky for us, hungry hummers like sugar water just as well.

Mix I cup sugar and 4 cups water. Stir until the sugar dissolves. Get an adult to help you boil the mixture on the stove. Let the nectar cool before filling your feeder. Store leftovers in the refrigerator. There's no need to add red coloring to your nectar. As long as part of your feeder is red, hummingbirds will come in swarms.



GATHER THESE MATERIALS

- Small glass jar with a screw-on cap (baby-food jars work well)
- > Hammer and small nail
- Red and yellow paint
- Heavy string or cord
- Scissors

FOLLOW THESE INSTRUCTIONS

- I. Wash and dry the jar and lid.
 - 2. Use the hammer and nail to punch a 1/8-inchwide hole between the center and edge of the lid. Hammer down the sharp metal points around the hole.

3. Paint the lid red. After the lid has dried, paint a small yellow flower around the nail hole.

4. Tie a length of string tightly around the jar's neck.

- 5. Fill the jar almost full with hummingbird nectar and screw on the lid.
- 6. Hang the feeder outside a window and watch for hummingbirds!

ANSWER TO FROM PAGE 6

Ruby-throated hummingbirds return to Missouri in April after spending winter

in Central America. Although all ruby-throats have emerald-green feathers on their backs and heads, only adult males have a ruby-red throat. Hummingbirds hover like helicopters at flowers and bird feeders to slurp up nectar and sugar water. Their wings make a humming sound as they flap at blinding speeds-about 50 to 70 beats each second.



CATTAIL Ffide-and-Seek



If birds played hide-and-seek, American bitterns would win every time. When pesky predators or nosy bird-watchers come calling, bitterns don't move a feather. Instead, these cattail-colored birds try their best to blend in by standing dead-still with their beaks pointing straight up. Sometimes they even rock back and forth, hoping to look like a cattail swaying in the breeze. They hide so well, bitterns are more often heard than seen. Their mating call—a loud, booming *unk-a-lunk*—can carry half a mile across the marshes where they live.

CAN YOU FIND THE 10 BITTERNS WE HID IN THE MARSH?

To see where we hid all 10 bitterns, go to www.xplormo.org/node/11713.

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



Speed bumps ahead. In April, box turtles begin plodding across roads to look for mates and places to lay their eggs. Although their shells are tough, they're no match for a minivan. Help watch for these slow-moving reptiles, which can live for 60 years or more.