



December 2013/January 2014

XPLOr

adventures in nature

AIMING TO WIN

TRAP SHOOTER
SAMANTHA FOPPE
IS ONE OF AMERICA'S
TOP SHOTS.



COMMENTS



River otter

photo by Glenn Chambers

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, 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; **Email:** 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!
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with friends.**

ON THE COVER



Trap Shooter
Samantha Foppe
by David Stonner

- 6 Otter Chaos**
This mama river otter has her paws full raising five playful pups.
- 12 Shooting Star**
Samantha Foppe is one of America's top trap shooters. And she's only 15.

DEPARTMENTS

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- 14 Wild Jobs
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- 16 Xplor More



Timber rattlesnake

ON THE WEB

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

WHAT IS IT?

DON'T KNOW?
Jump to Page 17 to find out.



- ① I'm dressed to impress from my crest to my chest.
- ② When I need to feed, I dabble for seed.
- ③ I was born in a tree, but now I fly free.
- ④ I don't usually quack when I'm under attack.

you discover



Blue jay

Feed Birds a BAGEL

Stale bagels are for the birds, but don't toss them in the trash. Instead, use them to feed your feathered friends. Here's how: Smear peanut butter on one side of a bagel. Roll the bagel in birdseed so seeds stick to the peanut butter. Poke a sharpened pencil through the bagel for a perch. Loop a piece of yarn through the bagel's hole, and hang the bagel in a tree where you can watch birds come to eat.



Don't stay inside when the snow gets to blowing. Go outside to discover nature coming and going. Here are a few fun things to do in December and January.



River otter

Belly Slide Like an Otter

River otters don't need a sled to go sliding, and neither do you. When it's snowy outside, just pull on a raincoat and pants over your warm clothes. If you don't have rain gear, don't fear. Cut holes in a heavy-duty trash bag for your head and arms, and slip on the bag. Then find a snow-covered hill, run down it a short distance to pick up speed, dive onto your belly, and *sliide*.



Rainbow trout

HOOK A RAINBOW

If you love to fly fish but don't like crowds, try Missouri's trout parks in winter. From November 8 to February 10, the parks allow only fly fishing and you must release any fish you catch. Those rules — along with low temperatures — keep crowds thin. Maramec Spring Park is open daily from 8 a.m. to 4 p.m. Bennett Springs, Montauk, and Roaring River state parks are open Friday through Monday from 8 a.m. to 4 p.m. For all the details, cast your line to mdc.mo.gov/node/10808.

Joseph R. Tomelleri

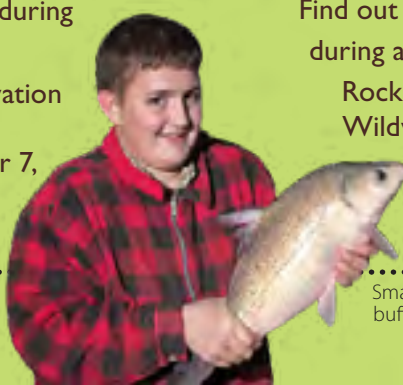
Don't miss the chance to Discover Nature at



Bald eagle

Meet our national emblem at **EAGLE DAYS**. Springfield Conservation Nature Center; January 18 and 19; For info and times, call 417-888-4237.

Fish a river at night during **KIDS' GIGGING**. Twin Pines Conservation Education Center, Winona; December 7, 4–10 p.m. Register at 573-325-1381.



Smallmouth buffalo

Find out who's hooting it up during an **OWL PROWL**. Rockwoods Reservation, Wildwood; December 6, 6:30–8 p.m. Register at 636-458-2236.

GO DUCK HUNTING



Duck hunting is tons of fun. Why else would hunters get up before sunrise and brave cold weather to spend their mornings hiding in muddy marshes? If you'd like to see if duck hunting is all it's quacked up to be, the best way to get your waders wet is to ask an experienced hunter to take you under his or her wing. For season dates, places to hunt, and rules to follow, flock to mdc.mo.gov/node/303.



SPOT A COMET

For the past 10,000 years, Comet ISON, a mile-wide glob of rock and ice, has been streaking toward the sun. The sun's heat and gravity could blow ISON apart, or the comet could make a U-turn and begin its journey out of our solar system, glowing spectacularly as it speeds by Earth. We'll know in December if ISON will fizzle or sizzle, so check the sky each evening just after sunset. If ISON has survived its brush with the sun, you'll see the comet's tail fanned out just above the western horizon.

Make a Cedar Wreath

Cedar wreaths smell great and are easy to make. Just clip off the outermost branches of a cedar tree. You'll need enough greenery to fill a grocery bag. Bend a wire coat hanger into a circle. Tie the branches to the hanger with twine or floral wire, making sure the green end of each new branch covers up the brown end of the last branch you tied. When your hanger is completely covered with cedar, tie on a red bow, and your wreath is ready to hang.



these fun events.

Find geocached treasure at **PIRATES OF COLUMBIA BOTTOM.**



Columbia Bottom Conservation Area, St. Louis; December 7, 1-3 p.m. Register at 314-877-6014.

Try out your new air rifle or .22 at **FAMILY PLINKING.**

August A. Busch Shooting Range, Defiance; December 28, 7:30-9:30 a.m. Register at 636-441-4554.



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

PREDATOR

VS.

PREY

The struggle to survive isn't always a fair fight. Here's what separates nature's winners from its losers.

Illustration by David Besenger

Brawny Bite

Super-strong jaw muscles let a mink plunge its long, pointy teeth into the skulls of its prey.

Totally Tubular

A mink's skinny, tube-shaped body helps it wiggle into narrow nooks and crannies to surprise muskrats in their burrows.

Fast and Ferocious

On land, mink are as quick and nimble as ninjas. Once a mink tackles prey, it wraps its body around the victim and bites so quickly it's hard to follow with the human eye.

Scuba Lungs

A muskrat can hold its breath for 17 minutes and hide underwater until danger disappears.

Paddle Feet

By churning their paddle-shaped hind feet, muskrats can swim 3 miles per hour — twice as fast as any mink can muster.

Feisty Fighter

Don't let their chubby appearance fool you. Muskrats are fierce fighters who use their half-inch-long, razor-sharp teeth to slash enemies.

AND THE WINNER IS...

This clash in the catcails could hinge on location. Mink have the advantage on land, but muskrats gain the upper paw in water.

Just because the sun has gone down doesn't mean you have to, too. Keep playing in the snow by building this lantern to light your way.

How To

Make a Snow Lantern

HERE'S WHAT YOU NEED

- Warm clothes
- Snowballs
- Flashlight or candle
- A dark night

HERE'S WHAT YOU DO



1 Make about 20 grapefruit-sized snowballs. Pack the snow tightly so the snowballs won't fall apart.

2 Find a flat place to build your lantern. A patio table or front porch works well. You also can use your feet to stamp down a flat place in the snow.


3 Arrange eight or nine snowballs into a circle. Make sure most of the snowballs are touching each other, but leave a small opening between two of the snowballs. This is where you'll slide in a flashlight or candle when you're ready to "light" your lantern.

4 Stack another layer of snowballs on top of your first layer. Center each of these snowballs between the two below it. The second layer should form a smaller circle than the first one.

5 Keep adding layers, making sure each new layer is smaller than the layer below it. You'll soon have a pyramid shape with a single snowball on top.

6 Slide a candle or flashlight into the space you left in the bottom layer. Light the candle or turn on the flashlight and watch your lantern glow!





Most mama river otters have two or three babies at a time. I had five! Now I'm up to my whiskers in otter pups.

Beaver Bungalow

An empty beaver den makes a cozy nursery for my family. It has an underwater entrance, so predators have a tough time getting in. Space is tight, but my babies aren't big. When they were born, each pup was the size of a cucumber. They were blind and toothless and had tiny webbed feet and chocolatey-brown fur. Now they're a month old, and their little eyes are squinting open to see the world for the first time.

Glenn Chambers

Otter

CHIAO



Milk and Doughnuts

When I'm in the den, I curl around my babies like a giant chocolate doughnut. You know what goes great with doughnuts? Milk. I make lots of it to feed my babies. They make happy chuckling noises when they nurse. My body heat keeps the pups warm while they snuggle and sleep.



Glenn Chambers



Furry Jungle Gym

Grrrrr! It feels like this den is crawling with otters. Oh, wait. It is. My pups wrestle and tumble around the den. They climb on me like I'm some kind of furry jungle gym. But their rough-housing has a purpose. It teaches them to be strong and quick, so they can fend for themselves someday.



Me Time

Whenever I need a little “me time,” I slip out into the cool, silent water. River otters are mostly nocturnal, which means my me time is usually at night. I cruise on the surface of the stream looking for fish. When I spot one, I arch my back and dive. Then the chase is on! I twist my long, streamlined body into turns that would make a ballet dancer dizzy. With a few strokes of my webbed feet and a swish of my thick tail, I can out-swim all but the fastest fish.

Chomp!



Hey!
Quit biting your
sister. Don't make
me swim over
there. Whew!
Raising otters is
hard work.

Glenn Chambers



Swimming Lessons

Believe it or not, baby river otters don't know how to swim. When they're about 12 weeks old, I start swimming lessons. My kids aren't the most enthusiastic students — in fact, some of them are scared of water — so I have to drag them in. I work with one pup at a time. First, I teach it how to float. Then, how to paddle and turn. Finally, I teach it to dive. When each day's lesson is over, I carry the pups back to the den for milk and a well-deserved nap.

Zzzzzz

Angling Adaptations

Have you ever tried to catch a fish — with your mouth? Lucky for me, I have a few tricks that give me the upper paw. Bushy whiskers help me feel things in murky water. Nose clips and earplugs aren't needed. I just squeeze my schnoz and ears shut. On land, I'm terribly nearsighted, but underwater I see much better. And, I can hold my breath for 4 minutes, which is plenty of time to nab dinner.

Glenn Chambers



Shake It Off

Take it from me, there's nothing like a good shake to dry off your wet coat. If that doesn't do the trick, rolling in leaves is better than a bath towel. Otters have thick, silky coats of waterproof fur. When that's the only thing between you and chilly winter water, you learn to take care of it!

Noppadol Paothong



David Stonner

Glenn Chambers



Glenn Chambers



Wheee!

All-Terrain Animals

Otters are all-terrain animals! Our backs hunch when we run along the shore. It looks funny, but we can boogie around at 18 miles per hour, which is probably faster than you can run. In snow, we build up speed then tuck our arms and legs to our sides and *sliiiiide*. You should try it some time — it's fun!

Glenn Chambers



Playing to Survive

While I hunt, the pups play with rocks, mussel shells, and turtles, tossing and diving for them over and over again. They play tag underwater, leaving trails of bubbles as they streak by. Sometimes their games mess up my fishing, but I don't mind. Playing is how little otters learn the skills they need to survive.



Om nom nom

Good Grub

During the summer, **crayfish** make up most of my menu. *Mmmm*, crunchy. I flip over rocks and root around roots to find them. In winter, I eat mostly fish. *Mmmm*, sushi. But otters aren't picky eaters. We'll gobble whatever we can catch, including frogs, snakes, turtles, mussels, muskrats, birds, and insects. Sometimes I float on my back to snack on smaller nibbles. But if I catch a big bite, I drag it to shore.



Noppadol Paothong

My pups are almost old enough to take care of themselves. When they're a year old, they'll leave home, and I'll start another round of otter chaos.



Glenn Chambers

Glenn Chambers

An Otter Success

My great-great-great-grandmother came from Louisiana. She didn't swim here. She was caught in a trap, put in a cage, flown here, and turned loose in a big marsh called Fountain Grove. Why? Well, when Missouri first became a state, people didn't take care of nature. They drained marshes and polluted rivers. With fewer and fewer places to hunt for food and raise babies, otters disappeared. But people began to clean up their act, and by the 1980s, there were enough healthy habitats that the Conservation Department decided to bring otters back. Biologists turned loose more than 800 otters, including my great-great-great-grandma. When she arrived, there were only 70 otters in the state. Today, there are between 10,000 and 18,000. You could say it was an otter success!





SHOOTING

Samantha Foppe shoulders her shotgun, leans slightly forward, and yells, “pull.”



The instant the word escapes Sam’s mouth, an **orange saucer** flies out of a concrete box and streaks away at 42 miles per hour. If you could examine the saucer, you’d see it’s about 4 inches wide, Frisbee-shaped, and made of clay. But you wouldn’t have time, because half a second after the saucer is airborne, Sam squeezes the trigger on her shotgun and blasts the saucer to smithereens.

In trapshooting, people of all ages and abilities compete against each other. To hit the flying saucer, which trap shooters call a “clay bird,” you need pinpoint accuracy, lightning-quick reflexes, and Zen-like concentration. Sam has all three, and the 15-year-old from High Ridge has become one of the best trap shooters in the country.

Sam’s been around guns her whole life. Her dad took Sam deer hunting when she was 2. When she was 4, Sam shot her first gun, a youth-model .22. When she was 5, she got a compound bow and practiced with it for weeks so she could hunt deer. When she was 6, she shot her first deer with a rifle.



by Matt Seek
photos by David Stonner

STAR



Jan and Gwen Morris, who coach trapshooting at the Conservation Department's Jay Henges Shooting Range, heard that Sam liked to hunt and encouraged her to try trapshooting. Sam hit 13 out of 25 clay birds her first time on the trap field. She was hooked, and soon joined Team Henges Trapshooting Club.

It was tough at first. "I was 9, and my gun was taller than I was," Sam says. "It was heavy and hard to hold steady."

But Sam worked hard. She practiced bringing her gun to her shoulder, sometimes 50 times a day, until it felt automatic. She exercised, watched what she ate, and lifted weights.

Soon, her work started to pay off.

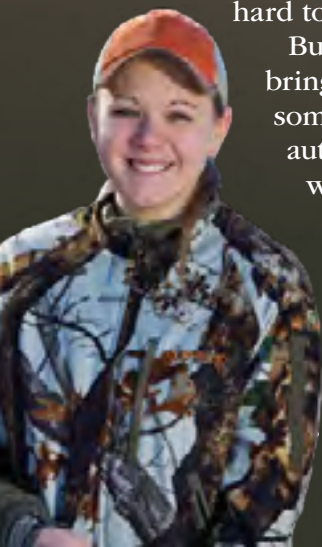
Trapshooting has three events. In singles, you shoot at single clay birds launched from 16 yards away. Doubles is similar, except two clay

birds are launched at once, and you try to hit both. In handicap, the better you shoot, the farther away you must stand from where the targets are launched.

When Sam was 11, she became the youngest girl in the country to hit 100 clay birds in a row in singles. When she was 12, Sam beat 773 other shooters to win the Missouri High School Shoot-Off, breaking 174 out of 175 clay birds and beating seven senior boys in the finals. When she was 13, Sam became the youngest person ever to shoot from the farthest-back position in the handicap event. Now, she's the second best shooter in the country in her age division.

Coaches from the U.S. Olympic Team have phoned to ask about Sam's plans. For now, she isn't interested in the Olympics. Sam wants to shoot for a college team so she can earn a degree.

"I'm just happy to be on a trap field," Sam says. "The only other place I'd rather be is in a deer stand."



WILD JOBS

AT JAY HENGES SHOOTING RANGE, **KURT OTTERSTEIN** TEACHES PEOPLE TO BE STRAIGHT SHOOTERS AND SAFE SHOOTERS.

Q: WHAT CAN YOU DO AT JAY HENGES SHOOTING RANGE?

A: We have target ranges where you can sight in your rifle or pattern your shotgun, trap-shooting fields where you can dust clay pigeons, and a wooded archery trail where you can shoot arrows at 3-D animal targets.

Q: DO YOU HAVE PROGRAMS FOR KIDS?

A: Kids are welcome to shoot, of course. We also have hunting clinics for kids and adults that teach them how to hunt deer, turkeys, ducks — you name it. And we offer courses so people can get their hunter education card.

Q: DO MANY PEOPLE USE THE RANGE?

A: We see nearly 1,000 visitors a week. Most mornings, folks are lined up at the door before we open. It's a popular place.

Q: WHAT'S THE BEST PART OF YOUR JOB?

A: Helping someone who hasn't shot much — who might even be fearful — gain confidence and start hitting the target.

Q: DO YOU GET MANY FIRST-TIME SHOOTERS AT HENGES?

A: Lots of folks show up and say: "I haven't shot much. Can you help me?" If we have plenty of staff, we'll send volunteers into shooting booths to coach people until they feel comfortable shooting by themselves. Customer service is our second biggest priority at Henges.

Q: WHAT'S YOUR FIRST PRIORITY?

A: Keeping people safe.



STRANGE but TRUE!

CRITTERS DON'T MAKE
NEW YEAR'S RESOLUTIONS.
BUT IF THEY DID, HERE'S WHAT
A FEW MIGHT SAY.

WOODHOUSE TOAD

My goal is to lay 25,000 eggs this spring. I'll need lots of offspring because most of my tadpole toddlers will be snarfed up by predators.



TURKEY VULTURE

My goal is to try new foods. I'll eat anything — skunks, birds, snakes, fish, frogs, snails, rotten fruit, even worms — as long as it's dead.



TIMBER RATTLESNAKE

I plan to stockpile enough venom in my glands to kill 3,000 deer mice. But since I'll eat only 20 meals next year, I won't need to use much of it.



BUMBLEBEE

I plan to be extra buzzy — and busy — in 2014. I'll need to be if I hope to meet my goal of visiting 500 flowers a day.

RAINBOW TROUT

My resolution is simple: survive trout-fishing season at Bennett Springs State Park. To do that, I'll need to dodge nearly 150,000 anglers.



HICKORY HORNED DEVIL

I may start off itty-bitty, but I hope to grow as big as a hot dog and become Missouri's largest larva. If you grew as much as I plan to grow, you'd be 30 feet tall.



EASTERN COTTONTAIL

I plan to poop a lot — nearly 350 pellets every day, in fact. If you lined my pellets end to end, by next New Year's my poop should stretch half a mile.

STRIPED SKUNK

In a year's time, I'll produce enough scent to fill a soda can. But don't dare pop the top! That much funky fluid could leave 200 coyotes drenched in stench.



XPLOR MOR

Bird Feeder Frenzy

Putting up a bird feeder in winter is a win-win. Birds get a free meal when other food is scarce, and you get to watch colorful, lively critters when much of nature is gray and still. To make feeder watching even more fun, challenge your family members to a friendly competition. Pass out photocopies of the score card on the next page and see who can rack up the most points in a week's time. Will you be at the top of the flock or end up a feather-watching flop?



White-breasted nuthatch



American goldfinch



Downy woodpecker

Want a free poster packed with bird-feeding tips and pictures of Missouri's common birds? Email your name and mailing address to pubstaff@mdc.mo.gov and ask for "Feeding Backyard Birds."

E

Score Card



Dark-eyed Junco

White-breasted nuthatch

✓ If you see give yourself this many points.
<input type="checkbox"/> A cardinal	1
<input type="checkbox"/> A blue jay	1
<input type="checkbox"/> A chickadee (We have two kinds of chickadees in Missouri: black-capped and Carolina. They look nearly identical, so it takes a sharp eye to tell them apart.)	1
<input type="checkbox"/> A tufted titmouse	1
<input type="checkbox"/> A brown bird (Give yourself 1 point for each kind you see. There are many kinds of brown birds.)	1
<input type="checkbox"/> A woodpecker (Downy, hairy, red-bellied, red-headed, and pileated woodpeckers all visit bird feeders, especially if you've set out suet or peanuts. Give yourself 2 points for each kind of woodpecker you see.)	2
<input type="checkbox"/> A purple bird (such as a house finch or purple finch)	2
<input type="checkbox"/> A chubby bird (Birds rarely get fat, but they often fluff up their feathers to trap heat to stay warm.)	2
<input type="checkbox"/> Any bird bigger than a blue jay (such as a mourning dove or crow)	2
<input type="checkbox"/> A seed stasher (a bird that flies away with seed in its beak to hide the seed so it can snack on it later)	3
<input type="checkbox"/> A messy eater (a bird that knocks seed onto the ground as it feeds)	3
<input type="checkbox"/> A bird using its feet to scratch through snow or leaves under the feeder (Birds such as dark-eyed juncos scratch to find hidden seeds.)	3
<input type="checkbox"/> A bully bird (Some birds, such as blue jays and nuthatches, chase other birds away so they can have the seed all to themselves.)	4
<input type="checkbox"/> A foraging flock — three or more kinds of birds sitting on your feeder at the same time (Birds team up to look for food. Chickadees, tufted titmice, and nuthatches often hang out together.)	4
<input type="checkbox"/> Feeding frenzy — 10 or more birds using your feeder at once	5
<input type="checkbox"/> A hawk swooping down to pluck a bird off your feeder (Don't get mad at the hawk. Hawks have to eat, too! Consider yourself lucky to see nature in action.)	5
<input type="checkbox"/> A bird you've never seen before (Many birdwatchers keep a "life list" of every kind of bird they've ever seen. Give yourself 6 points for each new bird you add to your life list.)	6
<input type="checkbox"/> A squirrel munching seed at your feeder	Subtract 3 points

WHAT IS IT?

— FROM PAGE 1 —

dip their heads underwater to strain out seeds and insects with their bills. Female woodies nest in holes in trees and man-made nest boxes. When startled, wood ducks give a squeaky whistle as they burst into flight.



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FREE TO MISSOURI HOUSEHOLDS

CRITTER CORNER

Brown Trout



How now brown trout? Brown trout originally were found only in Europe. They were brought to the U.S. in the 1880s because people liked to catch them. In Missouri, browns are grown in a hatchery and released into Lake Taneycomo and several spring-fed Ozark streams. These fish can reach enormous sizes. Conservation Department biologists have encountered browns that weigh more than 30 pounds!