AIMING TO WIN

TRAP SHOOTER SAMANTHA FOPPE IS ONE OF AMERICA’S TOP SHOTS.
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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2 You Discover
4 Predator vs. Prey
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14 Wild Jobs
15 Strange But True
16 Xplor More
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.
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.

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.

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.

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 sliiiide.

Find out who’s hooting it up during an OWL PROWL.

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’ SISSING.

Twin Pines Conservation Education Center, Winona; December 7, 4–10 p.m. Register at 573-325-1381.

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.

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

**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.

**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.

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

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

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

**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 cattails could hinge on location. Muskrats have the advantage on land, but minks 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.

**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.
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.

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.

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**Chomp!**

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

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**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.

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**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!
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!

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.
Good Grub

During the summer, crayfish make up most of my menu. Mmmmm, crunchy. I flip over rocks and root around roots to find them. In winter, I eat mostly fish. Mmmmm, 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.

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!
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.
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.”
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.
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.

**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.

**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.

**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.

**December 2013/January 2014 | 15**
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?

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.”
### Score Card

**If you see ...**

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A cardinal</td>
<td>1</td>
</tr>
<tr>
<td>A blue jay</td>
<td>1</td>
</tr>
<tr>
<td>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.)</td>
<td>1</td>
</tr>
<tr>
<td>A tufted titmouse</td>
<td>1</td>
</tr>
<tr>
<td>A brown bird (Give yourself 1 point for each kind you see. There are many kinds of brown birds.)</td>
<td>1</td>
</tr>
<tr>
<td>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.)</td>
<td>2</td>
</tr>
<tr>
<td>A purple bird (such as a house finch or purple finch)</td>
<td>2</td>
</tr>
<tr>
<td>A chubby bird (Birds rarely get fat, but they often fluff up their feathers to trap heat to stay warm.)</td>
<td>2</td>
</tr>
<tr>
<td>Any bird bigger than a blue jay (such as a mourning dove or crow)</td>
<td>2</td>
</tr>
<tr>
<td>A seed stasher (a bird that flies away with seed in its beak to hide the seed so it can snack on it later)</td>
<td>3</td>
</tr>
<tr>
<td>A messy eater (a bird that knocks seed onto the ground as it feeds)</td>
<td>3</td>
</tr>
<tr>
<td>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.)</td>
<td>3</td>
</tr>
<tr>
<td>A bully bird (Some birds, such as blue jays and nuthatches, chase other birds away so they can have the seed all to themselves.)</td>
<td>4</td>
</tr>
<tr>
<td>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.)</td>
<td>4</td>
</tr>
<tr>
<td>Feeding frenzy — 10 or more birds using your feeder at once</td>
<td>5</td>
</tr>
<tr>
<td>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.)</td>
<td>5</td>
</tr>
<tr>
<td>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.)</td>
<td>6</td>
</tr>
<tr>
<td>A squirrel munching seed at your feeder</td>
<td>Subtract 3 points</td>
</tr>
</tbody>
</table>

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**WHAT IS IT?**  
— FROM PAGE 1 —

With red eyes, rusty chests, and shiny green heads with crests, male **wood ducks** win the prize for Missouri's most colorful ducks. Wood ducks feed by dabbling, which means they 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.
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!