

MISSOURI. Conservationist

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Savor the Season

Missourians' outdoor heritage makes our state a great place to live and enhances our quality of life. The next few months are an ideal time to build on that legacy. October and November are the “golden

months of fall,” and there's not a finer time to be afield with family and friends. Watching mallards swing into your decoys, following a hunting dog for quail, pheasant, or rabbit, sharing a waterfowl blind with your favorite retriever, backpacking some of the Ozark Trail, or just enjoying the sights, sounds, and smells of a golden fall day will all make great memories.

I have the privilege of observing many citizens express, share, and build on their outdoor heritage. Recently a grandfather shared a photograph of his two grandsons fishing (see photo). Teaching youngsters about the outdoors and passing on that heritage is a hallmark of Missouri culture. At a deer meeting in Macon, I listened to a deer hunter eloquently speak about his love and passion for deer hunting and what those experiences meant to him and his family. At a recent celebration of the *Flora of Missouri* book with the Missouri Botanical Garden, I met a group of people who shared their love and passion for plants and the outdoors. At the Audubon Riverland's Center, I watched waterfowl enthusiasts plan and commit to improving Missouri's wetlands for the future. This shared passion for natural resources and the outdoors is what conserves and protects Missouri's resources and enhances our overall quality of life around the state, including the bottom line — the state's economy.

Spend time with each other in Missouri's outdoors this fall. Hunt, fish, hike, camp, photograph, and observe your way into wonderful memories that will last a lifetime. Savor Missouri's spectacular fall foliage, spend some time watching our native bluestem grasses sway in a fall breeze, enjoy migrating wildlife, feel and smell the brisk morning air as fall wanes into winter, or marvel at the annual agriculture harvest in Missouri that helps feed the world.



Tucker and Lane Berthiaume of Savannah, Mo., had a successful day fishing their grandparents' stocked pond. These next few months are a great time to be in Missouri with family and friends.

Often you can have a lake to yourself by fishing for bass, crappie, and catfish into late fall. Some of the best river and stream floating occurs as river traffic all but disappears and fall colors explode along our rivers and streams.

In our monthly *Letters* section (Page 2), Bonnie Welker talks about family tradition and the annual family raccoon hunt. The Welker family has carried on this annual fall hunt for 25 years and four generations of their family! Conservation Agent Mark Reed's *Agent Notes* section highlights mentoring (Page 4). Mentoring family or friends is an outstanding way to spend time enjoying the outdoors and pass along your passion for conservation to future generations.

Brett Dufur's article *The Legendary Longbow* (Page 17) provides a glimpse of Missouri's rich archery history. Missouri's National Archery in the Schools program builds upon that legacy as 302 schools and more than 56,000 youth participated this past year.

The article *First Steps Afield — Welcoming friends and family to our hunting traditions* (Page 24) begins with “My dad.” Almost all of us who enjoy the outdoors have a special person who introduced us, taught us, mentored us, encouraged us, and took us afield. Commit yourself to being that special person who helps others go outdoors and learn about nature, and who instills that conservation passion that makes Missourians unique. You need look no further than the cover of this magazine to see the beauty that awaits in Missouri's outdoors!

Tim Ripperger, deputy director

FEATURES

10 **Forest ReLeaf of Missouri**

by Donna Coble and Nick Kuhn, photos by Noppadol Paothong

This small nonprofit brings the big benefits of trees to communities across our state.

17 **The Legendary Longbow**

by Brett Dufur

Sleek and simple, the longbow has been a go-to tool for hunting and protection against predators throughout history.

24 **First Steps Afield**

by Tim Kjellesvik, artwork by David Besenger

Welcoming friends and family to our hunting traditions

Cover: Sumac changes color at Hawn State Park near Farmington, Mo., by Noppadol Paothong.

📷 17–40mm lens • f/22 • 2.5 sec • ISO 100

DEPARTMENTS

2 Letters

4 Hunting and Fishing Calendar

4 Agent Notes

5 Ask the Ombudsman

6 News & Events

30 Plants & Animals

32 Places to Go

33 Kids in Nature

WHAT IS IT?

Our photographers have been busy exploring the intricacies of the Missouri outdoors. See if you can guess this month's natural wonder. The answer is revealed on Page 7.



SMALL GAME, BIG TIME

Squirrel Hunting: Getting Started [August; Page 10] by Mark Goodman was right on, especially the first two paragraphs. Many folks, young and old, miss wonderful times in the woods by not hunting squirrels for all the reasons Mr. Goodman listed (harvest aside). After living in Union for several years as a youth, and having family in the Jackson area, I consider Missouri my second home state. At the age of 57 I still have a passion for squirrel hunting.

Dave Wente, Steeleville, Ill.

I read your article on squirrel hunting and the recipes the author included. I have a way to cook old squirrels that makes them as tender as young squirrels. First, you pan fry them as you would with young squirrel, but then put them in a well-greased crockpot on low for four to six hours. Mine will hold nine squirrels.

Karl Richards, Rolla

FAMILY TRADITIONS

My two sisters and I do our best to carry on our parents' most enjoyable traditions. Our father retired from the Missouri Department of Conservation after 30 years of service and has great passion for the outdoors. Together, our parents have shared their vast interest in wildlife and forestry with our family for almost 50 years.

All of us, children, grandchildren, and now great-grandchildren have been introduced to the wide variety of opportunities that nature has to offer. One of the most important values stressed to each of us is to have a true appreciation for the outdoors. Not to abuse or take anything for granted, and to make an effort to leave things better than the way they were found.

Many of us have participated in my parents' extensive tree-planting projects each spring. We were all shown at a young age the enjoyment that can come from a well-developed forest,

whether it be by hunting, watching wildlife, or just walking through the woods and absorbing the wide variety of sounds and smells, and the natural beauty it offers.

One of our family's favorite traditions is our annual coon hunt. This takes place the Friday after Thanksgiving and is attended by approximately 30 people. The night is full of laughter as both the young and old help each other cross fences and creeks and search for lost gloves and boots, while telling stories of hunts past. We all return hours later to a huge pot of turkey noodle soup and ham and beans that grandma has prepared for us. It is a wonderful opportunity to experience the woods at night, and it is always an evening of adventure! Last year, at our 25th anniversary hunt, we introduced the fourth generation to this treasured family activity. At 7 months old, her smile in the dark woods was a promise that this family tradition will live on.

Bonnie Welker, Perryville



Reader Photo

FLOWER POWER

Dakota Lynch, of Barnhart, Mo., captured this picture of a flower spider eating a fly. Flower spiders are types of crab spiders that live in flowers and capture prey simply by grabbing and biting it. "As I was walking through the woods near our home admiring the blooming goldenrod, I noticed a fly on one of the flowers," says Lynch. "Upon closer examination, however, I realized this fly was actually in the process of being eaten by a small spider." Lynch is an avid hunter and photographer. "One thing photography has taught me is to look beyond what is obvious," says Lynch. "It's hard to miss what's going on in this photo, but the spider's size and perfect camouflage make it difficult to spot with the naked eye."

FROM FACEBOOK

We hung a bat house in our backyard this year after watching local bats flying around at dusk. We hung the house on a tree near the woods, about 8 feet off the ground, close to their evening patrol path, but no interest yet. How do we convince them to move in?

Becca Dotson

Conservation Department: It may take some time for bats to discover and use your bat house. Do not hang a bat house in a tree or shady area. Make sure it receives 6 to 8 hours of sunlight each day. Mount the box at least 12 feet above the ground. Also, hanging the bat house near a pond or stream may increase your chances of attracting bats to use it.

Does southwest Missouri have any tortoises? A neighbor saw a turtle on his dirt road and it didn't look like any of the box turtles I have seen.

Debbie Mayes Nims

Conservation Department: Missouri has 17 species of turtles with no tortoises listed. Here is a link to turtles in our online field guide: mdc.mo.gov/node/7005.



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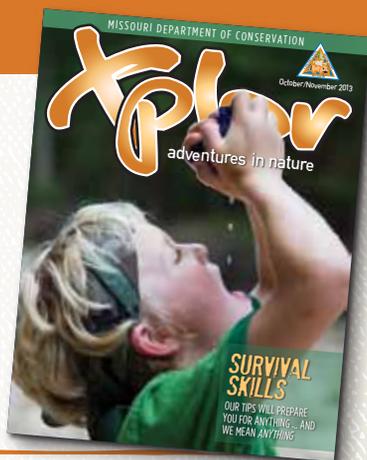
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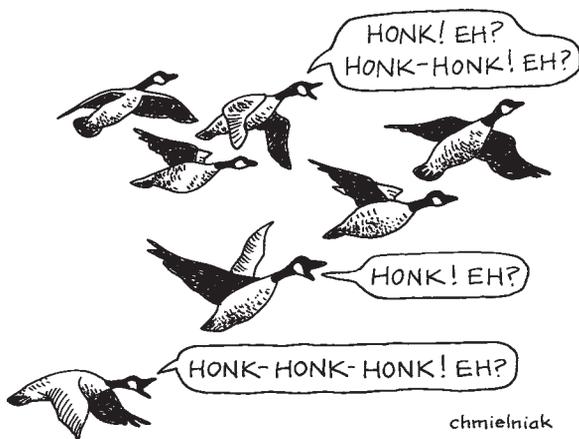
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Six times a year we'll bring you eye-popping art, photos and stories about Missouri's coolest critters, niftiest natural places, liveliest outdoor activities and people who've made a living in the wild. Come outside with us and **XPLOR!**

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The unique call of the Canada Goose

Agent Notes

Mentoring Young Hunters



LAST YEAR MY son decided he was ready to hunt deer, so we prepared for the Early Youth Portion of the Firearms Deer Season.

My son is 9 years old and not old enough to take a hunter education course. The minimum age to attend a course is 11. Youth who are at least 6, but not older than 15, may purchase deer and turkey hunting permits without being hunter-education certified, but they must hunt in the immediate presence of a properly licensed adult hunter who is 18 or older and has in his/her possession a valid hunter education certificate card or was born before Jan. 1, 1967.

When introducing others to hunting, mentors have a great deal of responsibility and should ensure they are up to date on regulations. The *Wildlife Code of Missouri* contains most regulations but special seasons (like deer and turkey) have separate booklets.

In preparation of the hunt, we purchased permits, scouted for deer, sighted in his rifle, studied deer anatomy, and discussed regulations. The Department has resources for beginning hunters including skills classes, the *2013 Missouri Fall Deer and Turkey Hunting* booklet and Web pages. To learn more about deer hunting in Missouri, visit mdc.mo.gov/node/2458.

As my son and I sat in our blind on his first outing as a full-fledged deer hunter, I nervously wondered if I had properly prepared him. My 9 year old put my mind at ease when he whispered, "Dad, do we have permission to hunt here and are you sure you put my deer tag in my backpack?"

Mark Reed is the conservation agent in Stoddard County. If you would like to contact the agent for your county, phone your regional conservation office listed on Page 3.

HUNTING AND FISHING CALENDAR

FISHING	OPEN	CLOSE
Black Bass from Ozark Streams	05/25/13	02/28/14
Bullfrogs and Green Frogs	Sunset	Midnight
	06/30/13	10/31/13
Nongame Fish Gigging	09/15/13	01/31/14
Paddlefish on the Mississippi River	09/15/13	12/15/13
Trout Parks	03/01/13	10/31/13

HUNTING	OPEN	CLOSE
Coyote	05/06/13	03/31/14
Deer		
Archery	09/15/13	11/15/13
	11/27/13	01/15/14
Firearms		
Urban	10/11/13	10/14/13
Early youth	11/02/13	11/03/13
November	11/16/13	11/26/13
Antlerless (open areas only)	11/27/13	12/08/13
Alternative Methods	12/21/13	12/31/13
Late Youth	01/04/14	01/05/14
Doves	09/01/13	11/09/13
Furbearers	11/15/13	01/31/14
Groundhog	05/06/13	12/15/13
Pheasant		
Youth (North Zone Only)	10/26/13	10/27/13
North Zone	11/01/13	01/15/14
Southeast Zone	12/01/13	12/12/13
Quail		
Youth	10/26/13	10/27/13
Regular	11/01/13	01/15/14
Rabbit	10/01/13	02/15/14
Sora and Virginia rails	09/01/13	11/09/13
Squirrel	05/25/13	02/15/14
Turkey		
Archery	09/15/13	11/15/13
	11/27/13	01/15/14
Firearms	10/01/13	10/31/13
Waterfowl see the <i>Waterfowl Hunting Digest</i> or mdc.mo.gov/node/3830		
Wilson's (common) snipe	09/01/13	12/16/13
Woodcock	10/15/13	11/28/13

TRAPPING	OPEN	CLOSE
Beaver and Nutria	11/15/13	03/31/14
Furbearers	11/15/13	01/31/14
Otters and Muskrats	11/15/13	02/20/14

For complete information about seasons, limits, methods, and restrictions, consult the *Wildlife Code* and the current summaries of *Missouri Hunting and Trapping Regulations* and *Missouri Fishing Regulations*, *The Spring Turkey Hunting Regulations and Information*, *the Fall Deer and Turkey Hunting Regulations and Information*, *the Waterfowl Hunting Digest*, and *the Migratory Bird Hunting Digest*. For more information visit mdc.mo.gov/node/130 or permit vendors.

ASK
THE

Ombudsman



American white pelican

Q. I was surprised to see white pelicans on Stockton Lake recently. Are pelicans rare in Missouri?

American white pelicans breed and nest in states to the north and west of Missouri and in Canada. They winter in southern California, Mexico, and along the Gulf Coast. The ones that winter on the Gulf Coast pass through Missouri in migration each spring (early March through May) and fall (late September through late November) on their way to and from nesting areas. During migration, flocks of 5,000 or more pelicans may amass on Missouri's lakes, marshes, and, occasionally, on rivers. Ten years ago it was a rare sight to see pelicans in Missouri in the summer or winter, but nonbreeding birds, mainly immature individuals, can now be found on our lakes and rivers during those seasons. A flock of these large, white birds is striking, whether floating on a lake or in flight. Their wingspan is second only to the California condor among North American bird species. They are occasionally confused with snow geese or

whooping cranes, which also may fly high overhead, almost out of sight.

Q. What are the black and red bugs that are clustering on the side of my house and on some tree trunks?

Your description fits the box elder bug, a species that is often observed at this time of the year. Box elder bugs spend the summer sucking on plant sap from box elders, silver maples, and other related trees. With the first cold snaps of fall, they begin congregating in warmer areas like the sunny sides of trees, houses, and other structures. The adult insects and nymphs are usually present. They are looking for crevices and cracks where they can find shelter and become inactive during the coming cold weather. They have a knack for finding their way inside homes, too, where they can aggravate the occupants. They do not harm humans or pets but may leave stains on walls if swatted. They



Box elder bug

can be vacuumed when found inside the house. Sealing foundation cracks and door thresh-

olds and keeping window screens in good repair can reduce the number that get inside. See the document at this Web address for more details on box elder bugs: extension.missouri.edu/p/g7360.

Q. Can you explain the meaning of the "possession limit" for game species? Does it mean the limit that one can kill in one day's time or does it include game stored in the freezer?

The daily limit is the amount of game that you may take in a day. The possession limit is the amount of game that you may have in your possession, including game stored in a refrigerator or freezer or in any other way. Once you reach the possession limit, you will need to eat some of the stored game or give it to someone else before you hunt for those species again. Any game that you give away is still included in your daily harvest limit for the day that it was taken but it is no longer included in your possession limit. Game received as a gift is included in the possession limit of the recipient. There are labeling requirements for any game that is given away to make clear the species, who killed the game, and when the harvest occurred. Telecheck confirmation numbers are required in the labeling of deer and turkey that is stored or given away.

Ombudsman Tim Smith will respond to your questions, suggestions, or complaints concerning the Conservation Department.
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Deer Season Forecast

Missouri's deer hunting outlook is mixed this year, largely due to last year's extreme heat and drought.

Water scarcity contributed to greater-than-normal deer mortality from epizootic hemorrhagic disease and the closely related disease commonly known as blue-tongue. Losses were significant in many areas, but spotty. Parts of some counties will have fewer deer this year,

while deer numbers remain fairly stable in the surrounding area.

The drought also reduced acorn production in many areas. This forced deer to move around more to find food, causing them to be more visible to hunters. As a result, last year's total deer harvest of 309,929 was the third-largest on record. That is likely to further depress deer num-

bers in areas hit hardest by hemorrhagic diseases.

Hemorrhagic disease losses varied drastically by region. Northwest and southwest Missouri were especially hard-hit, while losses in most southeast Missouri counties were insignificant. Wherever you hunt, if you see fewer deer this year, consider passing up shots at does if you want to rebuild deer numbers in your area.

Hunters also can help protect the state's deer herd from a different threat, chronic wasting disease (CWD). They can do this by careful processing and disposal of deer carcasses. Avoid cutting through bones, the spine, or brain. The spleen, located next to the stomach near the center of the body cavity, should be avoided, too. If you hunt somewhere other than home, bring knives and containers so you can quarter the animal, removing the front and hind legs from the spine. Remove loins, back straps, and other usable meat and send the spine, internal organs, and head to a state-approved landfill. If landfill disposal isn't practical, bury the carcass deep enough that scavengers can't dig it up.

Trophy deer require different treatment. Taxidermists use artificial forms to create mounts, so there is no reason to keep the skull, which could carry CWD. When removing the cape from the carcass, also skin the head. Use a power saw to remove the antlers along with a small portion of the skull that joins them. Clean the inside of the skull plate with chlorine bleach before leaving the area where the deer was taken.

Detailed information about CWD prevention is found on pages 2 through 5 of the *2013 Fall Deer and Turkey Hunting Regulations and Information* booklet. The booklet is available from permit vendors or online at mdc.mo.gov/node/3656.

Sight in Deer Rifles

If you haven't checked the sights on your deer rifle, now is the time, and a Conservation Department shooting range is the place. To provide citizens with safe and convenient places to shoot, MDC offers more than 70 unstaffed shooting ranges throughout the state. For safety reasons, these designated ranges are the only places on conservation areas where target shooting is allowed. The Conservation Department also manages five staffed shooting ranges. Some are accessible to shooters with mobility impair-

ments. Many have multiple shooting stations with covered shooting benches, target holders, and other amenities. To find one near you, visit mdc.mo.gov/node/6209.

Share Your Harvest

The Conservation Federation of Missouri once again is asking deer hunters to help feed thousands of Missourians who are having trouble making ends meet.

Share the Harvest is a citizen-led program that lets hunters donate whole deer by simply dropping them off at participating meat processors. Contributions from sponsors pay for processing most whole-deer donations. Each year, Share the Harvest puts nearly 2 million servings of lean, healthful venison on the tables of Missourians in need. Conservation Federation of Missouri's goal this year is 2.5 million servings to feed Missouri's hungry.

To learn how and where to donate deer through Share the Harvest, call 573-634-2322, or

visit mdc.mo.gov/node/2544. Participating meat processors also are listed in the *2013 Fall Deer and Turkey Hunting Regulations and Information* booklet, which is available wherever hunting permits are sold, or at mdc.mo.gov/node/3656.

Natural Events Calendar On Sale

What costs \$7, lasts 12 months, and makes you smarter and happier every day? If you guessed the Conservation Department's *Natural Events Calendar*, go to the head of the line and buy a copy of the 2014 edition. Next year's calendar goes on sale this month at conservation nature centers and regional offices statewide. It includes photos of an immature bald eagle on the wing, a red fox returning to its den with two voles in its mouth, a night scene at Castor River Shut-Ins, a painterly depiction of snow-dusted oaks at Kansas City's Swope Park, and the pyrotechnic flowers of sensitive briar. These are just a few of the dozens of startling images of plants, animals, and landscapes that grace the pages of



next year's calendar. Of course, daily notes about seasonal happenings outdoors remain among the calendar's top attractions. Added features next year include a "Get Out and Explore" section with photos from spectacular places you might want to visit and a guide to introducing children to nature. The calendar sells for \$7 per copy, plus shipping and handling and sales tax where applicable. You also can buy copies by calling toll-free 877-521-8632 or through The Nature Shop, mdcnatureshop.com.



WHAT IS IT?

Black-and-Yellow Garden Spider

Argiope aurantia

This common spider is found in grassy areas near houses and in tall grasslands. Individual spiders tend to stay in one area all season. The circular webs can reach about 2 feet in diameter, and the spider is often resting head-down in the center on a zigzag band of silk. Once an insect is caught in the web, the spider often shakes the web to ensnare it. Spiderlings hatch in spring and will balloon on strands of silk in the breeze. The much smaller male plucks strands on a female's web to court her. All summer, the females eat insects and create up to four egg cases that can contain more than 1,000 eggs each. As temperatures cool in autumn, the female slows and dies in the first frosts. — photo by Noppadol Paothong

(continued from Page 7)

Late Commissioner Stood Up for Science-Based Conservation

Former Conservation Commission Chairman John B. Mahaffey died Aug. 2 at age 86. A native of St. Joseph and a long-time Springfield resident, Mahaffey served on the Conservation Commission from 1982 through 1988. He was a courageous defender of science-based conservation. Early in his term as conservation commissioner, he voted to approve a staff recommendation to require nontoxic shot for waterfowl hunting. This made Missouri a national leader in preventing lead poisoning of waterfowl and predators — most notable bald eagles — that suffered from second-hand exposure to lead toxicity. He stood by that decision in the face of intense pressure.

Thanks in part to his and his fellow conservation commissioners' leadership, nontoxic shot now is required for waterfowl hunting nationwide.

Duck Numbers High, Habitat Conditions Mixed

The outlook for duck hunters is mixed this year, with ducks still abundant but Show-Me State waterfowl habitat conditions spotty.

This year's survey of breeding ducks in the eastern survey area showed increases in all six of the most abundant species. Mallards showed a 22-percent increase compared to last year and were up 25 percent from the long-term average. Overall, the survey showed 45.6 million breeding ducks, which is 33 percent above the long-term average and nearly the same as last year's figure.

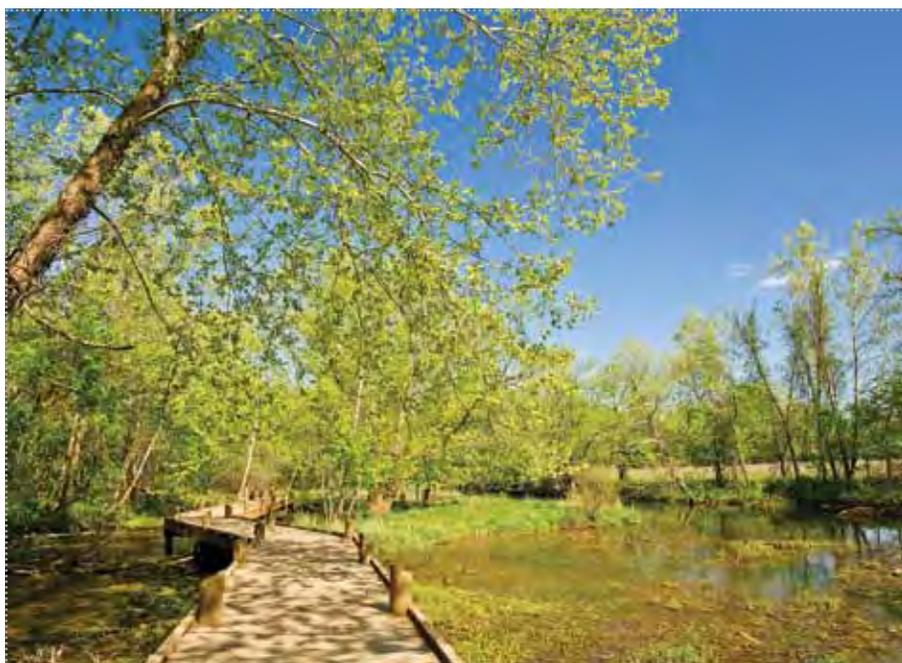
While these numbers are promising, the quality of hunting in Missouri depends heavily on two other factors. The first — weather during the hunting season — is impossible to predict. The second — habitat conditions — could change between now and the season opener, but some parts of the picture are known now. Regardless of how many ducks come south this fall, if Missouri wetlands lack food or water, those birds will continue to fly south, leaving Missouri marshes empty and hunters disappointed.

Flooding affected the growth of crops and natural vegetation on several of the Conservation Department's 18 intensively managed wetland areas. Floods also damaged levees, pumps, roads, and other critical infrastructure on some of these areas. Other wetland areas had the opposite problem, with drought reducing the growth of crops and seed-producing plants. Areas most affected were:

- Ted Shanks, which suffered extensive levee damage and likely will have reduced wetland acreage and hunting opportunities.
- Marais Temps Clair, where above-normal water levels and poor crop growth will impair hunting quality.
- Eagle Bluffs, where drought will reduce flooded acreage. Early flooding washed out crops but left time for replanting. Those crops are expected to produce average yield.
- Four Rivers and Schell-Osage, where August flooding destroyed planted crops and adversely affected moist-soil plants and hunting cover.
- Columbia Bottom, which reports poor growth of crops of native food-producing plants due to extensive flooding.

Areas reporting normal water conditions in early August included Montrose, Nodaway Valley, Bob Brown, Fountain Grove, B.K. Leach, Otter Slough, Ten Mile Pond, and Little River. However, Bob Brown and Nodaway Valley, as well as Settles Ford, all reported that continued drought could affect their ability to pump water into wetland pools.

Grand Pass reported good moist-soil vegetation, but only fair crop growth. Normal water



Springfield Nature Center Celebrates 25th Anniversary

The Springfield Conservation Nature Center will celebrate its 25th anniversary with special events Oct. 5 and 6. Millions of people have discovered nature at the beautiful interpretive center and on its three miles of hiking trails through forests, fields, and marsh. The nature center will welcome back old friends and greet first-time visitors from 10 a.m. to 5 p.m. Saturday and from 1 to 5 p.m. Sunday. The event will feature live animals on Saturday and primitive skills demonstrations on Sunday, along with nature-based crafts, special exhibits, activities, and giveaways for all ages. The nature center is just off Highway 60 one-half mile west of Highway 65. No registration is required. Call 417-888-4237 for a schedule of events.

DID YOU KNOW?

Missourians care about conserving forests.

Assisting With Western Wildfires

- » **50 Department staff members served** on out-of-state wildfire assignments this year. Assignments included Colorado, Montana, Idaho, Oregon, and Northern California.
- » **6 of the 50 were dispatched to fires as single resources** — meaning they do not go out with a crew, but have specialized and/or leadership positions that are needed to manage crews and resources from a distance on complex fire assignments.
- » **To qualify for out-of-state wildfire assignments,** Department staff must complete training and meet the minimum firefighting experience requirement, as well as pass a tough physical fitness endurance test.
- » **The Department receives reimbursement for all staff** time and overtime (including fringe benefits) associated with wildfire assignments through an agreement with the U.S. Forest Service. As a result, the Department's cost for sending staff is only time away from current job duties.
- » **Excellent training and leadership experience is gained** on out-of-state wildfire assignments and is beneficial for Missouri on several fronts. Last year, the Department successfully handled statewide wildfire challenges due to the extreme drought very well — out-of-state experience helped prepare staff.
- » **To prevent fires and aid fire suppression in Missouri,** the Department has developed many programs and partnerships. To learn more, visit mdc.mo.gov/node/3314 or read the *Did You Know?* on Page 9 of the March 2013 *Missouri Conservationist*.



Mallard

Duck numbers are up this year, but the quality of hunting in Missouri also depends on weather and habitat conditions.

levels are expected in wetland pools by hunting season. Summer flooding wiped out crops at Coon Island, but it still has fair to good moist-soil vegetation.

More detailed information about hunting conditions at state-owned wetlands is available at mdc.mo.gov/node/9627. For information about this year's duck and goose population surveys, see <http://bit.ly/12Ag0jx>.

Waterfowl Seasons Set

At its August meeting, the Conservation Commission set waterfowl hunting seasons and bag limits. Details are available in the 2013–2014 *Waterfowl Hunting Digest*, which is available at Conservation Department offices, permit vendors, or at mdc.mo.gov/node/303. The general structure of this year's waterfowl season is similar to last year. Exceptions include:

- An increase in the possession limit for most species from two to three times the daily limit.
- An increase of the daily limit for canvasbacks from one to two.
- A decrease in the daily limit for scaup from four to three.

One Chicken's 1,165-Mile Odyssey

By any standard, the odyssey of a radio-collared prairie chicken hen through southern Iowa and northern Missouri was an epic journey. Bird No.

112 entered a trap in Nebraska and became part of efforts to restore greater prairie chickens to Missouri and Iowa. She was released just north of the state line near Bethany, Mo. on April 4.

Being transported to a new home seems to have kindled wanderlust in the 2.5-pound bird. She immediately set off on a four-month, 1,165-mile ramble, to the amazement of biologists who tracked her progress with a GPS collar.

Bird No. 112 first headed north, then looped south into Missouri, and then back north into Iowa. Next, she paid a visit to St. Joseph, roughly 75 miles from her release site, then flew 125 miles east-northeast past Kirksville, headed back northwest for a tour of the bridges of Madison County, Iowa, and then paid second visits to St. Joseph and Trenton, Mo. July 29 found No. 112

settled down — at last — on an expanse of prairie near Kent, Iowa.

When European settlers arrived in Missouri, the state had hundreds of thousands of prairie chickens. Today, the Show-Me State has only about 100 of the birds. They are a mix of natives and birds brought in from other states in an effort to maintain the species here. Iowa had lost its native prairie chickens entirely by the 1950s. It now has only reintroduced birds.

The prairie chicken's decline is mainly the result of habitat loss. Less than 1 percent of Missouri's native grassland remains. But with hardy birds like No. 112, Missouri and Iowa have a shot at reclaiming this part of our natural heritage ... if we can get them to sit still long enough to nest.

These trees at Creve Coeur
Lake Memorial Park in
St. Louis county were planted
by Forest ReLeaf 20 years ago.
The nonprofit celebrates its
20th anniversary this month.



This small nonprofit
brings the big
benefits of trees to
communities across our state.

Forest OF ReLeaf MISSOURI

by **DONNA COBLE** and **NICK KUHN**
photos by **NOPPADOL PAOTHONG**



VER FOREST RELEAF OF MISSOURI'S 20-year history, this small nonprofit organization has helped reforest Missouri by giving away more than 100,000 trees — free of charge. Young trees are nurtured on site and then distributed to other nonprofits,

municipalities, parks, schools, churches, neighborhood associations, and youth groups with the provision that they must be planted on public or nonprofit grounds. An additional 36,000 trees have been distributed at a greatly reduced cost. In the process they have educated thousands of people on the benefits trees provide and created tree stewards statewide.

Despite flooding, drought, and economic downturns, Forest ReLeaf has continued to grow and thrive. After 20 years they still have only three full-time and one recently added part-time employee, yet they've expanded their operations, their outreach, and their mission. The staff is comprised of: Donna Coble, executive director; Mike Walsh, forestry programs manager; Colleen Duhart, administrative and communications coordinator; and Wendy Schlesinger, development specialist.

Forest ReLeaf was awarded the Missouri Arbor Award of Excellence in 2011. This award, cosponsored by the Department of Conservation and the Missouri Community Forestry Council, recognizes those who act as good stewards for trees in their communities.

Project CommuniTree

Forest ReLeaf's CommuniTree Gardens Nursery, located in St. Louis County in Creve Coeur Park, is home to 20,000 trees in various stages of growth. This is the region's first and only community-assisted tree nursery. Forest ReLeaf leases the nursery property from St. Louis County Parks partly in exchange for planting trees in its parks throughout the region. Each spring, under the direction of Mike Walsh, a dedicated army of volunteers helps to put seedlings into 3-gallon containers. Most of the seedlings are donated by the Missouri Department of Conservation's



Volunteers work on repotting trees at CommuniTree Gardens Nursery in St. Louis County. This is the region's first and only community-assisted tree nursery.

George O. White State Nursery in Licking. The past two seasons, Forest ReLeaf volunteers have potted-up more than 17,000 seedlings annually.

After potting, the trees are cared for until they reach a substantial size and can withstand potential abuse from mowers, trimmers, and trampling. Some are transplanted to 15-gallon containers for projects that warrant larger trees through their Priority ReLeaf program. This program reaches out to financially underserved neighborhoods and communities, such as Joplin, that are recovering from severe storms.

Typically, about 40 species are available — all native Missouri species — from redbud to serviceberry to bur oak. Trees are distributed each fall and spring on a first-come, first-serve basis to approved recipients. Further information can be found on their website at moreleaf.org.

Volunteers

Volunteers range from families and retirees, to corporate and church volunteer groups, to Master Gardeners and Master Naturalists. Volunteers also join Forest ReLeaf after completing the seven-week "TreeKeepers" course taught by Walsh and other local forestry professionals. It is one of several outreach and education programs they offer. The program is free to the public and, in exchange, participants agree to volunteer 24 hours at the nursery or in their communities.

History of the Organization

The group began to form on the 20th anniversary of Earth Day in 1990, when several

Forest ReLeaf of Missouri – By the Numbers

Forest ReLeaf's homegrown trees are helping to enhance the urban tree canopy in 65 Missouri counties. More than 800 community groups have participated in the free tree distribution programs, receiving more than 100,000 trees and shrubs for 1,387 separate planting projects.

Volunteers are critical to the organization's success. In the past year, 325 nursery volunteers contributed 5,253 hours caring for the thousands of trees growing at CommuniTree Gardens Nursery.



local agencies came together as St. Louis Area Global ReLeaf and organized to plant 10,000 trees in a single day. The group soon realized a more formal structure was required to maintain that momentum. In 1993, Forest ReLeaf of Missouri was incorporated with a mission to bring volunteers together to plant trees in Missouri's communities. Originally the group was known as Forest ReLeaf of Greater St. Louis but broadened their scope to include the whole state. This October they will celebrate their 20th anniversary with an evening celebration and a commemorative tree planting. All are welcome. The event will be held at the Forest Park Visitor Center, Oct. 17, from 6 to 10 p.m. Ticket prices start at \$25.

The Early Days

Jim Horn has volunteered with the group for nearly 20 years. He remembers the nursery's humble beginning as

Jim Horn, right, has volunteered with the group for nearly 20 years. "We come back year after year because we are appreciated, useful, and know the good we are doing for the community," says Horn.

"a rubble-strewn plot of about 10 acres, the demolition site of a school building under the approach area of incoming planes." However, by the end of the second year of operation, and thanks to the foresight and labor of the first forester (Mark Grueber, now an urban forester with the Conservation Department) and about five regular volunteers, that rubble-strewn plot became a nursery of several thousand trees neatly lined up on a bed of wood chips donated by local tree-trimming companies. "I remember the forester in those early days building a road through the 10-acre nursery with a wheelbarrow and a pile of gravel," says Horn.

Today the nursery stands on a large, level, white gravel area in Creve Coeur Park and includes a large shed, a newly hand-built hoop house, and an irrigation system. Even though the nursery has grown exponentially, the work is still done under the supervision of a single forester — and many more volunteers.

According to Horn, he has continued to volunteer with Forest ReLeaf, “Not simply because of its valid purpose, but also because of its excellent efficiency. The leadership, though changed, has the same determination and work ethic as in those first days starting out. These hardworking qualities, along with amenable personalities, have been instrumental in maintaining a large, industrious cadre of volunteers. We come back year after year because we are appreciated, useful, and know the good we are doing for the community.”

Community Benefits — Urban

Little Creek Nature Area is a 96-acre plot of land in a school district in urban North St. Louis. Eric Hadley, science and Little Creek Nature Area coordinator, Ferguson-Florissant School District, says kids in this inner-city district “typically don’t get outside much. They are more accustomed to asphalt. To be in a place that is truly natural and full of trees or prairie, and having animals or birds around them, is literally scary to them.”

Over the past several years, Forest ReLeaf has donated more than 2,000 trees to Little Creek Nature Area. Hadley says, “When we get the trees from Forest ReLeaf it’s a big deal for the kids. Once they plant one tree, they’re very excited to continue to keep planting other trees because they see what a difference it can make — especially because they just spent a large amount of time getting rid of the honeysuckle. The act of planting a tree really becomes a powerful tool to awaken their spirit in terms of what’s around them and what should be here and how we can keep it healthy.”

Hadley says that, without Forest ReLeaf, they wouldn’t have much of a forest. “We simply can’t afford to buy trees,” he says. “The students return with their own children and then that next generation begins to understand and appreciate trees and the natural environment. That’s a powerful tool. If we didn’t have the trees, that kind of education and pride wouldn’t be part of our program.”



Community Benefits — Storm Recovery

When the May 22, 2011, EF-5 tornado hit Joplin and took with it 161 lives and an estimated 20,000-plus trees, Forest ReLeaf felt they had to step in and offer support. They started shipping trees to Joplin (a first for the organization), and, in 2012, expanded their nursery by 5,000 trees to accommodate future distribution to the area. Forest ReLeaf works closely with Ric Mayer, Joplin’s forestry recovery coordinator, to determine seasonal needs.

Sometimes staff has the opportunity to be part of the reforestation process. This year, on Oct. 4, as they did last October, employees from Forest ReLeaf and Ameriprise



In 2011, Forest ReLeaf of Missouri was awarded the Missouri Arbor Award of Excellence, which recognizes those who act as good stewards for trees in their communities. When the EF-5 tornado hit Joplin two years ago, Forest ReLeaf started shipping trees to the area.

Financial will accompany the trees to Joplin and help with the planting efforts. To date, Forest ReLeaf has given Joplin more than 3,000 trees, and has plans to send another 1,700 or more in the next year. Businesses interested in supporting this cause may be eligible to receive Missouri Neighborhood Assistance Program tax credits for their donations to Forest ReLeaf.

Forest ReLeaf's work in Joplin has included more than tree delivery. As the nonprofit partner in the building of

a new educational space and healing garden in Cunningham Park, the organization is helping to create an "open space, sacred place" for survivors and visitors. Drury University's Hammons School of Architecture students designed this new Butterfly Garden & Overlook, funded by a grant from the TKF Foundation. Research partners include Drury University, Cornell University, and the U.S. Forest Service Northeastern Station.

Education and Outreach

Giving away trees only works if people are educated on how to plant and care for them. Walsh works with the recipients to make sure they plant the "right tree in the right place," accounting for utilities, soil, and other conditions. All recipients are given instructions on proper planting and care techniques.



Today the Forest ReLeaf's CommuniTree Gardens Nursery stands on a large, gravel area in Creve Coeur Park. Even though the nursery has grown exponentially, the work is still done under the supervision of a single forester — and many more volunteers.

Walsh, an International Society of Arboriculturists (ISA) Certified Arborist and winner of the 2012 ISA Midwestern Chapter Award of Merit, gives frequent lectures on a variety of tree topics. In addition to the annual TreeKeepers course, he also teaches classes on forest ecology and soils, tree identification, and tree biology through Missouri Community Forestry Council, St. Louis Community College, and through the Missouri Botanical Garden.

In partnership with the Department of Conservation, Forest ReLeaf also administers the Missouri Forestkeepers Network (*forestkeepers.org*). This network, open to individuals, landowners, and educators, provides information and education to its members regarding ways to enhance and sustain our trees and forests. Currently, there are more than 2,600 members, representing nearly every county in the state, who report on activities such as removing invasive species, installing food plots, conducting youth outreach programs, and completing mast surveys. Membership is free and includes a number of benefits, including the quarterly Forestkeeper Monitor newsletter, workshops, conferences, and thank-you incentives.

Roots in the Community

Because of the nature of their tree distribution, Forest ReLeaf routinely works with partners across the state. To get trees to Joplin, they work closely with Department foresters and city officials. Together with City Academy in North St. Louis they are piloting a new education

ship program for elementary school. Their collaboration with Brightside St. Louis was instrumental in helping to create the award-winning Brightside St. Louis Demonstration Garden, which was designed to cultivate environmental stewardship.

Along with several corporate partners, their board of trustees consists of individuals who are influential in area tree concerns. Among them are: Greg Hayes, commissioner of forestry, City of St. Louis; Bill Reininger, park operations manager, Forest Park Forever; Tom Ott, director, St. Louis County Parks and Recreation; Rick Schenk, superintendent of vegetation management, Ameren Missouri; Sheila Voss, vice president education, Missouri Botanical Garden; and serving ex officio, Cathy deJong, forestry regional supervisor, Missouri Department of Conservation. Perhaps bringing things full circle,

Mary Sherfy, Forest ReLeaf's first executive director, joined the board in 2011.

Future Plans

The organization is working on a 20-year sustainability plan that may include further expansion of the nursery, a biodiversity greenhouse, and construction of a new education center and outdoor classroom. Continuing to build upon existing collaborative agreements, such as the one with the Department of Conservation, as well as cultivating new funding partners, will be a key factor for Forest ReLeaf's long-term success. ▲

Donna Coble has served as executive director of Forest ReLeaf of Missouri since 2010. Nick Kuhn is the community forestry coordinator for the Department of Conservation.

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A young girl with dark hair, wearing a blue patterned headband and a matching blue patterned long-sleeved shirt, is shown in profile, aiming a longbow. She is holding the bow with her left hand and the string with her right hand. The bow is made of dark wood and is held diagonally across the frame. The background is a soft-focus outdoor setting with green grass and trees under a pale sky.

the **Legendary Longbow**

Sleek and simple, the longbow has been a go-to tool for hunting and protection against predators throughout history.

by **BRETT DUFUR**

In an age of high-tech gadgets, the simple longbow seems a throwback to an antiquated time. After all, it's just a stick and string. Yet a growing fan base continues to be drawn to its history, simplicity, stealth, and performance.

Most importantly, longbows are just plain fun. Fun to shoot and fun to build — using nothing but an oversized stick, some simple tools, and an extra helping of patience and perseverance. With a good piece of wood, the right tools, some instruction, and several days of steady work, you'll be rewarded for a lifetime.

Want to make your own? This article will show you how.

The Lure of the Longbow

"There's a certain lure of traditional archery that is sometimes difficult to express either verbally or in writing," writes author Jay Massey in the *Traditional Bowyer's Bible*. "It must be experienced. But when a hand-made arrow from your first homemade bow slams into a rotten stump with a satisfying *thunk*, you'll know it. When you kneel down and reverently place your homemade bow beside the form of that hard-earned deer, you'll feel it. At such moments there'll be no question why you chose the traditional archery path."

Some devotees are surprised by the pull of primitive archery. "My first bow was a gift from my parents," says A.J. Hendershott, traditional archery enthusiast and Conservation Department outreach and education regional supervisor. "It was a fiberglass recurve just like we used to shoot at Boy Scout summer camp. I am certain my interest in primitive archery started there with the archery and Indian lore merit badges. My parents and Scouts sparked an interest that smoldered until I took a longbow-making course. The bow-making flames have been raging ever since."

Primitive archery appeals to Hendershott, as it does to many other Missourians, for the challenges it presents. Does he have what it takes to hunt with just a simple stick and string, and how can he get close enough to his intended game? Can he find the raw materials and coax a bow out of a chunk of wood?

"Each bow is different," Hendershott says. "The different types of wood force me to learn their strengths and weaknesses. Even trees of the same species can have differences influenced by their environment. Bow designs vary as well, but when you combine all of those variables, no two bows will ever be the same. I could make bows for the next 30 years and still be exposed to something new and exciting."

Hendershott says that longbows are not less efficient, just less complicated. "When I shoot a compound bow I feel part of a mechanical sys-



tem. When I shoot a longbow I feel connected to a simpler way. I have to rely more on skills and practice. This is just another way to enjoy and connect with nature.”

Longbows in Missouri

The longbow was an integral part of Native Americans’ lives for hundreds of years. The Osage bow style highlighted in this article was the main hunting tool for Missouri’s Osage tribe. Today, archery continues to increase in popularity in Missouri and is promoted by many Conservation Department programs.

Today we think of archery and deer season as going hand in hand, but it was not always so. By the 1930s, white-tailed deer were practically extinct in Missouri. Concerned citizens and scientific management by the Conservation Department restored their numbers sufficiently to allow the first archery deer season in 1946. Only 73 archers participated in the first archery season, a three-day, bucks-only season in Crawford County. Since then, generations of Missourians have worked to make archery as mainstream as hunting with firearms. Sharing their passion paid off.

Today, more than 183,000 archers hunt in Missouri. They enjoy a 124-day statewide season. Conservation and science-based management have made archery hunting accessible to Missourians in all corners of the state.

“Archery hunting for deer continues to grow in popularity,” says Resource Scientist Jason Summers, the Department’s deer specialist. “It’s such a long season, so it keeps you out in the field longer, plus I think many hunters like the additional challenges you face when hunting with a bow.”

Only a few people actively hunt for turkeys with archery equipment, and those who do hunt primarily in the fall. Most turkeys that are harvested with bows during the archery season are taken opportunistically as hunters wait for deer.

“Missouri has a large wild turkey population, and for those folks who choose to take advantage of the archery season, it provides a considerable amount of opportunity,” says Resource Scientist Jason Isabelle, the Department’s turkey specialist.

“Archery hunting is a challenging pursuit, especially with an animal as wary as a wild turkey. Harvesting a wild turkey with bow and arrow is quite an accomplishment given the incredible eyesight and extreme wariness that this animal possesses,” says Isabelle.

“Not only do hunters have to make an accurate shot on an animal with a relatively small vital zone, but just coming to full draw on a wild turkey without alerting it to your presence can be a feat in its own right.”



Only 73 archers participated in the first archery season in 1946; since then, generations of Missourians have worked to make archery as mainstream as hunting with firearms.

For some archery enthusiasts, the hunt never ends. Once hunting season is over, the hunt changes to different aspects of the sport, like hunting for the right tree to become the next bow. For Hendershott, another important aspect of the sport is getting friends and family involved in archery, and ultimately conservation, too.

“Shooting a longbow that I crafted is a solid connection to the land,” Hendershott says. “I had to use resources from the wild to make the bow and then I get to hunt animal resources with that bow. It just doesn’t get more satisfying than that.”

Making Your Own Longbow

Follow these steps to create a longbow-style self-bow similar to those used by the Osage tribe. A self-bow is a bow made from a single piece of wood with no backing. A longbow refers to its length, which is generally 60 to 70 inches long (shorter for children).

Before suggesting woods to consider for your first bow, Hendershott acknowledges that Osage orange wood, also known as hedge apple or hedge for short, has a stellar reputation in the world of archery. It is strong in tension, takes compression well, is very dense, and yields a beautiful final product. Unfortunately, Osage orange is not a wood recommended for beginning bow makers.

“First, it requires bow makers to ‘chase a growth ring,’ where all of the wood above that growth ring must be carefully removed to reveal the back of the bow,” Hendershott says. The process can take several hours and is tedious. In addition to ring chasing, hedge mandates crafters follow the grain exactly when roughing out a bow, which requires a seasoned eye with attention to detail. Any deviations to the ring or the grain will result in failure.

Beginners should look instead at other common Missouri woods, such as hickory, hackberry, ash, or even elm, for their maiden voyage into bow making, “These

Build a Wooden Bow

with A.J. Hendershott, traditional archery enthusiast and Conservation Department outreach and education regional supervisor

Step 1 — Wood Selection

Selecting a proper piece of wood is one of the most important steps to successfully completing a useful bow. Harvest trees that are 8–12 inches in diameter, straight, and free of limbs, knots, and dead wood. Split the log into quarters and paint the ends with paint, glue, varnish, or some sealing agent, to ensure the log dries out slowly, and to reduce checking and splitting. Remove bark to speed drying time. Wait for the staves to dry before working them. Many traditional archery supply houses sell properly cured and selected rough blanks. Consider purchasing one to ensure a successful first bow project.

Step 2 — Trace Pattern

Lay out the bow by examining the grain. Ideally the bow should have the tips line up straight down the longitudinal grain. You can sometimes incorporate knots or defects into the handle (where the bow doesn't bend) and have success, just by being thoughtful with layout. Trace pattern on stave.



3a

Step 3 — Rough Out Shape

Rough cut out stave shape (3a). A band saw or hatchet work equally well but care must be taken with either to ensure you don't get too close to your layout lines. A quarter-inch gap between your layout marks and your cut line is appropriate for the rough-out stage (3b).

woods, sometimes called ‘white woods,’ are abundant, tend to grow straight, and produce good bow blanks, often called staves,” Hendershott says. “They share many of the qualities that make hedge a good bow, but do not require chasing a growth ring, and their grain can be violated in minor ways that Osage orange will never forgive.”

White woods require a little wider limb design than hedge but make wonderful, hard-hitting bows that compete with any bow wood. Beginners can graduate to hedge after learning the basics of bow making on wood that is simpler to work with.

Making Your Longbow — Do’s and Don’ts

- DO:**
- Find an experienced bow maker, or bowyer, to guide you through the process.
 - Attend local bow-making events and read to learn all you can before you begin.
 - Choose a blank, or stave, that is straight and free of knots, checks, or splits.
 - Learn how to care for your tools.
 - Bend wood that is properly dried and seasoned.
 - Store your bow flat or hanging.
- DON’T:**
- Bend green wood. This will rob the bow of power.
 - Work on your bow when you are feeling rushed or fatigued.
 - Leave the bow strung when not in use.
 - Store the bow leaning against a wall.
 - Pull the bow past the intended draw weight at any stage.
 - Choose dead wood.



3b

Step 4 — Fast Wood Removal

Use a shaving horse (or workbench vise) and a drawknife to continue fast wood removal. A shaving horse is a comfortable tool for holding the stave in place, but a bench vise is useful too. Use leather to protect the wood from the vise jaws. Drawknives should be sharp, and work better on low humidity days.



4

Tip: If your bow has a wide-limb design (1.5–2 inches), don’t drawknife the full surface of the belly. Take a third off the right side then take a third off the left side. Finally take the resulting ridge down the center. It is three times the passes but it reduces the effort for each pass. →

Build a Wooden Bow

(continued)



Step 5 — Slow Wood Removal

Using a shaving horse and finer scrapers, such as a spoke shave, rasp, and cabinet scraper, continue to slowly remove wood closer to your longbow outline. Use a cabinet scraper and sandpaper to finish. Steps 2–4 can take two to four hours. Step 5 can take an additional four hours.

“Patience is a top priority here. It will take as long as it takes, and rushing is a mistake,” says Hendershott. “If you get to feeling impatient or hurried, it is better to take a break and come back to the project when you are feeling more relaxed. Taking 1/32 of an inch too much off the belly of your bow can turn your hunting bow into a youth bow, by significantly reducing the bow’s draw weight and strength.”

Step 6 — Test Draw and Fine Tune

Archery shops and vendors who deal in traditional archery gear can supply strings or string-making materials. The next step is to add the bow string and check the initial draw weight based on your draw length. Tillering is the critical step that makes a bow more balanced and a better performer. A tillering tree or tillering stick holds your bow in the drawn position at various distances and allows you to see how the limbs are bending and where there are still stiff spots. Remove the bow from the tillering tree and continue



Longbow How-To Resources

A book that will prove useful in making your own longbow is *Bows and Arrows of the Native Americans: A Complete Step-by-Step Guide to Wooden Bows, Sinew-backed Bows, Composite Bows, Strings, Arrows and Quivers* by Jim Hamm. Two reputable and helpful websites that have forums and instructional information are tradgang.com and primitivearcher.com.

If you are not able to obtain wood for making your own bow, the United Bowhunters of Missouri offer free downloadable plans to make your own bow out of plastic PVC pipe readily available at most hardware stores. These

to fine-tune the bow by removing fine layers of wood as needed until your desired draw length is achieved.

Step 7 — Finish

Once your preferred draw weight and draw length are reached, stain the longbow as desired, then seal it with gunstock oil, spar varnish, or polyurethane.

Step 8 — Shoot

Shoot and enjoy!



PHOTO 6 BY A.J. HENDERSHOTT; PHOTOS 5 AND 8 BY BRETT DUFUR

instructions offer another inexpensive way to get into the sport. With a draw weight of only 15 pounds, it is ideally suited for a child's first bow. Visit unitedbowhunters.com and scroll over to the "About Us" page.

The Ozarks Selfbow Jamboree, held each summer, is a great place to shoot longbows, meet others interested in the sport, learn from the best, and get advice on making your longbow. Learn more at marshallbowhunters.org.

Get Started With Archery

BOWHUNTER EDUCATION

Missouri's bowhunter-education program is for everyone who enjoys the outdoors and has an interest in conservation. The course can be an excellent refresher for veteran bowhunters. While it is not required in Missouri, many cities that allow archery hunting inside their city limits require the bowhunter to be bowhunter-education certified to take part. Learn more about the Department's Bowhunter Education at mdc.mo.gov/node/9723.

HUNTING AND SHOOTING SKILLS CLASSES

Sign up for a Department-led course near you to learn basic and advanced archery, and other hands-on classes that build on the foundation of hunter education to increase your hunting and shooting skills in the field. Check the online calendar for workshops and courses. Learn more at mdc.mo.gov/node/8506.

ARCHERY RANGES

The Conservation Department has 32 conservation areas with unstaffed archery range facilities, plus an additional two ranges with third-party cooperators. All of the Department's staffed shooting ranges also have archery ranges and programs. Look for one near you at mdc.mo.gov/node/4460.

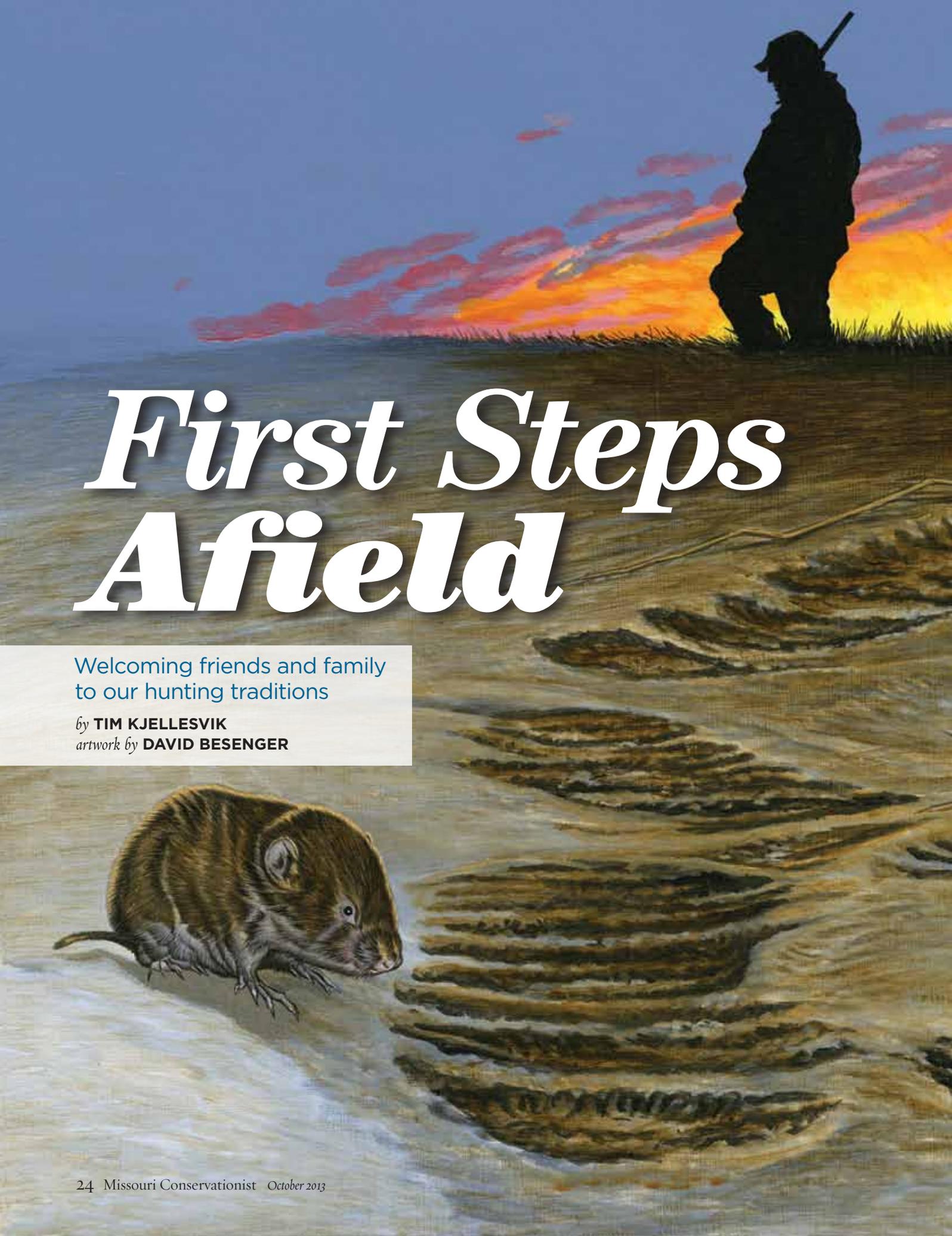
ARCHERY IN THE SCHOOLS PROGRAM

The Conservation Department supports international-style target archery in 4th- through 12th-grade physical education classes. Close to 300 schools and more than 80,000 Missouri students now take part in the program. Learn more at mdc.mo.gov/node/3813.

ARCHERY HUNTING PERMITS

Learn more about fall archery deer, turkey, and small game hunting regulations at mdc.mo.gov/node/3917.

Brett Dufur is an editor for the Conservation Department.



First Steps Afield

Welcoming friends and family
to our hunting traditions

by **TIM KJELLESVIK**
artwork by **DAVID BESENGER**



DAVID BESINGER

October 2013 Missouri Conservationist 25

My dad

SOLD HIS GUN CABINET YEARS AGO, BUT I CAN STILL recall the sound of his key working open the lock, and the groan of brass hinges in the early morning still of our house. There's no alarm clock like that in the world for a kid who spent the night dreaming of squirrels in oak trees.

I consider myself fortunate that my parents taught me to hunt and appreciate the outdoors. Many friends have told me how they've always been interested in hunting, but never had the opportunity growing up. Now, as adults, they'd like to learn but don't know where to start.

What follows are some helpful strategies to remove both the real and perceived barriers that keep folks from venturing into the sport of hunting.

Recognize Misconceptions

One of the most common questions I get when I tell someone that I hunt is, "Do you eat the animal?" When I tell them how I process and consume everything I harvest, they seem to breathe a sigh of relief. It's not unusual for nonhunters to think that hunting is just about shooting. They aren't aware of the traditions, training, and the outdoor experiences that make hunting so rewarding.

As a person who enjoys our great hunting tradition, recognize that you might have to respectfully dispel some false notions and replace them with realities of

how ethical hunters behave. Even if hunting doesn't end up being a lifelong pursuit for your friend, they may become an important, nonparticipating advocate for the sport.

Assume No Knowledge and Invite Questions

The challenge with bringing new hunters afield is that we want them to have the right information, but we don't want to patronize them. My suggestion is to begin your conversation about the upcoming hunt by asking, "Tell me what you already know about ___ hunting. That way, I won't waste your time, and I can make sure you know the important things that can give you an advantage."

No one wants to ask a dumb question, so you have to encourage your friend to ask away! Tell them you are glad they are interested and asking, and be candid about the things you've had to learn. It can be intimidating to start from scratch with little knowledge about what you're doing, so make it easy for them. It never hurts to poke a little fun at yourself by telling your partner stories about when you didn't have all the knowledge you needed, too (we all have at least one!). For example, I once got stuck in a deer stand until long after dark on a winter night because a herd of deer had moved into my field to feed. I had never considered a scenario

where I would be trapped by deer. I intended to hunt that spot again and didn't want to spook the deer. I decided to howl like a coyote to disperse the herd. It worked. I'm not positive that would be considered a "best practice," but it's a great way to illustrate how learning to hunt is a process that involves trial and error.

Give Positive Feedback and Recognize Intent

We all remember playing Marco Polo in the pool as kids. You would move in the right direction by lis-

Everyone likes to know they are on the right track. Explain and encourage as often as possible. Your friend will begin to feel more confident and focus on doing the right things.



You may have to remind yourself to explain things to your hunting partner that you think are obvious, such as bushwhacking through scrub trees instead of following the trail to a deer stand.

tening for cues from those around you. The same is true for learning to hunt. Your friend is attempting to translate his or her new knowledge into behavior. Do your best to recognize those first steps, and let them know you can see them gaining skill.

I took a friend hunting one day, and we had to navigate a muddy trail to reach a ground blind. I was pick-

ing my steps carefully to avoid making too much noise, but, more importantly, to keep from falling on my backside. I glanced behind me and noticed my buddy silently contorting himself to place his feet in my footsteps. He didn't know the exact reasons for my movements, but he knew he should do what I did. After the hunt, I thanked him for his stealthy (albeit awkward)

entrance into our hunting grounds and explained why I had walked that way.

Everyone likes to know they are on the right track. Explain and encourage as often as possible. Your friend will begin to feel more confident and focus on doing the right things, as opposed to just avoiding mistakes.

Identify Your Hidden Knowledge

You know things that you have probably forgotten you had to learn. It is a dynamic known as unconscious competence and it means that you have learned skills that are now second nature to you. So you may have to remind yourself to explain things to your hunting partner that you think are obvious.

On a trip to our deer stands, my friend was confused about why we were bushwhacking through scrub trees instead of following the trail to his stand. I hadn't considered that he knew nothing of scent trails and wind



You probably know more about nature than you think you do. Do your best to pass that information along to a newcomer.

directions. In my mind, there was no other option but to go this route to avoid contaminating the area.

As someone who has spent time afield, realize that you've developed habits and tactics in response to the natural world that others haven't. The good news is that you probably know more about nature than you think you do. The bad news is that you have to do your best to convey that information. Dropping barometers, animal routines, even nuances in leaves crunching, all mean something to you, but little to others. Before taking a newcomer afield, think back on your early days and tick through the things you wish you had known. Those will be the critical pieces of information you should pass along. Just remember you don't want to overwhelm your friend and that some information ought to be shared over time and as his or her skills increase.

Define Success Early On

To someone who has never been hunting, you can be certain that his or her standard of success is going to be harvesting an animal, but that doesn't sufficiently capture the fullness of the experience. We can all remember trips where we didn't see anything. That's the nature of our sport. You must help your friend see the other advantages of spending time afield.

This past deer season, I was hunting with two friends who were new to bowhunting. It was a crisp December evening and we saw a few deer, but nothing within range. Walking back to our vehicles in the dark, the purple sky was draped in brilliant stars. I was admiring a constellation when a meteor blazed through our field of view. One of the guys was especially struck by the spectacle and, despite leaving empty handed, felt privileged to witness it.

What drives us to brave nasty weather for hours on end is being immersed in something greater than ourselves, reconnecting with an ancient dance. Show your friends the true nature of hunting, and they'll appreciate the wonder of the natural world, with or without a notched tag.

Save Your Equipment

Many of us who have gotten serious about hunting started with entry-level gear. The price point may have been attractive, or it may have been handed down, but at some point, we decided that something better was in order. Consider hanging on to your entry-level gear. Oftentimes, having the requisite equipment is a barrier to getting out into the field. Maybe your first foray into duck hunting resulted in a pair of inexpensive waders. After

a season of putting up with them, you decided to upgrade to a nicer set. Hang on to that first pair. They might be what it takes to turn one of your work buddies into one of your waterfowling buddies. If neither of you has the necessary gear, consider shopping for used items.

Take Advantage of the Apprentice Hunter Program

It used to be that, if you wanted to take a friend out hunting, they had to complete a hunter's safety course before purchasing a hunting license. While I recommend that everyone take the course, the time investment may be just enough of a deterrent to keep someone from getting a license for the first time. To address this issue, the Department of Conservation has created the Apprentice Hunter Program.

The Apprentice Hunter Program is for experienced hunters who want to share the joy of hunting with a friend or relative, and it's for the curious who want to try hunting before making the commitment to become hunter-education certified. Under this program, people age 16 and older who are not hunter-education certified are allowed to hunt with firearms as long as they satisfy the following requirements: First purchase the Apprentice Hunter Authorization for \$10 (good for one year); purchase a firearms hunting permit (a small game permit or spring turkey permit, for example); hunt in the immediate presence of a properly licensed, hunter-education certified hunter who is 18 years old or older, or who was born before Jan. 1, 1967. "Immediate presence" means close enough for normal conversation, without shouting.

The Apprentice Hunter Authorization allows new hunters to purchase firearms permits throughout the

It's not unusual for nonhunters to think that hunting is just about shooting. They aren't aware of the traditions, training, and the outdoor experiences that make hunting so rewarding.

permit year, and they can purchase the authorization for two permit years. After the second year, the hunter must become hunter-education certified to continue hunting on a firearms permit.

Missouri is a leader in hunter recruitment, and the Apprentice Hunter Authorization is just one more tool to help experienced and novice hunters continue Missouri's rich hunting tradition.

Recently, a friend of mine wanted to learn to hunt but was unsure if he could devote part of a weekend for the training. At \$10 dollars for the permit, this gave him a low-cost option to figure out if he wanted to pursue hunting enough to take the safety course. It's paving the way for a brand new turkey hunter.

Share Our Tradition

As hunters, we're always looking for the next big challenge, a bigger buck, or a limit of birds. It never ends, and that's just fine. But may I suggest that the best we can aspire to, our biggest thrill, is opening up this incredible world to our friends and family? Introducing people to the hunting lifestyle will deepen your relationship and add to the ranks of those who support stewardship of the species and habitats we cherish.

I don't know what sensory cue it will be for my friends, the smell of a well-worn gun case or maybe the sight of red-blinking traffic lights (because no one in their right mind should be up at that hour). For me, decades later, the remembered sound of those little brass hinges in the quiet morning brings me back to my father, who instilled in me the love of hunting, and sends me back afield. ▲

Tim Kjellesvik resides in High Ridge, Mo., but is at home in the outdoors. He is a youth development professional and outdoor writer.

Take it to the Next Level

Whether you are a novice or an expert, if you are interested in improving your hunting, shooting, or other outdoor skills, check out our "Events" page at mdc.mo.gov/events. Free and low-cost classes are offered throughout the state for Missouri residents.

Woodchuck

Try to catch sight of these whistling rodents before they head to their winter dens at the end of October.

LAST OCTOBER I asked my friend Bob, who works at the Conservation Department’s Rockwoods Reservation in St. Louis County, if he had seen any woodchucks on the area in recent weeks. “As a matter of fact I have,” he replied, “in the field right next to the visitor’s center.” My optimism was reserved because I had been frustrated so many times before when trying to photograph woodchucks, a species that is typically skittish around humans. Bob was confident that my luck was about to change.

The next evening after work, I stopped at Rockwoods on the way home to give the woodchucks a try. As I pulled into the parking lot next to the field, my eyes lit up at the sight of three woodchucks (*Marmota monax*) grazing in the short grass. As soon as I opened the door to my truck, the watchful mammals headed for the thick brush of Hamilton Creek, which meanders through the area. I thought, “Here we go again,” but forged on with my plan to set up my blind near the creek and train my long lens on the field for the rest of the evening.

I waited for almost an hour before the first woodchuck returned to the field. I watched through my lens as it slowly made its way toward my blind, almost close enough for an image. Next, I heard some shuffling in the leaves and turned around to see a second one coming up from behind my blind. Things were looking up. I returned to my lens to find the first woodchuck almost close enough for an image. I decided to wait for it to get a little closer because I knew the shutter click might send it back into the brush. Unfortunately, this was a mistake because I suddenly heard a vaguely familiar sound, *o-o-o, a-a-a, e-e-e*, echoing across the field. Yes, it was that monkey sound from the old Tarzan movies, and a young woodchuck was demonstrating it very loudly to his buddies. I watched in desperation as he waddled as fast as he could, back into the brush.

At first, I was a bit aggravated at the disturbance but I began to think about my own childhood and how many times I made that same call among my friends. I was that little boy, a few years back, so I couldn’t fault him for his enthusiasm. Feeling better, I began to wait for a second encounter with what was quickly becoming one of my “nemeses animals.”

About 30 minutes later, the woodchuck returned to the field. All was quiet by then, the conservation area deserted for the evening. I watched intently as the wary mammal closed the distance between us. When I finally clicked the shutter, the woodchuck stopped for a second, took a closer look at my blind, and returned to grazing. After I had plenty of images in the bag, I decided to stick around for a while so I wouldn’t disturb the chubby critter during its supper. I owed it that much.

Learn more about woodchucks at mdc.mo.gov/node/980.

—Story and photos by Danny Brown

 700mm lens + 1.4 teleconverter • f/5.6 • 1/100 sec • ISO 400

We help people discover nature through our online field guide. Visit mdc.mo.gov/node/73 to learn more about Missouri’s plants and animals.





Grand Trace Conservation Area

Reconnect with Missouri's natural heritage at this area dedicated to the state's prairies and woodlands.

FIND A TRACE of Northwest Missouri's natural history and heritage at Grand Trace Conservation Area (CA) in Harrison County. Once home to numerous Native American hunting camps littered with crisscrossing trails, this area, encompassing more than 1,500 acres, preserves the namesake Grand Trace trail that connected small, seasonal villages to the St. Louis trading center where the Missouri and Mississippi rivers meet.

While pioneers settled in the area around 1840, today the Missouri Department of Conservation (MDC) maintains Grand Trace CA's 100 acres of native prairie alongside more than 800 acres of forest and woodland. Grand Trace CA has the potential to showcase three distinct northern Missouri habitat types: prairie, woodland-savanna complexes, and old-growth oak, and hickory forest.

Most of Grand Trace CA's woodlands reside on the area's steeper slopes and along small creek bottoms. The remaining 705 acres of the area consists of various open lands including native prairie, old fields, and non-native grassland. Grand Trace CA features 100 acres of native prairie.

The management of these three habitat types is currently and will continue to be the focus of management efforts. MDC managers maintain open lands using techniques such as farming, haying, prescribed burning, controlling undesirable woody cover in grassland areas, and planting food plots for wildlife. Certain types of woodland management practices are also used to maintain proper habitat at Grand Trace CA.

While Grand Trace CA does not contain any designated trails, adventurous hikers might seize the opportunity to retrace the steps of early



70–200mm lens • f/5.6 • 1/80 sec • ISO 400

Americans who travelled the original Grand Trace trail. A day spent exploring the area could include bird watching and wildlife viewing, as well as fishing at one of two fishing ponds. Anglers' prospects are good for bass, catfish, and especially bluegill. Hunters are welcome as well for deer, turkey, quail, rabbit, and squirrel seasons. Primitive camping is available at four shaded gravel pads with fire rings.

Grand Trace CA can be easily reached from the town of Bethany. From the west end of Main Street in Bethany, take Route W north 2.5 miles, then travel west on Route F for 5.5 miles to the area's west entrance. As always, for more information about Grand Trace CA including an area map and brochure, visit the website listed below.

—Rebecca Martin, photo by Noppadol Paothong



Recreation opportunities: bird watching, fishing, hunting in season, nature viewing, primitive camping, wildlife viewing

Unique features: This area features three distinct habitat types — prairie, woodland-savanna complexes, and old-growth oak and hickory forest — and the wildlife that reside in them.

For More Information Call 660-646-6122 or visit mdc.mo.gov/a7938.

Kids in Nature

6

Simple Ideas
for Family Fun

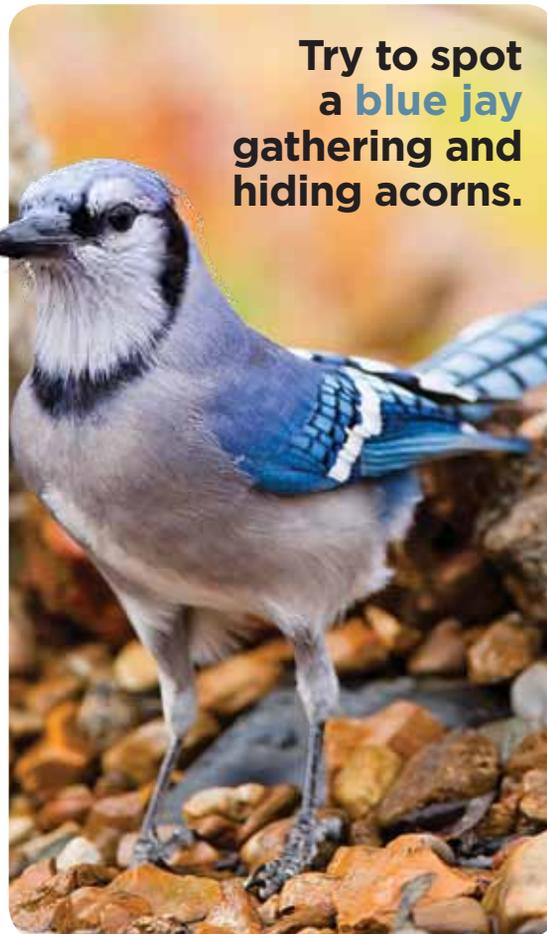


Take a walk through your neighborhood or park to see how many different shades of red, orange, and yellow leaves you can find.

Frost begins in mid- to late October, take a morning walk to enjoy the patterns and colors it creates.



Look and listen for migrating **waterfowl**.



Try to spot a **blue jay** gathering and hiding acorns.



Lady beetles congregate on the sunny side of buildings. Count how many you find.

Kids in Nature Photo Contest!

Break out those cameras and send us your best images of you and your family enjoying the outdoors for our new photo contest. Once again, we will be accepting entries via the online photo sharing service, Flickr. If you are not a member of Flickr, it is easy and free to join. Once you are a member, just navigate to our kids in nature group page: [flickr.com/groups/mdc-kids-in-nature](https://www.flickr.com/groups/mdc-kids-in-nature) and submit your photos. MDC staff will select a winner every month and display it on our website. All of the monthly winners will appear in the January 2014 issue of the magazine.



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I Am Conservation

Les Fortenberry, Scoutmaster of Boy Scout Troop 11 in Jefferson City, along with fellow Scouts (from left) Allen Fortenberry, Harry Hawkins, Assistant Scoutmaster Joe Wang, Michael Wang, Nathaniel Cook, and Eric Prullage, build a trail section at Binder Lake in Jefferson City. Cook says, "I like being able to give something back in return for being able to get out and enjoy being outside in nature." For 25 years Troop 11, known as The All-Weather Troop, has provided an exciting program of outdoor skills and leadership development for boys 11 to 17. Troop 11 believes that being outdoors help Scouts gain an appreciation for the natural world as well as serving as a laboratory in which to learn ecology and practice the conservation of natural resources. Fortenberry says, "These work sessions are a natural fit for the Scouts. Service to others, a core Scouting tenet, is paired with the concept of 'earn your dirt,' where trail users volunteer for maintenance and construction of trails they enjoy." —*photo by Cliff White*