

# MISSOURI. Conservationist

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# Operation Game Thief

On opening day of the 2007 spring turkey season, three turkey hunters saw and videotaped someone shooting at turkeys from the road. They immediately called Operation Game Thief.

The hunters had been filming turkeys in front of them when they noticed a crew-cab truck go by slowly on a nearby road. The truck went to the top of the hill, turned around and came back toward them with the driver's side door open. The truck stopped even with the turkeys, and the hunters saw an arrow fly from the truck. The arrow missed the turkeys, and the truck left the area.

Later that day, conservation agents located the suspect at work in an adjoining county. Further investigation uncovered three deer shot from the roadway (one spotlighted) and a turkey that had not been properly checked in during the youth season by the suspect's brother. They also issued a citation for shooting at the turkeys from a roadway with a bow and arrow.

Last deer season, a tree-stand hunter spotted a large 12-point buck. Before the hunter could get a safe shot, a truck with two men approached on the county road. The hunter watched from his stand as the truck stopped, and one of the men fired at the deer. As the two men loaded the big buck, the hunter approached close enough to write down the license plate and a description of the truck and the two men.

The hunter called the Operation Game Thief Hotline. Further investigation led the local conservation agent to a vehicle body shop. The shop's owner confessed that he was involved but did not shoot the deer.

The agent determined the actual shooter had once been a resident of Missouri but had left many years ago. He had continued to use an old abandoned farm address in Missouri and had been taking deer on falsified resident deer permits for

12 years. The report resulted in fines, loss of hunting privileges and seizure of the illegally taken deer.

In both of these cases, people took an active role in wildlife protection by reporting suspicious or illegal activity. As so often happens, their reports led to the discovery of additional wildlife violations.

H. Jackson Brown, Jr., who wrote *Life's Little Instruction Book*, said, "Our character is what we do when we think no one is looking." However, we don't ever want *Wildlife Code* violators to think no one is looking.

Operation Game Thief provides a way for citizens to anonymously report hunting and fishing violations. The program, administered jointly by the Department of Conservation and the Conservation Federation of Missouri, was started 25 years ago and has proven to be very successful. Last year, 742 calls to the toll-free number or a conservation agent resulted in 290 convictions for wildlife crimes. More than \$12,000 in rewards was paid. Only about half of the callers were interested in receiving a reward.

Your help is needed to apprehend and convict wildlife violators. Accurate and prompt reporting of suspected violations to law enforcement authorities is essential for successful investigations. Get involved. Call the toll-free Operation Game Thief Hotline at 800-392-1111. Program the number into your cell phone. Working together, we can put game thieves out of business.



Dennis Steward, protection division chief

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**OUR MISSION:** *To protect and manage the fish, forest and wildlife resources of the state; to serve the public and facilitate their participation in resource management activities; and to provide opportunity for all citizens to use, enjoy and learn about fish, forest and wildlife resources.*

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**On the cover and left:** Photographer Noppadol Paothong captured these images of white-tailed deer. To learn more about managing deer on your land, read Brad McCord's feature article starting on page 14. Also find the dates for this year's deer hunting season on page 32.

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### NextGEN

This section reports on goals established in *The Next Generation of Conservation*. To read more about this plan, visit [www.missouriconservation.org/12843](http://www.missouriconservation.org/12843).

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## GAR'S ENCORE

Thanks for such an informative article about gar and the role they play in our ecosystem [*Encore!*; September]. I personally knew very little in regard to their eating habits and behavior.

I lived in the Bootheel and currently reside in Perry County where I've caught many gar on the big Mississippi. And today is no different than yesteryear in regard to myths and wisetales of gar. Many are still senselessly killed.

I want to thank Chris Kennedy and all those involved for their efforts to restore a valuable resource and for helping us better understand the importance of gar.

*Christopher Smith, Perryville*

## SHARED VISIONS

In the September issue, the *Taking Action* article [*Easement Protects Wetlands*; Page 7] about John Timmermann, the picture used of early morning fog rising off the duck pond was like deja vu for me! My farm, Wingshoot Farms, is just west of B.K. Leach, and I took the enclosed picture [below] of the same type of morning.

At first, I thought you had gotten ahold of one of my photos, but they are just very similar. It was worth getting your issue out to compare side by side. And I know who Mr. Timmermann



is and have friends that hunt with him each year! What a small world we live in!

*Bob Osterholt, via Internet*

## HAIRY IMPLICATIONS

Well, I got tired of waiting until I needed a haircut to read your magazine. So, I jotted down your online address and here I am!

Now, with home delivery, I may have to be taken by force to get a haircut. So, you may hear from my wife!

*Jim Kilgore, Bates City*

## MILITARY REVIEW

My family continues sending the *Missouri Conservationist* to various parts of the country so I can enjoy it. I am pleased to note that folks all over military bases on the East Coast, Tennessee and now Alabama agree it's an excellent magazine. Thank you for continuing a high standard for information, content and presentation.

*Teilla (Parrish) Lathrop, Enterprise, AL*

## WATCH FOR WOODCOCK

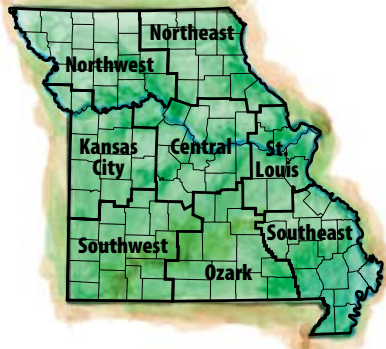
Thank you for the wonderful article [*Utility Birds*; September]. Not living in Missouri anymore, my favorite reminder is receiving your outstanding magazine.

On the article, I only wish you had briefly mentioned the mating ritual of the woodcock for all readers to seek out and witness. They are not terribly hard to find and hear at dusk on a spring evening—with their unmistakable call of *paainnt*, the whistle of their flight, and their repetitive circular soars to 200 feet. I had the great joy of being introduced to this ritual many years ago by an MDC employee on his farm.

I've been told that one reason they fly low to the ground, when flushed, is because they can't physically fly at a steep incline and this also is why they have to fly in circles in order to gain altitude for their courtship flights. *Missouri Conservationist* readers should not miss out on learning more about this beautiful creature.

*Ted Corbett, Austin, Texas*

*Editor's note: You might hear woodcock peenting and see the males displaying as early as late January. Look for them in old fields bordered by timber.*



## DEPARTMENT HEADQUARTERS

Phone: 573-751-4115  
 Address: P.O. Box 180,  
 Jefferson City 65102-0180

## REGIONAL OFFICES

**Southeast/Cape Girardeau:** 573-290-5730  
**Central/Columbia:** 573-884-6861  
**Kansas City:** 816-655-6250  
**Northeast/Kirksville:** 660-785-2420  
**Southwest/Springfield:** 417-895-6880  
**Northwest/St. Joseph:** 816-271-3100  
**St. Louis:** 636-441-4554  
**Ozark/West Plains:** 417-256-7161

## SUBSCRIPTIONS

Phone: 573-522-4115, ext. 3856 or 3249  
 Address: Circulation, P.O. Box 180,  
 Jefferson City 65102-0180  
 E-mail subscriptions: [Subscriptions@mdc.mo.gov](mailto:Subscriptions@mdc.mo.gov)  
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## OMBUDSMAN QUESTIONS

Phone: 573-522-4115, ext. 3848  
 Address: Ombudsman, P.O. Box 180,  
 Jefferson City 65102-0180  
 E-mail: [Ken.Drenon@mdc.mo.gov](mailto:Ken.Drenon@mdc.mo.gov)

## EDITORIAL COMMENTS

Phone: 573-522-4115, ext. 3245 or 3847  
 Address: Magazine Editor, P.O. Box 180,  
 Jefferson City 65102-0180  
 E-mail: [Magazine@mdc.mo.gov](mailto:Magazine@mdc.mo.gov)

# MISSOURI Conservationist

GOVERNOR *Matt Blunt*

## THE CONSERVATION COMMISSION

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*Chip McGeehan*  
*Lowell Mohler*  
*Becky Plattner*

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**Wildlife** *Vacant*

## CONSERVATIONIST STAFF

**Editor In Chief** *Ara Clark*  
**Managing Editor** *Nichole LeClair*  
**Art Director** *Cliff White*  
**Writer/Editor** *Tom Cwynar*  
**Staff Writer** *Bonnie Chasteen*  
**Staff Writer** *Jim Low*  
**Staff Writer** *Arleasha Mays*  
**Photographer** *Noppadol Paothong*  
**Photographer** *David Stonner*  
**Designer** *Stephanie Ruby*  
**Artist** *Dave Besenger*  
**Artist** *Mark Raithel*  
**Circulation** *Laura Scheuler*

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## Reader Photo BUCK SHOT

In a prelude to fall, Robert Helmig caught this image of two bucks fighting over a food source earlier this summer. The image was captured with a beam-triggered camera. Helmig uses the camera as a scouting tool for deer season, but also appreciates the unique moments the camera sometimes captures. Helmig has been hunting since 1963 and has put in food plots on the land he hunts.

## on the WEB

This month check out our featured Web pages, or go online anytime to learn more about conservation at [www.missouriconservation.org](http://www.missouriconservation.org).



### FALL HUNTING

[www.missouriconservation.org/7442](http://www.missouriconservation.org/7442)

Get information on upcoming deer, turkey and waterfowl seasons. Find out about drawings, reservations and managed hunts around the state.



### TREE PLANTING

[www.missouriconservation.org/15884](http://www.missouriconservation.org/15884)

The best time to plant a tree is 20 years ago. Find out about how to pick the right tree, proper tree care and planting in the right place.



### TRAPPING

[www.missouriconservation.org/7616](http://www.missouriconservation.org/7616)

Trapping in Missouri is carefully regulated by the Department. Wildlife laws only allow people to trap mammals that are common and abundant.



## ASK THE OMBUDSMAN

**Q:** We swim off my dock and the sunfish, or perch, nip at warts, freckles and moles. Why are they attracted to blemishes? What's the difference between sunfish and perch?

**A:** I suspect the fish are mistaking your skin features for a potential meal, perhaps a small aquatic animal.

Common names for fish, wildlife and plants could fill a book. Perch is a family name for a group of fish which include walleye and sauger, as well as several small fish which are rarely caught by anglers. Some anglers use the term "perch" as a common name for sunfish, which include bluegill, green sunfish and longear sunfish. Crappie, black bass and goggle-eye are also members of the sunfish family, but they're not usually called perch.

Here's a quick quiz. Which of the following are truly perch—black perch, yellow perch, stone perch or logperch? Answer: Yellow perch and logperch are members of the perch family. However, yellow perch are more commonly found north of Missouri. The logperch is a small, slender fish seldom caught by anglers. Black perch is a common name for green sunfish, and many anglers refer to fresh water drum as stone perch. The *Fish of Missouri* page at [www.missouriconservation.org/15079](http://www.missouriconservation.org/15079) can be very helpful. Also, the free publication *Introduction to Missouri Fishes* is a good text for identifying fish and it includes many local names. To request this item write to MDC, *Introduction to Missouri Fishes*, P.O. Box 180, Jefferson City, Mo 65102 or e-mail [pubstaff@mdc.mo.gov](mailto:pubstaff@mdc.mo.gov).

Ombudsman Ken Drenon will respond to your questions, suggestions or complaints concerning Department of Conservation programs. Write him at P.O. Box 180, Jefferson City, MO 65102-0180, call him at 573-522-4115, ext. 3848, or e-mail him at [Ken.Drenon@mdc.mo.gov](mailto:Ken.Drenon@mdc.mo.gov).

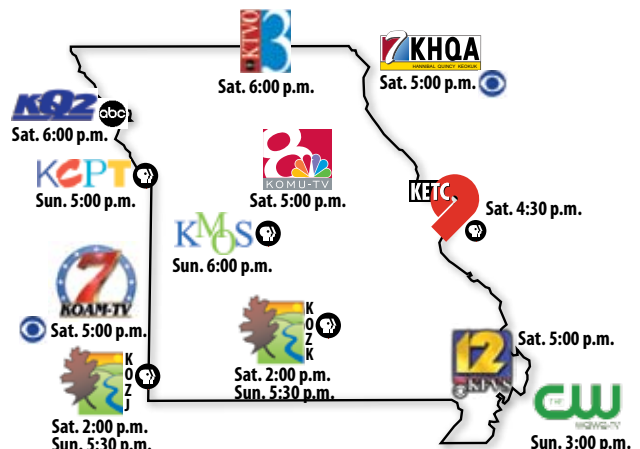
## on the TV

For additional show information and video clips, be sure to visit

[www.missouriconservation.org/8726](http://www.missouriconservation.org/8726).



Television the way nature intended!





## Species of Concern **Northern Harrier**



**Common name:** Northern harrier

**Scientific names:** *Circus cyaneus*

**Range:** Statewide

**Classification:** State imperiled

**To learn more about endangered species:** [www.missouriconservation.org/8227](http://www.missouriconservation.org/8227)

**N**ORTHERN HARRIERS ARE easy to recognize by their slender, rounded wings, their white rumps and their low, slow flight over grassy or marshy areas. They are medium-sized, with 42-inch wingspans. Unlike most hawks, harriers (formerly known as “marsh hawks”) hunt both by sight and hearing. The feathers on their faces are arranged like those of owls, forming dishes that catch sounds made by their prey, mainly mice and other small mammals. Missourians are most likely to see harriers in the fall and winter, when cold weather pushes thousands of the graceful hawks into the Show-Me State from the upper Midwest and Canada. Harriers need large expanses of open grassland to nest. Most such habitat no longer exists in Missouri, which is why harriers are seldom seen here in the summer. The birds benefit from preservation of native prairie and from the Conservation Reserve Program, which encourages landowners to establish grassland for erosion control and wildlife habitat.

PHOTO: NOPPADOL PAOTHONG; ART: MARK RAITHEL

## Frost Flowers

*Watch for these fleeting blossoms.*

**N**ow is the time to see Missouri’s most fleeting flowers—frost flowers. These delicate white blossoms form when water sucked out of the soil by a dead plant’s roots emerges into frigid air. They can be tiny rosebuds or broad wings on standing stems. Autumn rain and early frost favor their formation. Dittany and yellow ironweed are reliable producers, but frost flowers grow on other plants, too. Look for them early in the day. Frost flowers melt in the morning sun.



## Woodchuck Hibernation

*Fattening up to sleep the winter away.*

**D**o you wish you could skip winter? Woodchucks do. By mid-November, nearly all these 10-pound rodents are snoozing in woodland burrows 3 to 6 feet underground. They line their 16-inch bedroom chambers with leaves and grass, often sealing entrances with dirt. Older, fatter woodchucks hit the hay first, while younger, thinner ones continue to forage, building energy reserves for their extended nap. Woodchucks’ body temperature drops to around 50 F during hibernation, and their breathing slows to practically nothing. Some come out briefly during warm spells, but mostly they stay underground until spring. Their sleep is so profound that it takes several hours to wake up, even when they are warmed to normal temperature. Woodchucks (*Marmota monax*) are found from Alabama to Alaska.





NextGEN

## Wildcat Glades Offerings

Missouri's newest nature center's program offerings.

Wildcat Glades Conservation & Audubon Center in Joplin's Wildcat Park is open and offering programs. Come see a 1,300-gallon aquarium and an Ozark stream with rainbow darters, stonerollers, goggle-eye and gar. See live collared lizards, tarantulas, snakes and other glade animals and visit outdoor learning stations along three miles of trail. You can take a canoe float Nov. 6, join the Chert Glades Naturalists class Feb. 5 or participate in field trips focusing on winter ecology, fly-fishing or the short-eared owl. For more information, call 417-629-3423 or e-mail [Kevin.Badgley@mdc.mo.gov](mailto:Kevin.Badgley@mdc.mo.gov).



## Little Piney Creek

Fun with trout and smallmouths.

Can't decide whether to fish for trout or smallmouth bass? Go after both on Little Piney Creek in the Mark Twain National Forest southwest of Rolla. This stream is a Blue-Ribbon Trout Area from the Dent County line downstream to Milldam Hollow Access. There it turns into a White-Ribbon Trout Area that extends to County Road 7360. The lower stretch is stocked with rainbow trout in the spring and fall. The Blue-Ribbon stretch has only wild rainbow trout. Smallmouth fishing is best in the three miles upstream from the Gasconade River. The White-Ribbon stretch has some smallmouths and lots of goggle-eye. You need a fishing permit and

a trout permit to harvest trout. For more information, visit [www.missouriconservation.org/7248](http://www.missouriconservation.org/7248), or call 573-368-2225. Be aware that some frontage along Little Piney Creek is privately owned, and respect the owners' property by staying off posted land.

## Trail Guide



### TYWAPPITY COMMUNITY LAKE



KARL VON KESSEL, fishing editor for *The Chaffee Signal*, decided in 1955 that Scott County needed a lake. Area residents raised money to buy land along Hindman Creek east of Chaffee. The Conservation Department

dammed the creek, creating the 37-acre lake. Today, Tywappity Lake and the surrounding 79 wooded acres offer a variety of recreational opportunities, from hiking along the 2.5-mile Tywappity Trail to camping, nature photography and birdwatching. The lake offers good fishing for bass, sunfish, crappie and catfish. Facilities include a pavilion, picnic tables, cooking grills, a boat ramp and a wheelchair-accessible covered fishing dock with a fish-cleaning station. The area seems to have gotten its name from Spanish explorers, who called the fertile area now encompassed by Tywappity Township "Zewpeta." The meaning of the name—possibly Indian in origin—is shrouded in mystery. To find Tywappity Community Lake, take Route A east from Chaffee and turn left on Route RA.

**Trail:** Tywappity Trail, 2.5 miles

**Unique features:** Recreational variety

**Contact by Phone:** 573-290-5730

**For more information:** [www.missouriconservation.org/a5708](http://www.missouriconservation.org/a5708)

LITTLE PINEY: JIM RATHER; TRAIL GUIDE: DAVID STONNER





## TAKING ACTION

*Platte Land Trust*



**Group featured:** Platte Land Trust

**Group mission:** To preserve natural lands for scenic and recreational enjoyment, watershed protection and wildlife habitat preservation.

**Group location:** Platte County

**O**FTEN PLANNERS OF shopping centers, housing or other developments fail to consider the impacts such structures can have on the environment. The Platte Land Trust is working to change that in Platte County by assisting businesses and homeowners to implement environmentally friendly development practices. The nonprofit agency has assisted with projects ranging from the placement of rain barrels and planting of trees and grasses to the building of permeable pavements.

The Platte Land Trust wants to assist with low-impact development in the middle part of its watershed, which is expected to grow rapidly in the next decade. Low-impact development can help a community avoid flooding, water contamination and other problems that occur when construction of impervious surfaces interferes with the filtration of water into the ground.

## Adopt Your Favorite Trail

*Maintaining Missouri's trails takes volunteers.*

Help put fellow Missourians on the path to outdoor discoveries by volunteering with the Department of Conservation's Adopt-A-Trail program. The program enables hikers, bicyclists and equestrians to assist staff at conservation facilities in monitoring, maintaining and enhancing trails and trailhead facilities.



Activities include keeping trail surfaces free of litter and other debris and reporting vandalism, trail hazards or other safety issues. To adopt a trail at your favorite conservation area, contact the Adopt-A-Trail Coordinator at 573-522-4115 ext. 3636 or [trails@mdc.mo.gov](mailto:trails@mdc.mo.gov).

## Operation Game Thief

*Report poachers to the OGT hot line.*

Your cell phone and attention to detail can help nab poachers. Programming the Operation Game Thief hot line number, 800-392-1111, into your cell phone enables you to easily and anonymously provide information on poaching to the Department of Conservation. Important facts to note when calling OGT include the exact time and location of the violation, descriptions of persons and vehicles involved, license plate numbers and the direction in which the suspected violators are traveling. Rewards are available for tips that lead to convictions.

Poaching affects us all by giving the poacher an unfair advantage over his quarry—and over those who legally pursue game. The term “poaching” covers all violations of state game laws.





NextGEN

## Urban Winter Trout Fishing

*Stocked trout provides more fishing opportunities.*

Take a trip to the city to trout fish. November through March, the Department of Conservation stocks rainbow trout in several St. Louis and Kansas City area lakes for catch-and-keep and catch-and-release fishing. Lakes in Columbia, St. Joseph, Jefferson City, Mexico, Sedalia, Kirksville and Jackson are stocked annually each November for catch-and-release fishing.



To fish the urban lakes you need a Missouri fishing permit. A trout permit also

is required if trout are harvested. Where harvesting is allowed the daily limit is four trout. The winter trout fishing regulations are included in the *Summary of Missouri Fishing Regulations*, available at permit vendors.

## New Trapping Season Dates

*A shorter season is found to be more beneficial.*

An adjustment in duration is the only significant regulation change for the Nov. 15–Jan. 31 Missouri trapping season. The past three years' trapping seasons had been expanded to three months in length as part of an effort to increase raccoon harvest. During that period the raccoon harvest declined, and the longer season increased the potential for waste in the fur industry as fur dealers faced the task of processing large volumes of



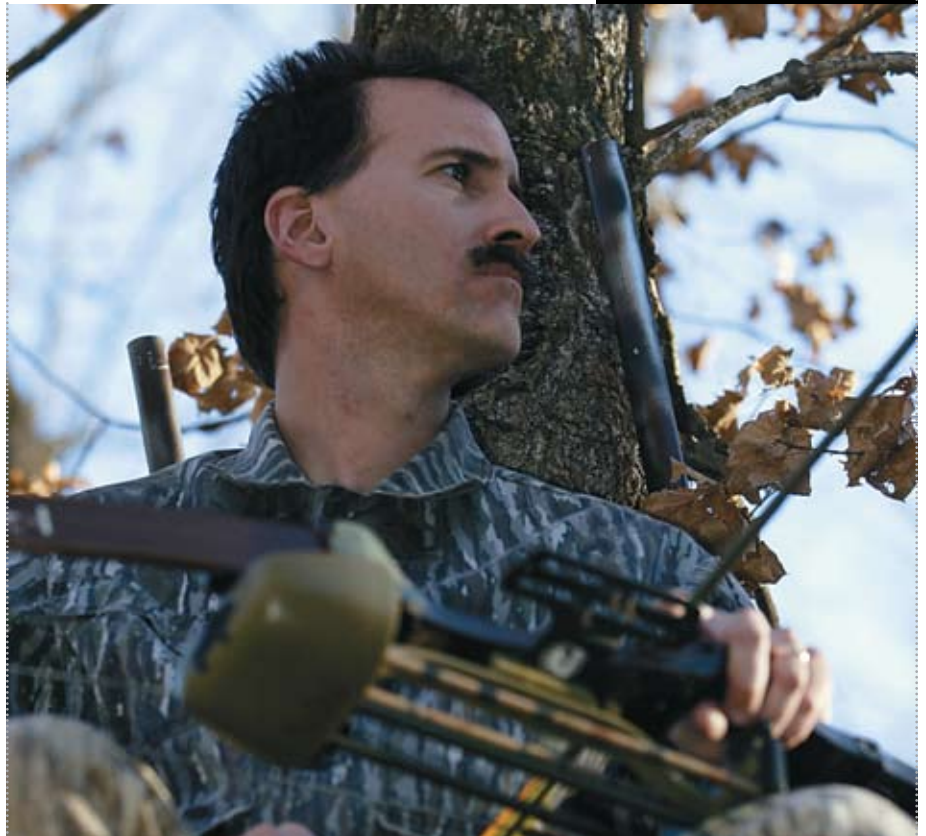
raw fur during warm spring weather. The 2007–2008 trapping season will be 2 1/2 months long.

Trappers are advised to review the *Summary of Missouri Hunting and*

*Trapping Regulations*, available at permit vendors, for details on trapping regulations.

## Deer Hunting

## Scout it Out



**Name:** Bonanza Conservation Area

**Location:** Caldwell County, two miles south of Kingston on Highway 13, then five miles east on Route F.

**For more info:** [www.missouriconservation.org/a6805](http://www.missouriconservation.org/a6805)



DEER HUNTERS WILL find Bonanza Conservation Area appropriately named when it comes to opportunities to pursue whitetails. The 1,871-acre area includes 700 acres of forests and woodlands and 290 acres of crop land that deer find irresistible. Bonanza's deer population draws many hunters from Kansas City, so hunting pressure is high most of the

firearms season. During the firearms season a hunter may harvest only one deer from the area using a Firearms Any-Deer Hunting Permit or a Youth Deer and Turkey Hunting Permit. Bow hunters may take two deer using an Archer's Hunting Permit. A limited number of disabled-accessible hunting spots are available at Bonanza. Camping is permitted on and adjacent to the area's parking lots. Use of ATVs is prohibited. A review of Bonanza's area regulations is a must for anyone who wants to hunt there. To download a PDF of the brochure, go to [www.missouriconservation.org/1015](http://www.missouriconservation.org/1015), or call 816-675-2205 to request a brochure by mail.

Bonanza is just one of many conservation areas with good deer hunting opportunities. To find a conservation area near you that allows deer hunting, visit the Department of Conservation online atlas at [www.missouriconservation.org/2930](http://www.missouriconservation.org/2930).

PHOTO: CLIFF WHITE; ART: MARK RAITHEL



## Duck Viewing Opportunities

*Two ducks that are rarely seen and some tips on the best way to spot them.*

A wide variety of ducks migrate to and through the state this month providing great nature viewing opportunities. Birdwatchers can enjoy a special treat by keeping their eyes peeled for two colorful duck species that are rarely seen in Missouri, canvasbacks and redheads.

Canvasbacks and redheads are diving ducks, or ducks that feed by diving underwater for vegetation, insects, snails and mussels. The canvasback has a white back, flanks and belly. The most prominent feature of the species is the male's chestnut-colored head and distinctive red eyes. Females are brown and gray in color. Male redheads seem similar to canvasbacks, but a closer look shows darker plumage on the head, yellow eyes and a bluish bill, tipped in black. Female redheads are brownish-colored with a faint ring near the tip of the bill. Look for these and other diving ducks in deep, open waters.

The following tips can help you get the most out of nature viewing:

- Study field guides. The more you know about the habits and habitats of the ducks you want to observe, the easier it will be to find them.



Canvasback

- Visit [www.missouriconservation.org/7559](http://www.missouriconservation.org/7559) and click "Duck Numbers and Habitat Conditions" for information on duck species present on public lands.
- Adjust your schedule to times when ducks are active.
- Don't interfere with the animals' daily activities. Observe from a distance. Spotting scopes are excellent for viewing water birds.

## FEATHERED FASCINATION



Indigo bunting

## Navigation and Orientation

FOR MANY YEARS people have marveled at how birds migrate precisely between nesting and wintering habitats that are hundreds or even thousands of miles apart. Although birds can't use maps like we do, they do have navigational tools that rarely fail to steer them to their intended destinations.

Birds use a variety of tools to orient, or determine direction, and navigate, or judge their position while traveling. According to *The Birder's Handbook* by Paul R. Ehrlich, David S. Dobkin and Darryl Wheye, birds get directional information from five sources: topographical features, including wind direction which can be influenced by major land forms; stars; the sun; the earth's magnetic field; and odors.

By observing the positions of the sun and stars, in conjunction with an internal sense of time, migrating birds can determine their position on the surface of the earth. If it is overcast, they can still detect polarized light from the sun. A songbird's ears can hear far lower frequency sounds than we can hear. This may enable a bird to plot its course by hearing the sounds of seashores and distant mountain ranges. Doves actually have metal in their brains that enables them to navigate by sensing differences in the earth's magnetic field. As birds approach their destinations, they may be able to recognize landmarks or smells.



NextGEN

## Riparian Buffers

*Wooded strips protect stream life.*

Maintaining wooded borders along streams is one of the best things you can do for fish and wildlife.

A 100- to 200-foot strip of trees along each side of streams prevents soil erosion, protects water quality and multiplies wildlife habitat many times. Fence out livestock, which damage trees and stream banks. Provide access to water with fenced chutes if necessary. Make road crossings perpendicular to stream banks. Leave a variety of tree species when harvesting timber. These provide valuable wildlife habitat.

For more information, download this pdf at [www.missouriconservation.org/277](http://www.missouriconservation.org/277).



## Aquatic Invasives

*Exotics could wreck Missouri ecology.*

By now you know Missouri is being invaded by plants and animals from abroad. You might not know why that is bad. One reason is loss of biological diversity. Invasive exotics can displace native species. An example is the rusty crayfish, which can multiply out of control, decimating aquatic plants and invertebrates that fish need for food and cover. The zebra mussel, which turned up in Lake of the Ozarks last year, destroys native

mussel populations, clogs water intakes and damages docks, boats and motors. Invasive plants, such as Eurasian water milfoil, can form dense mats that interfere with boating, swimming and fishing. Imported carp threaten the ecology and safety of Missouri's big rivers and lakes. Silver carp weighing 20 to 30 pounds rocket out of the water around motor boats, sometimes causing severe injury to pleasure boaters and water skiers. Asian carp also disrupt natural food chains to the detriment of catfish, bass and sunfish. For more information about aquatic invasives and what to do about them, visit [www.protectyourwaters.net](http://www.protectyourwaters.net).

## Stream Team



### Mutru Family



MARY ANN AND Justin Mutru's Stream Team involvement spans more than a decade and six different teams. Along the way, they have trained thousands of budding stream conservationists. Mary Ann teaches science at Willow Springs Middle School. She also teaches "Ozarkology," an elective that delves deep into stream ecology and conservation. She recently posted an Ozark hellbender lesson plan on the Stream Team Web site. Justin, a retired school teacher, took his students from Raymondville Elementary to testify for stream conservation before the Missouri Clean Water Commission. The couple is active in the Scenic Rivers Stream Team Association, and they still take part in the annual Jacks Fork Cleanup. Their passion for stream conservation is sustained by "the rare, precious, pristine scenic rivers" they work to conserve. You can find Mary Ann's hellbender lesson plan and more information about Stream Teams at [www.mostreamteam.org](http://www.mostreamteam.org).

**Stream Team #: 702**

**Date formed:** 1995

**Location:** Current and Jacks Fork rivers, Bryant, Noblett and Pine creeks

**For more info about Stream Teams:** [www.mostreamteam.org](http://www.mostreamteam.org)

CRAYFISH: JIM RATHER; STREAM TEAM: NOPPADOL PAOTHONG



# Our Glorious Forests

## LEAD MINE CA



### Order Trees Nov. 15–April 30

*Conservation Department provides low-cost seedlings.*

If you've been planning to establish a windbreak or quail-friendly shrubs—or just make your home landscape a little more attractive to wildlife—now's the time to order shrub and tree seedlings from the George O. White State Forest Nursery. Seedlings are sold from mid-November to the end of April, and bundles range from \$3 to \$24. Find the order form online Nov. 15 at [www.missouriconservation.org/7294](http://www.missouriconservation.org/7294). The Web site also includes tips about transporting, planting and caring for your seedlings.



### We All Live in a Forest

*Habitat corridors sustain strong wildlife populations.*

Your private land might not lie entirely within a forest, but if it includes a wooded stream, it serves as a habitat corridor for forest-dwelling wildlife species throughout the state. Dispersing young wildlife, in particular, use wooded riparian corridors on private land to find new territories, mates and food. Like livestock herds that benefit from "new blood," wildlife also need access to mates from different gene pools in order to build more robust animal populations. Wooded streams serve as roosting sites for wild turkey, too. Whether you enjoy hunting or just viewing Missouri's wild species, you can take satisfaction in knowing that your well-managed wooded stream is helping keep wildlife genetics diverse and strong. For more information on managing your wooded streams, go to [www.missouriconservation.org/15579](http://www.missouriconservation.org/15579).



**Size:** 7,042.6 acres  
**Location:** In Dallas County north of Plad on Highway 64, then north on Route T and one-half mile east on Route YY  
**Highlights:** This forest area contains savanna, glades and old fields. Facilities and features include boat ramps, an unmanned firearms range, fishable ponds, several intermittent streams and two permanent streams: the Niangua River and Jakes Creek.  
**Find more info:** Call 417-532-7612 or visit [www.missouriconservation.org/a8024](http://www.missouriconservation.org/a8024)



HUNTING SEASON REMINDS us that the Department of Conservation's areas help sustain Missouri's outdoor recreation heritage. Take Lead Mine Conservation Area in Dallas County, for example. This large area contains many excellent examples of dolomite glade communities, oak-hickory uplands and clear running springs. Wildlife habitat management includes sustainable timber harvesting and producing forage and cover for wildlife. Lead Mine's diverse forest habitats support good populations of game animals, including deer, turkey, raccoon, squirrel, rabbit and coyote. Visitors will also find many other small animals and a wide variety of birds. Of the five primitive camping areas, one is for groups by special-use permit only, and one is only open Oct. 1 through Jan. 15. The main campground has 51 sites, 26 of which accommodate trailers; all are open year-round. All camping area sites are available on a first come, first served basis.

PHOTO: JIM RATHER; ART: MARK RAITHEL



NextGEN

## Light Disking

*Practice benefits grassland birds.*

If you want more quail next fall, lightly disk your grassland acres now. This practice sets succession back to bare ground. The exposed soil creates ideal brooding habitat for quail and boosts insect and seed production. Disk in late summer or fall, and aim to expose 30 to 70 percent of your soil. Disk strips 25 to 75 feet wide, and alternate with strips of undisturbed vegetation twice as wide as the disked strip.



For more information on light disking, visit [www.missouri](http://www.missouri)

[conservation.org/7886](http://conservation.org/7886).

## Glades and Savannas

*Restore these habitats with chainsaw and fire.*

Did you know quail are associated with glades and savannas, as well as grasslands? Usually found south of the Missouri River, glades have shallow, rocky soils on south- or west-facing slopes. Savannas are a type of park-like woodland found throughout Missouri. Historically, periodic fire maintained both glades and woodlands, but modern fire prevention and overgrazing have allowed Eastern red cedar to overrun them. Glade and savanna restoration starts with cutting red cedar.

In Miller County, Jim Wisch has restored more than 40 acres of glade and woodland on his farm. First he cut red cedar, then a year later he conducted a prescribed burn.

Jim says the hard work has been worth it. Now he hears more quail—and sees more wildflowers—than ever before.



## Landowner Uses CRP to Bring Back Quail

## On the Ground



WHEN HE SIGNED up for the Conservation Reserve Program in February 2006, it had been 25 years since Oran Boulden had seen a covey of quail on his Howard County farm. Since then, CRP has helped Oran establish filter strips and bobwhite buffers of native warm-season grasses and wildflowers. He also completed edge feathering around several crop fields. This year, Oran has good news to report. “Last fall, I saw a covey of about 12 quail just on the edge of one of the warm-season grass buffers. I know I have a long way to go, but I am encouraged with the great start to bring quail back on my 160-acre farm.”

If you'd like some help bringing quail back to your farm, sign up for CRP this fall. Your private land conservationist can show you how. To find your private land conservationist, visit [www.missouriconservation.org/14140](http://www.missouriconservation.org/14140) or call your regional Conservation Department office (see page 3 for phone numbers).

PHOTO: NOPPADOL PAOTHONG; ART: MARK RAITHEL



## Get Your 2008 Calendar

At Nature Shops and online while supplies last.

Chock-full of dazzling photographs, fascinating natural history details and native-plant gardening reminders, the Conservation Department's *Natural Events Calendar* sells out fast every year. The 2008 edition features Department of Conservation staff and volunteer photos of Missouri plants, animals and landscapes in every season, and it's on sale now. This year's opening spread invites you to visit Missouri's barrens, balds and glades—those open, rocky landscapes resembling deserts located on several conservation and natural areas throughout the state. Home gardeners will appreciate native-plant gardening tips following the monthly pages. Don't wait to get the 2008 *Natural Events Calendar* for every nature lover on your Christmas shopping list. To order, call toll free 877-521-8632 or visit [www.mdcnatureshop.com](http://www.mdcnatureshop.com). The price is just \$5.00 each, plus shipping, handling and sales tax, where applicable. You can also find them at nature center and Department of Conservation offices where Nature Shops are located.



## Apply for Education Grants

Help students learn about nature outdoors.

If you're an educator, you know how excited students can get about learning outdoors or taking field trips. Help your students connect with nature and conservation. Apply for one of the Conservation Department's four education grants: Learning Outdoors Schools, Conservation Field Trips, Outdoor Classrooms and United Sportsmen's League Wildlife Conservation. The grants are designed to help schools and educators use the outdoors for lessons about native plants and animals and habitat conservation. To explore each grant program, including eligible applicants, deadlines and downloadable applications, visit [www.missouriconservation.org/8793](http://www.missouriconservation.org/8793).

## NATURE ACTIVITY



Bald eagle

## Squaw Creek Eagle Days



DURING THE FIRST week of December, as many as 250 eagles arrive at Squaw Creek National Wildlife Refuge near Mound City. For the past 29 years, the Department of Conservation and the refuge have welcomed them with an annual Eagle Days event. The World Bird Sanctuary from St. Louis will conduct live eagle shows every hour, and Friends of Squaw Creek will be selling warm food and drinks. Take the 10-mile auto tour to see eagles and many species of waterfowl in the wild. Conservation volunteers will have scopes set up at various stops—you may even spot eagles snagging fish! If you'd rather have a guided tour of the refuge, join one of the many interpretive bus tours throughout the day.

**Where:** Five miles south of Mound City and 30 miles north of St. Joseph just off of Interstate 29. Take exit 79, and drive three miles west on Highway 159.

**Features:** The 7,350-acre refuge was established in 1935 as a resting, feeding and breeding ground for migratory birds and other wildlife.

**Program:** Eagle Days, Dec. 1–2, 9 a.m. to 4 p.m.

**For more info:** Call Squaw Creek at 660-442-3187 or the Department of Conservation at 816-271-3100 or visit [www.missouriconservation.org/4153](http://www.missouriconservation.org/4153) or [www.fws.gov/midwest/SquawCreek/](http://www.fws.gov/midwest/SquawCreek/)



DAVID STONNER

Callaway County farmer Kenny Brinker put in several food plots as part of a deer management plan on his property.



# Landowners and DEER

by Brad McCord

*The Conservation Department enables landowners to manage deer on their property.*

**W**hite-tailed deer are the favorite wild animal of many Missourians. It's always a thrill to see one and, through the years, we're seeing more and more of them. They now live in every county of Missouri and have spread out from our forests to our suburbs, cities, parks, gardens and farm fields.

Because most of Missouri's deer are on private land, wildlife managers have to team with landowners to maintain a healthy deer population. Especially important in these partnerships are agricultural producers. Their crop fields can fuel large increases in deer numbers, and they are most affected by the results of having too many deer.

The Conservation Department recommends harvesting deer, especially does, during established seasons as the most effective management tool for landowners to control deer numbers.

In the past three years, the Missouri Conservation Commission has made significant changes to the regulations to help



individual landowners control and regulate deer numbers on their property. More liberal antlerless permits, additional seasons, extended seasons, and the Telecheck system all make management easier for landowners.

It is possible for landowners to keep deer densities compatible with other land objectives while at the same time gaining recreational and economic value from deer and deer hunting.

### THE BRINKER EXAMPLE

Brinker Farms, located near Auxvasse in Callaway County, has developed ways to make the most of the deer that populate the approximately 3,200 acres under the family's control. The farm, a partnership between Brinker brothers Kenny, Ronnie and Dale, includes both row crop production and a livestock operation.

The farm is in the transition zone between the rolling prairies, grasslands and vast row crop fields to the north and the heavily forested river hills to the south and east along the Missouri River.

The extensive row crop production provides plenty of waste grain for the deer. The Brinkers annually install food plots such as ladino clover

and oats where soils are less productive and in areas difficult to farm. This can help concentrate deer for harvest.

Like many agricultural producers, Brinker Farms occasionally has trouble with deer along crop field edges, in the backyard garden, and in the pumpkin and strawberry patch. However, the family has become involved in deer management and enjoys the recreational benefits and family bonds established when spending time together in pursuit of deer.

"Deer do cause problems on the farm," Kenny Brinker said, "We just consider it a part of our operation and make the best of them. Besides, the whole family enjoys seeing deer, and we take rides nearly every evening to look for deer."

Some landowners in Missouri reap economic benefits by leasing their land for deer hunting, but the Brinkers have chosen to make their farm available for family and friends to hunt. About 13 hunters annually hunt deer on the property.

The Brinkers emphasize youth hunting and the taking of antlerless deer. In fact, the Brinker farm rule is that a hunter can only harvest a buck if it is larger than any buck previously

**Although hunting antlerless deer could help keep populations in check, some deer hunters and landowners believe that harvesting them is a mistake.**



harvested by that individual on the farm.

“When our sons were younger,” Susan Brinker said, “this rule gave Cody and Travis a chance to harvest almost any deer that happened along, which was good for the boys in their early days. The same rule now provides a goal for the family, increases the competitive spirit of our hunts, and annually lets us see the rewards of our management efforts.”

Kenny estimates that the brothers’ families and friends harvest 15 to 20 deer annually on the farm between bow hunting, rifle hunting and late antlerless-only seasons. The family enjoys making sausage from the deer they harvest, so taking multiple deer is not a problem.

If their family and friends don’t take enough deer, Missouri landowners can usually find other hunters eager to harvest deer from their land. When granting permission to hunt, landowners are encouraged to set guidelines that restrict the size or number of bucks or antlerless deer that may be harvested.

## THE ANTLERLESS DEBATE

Some deer hunters and landowners hold fast to the notion that harvesting antlerless deer is a mistake and only bucks or antlered deer should be taken. We were talking about the upcoming deer season at my local barbershop one recent Saturday morning, for example, and the conversation quickly turned to deer numbers. It wasn’t long before someone mentioned deer damage in their backyard garden. I casually suggested harvesting antlerless deer as a way of keeping the population in check.

To my surprise, one guy emphatically said, “There will be no does taken on my property this year.”

Missouri’s social traditions for deer hunting are long-standing. Hunter attitudes are hard to change. Landowners can become more involved and help in efforts to strengthen the genetics of the herd over the long term. Harvesting antlerless deer is the key to deer management, especially population control.

Although many hunters refuse to consider antlerless deer as “trophies,” I submit that there is no finer table fare than an adult or yearling doe properly prepared and cooked. If you’ve got too much of a good thing, you can help the less fortunate by donating venison through the Share



the Harvest Program (for more information, visit [www.missouriconservation.org/9032](http://www.missouriconservation.org/9032)).

## HELP AVAILABLE

The Department of Conservation can provide technical assistance in helping you manage the deer on your farm or ranch. Contact your regional Conservation Department office with questions regarding landowner deer permits, deer hunting or habitat management options for your property (see page 3 for regional office phone numbers).

The Department sets deer seasons and sets limits on the number and gender of deer harvested, but landowners have freedom to work within those regulations to meet the deer management needs of their property.

It’s important to remember that under most conditions, increasing the antlerless deer harvest will improve the health of your deer herd and help keep the population in check. The three families involved with Brinker farms have learned this and will continue to be active in controlling and enjoying deer populations on the farm for years to come. ▲

A creature unlike any other has moved into the *Show-Me* State.

# Our New NEIGHBORS

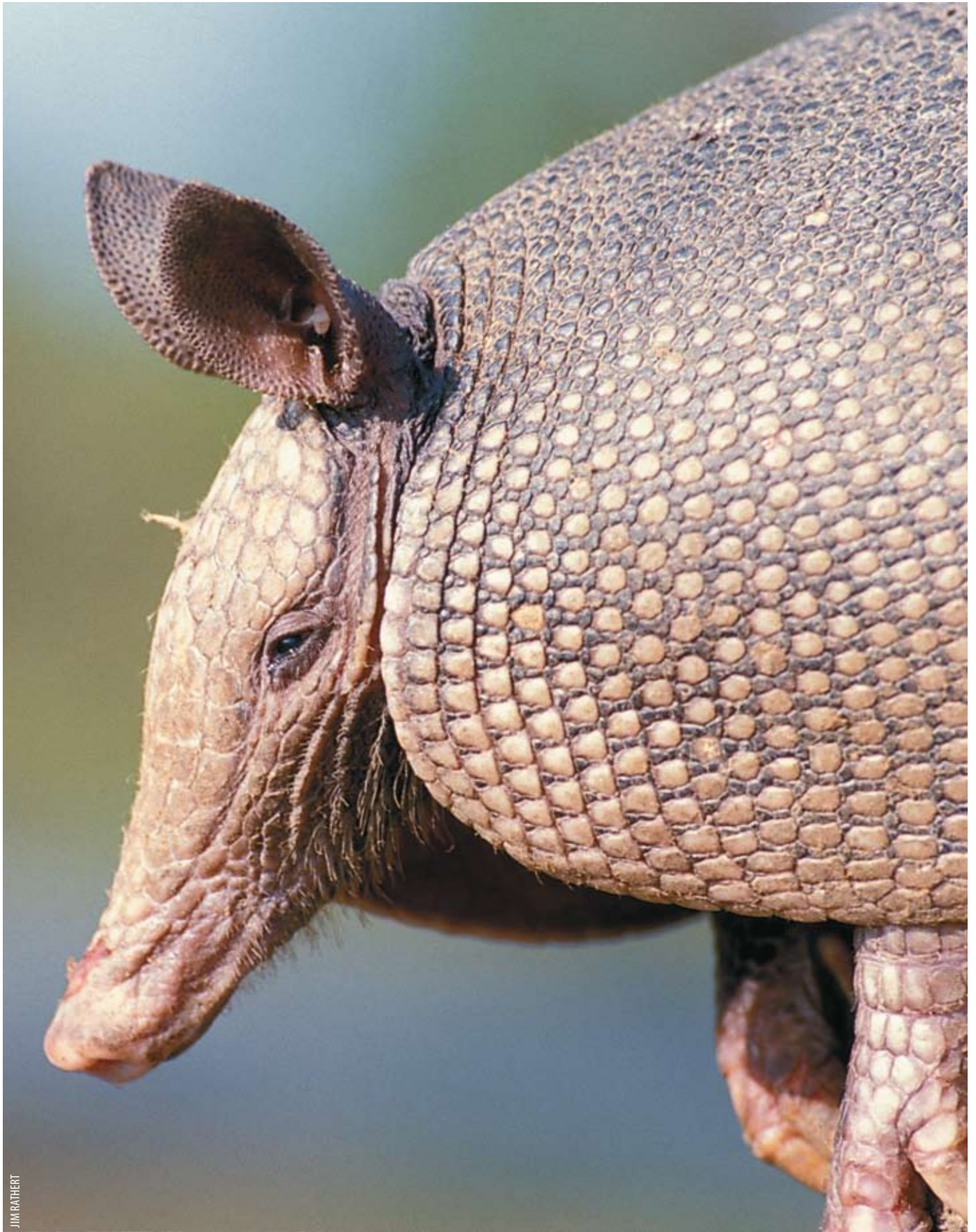
BY REX MARTENSEN

“WHAT WAS THE THAT?” You might exclaim, when you see a ’possum-sized, scaly-looking creature shoot across a Missouri highway.

“What happened here?” You might wonder when you wake one morning and find your lawn transformed into a series of holes and dirt piles.

Although many of our wild creatures have a long history in Missouri, armadillos have only recently arrived. They’re here because they find parts of our state suitable for living, and they’re not likely to leave. If we’re going to host these new neighbors, we’d better learn as much about them as we can.





JIM RATHERT

## Identification

Nine-banded armadillos (*Dasyus novemcinctus*) are unique and interesting critters. The animals weigh from 2 to 20 pounds, have short legs, big ears and a ringed tail almost as long as their body.

They get their name from a hard protective covering that contains usually nine moveable bands between the shoulder and hip shields.

Their head is covered with a large immovable shield, and their tail is covered with a series of 12 overlapping rings. Small scales cover their legs, and only their ears and underbelly have exposed soft skin.

Armadillos have four stout claws on their front feet and five on the hind feet. Hairs protrude from their scaly armor and sparsely cover their belly.

## Range

The armadillo's general lack of hair combined with its low body fat content make it ill-equipped to handle extended periods of severely cold weather, which may limit the northward range of the species.

Armadillos can be found from Texas, along the southern tier states to Florida, South Carolina, Tennessee, Kentucky, and northward into Arkansas, Oklahoma and southern Kansas. Confirmed sightings have come from as far north as southern Illinois and Indiana.

Armadillos first began to appear in the south and southwest portions of Missouri in the mid-1970s to early 1980s. Since then, they have extended northward into practically

every county south of the Missouri River, and there have been a few sightings north of the river.

## Habits and Reproduction

In the summer, armadillos are most active from twilight through the early morning hours. In winter they are only active during the day when temperatures rise.

They may have several burrows within their territory for protection and raising young. These burrows are usually 7 or 8 inches in diameter and up to 15 feet long. They can be found in rock piles, brush piles, around stumps or under sidewalks and patios.

Breeding generally occurs in the summer, but pregnancy is delayed for about five months, followed by a 150-day gestation period. Genetically identical quadruplets are born in the spring and will start to emerge from the den in early summer. By fall the quadruplets have usually dispersed.

## Food

Armadillos eat earthworms, spiders, scorpions and other invertebrates, but 90 percent of their diet is made up of insects and their larvae. One armadillo can eat about 200 pounds of insects per year. Their diet may be another limiting factor in the northward expansion of their range. Armadillos get most of their food underground. When the ground is frozen or becomes covered in snow and ice, their food sources are limited.

## Digging Damage

Generally speaking, armadillos are harmless, but their digging and rooting often causes problems. Most folks are somewhat baffled after waking up and finding their yards covered with random pock marks.

Skunks can cause similar unsightly damage, but armadillo digs are usually larger, measuring 1 to 3 inches deep and 4 to 5 inches across, and much more frequent and extensive. The holes may have dirt thrown out or v-shaped pieces of sod may be peeled back. You might even see the cavity that once contained a grub or insect by looking closely in the hole.

## Control Methods

When dealing with wildlife damage from armadillos, property owners have several options. A Conservation Department wildlife damage biologist



**An armadillo searches for food by rooting in the ground. Armadillos are great diggers and can sometimes cause damage to lawns or gardens.**

## Armadillo Facts

- Armadillo is Spanish for “little armored one.”
- During the Great Depression, armadillos were known as “Hoover Hogs” because they were eaten instead of the “chicken in every pot” that Hoover had promised.
- Armadillos can contract and carry leprosy (Hansen’s Disease). However, the only known way they can transfer this disease is when humans eat undercooked armadillo meat.
- Armadillos often end up as road kill because they have a habit of jumping when startled. This is the best defensive tactic when you’re underneath a moving vehicle.



can help determine to what extent control is needed and the most practical methods.

Removing habitat that could attract armadillos might prevent them from turning up on your property. Keeping lawns and adjacent areas free from brush, wood piles and other places of refuge will help discourage armadillos from taking up residence. Because moist soil and green grass attracts armadillos, reducing watering and fertilization might also help discourage them from digging up your yard.

Armadillos are easily discouraged by barriers. In smaller areas, such as flower beds or gardens, constructing a fence might solve the problem. Because armadillos can dig and climb, fences should be constructed of sturdy material at least 24 inches high with 8 to 12 inches buried underground.

The fence should be built outward at an angle, or the top of the fence should come out at a right angle to prevent armadillos from going over. A single-strand electric fence set 3 to 4 inches off the ground might also be effective.

Although there are some repellents that claim to be effective against armadillos, their effectiveness has not been substantiated. Some fumigants, such as gas cartridges, can be effective when used in den locations. None, however, are currently registered for use in controlling armadillos.

### Trapping

The armadillo’s nocturnal behavior and general lack of interest in baited traps makes trapping them challenging.

Cage-type live traps, however, often work well. The

traps should be at least 10-by-12-by-32 inches. Place them along pathways leading to burrows or along fences or other barriers.

You can enhance a trap’s effectiveness by using “wings” of 1-by-4 or 1-by-6 inch boards at least 6 feet long to help funnel the armadillo into the opening. Overripe fruits, earthworms or mealworms can be suspended in a nylon sack in the trap to help attract the animals inside.

### Shooting

Rule 4.130 of the *Wildlife Code* allows landowners to use lethal methods to control nuisance wildlife causing damage. Shooting, where allowed by local statutes, is effective in selectively controlling armadillos.

The best time to shoot is when armadillos are most active, either during twilight hours or at night by using a spotlight or yard lights. A shotgun with No. 4 to BB shot or a .22 or other small caliber rifle will do the job. Use good judgement and always be sure you have a safe shot.

Shooting should be a method of last resort, however. As armadillo numbers increase and as our numbers increase we’re bound to have a few conflicts, but we can get along. It’s usually the case when wildlife and people share space that good fences make good neighbors. When it comes to armadillos, an ounce of prevention is definitely worth a pound of cure. ▲







# Bridge to the FUTURE

An unlikely partner—a tiny fish—helped change Little Tavern Creek to everyone's benefit.

BY JIM LOW, PHOTOS BY DAVID STONNER

LITTLE TAVERN CREEK isn't very impressive most of the time. You could wade across it on all but a few days a year. Beneath its surface, however, lies a swirling confluence of interests that for decades confounded both commerce and conservation.

Little Tavern Creek is small, but it drains an area of more than 50 square miles. Two-hundred years ago, that watershed was blanketed with savannas and forest down to the creek banks. Rainfall trickled slowly through the lush greenery, feeding deep holes where smallmouth and rock bass and a host of other fish and wildlife found homes.

Settlers were attracted to the Little Tavern Creek valley, where they cleared fertile bottomland for crops and hillsides for pasture. Further logging supplied firewood, lumber and railroad ties for growing communities like Meta and St. Elizabeth.

Removing trees allowed water to run into the creek faster. As the years passed, new roads, roofs and parking lots made runoff even faster. With streamside forests gone, sediment ran into the creek. Deep holes gradually filled with gravel. Only the flushing action of increasingly frequent floods prevented the stream from being choked by sand and gravel.

Fast forward to 1998. Vic Kemna was farming 300 acres in northeastern Miller County, including 40 acres in Little Tavern's flood plain. Having grown up nearby, on Big Tavern Creek, he had a lifetime of experience with area streams. The creek occasionally flooded his fields, but that was just part of farming in the bottoms.

**The new bridge at Little Tavern Creek, just after construction. Key players in building the bridge were (from left) Vic Kemna, Veronica Kemna, Bill Ambrose, Greg Stoner and Tom Wright.**

Jefferson City dentist Bill Ambrose was a newcomer to the area. He bought a farm that was a mirror image of Kemna's across the creek. He wanted to keep his land a working farm while doing what he could to encourage fish and wildlife.

Little Tavern Creek was both enchanting and perplexing to Ambrose. It still harbored 17-inch smallmouth bass and abundant sunfish. However, periodic floods were carving away his most productive farmland. He looked for help and found a couple of allies.

One was Greg Stoner, a fisheries management biologist with the Missouri Department of Conservation. He helped Ambrose design erosion-control structures to protect vulnerable stream banks. Ambrose provided rock for the structures from a quarry on his land and planted 1,400 tree seedlings along the edge of his bottomland fields. Creating a wooded buffer meant surrendering crop land, but it promised to protect the remainder. The plantings also created habitat for many species of wildlife.

Miller County officials got involved, too. To show their appreciation for the privilege of mining gravel from a

large bar on Ambrose's land, county road crews helped build the erosion-control structures.

Ambrose's efforts succeeded. Not only did erosion stop, but the structures actually encouraged Little Tavern Creek to deposit sediment where it previously had been carving it away.

Then Little Tavern threw a tantrum. A 15-inch rainfall during the last weekend of July 1998 sent a torrent of water ripping through the valley, destroying crops, property and stream crossings. As a result, Miller County received a grant from the Federal Emergency Management Agency. The county commission decided to use the money to upgrade Massman slab, a low-water crossing just downstream from Ambrose's and Kemna's land.

The crossing was important because it provided access to the area for feed, fertilizer and livestock trucks, school buses and commuters. County officials had been dealing with floods and washouts on the bridge since the first concrete slab was installed there in 1926. Each time there was a problem, the county poured more concrete around the trouble spot to keep the bridge serviceable for a few more

**The original bridge, Massman slab, over Tavern Creek was built in 1926 and consisted of a concrete deck 18 inches tall.**



years. This time, however, the county decided to fix the problem once and for all.

The old bridge consisted of a concrete deck approximately 18 inches tall with an opening underneath to let water pass. The county removed this structure. In its place, it laid four round metal culverts, each 48 inches in diameter, parallel to the stream flow. After pouring concrete walls around the upstream and downstream ends of the culverts, they filled the middle with gravel and poured concrete over the whole thing, creating a flat roadbed. The new bridge was approximately 6 feet tall, with the four culverts 2 or 3 feet above the creek bed on the downstream side.

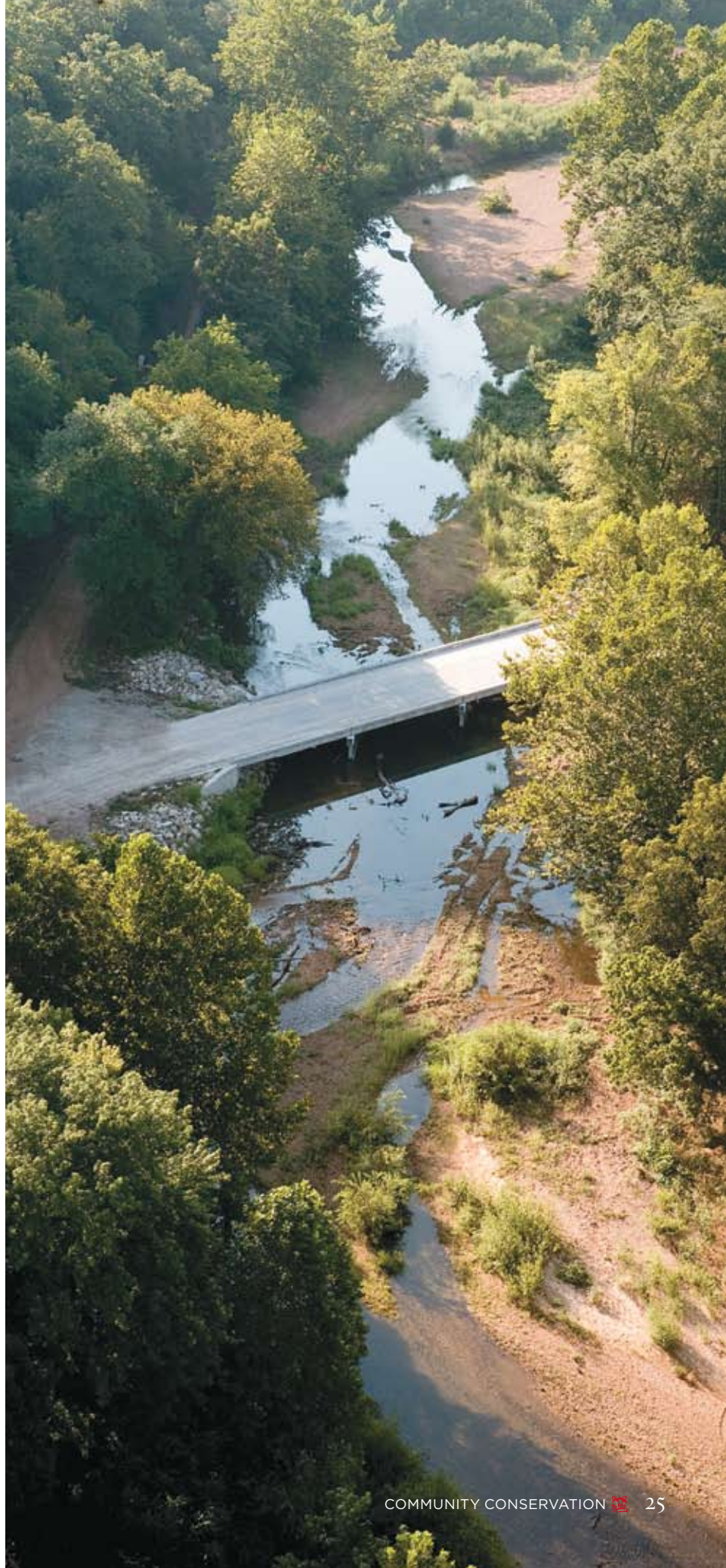
The structure was impressive. It also was doomed to fail. Without the benefit of advice from professional engineers, county officials did not anticipate that the creek would wash out the bottom and edges of the bridge. Before long, they had the same problems that plagued the old slab bridge, but on a larger scale.

Far from being a solution, the new bridge actually created new problems. The four culverts were too small to handle flood flows, so the bridge became, in effect, a dam. Even medium-sized rains caused water to back up half a mile above the bridge.

“You’d get up in the morning and hear it raining, go out and look in the rain gauge and see half an inch of rain,” said Kemna. “When you would get down to that bridge there would be water running over it and my bottoms maybe half full of water.”

The back-up had several unexpected consequences. One was flooding of the southern approach to the bridge. The

**The new Massman Bridge on the Little Tavern Creek has decreased the frequency and severity of flooding in Miller County.**



saturated roadbed became dangerous to drive on, worsening traffic delays and adding to maintenance costs.

Not being able to get across the bridge was not the worst of it for Kemna and Ambrose. When fast-moving floodwater reached the temporary lake created by the bridge, it slowed down, and all the sediment it was carrying settled out. After a few rains, the creek bed was full of sand and gravel.

“Thank the Lord the creek only got three-quarters bank full once,” said Kemna. “If it had been like some years, when the creek got out in the bottoms two or three times, there would be so much gravel up in there you couldn’t deal with it. It was just a matter of time until we had a 2-inch rain and my bottom land was flooded and I lost my hay and crops.”

The floods set back Ambrose’s hard-won conservation progress, too. His erosion-control structures needed the

creek’s current to work. They were useless in standing water, so he was losing ground again.

The surrounding community lost out, too. A traditional swimming hole where families had come for generations filled up with gravel. Fish no longer could migrate upstream in the spring after spending the winter in deep pools downstream. As a result, smallmouth bass and most other game fish virtually disappeared from Little Tavern Creek upstream from the bridge. Ambrose no longer saw people wading upstream with fishing rods.

Meanwhile, the Miller County Commission had problems that went beyond bridge maintenance and angry constituents. The U.S. Army Corps of Engineers, which regulates development along streams, said the bridge was illegal and ordered the county to remove it. The U.S. Fish and Wildlife Service noted that the bridge was bad for the Niangua darter, a fish classified as threatened by federal officials. With no money for a solution, the county was between a rock and a wet place.

Ambrose was upset, but he knew that beating up the county would not solve the problem. Instead, he called a meeting at the bridge. One rainy day in March 2004, 25 people gathered to look at the problem and discuss solutions. The crowd included all three county commissioners, state and federal legislators or their representatives, the St. Elizabeth school superintendent and representatives of the Corps of Engineers, the Fish and Wildlife Service and the Conservation Department. The Tusculum *Autogram-Sentinel* sent a reporter.

“That meeting did nothing beyond generating interest and awareness,” said Ambrose. “All that was going to happen was that the Corps was going to keep slamming Miller County, which was nonproductive. Without Greg [Stoner] it would have ended right there.”

Stoner thought he saw a way out of the cycle of bad fixes, worse outcomes and legal nightmares. He knew grants were available to eliminate barriers to fish passage, especially where endangered species were present, and to help landowners with stream conservation. The Missouri Department of Transportation had funds to help counties replace bridges. If all those resources could be brought to bear on Massman slab, a true solution might be possible.

“The whole thing depended on the presence of the Niangua darter in close proximity to the bridge site,” said Stoner. Historic records showed the darters once lived there, and recent Conservation Department surveys had found them just below Massman slab. That meant Stoner might be able to get a federal fish-passage grant. However, getting a federal grant was out of the question with legal action pending against the county.

“I asked the Corps and the Fish and Wildlife Service,



**Since the new bridge was built, fish species have rebounded in that stretch of the creek, especially smallmouth.**



**MDC fisheries biologist Greg Stoner searches Little Tavern Creek for signs of Niangua darters. Historic records showed the darters once lived there, and recent Conservation Department surveys had found them just below Massman slab.**

‘Can you just drop the violations if you are sure it is going to be fixed?’” The federal agencies agreed.

Stoner went to work, finding \$137,000 in grants from the Fish and Wildlife Services Osage Basin Restoration Grant Program. Another \$107,000 came from the Stream Stewardship Trust Fund administered by the Missouri Conservation Heritage Foundation. Miller County contributed \$48,000 in cash and in-kind contributions and applied to the Missouri Department of Transportation for credit totaling 80 percent of the new bridge’s cost for other bridge work through the Bridge Replacement and Rehabilitation program.

All that help allowed the county to hire an engineering firm to design the bridge. The collaboration wasn’t over yet, however.

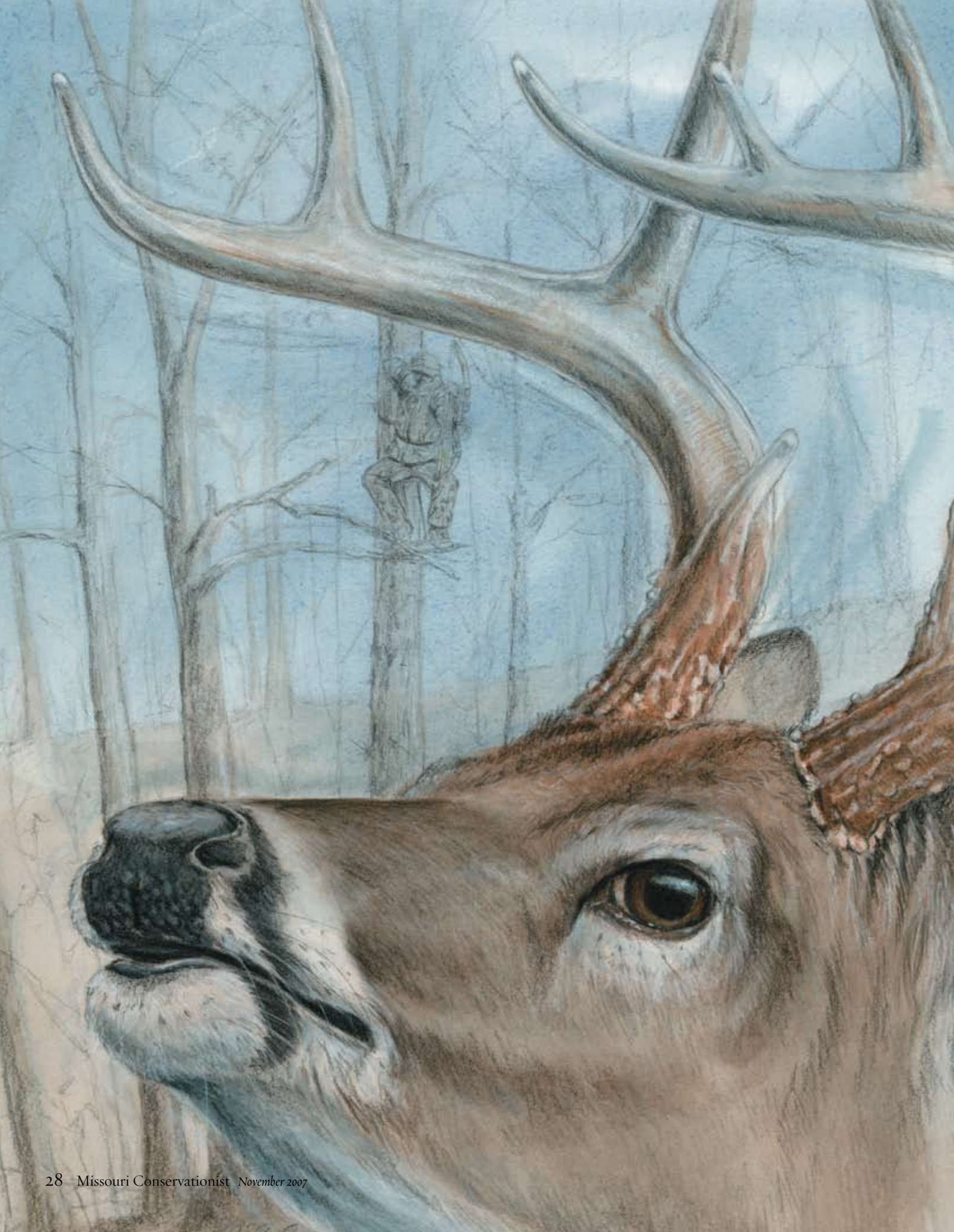
“The engineers wanted to give us a 30-foot span,” said Kemna. “When that creek is bank full it’s about 100 feet wide and 8 or 10 feet deep. Those of us who have lived here awhile knew 30 feet wasn’t enough, so we held out for more. We ended up getting 90 feet.”

The large opening below the new bridge, coupled with a sturdy design and careful alignment of the structure, now lets flood waters pass freely through or over it. The bottom is at creek-bed level, allowing fish to migrate upstream and downstream at will.

Since the bridge was installed, the frequency and severity of flooding on Little Tavern Creek have decreased. Fishing and swimming holes already are beginning to reappear. Stoner said smallmouth bass and other fish have moved back into Ambrose’s and Kemna’s stretch of the creek. “I would venture to say that it is just a matter of time before we find a Niangua darter upstream from the bridge,” said Stoner. “Things are as they should be.”

Miller County Presiding Commissioner Tom Wright took office in 2003, near the end of the Massman slab saga. Standing atop the new bridge last summer, he noted how important it is to have a reliable bridge.

“It’s a long way out to Highway 52 from here when you can’t use the bridge,” he said. “We’ve had problems here forever. I’m glad this one worked out.” ▲





# Grandpa's TEN P O I N T E R

Getting two chances at the same deer  
doesn't happen without help.

*by Randy Doman  
Illustrations by Mark Raithel*

**A**s another year wound down, I again took part in an annual holiday tradition. It was December 29, and I was on a late-season bow hunt in north Missouri.

From the ground, I watched as dark clouds rolled across a gray sky. The weather had been relatively mild, but an approaching front was dropping temperatures fast. It promised to be a good night for deer movement.

I was trying to find a good stand location, and eventually I came across an ideal spot. On the edge of a grassy hillside, I noticed several trails funneling into a hardwood thicket. Multiple tracks and fresh sign indicated several deer were using the area.

Unfortunately, the only straight tree big enough to hang a stand in was a thorny locust. As I debated how much I really want to sit there, I was reminded of a lesson my grandpa taught me years ago: If you want something bad enough, you're going to have to work for it.

So, armed with his advice (and a good pair of gloves) I began the tedious job of clearing thorns and hanging my stand.

I got set up, and within minutes movement from the side caught my eye. Carefully, I leaned around the tree for a better look. Sure enough, a large deer was working across the hillside, 90 yards behind me. Through the briars and tall grass, I could see antlers as he raised his head. A couple of soft grunts from my call got his attention, and he started working my way.

From what I could tell, he looked like a decent 8-pointer. A nice surprise, as I only expected does this late in the year. At 65 yards, he made it to a little clearing and turned his head. By then I was really excited. He had four points on his left side, but he was showing six on the right, with good width and tremendous mass.

"He's a giant!" raced through my head.

Eventually, the big 10-pointer made it into my 30-yard shooting lane. All I needed was for him to look away, look down or look anywhere else so I could draw.

Finally he looked away, and I drew my bow. Just then, he swung his head back and picked me off in the tree. I hurriedly settled the 30-yard pin behind his shoulder and squeezed the release. At the same time he whirled around. I watched the arrow sail harmlessly over his back as he bounded away.

My only thought was, "No! No! No! That didn't just happen." I hung my head against the tree and stared down in disbelief.

Back at my dad's place, I told the story with a half-hearted smile. My 4-year-old son, Sam, listened intently. He told me he wanted to feel the antlers and touch the fur. "Daddy, I want to go to deer hunting," he said.

"Not tonight, Bub. Daddy blew it," was my only reply.

My wife, Katie, and our 1-year-old, Tyler, arrived to a full house the following night. I related the story again, and by then I was able to tell it with a whole-hearted smile. What was more important to me was that our families made the trip safely, and we were celebrating a belated Christmas together.

A day later, on New Year's Eve, the phone rang and my stepmom answered. "Yeah, he's right here," she said, and handed me the phone.

Right then I knew what it was. I could hear Mom crying on the other end of the line. "It's your grandpa," she said. "He passed away in his sleep early this morning."

My grandpa, who I am proudly named after, was 91 and had been in failing health for some time. We made the trip to Iowa that past Thanksgiving to say our final good-byes. I wanted him to see both of his great-grandchildren, the oldest of which is also named after him. I knew then it would be the last time we'd see him down here.

I had tried to prepare for this moment because we knew it was coming. But it's still a shock when it

finally happens. I consoled Mom as best I could, and we discussed the funeral arrangements.

"Wednesday afternoon," she said. I told her we'd be up Monday. Thankfully, I was surrounded by a supportive family. Most everyone on my dad's side knew and loved Grandpa, and they mourned his loss along with me.

By Sunday morning, New Year's Day, the initial shock of Grandpa's passing had worn off, and we continued to enjoy time together with our families. Everyone else was heading back home that day, so we said our goodbyes and Katie and I started packing for our trip to Iowa.

I then remembered leaving my stand in the woods. I wanted to retrieve it before we left, so I decided to hunt from it one last afternoon and bring it in after dark. A quiet evening in the woods was just what I needed anyway—a chance to reflect and enjoy the solitude after an emotional weekend.

As I drove to the cattle gate where I enter the farm, I noticed a beer bottle in the road. For a second, I debated whether or not to mess with it. I preach in my hunter education classes about leaving your hunting ground in better shape than you found it, and Grandpa always taught

My only thought was,  
"No! No! No! That  
didn't just happen."



me that actions speak louder than words. So I tossed the empty bottle into the back of my truck and continued toward my stand.

By midafternoon, I was safely strapped in my tree and ready to enjoy the hunt. The weather was calm and the woods were unusually quiet.

After about an hour, movement from the side caught my eye. I looked back and glimpsed another buck moving through the tall grass. He was in the same area where my big 10-pointer came from.

As I peered through my binoculars, I was thinking, “There’s no way it’s him. That brute has got to be in the next county by now.” But sure enough, there were four points on his left side, six on the right. It was him. And he was coming down the trail right to me!

After an excruciating 10 minutes, he finally worked to within 20 yards and was walking past a giant sycamore tree. As soon as his head disappeared, I drew my bow. In the quiet calm of the woods, the friction of the arrow sliding against the rest made just the slightest noise. Unfortunately, it was enough to stop him in his tracks.

All I could see was his back end. I watched him tense up as his hind leg made a slight step backwards. For a second I thought, “Oh no, not again!”

After a lengthy standoff, the giant buck finally stepped out. I put my top pin behind his shoulder and squeezed the release. The deer jumped straight up and bounded off into the thicket.

A bloody arrow was sticking in the ground where the deer once stood. It was a perfect shot—a clean pass through, right behind the shoulder.

Then I got the shakes. The remarkable chain of events that led to that moment finally sunk in. Throughout my 30 years of deer hunting, I’ve never even heard of a second-chance story like this. Two chances? From the same stand? With the same deer? It just doesn’t happen that way.

Then it dawned on me. I had help.

With a rush of adrenaline, I hurried down the tree and sprinted up the hill to get a phone signal. I had to tell someone. I got a weak signal and called Dad at the house.

“Get the four-wheeler and bring my family,” I hollered through the static.

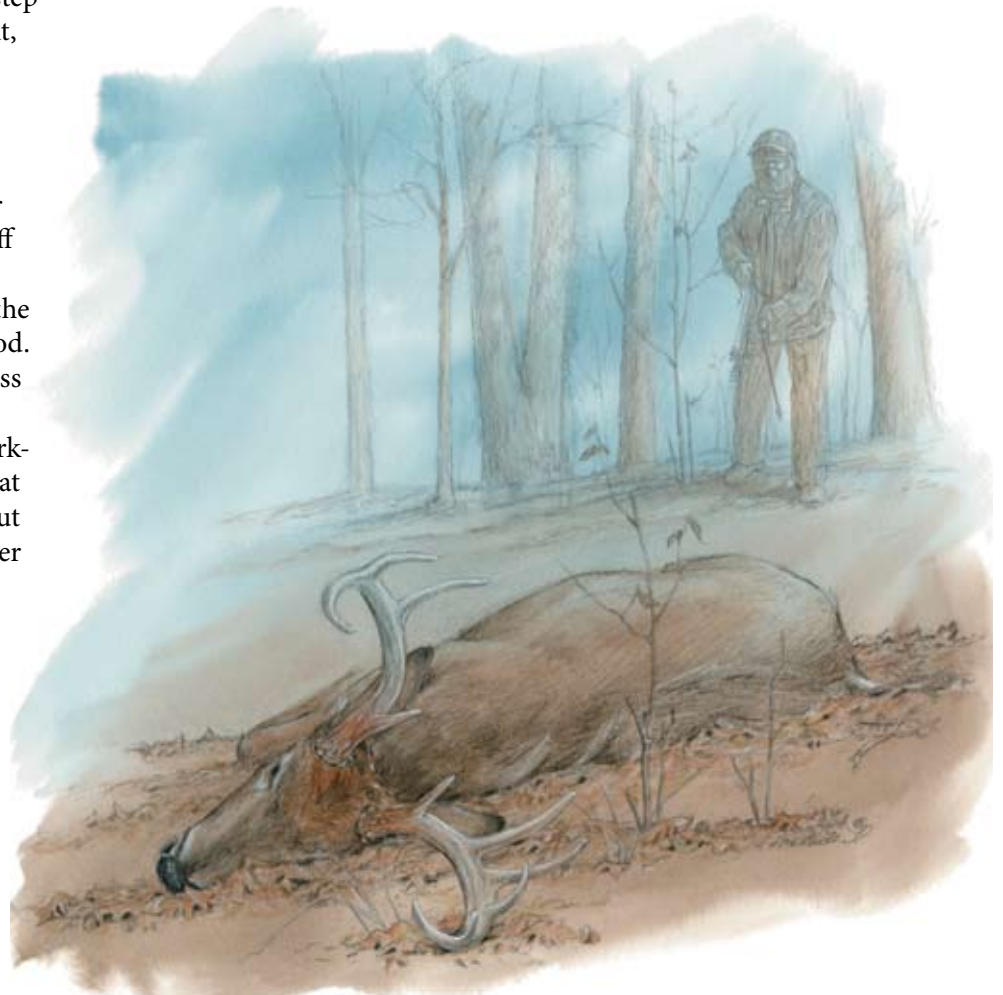
Next, I gave Mom a call, and this is when I really lost it. The events of the last three days were taking their toll. When she answered the phone, I babbled incoherently.

“Grandpa did it, Grandpa did it,” I finally said. “He was with me tonight. He’s OK!”

Later that night, after I gained my composure, Dad and I loaded Grandpa’s 10-pointer onto the four-wheeler and brought him back to my waiting family. Everyone was just as excited as I was. Sam was bundled up and anxiously waiting.

“I want to go to deer hunting, Daddy. I want to feel the antlers,” he pleaded.

Three days later, at Grandpa’s funeral, I placed a photo of our family and the deer in his casket. On the back I’d written a note thanking him for all he’d taught me throughout his life and, most important, for letting us know he was all right. ▲



# Hunting and Fishing Calendar

## FISHING

	OPEN	CLOSE
Black Bass (certain Ozark streams, see the <i>Wildlife Code</i> )	5/26/07	2/29/08
impoundments and other streams year-round		
Bullfrog	Sunset 6/30/08	Midnight 10/31/08
Gigging nongame fish	9/15/07	1/31/08
Trout Parks Catch and Release	6/9/07	2/11/08
Friday—Monday at Bennett Spring, Montauk and Roaring rivers and daily at Maramec Springs		

## HUNTING

	OPEN	CLOSE
Common Snipe	9/1/07	12/16/07
Coyotes	5/7/07	3/31/08
Crow	11/1/07	3/3/08
Deer		
Archery	9/15/07 11/21/07	11/9/07 1/15/08
Firearms		
November Portion	11/10/07	11/20/07
Muzzleloader	11/23/07	12/2/07
Antlerless	12/8/07	12/16/07
Dove	9/1/07	11/9/07
Furbearers	11/15/07	1/31/08
Groundhog	5/7/07	12/15/07
Pheasants		
North Zone	11/1/07	1/15/08
South Zone	12/1/07	12/12/07
Quail	11/1/07	1/15/08
Rabbits	10/1/07	2/15/08
Ruffed Grouse	10/15/07	1/15/08
Sora and Virginia Rails	9/1/07	11/9/07
Squirrels	5/26/07	2/15/08
Turkey		
Fall Archery	9/15/07 11/21/07	11/9/07 1/15/08
Waterfowl	please see the <i>Waterfowl Hunting Digest</i> or see <a href="http://www.missouriconservation.org/7573">www.missouriconservation.org/7573</a>	
Woodcock	10/15/07	11/28/07

## TRAPPING

	OPEN	CLOSE
Beaver and Nutria	11/15/07	3/31/08
Furbearers	11/15/07	1/31/08
Otters and Muskrats	11/15/07	see <i>Wildlife Code</i>

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 *Fall Deer and Turkey Hunting Regulations and Information*, the *Waterfowl Hunting Digest* and the *Migratory Bird Hunting Digest*. For more information visit [www.missouriconservation.org/8707](http://www.missouriconservation.org/8707) or permit vendors.

The Department of Conservation's computerized point-of-sale system allows you to purchase or replace your permits through local vendors or by phone. The toll-free number is 800-392-4115. Allow 10 days for delivery of telephone purchases. To purchase permits online go to [www.wildlifelicense.com/mo/](http://www.wildlifelicense.com/mo/).



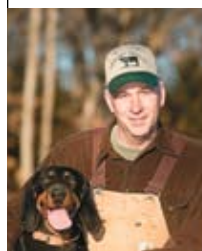
**Deer Season: When sportsmen take to the outdoors to hunt bucks and doze.**

## Contributors



RANDY DOMAN is the conservation agent for Dade County. He enjoys a good old-fashioned hunting story, and he feels blessed to enjoy the natural resources handed down from the previous generation of conservationists. He's also grateful for the privilege to protect them for the next generation.

News Services Coordinator JIM LOW loves wade-fishing small streams for smallmouth bass and sunfish. He is the immediate past president of the Outdoor Writers Association of America and an 11-time winner of the Izaak Walton League of America's Outdoor Ethics Writing Award.



REX MARTENSEN is a 16-year Department employee who worked in Fisheries and Protection divisions before filling his current role as field program supervisor for the Private Land Services Division. Rex and his family reside in Moniteau County. He enjoys fishing and all types of hunting.

BRAD MCCORD is the agricultural programs coordinator for the Department. His work includes developing partnerships with agricultural and conservation groups and administering land-owner cost-share and incentive programs. Brad and his wife, Jennifer, live in California, Mo., with daughters Sarah and Madison.



## TIME CAPSULE

### November 1997

Amber Cox wrote about the 50th anniversary of the George O. White State Forest Nursery in *Making Missouri Green*. Located in Texas County, the nursery opened in 1935, just a year after the Forest Service designated national forests in Missouri. Forest Service Forester George O. White, who would later become Missouri's first state forester, selected the original 40-acre site for the nursery. The buildings were constructed by Civilian Conservation Corps and Work Projects Administration workers earning \$1 a day. The nursery operation was shut down in 1942 during World War II due to disrupted funds for reforestation, but it was reopened in 1947. That same year, it was taken over by the Department of Conservation. In 1948, the Department distributed its first crop of seedlings.—*Contributed by the Circulation staff*



## AGENT NOTES

*Get help managing deer on your property.*

WITH THE FIREARMS deer season just around the corner, many landowners are asking how they can best manage the deer on their property. Whether they are primarily interested in managing for larger bucks or they simply want to reduce the number of deer in their area, landowners can achieve their goals by emphasizing antlerless deer harvest.

Shifting hunting pressure from younger bucks to antlerless deer both increases overall buck size and improves the buck-to-doe ratio. That's because more 2- and 3-year-old bucks are able to reach the 4- and 5-year-old age class, during which deer antlers attain their prime.

Controlled doe management is the most effective way to reduce overall herd size and reduce crop damage. The Conservation Department's liberal antlerless deer strategies are designed to help landowners control deer numbers.

Landowners interested in deer management are encouraged to contact their local conservation agent. We provide a number of services, including food plot seed in the spring and habitat advice, to those wanting to better manage their local deer herd. We can also put you in touch with a private lands conservationist for more technical advice and help with available cost-share programs.



**Randy Doman is the conservation agent for Dade County, which is in the Southwest region. If you would like to contact the agent for your county, phone your regional Conservation office listed on page 3.**

## behind the CODE

*When hunting dogs and landowners collide.*

BY TOM Cwynar

Missouri's *Wildlife Code* allows the use of dogs during prescribed open seasons to take or pursue wildlife, except for beaver, deer, mink, muskrats, river otters and turkeys. All dogs used for hunting, except for waterfowl and game bird hunting, have to be equipped with a collar that includes the full name and address or complete telephone number of the owner. Additional regulations and restrictions for hunting with dogs, including special restrictions in certain counties, can be found on page 81 and on page 90 of the *Wildlife Code*.



Dogs on private property are not considered to be trespassing. However, state statutes prohibit any person, including hunters, from entering private property without permission, even if they are just trying to retrieve their dogs.

Chapter 273 of the Missouri Revised Statutes allows landowners to pursue and kill dogs that are chasing or injuring livestock. It also allows for recovery of damages from the owner of the dog. Landowners, however, cannot shoot dogs simply for being on their property. Doing so can result in criminal charges.

When dealing with confrontations between people who use dogs for hunting and people who don't want dogs on their property, a conservation agent's only option is to impartially apply state statutes and the *Wildlife Code*, while encouraging all parties involved to show mutual respect and consideration.

# “I AM THE NEXT GENERATION OF CONSERVATION”

Mike Cook likes to hunt where and whenever he can, and he has participated for the past two years in the managed deer hunt for the disabled at Bois D'arc Conservation Area near Springfield. He plans to attend the hunt again this year. If he doesn't get drawn to participate, he will be there encouraging those who are hunting. "I think everything they do there at Bois D'arc for disabled people, from Day at the Range, to the managed hunts, is just fantastic." To learn more about conservation activities, visit [www.missouriconservation.org](http://www.missouriconservation.org). —PHOTO BY CLIFF WHITE



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*Missouri households*