

MISSOURI. Conservationist

VOLUME 69, ISSUE 5, MAY 2008 • SERVING NATURE & YOU



Discover Nature...Together

The boy was smaller than most of his classmates. Like many, he had trouble getting the worm on his hook. With a great heave, he cast as far as he could into the pond. Then waited. Other students began

catching catfish. He cast again and again. Suddenly he tensed. "I think I got one," he whispered. Finally he reeled it in and the teacher helped him unhook it. He jumped up and down, pumping his arms in air, yelling with absolute joy, "I got one! I got one! I got one!" He was bliss in action.

What if every child (or if every adult who didn't have a chance as a child) could live that happy moment? It could be fishing, seeing an arrow hit a target, breaking clay birds with a shotgun, finding a spot with a map and compass, or simply exploring and taking home a flower or rock that becomes a personal treasure.

You can help make it happen with your children, grandchildren or neighbors. I suspect with most of you it will be your grandchildren or neighbors. Two years ago we did a survey of *Missouri Conservationist* readers and found the average reader's age is 58. That's about ten years older than what it was in the 1990s. We also learned most of our readers don't have children at home. Then how do we inform the next generation, if not with this magazine?

To get a better idea of what to do, we conducted 12 focus groups last year with people ages 25–40. They said, "If you want to reach us, you need to do it through our children." So we're exploring the possibility of starting a children's magazine that would go to their homes six times a year and have interactive Web links.

Passing the word along is key. Shared experiences and

word-of-mouth—that's how people have always kept cultures thriving. This spring, you may hear ads from the national "Take Me Fishing" campaign. The goal is get people to share the fun.

The idea of being a mentor to someone, of passing along your love of the outdoors, can take many forms. We have a new Apprentice Hunter Authorization. Its purpose is to help people share their passion for hunting with friends and family who may not be sure they're interested. This provides a chance to get a feel of the sport for two years in the presence of a certified hunter. National studies have shown that a third of new hunters

and anglers are over 21. We have youth hunting with hunter-certified adults. Why not give adults a chance to do the same?

What happens, though, when the parents don't know much about the outdoors, but they'd like to instill a love of it in their kids? The Conservation Department's Discover Nature programs will help to bridge this gap. We reach children through programs in schools, through programs for the whole family and through programs geared toward women.

But back to the simple joy of a child and fishing. How about setting a summer goal of taking one child out for their first catch? It won't change the world, but it will change the child.

Lorna Domke, outreach and education division chief



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.*



On the cover and left: Photographer Noppadol Paothong captured both the cover image of a male ruby-throated hummingbird and this photograph of a ruby-throated hummingbird drinking nectar from a thistle. To see more of Noppadol's images, and to read more about these birds, see the article *Nature's Helicopters* starting on page 14.

NextGEN

This section reports on goals established in *The Next Generation of Conservation*. To read more about this plan, visit www.MissouriConservation.org/12843.

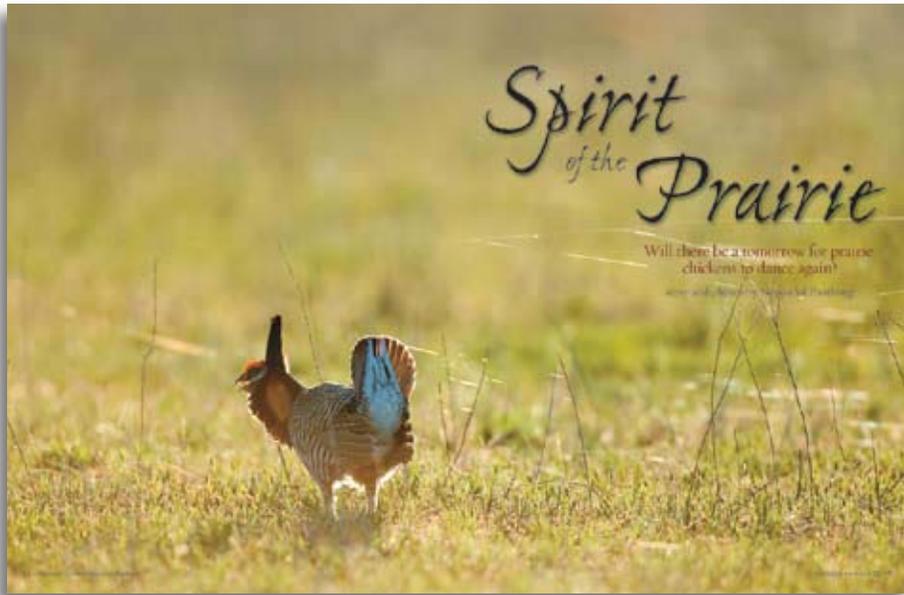
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PRAIRIE SPIRIT

I just had to drop you a line and let you know that I really enjoyed the prairie chicken feature in your recent magazine.

I was an engineer on the former Missouri Pacific Railroad (now Union Pacific) and am currently an engineer for the Missouri & Northern Arkansas Railroad. In the late 1970s, on our trips north out of Carthage, we would routinely see prairie chickens just north of Sheldon in the large fields of prairie grasses. It's been years since I have had the pleasure of seeing these magnificent birds. Noppadol Paothong is a real asset to your staff. His photographs and article were world class [*Spirit of the Prairie*; March].

It would be a real shame to lose these birds in our great state. I hope you can do what it takes to keep these wonderful birds alive and well in Missouri.

Rick Pendleton, Carthage

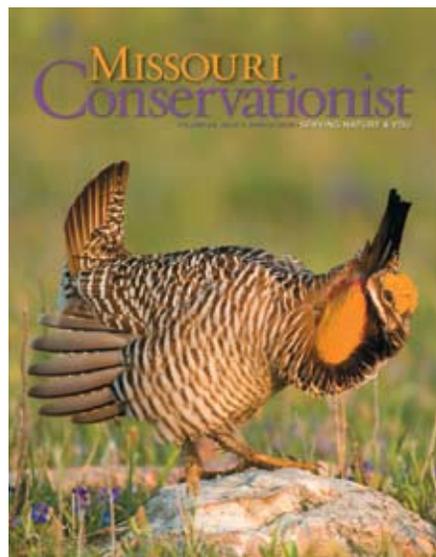
As always, I enjoyed the March *Missouri Conservationist*. I grew up and lived in Missouri

for 30 years, and while I do not hunt or fish, I am an avid outdoorsperson and enjoy learning about the MDC's efforts. I was particularly engaged by the article about prairie chickens.

I have risen at 4:00 a.m. on a spring morning to watch prairie chickens booming. Their ritual is incredible to observe, and Noppadol Paothong did a wonderful job capturing this dance in photos and prose.

Kudos for helping Missourians and others learn about nature and the importance of its preservation in this way!

Camille Consolvo, Bowling Green, Ohio



FLASHBACK: 1970

On my initial scan of the April *Conservationist* a name from my past jumped off the pages, and for a moment I closed my eyes, as a smile began to grow. The "Time Capsule" review of *Edible Wild Plants* by Wendell Jeffery brought back memories long ago stored away.

In 1970, before moving on to work for the Conservation Commission, Mr. Jeffery was my 8th grade biology teacher in Ozark. Wearing his white shirt and black tie and black-framed glasses, he planted a seed, sparking in me a lifelong interest and love of nature.

Sometimes we let a name or a face slip by the wayside and yes, I admit I had done so, too. However, never again will Mr. Jeffery and what he taught be a forgotten memory. From the heart, thank you Mr. Jeffery.

Tony Shawley, Ozark High Class of 1975

HUNT FOR FAMILY TIME

Thank you for the article in the March issue about the mother who hunts with her sons [*The Family That Hunts Together* by Lynn Youngblood]. I have always believed in hunting with my three daughters and two sons. It is a time to find out what is going on with their lives, to teach them about nature and to make our bond stronger. Many times we don't get anything, but we have fun and see a lot of wildlife. Their father also takes the kids hunting, and it is always an adventure they talk about for weeks. Keep encouraging parents to get out with their kids.

Julie A. Brown, Boonville

BALANCING ACT

I wanted to respond to the letter titled "Hunting Heavy" in the March issue. As an avid hunter and fisherman I read the magazine mostly for articles relating to those pursuits, and I find that sometimes there isn't much because of the variety of other articles you print. In fact, I highly commend you for the variety of topics you cover, and what I consider to be great balance. Surely some issues will have more of one than the other, but overall you do an excellent job. Also, conservation is the wise use of resources, including wildlife and fish, and articles regarding such use do fit in any such magazine.

Colin Comer, Fulton

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Reader Photo CRAPPIE FACE

Linda Krenning of Beaufort photographed this crappie in an aquarium at Lost Valley Fish Hatchery and Visitors Center in Warsaw. "My husband being an avid fisherman, this was a must see for us," said Krenning. "The Conservation Department employees were wonderful in showing us around and explaining all that they do there. A major attraction at the hatchery is their children's fishing pond. They [each child] are even able to keep two of the fish they catch."

on the WEB

This month check out our featured Web pages, or go online anytime to learn more about conservation at www.MissouriConservation.org.



FREE FISHING DAYS

www.MissouriConservation.org/4162

Anglers can wet their lines in state waters without having to buy fishing permits, daily trout tags or trout permits at most locations.



FORESTKEEPERS

www.MissouriConservation.org/13920

Keeping an eye on trees and forests is a task that cannot be met by a single agency or group. Participate in this valuable volunteer forestry project.



INVASIVE SPECIES

www.MissouriConservation.org/8228

Find detailed information about non-native, invasive wildlife that threaten Missouri's natural ecosystems.



ASK THE OMBUDSMAN

Q: We have a persimmon tree that blossoms every spring, but the blooms fall off and there have never been any persimmons on this tree. Why not?

A: Plant propagation is an interesting topic. Persimmon trees are dioecious, meaning that it takes a male tree to pollinate the blossoms of a female tree. Apparently, you're lacking a male tree in the immediate vicinity. (Monoecious species, such as oak, have both male and female parts on the same tree—generally on the same limb.)

The story doesn't end there when it comes to tree reproduction. Trees will also sucker, or sprout, from root growth. This may be a survival method used to overcome damage or disease. Sprouting is also what occurs shortly after a timber harvest. Often, the reproduction is so thick after the cut you can't walk through the area.

Wildlife and weather play a role, too. Many seeds need a certain amount of cold temperature in order to sprout the following season. And once you get that persimmon to produce, it may take a fox or opossum to eat the fruit and pass the seeds before they're viable. Without squirrels stashing their winter food supply, new oaks wouldn't be nearly as prevalent.

The *Trees of Missouri Field Guide* covers such topics and is a handy guide for identifying trees. It's nominally priced at \$7.50, plus sales tax, shipping and handling. You can order it at www.mdcnatureshop.com, or by phone, toll-free, at 877-521-8632. It's also available at Department Nature Centers and Regional Offices.

Ombudsman Ken Drenon will respond to your questions, suggestions or complaints concerning Department of Conservation programs. Write him at PO 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.

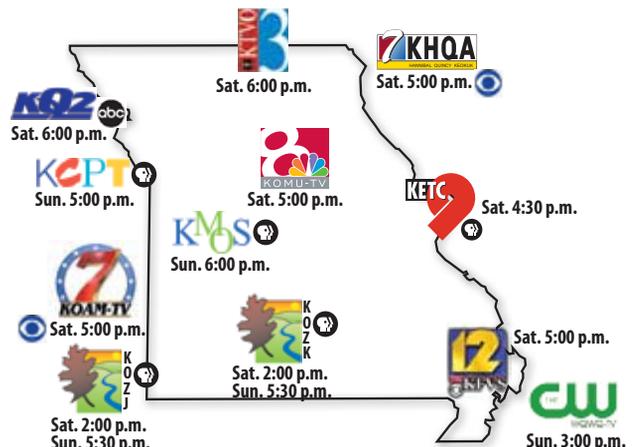
on the TV

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

www.MissouriConservation.org/8726.



Television the way nature intended!





Species of Concern

Small Whorled Pogonia



Common name: Small whorled pogonia

Scientific names: *Isotria medeoloides*

Range: Bollinger County (historical)

Classification: Critically imperiled in Missouri

To learn more about endangered species: www.MissouriConservation.org/8227

THIS SMALL PERENNIAL is sort of Missouri's botanical Holy Grail. It is considered threatened throughout its range, which includes most of the Eastern Seaboard. It has been found in 18 states and is critically imperiled in 14. It has been found only once in Missouri, in Bollinger County in 1897. However, new populations have been discovered in New England, raising hopes it could be rediscovered here.

Small whorled pogonia exists in isolated populations, seldom numbering more than 25. "Whorled" refers to the distinctive arrangement of four to six leaves beneath one or two small, green-to-yellowish-green flowers. The entire plant stands only about 10 inches tall.

Its slightly more common relative, large whorled pogonia (*Isotria verticillata*), is known to occur in only four southeast Missouri counties. Large whorled pogonia has longer, purple-tinged sepals and petals.

Researchers are seeking ways to conserve small whorled pogonia in states where it is still found.

Don't "Rescue" Fawns

Removing these young animals puts them at risk.

Each spring, deer fawns are removed from the wild needlessly and against their best interests. Very young fawns spend much of their time alone in secluded spots carefully chosen by their mothers. Well-meaning people imagine these animals are orphans and take them home or to wildlife rescue societies. This dramatically reduces their chances of surviving to live normal lives. "Rescued" deer can be returned to the spots where they were found. Human scent will not keep their mothers away.



Nighthawks

These urban-dwelling birds are murder on mosquitoes.

The common nighthawk (*Chordeiles minor*) is not a hawk, but a member of the "goatsucker" family, Caprimulgidae. English superstition held that these birds used their wide mouths to steal milk from dairy goats. A better name would be "mosquitosuckers." Nighthawks and their close relatives, whip-poor-wills and chuck-will's-widows, consume hundreds of the biting insects daily. White wing bars and a nasal "peent" call (like a woodcock) identify nighthawks on the wing. They like to nest atop flat, gravel-covered roofs and frequently forage around street lights, which attract swarms of insects. Their affinity for urban areas has enabled nighthawks to spread beyond their natural nesting habitat—glades, prairies and other open areas. They spend the winter in South America.



Visit birds.cornell.edu/AllAboutBirds/BirdGuide/Common_Night_hawk_dtl.html for more information.



NextGEN

Meet the Migrants!

At Cape Girardeau's Conservation Campus

Millions of birds pass through Missouri each year during arduous journeys that span the globe.

To celebrate this amazing phenomenon, the Cape Girardeau Conservation Campus Nature Center will observe International Migratory Bird Day Saturday, May 10. Come and learn about migration through activities, games and guided bird walks. Meet live birds of prey at one of The World Bird Sanctuary's programs at 11 a.m. and 2 p.m. in the nature center auditorium. Or come early and watch one of the bird-banding demonstrations that begin at 7 a.m. For details, call 573-290-5218.



kayak accesses below the midpoint of the Grand include Holmes Bend Access, Newman Memorial Access and Fountain Grove CA. Lower-river boat ramps include the Coval Gann—Chillicothe, Sumner, Bosworth and Brunswick accesses.

Grand River

Enjoy great fishing access without the crowds.

Fishing can't always be excellent, but on this northern tributary of the Missouri River it's always grand. Anglers don't have to be crowded as they pursue channel, flathead and blue catfish; the Grand River runs 145 miles from the confluence of its West and Middle forks near Albany. Take your pick of fishing from boat or bank, with trotlines, bank poles, cane poles or heavy-duty big-cat tackle. You also will find plenty of access. Launch a canoe or kayak at Andy Denton, Savage or Green accesses in the upper reach of the river or trailered boats at Elam Bend Conservation Area (CA) or Wabash Crossing Access on the upper Grand. Canoe and

Trail Guide

TALBOT CONSERVATION AREA



HIKERS, BIKERS, HORSEBACK riders and quail hunters all will find something to like about this 4,361-acre area in Lawrence County, west of Springfield. Bobwhite quail enthusiasts will find good hunting at this area,

which is one of the Conservation Department's 19 Quail Emphasis Areas. The area also has 10.5 miles of multi-purpose trail open to hikers, mountain bikers and horseback riders. Hikers have the Spring River Nature Trail to themselves. This 1.7-mile, natural-surface loop at the area's south end has three cut-off trails that permit users to take shorter hikes without doubling back. Features of this trail include a scenic bluff overlook, benches and a variety of landscapes from forest to open fields with native grasses. Sycamores along the river near the south end of the area harbor a communal blue heron nesting site, or rookery. Near the area's north end is a 7-acre fishing lake with a boat ramp and a handicap-accessible fishing jetty.

Area name: Robert E. Talbot Conservation Area
Trails: Two multi-purpose trails and one foot trail totaling 10.5 miles
Unique features: Quail hunting and heron rookery
For more information: Call 417-895-6880 or visit www.MissouriConservation.org/a8037

GRAND RIVER: CLIFF WHITE; TRAIL GUIDE: DAVID STONNER



TAKING ACTION

Children's Garden Club



Group Featured: Children's Garden Club

Group Mission: To educate, as well as bring delight in gardening and horticulture through hands-on projects that children can continue at home.

Project location: St. Louis

Students in Action

Affecting conservation through government

The Conservation Federation of Missouri's Conservation Leadership Corps promotes leadership for the next generation by involving high school and college students in the creation of conservation policy and actions. High school sophomores through undergraduate college students (who are active in organized conservation activities through school projects or organizations) are nominated for the three-year program.



CLC members prepare resolutions that are submitted to the Federation, state agencies and the Missouri General Assembly. They also discuss their views with elected officials. Successful resolutions have addressed a variety of issues, including urban Canada goose population control, bobwhite quail conservation, non-point source pollution and black bear management. Educators and leaders of conservation-related programs can download nomination forms at www.confedmo.org, or call 573-634-2322 for more information.



WITH THEIR CREATIVITY, love of nature and delight at getting their hands dirty, kids are natural gardeners. Even if you're not a gardener yourself, the Children's Garden Club can help you build on these natural inclinations and encourage your child's self-esteem and love of the outdoors.

Developed by horticulturist Douglas R. Wolter and the St. Louis County Department of Parks and Recreation, the club aspires to educate and encourage delight in gardening and horticulture through hands-on projects. Organized in 1999 and federated in 2000 through the Federated Garden Clubs of Missouri Inc., the club meets monthly on the first Saturday (except July and September), at 9 a.m., at sponsoring locations in St. Louis County and City. All are free with no reservations required. Everyone is welcome.

Sponsors include KTVI FOX 2, Missouri Botanical Garden, Sherwood Forest Nursery and Garden Center, St. Louis Water Garden Club, Gilberg Perennial Farms, For the Garden at Haefner's, Sappington Garden Shop and St. Louis Florist Network. For more information on events and locations, visit the Children's Garden Club at www.co.st-louis.mo.us/parks/childrensgarden.html, the Federated Garden Clubs of Missouri at www.gardencentral.org/fgcmissouri, or call the St. County Department of Parks and Recreation at 314-615-5000.



NextGEN

Ploop!

Bank anglers love to see their bobbers bob.

One of the best ways to catch fish from a small lake or pond is to stalk the shoreline, casting near floating vegetation, swatches of brush and other likely fish holding positions.

Bobbers help keep your bait and, sometimes, lures out of the mud and above the clutter that often litters a pond bottom. This means fish have a better chance of seeing your offering, and you experience fewer snags.

Usually it's best to avoid large bobbers that fish can't pull down easily. Add weight to your line as necessary so that the bobber just barely floats.

Adjust depths frequently, especially if you aren't having luck at a fishy looking location. The fish may be above or below your offering. Be patient, but don't camp on a spot.

Cast upwind of your target so that your bobber will drift toward where you want to fish. Make sure to retrieve before your bobber tangles. Ripples in the water will jig your bobber and bait plenty. If there is no wind, twitch your line occasionally.

You can often locate fish by casting far out and letting the bobber sit in one place for 15 to 30 seconds before moving it a few feet closer. Or, you might "slow troll" by reeling in at a steady, but extremely slow, pace.



Conservation Area Fishing

Scout it Out



Name: Young Conservation Area

Location: Jefferson County, south on Route W off I-44, then 3 miles west on Route FF.

For more info: www.MissouriConservation.org/a8605



ONE SECRET TO good fishing is finding spots that other anglers don't know about or ignore. Even though conservation areas are open to the public, many contain waters that don't receive much fishing pressure. A good example is Young Conservation Area in Jefferson County. This 970-acre area contains two fishing ponds and has LaBarque Creek running through it. These waters don't get fished much, even though the area is within an hour's drive of millions of Missourians.

It takes some prospecting to find fishful conservation ponds in your area, but that's why they still exist. Not everyone is willing to undertake the effort, which often includes a short hike to reach the fishing waters.

To find nearby fishable waters, browse area brochures at your regional Conservation Department office (see page 3), or go to www.MissouriConservation.org/2930. Click "Detailed Search" along the left border, identify your county or region, and either select "fishing lake or pond" under "Natural Features" or select the exact type of fish you seek under "Activities." Click on the selections to read an area summary. Links on the left side of the page lead you to area maps, brochures and regulations.

CA FISHING: DAVID STONNER; BOBBER: JIM RATHER



The Menace of Chiggers

These pests may come aboard each time you brush against vegetation.

When you part the reeds at a pond's edge, brush against a shrub along the trail or set your bottom on the grass to rest, you risk infestation by chigger larvae. These insects, which cause grief way out of proportion to their mini size, climb vegetation to increase their chances of hitching a ride on animals they can feed upon. People don't make the best chigger hosts, but that doesn't stop the larvae from trying. Chiggers usually have their best success where they can push against something to help them scrape our skin. That's why so many chigger bites occur beneath the elastic of socks or underwear. They also tend to be more successful at biting where our skin is thinnest or where opposing flesh gives them leverage.

Wear long-sleeved shirts and long pants with the cuffs tucked into your socks to help keep chiggers away from your skin. A helpful precaution is to pretreat the fabric of your clothes with a commercial aerosol product that contains the pesticide permethrin. Regular insect



repellent also helps keep them away.

Many chiggers may roam your body and clothes for hours without your noticing them. The best time to deal with a possible exposure is before you see or feel a bite. A shower sends them down the drain, but a dry overall toweling also helps. Unlike ticks, chigger larvae are fairly fragile. A brisk rubdown is enough to knock them off or crush them.

To learn more, search "chiggers" at www.MissouriConservation.org.

BIRDS OF A FEATHER



PHOTO: NOPPADOL PAOTHONG; ART: MARK RAITHEL

Redwings Love Ponds

RED-WINGED BLACKBIRDS frequently build their woven, grass-lined nests in vegetation near or overhanging the fringes of ponds. The brown, striped females are typically still incubating eggs in early May, and are feeding young by the middle of the month. The males, black with bright red shoulders, fiercely defend the nests and broods, even attacking or feinting attacks on large animals, including people, who venture too close.

Blackbirds often choose what seem to be precarious perches on reeds, twigs and cattail stems that sway or bend under their meager weight. The birds have an *oak-a-LEEE* song. Their call repertoire also includes *chek* and *cheer* sounds.

Although blackbirds around a pond are fascinating to watch, hundreds, thousands or even millions of them sometimes gather with starlings in winter roosts. The birds may venture as far as 50 miles from the roost each day to forage for food. Such large numbers sometimes cause landowners problems, ranging from fouling beneath a roost to the consumption of grain.

For information about blackbirds, go to www.MissouriConservation.org/7980. For help with controlling nuisance blackbirds, go to www.MissouriConservation.org/n187 or call your closest Conservation Department office. Regional office numbers are listed on page 3.



Fixing Leaky Ponds

Try these easy fixes for porousness and perforations.

Few things are more frustrating than a pond that won't hold water. Causes range from sandy bottoms to tree roots perforating dams. Many leaks can be fixed. Dams sometimes can be sealed with bentonite, a special clay available at farm supply stores. To avoid problems with tree roots, remove trees less than 4 inches in diameter. Leave larger ones. Rotting roots can create leaks. For more about leaky ponds, get the "Missouri Pond Handbook" or "The Problem of Leaky Ponds," from Conservation Department offices or by writing MDC, (requested publication's name), PO Box 180, Jefferson City, MO 65102-0180, or e-mail pubstaff@mdc.mo.gov.



ATVs and Streams Don't Mix

Four-wheeling in streams isn't cool.

Are you hoping to enjoy some cool fun on your all-terrain vehicle? Don't do it in a stream. That's not cool at all.

Running ORVs in or through streams kills aquatic insects and other small animals that fish depend on for food. It also destroys habitat needed by fish and the animals they eat. Furthermore, it muddies water, making it less

pleasant for swimming, canoeing, fishing and other recreation.

Missouri law prohibits driving ORVs in streams except when fording streams at customary road crossings or for agricultural purposes on land owned by the ORV operator. Doing so under other circumstances can bring fines and suspension of hunting and fishing privileges.

Missouri has public areas set aside especially for ORV riders. These include:

- Finger Lakes State Park in Boone County, 573-443-5315.
- St. Joe State Park, 8,238 acres in St. Francois County, 573-431-1069.
- Sutton Bluff Recreation Area in Reynolds County, 573-729-6656.
- Chadwick ATV and Motorcycle Area in Christian County, 417-683-4428.

Stream Team



Gallatin R-V School



DENNIS STEIGERWALT IS always alert for ways to create "teachable moments" for his advanced science students. When he learned that Missouri Stream Teams would give him chemical water testing equipment, he knew it was the perfect enhancement for field trips. "Before that I had taken kids out to the Grand River just to expose them to the outdoors," said Steigerwalt. "This gave us a good reason to be out there. After that, it just kind of snowballed." Thirteen years later, the R-V Stream Team's "snowball" includes opening the stream team to all students in grades 9 through 12, getting more than 1,000 youths involved in water-quality monitoring, picking up 2.5 tons of litter, adopting the Wabash Crossing Access, forming a chapter of the Missouri Forestkeepers Network and sending students to Maryland to represent Missouri at the 30th anniversary celebration of the Clean Water Act.

Stream Team Number: 697

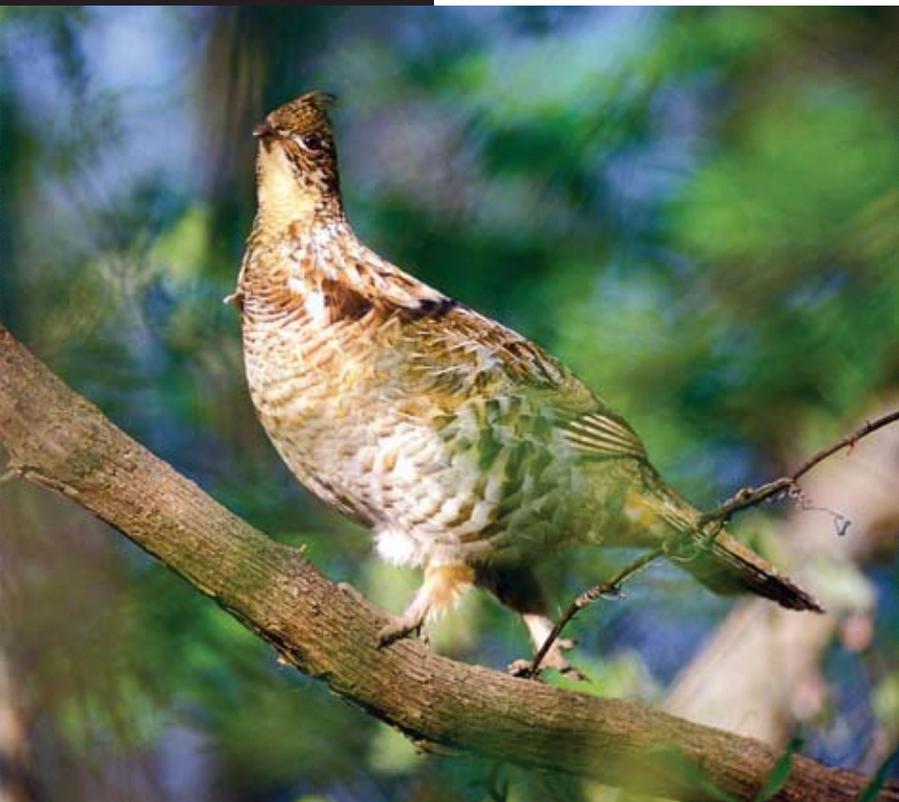
Date formed: August 1995

Location: Gallatin

For more info about Stream Teams: www.mostreamteam.org



Our Glorious Forests RIVER HILLS FOREST HABITAT PROJECT



Project area: 300,000 acres of public and private land
Location: In southern Warren, Montgomery and Callaway counties
Highlights: Little Lost Creek and Daniel Boone Conservation Areas form the project's core. Both areas serve as habitat for ruffed grouse and migrant songbirds. Both areas permit and facilitate a wide variety of outdoor activities: hunting, camping, hiking, biking, horseback riding, birding, etc.
Find more info: Call area manager Gus Raeker at 636-456-3368



HISTORICALLY, WILDFIRES AND other natural disturbances kept the forested river hills of Warren, Montgomery and Callaway counties in good shape for ruffed grouse and migrant songbirds. Today, thanks to the River Hills Forest Habitat Project, those hills are once again becoming a paradise of birds. The project partners, including the Conservation Department, Ruffed Grouse Society, Audubon Society of Missouri, National Wild Turkey Federation and private landowners, began their work in 2002. Their goal was to increase declining populations of sensitive bird species by restoring the woodland natural communities on which they depend. Through various cost-share programs, the project has restored approximately 7,000 acres of privately owned forest habitat. Populations of many native plants and wildlife species have already rebounded, and project members hope ruffed grouse will soon follow. Although the project area is mostly on private land, visitors can view restoration results at Daniel Boone or Little Lost Creek Conservation Areas.

PHOTO: JIM RATHERT

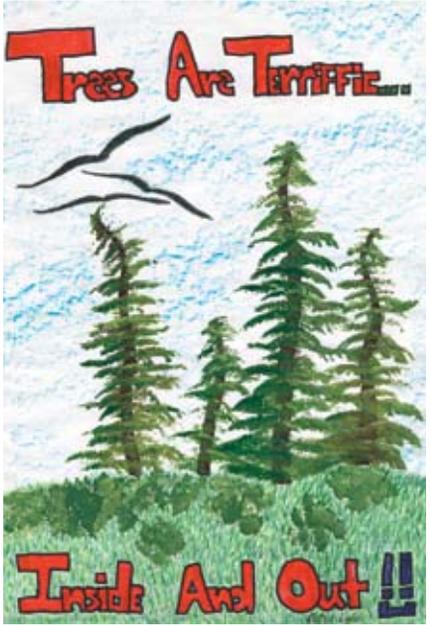
Arbor Day Contest Winner

Student's artwork goes on to compete nationally.

Every year the Missouri Department of Conservation and the Missouri Community Forestry Council invite the state's fifth-grade students to enter the Fifth Grade Arbor Day Poster contest. This year's contest theme, established by the National Arbor Day Foundation, was "Trees are Terrific... Inside and Out!" Missouri's 2008 winner is Katie Lyle, of Lewis and Clark Elementary in St. Peters. "I feel honored that my poster was chosen out of entries from all across the state," she said.

The Conservation Department will plant a tree in Katie's honor in her community. She will also receive a \$50 savings bond from Forest ReLeaf of Missouri and advance to the national contest, where prizes include a \$1,000 savings bond and an expense-paid trip to the 2008 National Arbor Day celebration.

Through the Arbor Day Poster contest and accompanying curriculum materials, children in more than 75,000 classrooms nationwide learn why healthy forests need a diverse mix of tree species. Instructional materials are designed to meet national standards for science, geography and education.





NextGEN

Bradford Farm Field Day

Tours show native plants at work for quail.

Learn to use native plants for quail habitat enhancement and conservation at the University of Missouri Bradford Research and Extension Center on June 26, from 4 to 8 p.m. Some featured stops include native plants used for wildlife, conservation and landscaping; trailing soybean and native wildflower food plots; invasive species eradication; buffers and edge feathering; and alternative planting mixes for erosion control.



Bradford Farm is just southeast of Columbia. For directions and more information, call 573-884-7945 or 573-882-4337.

Don't Feed the Bears!

Prevention is the key to nuisance bear control.

If you leave out pet food, livestock feed or loaded garbage cans, you might be luring black bears onto your property. Nuisance black bears aren't common in Missouri, but the southern counties can see a few of them during the spring and summer. This is when mother bears drive away their yearling male cubs. Young males trying to avoid adult males and find food can come into contact with humans.

To keep bears where they belong—in Missouri's southern forests—keep your property free of temptations. Even unkempt birdfeeders can appeal to hungry bears. If you see a black bear, please report the sighting to the Conservation Department at 575-882-9880.



For more information about preventing and coping with nuisance wildlife, visit www.MissouriConservation.org/17182.

Conservation Contractors Help You Help Habitat

On the Ground



IF YOU'D LIKE to implement habitat improvements on your property—but just don't have the time, equipment or skills—call a local conservation contractor. That's what Saline County landowner Bob Sellmeyer did when he and his partners wanted to do some edge feathering on their 120-acre farm. Chain saw-intensive edge feathering is the practice of creating instant shrubby cover for quail by cutting down and leaving trees along fencerows and crop fields. "I'm too old to be running a chain saw!" Bob said. His Department of Conservation private land conservationist, Brent Vandeloecht, recommended several conservation contractors. "Edge feathering wasn't something I wanted to take on, and our guy did a real nice job for us," Bob said. Many conservation contractors have completed Department of Conservation training workshops, which cover topics from forest management to cost-share programs and technical assistance. To find a conservation contractor near you, search www.MissouriConservation.org/12342.

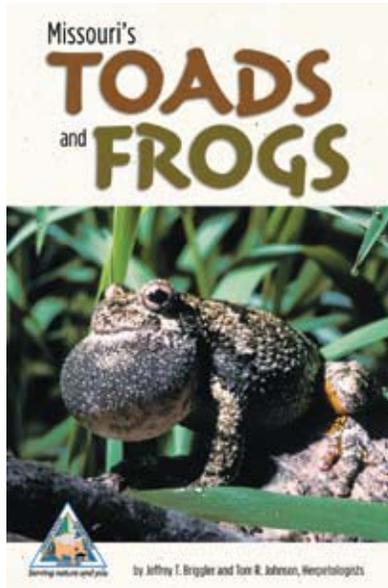
PHOTO: DAVID STONNER; ART: MARK RAITHEL



Missouri's Toads and Frogs

Free booklet helps you identify and conserve these critters.

“Colorful, harmless, vocal and valuable.” So begins *Missouri's Toads and Frogs*, newly revised this spring by herpetologists Jeff Briggler and Tom Johnson. Just in time to celebrate 2008 as International Year of the Frog, this updated publication can help you identify, appreciate and conserve some of Missouri's most musical and important but often unknown wildlife. Like the proverbial canary in a coal mine, frogs and toads indicate local environmental quality and can alert us to problems if we take care to look, listen and respond. The new edition of *Toads and Frogs* includes 24 native species, each with a full-color photo, a range map and details about the species' size, shape, color, habitat, life cycle, food sources and vocalizations. To order this free publication, write to MDC, *Missouri's Toads and Frogs*, PO Box 180, Jefferson City, MO 65102 or e-mail pubstaff@mdc.mo.gov or view online at www.MissouriConservation.org/8262.



Teacher Workshops

Register now for this summer's courses.

If you're pursuing an education degree or want to enrich your teaching, consider signing up for a conservation educator's workshop. You can get undergraduate or graduate credit hours for many of the workshops, several of which also serve as Category 1 Instructional Workshops for the Missouri Environmental Education Certification Program. Cross-curricular workshops address Pre-K through high school educators' needs, and most workshops align with Department of Elementary and Secondary Education Grade Level Expectations. Check www.MissouriConservation.org/8822 for dates, locations and registration information.

NATURE ACTIVITY

Anita B. Gorman Conservation Discovery Center



SURROUNDED BY 10 acres of gardens, wetlands, walkways and wildlife in the heart of Kansas City, the Anita B. Gorman Conservation Discovery Center hosted many Lewis and Clark Bicentennial events between 2004 and

2006. That spirit of celebration returns Saturday, May 31, with Lewis and Clark—Day of Discovery.

In 1804 Lewis and Clark and their Corps members were the first to document scientifically the flora and fauna of the Missouri River Valley. They recorded 130 species of plants that were then new to science. You're invited to continue the Corps' exploration of the natural world. Learn about wildlife and plants that Lewis and Clark discovered, explore a gravel bar, sit in a dugout canoe, throw a tomahawk, write with a quill pen and enter your findings in a journal. See members of the Corps of Discovery in costume as you participate in a wide variety of family activities and crafts.

Program: Lewis and Clark—Day of Discovery

When: Saturday, May 31, from 10 a.m. to 3 p.m.

Where: 4750 Troost, Kansas City

For more information: Call 816-759-7300



NATURE ACTIVITY: CLIFF WHITE



Nature's Helicopters

Our smallest bird makes a big impression

by Andy FORBES, photos by Noppadol RAOTHONG



Ruby-throated hummingbird with cardinal flower

Early spring is one of my favorite times of the year. The weather is warmer after what seems like a lifetime of cold, gray days, choruses of spring peepers fill the night with sound, and the first spring wildflowers add a touch of color to the landscape. Adding to my enjoyment is the knowledge that my backyard will soon be host to a handful of ruby-throated hummingbirds. These energetic, noisy little birds entertain wildlife enthusiasts across Missouri.

There are 335 species of hummingbirds in the world—all of them in North or South America. Hummingbirds come in a variety of sizes, colors and shapes. The bee hummingbird of Cuba is the smallest bird in the world. It measures about 2.25 inches long from bill tip to tail tip and weighs less than a penny.

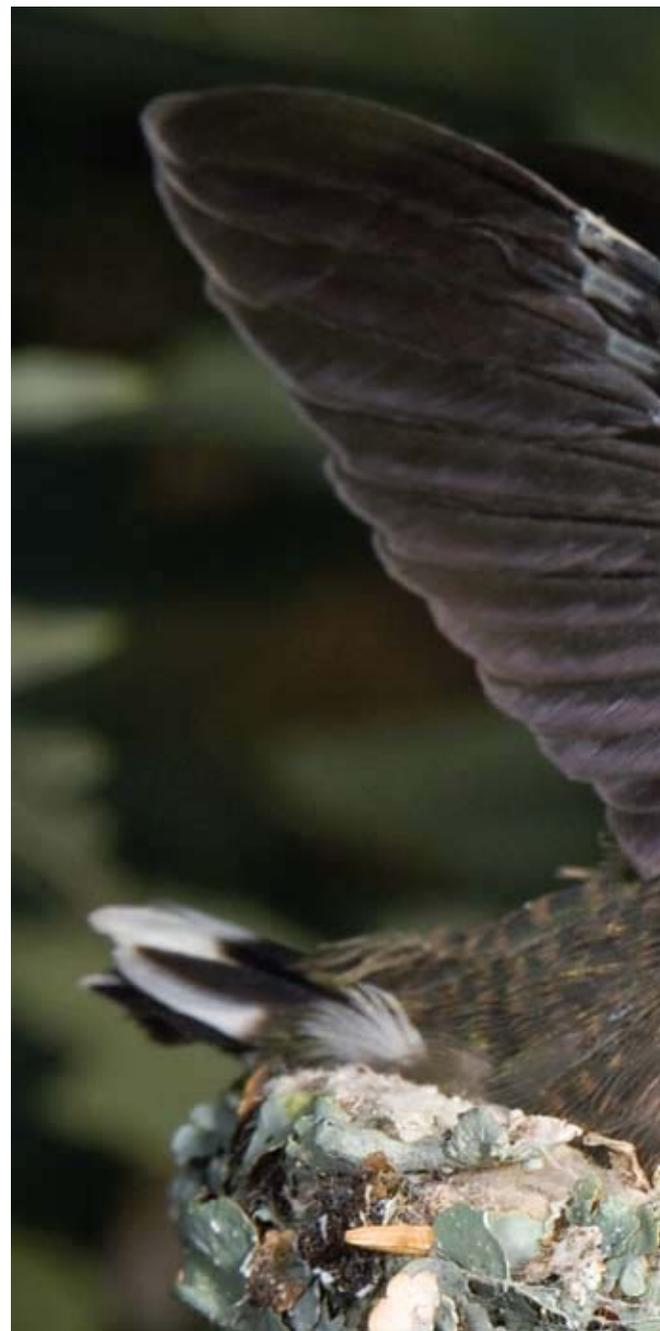
The giant hummingbird of South America is the largest hummingbird species. It measures about 8.5 inches long and weighs about three-quarters of an ounce—roughly the size of a large sparrow. The red-billed streamertail of Jamaica has decorative tail feathers that are 6- to 7-inches long by themselves, and the sword-billed hummingbird found in the Andes Mountains of South America is the only bird species known to have a bill that is longer than its body.

Ruby-throated hummingbirds are the only species of hummingbird regularly found in Missouri. They are about 3.75 inches long and weigh about one-tenth of an ounce. Both sexes are bright, golden-green on the back and crown and whitish underneath. Adult

males have a shiny, ruby-colored patch of feathers on their throat, while females do not. Young males are similar to females in appearance.

While they are often spotted around flowering plants or hummingbird feeders during migration, ruby-throated hummingbirds prefer areas in or near woodlands or forests during the breeding season. The females build a walnut-sized nest out of plant down, lichens and bud scales, all held together by spider webs. Usually, the nest is located near water. The female, on average, lays two peanut-sized eggs and takes care of all the incubation, as well as the care of the young. The young hummingbirds fledge about 18 days or so after hatching.

A 1-week-old ruby-throated hummingbird chick sits in a nest (below). The same hummingbird, at 19 days old, is ready to get out and stretch its wings (right). Its beak changes while it is still young.



Hummingbird Banders

Much of what we know about hummingbirds—their migrations, life spans and survival rates—is based on data collected by a small but dedicated group of hummingbird banders. They capture birds, note their age, sex, weight and other information and fit the birds with tiny, uniquely numbered aluminum leg bands before releasing them.

This enables biologists to track birds over time and learn about their population trends and life history. Troy Gordon, a Missouri-based bander, has banded approximately 2,500 hummingbirds in central Missouri. He has captured two birds that were 8 years old. The oldest age ever recorded for a ruby-throated hummingbird is 9 years old.





Hummingbirds move their wings backward and forward at a blinding speed of around 50–70 beats per second.

As you'd expect, their high activity level and unique flight means that hummingbirds require a lot of energy. In order to deliver oxygen to hardworking muscles, their hearts have to beat fast. A rate of 1,260 beats a minute was recorded in one species of hummingbird.

To fuel their energy requirements, hummingbirds have to consume about half their body weight in food every day. Nectar from flowers and artificial feeders makes up a large portion of their diet, but hummingbirds also consume large numbers of soft-bodied insects and other arthropods, including mosquitoes, gnats and spiders.

I get a couple of phone calls each year from people who report hummingbirds that appear to be drinking from fruit on trees. Actually, they are probably feeding on fruit flies attracted to the fruit. In fact, they will often defend territories around trees that prove to be an insect smorgasbord.

MASTERS OF FLIGHT

When European explorers first saw hummingbirds, they guessed they were a cross between an insect and a bird. Indeed, no other birds are capable of the backward and forward hovering

that hummingbirds have mastered. How do they do it? The answer lies largely in their specialized flight muscles and wing structure.

Hummingbirds have extremely large chest muscles in proportion to the rest of their bodies. The supracoracoideus muscle, responsible for the upstroke in bird flight, makes up about 11.5 percent of a hummingbird's total weight. Proportionally, that's about five times more than in other birds. Also, the chest muscles in hummingbirds are composed purely of red muscle fibers ("dark meat"), which enable long, sustained periods of muscle activity.

The feathers on the wings of hummingbirds are also very different from other birds. The flight feathers closest to their body, called secondaries, are small, while the outer flight feathers, called primaries, are proportionally much longer than normal. This enables each wing to act somewhat like a propeller.

Unlike the mostly vertical flapping motion used by most other birds, hummingbirds beat their wings on a horizontal plane, similar to a helicopter. Their wings move backward and forward at a blinding speed, averaging around 50–70





Hummingbirds must consume nearly half their body weight in food every day to fuel their energy requirements.

Feeding Hummingbirds

Putting out hummingbird feeders is an inexpensive way to enjoy and help out hummingbirds. Many different styles of feeders are available. Most anything with red on the base will work. You can make the “nectar” on your own by mixing one part granulated sugar (don’t use honey or any other sweetener) with four to five parts water, and boiling it. Adding red food coloring is not necessary. Promptly refrigerate any unused portion.

Hang your feeder in a somewhat shady spot and fill it with enough sugar water to last a couple of days. Change the water every few days, and be sure to rinse the feeder with warm water. Soak the feeder for an hour or so every month in one-quarter cup of bleach to 1 gallon of water solution to

kill any hidden mold. Don’t use soap; hummingbirds don’t like the taste of it. Rinse thoroughly after soaking.

You can keep your feeder up as long as you like. Making food available won’t interfere with migration, and you may even help out a few stragglers. Mid-March through October is a good time frame to start with. Pay special attention to any hummingbird that you see after mid-October. It could be a rufous hummingbird, a rare western visitor that sometimes migrates through Missouri.

You can also attract hummingbirds by planting flowers that they like. Some native species that are hummingbird magnets include trumpet creeper, cardinal flower, jewelweed and columbine.



An albino ruby-throated hummingbird

beats per second! The tips of their wings make a figure-8 motion on each stroke. This creates just the right amount of lift to hover in place. To move forward, backward or any other direction, they change the angle of their wing stroke, creating thrust in whatever direction they want to go.

INCREDIBLE JOURNEY

Most amazing about ruby-throated hummingbirds is their annual migration. What we think of as “our” hummingbirds actually spend about eight months of the year either migrating or spending the winter in Mexico or Central America.

In late July or early August, hummingbirds begin migrating south. The males leave first. You will likely see the most hummingbirds in Missouri in late August to early September as they work their way south. By early October, most hummingbirds are gone.

Fall migration coincides with the blooming of late summer flowers, especially jewelweed (*Impatiens sp.*). Hummingbirds are especially hungry this time of year because of the energy demands of migration. Artificial feeders are undoubtedly a lifesaver for many birds.

Once they reach the Gulf Coast, they fatten up, increasing their body weight by 50 percent. When they decide to leave, they fly straight up, sometimes ascending so high that they can't be seen. Many fly directly south across the Gulf of Mexico, while some fly along the coast. Their 500-mile, non-stop flight usually takes them about 20 hours or so from start to finish, depending on weather. The journey takes its toll. Some don't make it, and those that do might lose about half their weight.

They continue the rest of their trip along land, eventually settling in the tropics, where they feast on the abundant food. A few months later, they'll head back north. The first males usually arrive back in Missouri in early April, followed about a week later by the females.

The next time you see a ruby-throated hummingbird, think about everything that bird has gone through to survive. It's a good thing they have oversized determination and endurance.

To learn more about ruby-throated hummingbirds, visit www.MissouriConservation.org/17415 or www.hummingbirds.net, where you can get information about dealing with hummingbird-related problems. ▲

CHAMPION Stewards

TEENS COMPETE
FOR THE FUTURE OF
AGRICULTURE AND
CONSERVATION—AND
NATIONAL HONORS.

*by Francis Skalicky,
photos by David Stonner*



To a casual observer, the 50-by-50-foot patch of ground seemed like a typical piece of Ozarks pasture.

However, the ropes around this plot signified that, at least on this particular June day, this small swatch of grassland on Conservation Commissioner Chip McGeehan's Webster County farm was something special. So did the flock of teenagers gathered around the ropes. They stared earnestly at the plants before them and made frequent entries on their clipboards.

The answers the teens recorded would determine their placement in the Mid-America Grassland Evaluation Contest, but the lessons learned would help them be good stewards of the land for the rest of their lives.

The annual competition is a cooperative effort of the Missouri Forage and Grassland Council, the Missouri Department of Conservation, the USDA-Natural Resources Conservation Service, the University of Missouri Extension and local Soil and Water Conservation districts. Participants learn how agriculture and wildlife habitat can be blended together, and that livestock managers can have both cattle and quail.

Agriculture AND Habitat

“Good wildlife management can be a product of good farming,” said Matt Curry, a private land conservationist for the Missouri Department of Conservation and one of the annual coordinators of the competition. “Good grassland managers have good grassland wildlife representation on their property.”

The contest is putting new emphasis on an old principle—sustainability of the land. In pre-settlement times, this occurred naturally on Missouri's grasslands. The heartiness of the native plant species, mixed with benefits provided by the browsing of large herbivores



High school students come from all around to test their grassland knowledge.

like bison and elk, and the occasional prairie fire, produced a diverse and deeply rooted prairie landscape that provided a self-renewing habitat for a variety of grassland wildlife species.

Settlement brought huge changes to landscapes that had been awash in native grasses and wildflowers. Purposely introduced aggressive exotic grasses such as fescue and lespedeza crowded out native plant species like Indian grass and little bluestem. Large stretches of prairie that had received intermittent grazing from wildlife began receiving regular, and heavy, grazing from domestic

Students learn about conservation, as well as how agriculture and wildlife habitat can work together.



livestock. These botanical alterations have been followed by biological changes. Prairie chickens, once numerous enough to be hunted, have almost disappeared from the state. Bobwhite quail, formerly the state's reigning game bird, have also been in decline. These are only two of the higher profile members of a collection of grassland species that are struggling.

Learning how to balance our dependency on the land with the reliance species of wildlife have on the same turf is the true mission of the Mid-America Grassland Competition.

Healthy Competition

"I think this contest is great," said John Tummons, a vocational agriculture instructor, FFA advisor at Linn High School and advisor of the Linn team. "It has a lot of real-world application, whether it be for students who want to farm or students who want to manage wildlife." His praise echoes what contest coordinators have heard from other teachers, FFA advisors and 4-H leaders who have participated in the event.

"The vocational agriculture teachers who take part in this contest refer to it as 'the most practical contest that they participate in,'" said Melodie Marshall, a district conservationist for the NRCS and one of the people who has been instrumental in keeping the contest going from its inception in 1991. "It teaches the students information that will be useful to them throughout life, whether they stay in the agricultural field or not."

One area of the participants' education involves understanding how warm-season native grasses can mix with cool-season exotic grasses in a complementary forage system that allows herds to feed on high-quality forage longer. By utilizing each type of grass during its prime growing season, livestock owners can keep their herds feeding on high-nutrition forage the entire grazing season.

"Now that we have to farm smarter, I think people are making an effort to learn more about these types of practices," said April Wilson, a district conservationist for the NRCS.

There are wildlife benefits, too. For example, warm-season grasses begin growth later in the year and are not ready to be grazed or hayed until summer. By then, most of the ground-nesting wildlife that need these plants for habitat have hatched or given birth to their broods, and the offspring have left their homes.



“Producers are learning to manage the grass or forage first, then allow the grazing system to produce the end result of beef, dairy or even, nowadays, goats and many exotic species,” said David E. Pitts, retired Conservation Department wildlife management biologist.

Founding Fathers

Pitts, along with John Jennings, formerly with the University of Missouri Extension, and Howard Coombes of the NRCS, could be termed three of the founding fathers of the Mid-America Grassland Evaluation Contest. The trio, who knew each other from collaboration on previous projects, began formulating the event in the 1980s.

Coombes and Jennings were working with vocational education instructors in teaching students about proper grazing and grassland use. They came up with the idea of a contest because the instructors felt that the atmosphere created interest in students.

They first worked with vo-ag teachers in Howell County to develop the contest, and took a composite team from three chapters to the National Land and Range Judging Contest in Oklahoma. “That contest was focused on range conditions which did not apply in Missouri,” said Jennings, who now works for Cooperative Extension Service of the University of Arkansas. “We started overhauling it to try to make it fit Missouri. We knew we needed to add a wildlife component, too, so that’s when we called Dave Pitts.”

Pitts had worked with landowners in a variety of capacities since joining the Conservation Department in 1967. He also co-authored the Department’s book *Wildlife Management for Missouri Landowners*, a free publication still distributed to landowners today. “The whole process

Mid-America Grassland Competition

The “Mid-America” part of the event’s title is something of a misnomer; the contest includes teams from across the country. It is the championship rung of a competition ladder that starts on the district level. The contest consists of four parts; grassland condition, wildlife habitat, soil interpretation and plant identification. Each team has a maximum of four competing members (teams can have alternates). At the competition, contestants have 25 minutes to judge each of the four segments. While judging, participants are not allowed to talk to anyone, use any printed materials for reference, to touch the plants used for plant identification or step into the 50-by-50-foot judging plot. The site of the contest is not revealed until the morning of the event to ensure local teams can’t do any additional preparation. Not just any patch of grassland will do for the event.

“We try to find a site that is suitable for wildlife, has a variety of different plants, has some slope, a variety of soil types and a mixture of grasses and legumes,” Melodie Marshall said. “This way, each section of the contest can be clearly defined.”

The assessments participants must make of this plot include the amount of grazing pressure it has received, the plant composition of the tract, if the growth cycle of the vegetation matches the seasonal peak nutritional needs of the livestock herd that’s using it, the distance of the vegetation plot from other types of wildlife habitat, its surface texture, the permeability of its soil and what type of management practices would work best there.

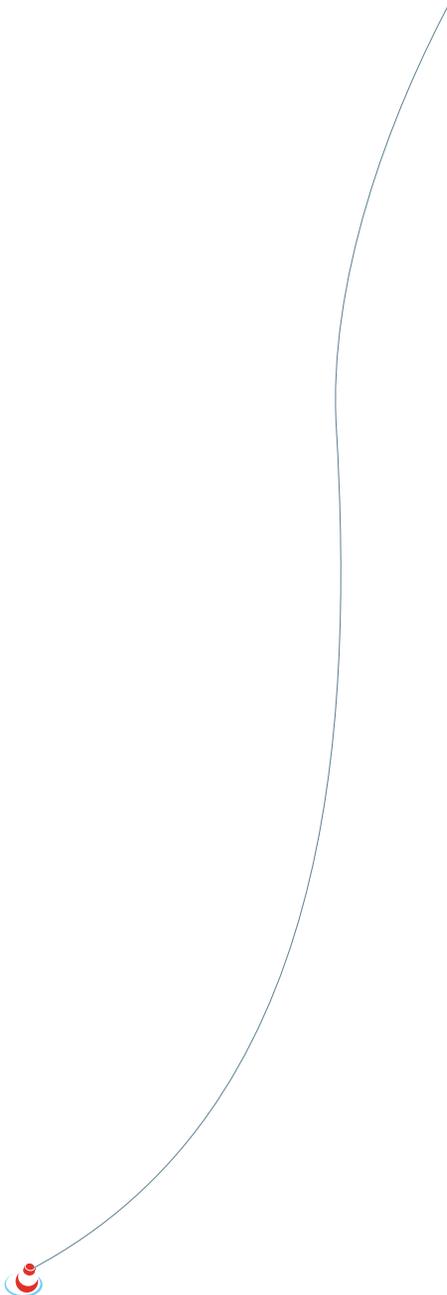
Before they reach the national final, contest participants have honed their skills for several months in district competitions, practice events and classroom work. Much of the classroom education comes from the Grassland Evaluation Contest Study Guide, a textbook developed by the Missouri Forage and Grassland Council, the Missouri Department of Conservation, the USDA-NRCS and the University of Missouri Extension. While the lessons learned in the classroom and in the field may seem complex and specialized, contest coordinators say they’re actually basic and across-the-board.

“Any of these students that are going back to the farm can utilize this information,” said Jim Sowash, a resource conservationist/grassland conservationist with the NRCS. “This information works for small landowners, too. They can apply this information to whatever size of farm they have.”

turned into about a 12-year venture, since it required a lot of ‘in the field’ experimenting and ground-proofing,” said Pitts. He feels the contest is still evolving, but the lessons it teaches remain the same.

“Students learn that everything on the landscape is connected and what happens to one part, in turn, affects the remaining parts,” he said. “All of this, of course, is dependent upon good soil stewardship.” ▲





Fishing the Forks

Tired of fighting the crowds on Missouri's big-name smallmouth streams? Try a tributary.

story and photos by Jim Low

“That acts like a smallmouth,”

I observed, watching the way Scott’s fishing line sliced through the water and his rod tip pulsed crazily. Sure enough, a few moments later he led a sleek 10-inch smallmouth bass into shallow water, where sunlight glinted off its coppery flanks.

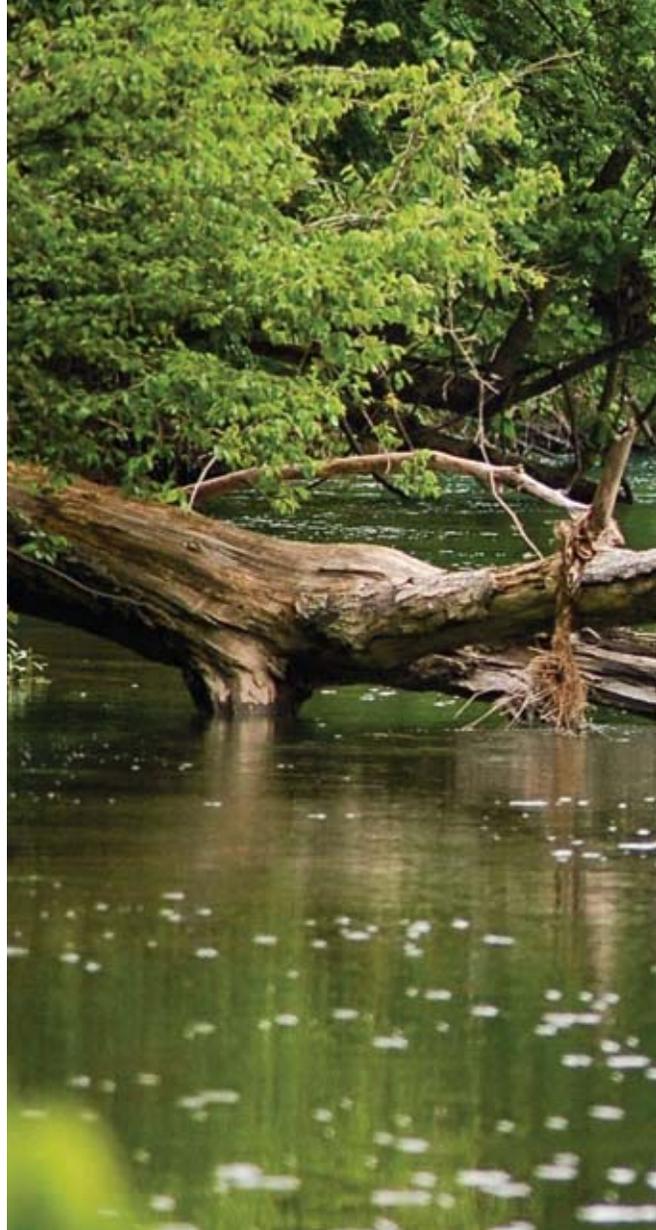
I took a few photos before Scott released the fish. With three deft flicks of its gossamer tail, it sprinted back to its hiding place beneath a flat rock.

Neither of us had any business fishing, really. Scott was getting married in less than a month, and his parents were in the process of selling their home and moving. I was swamped with work at the office and at home. Yet, here we were in shorts, T-shirts and sneakers, wading up a creek, flicking lures into shady pockets overhung with buttonbush.

We spent several blissful hours hiking upstream, casting as we went and taking turns in the lead. The water was never too deep to wade and seldom more than 40 feet wide. We caught fish more or less continuously, admiring bronze-backed smallmouths and longear sunfish whose outrageous colors put most tropical fish to shame.

Two weeks earlier and two creeks over, I watched another friend’s rod bend steeply toward the swirling, blue-green water of a slightly larger stream. He had to lift his arms high to keep the rod’s tip out of the water next to his kayak. After several minutes, he brought a pot-bellied, 16-inch smallmouth with tiger stripes on its sides to the surface.

I didn’t really have time for that trip, either, but the chance to visit with an old friend and fish a locally legendary stream were reasons enough to



set aside responsibilities for a day. Again, after a few photos the fish went back to its watery home.

These outings took place on streams unknown to most Missourians. On both days, we never saw another person once we left the access. A few miles downstream, where these obscure streams flow into larger, more familiar ones, the water was jammed with anglers, paddlers and pleasure boaters. During the half-day float, I saw just two pieces of litter—aluminum cans—which I escorted to the recycling center.

I learned long ago that fishing is more to my liking on “The Forks.” That is my pet name for tributaries of major streams and lakes. Many are shallow enough to wade. Others lend themselves to canoes, kayaks and float tubes. None are big enough to attract large numbers of anglers, speedboats or jet skis.

General Tips

- Good baits include live crayfish, tiny crankbaits, tube jigs, plastic worms, floating minnow imitations, spinners, poppers and flies.
- Limber fishing rods help sling light lures into tight spots.
- Leave a map with your fishing location marked so friends know where you are in case you need help.
- Some streams are too small for easy floating but too deep for wading. Float tubes fitted out especially for fishing bridge this gap.



Stealth pays off when stalking smallmouth bass in clear streams.

Float Fishing

- Kayaks can navigate tiny streams and are easy to paddle upstream to dislodge snagged lures.
- Short rods are easier to manage in small boats.
- Get out of your boat and wade-fish deep water below riffles.
- Paddle back to the top of a hot spot, let the fish settle down, and fish the stretch again.
- A few frozen water bottles in a small cooler supply refreshing drinks and chill fish you keep.



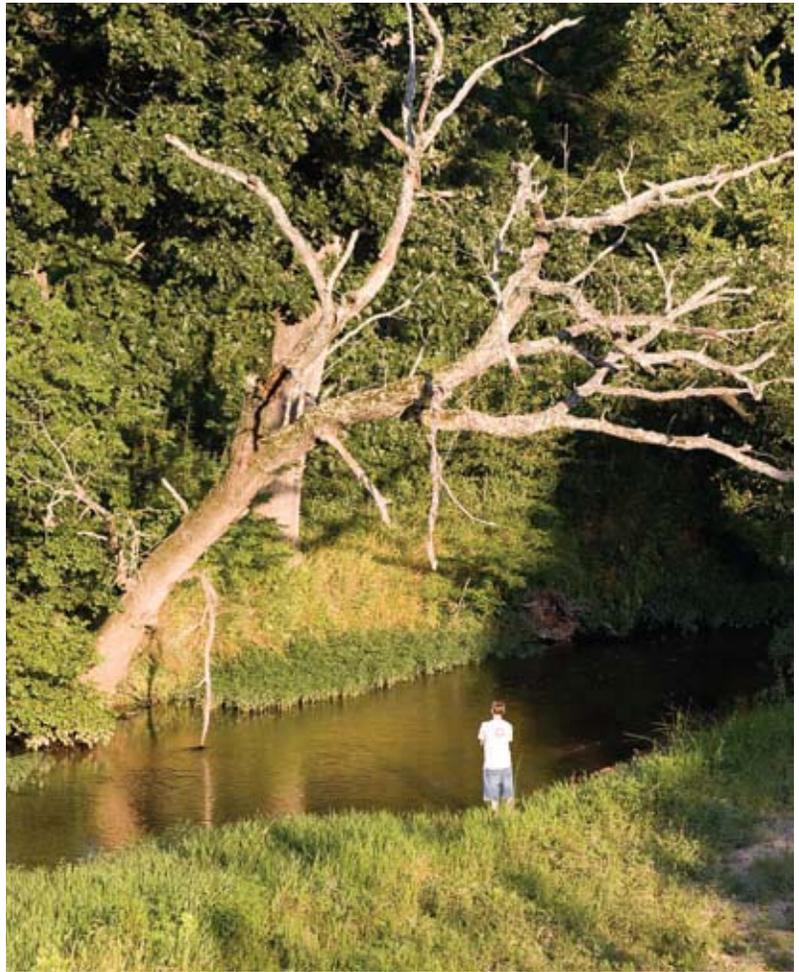
Wade Fishing

- Fish your way upstream for a more natural bait drift and a stealthier approach.
- High-topped shoes and thick socks reduce time spent emptying out sharp rocks.
- Carry a small backpack for spare lures, water, snacks, sunscreen, insect repellent, etc.
- Wear drab-colored clothes, move slowly, and cast as far as possible to keep fish unaware of your presence.
- Leave your stringer behind. Fish dragged for hours aren't worth eating.
- Cut your walking distance in half by prepositioning a shuttle vehicle at another access point and fishing toward it.
- Keep moving. There's always another hole around the bend.

Smallmouth bass in these streams tend to be smaller than their river kin. Other species, such as goggle-eye, can be hefty and abundant, however. Many have never seen a fishing lure or felt the point of a hook. They bite and fight with reckless abandon. Add solitude and the chance to observe undisturbed landscapes and wildlife, and you have my idea of heaven.

Wildlife sightings are more frequent and intimate on small streams, too. I once surprised a trio of otters emerging from the top end of a set of rapids. We also got to watch a whitetail doe and her twin fawns cross the stream a few yards ahead of us. The reedy strains of wood thrushes and the soft “kuk-kuk-kuk-kuk” of yellow-billed cuckoos serenaded us from the surrounding woods. Prothonotary warblers—sparks of living sunlight—perched in the streamside alders.

Missouri's landscape conceals literally hundreds of creeks like these. Your first step to finding them is choosing a major smallmouth stream. The Gasconade, Meramec, Osage, Niangua, Eleven Point, Jacks Fork, Current, Black, Big, Bourbeuse and James all are good starting points. Several Arkansas rivers have forks extending into the Show-Me State, and many of the smaller, north-flowing tributaries of the Missouri River also have feeder streams that support smallmouth bass, mixed with the spotted and largemouth varieties.



Once you settle on a particular watershed, your next step is to get maps with enough detail to show small tributaries. Detailed county maps are available on the Missouri Department of Transportation's Web site, www.modot.mo.gov/newsandinfo/CountyMaps.htm.

Look for streams that run through conservation areas, national forest and other public land, providing legal access. If you want to wade-fish a stream where it runs through private property, visit your county assessor for help identifying the owners so you can contact them for permission.

For information about accesses on floatable streams, you can consult “Missouri's Conservation Atlas,” which is available at www.mdcnatureshop.com.

“Do you think we ought to go back?” Scott asked when we had both run through our drinking water.

“Maybe,” I mused. “But, what do you think is around that bend?” ▲

Solitude is among the best things about wade-fishing small streams.

Hunting and Fishing Calendar

FISHING

	OPEN	CLOSE
Black Bass (certain Ozark streams, see the <i>Wildlife Code</i>)	5/24/08	2/28/09
impoundments and other streams year-round		
Bullfrogs and Green Frogs	Sunset	Midnight
	6/30/08	10/31/08
Nongame Fish Snagging	3/15/08	5/15/08
Paddlefish on the Mississippi River	3/15/08	5/15/08
Trout Parks	3/1/08	10/31/08

HUNTING

	OPEN	CLOSE
Coyotes	5/12/08	3/31/09
Crow	11/1/08	3/3/09
Deer		
Firearms	11/15/08	to be announced
Groundhog	5/12/08	12/15/08
Rabbits	10/1/08	2/15/09
Squirrels	5/24/08	2/15/09
Turkey		
Spring	4/21/08	5/11/08

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 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/.



Be ready when the fishing bug strikes. Buy your fishing permit now.



"Given that our lifespan is 24 hours, I find that pretty depressing."

Contributors



ANDREW FORBES is an avian ecologist with the Missouri Department of Conservation. He enjoys fishing for smallmouth bass, camping and hiking, in addition to birding. He has been interested in birds since childhood.

JIM LOW is a past president of the Outdoor Writers Association of America and the Missouri Outdoor Communicators. He still counts wade-fishing Ozark streams among his favorite outdoor pastimes. The only thing that makes it better is taking along someone who has never tried wade-fishing before.



FRANCIS SKALICKY is a metro media specialist for the Department of Conservation. He has been with the Department for 12 years. He and his wife, Michele, live in Springfield with their two daughters, Anna, 8, and Kate, 7. Also vying for attention in the Skalicky household are two dogs, two cats, two fish and two mice.

TIME CAPSULE

May 1968

Missouri's Most Unusual Fish was written by Thomas R. Russell about freshwater eels. Freshwater eels are harmless and are an excellent source of meat. They are delicious smoked, fried or pickled. They are most common in the Mississippi

River but can occur in the permanent flow of tributary rivers. The young eels are hatched in the Sargasso Sea and then migrate up freshwater streams. They have two color phases, silver and yellow. The colors do not determine the sex but indicate the sexual maturity of the females. It is proven that all eels caught in Missouri are females. The males stay back in brackish water along the coast. Most eels can be caught by worms, crayfish or minnows in summer and early fall.—*Contributed by the Circulation staff*



AGENT NOTES

No digging rule protects the ecology and beauty of Missouri roadsides.

FROM MARCH TO November, Missouri roadsides are alive with a colorful array of wildflowers. Their colors, shapes, sizes and arrangements are as diverse as the people of this great state. Roadside wildflowers provide enjoyment for photographers and naturalists, as well as people who are out for a weekend drive through the countryside.

Roadside wildflowers also are ecologically important. Their roots help hold the soil and prevent erosion, while their flowers, stems, seeds and leaves are food for a variety of animals, from insects to birds to rabbits.

To protect this wonderful resource, we have state statutes pertaining to the removal of plants from the right-of-way of any state or county highway or roadway. In general, these statutes make it illegal to “dig or remove any plants or plant parts” from along roadsides. They do allow the collection of seeds, fruits, nuts, berries, edible wild greens or flowering parts of plants for personal use or for the purpose of scientific research or education, but those plants or plant parts may not be offered for sale.

As conservation agents, a large part of our job is protecting resources such as these to help ensure that they will be around for future generations to enjoy.



Jerry Kiger is the conservation agent for Ozark County, which is in the Ozark region. If you would like to contact the agent for your county, phone your regional Conservation office listed on page 3.

behind the CODE

Free Fishing Days—a state fixture since 1991.

BY TOM Cwynar

Free fishing days were first offered by the Conservation Department in 1991, and a provision for them has been included in the *Wildlife Code* since 1992. The wording of the regulation has changed only slightly since that time. It now reads:

“Any person may fish without permit, trout permit and prescribed area daily tag during free fishing days. Free fishing days are the Saturday and Sunday following the first Monday in June.”



A February 1991 memo to the then Conservation Department director set the ball rolling. In the memo, the Fisheries Division chief suggested that Missouri join several other states in offering free fishing privileges during the celebration of National Fishing Week, which at that time was in its 11th year. The week is now called National Fishing and Boating Week.

The intent of free fishing days is to let people sample the sport of fishing without having to pay for permits. The weekend dates allow more people to take advantage of the opportunity. It's hoped that first-time fishers will have so much fun they'll want to take up the sport of fishing. The days also offer a great opportunity for experienced anglers to introduce their friends or relatives to the sport.

Free Fishing Days fall on June 7–8 this year. Even though anglers may fish without permits on free fishing days, they still must abide by regulations concerning seasons, limits and methods.

“I AM CONSERVATION”

Wanda Byrd is a retired elementary school teacher from West Plains. She has been float fishing on and off for 30 years. “The thing I like most about float fishing is the diversity of the river,” Byrd said. “It’s always different, each time you float. You always see so many different things, from beautiful wildflowers, sunning red-eared sliders, to otters swimming up ahead. I recently saw a baby barred owl that had fallen into the stream and watched as its mother coaxed it back to the bank and up a tree.” When Byrd isn’t fishing, she works part time for the Bryant Watershed Education Project. She also has completed Master Naturalist training with MDC. To learn more about conservation activities, visit www.MissouriConservation.org. —PHOTO BY DAVID STONNER



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www.MissouriConservation.org/15287

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Missouri households