

MISSOURI. Conservationist

VOLUME 73, ISSUE 3, MARCH 2012 • SERVING NATURE & YOU

[NOTE TO OUR READERS]

World-Class Fishing

The morning air was crisp. Heavy fog limited visibility, and even small sounds were amplified by the morning's calm. This setting, and others just as unique, are experienced by Missouri's 1.1 million anglers each

year. Throughout our state, young and old alike can find world-class fishing adventures close-to-home.

Missouri's quality fishing opportunities are not by accident. Missourians have established a conservation system of governance that has a solid and successful 75-year track record. Partnering with citizens, the Department allocates staffing and financial investments to ensure aquatic habitats and fish species are well managed. The enhanced quality of life and economic benefits have been huge.

From oxbow sloughs to the nation's mightiest rivers, and from farm ponds and large reservoirs to tributary streams, Missouri's diverse waterways support an incredible array of fish species. The Department works to manage and enhance these resources by providing thousands of technical contacts annually for lake and stream management to private landowners and communities. Similar to terrestrial species, fish and other aquatic animals often require specific habitat and water conditions to thrive.

The Department continues research and management activities that help ensure the future of our aquatic habitats and fisheries. Invasive species and disease threats are two real-world challenges that require a focused, proactive management approach. In addition to working in natural systems, hatcheries also serve as research locations, continue to rear select fish species to stock public waters, and aid in resource education.



Angler access to fishing locations remains a priority. The Department has increased public fishing access to rivers, streams and public lakes through the Community Assistance Program (CAP). Through this program, we partner with cities, counties, state and federal agencies, and businesses to cooperatively develop and maintain quality fisheries and appropriate facilities for anglers and boaters. Today, the Department has agreements with 120 CAP partners spread across Missouri. These locations add to fishing opportunities provided by the more than 900 Conservation Areas held in public trust by the Department.

Conservation success stories across the state highlight the continued importance of active citizen involvement. Conservation requires citizen understanding, support and action that leads to solid habitat and resource management. As we enjoy the seasons of 2012, I encourage you to head outdoors and enjoy our state's great fishing opportunities. I look forward to hearing stories and seeing photographs of the many memories that you will make.

A handwritten signature in black ink, reading "Robert L. Ziehmer". The signature is fluid and cursive, with a large loop at the end.

Robert L. Ziehmer, director

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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by Brett Dufur

This year, MDC celebrates the 75th anniversary of putting the state's citizen-led conservation efforts into action. In this issue, we highlight the Department's diverse sport-fishing management efforts that conserve and enhance Missouri's world-class fishing.

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by Noppadol Paothong and David Stonner

Helping Missourians discover nature through photography.

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by Larry R. Beckett

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Cover: Redbud tree blooms signal spring is here, by Noppadol Paothong.

Above: Matthew Taylor and his father, Shawn Taylor, fish for wild rainbow and brown trout in the North Fork of the White River near Tecumseh, by David Stonner.

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PROUD OF OUR PARTNERS
 Congratulations Missouri Department of Conservation on your 75th Anniversary! The Department does a wonderful service for the citizens of Missouri as well as the many visitors from other states and countries worldwide.

Each month I look forward to opening up the *Missouri Conservationist* and reading the articles and seeing all the beautiful photos. An article in the January issue, *Partnerships: The Cornerstone of Conservation*, especially caught my attention.

As program specialist for the Maries County Soil & Water Conservation District (SWCD) and president of the Missouri SWCD Employees Association, I was certain that the SWCDs would be listed as one of the agency partners but our

omission must have been an oversight. The SWCDs have a great working relationship with MDC and many of the employees share office space and work together on a daily basis. There are numerous times when both the district employees and MDC staff will meet with a landowner. There may be parts of their land they want to target wildlife cover and enhancement but they also need to maintain acreage for pasture, hayland or cropland. You can also find MDC staff assisting at many local district activities and vice-versa. In addition, they have lead workshops at our annual training conference and provided essential information for various grants. As you can see, there are many activities where we work together. Individually they may

be small but statewide, they really add up! Thank you MDC for doing a fantastic job!

*Sandy Hutchison, Program Specialist II
 Maries County SWCD, Vienna*

Author's Note: A number of our partners in conservation are being highlighted throughout the year-long series of articles celebrating MDC's 75th anniversary. However, it is difficult to list all of our important partners. The July issue will highlight conservation partners that assist private landowners.—Brett Dufur

BEARLY STINKY

Thanks for the article on bear denning by Chelsey Kroese and Jeff Beringer in the February issue. I was wondering if the researched bears will stay in the den after they are documented. I also was told (by a ranger) that you could smell a bear before you see it. We had been talking about caves that day, and a certain cave that we had wanted to check out, and he said if there was a bear, you could smell it at the entrance.

Lannis Hancock, House Springs

Author's Note: Bears generally stay at one den site even after being disturbed. We sometimes block the den entrance so that the cubs can't leave while the mother is waking up from anesthesia. They do seem to have several den sites picked out before each winter, though, as our telemetry data sometimes reveal midwinter bear movements from one den site to another.

Bears do not defecate while in dens, so the smell is minimal. I consider myself to have a pretty good sense of smell but could not smell a bear den from any distance. They are generally pretty clean animals.—Jeff Beringer



Reader Photo

FLYING FUR

Renee Thompson of Crawford County submitted this photo of a flying squirrel. "Considering that flying squirrels are usually nocturnal, I felt lucky to get this opportunity," said Thompson. "The squirrel was collecting pin oak acorns off the ground and climbing up a nearby tree. My two retrievers alerted me to his activities, and I was able to get several photos before the squirrel climbed higher up the tree, then glided to a large white oak tree nearby." Thompson said she enjoys hunting for deer, turkey, squirrels and the elusive morel mushroom.

CORRECTION

On Page 20 of the February issue [*Regulations 2012 Update*] the left-hand caption included an incorrect date of March 15. It should have read: "Effective March 1, waders or footwear that have porous soles are banned at trout parks and in certain trout streams in order to stop the spread of didymo."



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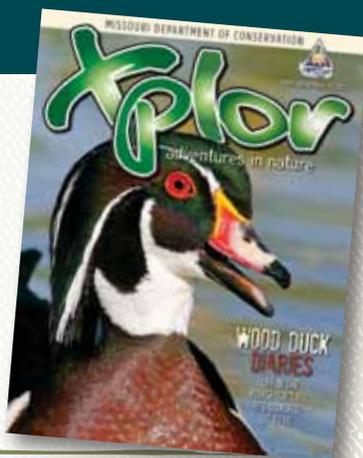
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MDC is retrofitting line-recycling bins with covers made of rubber with slits that still allow insertion of used fishing line without letting birds get inside.

Capping Pipes Saves Wildlife

Concerned about the discovery of accidental bird deaths in California State, Missourians are taking action to eliminate similar hazards in the Show-Me State.

Workers at Audubon California's Kern River Preserve discovered the remains of hundreds of dead birds in a 20-foot-long pipe that had rusted and fallen over. Victims of the irrigation pipe, which had been in place more than 50 years, included bluebirds, woodpeckers and kestrels, along with lizards and other small animals that had gotten inside and were unable to escape. The death trap was part of an abandoned irrigation system.

Following the macabre discovery, Audubon staff began noticing similar hazards on their preserve and neighboring land. They found dead animals in pipes ranging from 1 to 10 inches in

diameter and set to work removing or capping the pipes to prevent further carnage.

Missourians have discovered similar carnage here and are looking for ways to prevent further damage. Solutions include capping exposed vent pipes or fence posts or covering the open ends with hardware cloth. Removal is an option for obsolete pipes. See ca.audubon.org/workinglands-pipes.php for more information.

About a month before the California revelation, MDC also had discovered a pipe problem and was re-examining the design of fishing-line disposal bins provided for anglers at popular fishing spots. The bins consist of PVC pipe mounted vertically on posts with caps on the bottom and uncapped elbows on top. Anglers place scrap line in the pipe, preventing it from becoming a hazard to wildlife.

Tree swallows and prothonotary warblers have been found dead and entangled in fishing line inside similar receptacles in other states. MDC is retrofitting line-recycling bins with covers with slits that still allow insertion of used fishing line without letting birds get inside. The covers are made from tire inner tubes or rubber roof sheeting held in place by pipe clamps. See mdc.mo.gov/node/16060 for details.

Deer, Turkey Harvest Wrap-Up

Missouri hunters had good success during the 2011–2012 fall deer and turkey seasons, proving that Conservation makes Missouri a great place to hunt. They checked 52,671 deer during the four-month archery season. That is 24 percent more than in 2010. Archers also checked 2,923 turkeys, an increase of 34 percent from the previous year. The fall firearms turkey harvest was 7,077, a 19-percent increase from 2010.

Hunters age 6 through 15 checked 2,193 deer during the late youth firearms hunt Jan. 7 and 8, bringing the 2011–2012 firearms deer harvest to 238,921. That is a 3-percent increase from the previous year.

The combined archery and firearms deer harvest was 291,592. That was up 6 percent from the previous year and virtually identical to the past 10 years' average of 252,029.

Expenditures by Missouri's more than 500,000 deer hunters pump \$690 million into the state's economy each year, generating more than \$1 billion of overall business activity and supporting more than 11,000 jobs.

MDC staff works with you and for you to sustain healthy wildlife. To learn more about the types of assistance available to private landowners, visit mdc.mo.gov.

Missourians Await Return of Martins

Hundreds of purple martins are on their way back to Missouri, and the Purple Martin Conservation Association (PMCA) needs your help finding them.

John Miller, a PMCA member who monitors purple martins in the St. Louis area, says he and other martin aficionados banded more than 800 martin nestlings in St. Louis, Licking and Marshall last year. They need to know when and where those birds return to Missouri in order to learn more about the birds' survival and movements.

The banded martins will arrive here a little later than older birds, trickling in from late April through early June. Previous banding studies (published at purplemartin.org) showed that only 10 to 20 percent of purple martin fledglings return to their natal sites. Most return to within 30 miles of where they hatched. However, a small percentage ends up hundreds of miles away. A female martin banded at a colony near Jamesport in 2009 turned up the next year in Jenera, Ohio, 650 miles from its birthplace.

Each of the martins banded in Missouri last year carries two bands, a silver federal band and a colored Missouri band that can be read with a spotting scope. The bands bear the letters "MO" and numbers. Naturally, people who maintain

martin houses have the best chance of spotting one of the banded birds.

If you spot a banded martin, contact the Missouri River Bird Observatory at 660-886-8788 or dana.ripper@mrbo.org to report the sighting and learn the origin of the bird.

Help Bash Trash in April

Missourians care about keeping their state clean, and the annual No MOre Trash! Trash Bash, co-sponsored by the Missouri departments of Conservation (MDC) and Transportation (MoDOT) each April, helps them act on that caring. The Trash Bash is part of the two agencies' ongoing No MOre Trash! statewide anti-litter campaign. During the entire month of April, people pick up

litter all across Missouri from roadsides, parks, neighborhoods, rivers, streams and other places.

"This is the 10th year of No MOre Trash! in Missouri," said Stacy Armstrong, MoDOT No MOre Trash! coordinator. "Through the years, hundreds of thousands of volunteers have picked up more than half a million bags of trash as part of April Trash Bash activities," she said. "Now that's a lot of litter!"

MDC No MOre Trash! Coordinator Joe Jerek added that littering isn't just ugly, it hurts wildlife, is illegal and costs Missourians millions of tax dollars each year.

"Animals get tangled in litter, such as plastic six-pack holders and fishing line, and it can kill them," Jerek explained. "Litter also poisons wild-



ASK THE OMBUDSMAN

Q: In the Missouri Ozarks I have seen bent trees with trunks that are straight for a few feet, turn horizontal, and then grow vertical again from the horizontal portion. I was told that Native Americans would bend them over to mark specific spots.

Do you have any information about these trees?

A: There can be several explanations for that growth form. Native Americans reportedly did tie down young trees with leather thongs to create marker trees, which are often referred to as "thong trees" or "trail trees." The same form can also result from natural causes when a falling limb or tree trunk pins a young tree sapling to the ground for a few years. New growth on a tree will always resume its vertical growth toward the light. Saplings are also pinned down by the felling of trees during logging, producing the same result. There may still be some very old trees in Missouri that were bent over by Native Americans, but most trees you see now with that growth form surely resulted from the other scenarios.

Q: What determines whether a fish is a game fish or just a fish?

A: Game fish are species that are most commonly sought after by anglers due to preferences for them as table fare or as sporting fish to catch. There are more restrictive regulations for game fish to ensure that they will remain plentiful, even with much interest in their harvest. Nongame fish, except for rare species, often have more liberal harvest limits and methods because there is less harvest pressure on their populations. Cultural tradition and regional tastes are important factors in determining if a fish species is considered a game species. Missouri game fish are listed in Chapter 20 – (Definitions) of the Missouri *Wildlife Code*.



Thong tree or trail tree

Ombudsman Tim Smith 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 email him at Ombudsman@mdc.mo.gov.

Photo Tip of the Month: Zoom Lenses

In last month's photo tip we said that great wildlife photography requires more than just long zoom lenses. While that is certainly true, this month's photo tip is devoted to why those long zoom lenses are also very helpful. The goal of good wildlife photography is to show a particular critter up close and personal, and because most wildlife tends to take offense when we get too close, a telephoto or zoom lens is vitally important.

Long lenses also have the added bonus of compressing the "depth-of-field." That is, the distance in front of and behind your subject that is also in focus is very short, so there is little else that is also in focus competing for attention with your subject.

In the example image, you can see how the background is so out of focus it becomes a diffuse backdrop that really helps the subject stand out.

Long lenses can, of course, get very expensive. Various things affect the price, and you have to weigh your budget against the features that are important to you. Generally, the more money you spend the lenses get sharper, longer, have better auto-focus and other electronics, and have wider apertures. This last item is helpful because it means you can shoot in lower light conditions, or use faster shutter speeds to better freeze the motion of your subject.

This all assumes you have a camera with interchangeable lenses. If you want to take wildlife photos with your point-and-shoot, you can do so, but you have to understand the limitations. You will not be able to take photos like the pros. But, to increase your chances of getting a decent shot, be sure to purchase a point-and-shoot camera with the longest optical zoom possible. Do not be lured by the promises of digital zoom. Digital zoom essentially works by cropping your images, which degrades quality. Some point and shoots now come with as much as 21x optical zoom.

75th Anniversary of Conservation Photo Contest, Enter Now!

Remember to get out those cameras and search those photo files for your best images that celebrate the natural wonders of Missouri and the 75-year legacy of MDC. A full list of rules and guidelines can be found on our website at mdc.mo.gov/node/16689. Entries will only be accepted via Flickr, an Internet photo sharing service. If you are not on Flickr, it is easy to join. Just go to our 75th anniversary photo contest Flickr site for more information: www.flickr.com/groups/mdc75thanniversary/. When you add photos to the contest group in Flickr, the photos MUST be tagged with the category you are entering. Please read the full list of rules carefully for more information. Photos that do not adhere to the rules will be disqualified.



Barred owl

500mm lens • f/4 • 1/40 sec • ISO 200

(continued from Page 5)

life and can cost a litterer up to \$1,000 in fines and one year in jail."

MoDOT spends more than \$5 million each year cleaning litter from Missouri's roadsides, while MDC spends almost \$1 million a year to clean litter from conservation areas and other MDC locations.

Last year more than 157,000 bags of trash and many more truckloads of debris were collected by thousands of volunteers during April. Volunteers included MoDOT and MDC employees, Adopt-A-Highway volunteers, Stream Team members and members of the public and community groups.

Anyone can report their activity at nomore-trash.org and get a free lapel pin for their efforts.

"Besides the recognition, we all get a little exercise, some fresh air, and a cleaner place to work, live and play," Armstrong said.

Mountain Lion Trapped

MDC Resource Scientist Jeff Beringer examined and released a male mountain lion trapped by a private citizen in Reynolds County in January.

The 122-pound cougar was captured in a large, cage-type live trap set by a private trapper on Mark Twain National Forest land to catch bobcats, coyotes and other mammals. The trapper reported his catch to MDC within 24 hours, as required by the *Wildlife Code of Missouri*, and turned the animal over to Conservation Agent Eric Long.

Beringer and Long took the mountain lion to Current River Conservation Area, where Beringer sedated the animal, weighed and measured it and clipped its ear to obtain a DNA sample. He estimated the cat's age at 2 years. The cat was in excellent physical condition and showed no signs of having been held in captivity.

After examining the mountain lion, Beringer released it to the wild. Mountain lions are a protected species in the state under the *Wildlife Code of Missouri*. The Code does allow the killing of any mountain lion or bear threatening human safety or damaging personal property. The incident must be reported to the Department immediately and the intact carcass, including the pelt, must be surrendered to the Department within 24 hours.

MDC has not stocked mountain lions and has no plans to do so. Evidence to date suggests that mountain lions seen here are young male individuals dispersing from growing populations

in states to the west of Missouri, including South Dakota and Nebraska.

MDC wants to learn more about mountain lions in the Show-Me State and encourages Missourians to report sightings to the Mountain Lion Response Team at mountain.lion@mdc.mo.gov.

CWD Found in Wild Deer

MDC is working with hunters and landowners in Macon and Linn counties to keep Missouri a great place to hunt deer.

Ongoing monitoring of Missouri's wild deer herd for chronic wasting disease (CWD) turned up two infected deer in January. Both of the CWD-positive deer were adult males. They were tested along with more than 1,000 others that hunters in north-central Missouri voluntarily submitted for sampling during the 2011 November firearms deer season. The hunters who shot the infected deer have been notified of the positive tests.

Both CWD-positive deer were shot in Macon County, within 2 miles of captive-hunting preserves in Linn and Macon counties. Four white-tailed deer at those preserves have tested positive for CWD in the past two years.

With hunters' help, MDC has conducted CWD tests on more than 34,000 free-ranging white-tailed deer statewide since 2002 to ensure that outbreaks of the disease are detected early enough to permit remedial action. The two free-ranging deer with CWD were part of targeted testing that MDC undertook to determine if CWD was present in wild deer in the area surrounding the infected captive-hunting preserves.

In early February, again with hunters' and landowners' help, MDC began collecting more deer in Macon and Linn counties for CWD testing. Intensive sampling will continue during the 2012 firearms deer season to define the geographic extent of the CWD outbreak and determine how prevalent the disease is in the infected area.

"Teamwork among landowners, hunters and MDC staff allowed us to detect this infection early," said Resource Scientist Jason Sumners. "Continuing that partnership is our best hope for containing what we believe to be a recent, localized event."

Sumners noted that other states have gone years after similar, localized CWD outbreaks without detecting any additional cases of the disease in wild deer.

Did You Know?

Conservation makes Missouri a great place to fish.

Reel in Some Fun

» **Find MO Fish, a free application for your smart phone**, shows you a map of Missouri with the locations of public boat ramps to the major lakes, rivers and streams. The map also shows you the exact location of underwater fish structures put in place by the Missouri Department of Conservation over the years. These fish-attracting structures act as habitat for fish. With the geo-location feature, you can guide your boat right up to your favorite fish attractor and start fishing. The application is available for Android, Blackberry and Apple phones.

» **Kids' Fishing Days** are designed to help families and youth groups learn more about fishing. Each event provides fishing equipment and instruction. All you have to do is bring your kids and plenty of energy! Check the events calendar at mdc.mo.gov/node/16243, or contact your regional Conservation office (see Page 3). Fishing is just plain fun. It helps kids discover nature and conserve it, too.

» **Trout parks** host special events on Kids' Fishing Days, too. Some areas are designated "kids only" and are stocked with trout throughout the day, including some "lunkers" for the catch-of-a-lifetime. There's casting contests, first fish presentations, prize drawings, displays, demonstrations and more. Mark your calendar to be at Maramec Spring or Roaring River on Saturday, May 19, and Saturday, Aug. 18. Montauk and Bennett Springs' events are scheduled for Saturday, May 5, and Saturday, Aug. 4.

» **MDC's Rods and Reels Loaner Program**, every regional office can help Missourians get hooked on fishing. Statewide, MDC's fisheries staff, education consultants and outdoor skills specialists are ready to support your fishing event (see Page 3 for phone numbers).

» **To learn more about fishing in Missouri**, visit mdc.mo.gov/node/89. To learn more about the Conservation Department's 75-year history of sport-fish management, read the article starting on Page 10, *The Lure of Fishing*.

» **Free Fishing Days** encourage you to explore the state's fishing opportunities without having to purchase permits.

Each year, Free Fishing Days are the Saturday and Sunday following the first Monday in June. Borrow a neighbor's rod and reel, or come out to a conservation area where a Free Fishing Days program is scheduled and borrow one of ours.

Learn more at mdc.mo.gov/node/3675.



Celebrate a child's or adult's first fish with a certificate available to download at mdc.mo.gov/node/10474.



GREAT FISHING IS AT THE heart of enjoying Missouri's outdoors. From farm ponds, streams and lakes, to the nation's largest rivers, Missouri offers an abundance of sport-fishing opportunities to connect anglers with the thrill of a lifetime.

Since the Department was established in 1937, it has led efforts to ensure that the legacy of great fishing in the Show-Me State will only get better. Enhancing Missouri's sport fishing takes many forms: hatcheries and stocking, broad partnerships for habitat-improvement projects, refining fishing regulations, watershed conservation, and improving fisheries and fishing access through federal programs.

HATCHERIES AND STOCKING

In 1878, the Missouri Legislature authorized Missouri's first Fish Commission, which began the state's restock-

ing efforts. The early Fish Commission's greatest achievement was to begin the development of a fish-hatchery system that is still important today.

"Back then, fisheries workers would stop a train at a river crossing and pour fish out of milk cans to stock the local streams," says Chris Vitello, MDC Fisheries Division chief. "At that time, restocking was the only tool in the toolbox. But it was soon apparent that improvements needed to be made to regulations and to the stream itself to support those fish and to allow them to thrive."

Today's hatcheries and stocking efforts continue to be a major focus of the Department. MDC's hatcheries produce almost 9 million fish each year, including largemouth bass, bluegill, channel catfish, walleye, sturgeon, hybrid striped bass, paddlefish and both rainbow and brown trout. The Department's hatchery system includes four warm-water and five cold-water hatcheries. MDC's warm-water hatcheries produce enough fish to meet stocking needs in Missouri and also provide fish for occasional trades with other states. The Department's cold-water hatcheries produce millions of trout to stock



TROUT UNLIMITED

Trout Unlimited has been a key partner in conservation since the 1970s. Trout Unlimited is a national organization with about 400 chapters, totaling 140,000 members. More than 1,900 members in three Missouri chapters work to enhance trout fishing and cold-water habitat throughout the state.

“Trout Unlimited was one of the stakeholder groups the Department worked with to create a trout-fishing management plan,” says Mike Kruse, MDC Resource Science Division chief, and past Department trout plan coordinator. “Trout Unlimited has played a key role in helping to implement that plan, particularly in leading a group of partners that pooled their resources to make some important land acquisitions along our trout streams possible. Those partners included the Ozark Fly Fishers and fishing clubs affiliated with the Federation of Fly Fishers and the Missouri Trout Fishermen’s Association.

The contributions of these groups really make Missouri trout fishing what it is today.”

Trout Unlimited, along with help from other organizations and individuals dedicated to trout fishing, helped MDC create winter trout fishing opportunities in lakes near Missouri’s urban centers, established a cold-water conservation fund with the Missouri Conservation Heritage Foundation dedicated to conserving key cold-water habitats, and improved access to Missouri’s trout streams, such as Mill Creek, Little Piney River, Capps Creek, Current River, North Fork of the White River and Lake Taneycomo.

“Currently, the Mid-Missouri chapter of Trout Unlimited is working with MDC to provide wader wash stations to help reduce the invasive spread of didymo (rock snot) found just south of Missouri,” says Michael Riley, president of the Mid-Missouri chapter.

Missouri’s Trout Unlimited members also have helped create disabled-accessible fishing



Anglers gather for trout opening day at Bennett Spring State Park.

accesses and promote trout fishing with numerous fishing programs and events. Learn more at www.tu.org.

four trout parks, Lake Taneycomo and selected cold-water streams designated as trout waters.

Over the past decade, MDC’s hatcheries have undergone extensive renovations to improve the Department’s ability to raise a variety of warm- and cold-water fish species. These improvements ensure that MDC will

continue to efficiently produce the millions of sport fish needed for stocking. MDC hatcheries also participate in research and breeding of rare or threatened species, such as Topeka shiners and Ozark hellbenders, further benefiting the aquatic resources of the state.

PARTNERS IN HABITAT IMPROVEMENT

Public input and involvement are both essential for improving the state’s fisheries. MDC works with anglers, communities and fishing groups as the Department develops management plans for each unique sport fish. Citizen input has been instrumental in many management plans to allow fish populations to be maintained naturally and to allow anglers to catch more and bigger fish.

MDC works with many groups to sustain healthy fisheries throughout the state. “Good fishing requires good water quality, and that depends on conserving the land around it,” says Andrew Branson, a fisheries programs specialist for the Department. “Preventing erosion and conserving habitat along streams is also good for the streams themselves. Many groups working together for conservation can make that happen.”

Some of MDC’s partners include private landowners, the Conservation Federation of Missouri, Missouri Cooperative Fish and Wildlife Research Unit, Missouri Department of Natural Resources, National Park Service, U.S. Army Corps of Engineers, U.S. Forest Service and



Left: The Missouri Fish Commission’s greatest achievement was to begin the development of a fish hatchery system that is still a major focus of MDC today. Above: An MDC hatchery worker feeds trout at the Shepherd of the Hills Fish Hatchery on Lake Taneycomo.



Since it was founded in 1937, MDC has sponsored thousands of fishing clinics for young anglers.

the U.S. Fish and Wildlife Service. Many cities, towns and corporations also partner with MDC to improve fishing and fishing access through MDC's Community Assistance Program and the closely related Corporate and Agency Partnership Program.

The Department is also working with Bass Pro Shops and the National Fish and Wildlife Foundation to improve fish habitat in Table Rock Lake and Lake Taneycomo through the National Fish Habitat Initiative. This partnership has improved habitat by adding brush piles, stumps and rock structures to the reservoirs using a specially made pontoon barge (see *Missouri Conservationist*, November 2011). The initiative will also improve water quality by reducing inputs from failing septic systems and stabilizing stream banks in the Table Rock Lake watershed. Similar efforts are ongoing in other parts of the state through the National Fish Habitat Partnership.

The efforts of many volunteer groups continue to benefit the waterways of the state, including Stream



Teams, angling groups, such as Missouri Smallmouth Alliance and Muskies, Inc., and local nonprofits, such as the Watershed Committee of the Ozarks and the James River Basin Partnership. Last year, more than 4,000 Stream Teams donated 146,000 hours in stream-improvement projects.

FISHING REGULATIONS AND SPORT-FISH MANAGEMENT

Monitoring fish populations and subsequently adjusting limits and seasons are important aspects of sport-fish management. For example, groundbreaking research conducted by MDC in the 1980s found that crappie populations in many of Missouri's large reservoirs were being overfished. Higher quality and more consistent crappie

REGULATIONS ARE TAILOR-MADE FOR INDIVIDUAL FISHERIES

Each pond, stream, river and reservoir is unique and often requires specific regulations in order to best manage its fish populations. Fishing regulations are based upon data collected from fish sampling, creel surveys and public input.

Before heading out, review the fishing

regulations for your destination. The time you invest will help protect the fisheries and keep you from violating the *Wildlife Code*. Pick up *A Summary of Missouri Fishing Regulations* at permit vendors or review fishing regulations online at mdc.mo.gov/fishing/regulations.



FIRST IN SCIENCE

Since it was established in 1937, the Department has been a national leader in science-based fisheries management. Many fisheries-management techniques, now widely adopted throughout the country, were developed by the Department.

- Artificially hatched channel catfish eggs (1939).
- Developed device to measure fish growth by measuring scale growth rings (1951).
- Developed pelleted trout feed (1956).
- Discovered paddlefish eggs and larvae in upper Osage River (1960).
- Hatched paddlefish eggs at Bennett Spring Hatchery (1961).
- Pioneered bass-, crappie- and trout-harvest management techniques (1970s–1980s).
- Reared and released endangered pallid sturgeons in the big rivers (1994).
- Reared and released endangered Niangua darters in the Osage River Basin (1996).
- Established red, white and blue trout-management areas (2003).
- Propagated and released federally endangered Ozark hellbenders (2008).
- Propagated and released federally endangered Topeka shiners (2011).
- Collaborated with the St. Louis Zoo to spawn and rear in captivity federally endangered Ozark hellbenders (2011).

Due to MDC's pioneering of egg collection and successful rearing and stocking programs, paddlefish provide an exciting fishing opportunity. Department staff stock thousands of paddlefish fingerlings each year to support popular snag fisheries throughout the state.

fishing resulted by setting minimum length limits and reducing the daily limit from 30 to 15 in appropriate lakes.

MDC improved bass fishing by creating stream black bass special management areas. Beginning in 1989, MDC fishery managers and researchers began to evaluate the impacts of special fishing regulations on stream black bass. Surveys showed that special regulations helped anglers catch more and larger smallmouth bass in selected waters.

Today, these stream black bass special management areas total 2,091 miles of water. To determine bass harvests, MDC conducted a statewide smallmouth bass angler opinion survey, performed smallmouth bass radio telemetry movement studies, and studied angler harvest rates on five streams. The results will be used to better understand and manage Missouri's smallmouth bass.

Since the 1990s, MDC has also enhanced and diversified walleye-angling opportunities across the state. Hatcheries increased production of fingerling walleye, and stocking expanded. Reward-tagging studies show these stockings were successful and that walleye are growing to harvestable size (15 inches) in two years. Every year, up to 25 percent of these tagged, legal-size fish are harvested, reflecting the rising popularity of walleye fishing.

In 2010, MDC held a series of public meetings to gather input as part of a blue catfish management and evaluation project for Truman Lake and Lake Ozark. Fisheries staff continue to monitor the status of blue catfish populations in Missouri's big reservoirs to ensure that these large fish are abundant for future generations to enjoy.

On the Missouri River, the Department stopped commercial harvest of catfish in 1992. Since then, sport anglers have taken many catfish in the 80- to 100-pound range. Our stretch of Missouri River is now among the nation's top trophy catfish waters.

"Having two state-record catfish caught in 2010 proves the wisdom of past management decisions," says Vitello. "The Missouri River is one of several fisheries in the state with the potential to produce huge catfish. Given a chance to grow, blue and flathead cats can reach sizes that make even the most experienced angler's heart race."



MDC's new fishing app for smart phones shows you a map of Missouri with the locations of public boat ramps to the major lakes, rivers and streams. The map also shows you the exact location of underwater fish structures put in place by MDC. The free app is available for Apple, Android and Blackberry phones.

Fishing also should continue to get better on the Missouri and Mississippi rivers as state and federal agencies work together to minimize habitat loss and to improve fisheries habitat. MDC biologists have completed population evaluations on flathead catfish and sauger to help determine appropriate harvest regulations for improving these important big-river fisheries.

Also known as the "fish of 10,000 casts," muskie remain one of Missouri's most elusive sport fish. MDC stocks muskies at Fellows Lake, Hazel Creek Lake, Pomme de Terre Lake and August A. Busch Memorial Conservation Area. In 2009, anglers reported catching a 36-inch or longer muskie for every 25 hours of effort—a big reward for perseverance. Recently, the first Missouri muskie to



break the 50-inch threshold was caught by MDC fisheries biologists at Fellows Lake—proving that muskies are well suited for selected reservoirs in the Show-Me State.

The Department also has enhanced trout angling. With input from a number of trout-fishing organizations and citizens, the Conservation Commission approved *A Plan for Missouri Trout Fishing* in 2003. This plan, as well as other trout studies and scientifically based stocking, have greatly expanded the quantity and quality of trout fishing in Missouri.

BUYING FISHING LICENSES, RODS AND REELS PUTS FISH IN THE WATER

If you've ever purchased hunting or fishing licenses, fishing lures, rods and reels, or fueled up your boat, you're part of one of the most successful efforts to conserve sport fish in America.

Through the U.S. Fish and Wildlife Service's Sport Fish Restoration Program, MDC receives federal excise taxes paid by sportsmen and anglers in the state on fishing tackle, motorboat fuel, electric outboard motors and sonar equipment. These funds are returned to MDC to conserve, manage and enhance fisheries, develop motorboat accesses, and to help fund angler and aquatic-resource education. Since 1952, Missouri has received about \$135 million from the Sport Fish Restoration Program.

For more than 75 years, Missourians also have helped improve Missouri's fishing by buying fishing licenses, which fund fisheries conservation work. And in the end, every Missourian is a partner in conservation, thanks to the conservation sales tax, which allocates 1 penny for conservation efforts from every \$8 of taxable items purchased. This dedicated sales tax provides consistent funding for the long-term efforts required for the conservation of fish, forests and wildlife.



Muskie

REELING IN THE RECORDS

Download the complete list of Missouri state-record fish at mdc.mo.gov/node/6103.

MDC's Master Angler Program recognizes notable catches that fall short of records. Download an entry form with qualifying lengths and weights at mdc.mo.gov/72.

It's hard to beat the excitement of catching your first fish. Commemorate this milestone with MDC's First Fish certificates. Fill in, print and frame the full-color certificate, available at mdc.mo.gov/node/10474.

Some of Missouri's World Record Fish

BLACK CRAPPIE • 5 lbs.

John Horstman at a private pond on April 21, 2006

GREEN SUNFISH • 2 lbs. 2 oz.

Paul Dilley at Stockton Lake on June 18, 1971

SHORTNOSE GAR • 8 lbs. 3 oz.

George Pittman, Sr., at Lake Contrary on Oct. 12, 2010

YELLOW BULLHEAD • 6 lbs. 6 oz.

John Irvin at Old Drexel Lake on May 27, 2006

Notable State Records

BLUE CATFISH • 130 lbs.

Greg Bernal by pole and line on the Missouri River on July 20, 2010 (a former world record)

FLATHEAD CATFISH • 99 lbs.

Robert Davidson by bank pole on the Missouri River on July 23, 2010

PADDLEFISH • 139 lbs. 4 oz.

George Russell by snagging at Table Rock Lake on March 15, 2002

STRIPED BASS • 60 lbs. 9 oz.

James Cunningham by pole and line at Bull Shoals Lake on June 18, 2011

Missouri offers anglers an incredible diversity of waters, teeming with more than 200 species of fish. Each year, more than one million anglers fish Missouri's waters, each spending an average of 15 days afield.

Today, Missouri's trout-fishing opportunities include four trout parks: Montauk, Roaring River, and Bennett and Maramec springs. The Department also manages 120 miles of spring-fed, cold-water trout streams, Lake Taneycomo, and winter trout areas in Columbia, Kirksville, Jackson, Jefferson City, Kansas City, Mexico, Sedalia, St. Joseph and St. Louis. Nearly 2 million trout, produced by Department hatcheries and the Neosho National Fish Hatchery, are stocked each year. Learn more about these trout areas at mdc.mo.gov/node/5603.

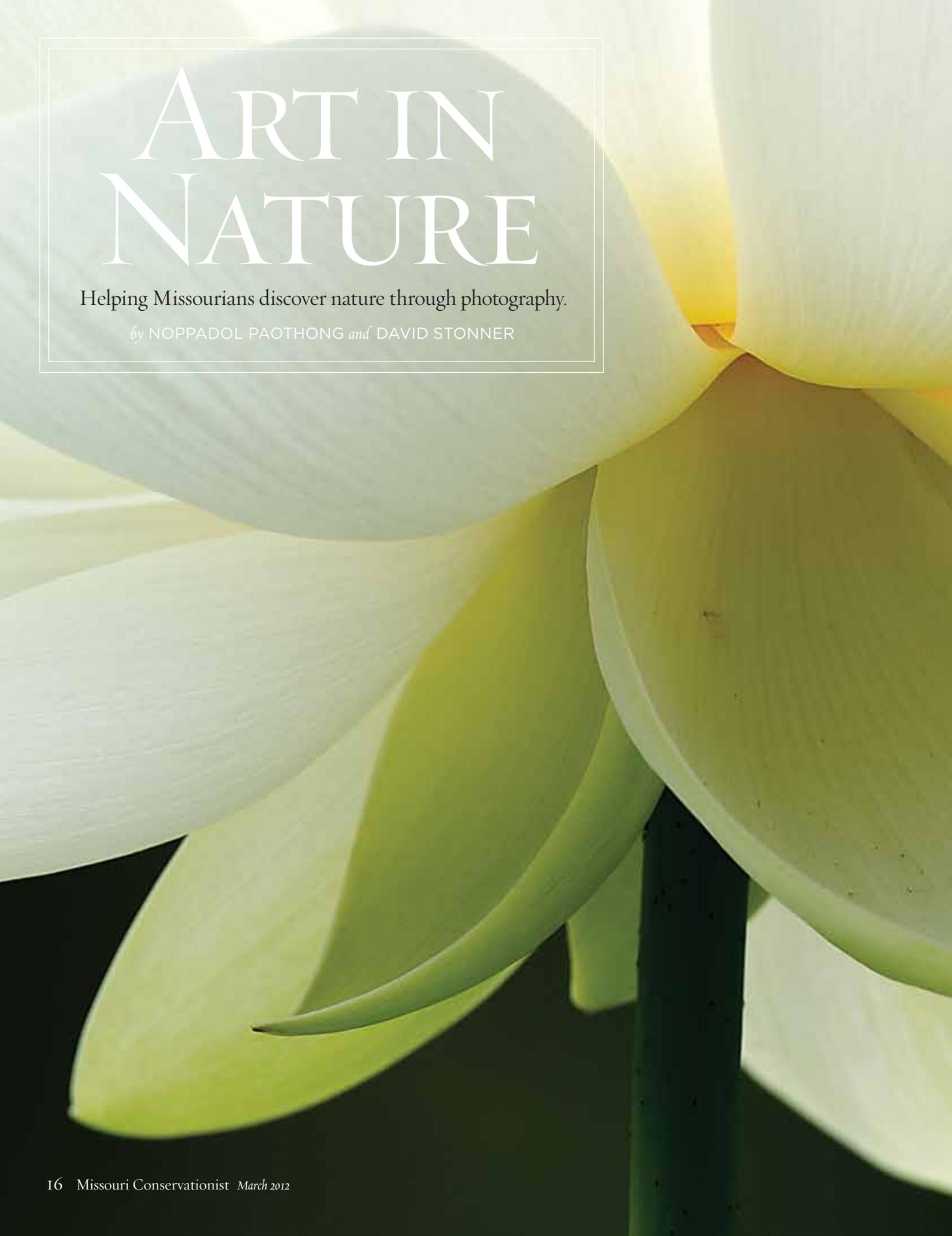
WATERSHED CONSERVATION BENEFITS SPORT FISH

MDC's sport-fish management continues in the same tradition as it began—with the Department working with Missourians and for Missourians to ensure the state's diverse fisheries only get better. More than 75 years ago, those early conservation efforts involved milk cans and determination—the only tools in the toolbox.

Today, state-of-the-art hatcheries, solid science, public involvement and broad partnerships continue to improve Missouri's world-class fishing.

"Science-based research is allowing us to learn more than ever before about the impacts of all sorts of things on Missouri's sport fish," says Vitello. "You can't have quality smallmouth bass, for example, if the crayfish (their favorite food) don't thrive. You can't have healthy sport fish if the prey fish that support them, like shad, can't make it. By studying the whole system, we learn more about what supports the entire web of life."

MDC's fisheries biologists continue to connect the dots between sport-fish management and watershed conservation. What is good for the land and the stream ultimately is good for Missouri's most sought-after fish. ▲



ART IN NATURE

Helping Missourians discover nature through photography.

by NOPPADOL PAOTHONG *and* DAVID STONNER



ACCURACY MATTERS IN NATURE photography. We are, in essence, nature journalists, and we tell the story of conservation in Missouri.

We strive to depict the flora and fauna of our beautiful state in a way that reveals as much about the subject as possible. Most of the pictures that accompany our stories are meant to teach the viewer something: how to identify a species, how it behaves, where it lives. When we show a picture of a bird, we want viewers to be able to use the picture to identify that bird and its habitat on their next outing. Through our landscape photos, we hope to convey not only what a place looks like, but also how it feels to be there.

While we try to capture the important details of our subjects, we also step back and look at the natural world in a completely different way. We de-emphasize the journalist and emphasize the artist. We look for photographs that are compelling purely for their qualities of light, pattern, texture and color. We allow ourselves to become painters with our cameras.

Here we focus on the beauty and inspiration of nature, the pursuit of which—with or without a camera in hand—is a fine way to enjoy more time in our great outdoors. You, too, can find this beauty. All you need to do is step outside and take a walk. Look closely at the world around you. Crouch down low to see things that we often miss from our normal altitude of 5 to 6 feet. Cock your head to one side for a slightly different perspective, and you may find that colors, patterns and textures coalesce into something new and beautiful.

Please join us in nature's art gallery. →

AMERICAN LOTUS | NOPPADOL PAOTHONG
I used a telephoto lens to isolate this lotus from the background against sunlight. The lens revealed the fine lines of the flower, giving a blurry abstract impression.

📷 600mm lens • f/11 • 1/25 sec • ISO 200



DRIFTWOOD | DAVID STONNER

The still waters of Duck Creek Conservation Area mirror roiling clouds and contrast with weathered drift wood piled up by winter storms. The blue hues of the cloud-veiled sunset help to convey the cold landscape.

📷 16–35mm lens • f/8 • 1/15 sec • ISO 400



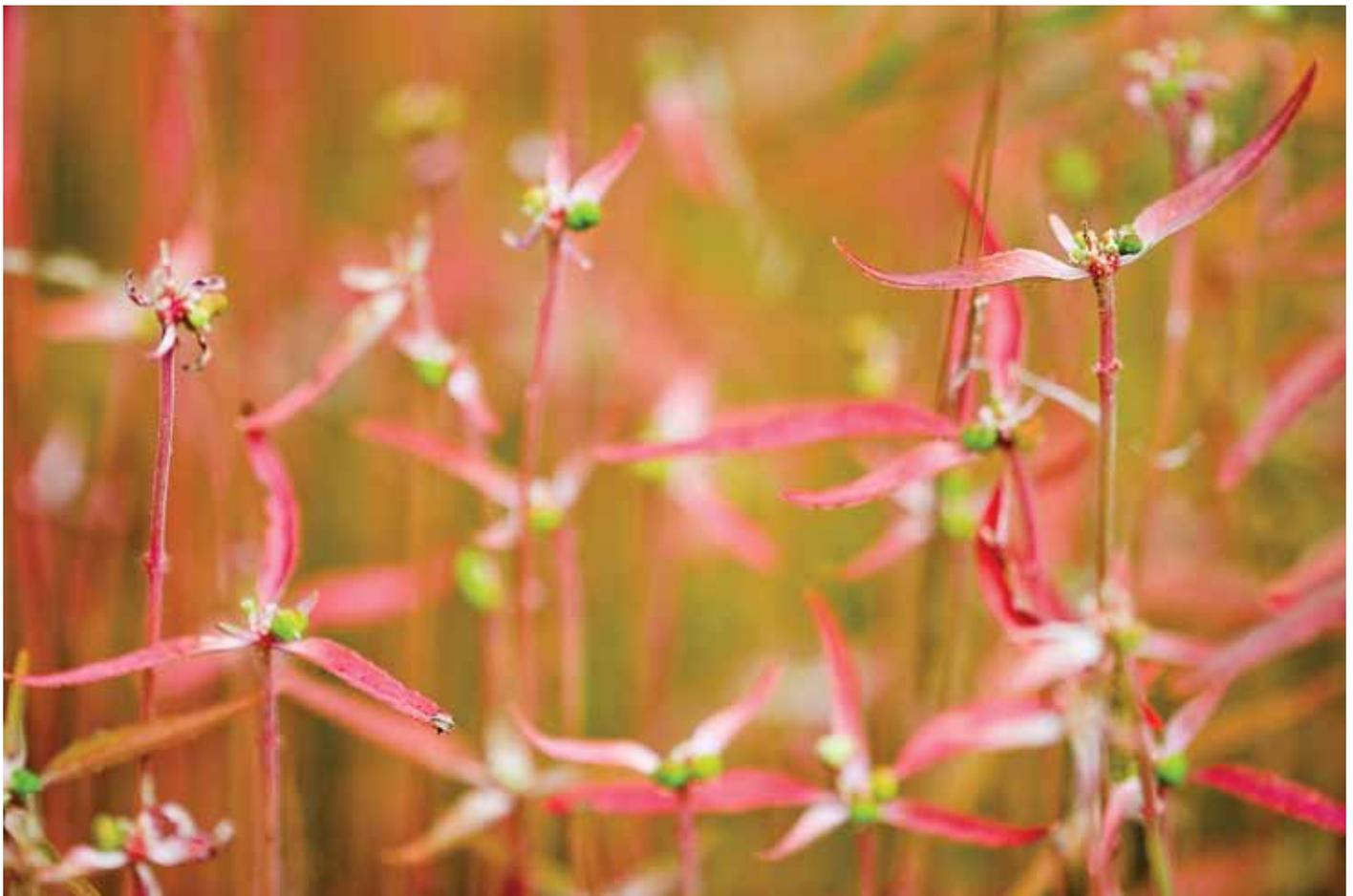
AUTUMN | DAVID STONNER

The bright warm colors of a freshly fallen leaf contrast with rich green moss in a moist box canyon at Hickory Canyon in Ste. Genevieve County. Sometimes the small things underfoot can be lost in the quest to see the grand landscape.

📷 24–70mm lens • f/4 • 1/60 sec • ISO 100



TEAL HUNT | DAVID STONNER
Heavy fog on a restored wetland in Carroll County reduces an image of a hunter to bare elements of monochrome shape and form.
📷 70–200mm lens • f/2.8 • 1/100 sec • ISO 800



TOOTHED SPURGE | NOPPADOL PAOTHONG
I was intrigued by this native plant's formation at Spring Creek Gap Conservation Area. After a number of attempts, I was able to get this shot that showcased *Euphorbia dentata*'s colorful formation and contrast against the background.
📷 180mm lens • f/5.6 • 1/60 sec • ISO 200



BLAZING STARS | NOPPADOL PAOTHONG
Blazing stars were showy late in summer at Prairie Garden Trust in New Bloomfield. Instead of getting a close-up of one flower, I decided to focus more on the simplicity of their formation by using high depth-of-field.
📷 180mm • f/32 • 1/15 sec • ISO 200



GREATER ROADRUNNER | NOPPADOL PAOTHONG
While photographing a greater roadrunner, I caught a glimpse of glistening on its feathers. When I got close enough to get fine details of the feathers, I was amazed by their beautiful color and formation.
📷 500mm lens • f/11 • 1/160 sec • ISO 400



MIGRATION | DAVID STONNER

Hundreds of thousands of snow geese take flight at sunrise on the fall journey south. A long telephoto lens compresses the birds into a two dimensional abstract pattern.

📷 500mm lens • f/4 • 1/500 sec • ISO 400



CHANTERELLE MUSHROOM | DAVID STONNER

Lying down on the ground inches from a *Cantharellus lateritius*, I saw intricate undulations and form that I would normally overlook on a hike in the woods.

📷 100mm macro lens • f/8 • 1/250 sec • ISO 100



BIG GAME FISHING

Paddlefishing is no leisure sport.

by LARRY R. BECKETT





AT SOME POINT IN LIFE, OUR STRENGTH

and will is tested. We reach our limit and must rise above it—or walk away in failure. Although I often speculated about the circumstances of this moment of truth in my life, I never envisioned it would involve a white-knuckled grip on a fishing rod.

Don't get me wrong, I had anticipated high excitement on this fishing trip. We were chasing paddlefish, which commonly grow to 60 or more pounds (the largest on record weighed in at 198). Having spent my life drowning worms for “monster” 1-pound bluegill and throwing crankbait for newsworthy 8-pound bass, I was about as prepared to tangle with a paddlefish as a miniature golf player is for the PGA tour.

To Battle

My guide handed me a rod that resembled the lower limb of a mighty oak. I am not sure what action was written on the rod, but “none” would have been the appropriate description. The large, round saltwater reel was like nothing I had ever seen and was complemented by a spool of what could only be classified as rope. At the end of this was what appeared to be a grappling hook and, dangling below that, a pound of lead.

I was beyond relieved when my guide explained that we wouldn't need to cast—we would troll instead. He put the boat in gear and, when we reached trolling speed, I pushed the release. I engaged the reel, the line tightened, and I could feel the massive lead weight bouncing along the bottom.

There is something hypnotic about trolling across a lake at slow speeds. The constant hum of the outboard motor, the splashing of waves as the boat cuts through the water, and the shoreline scenery gliding by like a film in slow motion all lull a person into a more relaxed state. And then my treble hook lodged in a 60-pound behemoth, and I gained a new respect for the cliché “hitting a brick wall.”

It was everything I could do to keep the rod from being ripped from my hands, and then I struggled to keep myself from being pulled into the water. The only thing that saved me was the reel's drag, and I was surprised



there wasn't smoke off the line as it flew into the water.

Just reeling in a 60-pound weight is a daunting task, but this weight had a powerful tail and no desire to come toward the boat. The fight was enough for me to question my manhood. As my knuckles turned white and my legs and arms quivered, I had to decide my fate. I planted my



Paddlefish have no interest in traditional lures and bait. Those pursuing paddlefish have to do so by snagging (jerking an unbaited hook through the water).

no sympathy from the guide. “Ready to get another one?” he asked, enthusiastically. It must have been the combination of adrenaline and testosterone that caused me to say yes, as the next thing I remember is closing the release on the reel again, feeling the lead bump along the bottom and holding on for dear life.

The Lovin’ Spoonbill

Paddlefish, otherwise known as spoonbill, possess unique physical characteristics that reveal their prehistoric beginnings. They have small eyes, no scales and a boneless structure, but their elongated rostrum (the fish’s paddle, bill or shovel) is what really sets them apart from other fish and is the source of their varied common names. Even though the rostrum is their most recognizable trait, the purpose is still not entirely understood. “There is a lot of speculation about the rostrum,” said Trish Yasger, fisheries management biologist for MDC. “Some think there are electrical sensors on it to help locate food and navigate, but the ones that get their rostrum knocked off by a boat prop or other accident do just fine and grow to a large size.”

Paddlefish are one of MDC’s restoration success stories and another example of how conservation makes Missouri a great place to fish. They historically roamed the waters of the Mississippi basin and the free-flowing Osage River, but their ability to reproduce was severely hindered by the introduction of dams. “When the Bagnell Dam and Truman Dam were put in, they blocked the spawning migrations and flooded the spawning grounds,” said Yasger. Without the right conditions for reproduction, this long-time resident of Missouri waters was headed for a dismal future. MDC began raising and stocking paddlefish into Table Rock Lake in 1972, Truman Lake in 1978 and Lake of the Ozarks in 1982.

Today, Blind Pony Hatchery, just outside of Sweet Springs, raises thousands of paddlefish fingerlings each year. When they reach 10 to 12 inches in length, they are released into state waters. “Right now, the stocking plan calls for 15,000 fish each year in Truman Lake and Lake of the Ozarks, with a pulse stocking of 30,000 fish every third year, 3,000 in Table Rock Lake, with a pulse stocking of 6,000 fish every third year and 750 in the Black River,” said Yasger. “The pulse stocking is a boost because they are a river fish, and fish don’t consistently reproduce in river

feet and, after what seemed like an eternity of pumping and reeling, the slick-skinned paddlefish emerged from the water. The guide wrestled the fish into the boat despite the fish’s attempts to pull him overboard.

The sight of my arms hanging by my sides, my legs still quivering, and the lack of color in my knuckles brought



systems every year. You get a pulse every few years, so we try to mimic natural reproduction.”

To produce the stocking brood, the staff at Blind Pony Hatchery temporarily relocate a few mature paddlefish from the James River arm of Table Rock Lake to their facility each year. “Usually we try to bring back 12 males and 12 females for the year,” said Bruce Drecktrah, Blind Pony Hatchery manager. “We hold them in one of the 1/10-acre ponds and then we bring them into the hatchery building and spawn them. When we catch them in the James River, they are naturally looking for a place to spawn. They are wanting to do it on their own—we just kind of help them along.”

It’s during this predictable spawning pattern each spring that anglers from every corner of the state and beyond head to the water in search of paddlefish. The three stocked reservoirs are a good place to start. “In

the reservoir environment, the fish grow bigger because they are not fighting the current and there is also more food for them to eat,” said Yasger. Unlike most other fish, paddlefish reach their impressive size by only feeding on microscopic plankton. “They are filter feeders, so as long as they are swimming and have their mouth open they are constantly feeding,” said Yasger. “It takes about 6 to 8 years for a paddlefish to reach legal harvest size.”

Expect Snags in Your Plan

In the reservoirs, spawning paddlefish can only go as far as the dams and then begin to stack up in higher concentrations. Because they have no interest in traditional lures and bait, and microscopic plankton are pretty difficult to thread on a hook, those pursuing paddlefish have to do so by snagging. Higher numbers of fish in smaller areas of water definitely increases success. “All you have



Paddlefish have small eyes, no scales and a boneless structure, but their elongated rostrum (the fish's paddle, bill or shovel) is what really sets them apart from other fish.

miles per hour and there are enough boats on the river. You can have conversations with the people in the other boats. A lot of people trick out their boats, name them or decorate them with flags. It's not like high-speed bass fishing. You're just cruising down the river having a good time."

Despite the laid-back style of fishing, many spoonbill anglers are taking advantage of modern-day technology. "Five years ago, everybody thought I was crazy for having a \$3,000 graph, but now five out of 10 boats have them. The sonar is getting so good that you can usually tell if they are male or female by how big the fish are, and you can even see the hooks and sinkers from the other boats going through the water. People are a lot better at catching spoonbill than they used to be, and there's a lot more people fishing, but the quality still seems to be there."

Word is spreading about this unique opportunity and the successful efforts of MDC. "Our goal is to manage paddlefish statewide as a trophy sport fishery," said Yasger. "It brings in a lot of people. I write a snagging report during snagging season that I post on our Web page. I'm getting more and more viewers from out of state. Paddlefish are found throughout the entire Mississippi basin so they are in many states, but a lot of people are coming here to fish." Ford has also noticed the change in popularity. "The number of fishermen has increased by probably 300 percent in the last five years," said Ford. "There are people coming from all over. I take a lot of people from Nebraska, Iowa, Kansas and South Dakota. When the fish are stacked up, I can take five guys out in the morning and have 10 fish caught and be back by 10:30 a.m. Spoonbill fishing in Missouri is the best there is." ▲

to have is a 16-ounce sinker, two treble hooks and a stout pole, and you can catch a 50- to 100-pound fish by the end of the day," said Anthony Ford, a paddlefish angler from Warsaw. "I think that's what a lot of people like."

The unique and simple method of catching spoonbill levels the playing field for men, women and children alike. "You pull the rod tip up, let it back down, feel the sinker at the bottom and pull again," said Ford. "I have taken buddies, husbands and wives, parents and kids and people from 10 to 80 years old. I've seen women who caught six fish and their husband never caught a fish. You just never know. It's always better to be lucky than good."

Many of the anglers come every year, and trolling along at a leisurely pace provides the opportunity for paddlefish season to become a social event. "After you're down there a year or two, you start knowing people," said Ford. "You see a lot of the same people every year. You're only moving about 3

Paddlefishing in Missouri

For more information, including the paddlefish snagging report and a video, visit mdc.mo.gov/node/11813.

For more information on fishing regulations, pick up the latest copy of *A Summary of Missouri Fishing Regulations* available at vendors, or download a PDF at mdc.mo.gov/node/3104.

Paddlefish season is March 15–April 30. Mississippi River paddlefish season is March 15–May 15 and Sept. 15–Dec. 15.

Eastern Chipmunk

Most abundant in the Ozarks, this small, furry, acorn-loving rodent lives in forest borders.

MY WIFE, JOYCE, and I live on her family farm in Franklin County, and when we go for walks we often visit a tract she calls “Thousand Rocks.” A wooded valley, cluttered with huge, sandstone outcroppings, Thousand Rocks is a magical place from Joyce’s childhood, an enchanted forest. Although her grandfather sold much of the tract many years ago due to its non-tillable nature, she still considers the entire woodland as part of her heritage, just as much as the rest of the farm.

One of my favorite creatures of Thousand Rocks is the chipmunk, (*Tamias striatus*). Chipmunks are a photographer’s delight because they are furry, cute and loaded with personality. I can watch them for hours as they scurry back and forth across the boulders, foraging in crevices for hickory nuts and acorns. Also, chipmunks possess a trait that makes them very amenable to photography: they like to sit and think! If you observe a chipmunk for any length of time, it will eventually stop dead in its tracks and stare into space, apparently at nothing in particular. During these meditative periods, I’m provided plenty of opportunity to make sharp images, even in low light.

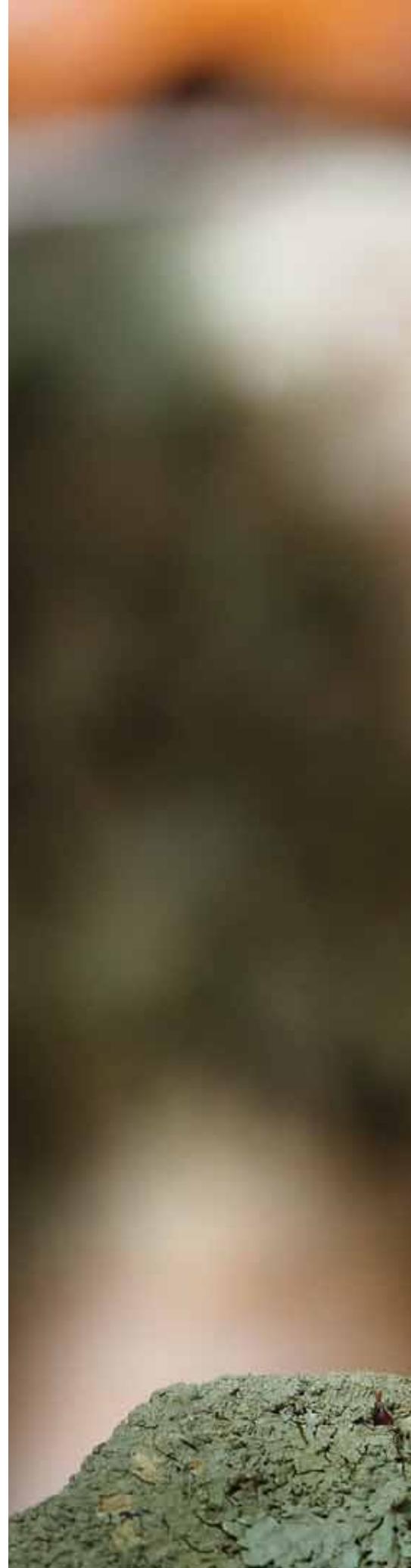
Chipmunks are found throughout Missouri but are most abundant in the Ozarks. Quite solitary in nature, they rarely interact with others of their kind, but when they do cross paths, an altercation usually ensues. Chipmunks are reddish-brown and are easily identified by the five stripes running lengthwise along their back and sides. The chipmunk’s tail is fur covered, but it is not as bushy as that of a tree squirrel. As with most rodents of Missouri, chipmunks can become a nuisance from time to time, especially around homes. But their beauty is a joy to behold, and they are an important part of the forest ecosystem, as are all plants and animals that dwell in that habitat.

Chipmunks are found in forest border areas, especially where plenty of logs, rocky outcroppings and other cover is available. Under these areas they construct burrows, where they take shelter from heat and cold, store food and raise young. In the fall, chipmunks gather hickory nuts, acorns, walnuts, seeds and other food items, which they store in their burrows. I always enjoy watching chipmunks collect food. Their expanding cheek pouches serving as built-in grocery bags. When winter arrives, some chipmunks retreat to their burrows to hibernate, while others stay active, especially on mild days. Breeding begins during the warming days of late winter, a good time to listen for their “chip” call. Young are born as early as April, sometimes with a second litter appearing later in the summer. Watch for juvenile chipmunks in late May and June as they begin to explore the world above ground.

I’ve only been visiting Thousand Rocks for 29 years, not nearly as long as Joyce, but I consider the tract a part of my heritage, as well. I recently installed a bird-feeding station near one of my favorite boulders, and if the truth be known, I’ll be watching the ground a bit more than the tree limbs, eager for a glimpse of Missouri’s most watchable rodent.

—Story and photo by Danny Brown

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





White Ranch CA

Watch wildlife and witness forest regeneration at this Howell County area.



GRAB YOUR BINOCULARS and outdoor gear, and head to White Ranch Conservation Area (CA) 11 miles south of West Plains this month. You'll find good birding and beautiful wildflowers, as well as a range of opportunities to pursue almost any outdoor activity. You'll also get to see this forested area's early response to regeneration treatments following the 2009 ice storm.

The 6,614-acre White Ranch CA, named for former owner Harry White, is divided into three tracts. The main tract features the 6-acre White Ranch Lake, a gravel boat ramp, a 50- and 100-yard rifle range, several picnic tables and two miles of the South Fork of the Spring River.

Although the area has no trails, the many miles of gravel access roads are open to horseback riding, biking and hiking. The parking lot, ranges and public restrooms are accessible to disabled users. Anglers will find good fishing for bass, catfish and sunfish in the lake and the Spring River.

Breeding birds are very active along the Spring River corridor in spring. Species you might see or hear include belted kingfishers, great crested flycatchers, wood thrushes, white- and red-eyed vireos, northern parulas, Louisiana waterthrushes, Kentucky warblers, common yellow throats, summer tanagers and red-winged blackbirds.

In the drainage south of road number eight, you'll find an incredible species-rich glade/fen complex. A glade is a dry, rocky, desert-like area, and a fen is a type of wetland. This unusual mix of habitat types supports diverse wildflowers and native grasses, such as wild sunflower, wood mint, purple prairie clover, wild petunia, prairie rose, slender mountain mint and big bluestem.

You may notice some recently cut sections of forest. These are regeneration or "shelterwood" cuts that managers conducted in response to the January 2009 ice storm, which severely damaged large swaths of the area. These shelterwood cuts "start the forest over," while leaving some trees across the landscape for wildlife dens, cover, nesting and seed production.

While regeneration treatments may look a bit rough, they will quickly grow into dense, shrubby thickets favored by quail, rabbits and songbirds, providing visitors with many opportunities to hunt and enjoy wildlife well into the future.

To plan your visit, download the area's brochure and map at the Web page listed below.

—Bonnie Chasteen, photo by David Stonner

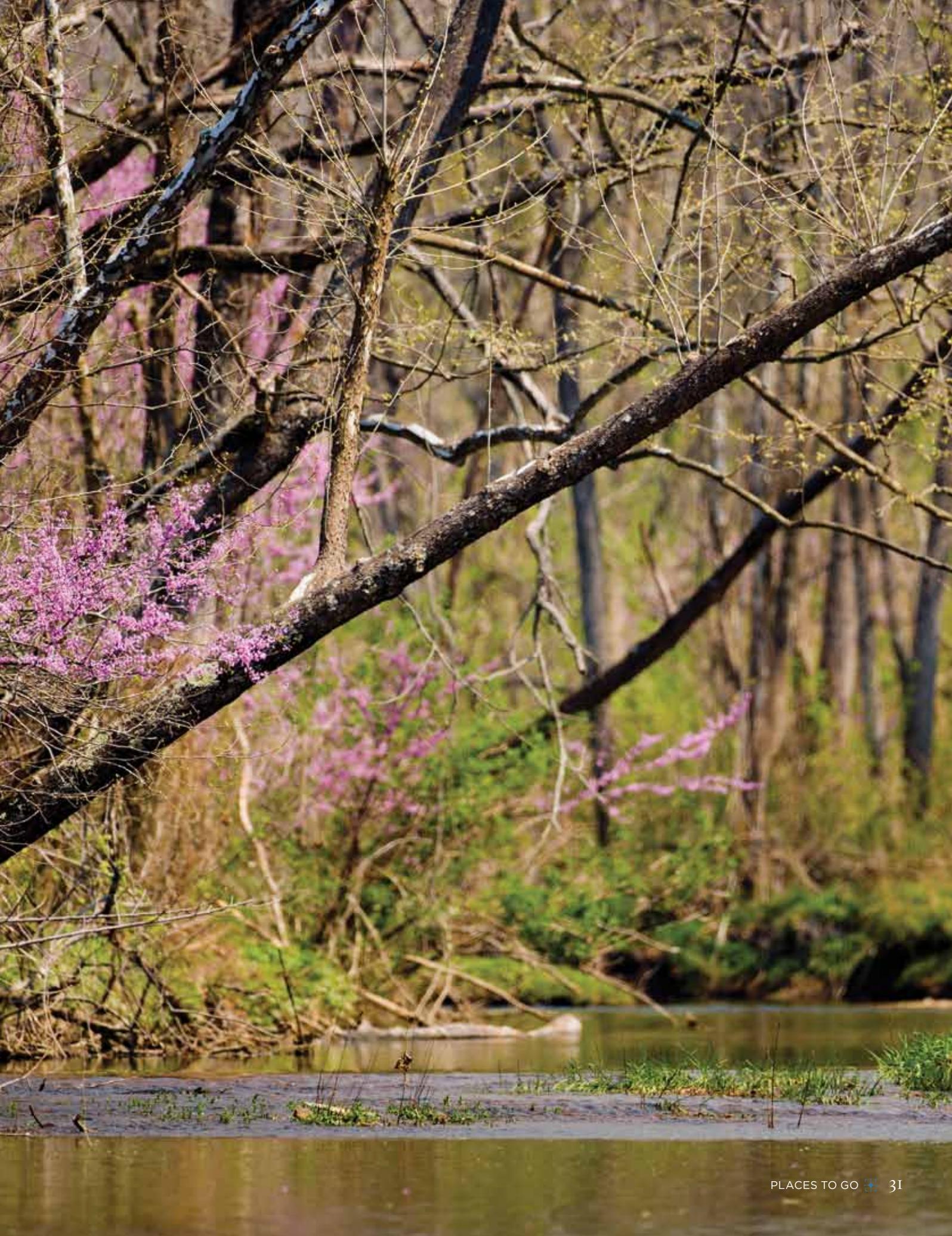
Recreation opportunities: Bird watching, wildflower viewing, camping, canoeing, fishing, hunting and target practice

Unique features: Hardwood forest, glade/fen complex and two miles of the South Fork of the Spring River

For More Information

Call 417-895-6880 or visit mdc.mo.gov/a8333.





Contributors



LARRY R. BECKETT is a writer, photographer and videographer from Bentonville, Ark. Born and raised in southwest Missouri, he returns every spring during paddlefish season to test his strength and will and reaffirm his passion for fishing.

BRETT DUFUR, an MDC editor, is writing a history of the Department for its 75th anniversary. He has authored numerous books on Missouri's outdoors including the Katy Trail, wine country and the Lewis and Clark Trail. He lives in Rocheport with his family and loves to paddle the Missouri River and explore wild places.



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Remember to enter your nature photos in our 75th Anniversary photo contest. A full list of rules and guidelines can be found on our website at mdc.mo.gov/node/16689. Entries will only be accepted via Flickr, an Internet photo sharing service. If you are not on Flickr, it is easy to join. Just go to our 75th anniversary photo contest Flickr site for more information: www.flickr.com/groups/mdc75thanniversary/.



Hunting and Fishing Calendar

FISHING	OPEN	CLOSE
Paddlefish	3/15/12	4/30/12
Paddlefish on the Mississippi River	3/15/12	5/15/12
HUNTING	OPEN	CLOSE
Coyote	5/09/11	3/31/12
Crow	11/01/11	3/3/12
Deer		
Firearms		
November	11/10/12	TBA
Turkey		
Firearms		
Youth	3/31/12	4/1/12
Spring	4/16/12	5/6/12
Fall	10/1/12	10/31/12
Waterfowl	please see the <i>Waterfowl Hunting Digest</i> or see mdc.mo.gov/node/3830	

TRAPPING	OPEN	CLOSE
Beavers & Nutria	11/15/11	3/31/12

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

AGENT NOTES

Tailor-made regulations make Missouri a great place to fish.

A COMMON THEME when talking with people is the complex nature of regulations. Fishing regulations in particular seem to generate the most consternation. While a few simple regulations covering all bodies of water in the state might seem ideal, Missouri waters and angler interests are much too diversified to lump together.

Over the course of my nearly 35-year career with the Missouri Department of Conservation (MDC), I can recall many sport fishing regulations that were originally very tough sells to the angling public. Instituting 9-inch length and daily limits of 15 for crappie was a drastic change from how people were used to doing business. Many were skeptical this would improve fishing, but as an agent I knew my job was to educate the public about the science behind the regulations. Seeing baskets of 30 to 60 crappie, most in the 6- to 9-inch length range, had always seemed a tremendous waste of the resource, but it was accepted as the status quo. After the regulation change, crappie fishing on every major impoundment in Missouri continues to be among the best in the nation. Seeing such a dramatic change in the size and

number of crappie caught year-round made me a firm believer in MDC's approach to regulations.

Other innovative regulations such as introducing muskellunge to certain waters, black bass and paddlefish length limits, trophy trout regulations and catfish daily limits have all proven successful. Even regulation changes concerning live bait help keep Missouri waters safe from invasive species. Missouri's long tradition of regulations based on sound science has kept fishing successful and popular in the state, even in the face of controversy. To learn more about fishing regulations in Missouri pick up a copy of *A Summary of Missouri Fishing Regulations* from permit vendors or download a PDF at mdc.mo.gov/node/6108. To learn more about sport fish management in Missouri, read *The Lure of Fishing* starting on Page 8.



Mike Burton is the Protection District Supervisor in the Kansas City Region. If you would like to contact the agent for your county, phone your regional conservation office listed on Page 3 or go to mdc.mo.gov and search for your county under "Who's My Local Contact?"



Crappie fishing on the Lake of the Ozarks.



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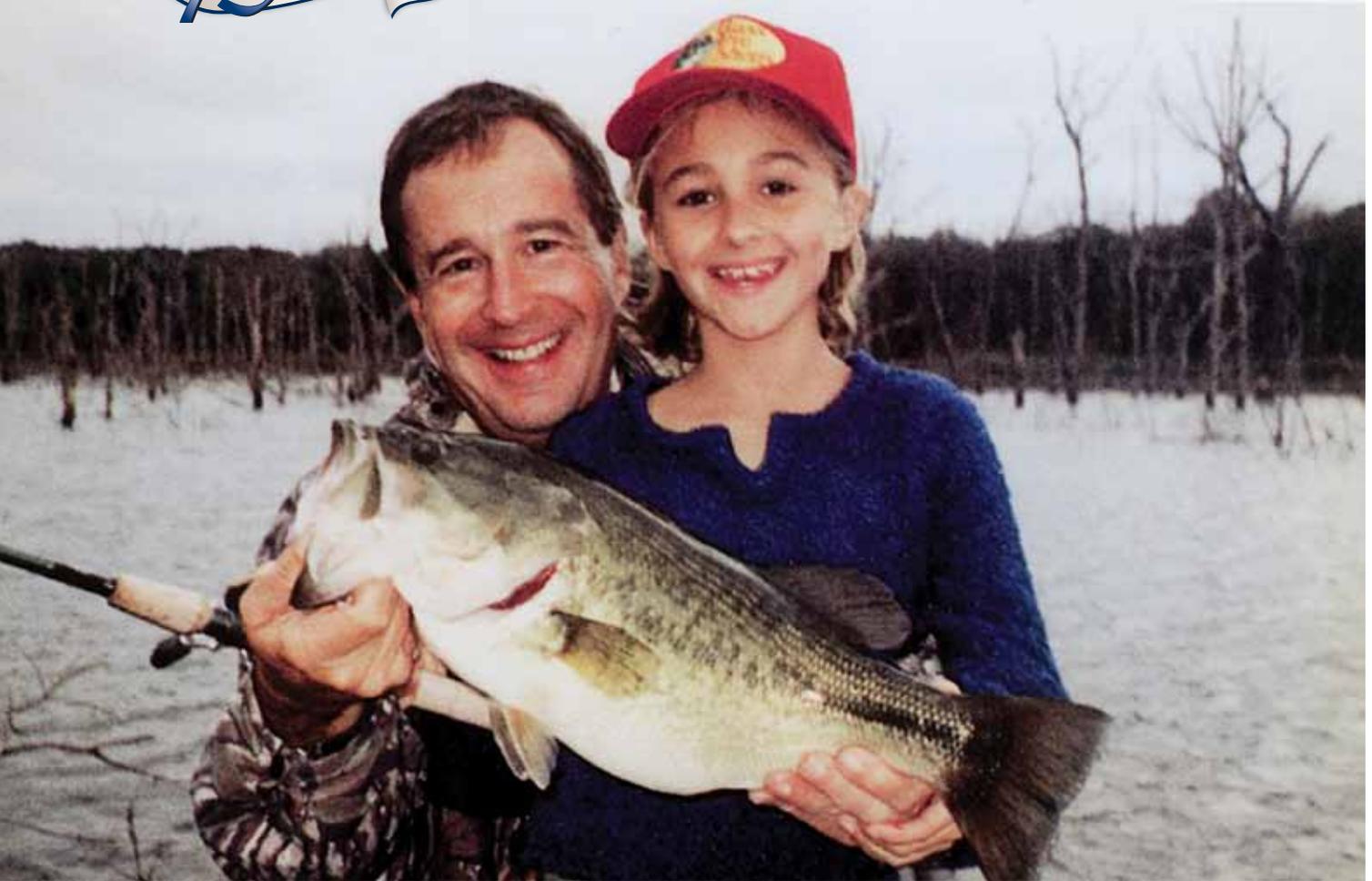


PHOTO COURTESY OF BASS PRO SHOPS

I Am Conservation

Johnny Morris, shown with his daughter Megan, is an Ozarks native, the founder of Bass Pro Shops and an ardent conservationist. "Conservation is the future of fishing, and it is vital that we invest in the future," said Morris. "If fishermen and especially kids, can't catch fish and enjoy exciting times in public waters, then our industry and the sport we love will not continue to attract future generations." Morris sees the need for citizens to take a strong position in the careful management and use of our natural resources, and he has a long standing commitment to conservation. Morris recognized the importance of conservation education and created the John A. and Genny Morris Conservation Education Center (named for his parents) that houses the Wonders of the Ozarks Learning Facility (WOLF School) for young Missourians. He contributes heavily in time and resources to many conservation efforts like the Table Rock Fish Habitat Initiative with the Missouri Department of Conservation, the National Fish and Wildlife Foundation, the U.S. Army Corps of Engineers and Arkansas Game and Fish. In 1993 the Missouri Department of Conservation honored Morris with the Master Conservationist Award. "All of us at Bass Pro Shops salute the Missouri Department of Conservation for 75 years of unparalleled conservation leadership and achievement," said Morris.